

**REPORT ON  
BITUMEN CONTENT TEST  
FOR THE PROPOSED  
C/O**

**NABINAGAR TO KHAIRA  
UNDER SCHEME  
MR 3054**

**SUBMITTED TO:  
EXECUTIVE ENGINEER  
RWD. WORKS DIVISION, AURANGABAD**

**AGENCY NAME :  
ARVIND SINGH AURANGABAD**

**TESTING BY :**

**OM SAI TESTING AND RESEARCH  
LABORATORY**

**HOUSE NO A/104 SHIVPURI COLONY RAYCHI THARKHAND  
PIN CODE 531001**

# OM SAI TESTING AND RESEARCH LABORATORY

HOUSE No 4/105 KUNIPURU ANDHRA PRADESH JALAPUR  
PIN CODE 522001

Name of Job: **HABINAGAR TO KHAIRA UNDER SCHEME MR 3054**  
**BITUMEN CONTENT TEST OF SDBC**

Date: **18-Jun-20**  
 Type of Material: **SDBC**

SAMPLE NO. **1,2,3**

DATE OF COLLECTION **18-Jun-20**

DATE OF TESTING **21-Jun-20**

Chainage & Section:

| S.NO. | Observations                                                               | 0+740 KM   | 1+815 KM | 3+550 KM |
|-------|----------------------------------------------------------------------------|------------|----------|----------|
| 1     | Wt. of Mix taken before extraction ( A )                                   | 1          | 2        | 3        |
| 2     | Wt. of filler paper before extraction ( B )                                | 500        | 500      | 500      |
| 3     | Wt. of Mix after extraction ( C )                                          | 5.79       | 5.985    | 6        |
| 4     | Wt. of filler paper after extraction ( D )                                 | 472.55     | 471.82   | 472.25   |
| 5     | Wt. of filler collected from extract after allowing for coating ( E )      | 8.98       | 7.4      | 7.25     |
| 6     | Wt. of filler collected in filler paper ( B-D ) = ( F )                    | 1.12       | 1.34     | 1.317    |
| 7     | Wt. of Aggregate + Filler collected after extraction ( C + E + F ) = ( G ) | 1.19       | 1.435    | 1.25     |
| 8     | Percentage of Bitumen ( In the Mix ) $(A-G) \times 100$                    | 474.86     | 474.595  | 474.8    |
|       | $\Lambda$                                                                  | 5.03       | 5.081    | 5.04     |
| Layer |                                                                            |            |          |          |
| SDBC  |                                                                            |            |          |          |
|       |                                                                            | Value      |          |          |
|       |                                                                            | Avg. Value | 5.05%    |          |

Checked By

Tested By

*[Signature]*  
 23/6/2020  
 H.E

*[Signature]*  
 23/6/20



# OM SAI TESTING AND RESEARCH LABORATORY

HOUSE No A/199 BIDDYOTY GONDY BANGSI JALPURA  
PIN CODE 480001

## TEST RESULTS OF SEMI-DENSE BITUMINOUS CONCRETE FLAKINESS INDEX

Ref.....

NAME OF ROAD

NABINAGAR TO KHAIRA UNDER SCHEME MR 3054 UNDER SCHEME MR 3054

Date .....

Type Of Material

SEMI-DENSE BITUMINOUS CONCRETE

Date Of Test

21-06-2020

Weight of Sample(gr) - 575 GM

| Sno        | Passing through IS Sieve (mm) | Retained on IS sieve (mm) | Wt. of the fraction of at least 200 pieces (gm) | Thickness gauge size (mm) | Wt. of aggregate in each fraction passing thickness gauge (gm) |
|------------|-------------------------------|---------------------------|-------------------------------------------------|---------------------------|----------------------------------------------------------------|
| 1          | 2                             | 3                         | 4                                               | 5                         | 6                                                              |
| 1          | 12.5                          | 10                        | 49                                              | 6.75                      | 0                                                              |
| 2          | 10                            | 6.3                       | 526                                             | 4.89                      | 61                                                             |
| Total (gm) |                               |                           | W= 575                                          | W= 61                     |                                                                |
|            |                               |                           | F.I.= 10.6                                      |                           |                                                                |

## ELONGATION INDEX

NAME OF ROAD

NABINAGAR TO KHAIRA UNDER SCHEME MR 3054 UNDER SCHEME MR 3054

Type Of Material

SEMI-DENSE BITUMINOUS CONCRETE

Date Of Test

21-06-2020

Weight of Sample(gr) - 554 GM

| Sno        | Passing through IS Sieve (mm) | Retained on IS sieve (mm) | Wt. of the fraction of at least 200 pieces (gm) | Thickness gauge size (mm) | Wt. of aggregate in each fraction passing thickness gauge (gm) |
|------------|-------------------------------|---------------------------|-------------------------------------------------|---------------------------|----------------------------------------------------------------|
| 1          | 2                             | 3                         | 4                                               | 5                         | 6                                                              |
| 1          | 12.5                          | 10                        | 49                                              | 20.50                     | 0                                                              |
| 2          | 10                            | 6.3                       | 505                                             | 14.70                     |                                                                |
| Total (gm) |                               |                           | W= 554                                          |                           |                                                                |
|            |                               |                           | F.I.= 10.47                                     |                           |                                                                |
|            |                               |                           | F.I.+E.I.= 10.60+10.47                          |                           |                                                                |
|            |                               |                           | 21.07                                           |                           |                                                                |

Authorized Signature



# OM SAI TESTING AND RESEARCH LABORATORY

HOUSE No 4/103 CHINTHURU COLONY RANGUJI STREET  
PIN CODE 504001

TEST RESULTS OF GRADATION FOR SEMI-DENSE BITUMINOUS CONCRETE (SDBC)  
 Ref: .....  
 NAME OF ROAD NABINAGAR TO KHAIRA UNDER SCHEME MR 3054 UNDER SCHEME MR 1054  
 Type Of Material  
 Date

SEMI-DENSE BITUMINOUS CONCRETE  
 21-06-2020

| I.S Sieve Designation | Weight of Sample Retained (gm.) | % of Weight Retained | Cumulative % of Weight Retained | Weight of Sample - 2871 GM |                                                   |
|-----------------------|---------------------------------|----------------------|---------------------------------|----------------------------|---------------------------------------------------|
|                       |                                 |                      |                                 | % of Weight Passing        | Spec.Limits Vide Table 500.15 MORTH Specification |
| 13.2mm                | 0                               | 0                    | 0                               | 100                        | 100                                               |
| 9.5mm                 | 122                             | 4.24                 | 4.24                            | 95.76                      | 90-100                                            |
| 4.75mm                | 1525                            | 53.11                | 57.35                           | 42.65                      | 35-51                                             |
| 2.36mm                | 349                             | 12.16                | 69.51                           | 30.49                      | 24-39                                             |
| 1.18mm                | 268                             | 9.33                 | 78.84                           | 21.16                      | 15-30                                             |
| 0.300mm               | 200                             | 6.97                 | 85.81                           | 14.19                      | 9-19                                              |
| 0.075mm               | 190                             | 6.63                 | 92.44                           | 7.56                       | 3-8                                               |
| In Pan                | 217                             | 7.56                 | 100                             |                            | -                                                 |

Checked By

Tested By

*[Signature]*  
 A.B.

*[Signature]*  
 23-6-20  
 ER



# MAI SAI TESTING AND RESEARCH LABORATORY

MAI SAI TESTING AND RESEARCH LABORATORY  
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MAI SAI TESTING AND RESEARCH LABORATORY

TEST RESULTS OF GRADATION FOR SEMI-DENSE BITUMINOUS CONCRETE  
NAME OF ROAD NABINAGAR TO KHAIRA UNDER SCHEME MK 3034 UNDER SCHEME MK 3034  
Type Of Material SEMI-DENSE BITUMINOUS CONCRETE  
Date Of Test 21-06-2020

| Weight of Sample - 2956 GM |                                    |                         |                                        |                        | Spec.Limits<br>Vide Table<br>500.15<br>MORTH<br>Specification |
|----------------------------|------------------------------------|-------------------------|----------------------------------------|------------------------|---------------------------------------------------------------|
| I.S Sieve Designation      | Weight of Sample<br>Retained (gm.) | % of Weight<br>Retained | Cummulative %<br>of Weight<br>Retained | % of Weight<br>Passing |                                                               |
| 13.2mm                     | 0                                  | 0                       | 0                                      | 100                    | 100                                                           |
| 9.5mm                      | 125                                | 4.24                    | 4.24                                   | 95.76                  | 90-100                                                        |
| 4.75mm                     | 1555                               | 52.62                   | 56.86                                  | 43.14                  | 35-51                                                         |
| 2.36mm                     | 342                                | 11.58                   | 68.44                                  | 31.56                  | 24-39                                                         |
| 1.18mm                     | 268                                | 9.08                    | 77.52                                  | 22.48                  | 15-30                                                         |
| 0.300mm                    | 246                                | 8.32                    | 85.84                                  | 14.16                  | 9-19                                                          |
| 0.075mm                    | 176                                | 5.97                    | 91.81                                  | 8.19                   | 3-8                                                           |
| In Pan                     | 242                                | 8.19                    | 100                                    |                        | -                                                             |

Checked By

Tested By

23/6/2020  
A.E.

23/6/20  
22



Name of Road:- Barun Navinagar to Khaira

| Date         | Time     | Section No. | Length in km | Bumps in mm | Speed Rate | OR mm/km | IRI mm/km | CATEGORY | Latitude  | Longitude | Event  |
|--------------|----------|-------------|--------------|-------------|------------|----------|-----------|----------|-----------|-----------|--------|
| 18/6/20      | 16:55:43 | 94          | 0.1          | 210         | 0          | 2100     | 2515      | G        | 24.800505 | 84.191312 | Normal |
| 18/6/20      | 16:56:17 | 94          | 0.1          | 230         | 10.1       | 2300     | 2715      | G        | 24.801353 | 84.191648 | Normal |
| 18/6/20      | 16:57:0  | 94          | 0.1          | 260         | 10.1       | 2600     | 3015      | G        | 24.802187 | 84.192003 | Normal |
| 18/6/20      | 16:57:0  | 94          | 0.1          | 250         | 10.1       | 2500     | 2915      | G        | 24.802968 | 84.19244  | Normal |
| 18/6/20      | 16:57:28 | 94          | 0.1          | 160         | 10.1       | 1600     | 2015      | G        | 24.803805 | 84.192827 | Normal |
| 18/6/20      | 16:58:3  | 94          | 0.1          | 190         | 10.1       | 1900     | 2315      | G        | 24.80466  | 84.193198 | Normal |
| 18/6/20      | 16:58:38 | 94          | 0.1          | 220         | 10.1       | 2200     | 2615      | G        | 24.805193 | 84.192895 | Normal |
| 18/6/20      | 16:59:13 | 94          | 0.1          | 210         | 10.1       | 2100     | 2515      | G        | 24.805628 | 84.192003 | Normal |
| 18/6/20      | 16:59:49 | 94          | 0.1          | 340         | 0          | 3400     | 3815      | G        | 24.806008 | 84.191127 | Normal |
| 18/6/20      | 17:0:24  | 94          | 0.1          | 300         | 0          | 3000     | 3415      | G        | 24.806605 | 84.19069  | Normal |
| 18/6/20      | 17:1:0   | 94          | 0.1          | 350         | 0          | 3500     | 3915      | G        | 24.807405 | 84.191127 | Normal |
| 18/6/20      | 17:1:34  | 94          | 0.1          | 300         | 10.1       | 3000     | 3415      | G        | 24.808245 | 84.191548 | Normal |
| 18/6/20      | 17:2:10  | 94          | 0.1          | 290         | 0          | 2900     | 3315      | G        | 24.808915 | 84.191328 | Normal |
| 18/6/20      | 17:2:45  | 94          | 0.1          | 220         | 10.1       | 2200     | 2615      | G        | 24.80926  | 84.190403 | Normal |
| 18/6/20      | 17:3:20  | 94          | 0.1          | 220         | 10.1       | 2200     | 2615      | G        | 24.809685 | 84.189545 | Normal |
| 18/6/20      | 17:3:20  | 94          | 0.1          | 240         | 10.1       | 2400     | 2815      | G        | 24.810118 | 84.188703 | Normal |
| 18/6/20      | 17:4:0   | 94          | 0.1          | 250         | 10.1       | 2500     | 2915      | G        | 24.810543 | 84.187793 | Normal |
| 18/6/20      | 17:4:31  | 94          | 0.1          | 220         | 10.1       | 2200     | 2615      | G        | 24.810772 | 84.18682  | Normal |
| 18/6/20      | 17:5:6   | 94          | 0.1          | 250         | 10.1       | 2500     | 2915      | G        | 24.81118  | 84.185992 | Normal |
| 18/6/20      | 17:5:41  | 94          | 0.1          | 340         | 10.1       | 3400     | 3815      | G        | 24.811522 | 84.18505  | Normal |
| 18/6/20      | 17:6:17  | 94          | 0.1          | 230         | 10.1       | 2300     | 2715      | G        | 24.8118   | 84.18409  | Normal |
| 18/6/20      | 17:6:17  | 94          | 0.1          | 320         | 10.1       | 3200     | 3615      | G        | 24.812013 | 84.183113 | Normal |
| 18/6/20      | 17:7:0   | 94          | 0.1          | 290         | 10.1       | 2900     | 3315      | G        | 24.812218 | 84.182172 | Normal |
| 18/6/20      | 17:7:27  | 94          | 0.1          | 210         | 10.1       | 2100     | 2515      | G        | 24.812505 | 84.181228 | Normal |
| 18/6/20      | 17:8:2   | 94          | 0.1          | 280         | 10.1       | 2800     | 3215      | G        | 24.812835 | 84.180302 | Normal |
| 18/6/20      | 17:8:38  | 94          | 0.1          | 290         | 10.1       | 2900     | 3315      | G        | 24.813255 | 84.17941  | Normal |
| 18/6/20      | 17:9:13  | 94          | 0.1          | 350         | 0          | 3500     | 3915      | G        | 24.813613 | 84.178502 | Normal |
| 18/6/20      | 17:9:48  | 94          | 0.1          | 280         | 10.1       | 2800     | 3215      | G        | 24.814    | 84.177592 | Normal |
| 18/6/20      | 17:10:24 | 94          | 0.1          | 300         | 10.1       | 3000     | 3415      | G        | 24.814395 | 84.17673  | Normal |
| 18/6/20      | 17:10:59 | 94          | 0.1          | 200         | 10.1       | 2000     | 2415      | G        | 24.814808 | 84.175842 | Normal |
| 18/6/20      | 17:11:0  | 94          | 0.1          | 210         | 10.1       | 2100     | 2515      | G        | 24.815277 | 84.174982 | Normal |
| 18/6/20      | 17:11:34 | 94          | 0.1          | 200         | 10.1       | 2000     | 2415      | G        | 24.815792 | 84.17414  | Normal |
| 18/6/20      | 17:12:9  | 94          | 0.1          | 210         | 10.1       | 2100     | 2515      | G        | 24.816293 | 84.173315 | Normal |
| 18/6/20      | 17:12:45 | 94          | 0.1          | 310         | 10.1       | 3100     | 3515      | G        | 24.81581  | 84.172508 | Normal |
| 18/6/20      | 17:13:20 | 94          | 0.1          | 290         | 10.1       | 2900     | 3315      | G        | 24.815338 | 84.172    | Normal |
| 18/6/20      | 17:13:55 | 94          | 0.1          | 250         | 10.1       | 2500     | 2915      | G        | 24.814965 | 84.170807 | Normal |
| 18/6/20      | 17:14:0  | 94          | 0.1          | 330         | 10.1       | 3300     | 3715      | G        | 24.814555 | 84.169932 | Normal |
| 18/6/20      | 17:14:31 | 94          | 0.1          | 300         | 10.1       | 3000     | 3415      | G        | 24.81423  | 84.168972 | Normal |
| 18/6/20      | 17:15:6  | 94          | 0.1          | 330         | 10.1       | 3300     | 3715      | G        | 24.813943 | 84.16803  | Normal |
| 18/6/20      | 17:15:41 | 94          | 0.1          | 260         | 10.1       | 2600     | 3015      | G        | 24.81377  | 84.167087 | Normal |
| 18/6/20      | 17:16:16 | 94          | 0.1          | 330         | 10.1       | 3300     | 3715      | G        | 24.813768 | 84.166077 | Normal |
| 18/6/20      | 17:16:52 | 94          | 0.1          | 330         | 10.1       | 3300     | 3715      | G        | 24.81383  | 84.1651   | Normal |
| 18/6/20      | 17:17:27 | 94          | 0.1          | 320         | 10.1       | 3200     | 3615      | G        | 24.81398  | 84.16414  | Normal |
| 18/6/20      | 17:19:13 | 94          | 0.1          | 270         | 0          | 2700     | 3115      | G        | 24.814155 | 84.163198 | Normal |
| 18/6/20      | 17:20:59 | 94          | 0.1          | 330         | 0          | 3300     | 3715      | G        | 24.814155 | 84.163198 | Normal |
| Total Length |          |             | 4.500        |             |            |          |           |          |           |           |        |

$$Y = 0 * X^2 + 1.000 * X + 415.2$$

$$X = 3300$$

$$Y = 3715$$

(R) RURAL ROAD

Good Average Poor  
<4000 4001-5000 >5001

1/6  
23/6/20  
A-E

23/6/20

कार्यपालक अभियंता का कार्यालय  
ग्रामीण कार्य विभाग, कार्य प्रमंडल, औरंगाबाद।  
Email ID:-eerwdaurangabad1@gmail.com

पत्रांक..... 2580 ..... औरंगाबाद/दिनांक..... 23.06.2020

प्रेषक,

कार्यपालक अभियंता,  
ग्रामीण कार्य विभाग,  
कार्य प्रमंडल, औरंगाबाद।

सेवा में,

नोडल पदाधिकारी (MR 3054)  
ग्रामीण कार्य विभाग  
पटना, बिहार

विषय :- नई अनुरक्षण नीति-2018MR (3054) योजना के अंतर्गत पथ में कराये गये कार्य के विरुद्ध आवंटन उपलब्ध कराने के संबंध में।

महाशय,

उपरोक्त विषय के संबंध में सूचित करना है कि नई अनुरक्षण नीति-2018 MR (3054) योजना के अंतर्गत पथ में कराये गये कार्य के लिए संवेदक को भुगतान करने हेतु अध्याचना विहित प्रपत्र में भरकर आवश्यक कार्यवाही हेतु समर्पित की जाती है।

अनु :- यथोक्त।

विश्वासभाजन



कार्यपालक अभियंता,  
ग्रामीण कार्य विभाग,  
कार्य प्रमंडल, औरंगाबाद

# OFFICE OF EXECUTIVE ENGINEER, RURAL WORKS DEPARTMENT, WORKS DIVISION, Aurangabad

Regisition Format for Scheme Head- MR(3054) under Bihar Rural Road Maintenance Policy-2018 (Initial Rectification and Surface Renewal)

Name of Works Division:- Aurangabad

| Sl no. | Package No<br>MR-N/<br>2019-<br>Aurang<br>abad/ | Name of Road                                                | Project ID as<br>per MIS | Administrative<br>Approval (AA)<br>Letter No &<br>Date | Administrative<br>Approval (AA) |                        | Agreement Amount<br>(in Lakh)                                        |                                                   | Agreement<br>No& Date                | Date of<br>Completion<br>as per<br>Agreement | Actual<br>Date of<br>Completi<br>on | Value of<br>IRI<br>(in mm/<br>km) | SBGC<br>BM                                     |                                                     | Previous<br>Total<br>Allotted<br>Amount<br>(in Lakh) | up-to-date<br>expenditure<br>as per MIS<br>(in Lakh) | Regulation<br>against work<br>done<br>(in Lakh) | Remarks |
|--------|-------------------------------------------------|-------------------------------------------------------------|--------------------------|--------------------------------------------------------|---------------------------------|------------------------|----------------------------------------------------------------------|---------------------------------------------------|--------------------------------------|----------------------------------------------|-------------------------------------|-----------------------------------|------------------------------------------------|-----------------------------------------------------|------------------------------------------------------|------------------------------------------------------|-------------------------------------------------|---------|
|        |                                                 |                                                             |                          |                                                        | Length<br>(in km)               | Amount of<br>(in Lakh) | Initial<br>Rectificatio<br>n with<br>Surface<br>Renewal<br>(in Lakh) | 5 Year<br>Routine<br>Maintena<br>nce (in<br>Lakh) |                                      |                                              |                                     |                                   | Thickness<br>of<br>Bitumen<br>Layer<br>(in mm) | Value of<br>Bitumen<br>Content in<br>Percentag<br>e |                                                      |                                                      |                                                 |         |
| 1      | 2                                               | 3                                                           | 4                        | 5                                                      | 6                               | 7                      | 8                                                                    | 9                                                 | 10                                   | 11                                           | 12                                  | 13                                | 14                                             | 15                                                  | 16                                                   | 17                                                   | 18                                              | 19      |
| 1      | 2                                               | Rajoi Via,Dosma-<br>Bel Barahi                              | NEA22000<br>41           | Letter No.<br>3140 Date<br>22.07.2019                  | 6.370                           | 303.11000              | 272.80000                                                            | 59.65000                                          | 59MBD/20<br>19-20 Date<br>04.02.2020 | 03.11.2020                                   | -                                   | 2115                              | 25<br>50 BM                                    | 5.08<br>3.34 BM                                     | 0.00000                                              | 0.00000                                              | 272.80000                                       | Ongoing |
| 2      | 8                                               | Nabinagar road to<br>Khaira                                 | 106028020<br>74          | Letter No.<br>3140 Date<br>22.07.2019                  | 4.883                           | 123.62000              | 111.26000                                                            | 43.75000                                          | 60MBD/20<br>19-20 Date<br>05.02.2020 | 04.11.2020                                   | -                                   | 3715                              | 25                                             | 5.05                                                | 0.00000                                              | 0.00000                                              | 111.26000                                       | Ongoing |
| 3      | 16                                              | Deo more road to<br>Upardaha                                | 106028021<br>11          | Letter No.<br>3140 Date<br>22.07.2019                  | 2.460                           | 58.40000               | 52.46000                                                             | 23.010                                            | 71MBD/20<br>19-20 Date<br>15.02.2020 | 14.11.2020                                   | -                                   | 3715                              | 25                                             | 5.11                                                | 0.00000                                              | 0.00000                                              | 52.46000                                        | Ongoing |
| 4      | 14                                              | Const. of Road<br>from Deo Jewa<br>Bigha to Silarh<br>Khurd | 106028010<br>05          | Letter No.<br>3140 Date<br>22.07.2019                  | 1.000                           | 28.28000               | 25.45000                                                             | 9.400                                             | 71MBD/20<br>19-20 Date<br>14.02.2020 | 13.11.2020                                   | -                                   | 3715                              | 25                                             | 5.08                                                | 0.00000                                              | 0.00000                                              | 25.45000                                        | Ongoing |
|        |                                                 | Total                                                       |                          |                                                        |                                 |                        |                                                                      |                                                   |                                      |                                              |                                     |                                   |                                                |                                                     |                                                      |                                                      | 461.97000                                       |         |

Executive Engineer  
Rural Works Department  
Works Division, Aurangabad

File : C:\Users\BRDDA67\Desktop\Bump\14051123.xls, Section No.: 94, Eqn :  $Y = 0 \cdot X^2 + 0.984 \cdot X + 510.7$   
 Name of Customer : ARVIND SINGH, Name of Work/ Road : BARUN NABINAGAR ROAD TO KAIRA, Lab Job



*[Signature]*  
 23/6/2020  
 A.B.

*[Signature]*  
 23/6/20