

TECHNICAL REPORT

NAME OF WORK :-

Construction of B/T Road Manadar to Rowara via Rowara ghata Km 5/500 to 11/500

Adm. & Financial :-

Necessity of Project :-

At present road between 5/500 to 9/500 is badly damaged track & ghat section. Villagers and traffic are facing problems and inconvenience to travel through this short distance road.

Scope of Project :-

It is proposed to 20 MM PMC & Seal Coat Type "B", WBM & CD work taken as required in road.

Specification :-

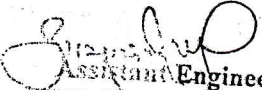
1. Site clearance in both side of road in 3.0m width
 2. Rock cutting proposed to achieve desired grade, GSB 150mm, WBM (G2+G3) Proposed on road.
 3. 20mm PMC & Type "B" seal Coat.
 4. GSB Shoulder both side 150 MM thick & 1.875 M & 1.0M Width.
 5. 150 mm thick PCC M10, RR Masonary 1:4, M-30 controlled CC and NP-4 RRC hume pipe for adequate cross drainage.
 6. Actual quantity of rock cutting ^{will be} worked out after detail survey report. ^{Somethan}
- Rates based on BSR for road of BSR of roads PWD. Circle Sirohi wef 1 st april 2016.
- The work shall be got executed after sanction & calling competitive tenders.
- Enclosed.
- The project cost of the above work comes to Rs 334.00 Lacs

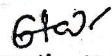
Rates

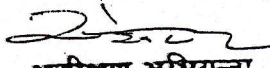
Agency

Index Map

Estimated cost


Assistant Engineer
PWD Sub-Div. Sheoganj


Executive Engineer
PWD Div. Sirohi


अयीक्षण अभियन्ता
सा नि वि वृत्त सिरोही

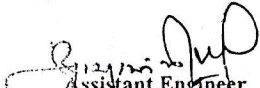
GENERAL ABSTRACT

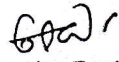
Name of Work :- Construction of B/T Road Manadar to Rowara
via Rowara ghata Km 5/500 to 11/500

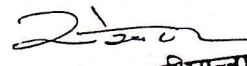
| SLNo. | Part | Particulars | Amount |
|-------|---------|-----------------------------|-------------|
| 1 | 2 | 3 | 4 |
| | Part -A | Road Work | 15753737.00 |
| | Part -B | CD & Protection Work | 12666905.00 |
| | | Total Rs. | 28420642 |
| | | Add 3% for Contingency | 852619 |
| | | Add 1% for QC | 284206 |
| | | Total Rs. | 29557468 |
| | | Add 13% for Prorata Charges | 3842471 |
| | | Total Rs. | 33399938 |

Say in Lacs

334.00


Assistant Engineer
P.W.D. Sub Dn. Sheoganj


Executive Engineer
P W D Dn. Sirohi


अधीक्षण अभियन्ता
सा नि वि वृत्त सिरौही

PART 'A' Road Work

Name of Work :- Construction of B/T Road Manadar to Rowara via Rowara ghata Km 5/500 to 11/500

| S. No | Item | Qty. | Rate | Unit | Amount |
|-------|---|----------|----------|-------|------------|
| 1 | Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth upto 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable material upto a lead of 1000m including removal and disposal of top organic soil not exceeding in 150 mm thickness as per MORTH specification clause 201 By mechanical Means .A. In area of light jungle | 2.58 | 11789.80 | Hect. | 30418.00 |
| 2 | Earth work in excavation, including stacking/disposal of surplus material with all lifts and lead upto 495 metres, exclusive of compensation of earth [MoRTH specification : Clause 301 to 305] In Hard Soil When excavation and loading is done mechanically using Bull Dozar, F.E.Loader and carriage is done by tipper/dumper (6T capacity). | 5912.00 | 96.00 | Cum | 567552.00 |
| 3 | Extra for laying earth as per specification for compaction in 200 mm thick loose layers and dressing [MoRTH Specification Clause 305.3.5]. BY MECHANICAL MEANS, using Motor Grader, from earth in stock piles with all lead and lift but excluding rolling and watering. | 5912.00 | 20.00 | Cum | 118240.00 |
| 4 | Extra for watering the earth to bring the earth upto required O.M.C excluding rolling & Extra for rolling to specification with Power Roller, 8-10 tonne when earth is at suitable moisture content with dry field density not less than 100 % of maximum dry density (Ordinary Procter test).excluding watering. | 5912.00 | 34.00 | Cum | 201008.00 |
| 5 | Earth work in excavation, including stacking/disposal of surplus material with all lifts and lead upto 495 metres, exclusive of compensation of earth [MoRTH specification : Clause 301 to 305] Blasting, including Blasting materials. | | | | |
| A | Soft Rock, with lead upto 50m. and lift upto 0.5m. | 6723.75 | 119.60 | Cum | 804161.00 |
| B | Hard rock, with lead upto 50m, and lift upto 0.5m | 15688.75 | 243.80 | Cum | 3824917.00 |

| S. No | Item | Qty. | Rate | Unit | Amount |
|-------|---|----------|---------|------|------------|
| 6 | Providing and laying granular sub-base material having P.I. not more than 6, including spreading in layers not exceeding 150 mm compacted thickness and consolidation by 8-10 tonne power roller to required camber and grade including cost of water and hire charges of machinery, including T&P with all lead (Compacted thickness to be measured) as per MORTH specification table 400-1, 400-2 : For grading-III with CBR value not less than 20 to attain 100% proctor density. | 5772.23 | 273.00 | Cum | 1575817.00 |
| 7 | Providing, laying, spreading and compacting stone aggregate of specific as per table 400-7 to Water Bound Macadam specification including spreading in uniform thickness, hand packing roll-ing with vibratory roller in stages to proper grade and camber, applying and brooming requisite type of screening and binding materials to fill-up the interstices of coarse aggregates watering (with water browser) and rolling making necessary earthen bund to protect edegs, lighting, guarding, barricading and maintenance of diversion etc. [MORTH specification : Clause 404] (By manual means). Grading II, 63 mm to 45 mm @ 0.91 cum per 10 Sqm for compacted thickness of 75 mm. (Crusher broken) screening type 'B' | 1865.36 | 1021.00 | Cum | 1904535.00 |
| 8 | Providing, laying, spreading and compacting stone aggregate of specific as per table 400-7 to Water Bound Macadam specification including spreading in uniform thickness, hand packing roll-ing with vibratory roller in stages to proper grade and camber, applying and brooming requisite type of screening and binding materials to fill-up the interstices of coarse aggregates watering (with water browser) and rolling making necessary earthen bund to protect edegs, lighting, guarding, barricading and maintenance of diversion etc. [MORTH specification : Clause 404] (By manual means). Grading III, 53 mm to 22.4 mm, @ 0.91 cum per 10 Sqm for compacted thickness of 75 mm. (Crusher broken) screening type 'B' | 2149.43 | 1039.00 | Cum | 2233253.00 |
| 9 | Providing and applying primer coat over prepared surface or granular base with bitumen emulsion as per IS: 8887 & manufacturer's specifications @ 6 kg /10 sqm with a self propelled or towed bitumen pressure sprayer equipped for spraying the material uniformly at specified rates and temperatures as per MORTH specification CI 502,112 (Including cleaning of road surface) | 28659.00 | 20.00 | Sqm | 573180.00 |
| 10 | Add extra to item No. 8 for additional 0.1 Kg per Sqm emulsion | 28659.00 | 3.84 | Sqm | 110051.00 |

| S. No | Item | Qty. | Rate | Unit | Amount |
|-------|--|----------|---------|-------|------------|
| 11 | Providing and applying tack coat on the prepared surface with bitumen emulsion as per IS : 8887 & manufacturer's specifications @ 2 kg /10sqm. With a self propelled or towed bitumen pressure sprayer equipped for spraying the material uniformly at specified rates and temperatures as per MORTH specification CI.503,112 (Including cleaning of Road Surface) | 28659.00 | 7.00 | Sqm | 200613.00 |
| 12 | Add extra to item No. 10 for additional 0.1Kg per Sqm emulsion | 28659.00 | 4.61 | Sqm | 132118.00 |
| 13 | Providing and laying open graded premix carpet 20mm thick (compacted) on prepared surface in a single course as wearing course aggregates as per Table 500-23, heating bituminous binder @ 14.6 Kg/10 Sqm.(VG-10 grade) and aggregates in Hot Mix Plant, transporting the mixed material with tipper and laying with paver finisher to the required level and grade, rolling with power roller, 8-10 tonne but excluding cost of tack and seal coat with lead for mix of material 1 Km.[MORTH Specification : Clause 511,112] In approved Hot Mix Plant as per clause 6.5 of Manual, including loading of aggregates with F.E loader with bitumen VG-10. | 28659.00 | 77.00 | Sqm | 2206743.00 |
| 14 | Providing and laying seal coat for sealing the voids in a bituminous surface laid to the specified levels, grade and cross fall, including rolling with a smooth wheeled roller 8 - 10 tonne capacity finished to required level and grades, complete as per MORTH specification clause 513 Laying by Mechanical Means Type B - Premixed in in approved HMP as per clause 6.5 of manual having capacity 50 TPH comprising of aggregate (sand or grit) having size 2.36 mm to 180 micron @ 0.06 Cum per 10 Sqm and bitumen binder (VG-10 grade) @ 6.8 Kg / 10 sqm and laying by hydrostatic paver finisher with sensor control, including mixing, transportation, laying, rolling etc. complete - including carriage for 1 Km. lead. | 28659.00 | 38.00 | Sqm | 1089042.00 |
| 15 | Extra rate for carriage of mixed material additional lead from :- 2nd km to 10th km | 1490.27 | 21.54 | Tonne | 32100.00 |
| 16 | Supply & Instalation of sign boards made of 1.25mm M.S. sheet duly framed with 33.30mm OD MS black tube medium class as per IS:1239 (Part-I) 1979 with a inner support of M.S. flat 12x3mm whole structure is fixed on two posts of Black m.S. tube 42mm OD MS (Medium Class)as per IS : 1239 9Part-I) 1979 height 3 m. whole board is stove enamelled painting in Black & White alternate band of synthetic enamel. 120 cm. x 75 cm. | 6.00 | 2730.00 | Each | 16380.00 |

| S. No | Item | Qty. | Rate | Unit | Amount |
|-------|--|-------|---------|------|-------------|
| 17 | Providing and fixing of retro- reflectorised inclusive cautionary, mandatory and informatory sign as per IRC-67 made of high intensity grade sheeting lettering, border & signs fixed over aluminium sheeting, 1.5 mm thick, fixed on mild steel angle iron frame 50mmx50mmx6mm supported on a mild steel angle iron post 75mmx75mmx6mm upto the top of sign board, length of post from bottom of sign board is 2.85m. upto foundation level post duly painted in black & white synthetic enamel. fixed to the ground by means of properly designed foundation with M-15 grade cement concrete 45 Cm x 45 Cm x 60Cm, 60 cm below ground level as per approved drawing & as per MORTH specification Cl. 801. 90 Cm equilateral triangle | 30.00 | 3848.00 | Each | 115440.00 |
| 18 | Supply & fixing of precast reinforced cement concrete M15 grade kilometre stone of standard design as per IRC: 8-1980, fixing in position in cement concrete 1:4:8 including painting and printing etc. Ordinary Kilometre stone | 7.00 | 1151.15 | Each | 8058.00 |
| 19 | Supply & fixing of precast reinforced cement concrete. M-15 grade kilometre stone of standard design as per IRC: 8-1980, fixing in position in cement concrete 1:4:8 including painting and printing etc. 200m stone | 28.00 | 361.10 | Each | 10111.00 |
| TOTAL | | | | Rs. | 15753737.00 |

Paul
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Assistant Engineer
P W D Sub. Dn. Sheoganj

GAJ
Executive Engineer
P W D Dn. Sirohi

PART 'A' Road Work Dtails

Name of Work :- Construction of B/T Road Manadar to Rowara via Rowara ghata Km 5/500 to 11/500

| S. No | Item | No | L | B | H | Qty | Unit |
|-------|---|----|---------|------|------|----------|------|
| 1 | Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth upto 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable material upto a lead of 1000m including removal and disposal of top organic soil not exceeding in 150 mm thickness as per MORTH specification clause 201 By mechanical Means .A. In area of light jungle | | | | | | |
| | Km 5/500 to 9/500 | 2 | 4000.00 | 1.50 | | 12000.00 | Sqm |
| | Km 9/500 to 11/500 | 2 | 2300.00 | 3.00 | | 13800.00 | Sqm |
| | | | | | | 25800.00 | Sqm |
| | | | | | | 2.58 | Hact |
| 2 | Earth work in excavation, including stacking/disposal of surplus material with all lifts and lead upto 495 metres, exclusive of compensation of earth [MoRTH specification : Clause 301 to 305] In Hard Soil When excavation and loading is done mechanically using Bull Dozer, F.E.Loader and carriage is done by tipper/dumper (6T capacity). | | | | | | |
| | Km 7/500 to 9/500(Plane part) | 1 | 2000.00 | 7.50 | 0.25 | 3750.00 | Cum |
| | Shoulder 9/500 to 11/500 Damaged BT | 2 | 2300.00 | 1.88 | 0.25 | 2162.00 | Cum |
| | Total | | | | | 5912.00 | Cum |
| 3 | Extra for laying earth as per specification for compaction in 200 mm thick loose layers and dressing [MoRTH Specification Clause 305.3.5]. BY MECHANICAL MEANS, using Motor Grader, from earth in stock piles with all lead and lift but excluding rolling and watering. | | | | | | |
| | Qty same as above Item No 2 | | | | | 5912.00 | Cum |
| | Total | | | | | 5912.00 | Cum |
| 4 | Extra for watering the earth to bring the earth upto required O.M.C excluding rolling & Extra for rolling to specification with Power Roller, 8-10 tonne when earth is at suitable moisture content with dry field density not less than 100 % of maximum dry density (Ordinary Procter test).excluding watering. | | | | | | |
| | Qty same as above Item No 2 | | | | | 5912.00 | Cum |
| | Total | | | | | 5912.00 | Cum |
| 5 | Earth work in excavation, including stacking/disposal of surplus material with all lifts and lead upto 495 metres, exclusive of compensation of earth [MoRTH specification : Clause 301 to 305] Blasting, including Blasting materials. | | | | | | |
| | KM 5/500 to 7/500 (Ghat section) | 1 | 1000.00 | 3.75 | 1.50 | 5625.00 | Cum |
| | | 1 | 1000.00 | 3.75 | 1.65 | 6187.50 | Cum |
| | Shoulder | 2 | 2000.00 | 1.00 | 1.80 | 7200.00 | Cum |
| | Widening at Top | 2 | 100.00 | 2.00 | 4.00 | 1600.00 | Cum |

| S. No | Item | No | L | B | H | Qty | Unit |
|-------|---|------|---------|------|-------|----------|------|
| | Widening Manadar side | 2 | 200.00 | 1.50 | 3.00 | 1800.00 | Cum |
| | Total | | | | | 22412.50 | Cum |
| (A) | Soft Rock, with lead upto 50m. and lift upto 0.5m. | | | | | 6723.75 | Cum |
| (B) | Hard rock, with lead upto 50m, and lift upto 0.5m | | | | 0.30 | 15688.75 | Cum |
| 6 | Providing and laying granular sub-base material having P.I. not more than 6, including spreading in layers not exceeding 150 mm compacted thickness and consolidation by 8-10 tonne power roller to required camber and grade including cost of water and hire charges of machinery, including T&P with all lead (Compacted thickness to be measured), as per MORTH specification table 400-1, 400-2 : For grading-III with CBR value not less than 20, to attain 100% proctor density. | | | | 0.70 | | Cum |
| | KM 5/500 to 9/500 | 1 | 4000.00 | 4.05 | 0.15 | 2430.00 | |
| | Shoulder | 2 | 4000.00 | 1.00 | 0.15 | 1200.00 | |
| | Shoulder Km 9/500 to 11/500 | 2 | 2300.00 | 1.88 | 0.15 | 1297.20 | |
| | Plan part | 2 | 550.00 | 1.88 | 0.15 | 310.20 | |
| | Approaches of CD 2X10X 15 = 300 M($3.75+6.6/2=5.175$) | 20 | 15.00 | 5.18 | 0.15 | 232.88 | |
| | At curve | 20 | 15.00 | 2.75 | 0.15 | 123.75 | |
| | New PC | 6 | 15.00 | 6.60 | 0.30 | 178.20 | |
| | Total | | | | | 5772.23 | Cum |
| 7 | Providing, laying, spreading and compacting stone aggregate of specific as per table 400-7 to Water Bound Macadam specification including spreading in uniform thickness, hand packing roll-ing with vibratory roller in stages to proper grade and camber, applying and brooming requisite type of screening and binding materials to fill-up the interstices of coarse aggregates watering (with water browser) and rolling making necessary earthen bund to protect edges, lighting, guarding, barricading and maintenance of diversion etc. [MORTH specification : Clause 404] (By manual means). Grading II, 63 mm to 45 mm @ 0.91 cum per 10 Sqm for compacted thickness of 75 mm. (Crusher broken) screening type 'B' | | | | | | |
| | KM 5/500 to 9/500 | 1 | 4000.00 | 3.75 | 0.075 | 1125.00 | |
| | KM 9/500 to 11/500 | 0.80 | 2300.00 | 3.75 | 0.075 | 517.50 | |
| | Approaches of CD 2X10X 15 = 300 M($3.75+6.6/2=5.175$) | 20 | 15.00 | 5.18 | 0.075 | 116.44 | |
| | At curve | 20 | 15.00 | 2.75 | 0.075 | 61.88 | |
| | New PC | 6 | 15.00 | 6.60 | 0.075 | 44.55 | |
| | Total | | | | | 1865.36 | Cum |

| S. No | Item | | | | | | |
|-------|---|----|---------|------|-------|----------|-----|
| 8 | Providing, laying, spreading and compacting stone aggregate of specific as per table 400-7 to Water Bound Macadam specification including spreading in uniform thickness, hand packing roll-ing with vibratory roller in stages to proper grade and camber, applying and brooming requisite type of screening and binding materials to fill-up the interstices of coarse aggregates watering (with water browser) and rolling making necessary earthen bund to protect edegs, lighting, guarding, barricading and maintenance of diversion etc. [MoRTH specification : Clause 404] (By manual means), Grading III, 53 mm to 22.4 mm, @ 0.91 cum per 10 Sqm for compacted thickness of 75 mm. (Crusher broken) screening type 'B' | | | | | | |
| | KM 5/500 to 9/500 | 1 | 4000.00 | 3.75 | 0.075 | 1125.00 | |
| | KM 9/500 to 11/500 | 1 | 2300.00 | 3.75 | 0.075 | 646.88 | |
| | Plan part | 1 | 550.00 | 3.75 | 0.075 | 154.69 | |
| | Approaches of CD 2X10X 15 =300 M(3.75+6.6/2=5.175) | 20 | 15.00 | 5.18 | 0.075 | 116.44 | |
| | At curve | 20 | 15.00 | 2.75 | 0.075 | 61.88 | |
| | New PC | 6 | 15.00 | 6.60 | 0.075 | 44.55 | |
| | Total | | | | | 2149.43 | Cum |
| 9 | Providing and applying primer coat over prepared surface or granular base with bitumen emulsion as per IS: 8887 & manufacturer's specifications @ 6 kg /10 sqm with a self propelled of towed bitumen pressure sprayer equipped for spraying the material uniformly at specified rates and temperatures as per MORTH specification CI 502,112 (Including cleaning of road surface) | | | | | | |
| | KM 5/500 to 9/500 | 1 | 4000.00 | 3.75 | | 15000.00 | |
| | KM 9/500 to 11/500 | 1 | 2300.00 | 3.75 | | 8625.00 | |
| | Plan part | 1 | 550.00 | 3.75 | | 2062.50 | |
| | Approaches of CD 2X10X 15 =300 M(3.75+6.6/2=5.175) | 20 | 15.00 | 5.18 | | 1552.50 | |
| | At curve | 20 | 15.00 | 2.75 | | 825.00 | |
| | New PC | 6 | 15.00 | 6.60 | | 594.00 | Sqm |
| | Total | | | | | 28659.00 | Sqm |

[illegible]

| S. No | Item | No | L | B | H | Qty | Unit |
|-------|--|----|---|---|---|-------|------|
| 16 | Supply of sign boards made of 1.25mm M.S. sheet duly framed with 33.30mm OD MS black tube medium class as per IS:1239 (Part-I) 1979 with a inner support of M.S. flat 12x3mm whole structure is fixed on two posts of Black m.S. tube 42mm OD MS (Medium Class) as per IS : 1239 9Part-I) 1979 height 3 m. whole board is stove enamelled painting in Black & White alternate band of synthetic enamel. 120 cm. x 75 cm. | 6 | | | | 6.00 | Each |
| 17 | Providing and fixing of retro- reflectorised inclusive cautionary, mandatory and informatory sign as per IRC-67 made of high intensity grade sheeting lettering, border & signs fixed over aluminium sheeting, 1.5 mm thick, fixed on mild steel angle iron frame 50mmx50mmx6mm supported on a mild steel angle iron post 75mmx75mmx6mm upto the top of sign board, length of post from bottom of sign board is 2.85m. upto foundation level post duly painted in black & white synthetic enamel. fixed to the ground by means of properly designed foundation with M-15 grade cement concrete 45 Cm x 45 Cm x 60Cm, 60 cm below ground level as per approved drawing & as per MORTH specification Cl. 801. 90 Cm equilateral triangle | 30 | | | | 30.00 | Each |
| 18 | Supply & fixing of precast reinforced cement concrete M-15 grade kilometre stone of standard design as per IRC: 8-1980, fixing in position in cement concrete 1:4:8 including painting and printing etc. Ordinary Kilometre stone | 7 | | | | 7.00 | Each |
| 19 | Supply & fixing of precast reinforced cement concrete M-15 grade kilometre stone of standard design as per IRC: 8-1980, fixing in position in cement concrete 1:4:8 including painting and printing etc. 200m stone | 28 | | | | 28.00 | Each |

[Signature]
08

Assistant Engineer
P W D Sub. Dn. Sheoganj

[Signature]
Executive Engineer
P W D Dn. Sirohi

Abstract

PART 'B' CD & Protection Work

Name of Work :- Construction of B/T Road Manadar to Rowara via Rowara ghata Km
5/500 to 11/500

| S. No | Item | Qty. | Rate | Unit | Amount |
|-------|--|---------|---------|------|------------|
| 1 | Earth work in excavation for foundation of structure complete with all lift, dewatering shoring and shuttering etc.including refilling of trenches in 25mm layers, ramming, watering and disposal of surplus soil within a lead of 1000 metres, as per drawing and technical specification.[MoRTH Specification : Clause : 304] In Ordinary/Soft rock [MoRTH Specification: Clause : 301] In hard rock (requiring blasting) [MoRTH Specification : Clause :301,302] | 3474.75 | 399.05 | Cum | 1386599.00 |
| 2 | Providing and laying mechanically mixed and vibrated Cement Concrete in foundation upto a depth of 1.5 metres below ground level and 1.50 metres above Ground/Bed level.[MoRTH Specification : Clause 1000/1700] Cement concrete 1:3:6 mix with stone aggregate 40mm crusher broken. | 462.60 | 3306.00 | Cum | 1529356.00 |
| 3 | Providing and laying Random Rubble masonry in foundation upto a depth of 1.50 metres and 1.50 metres above Ground /Bed level.[MoRTH Specification: Clause 1000/1400] Cement sand mortar 1:4 | 2204.01 | 3406.30 | Cum | 7507519.00 |
| 4 | Construction of un-reinforced, dowel jointed, plain cement concrete pavement over a prepared sub-base with 43 grade cement @ 400 Kg per cum , coarse and fine aggregate conforming to IS: 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, dowel bar, tie rod, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per MoRTH specification clause 602. | 90.00 | 5125.00 | Cum | 461250.00 |
| 5 | Providing and laying reinforced cement concrete pipes N.P.4 for culverts including jointing ends and fixing collar with cement mortar 1:2 [MoRTH Specification : Clause : 1000/2900] 900 mm dia | 150.00 | 4685.00 | RM | 702750.00 |

| S. No | Item | Qty. | Rate | Unit | Amount |
|-------|---|---------|--------------|------------|--------------------|
| 6 | Providing and laying reinforced cement concrete pipes N.P.4 for culverts including jointing ends and fixing collar with cement mortar 1:2 [MoRTH Specification : Clause : 1000/2900] 600mm dia | 75.00 | 2842.00 | RM | 213150.00 |
| 7 | Providing and laying reinforced cement concrete pipes N.P.4 for culverts including jointing ends and fixing collar with cement mortar 1:2 [MoRTH Specification : Clause : 1000/2900] 300 mm dia | 30.00 | 1069.50 | RM | 32085.00 |
| 8 | Providing Cement plaster 12mm thick in cement mortar 1:3 at all levels [MoRTH Specification: Clause:1000/1300] | 2681.10 | 159.00 | Sqm | 426295.00 |
| 9 | Sand filling and compaction by mechanical means in foundation trenches, in 150mm layers, with all lead and lift, as per drawing and technical specification, to achieve field density. [MoRTH Specification : Clause : 304] | 270.00 | 465.75 | Cum | 125753.00 |
| 10 | Plain/reinforced cement concrete in substructure complete as per drawing and technical specifications MoRTH Section 1500,1700, 2200. PCC Grade M-20 Height upto 5.00m. * | 74.15 | 3805.35 | Cum | 282148.00 |
| | | | TOTAL | Rs. | 12666905.00 |

Pranav
TE

Assistant Engineer
P W D Sub. Dn. Sheoganj

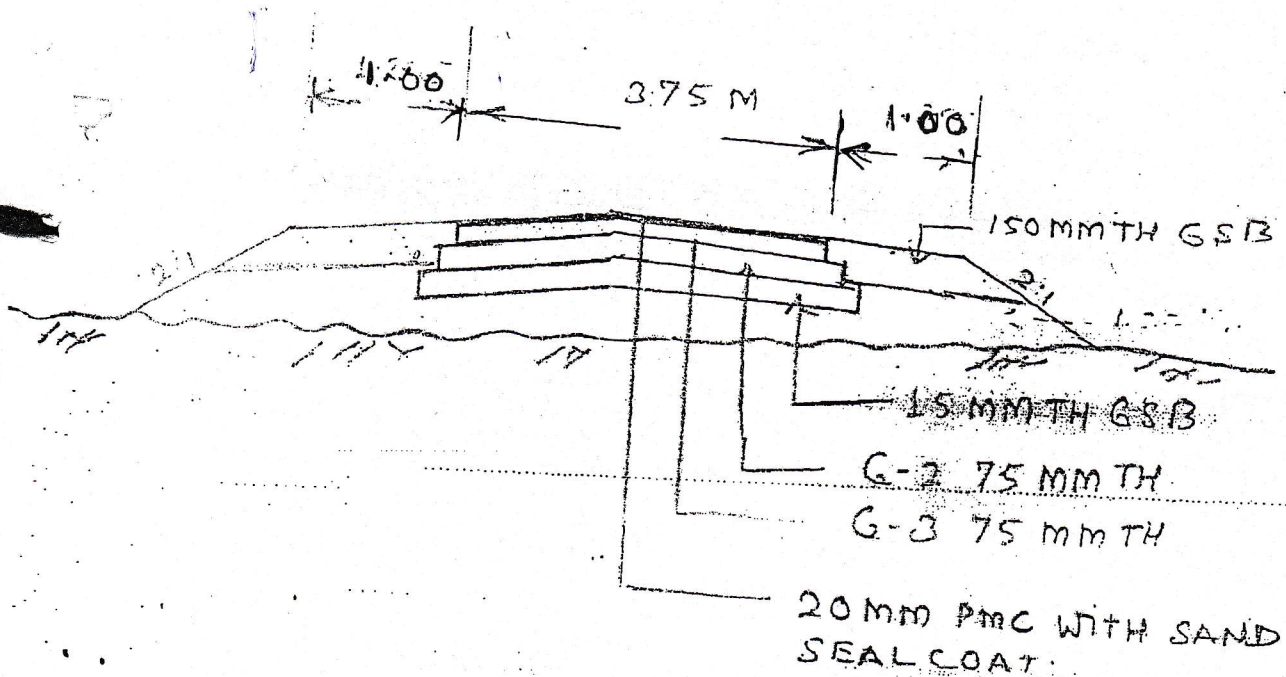
GAJ
Executive Engineer
P W D Dn. Sirohi

Details
PART - 'B' CD & Protection Work

Name of Work :- Construction of B/T Road Manadar to Rowara via Rowara ghata Km 5/500 to 11/500

| S. No | Item | No | L | B | H | Qty | Unit |
|-------|---|----|---------|------|-------|---------|------|
| 1 | Earth work in excavation for foundation of structure complete with all lift, dewatering shoring and shuttering etc.including refilling of trenches in 25mm layers, ramming, watering and disposal of surplus soil within a lead of 1000 metres, as per drawing and technical specification.[MoRTH Specification : Clause : 304] In Ordinary/Soft rock [MoRTH Specification: Clause : 301] In hard rock (requiring blasting) [MoRTH Specification : Clause :301,302] | | | | | | |
| | US PC | 6 | 10.00 | 1.35 | 2.00 | 162.00 | |
| | DS PC | 6 | 10.00 | 1.35 | 2.00 | 162.00 | |
| | Pipe Hoda | 6 | 4.00 | 6.0 | 1.00 | 144.00 | |
| | US FC | 1 | 50.00 | 1.15 | 1.50 | 86.25 | |
| | DS FC | 1 | 50.00 | 1.35 | 1.80 | 121.50 | |
| | P/Wall | 1 | 1350.00 | 1.2 | 1.50 | 2430.00 | |
| | Apron Wall | 1 | 45.00 | 1.00 | 1.20 | 54.00 | |
| | Drain | 1 | 500.00 | 1.05 | 0.60 | 315.00 | |
| | Total | | | | | 3474.75 | Cum |
| 2 | Providing and laying mechanically mixed and vibrated Cement Concrete in foundation upto a depth of 1.5 metres below ground level and 1.50 metres above Ground/Bed level.[MoRTH Specification : Clause 1000/1700] Cement concrete 1:3:6 mix with stone aggregate 40mm crusher broken. | | | | | | |
| | Apron Wall | 1 | 45.00 | 1.00 | 0.15 | 6.75 | Cum |
| | Apron Under Floor | 1 | 38.00 | 3.5 | 0.150 | 19.95 | Cum |
| | US PC | 6 | 10.00 | 1.35 | 0.15 | 12.15 | Cum |
| | DS PC | 6 | 10.00 | 1.35 | 0.15 | 12.15 | Cum |
| | Pipe Base | 6 | 4.00 | 6.0 | 0.15 | 21.60 | Cum |
| | US FC | 1 | 50.00 | 1.15 | 0.15 | 8.63 | Cum |
| | DS FC | 1 | 50.00 | 1.35 | 0.15 | 10.13 | Cum |
| | Hoda FC | 1 | 50.00 | 6.60 | 0.15 | 49.50 | Cum |
| | P/Wall | 1 | 1350.00 | 1.2 | 0.15 | 243.00 | Cum |
| | Drain | 1 | 500.00 | 1.05 | 0.15 | 78.75 | Cum |
| | Total | | | | | 462.60 | Cum |
| 3 | Providing and laying Random Rubble masonry in foundation upto a depth of 1.50 metres and 1.50 metres above Grounc /Bed level.[MoRTH Specification: Clause 1000/1400] Cement sand mortar 1:4 | | | | | | |
| | Apron Wall | 1 | 45.00 | 0.62 | 1.00 | 27.90 | Cum |
| | US PC | 6 | 10.00 | 0.8 | 2.20 | 105.60 | Cum |
| | DS PC | 6 | 10.00 | 0.8 | 2.20 | 105.60 | Cum |
| | PC Parapet | 6 | 3.00 | 0.5 | 0.60 | 4.86 | Cum |
| | US FC | 1 | 50.00 | 0.67 | 1.50 | 50.25 | Cum |
| | DS FC | 1 | 50.00 | 0.82 | 1.80 | 73.80 | Cum |
| | P/Wall | 1 | 1350.00 | 0.7 | 1.80 | 1701.00 | Cum |
| | Drain | 2 | 500.00 | 0.30 | 0.45 | 135.00 | Cum |
| | Total | | | | | 2204.01 | Cum |

Name of work Construction of BT Road Mandar to Rovers
Via Roore ghat km 5/50 to 11/50



Typical cross section of Road

Drawn
1/2

6/10/12
AR

| S. No | | | | | | |
|-------|--|----|---------|------|-------|--------------------|
| 4 | Construction of un-reinforced, dowel jointed, plain cement concrete pavement over a prepared sub-base with 43 grade cement @ 400 Kg per cum, coarse and fine aggregate conforming to IS: 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, | | | | | |
| | FC | 1 | 50.00 | 7.50 | 0.15 | 56.25 Cum |
| | PC | 6 | 5.00 | 7.50 | 0.15 | 33.75 Cum |
| | Total | | | | | 90.00 Cum |
| 5 | Providing and laying reinforced cement concrete pipes N.P.4 for culverts including jointing ends and fixing collar with cement mortar 1:2 [MoRTH Specification : Clause : 1000/2900] 900 mm dia | | | | | |
| | | 20 | 7.50 | | | 150.00 RM |
| 6 | Providing and laying reinforced cement concrete pipes N.P.4 for culverts including jointing ends and fixing collar with cement mortar 1:2 [MoRTH Specification : Clause : 1000/2900] 600mm dia | | | | | |
| | | 10 | 7.50 | | | 75.00 RM |
| 7 | Providing and laying reinforced cement concrete pipes N.P.4 for culverts including jointing ends and fixing collar with cement mortar 1:2 [MoRTH Specification : Clause : 1000/2900] 300 mm dia | | | | | |
| | | 4 | 7.50 | | | 30.00 RM |
| 8 | Providing Cement plaster 12mm thick in cement mortar 1:3 at all levels [MoRTH Specification: Clause:1000/1300] | | | | | |
| | Apron Wall | 1 | 45.00 | 0.30 | | 13.50 Sqm |
| | US PC | 6 | 10.00 | 1.50 | | 90.00 Sqm |
| | DS PC | 6 | 10.00 | 1.50 | | 90.00 Sqm |
| | PC Parapet | 6 | 3.50 | 0.60 | | 12.60 Sqm |
| | P/Wall | 1 | 1350.00 | 1.50 | | 2025.00 Sqm |
| | Drain | 2 | 500.00 | 0.45 | | 450.00 Sqm |
| | Total | | | | | 2681.10 Sqm |
| 9 | Sand filling and compaction by mechanical means in foundation trenches, in 150mm layers, with all lead and fill, as per drawing and technical specification, to achieve field density. [MoRTH Specification : Clause : 304] | | | | | |
| | PC | 6 | 5.00 | 6.00 | 1.50 | 270.00 Cum |
| 10 | Plain/reinforced cement concrete in substructure complete as per drawing and technical specifications MoRTH Section 1500, 1700, 2200. PCC Grade M-20 Height upto 5.00m. | | | | | |
| | Apron Floor | 1 | 38.00 | 3.90 | 0.10 | 14.82 Cum |
| | P/Wall Copping | 1 | 1350.00 | 0.45 | 0.050 | 30.38 Cum |
| | PC Parapet/Wall | 12 | 10.00 | 0.45 | 0.050 | 2.70 Cum |
| | Drain | 2 | 500.00 | 0.30 | 0.05 | 15.00 Cum |
| | Drain | 1 | 500.00 | 0.45 | 0.050 | 11.25 Cum |
| | Total | | | | | 74.15 Cum |

[Signature]
P.D.

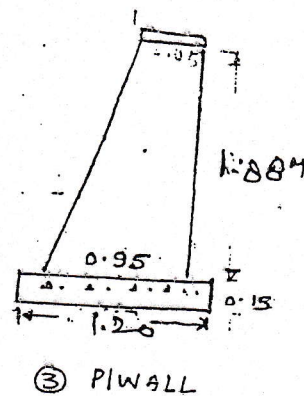
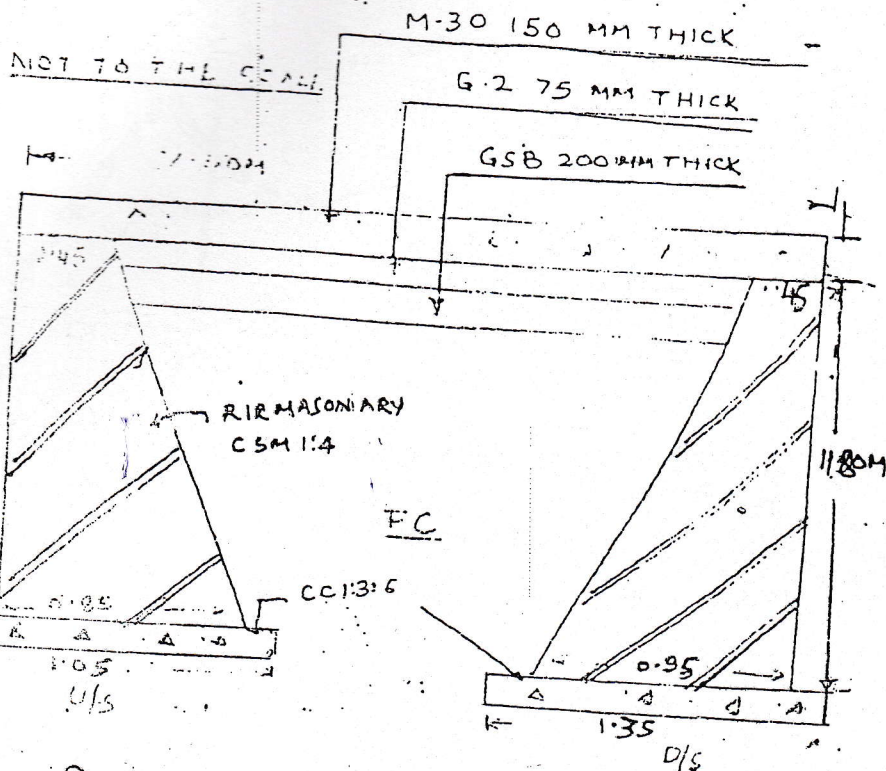
Assistant Engineer
P W D Sub. Dn. Sheoganj

[Signature]
Executive Engineer
P W D Dn. Sirohi

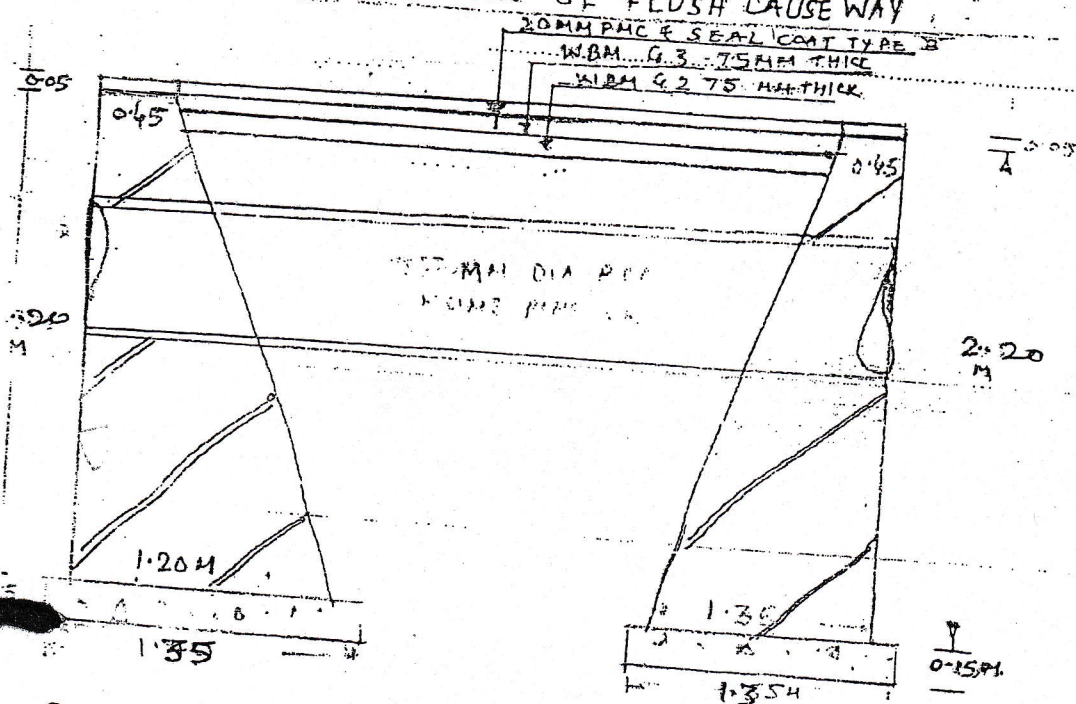
NAME OF WORK -

Construction of

work from 5/500 to 11/500



① CROSS SECTION OF FLUSH CAUSEWAY



② CROSS SECTION OF PIPE CULVERT

[Signature]
A.E.N.
P.W.D. SIROHI

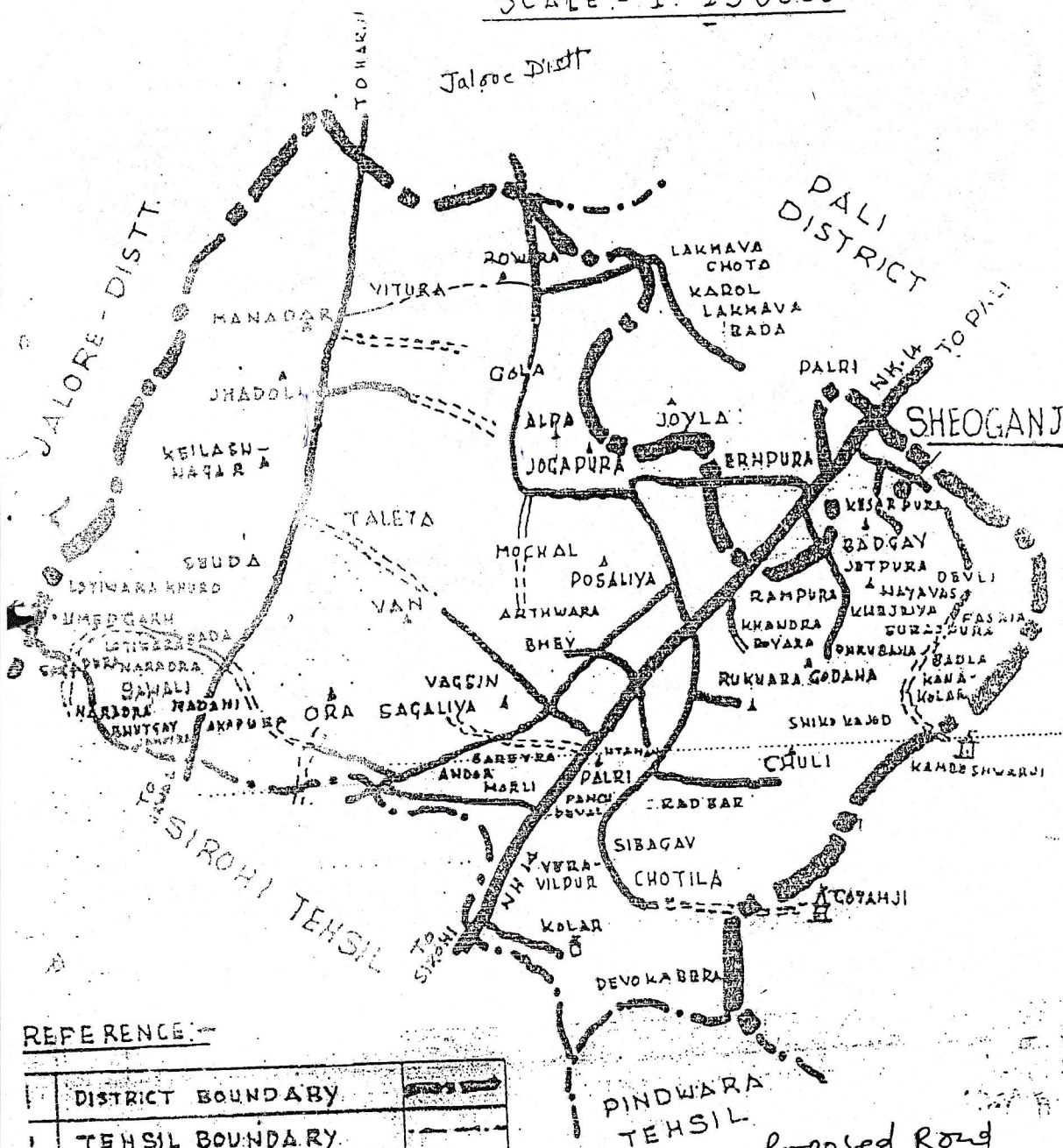
[Signature]
EXECUTIVE ENGINEER
P.W.D. SIROHI

ROAD MAP SHEOGANJ

Route to Distt Border Jalore Khandwa

42

SCALE:- 1: 250000



REFERENCE:-

| | |
|---------------------|-----|
| DISTRICT BOUNDARY | --- |
| TEHSIL BOUNDARY | --- |
| TEHSIL HEAD QUARTER | ● |
| BITUMINOUS ROADS | — |
| METALLED ROADS | — |
| GRAVEL ROADS | — |
| FAIR WEATHER ROADS | — |

EXECUTIVE ENGINEER
P.W.D. D.J. SIHORI