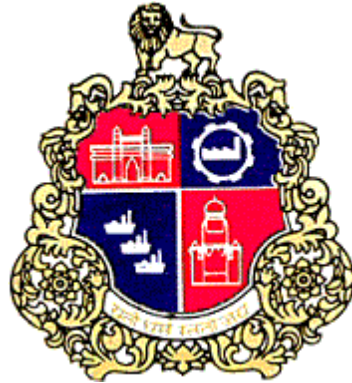


# **BRIHANMUMBAI MUNICIPAL CORPORATION**



## **COMPREHENSIVE GUIDELINES FOR TRENCHING AND REINSTATEMENT- 2023 (FOR TELECOM SECTOR & NON-TELECOM SECTOR UTILITIES)**



Dy.Ch.E.(Rds)

Ch.E.(Rds & Tr.)

DMC(Infra.)

Add.Mun. Commissioner (P)

Municipal Commissioner

**No: MGC/F/9301 Dated 02.05.2023**

Policy guidelines for granting trench excavation permissions to underground service provider Utility agencies (Telecom & Non Telecom Sector) and Municipal agencies & the reinstatement of trenches

## **FOREWORD**

The last comprehensive policy on trenching was issued in 2014 in form of booklet. Thereafter several circulars came to be issued on account of changing circumstances and shift in policies. Various new methodologies for improvement of carriageways & footpaths of BMC roads such as UTWT, TWT, side strips in CC, Footpath with brooming texture/ Stencil Concrete, M-40 Footpaths have been adopted by BMC. Further, to avoid frequent trenching some stringent circulars have been issued. However, even after imposing such stringent conditions, it is observed that number of trenching applications are being received for breaking of newly improved roads during DLP period due to which, main purpose of having smooth & potholes free roads is defeated. Also, trenching in newly improved roads attracts criticism from public & news media at large. Therefore, it is necessary to modify the trench policy to curb such unwanted activities for trenching on DLP Roads.

Further, as per Indian Telegraph Act 2016 and Guidelines for Maharashtra Telecom Infrastructure dtd 17.02.2018 issued by Government of Maharashtra, Access charges for Telecom infrastructure Utility was revised as per SCR No. 249 dtd 20.05.2022. Also, recently Government of Maharashtra has issued Maharashtra Telecom Infrastructure Guidelines for Urban Local Bodies-2022. For implementation of these guidelines, it is necessary to revise the policy for Telecom Infrastructure Utilities.

Road Engineers have been appointed in wards. These Road Engineers have been entrusted with the RI of trench work. The Road Engineers; most of them who are freshers or are with relatively less experience in field, who need to be provided with handy guidelines. The previous guidelines being scattered in various circulars hence may create confusion in minds of some.

Considering all these factors and aspects, a need has emerged to issue fresh comprehensive guidelines on trenching. With this view in perspective, these fresh guidelines are being issued.

In these guidelines, the procedure to be adopted by the Road Engineers while processing applications of Utility Agencies has been explained in minute details. Flat rates to be adopted for arriving at Reinstatement charges have been worked out as per USoR-2023.

I present these guidelines with pleasure and with hope that all the Engineers, Utility agencies will find it useful as all about trenching has been included in these guidelines.

All the permissions that will come to be issued henceforth will be subject to these policy guidelines. The Engineers as well as the Utility Agencies shall take note of it. These guidelines will come in to effect from .....

-Sd-  
Dr.I.S.Chahal  
Municipal Commissioner

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**Policy Guidelines for Granting of Permission to Utility and Municipal Agencies for Excavation and Reinstatement thereafter :-**

**Part A-General**

1. This circular/policy supersedes all the previous circulars with regards to granting of permission for excavation for laying underground utilities, recovery of reinstatement charges & security deposit from utility agencies, reinstatement of trenches, refund of the deposits etc.

With a view to instill a sense in all so that the newly improved public streets are not dug up for planned works of utility agencies in disorderly, disorganized & indiscrete manner; the multiplying factors for arriving at the reinstatement charges along roads under defect liability period have been enhanced as given under the **Annexure-B**.

Penalties for various lapses applicable to the utility agency and the reinstatement and have been annexed as Annexure-D to these guidelines. Schedule of flat rates and details mentioning the multiplying factors to be used for arriving at reinstatement charges depending upon defect liability period of the roads have been added as **Annexure-A** (For Non Telecom utility). & **Annexure-AA** (For Telecom utility). Cross sections of reinstatement to be made; in footpath as well as in asphalt, CC Road and sample estimates for reinstatement of trench in footpath as also in asphalt carriageway, CC Road have been annexed at **Annexure-C**

2. This circular is applicable to all the utilities including all agencies of BMC which will be excavating road surfaces for laying services.
3. AE (Maint) of ward and Road Engineers (as defined in the Road maintenance circular issued u/no AMC/ES/5461/II dated 05.04.2014) shall process the application of the utility agency. Obtain NOCs of competent authorities (**clause no 6 , Page no 8**) wherever necessary and issue demand notes.
4. After receipt of payment towards reinstatement charges, permit shall be issued; mentioning therein clearly the date of starting and completion of

trenching. All these activities shall be processed through CPWM as is the prevailing practice. No changes have been proposed in the current proforma of application form to be filled in by the utility agency, demand note, permit & the work order to be issued to ward trenches contractor which are processed and issued online.

**5. For timely processing of trench applications by the ward office following guidelines is being issued.**

- a) The trenching calendar will be from 01 October of every year to 30 September of next year. All the utility agencies will have to submit their annual plans in advance to the concerned Assistant Commissioners in the month of June/July every year. If the annual trenching plan is submitted by the utility agency in the month of June/July; it will not attract additional charge. However, if the annual trenching plans are submitted by the agency in the month of August and September the 5% of applicable RI Charges will be recovered from the utility agency as additional charge over and above the applicable reinstatement charges for all the works to be carried out throughout the respective trench calendar year. Similarly, if the annual plan is submitted in the month of October or thereafter then 7% of applicable RI Charges will be recovered from the utility agency as additional charge over and above the applicable reinstatement charges for all the works to be carried out throughout the respective trench calendar year.

Road Engineers and A.E. (Maint) shall process the applications upon receiving the annual plans during June to September in such a manner that permits are granted by or before 1<sup>st</sup> October so that the utility agency should be in a position to take up the work of excavating trench right from 1<sup>st</sup> October. There shall be only three stages for giving approval i.e. Road Engineer, AE (Maint) and Astt Commissioner of ward.

- b) Applications for trenching shall be submitted to and then processed by the Road Engineers through AE (Maint) and submitted to Competent Authority for approval. Competent Authority as mentioned in **Clause no.6** (Page No.8-11)

will be the approving authority for **trenches up-to any length** including granting approval for trenches for attending faults in monsoon. If the application is in order; permission for trenching shall be invariably granted as in default mode. If permit for trench is refused to any agency then strong reasons for such rejection shall be recorded in writing and shall be communicated to the agency.

- c) Ward offices will issue the permit for full length of trench applied by the utility agency by recovering applicable reinstatement charges. However, it shall be stipulated in permit that while executing work on site; the utility agency shall take up work for only 300mtr. in one stretch; complete the cable laying work; back-fill the trench and thereafter take next 300Mtr., Likewise, the utility agency shall carry out the entire work in phases. After backfilling the trench, utility agency shall remove the surplus earth immediately and clear the site. In case of lapses; applicable penalty will be imposed.
- d) Maximum width of trench to be excavated by the utility agency will be 0.6Mtr. and the maximum depth will be 1.00Mtr. For Gas pipe line /power cables a depth upto 1.5 Mtr. with average width of 0.75 Mtr. may be permitted with appropriate R.I. Charges if, requested by Utility Agencies. **While calculating RI charges, 5.Mtr. additional length on either side of trench shall be added to the proposed trench length.**
- e) Treatment to be adopted during reinstatement of trenches shall be as per the drawings and sample estimates being supplied herewith. During reinstatement of trench; Maximum 5 layers of granular layer of 75MM thickness shall be operated by BMC Trench reinstatement contractor. Transportation of surplus earth after reinstatement of trenches will not be paid separately. However it will be the responsibility of the BMC contractor to dispose off the said material in a systematic manner and clear the site
- f) The concerned Road Engineer as well as the utility agency shall ensure that, during excavation of the trench, the excavated earth is stacked in systematic manner along property side edge of the trench and that earth shall not spill over outside the barricades. The barricades shall be maintained in neat and clean condition. They must display details of trench work, start date. Date of completion etc conspicuously. A sample barricade drawing is enclosed
- g) The applicable penalties for various lapses have been revised and same shall be as per **Annexure-D.**

- h) As a pilot experimental initiative to assess impact and feasibility of executing Micro-trench works in monsoon, on demands it is decided to allow micro-Trenching during current monsoon subject to the condition that the works will be carried out by the respective agencies during dry spells only. It shall be ensured by the utility agencies that the Micro-trench is taken in straight alignment along a road. It shall not deviate from the straight alignment and shall not be laid in zigzag manner. If such instances are noticed then **Rs.5000/-** penalty per instance will be imposed. Micro-Trench shall not be permitted across the road. **It shall not be allowed in CC carriageway.**
- i) For planned works of laying underground services of various BMC departments, concerned department shall include the work of improvement of trenches in their tender with respect to requirement of depth and specified width required for the utility pipe line. However, practice of attending trenches for water works faults attended by AE (WW) shall continued to be reinstated by AE (M) through the Trench contractor, the expenses therefore shall be transferred by CA (WSSD) from G budget to A budget. CA (fin) shall apportion such transferred fund to concerned wards according to the expenses incurred by them.
- j) For trenching in C.C.Road/ UTWT/TWT, since RI for the same is carried out initially with paver block, it is proposed to have systematic concretization of this portion.

In this case ward RE's through their Assistant Commissioner at the end of the financial year ( i.e. before 31<sup>th</sup> March of every year) will submit the report to Dy.Ch.E (Rds) Planning about entire trenching in C.C. Road/UTWT/TWT & planning department after compilation will inform respective divisional Dy.Ch.E (Roads) about concretization of the broken panels.

#### **6. Regarding obtaining approvals of Competent authority for DLP Roads :-**

Major modifications/ points incorporated in the comprehensive guidelines regarding approvals required to issue trench permissions for DLP & Non DLP Roads are as below:-

- i) **Non DLP Roads:** Trench permissions on all Non DLP roads will be issued



by concerned AE (Maint) of ward by taking approval of Assistant commissioner of ward through CPWM only. Permissions for attending faults on Non DLP roads will be issued by concerned AE(Maint) of ward following existing procedure.

- ii) **DLP roads other than CC Roads:** Trench permissions for planned works as well as faults above 20 sq. Mt on DLP roads other than CC Roads as per circular u/r.no. Ch.E./1744/Rds &Tr. Dtd.21.06.2022. for 1<sup>st</sup> year DLP approval of AMC(P).

After Completion of 1<sup>st</sup> year approval of Ch.E. (Rds & Tr)

- iii) **C.C. Roads/ CC Passage which are in DLP:** Trench permissions for planned work as well as faults above 20 sq. mt on C.C. Roads/ CC Passage which are in DLP, for 1<sup>st</sup> year DLP permission will be issued only after taking approval of Hon'ble M.C. and after completion of 1<sup>st</sup> year DLP, approval of AMC(P) routing file through A.C to Zonal DMC to AMC (P). (as per approval no MGC/F/8702 dtd 07.02.2023 and circular issued u/r. no.Ch.E./1991/MC/Rds & Tr. Dtd.02.03.2023).

- iv) **For fault (up to 20 sq. mt.) all types of road surface and footpath in DLP:** For the trench due to fault up to 20 sq. mt. on all types of road surface and footpath in DLP permit shall be given by taking approval of Ch.E.(Roads & traffic) vide circular issued no.Ch.E/528/SR/Rds & Tr. Dtd.03.03.2023. In this case, file shall be submitted by AE(Maint) and the file shall be routed through Assistant Commissioner to Ch.E.(Roads & traffic) and the process should be completed within 07 working days.

- a) **For Trench for Planned Works on All types of Roads other than CC Roads/ CC Passage:-**

- i) Since the utilities are required to plan their program of laying before the excavation of the roads, it is presumed that no activity should take place upto completion of first year of DLP. Therefore, no permission shall be granted to the utility agencies upto completion of the first year of DLP. However, in case urgency is proved, then the trench on the said road upto completion of first year of the DLP shall be given only after obtaining approval of AMC(P) and file shall be routed through Assistant Commissioner of the respective Ward/

Zonal DMC/ AMC(P).

- ii) After completion of the first year of the DLP all roads other than CC Roads/ CC Passage, the trench permission shall be given by obtaining approval of Ch.Eng.(Roads & Traffic). In this case, file shall be submitted by AE(Maint) to respective Assistant Commissioner. The Assistant Commissioner shall forward the file to the divisional Dy.Ch.Eng(Roads). On receipt of the file, Dy.Ch.Eng (Roads) shall obtain permission/ rejection from Ch.Eng.(Roads & Traffic) in 5 working days and intimate the same to Assistant Commissioner of respective ward.

AE (Maint) shall mention following details in the file-

- a) Name of the Road-
- b) DLP of the Road from \_\_\_\_\_ (date) to \_\_\_\_\_ (date).
- c) Length and Width of Trench excavation.
- d) Reason for not planning the trench before improvement of the Road.
- e) Reason for urgency-

**b) For Trench on CC Roads/ CC Passage :-**

Following Procedure should be followed for issuing Permission for Excavation on CC Road

**1. For New proposed CC Roads and CC Passage / TWT/ UTWT:**

- i) After publishing tender Notice for Concretization of Road in the News Paper as well as on portal, immediately the concern divisional office shall Publish advertisement / **Press Note** in all main news papers and on portal mentioning for proposed concretization works including details such as list of Roads, Starting Point, End Point, Length, Width and Scope of Work. It should be clearly published that shifting of cables / pipelines must be carried out before concretization and **no new trench will be permitted after completion of the work.** Central agency staff should inform all external utility agencies and concerned ward / departments about the proposed concretization program. The utility agencies shall submit the number of their

existing cables / proposed cables / conduits within 7days time in hard copy as well as in soft copy **so as to finalize the cross section of utility ducts.** Utility agencies should co-ordinate with central agency staff for the same so that utility agencies shall complete their work before work of concretization starts also with maintaining the relevant record.

- ii) All Utility agencies shall shift their utilities in the proposed ducts at their own cost, after receiving intimation from concern divisional office.
- iii) Once the Pavement Cement Concrete work is over, breaking of C.C. Road will not be allowed, without approval of Hon'ble M.C.

**2. Trenching on Existing C.C. road/ CC Passage / TWT/ UTWT:  
(for planned work as well as for faults.)**

- i) If the trench is required to be taken in existing Surfaces as mentioned above, concern RE should explore all possible alternatives instead of trenching on existing C.C. Road.
- ii) The committee shall be formed comprising of concerned Assistant Commissioner of Ward, Executive Engineer (Roads) of Central Agency and Ward Executive Engineer of concerned ward under chairmanship of Zonal DMC.
- iii) Above committee shall look after all possible alternatives to avoid trenching on Cement concrete Road.
- iv) If there is no alternative to avoid trenching as per Committee's remarks, Assistant Commissioner shall direct utility agency to forward the proposal to IIT- Mumbai / VJTI, at the cost of utility agency. Utility agency need to submit the report from IIT- Mumbai / VJTI for possible alternatives if any and whether required to break CC road, & methodology to be adopted for breaking & reinstatement of the trench portion.
- v) As per remarks of IIT – Mumbai / VJTI, if there is alternative without breaking of CC road then trench permission shall be given by concern Asst. Commissioner, after obtaining approval of Zonal DMC.
- vi) If it is necessary to break the CC road as per IIT- Mumbai / VJTI's remarks, Assistant Commissioner shall put up proposal through Ch.E. (Roads & Traffic) / DMC (Infra) to AMC(P) for orders/approval for trenching on CC Road.

- vii) If trench is permitted, then the cutting of Concrete shall be done with diamond cutter and the said trench shall be reinstated as per trench policy guidelines with five times of RI charges as mentioned in policy shall be recovered.
- viii) If the trench is in CC bay, the entire concrete bay (from joint to joint) shall be recast and if trench is taken in CC Passage / TWT/ UTWT then concern strip of CC passage/ TWT/ UTWT (from joint to joint) shall be recast. The reinstatement charges will be worked out accordingly and same shall be finalized by E.E. (Roads).
- ix) Reinstatement of Concrete Road shall be done under supervision of Concern Executive Engineer (Roads).

### 3. For Trenches on Project Roads:-

As per earlier issued circular u/r. no. Ch.Eng./160/SR/Rds & Tr. Dtd.15.06.2021, in case of Project Road, all trenches should be taken in co ordination with concerned AE. (Roads) of central agency by adopting following norms for recovering reinstatement charges from the concerned utility agencies.

If trench is proposed on stretch of project road already excavated by project contractor, concerned RE of ward shall obtain amount of reinstatement charges for reinstatement of trench (below exca vated crust) from concerned A.E. (Roads) of Central Agency (including applicable taxes i.e. supervision charges 15%, water charges 8%, sewerage charges 4%).

However considering the procedural delay for most of the these cases, above procedure is not being followed and full RI charges are being recovered in those cases. Hence to curtail the procedural delay and to recover actual RI charges, it is proposed to modify above clause and to create flat rate considering maximum trench size 1.00 X 1.50 irrespective of the crust of the road for the reinstatement of trenches for laying of planned network of utilities during the excavation of project roads as under;

- If trench is proposed on stretch of project road already excavated by project contractor, **Rs. 6711.00 per Rmt.** RI charges shall be recovered as flat rate irrespective of the crust of the road. These rate is applicable for trench size upto 1.00 m width & 1.50 m depth.

- For trench size more than this, necessary charges for reinstatement below crust should be obtain from concerned zonal Dy.Ch.E.(Road)'s Office.
- If concern utility agency is agreed for laying of utility as per program of project road improvement, then only this rate to be applied.
- If utility agency wants to lay cable before project road improvement program, then full charges for reinstatement should be recovered as per trench policy.
- If the trench is proposed on stretch of Project Road before Excavation, full RI charges as per policy will be recovered.
- If the trench is proposed on completed stretch of Project Road, RI charges for 1st year DLP as per type of surface will be recovered.
- **Table for approval of trench permission on the roads in DLP**

**A) For Planned works:-**

	<b>B)Roads in R DLP</b>	<b>C.C.Road/ CC Passage</b>	<b>Asphalt / Mastic</b>	<b>UTWT/ TWT</b>	<b>Footpath in concrete</b>	<b>Footpath other than Concrete</b>	<b>Reference</b>
2 Ch. Eng /17 44/ Rds & Tr. Dt. 21. 06. 202 2							
1.1 <sup>s</sup> t yea r DLP 1	Any DLP	Ch.E(Rds &Tr)	Ch.E(Rds &Tr)	Ch.E(Rds &Tr)	Ch.E(Rds &Tr)	Ch.E(Rds &Tr)	Ch.Eng/528/ SR/Rds & Tr. Dt.03.03.23

**E) For Fault above 20sq.mWorks:-**

- Same as for above table A as per reference Ch.Eng/1991 /mc/Rds & Tr. Dt.02.03.23 & Ch.Eng/528/SR/Rds & Tr. Dt.03.03.23

**Table for approval of trench permission in Non DLP**

<b>Sr.No</b>	<b>Roads in non DLP</b>	<b>Approval Authority</b>	<b>Reference</b>
1	<b>C.C.Road/ CC Passage</b>	Ch.E(Rds &Tr)	AMC/ES/7725/II dt. 18.12.2014
2	<b>Asphalt / Mastic</b>	Asst.Com. ward	
3	<b>All types of Footpath</b>	Asst.Com. ward	

- For the faults in during monsoon season from 16<sup>th</sup> April to 30<sup>th</sup> Sep for Non DLP road Approval authority is zonal DMC.

**For Any types of road surface Project Road**

<b>Prior to Excavation</b>	<b>During Excavation</b>	<b>After Completion</b>	<b>Reference</b>
As per trench permission in Non DLP Road	<u>Planned Work</u> Permit should be issued in consultation with project Road construction staff	As per trench permission in DLP Road	Ch.Eng/160/SR/Rds & Tr. Dt.15.06.2021 & Ch.Eng/1165/mc/Rds & Tr. Dt.29.07.2016
	<u>Unplanned work</u> Permit should be issued in consultation with project Road construction staff. However RI charges to be recovered 7% higher than applicable R.I. charges.		

**7. Reinstatement of trenches:**

Along the roads; which are under Defect Liability Period of Roads Department and where such condition to this effect exists in the road contract that reinstatement of the trenches permitted along roads improved under the contract shall be carried out by the respective Roads department contractor as per rates of prevailing Fair Market Schedule/USOR; at the percentage quoted on original contract; as defined more specifically in the terms & conditions of the said contract; then in such cases reinstatement of the trenches taken along roads improved under such contracts shall be carried out by the respective Road Department contractor in the manner as specified in respective contract.

**For DLP roads** the estimation and work order for reinstatement will be issued by the AE (Maint) of ward and the reinstatement of trench will be carried

out under supervision of ward RE. The payment of the work carried out will be made to the Road department contractor by AE (Maint) of ward as per the terms and conditions of the respective Road department contract. Defect liability period of such reinstated trenches will be three years or remaining defect liability period of the road contract whichever is later. Divisional Deputy Chief Engineers (Roads) shall forward to the respective ward office details of all the ongoing project road contracts in jurisdiction of said ward along with list of roads proposed to be improved under the said contract along with phase wise program of improvement of the roads; And; details of contracts under defect liability period of road department along with all the relevant details such as copy of work order of the contract, actual date of completion of contract, total defect liability period of contract and one copy of the contract document highlighting the conditions relevant to reinstatement of trenches.

In case of **ongoing project road**; while granting permission to utility agency for excavation; AE (Maint) of ward shall put condition in the permit that the excavation for trench shall be taken in coordination and consultation with concerned Deputy Chief Engineer (Roads) as reinstatement of such trenches taken along ongoing project roads will be carried out while taking up improvement of the said road by the Road Department contractor. It shall be so arranged that the excavation of trench by Utility agency is taken simultaneously with road excavation for improvement work so that trenches do not remain unattended for long period and reinstatement of trench can be carried out in comprehensive manner along with road improvement work guaranteeing superior work quality.

Irrespective of the width and depth of the trenches, while carrying out reinstatement of the trench through BMC trench contractor; maximum five layers of granular material with 75MM thickness each (Sand metal) shall be provided.

Road department while taking up new roads for improvement shall obtain remarks from all utility agencies, external as well as internal and shall incorporate the planned works of internal agencies in its tenders considering integrated project



approach so as to avoid digging by internal agencies for planned works during Defect Liability Period of the road.

External agencies shall be informed well in advance by concerned Deputy Chief Engineers (Roads) about improvement of roads through upcoming tenders along with the list of roads proposed for improvement. External agencies shall be informed that they shall carry out laying of utilities for planned nature of works, shifting/realigning of existing service lines before commencement of road improvement work. It shall be stressed that no permission will be granted for planned nature of works during Defect Liability Period of the work. The utility agencies too proactively shall obtain list of roads proposed for improvement from divisional roads offices by coordinating with concerned Astd Engineers and further shall carry out the planned jobs, shifting/realigning of existing service lines along such roads before commencement of road improvement work or during execution of road improvement work, whichever is suitable in the opinion of the Deputy Chief Engineers of Road department.

If trench is taken on CC road, UTWT Road, TWT Road, it shall be reinstated initially with 100 mm thick paver block immediately through DLP contractor or trench reinstatement contractor as per the case for the size of the trench as shown in the section and such damaged bays for the above mentioned roads entire width shall be reconstructed in due course of time by the concerned office of zonal Dy. Ch. Eng. (Roads). While calculating the flat rates for reinstatement of trenches taken by external utility agencies in above mentioned roads, cost of both the said works is considered irrespective of the size of trench.

If in case any external utility agency comes up with a proposal to take excavation for laying utility services along a road under defect liability period of roads department citing expedient circumstances then in such cases; the RI charges arrived at by multiplying the flat rates by telescopic multiplying factors as mentioned at **Annexure-B**; depending upon year of defect liability period of the road under reference shall be recovered from the concerned agency.

It will be mandatory on part of the external utility agencies to submit their ward wise **annual plan as per below mentioned prescribed format**

Sr. No.	Online application number	Length Of Trench	Start point	End point	Name of Road	Surface	Priority/urgency with explanation

The said Annual Plan for executing planned works over following fair season has to be submitted to respective ACs of wards in whose jurisdiction the works fall and as well as to concerned Deputy Chief Engineer (Roads).

The external agencies shall prepare their annual utility laying plans meticulously; with forethought & foresight; as no alterations will be permitted in the annual plan in later stages under any circumstance. This exercise has been adopted out of necessity as unplanned excavation for trenching activities is leading to a complete disorder and disorganized excavations in haphazard manner along roads by multiple agencies. AE (Maint) and concerned Road Engineers of wards shall scrutinize the annual excavation plans submitted by the Utility Agencies and process those in such a manner that excavations are allowed to the agencies right from 01 October of every year in an organized manner so that minimum disruption is caused to traffic and multiple utility agencies can lay their services in the same trench.

If work of lying of utilities is proposed by Municipal agencies like Sewerage Project, SWD, Hydraulic Engineer etc., provision for reinstatement of proposed trenches shall be made in their tenders. Minimum Defect Liability Period of reinstated stretches shall be kept as three years. Departments other than Road department shall not carry out reinstatement of trenches along CC roads in PQC; it being a specialized job.

In all other cases, reinstatement of trenches shall be carried out by the Ward Trenches contractor, who will be appointed from time to time by Deputy Chief Engineer (Roads) Planning. The reinstatement carried out by ward trenches contractor shall be either in asphalt or paver blocks according to the nature of

existing surface. The defect liability of trenches reinstated by ward trenches contractors will be **three years** from date of completion of reinstatement of individual trench.

For effective implementation there shall be proper coordination between the Ward RE, Engineer from Utility/Municipal agency and reinstatement contractor (Ward trenches RI contractor or Municipal agency contractor) & Engineers from Road department.

**8. Guidelines for proper supervision of reinstatement of the trenches by Ward Engineers**

Exhaustive guidelines on trenching activities are already in place issued vide circular issued u/no AMC/ES/7725 of 18.12.2014 which came to be updated from time to time. It has been stipulated in the said guidelines that there shall be constant and close supervision by the concerned ward Road Engineer right from commencement of trenching up to completion of reinstatement of trenches and that Immediate supervision over the ward RE for ensuring quality of the reinstatement of trenches shall be of AE (Maint) of ward and Ward EE shall take surprise rounds along randomly selected sites to observe the trenches work.

It is however noticed over a period that there has been lack of proper supervision of reinstatement of the trenches by ward engineers leading to accelerated deterioration of reinstated trench and adjoining road surface, formation of potholes and settlement in trench etc. On account of such damages which could well be avoided through effective supervision ensuring quality work, BMC is left with no choice but to take up improvement of roads well before the life cycle/design life of the road is over resulting in needless large scale expenditure.

In view of it following guidelines are issued.

- a) The ward Road engineer (RE) shall physically monitor the trench work right from its commencement by utility agency till its reinstatement by respective RI agency. The ward RE shall see to it that secure and continuous

barricades are provided along the trench. Name of agency taking trench, date of start & end date of trench, details of contact person of engineer of agency and ward RE, other cautionary boards shall be displayed on site. Surplus debris shall be removed from site within 24 hours.

- b) Ward RE shall be held wholly responsible for maintaining quality in reinstatement of trench and effective execution of reinstatement in strict accordance with the estimate and technical specifications. In case of defective and poor quality work, responsibility will be fixed on ward RE.
- c) AE (Maint) and Ward EE shall inspect the sites of reinstatement of planned trenches to ensure quality of work and certify in the measurement book that they have inspected the reinstatement of planned trenches while in progress at least once to ensure that reinstatement work has been carried out as per estimate and technical specifications and shall sign in the measurement book. Ward EE concerned shall be held responsible for lack of effective supervision and control over ward RE leading to inferior and defective quality of reinstatement work.
- d) All the utility agencies will have to submit annual trenching plans for planned trench works proposed to be taken up from 01<sup>st</sup> October of every year to the Assistant Commissioners of ward by preceding 15<sup>th</sup> September that year. In case of delay in submission of annual trenching plans by the utility agency penalty over and above regular reinstatement charges shall be recovered. In case of delay the telescopic penal charges to be recovered from utility agencies shall be as follows.

<b>Penalty for delay in submission of annual trenching plan.</b>		
	Month of submission of annual trenching plan by utility agencies	Penalty to be recovered for delay, over and above the applicable RI charges.
1	Upto 15 <sup>th</sup> September	Nil
2	16 <sup>th</sup> September to 31 <sup>st</sup> oct	7%
3	1 <sup>st</sup> November to 31 <sup>st</sup> May	15%

- e) To avoid procedural delay, vide circular u/no AMC/ES/9923/II dated 20.07.2015; it has been stipulated that "NOC" of road department shall not be insisted for any category of road and that while permitting excavation

along project roads AE (Maint) shall put a condition in the permit that the trenching work shall be commenced and carried out by the utility agency strictly in co-ordination with central agency and that the trench shall be excavated before the Improvement of the project road is taken by the central agency. It is however observed that this aspect of the policy is not being adhered to strictly and permits are being issued at random even along improved project roads. Many a time, a project road Improved by central agency is excavated immediately next day by the utility agency. This was never the intent of simplifying the trench policy. Such reckless trenching has led to excessive damage to recently improved roads leading to accelerated deterioration of roads as well as to wasteful expenditure which could have well been avoided if the trench was allowed in synergy by ward road engineer with central agency Sub Engineers before Improvement of project road.

- f)** Ward RE in coordination with Central agency Sub Engineers shall plan trenching activities for planned works along ongoing project roads in such a manner that all the planned trenches are taken while the project road is excavated for comprehensive Improvement. Proper placement of utilities can be achieved this way and excavations along newly improved roads can be avoided. AE (Maint) shall proactively encourage the utility agencies to come forward to lay utilities along ongoing project roads before taking up those for improvement. It shall be sincerely endeavored that newly improved roads are not excavated for planned trenching activities except than for fault repairs. However in cases of exceptional and convincing circumstances, approval of competent authority shall be obtained to Issue permits for planned trenches along newly improved project roads under ongoing road contracts. One copy of permit issued for excavation along ongoing projects shall be invariably forwarded to concerned AE (Roads) Immediately
- g)** In cases where the trench has been taken by the utility agency along newly improved road through ongoing road project contract then the work order (PO) for reinstatement of such trenches shall be issued to the concerned Road contractor by AE (Maint). The bills for reinstatement of such trenches

shall be processed by concerned AE (Maint) from funds available with ward for reinstatement of trenches. To avoid multiplicity of agencies in supervision of reinstatement of trench taken along recently improved under ongoing project road contract; supervision of reinstatement of such trench shall be carried out by concerned SES from central agency with frequent checks by concerned AE (Roads). The measurement book of reinstatement work shall be certified by concerned Sub Engineer and AE from central agency and shall be forwarded to respective AE (Maint) of ward for further processing.

**h)** Instead of allowing multiple agencies to take Individual and separate trenches along any road randomly to provide same kind of cables e.g. OFC cables etc, it shall be so arranged that cables of all utility agencies of same kind are provided in common trench to be jointly taken by the agencies with mutual coordination. This way the roads will not be dug up multiple times and expenditure on reinstatement of such multiple trenches is avoided. However, reinstatement charges as per prevailing rates for individual trench shall be recovered from all the utility agencies separately even for a common trench.

**j)** If non-compliance and negligence of these guidelines is observed then stringent action will be taken against the concerned.

**i)** Ward EE shall submit the details of trenching activities carried out along non- DLP roads, DLP road and project roads in the preceding week to Ch E (Roads & Tr), Ch E (Vig) and AMC (P) by 11:00 AM on every Monday through email [che.rt@mcgm.gov.in](mailto:che.rt@mcgm.gov.in), [che.vigilance@mcgm.gov.in](mailto:che.vigilance@mcgm.gov.in) and [amc.projects@mcgm.gov.in](mailto:amc.projects@mcgm.gov.in)

## **9. Guidelines on trenching procedure along project roads before improvement through ongoing contracts**

Ward Road Engineer (Ward RE) shall coordinate with Central Agency Sub Engineers in charge of the site and organize trenching activities for planned trenches of utility agencies in such a manner that all the trenches are taken when the project road is excavated for comprehensive improvement. Over a period, it is observed that

this aspect of the policy is being grossly ignored and trench permits are being issued indiscreetly leading to trenches remaining unattended along project roads still to be improved. The provisions of this clause are in respect of the trenches to be allowed to utility agencies along un-improved stretches of project roads under ongoing contract.

As per contract conditions, the project road contractor shall maintain the project roads in motorable condition free of cost during the contract period by carrying out required repairs. The said condition does not stipulate that the project contractor must reinstate the trenches free of cost for which BMC has given regular permission. It is observed that AE (Maint) of ward issues permit to the utility agencies to take trench along un-improved stretches of project roads without taking in to account this fact. As the work of reinstatement of such trenches is beyond scope of contract, the project road contractor does not reinstate it. The trench remains unattended. Such situation leads to deadlock which results in serious road maintenance issue. The unattended trench affects the day to day life of commuters adversely and at times may result in fatal accidents.

On the other hand, in certain cases where the contract period includes more than one monsoon, some of the project roads may be taken up for improvement during next or next to next fair season. Utility agencies submit their annual trenching plans to respective wards beforehand for planned trenches to be taken in current fair season. If a project road is not taken up for excavation in current fair season then in such case the utility agency despite having submitted the annual trenching plan beforehand will not be in position to take the trench because as per the trench guidelines, the trench for planned activity is to be taken once the project road is excavated for comprehensive improvement. This may result in delay in providing essential services like, communication lines like OFCs, electric cables, MTNL lines, water main/pipes, MGL lines etc.

On this background, it has become expedient to review the situation. Considering the issue at hand, following guidelines are being issued:

- i) In case of project roads which are proposed to be improved during current fair season, AE (Maint) of ward will issue permit to the utility agency just before the commencement of excavation of road by project road contractor for

comprehensive improvement, so that trench for laying utility services is excavated only when the road is excavated for improvement. Reinstatement of such trench will then be carried out by project road contractor while carrying out comprehensive improvement of the road, so that separate payment for the reinstatement of trenches is not made

- ii) In case of the roads which are planned to be improved during next fair season, the utility agency shall not be kept on wait till the project road contractor excavates the road. The utility agency shall be issued permit by recovering requisite reinstatement charges. Simultaneously, work order (PO) for reinstatement of the trench shall be issued to the project road contractor. The project road contractor will reinstate the trench under supervision of Sub Engineer from central agency in charge of the site. The measurement book will be prepared by him. It will be signed by him and the concerned AE (Roads) from Central Agency. The AE (Roads) shall forward the measurement book to AE (Maint) of ward. The payment certificate will be generated by concerned RE and payment for the work executed will be processed by AE (Maint). It will be responsibility of the project road contractor to maintain the road in motorable condition till it is excavated for comprehensive improvement.
- iii) The ward Road Engineer (RE) shall constantly coordinate with Sub Engineer in charge of site of ongoing projects being executed by Central Agency. It will be responsibility of the ward Road Engineer (Ward RE) to obtain program of project road improvement from the Sub Engineer in charge of project road and accordingly plan the permit schedule for planned trenches of utility agencies. It shall be ensured by him that for the stretches of the roads being improved in current fair season, the utility agency takes the trench just prior to excavation of project road by project road contractor for comprehensive improvement of the road. If there is lack of coordination by Ward RE with Sub Engineer in charge of the project road and if utility agency takes the trench in stretch where the improvement of road is not immediately scheduled during current fair season and for this reason if the trench remains unattended for unreasonably long period or per force if such trench is required to be reinstated through project road con-



- tractor by making payment then the ward RE will be held responsible and disciplinary action will be initiated against him.
- iv) In case where the project road is proposed to be improved in part stretch during current fair season and remaining stretch is planned to be improved during next fair season then excavation permit shall be issued to the utility agency for the entire trench length as per its annual trenching plan even if it exceeds the length of project road to be improved during current fair season. For the length of project road proposed for improvement during next fair season, the project road contractor shall reinstate the trench in the manner as stipulated in Para above and the payment for the work executed shall be made by AE (Maint) of ward. About the stretch of road being improved during current fair season, the utility agency shall be instructed to take the trench when the road is taken for excavation by project road contractor. Reinstatement of such trenches will be carried out by project road contractor along with comprehensive improvement of the road as spelt out in para 1 above. Separate payment for reinstatement in such case shall not be made to the project road contractor.
- v) Reinstatement of trenches by project road contractor along existing asphalt roads shall be done in 60/70 grade bitumen (VG 20 bitumen). In case of existing paver block roads, it shall be done in 80MM thick paver blocks For paver blocks, minimum 40% old paver blocks shall be used.
- vi) The payment to be made to the project road contractor for reinstatement of trenches under provisions of this circular shall be made at the rates quoted by him on the project road contract.

#### **10. Reinstatement Charges:**

Flat rates applicable for arriving at reinstatement charges for various road surface based on USoR 2023 as well as charges for using existing duct will be as per **Annexure-A and Annexure-AA (SCHEDULE-IV)**. These rates have been worked out considering the three sections as mentioned in **Annexure C**, sample estimates and sections in **Annexure C** attached herewith. Along with reinstatement charges; 50% additional amount shall be obtained from the utility agency as

security deposit which can be utilized to recover penalties for various lapses, additional reinstatement charges in case the utility agency exceeds the excavation than length allowed in permit etc. Such deposit which has to be deposited with BMC with each and every permit can be waived; if the utility agency deposits certain fixed amount of standing security deposit with BMC for the purpose stated hereinabove. The Astt. Commissioner of respective ward shall decide the amount of such standing security deposit which in his opinion will be sufficient to meet the recoveries from the utility agency. If the utility agency deposits such standing security deposit with the respective ward then no separate security deposit shall be insisted along with demand note.

Width of RI to be done by trench R.I contractor will be as per sample estimates attached along with this policy.

The ward RE and the trench reinstatement contractor; for achieving effective compaction; shall ensure that the width of wheels of road roller to be used on site for reinstatement purpose is less than the trench width i.e. 2.0M as well as it shall be ensured that the roller exerts minimum 10T pressure during rolling.

In case of project roads which involve widening of roads; it is necessary to shift utilities/lay new cables to the edges of the widened road; so as to avoid excavations in central of carriageway in future. In such cases the laying new utility services/realigning/shifting of existing services is desirable when project roads are under construction. In such cases; the reinstatement cost should be recovered based on the actual cost of granular filling in the trench, removal of surplus earth, GSB course and Base course, along with supervision charges, other budgetary overheads + Service Taxes as may be applicable. In such cases, following guidelines shall be followed.

- a) If the utility agency is shifting/realigning its existing cable from central carriageway to the edge of the project road then in such cases instead of recovering full applicable reinstatement charges; equivalent reinstatement charges worked out on the basis of actual cost of granular filling in the trench, GSB course along with supervision charges, other budgetary

overheads + Service Taxes as may be applicable shall be recovered. A flat rate of **Rs.5700/-** Per Mtr. shall be used in such cases to calculate reinstatement charges. While operating this flat rate, concerned AE (Maint) of ward will ensure and accordingly endorse on the demand note that the demand note issued is in respect of shifting/realigning existing cable to rule out any foul play or mischief by utility agency or municipal staff.

- b) If the utility agency is intending to execute planned job of laying new cables along a project road which is not excavated then full reinstatement charges shall be recovered as in normal case based on the applicable flat rates ( Annexure 'A)depending on surface of the road and the applicable multiplying factors (Annexure 'B').
- c) In case of Project Road, all trenches should be taken in co ordination with concerned AE.(Roads) of central agency by adopting following norms for recovering reinstatement charges from the concerned utility agencies.

If trench is proposed on stretch of project road already excavated by project contractor, concerned RE of ward shall obtain amount of reinstatement charges for reinstatement of trench (below excavated crust) from concerned A.E.(Roads) of Central Agency (including applicable taxes i.e. supervision charges 15%, water charges 8%, sewerage charges 4%).

However considering the procedural delay for most of the these cases, above procedure is not being followed and full RI charges are being recovered in those cases. Hence to curtail the procedural delay and to recover actual RI charges, it is proposed to modify above clause and to create flat rate considering maximum trench size 1.00 X 1.50 irrespective of the crust of the road for the reinstatement of trenches for laying of planned network of utilities during the excavation of project roads as under;

- o If trench is proposed on stretch of project road already excavated by project contractor, Rs. 6711.00 per Rmt. RI charges shall be recovered as flat rate irrespec-

tive of the crust of the road. These rate is applicable for trench size upto 1.00 m width & 1.50 m depth.

- For trench size more than this, necessary charges for reinstatement below crust should be obtain from concerned zonal Dy.Ch.E.(Road)'s Office.
- If concern utility agency is agreed for laying of utility as per program of project road improvement, then only this rate to be applied.
- If utility agency wants to lay cable before project road improvement program, then full charges for reinstatement should be recovered as per trench policy.
  - d) Payment for transportation of surplus earth will not be made separately to ward trench RI contractor.
  - e) The depth of excavation considered in trench Policy issued u/no AMC/ES/7725/II Dated 18.12.2014 is 0.91Mtr. In no case depth lesser than 0.91Mtr. for laying cables shall be allowed. Further, during progress of trenching; if it is observed that the utility agency has exceeded depth more than the proposed depth in application form then in such cases additional amount twice the applicable charges shall be recovered as penalty calculated on above principle.
  - f) If at any given time it is noticed that a trench has been taken by any utility agency to lay its services without obtaining valid excavation permit from ward, then in such cases, apart from the regular reinstatement charges, twice the amount of applicable reinstatement charges will be recovered as penalty. If such total amount i.e. reinstatement charges plus penalty amount is not deposited with respective ward of BMC within seven days of demand, then such agency will be black listed across BMC and no new permits will be issued to it till the said amount is deposited.

**11. Punitive Charges/ Heavy fines to be levied on External Utility Agencies and Trench RI Contractor**

- i. In cases where the work of reinstatement of trenches taken by utility agencies is found not done properly by the concerned trench RI contractor as per the specifications and above mentioned guidelines, Ward Exe. Engineer (WEE) of respective ward shall instruct the concerned RI contractor to rectify / redo the defective work as per the specifications and prevailing trench activity guidelines, within suitable time period. The concerned trench RI contractor shall rectify /redo the defective trench RI work within stipulated time period and up to the satisfaction of Ward Executive Engineer. Further, penalty of Rs 50,000/- shall be imposed on the concerned Trench RI contractor for the said initial lapse. If the said trench RI contractor fails to rectify / redo the defective work within stipulated time and up to the satisfaction of WEE of respective ward, additional penalty of **Rs 50,000/-** per day shall be imposed on the said Trench RI contractor till compliance
- ii. During progress of trenching activity, trenches shall be properly barricaded by the External Utility Agencies as per prevailing / applicable circular. Further, Debris surplus excavated material shall be stacked properly beside the trench and within barricaded area so as to avoid obstruction to traffic and pedestrian movement. The said debris / surplus excavated material shall be completely removed from the site immediately after completion of the trenching activity by removing the barricades. In case of failure penalty of **Rs.50, 000/- per day** shall be imposed on the concerned External Utility Agency till compliance.
- iii. During progress of trench RI work, trenches shall be properly barricaded by the trench RI contractors as per prevailing / applicable circular. Further, Debris surplus excavated material shall be stacked properly beside the trench and within barricaded area so as to avoid obstruction to traffic and pedestrian movement. The said debris/surplus excavated material shall be completely removed from the site immediately after completion of the trench RI work by removing barricades. In case of failure penalty of **Rs. 50,000/- per day** shall be imposed on the concerned trench RI contractor till compliance.

**12. Access charges (Right of way charges): (For Non Telecom external utilities.)**

In addition to the regular RI charges; access charges for right of way will be recovered by BMC from all utilities which lay underground services below BMC roads. Presently these charges will be recovered at the rate of Rs100/- Per Meter length of the cables/conduits/ducts Per Year. The Access charges will be enhanced as and when it is felt expedient to BMC. On demand from BMC or rather proactively; the access charges shall be deposited year by year by the Utility agencies. The access charges will be applicable to all types of trenching works i.e. open cut trenching, HDD & Micro trenching. Applicable access charges in individual case shall be informed to the applicant utility agency through demand note along with the reinstatement charges.

- a) Concerned RE of ward will be in charge of all the trenching activities in his/her jurisdiction. He shall process the trench applications received in ward, obtain timely sanctions, issue demand notes & permits and monitor the trenching activity and reinstatement of the trenches. The RE will be solely responsible for proper and quality work of reinstatement of the trenches. There shall be constant and close supervision by the concerned ward RE right from commencement of trenching up to effective completion of reinstatement of trenches. In case of ongoing project roads of Road Department; the ward RE shall act as coordinator between the utility agency and concerned AE (Roads) from Road department to see that the reinstatement of trenches taken along such roads is carried out by Central agency. In such cases however, responsibility of getting quality work done will be of the Central Agency.
- b) Immediate supervision over the ward RE for ensuring quality of the reinstatement of trenches shall be of AE (Maint) of ward. Ward EE shall take surprise rounds along randomly selected sites to observe the trenches work.
- c) The defect liability period of three years for the ward trenches contract will not be applicable to contract as a whole. The defect liability period will be reckoned independently for each trench. The defect liability period of a

reinstated individual trench will commence from date of completion of the trench as recorded. The defect liability period for the trenches will be three years flat from completion date of reinstatement.

- d)** No PQC work shall be carried out through Trenches contractor. Temporary RI shall be carried out through Trenches contractor as per section provided in the **Annexure C**
- e)** In case the trench gets damaged/settled due to improper workmanship and/or defective material; the ward trenches contractor shall redo it at his risk and cost as directed by the engineer to his satisfaction.
- f)** On account of various lapses by the Utility agency as well as the Trench Reinstatement Contractor penalties shall be recovered as per **Annexure D**.
- g)** The Engineer of trenching contractor shall submit daily progress report to AE(Maint).
- h)** For expeditious completion of work, while the Vigilance Department may inspect the site and point out defect immediately, however they shall not instruct stoppage of the work.
- i)** The Head Clerk (Expenditure) of the Ward shall maintain proper registers viz. trenches register, standing Security deposit register, Access Charges Register, Penalty register, PO register for respective permits, in the format in prescribed format enclosed with this booklet.

## **Part B – Laying/replacing of services**

Permission for laying/augmentation of the utility conduits/cables shall be granted during the fair season from 1st October till 15th April. For trench exclusively on footpaths, the permission shall be granted up to 30th April.

The utility agency proposing to undertake the trench shall make an application in the prescribed format. On receipt of application, ward RE along with the representative Engineer from Utility and Engineer of Trenches Contractor shall visit the site jointly and verify the details given in application, if any discrepancy is observed between information furnished by Utility Agency in application & related details on site; then necessary changes shall be made in the application form & such changes shall be authenticated by the Utility agency engineer, Ward RE. The application shall be accompanied by to the scale drawing of the proposed trench

- 1.** Trenches for laying pipelines or cables shall be allowed as close as possible to the edge of carriageway; without damaging the water entrances.
- 2.** For preparing Demand Note, for recovery of reinstatement charges from utility agency, for preparation of estimate for actual reinstatement, length of trench irrespective of whether it is on footpath /passages, carriageway, shall be taken from the nearest property entrances/road junction from the starting and ending point of the trench. While calculating RI Charges, 5m additional length on either side of the trench shall be added to the proposed trench length.
- 3.** If the excavation is proposed along slum passages; irrespective of whatever may be original surface finish, the flat rate with 80MM thick CC paver block surface shall be considered for preparing Demand Note & estimate for reinstatement work. Reinstatement too shall be done with the paver blocks.

### **4. Additional Guidelines for reinstatement of trenches on footpath & Carriageway**

- a)** In case of existing footpaths improved in shot blasted Paver Block and having width more than 3.0 m, reinstatement of trench taken shall be done in shot blasted Paver Block.



- b)** In case of existing footpaths improved in shot blasted Paver Block and having width more than 2.0 m and up to 3.0 m, entire footpath shall be improved in stencil concrete/ C. C. with Top in marble chips finishing /Plain C. C. with brooming texture by recovering additional cost of improvement of portion of footpath which does not fall within the alignment of trench reinstatement, from the concerned utility agencies. A.E. (Maint.) of ward shall work out such additional cost as per USOR for Road Work-2023 and Guidelines for construction footpath issued u/no. Ch.Eng / 8412/ Rds.&Tr. dtd 02.02.2019 in consultation with Ward Executive Engineer.
- c)** In case of existing footpaths improved in lacquered coated / shot blasted Paver Block and having width less than 2.0 m, reinstatement of trench taken shall be done in C. C. with Top in Marble chips finishing OR Plain C. C. with brooming texture for entire width of footpath.
- d)** In case of existing footpaths improved in unishaped lacquered coated Paver Block and having width more than 2.0 m, reinstatement of trench taken shall be done in stencil concrete/ C. C. with Top in Marble chips finishing OR in plain C.C. with brooming texture for entire width of footpath by recovering additional cost of improvement of portion of footpath which does not fall within the alignment of trench reinstatement, from the concerned utility agencies. A.E. (Maint.) of ward shall work out such additional cost as per USOR for Road Work-2023 and Guidelines for construction footpath issued u/no. Ch.Eng/8412/ Rds.&Tr. dtd 02.02.2019 in consultation with Ward Executive Engineer.
- e)** In case of trenches taken on footpath improved in shot blasted paver block to attend fault, the reinstatement of such trenches shall be done in shot blast paver block only irrespective of width of footpath.
- f)** In case of trenches taken on footpath improved in lacquered coated paver block / uni-shaped paver block to attend fault, the reinstatement of such trenches shall be done as per the existing surface only. However RI charges shall be recovered from the utility agencies as per the modified rates of footpaths with Concrete finish.
- g)** If sizes of trenches requested by the utility agencies are not as per the standard

prescribed sizes i.e. 0.60 x 1.0 mtrs, 0.75 x 1.50 mtrs & 1.0 x 1.50 mtrs, remarks regarding amount of RI charges to be recovered from them shall be obtained from the respective Zonal Dy.Ch.Eng.(Roads)'s office.

- h)** If sizes of trenches requested by the utility agencies are not as per the standard prescribed sizes i.e. 0.60 x 1.0 mtrs, 0.75 x 1.50 mtrs & 1.0 x 1.50 mtrs, remarks regarding amount of RI charges to be recovered from utility agencies shall be issued by the respective divisional Dy.Ch.Eng (Roads) office, the file shall be submitted by RE /AE (Maint) to respective Assistant Commissioner. The A.C. shall forward the file to divisional Dy.Ch.Eng.(Roads) and Dy.Ch.Eng (Roads) shall inform the amount of RI charges within 15 days directly to Assistant Commissioner .
- i)** If sizes of trenches requested by the utility agencies are not as per the standard prescribed sizes i.e. 0.60 x 1.0 mtrs, 0.75 x 1.50 mtrs & 1.0 x 1.50 mtrs, remarks regarding amount of RI charges to be recovered from them shall be obtained from the respective Zonal Dy.Ch.Eng.(Roads)'s office.
- j)** Trenches in C. C. surface shall be taken by utility agency strictly by using Diamond Cutter. However, if sizes of the trenches taken on C. C. surface are more than permitted due to negligence of utility agencies, in such case, remarks regarding amount of RI charges to be recovered from utility agency shall be obtained from the respective Zonal Dy.Ch.Eng.(Roads)'s office.

**5.** If excavation is proposed on the carriage way, the flat rate of original surface finish shall be considered for preparing Demand Note, estimate and reinstatement.

**6.** For the purpose of recovery of reinstatement charges, the Demand Note shall be prepared with the flat rate considering telescopic charges (Multiplying factors) as per **Annexure-B** in accordance with Defect Liability Period of concerned road/footpath.

**7.** For the purpose of preparing an estimate for reinstatement of trenches through the Ward trench contractor, items and their rates shall be as per the BOQ of the contract awarded. Sample estimate for reinstatement of trenches for various surface and cross sections are attached at **Annexure - C**

**8.** For the purpose of recovery of penalties and other violations as well as to recover RI charges for reinstatement of faults; the utility agencies which are in frequent need of trenches, shall pay a standing deposit of appropriate amount to BMC. The appropriate amount may be calculated by the Astt Commissioner of the respective Ward considering the probable recoveries to be made for penalties and other violations of the guidelines.

**9.** Wherever required raising of kerb stone shall be considered while preparing the estimate. While preparing the estimate, at least 10% of length of the trench shall be considered for replacement of kerb stone and at least 10% of laterals shall be considered for replacement.

**10.** During reinstatement of trenches; the backfilling of trench shall be done by ward trench contractor/concerned department with graded granular material. Number of layers of graded granular material however shall be restricted to five layers of maximum depth 150MM.

**11.** If multiple utilities are laying conduits/cables in one single trench; then in such cases; the RI charges shall not be divided among all the trench sharing utilities. Individual RI charges shall be worked out separately for all the utility agencies independently depending upon the length of trench proposed by the respective utility agency. Such RI charges shall be informed to all involved utility agencies individually and shall be recovered from all the agencies. Unless all the utilities involved pay the RI charges, trench opening permit shall not be issued.

**12.** Time period for completion of work shall be proportionate to the length of trench and it shall be calculated as **three** days for trench of 100 Meter.

**13.** On preparing the demand note along with inspection report, estimate prepared shall be put up before appropriate authority for the sanction to grant permission for excavation.

**14.** Permission for taking excavation of trench up to 1000 Mtr shall be considered by the concerned Astt Commissioner. For trench length more than 1000 Mtr; approval of the zonal D.M.C. shall be obtained.

**15.** Similarly if permission is to be granted with time period more than fifteen days, sanction of Zonal DMC shall be obtained.

- 16.** Considering the time required for obtaining various sanctions, sufficient time of at least one week may be considered between submission of proposal and sanction.
- 17.** In case excavation is proposed to be taken across carriageway, condition of laying the pipeline/cable through duct and laying of additional 2 ducts of 300 mm dia N.P. Class II pipes or equivalent with encasing in M15 (1:2:4) concrete by utility agency shall be incorporated in the permit.
- 18.** Erection of boxes, pedestals, etc. above the ground; erection of manhole, handouts, etc. below the ground can be considered with specific prior sanction of **Zonal D.M.C.**
- 19.** Flat seven days' time will be allowed to complete the reinstatement of trench up to 500M length. For per additional length of 200M trench reinstatement or fraction thereof, additional two days of time period will be allowed.
- 20.** In view of ensuring completion of trench within prescribed time limit utility agency shall mobilize all the resources well in advance before undertaking the excavation including obtaining permission from traffic police.
- 21.** On receipt of permission, utility agency shall immediately start the excavation and under no circumstances deviation from the permitted start and end point will be allowed. Similarly, length and width of trench shall not be increased under any circumstances. Before starting the excavation, area shall be barricaded as stipulated in prescribed format enclosed with this booklet. Reflector signs shall be provided on the barricade all along the trench as per prescribed format enclosed with this booklet and lighting arrangement shall be made during night time to caution road users.
- 22.** Utility agency shall display notices/convenience boards at the start and end of trench. If the trench is more than 100 Meter, boards shall be displayed in between and at junctions. Boards must display information such as (a) Copy of permit (b) name of Site Engineer (c) Contact No. (Mobile) (d) Boards with **"Inconvenience caused is regretted"** written in bold letters
- 23.** Water entrances and chambers having opening shall be properly covered to avoid entry of excavated earth in it. After completion of work; the water entrances

shall be uncovered and cleaned by the utility agency.

**24.** While carrying out excavation, it shall be seen that surface tiles/paver blocks, etc. are removed carefully and stacked properly.

**25.** Utility Site in-charge shall submit a daily report to BMC Engineer in prescribed format enclosed with this booklet.

**26.** At the appropriate locations, steel plate shall be provided at the trench for crossing of vehicular and pedestrian traffic.

**27.** All the excavated earth shall be placed in bags/containers and shall be transported within 24 hours to the sites owned by the respective agencies. Depending upon availability of the Municipal dumping grounds; BMC may or may not allow removal of surplus earth to its dumping grounds.

**28.** On completion of reinstatement, reconciliation statement by adding the amount of penalties for various lapses as per **Annexure-D** shall be prepared in prescribed format enclosed with this booklet and be sent to Accounts Officer either for refund of remaining deposit or recovery of charges as the case may be.

**29.** In case the utility agency defers the excavation after issue of permit then the work order issued to the Ward Trenches Contractor shall be canceled. Copy should be sent to Account Officer for refund of charges recovered for particular trench from the utility. The intimation to this effect should also be sent to utility agency in prescribed format enclosed with this booklet. Correspondence regarding the same shall be done by utility within permit period failing which RI charges will not be refunded.

**30.** In case the utility agency undertakes excavation of lesser length than length permitted as per excavation permit, then though the estimate for reinstatement is prepared according to length mentioned in permit, the reinstatement should be executed for actual trench length. Payment to ward trenches contractor should be made accordingly for the actual work done on site. Similarly the balance RI charges recovered from the utility for reinstatement shall not be refunded.

**31.** In case the utility agency excavates excess trench length than the length allowed in permit, the agency shall be penalized as per **Annexure-D**. In such case, though work order given to ward trenches contractor is for

lesser length, the reinstatement shall be carried out under same work order for actual length of trench on site and the extra excess to this effect should be paid to the Ward Trenches Contractor with the sanction of Astt Commissioner. For extra trench work carried out by the utility, RI charges shall be recovered at 1.5 times of the actual RI charges applicable. Such excess charges, amount of penalty shall be recovered from the agency through its standing deposit or the security deposit paid by the agency along with RI charges. Such amounts shall be informed to the utility agency through reconciliatory statement in prescribed format enclosed herewith and shall be recovered forthwith.

**32.** On completion of reinstatement, bills of Ward Trenches RI Contractor shall be prepared by deduction of amount for various lapses made while carrying out reinstatement as mentioned in **Annexure-D**. Similarly, reconciliation statement shall be prepared in prescribed format enclosed with this booklet and submitted to the Accounts Officer within **Fifteen days** from the date of completion of reinstatement work. The Accounts Officer, within the next **seven days** shall verify the reconciliation statement, make payment to the contractor and send file to the AE (Maint) within the next **two days**, AE (Maint) shall reply to utility for further necessary action as the case may be.

**33.** Wherever a new water or sewerage connection is required to be provided to the private party, such private party shall be treated as Utility under this circular and all the procedures laid down shall be followed. While granting stand post water connection in slum area, being weaker section, reinstatement charges (as payable to reinstating agency including administrative charges) will be recovered from the connection holder. In such cases, reinstatement shall be carried out in existing road surface. For paver blocks in slum area, width of trench shall be considered as 1 m or actual width whichever is more.

**34.** In case utility agency fails to start the work by the date of completion mentioned in the permit and seeks re-validation of the permit; or the trench reinstatement contractor fails to start work on appointed date and seeks distant date; same may be considered by Assistant Commissioner after reviewing facts of the case

In case utility agency/ward trench reinstatement contractor delays completion of their work then they shall be penalized as per **Annexure-D**. However, if it is found that the circumstances due to which their activities are delayed were beyond their control, under the circumstances the penalty may be waived off by the zonal D.M.C. considering facts of the case.

### **Part C- Fault repairs**

1. As far as possible, all utility agencies including Municipal agencies shall seek prior permission before undertaking excavation for fault repair. In case of compelling circumstances, at least a written application seeking permit for fault repair shall be submitted to the concerned ward before taking up the excavation. If such emergency situation of repairs to faults of power cables/water supply lines etc. occurs beyond working hours then the application shall be submitted to the Disaster Control cell functioning round the clock in wards offices. It may so happen at times that fault on power cables has to be attended at odd hours on urgent basis to restore supply, then in such circumstances; at least an SMS shall be forwarded to concerned AE (Maint) of ward/RE and the respective Executive Engineer of the Roads Department. This relaxation is for power cables and water supply lines. For faults on all other services, regular written application shall be made in respective ward.
2. It is often observed that even though alternate arrangement is established, the utility agencies undertake excavations under the guise of fault repair. This should be absolutely barred and penalized as per **Annexure-D**.
3. For the purpose of reinstatement of faults, sufficient amount of deposit shall be deposited by the utilities as decided by Assistant Commissioner.
4. From the **16th April to 30th September**, for the fault repair on the roads other than CC Roads & CC Passages, sanction of Zonal DMC's shall be obtained as far as possible before undertaking excavation. For attending faults on LT Cables; up to 10M excavation, for faults on 11 KV cable; up to 15M and for faults on 22 KV cable up to 20M excavation shall be allowed. Utility shall start excavation, repair the fault, remove excavated earth, etc. within maximum of **48 hours**.
5. Excavations are undertaken by various Municipal agencies like Water works, Sewerage Operation, S.W.D for repairing SWD/sewer/water Pipe lines, etc., in such case also, all conditions laid down shall be followed.



6. Concerned Municipal agencies shall ensure that they deposit sufficient amounts well in advance with Accounts Officer of the Ward to facilitate the reinstatement of trenches.
7. The instructions mentioned in Part B Laying/replacing services shall also be followed for this part as well.
8. Reinstatement of trenches taken for fault repairs shall be done through Ward Trenches Contractor or through concerned agency of road Department if there is provision in the contract.
9. For effective reinstatement of excavation made for fault repair, concerned RE shall consolidate utility-wise all cases of excavations for trenches in his cluster taken for fault repairs in the preceding week and on **every Thursday**, he shall prepare utility wise estimates and issue the work order to Ward Trenches Contractor on the basis of estimate without waiting for booking of liability by the Accounts Officer. A copy of such work order shall be sent to Accounts Officer for booking the liability and debiting the amount from deposit received from the respective utility.
10. Reinstatement contractor shall carry out reinstatement during dry spell within **two days**. This process shall be followed every week.
11. For preparing an estimate, width of reinstatement on footpath/passages shall be same as that mentioned for laying of new services. Similarly surface finish shall be considered of 60MM thick lacquer finish paver blocks OR the existing surface finish; if it is superior to 60MM thick lacquer finish paver blocks. As regards length, it shall be additional 1 Meter on either side of the actual trench. If repair of fault is on carriageway, estimate shall be prepared for 2.0 Meter width with original surface finish. In no case, a trench taken for fault repair by the utility shall remain to be reinstated for more than **Seven days**.
12. Around the junction and ADP Boxes, signals, etc., large number of cables are laid due to which frequent excavation by concerned utility agency is observed; may

be due to granting of additional connections, faults, etc which just do not cause inconvenience to the Municipal Corporation and citizens but also to the utility itself. Therefore, to avoid frequent excavation the utility shall be insisted to construct a duct around such boxes and locations.

- 13.** For the trench due to fault up to 20 sq. mt. permit shall be given by taking approval of Ch.E(Roads & traffic). In this case, file shall be submitted by AE(Maint) and the file shall be routed through Assistant Commissioner to Ch.E. (Roads & traffic) and the process should be completed within 07 working days.
- 14.** For the faults above 20 sq. mt guidelines issued vide no Ch.E/1991/MC/Rds &Tr. Dtd 02.03.2023 shall be followed.
- 15.** This procedure shall be applicable for trenches due to fault on all types of road surface and footpath in DLP.
- 16.** RI Charges for CC road shall be recovered five times of regular RI charges as per circular vide no Ch.E/1991/MC/Rds &Tr. Dtd 02.03.2023.  
For non DLP Roads existing policy shall be applicable.

### **Part D- Street Lighting**

In case of cable laying or for repairing of faults for street light & signal works, the procedure for issuance of permit, preparation of estimate and reinstatement shall be as per instructions issued hereinabove, except that Demand Note is not be issued as the reinstatement will be carried out at the cost of Municipal Corporation.

- 1) The Fund required for reinstatement should be provided by Chief Engineer (Roads), therefore, for noting and booking of liability, the estimate prepared excluding water supply, sewerage & supervision charges by Ward office shall be sent to Executive Engineer (Traffic & Co-Ordination) who shall note the liability and send it to be the concerned Accounts Officer for booking liability.
- 2) On booking the liability; Accounts Officer should send it to ward for issuing permit to the Utility and work order to the Ward trench contractor
- 3) In this case since we are not taking deposit from the utility, penalties shall be recovered from the same Utility undertaking trench elsewhere for providing their services.

### **Part E-For Municipal Utilities**

The procedures mentioned in these guidelines shall also be followed for laying of services/pipelines by the Municipal Utility agencies except for the following:-

Since Municipal water and sewerage lines are required to be laid at the deeper level, time period required for completion is more. However, reinstatement shall be as per revised methodology/rates by incorporating provision in the tender. For deeper trenches, granular filling below road crust shall be restricted to 5 layers each being of 150 MM thickness; over well compacted back filled earth/materials.

For departmental works taken up by H.E. Department and sewerage project department, reinstatement of trenches shall be carried out on the lines of methodology explained in these guidelines. Provision for reinstatement of the trenches shall be made in the tenders of respective departments.

## **Part F- Horizontal Directional Drilling (HDD) Method of Trenching**

In Mumbai city and suburbs, conventionally, the cables, wires, conduits & other services of various external and internal utilities are laid under the roads by open cut trenching method. The open cut method has its inherent disadvantages and shortcomings. Several times newly laid out roads have to be dug up. Then; the reinstated trenches settle unevenly leading to road maintenance issues and inconvenience to traffic. The reinstated trenches create longitudinal permanent weak fault lines. Open cut trenching is disruptive method. Delay in reinstating open cut trenches leads to further inconvenience. Open cut trenching can be carried out only during fair season.

Horizontal Direction Drilling (HDD) is a no-dig or minimal digging trenching technology for laying underground utilities, especially, for those services which can be laid through ducts or conduits. On account of its advantages over open cut trenching; BMC has adopted policy to encourage use of HDD for laying underground services and restrict open cut trenching to only those situations where HDD is not feasible. In case of OFCs; invariably HDD method has to be allowed unless the concerned AC of ward/divisional Dy Chief Engineer (Road) is convinced that HDD in the particular case is not feasible owing to site constraints.

While proposing to lay/laying utility services by adopting HDD method, following policy guidelines/conditions shall be followed.

**1.**—In case of laying of Optic Fiber Cables (OFC), necessary permission for laying Optical Fiber Cable network under roads in Mumbai city and suburban Areas shall be obtained by the utility company from Director of Information Technology, Government of Maharashtra and same shall be submitted to Chief Engineer (Roads & Traffic)/concerned Astt Commissioners of ward in whose jurisdiction the work is proposed.

**2.**—Prior to starting HDD work; for detection of existing underground utilities; the HDD applicant will have to carry out GPR/Sub Soil

utility (SSU) survey of the route along which the HDD ducts are proposed. The survey data of utilities so collected through GPR survey shall be submitted to BMC while making application for HDD permission, in GIS layers (in the form of GIS WEB MAP Services (WMS) which is OGC compliant and can be ingested in ESRI platform) showing clearly the alignment and depth of the existing underground utilities with geo-coordinates to concerned Astt Commissioner to whom the application has been made. The principal purpose of carrying out GPR survey in advance is to ascertain exact locations, alignments etc of existing underground utility services so as to take adequate care & precautions not to damage the same while carrying out the proposed HDD work.

Such survey shall also be carried out by HDD applicant after completion of its HDD work, clearly showing the laid duct therein with Geo-coordinates and such GIS Data shall be submitted to concerned ward.

### **3.—Reinstatement charges for HDD:**

Considering minimum area of pit as  $2M \times 2M \times 1.5M$  or actual measurement of pit proposed by the Utility agency in its application; whichever is larger shall be considered to arrive at reinstatement charges. Considering 50% of pit area as possible spill over area, reinstatement charges shall be worked out by using suitable multiplying factor (**Annexure B**) and flat rate mentioned in **Annexure A** and **Annexure AA**. On this RI Charges, after adding 15% supervision charges, total 115% shall be recovered from HDD applicant.

If it is decided to grant the permission, concerned agency will be asked to deposit 115% of the reinstatement cost. After completion of work; once the work is certified by the Road Engineer, 90% of the reinstatement cost shall be released. 10% of the reinstatement charges will be kept with BMC for three years duration of Defect liability period as assurance amount that the agency will carry out the repairs if the trenches settle. If the agency does not carry out the repairs to settled trenches, same shall be carried out through ward trenches contractor and the expenses shall be recovered through from the concerned agency from its withheld

amount of 10%. The 15% charges out of total 115% recovered as RI charges will be kept with BMC as supervision charges. In case the utility fails to carry out reinstatement after trenching work is over or is delayed beyond the period prescribed by Assistant Commissioner, whole deposit shall be forfeited and work shall be executed by Assistant Commissioner through ward trenches contractor and concerned utility company shall be blacklisted.

Concerned Utility shall construct Chamber/Manhole as required in RCC. Reinstatement of some portion of the Road which may be likely to be damaged during laying of the cable horizontally in the inclined portion shall be carried out by ward trench contractor.

A separate security deposit amounting to Rs 15 lacs per KM shall be recovered from the HDD applicant before issue of permit for HDD work. The said deposit shall be utilized by BMC if in case the HDD applicant fails to restore/rectify the services of its own or other utility agencies damaged by it during course of carrying out HDD work within three days of receipt of intimation or immediately upon notice of such damage caused during course of carrying out HDD work. In case of damages to BMC services e.g. water lines, sewers, sewer laterals etc; twice the expenses incurred on rectification of such damages shall be recovered from the security deposit. If no such eventualities occur during course of work, such deposit of Rs15,00,000/- per KM recovered from the HDD agency shall be returned. forthwith by retaining 10% amount; which shall be refunded at the end of defect liability period of three years from the date of actual completion of HDD work.

**4.**—NOC from Traffic Police shall be obtained beforehand by the agency.

Intimation of the proposed HDD work shall be given to other all concerned BMC as well as external utility agencies.

**5.**—All the excavated pits/areas shall be securely barricaded as per prevailing policy guidelines to ensure that the open pits do not pose safety hazard to passersby/commuters/pedestrians/vehicles etc. Enough number of security

guards/traffic wardens shall be deployed on site. For HDD work being carried out during the monsoon months, additional safety precautions as may be necessary on account of emergent situation will have to be taken by the utility agency to avoid any untoward incident.

- 6.—Execution plan based on Bar Charts/Gantt charts for the proposed work shall be submitted by the agency to concerned ward office/ concerned Deputy Chief Engineer (Roads). The work shall be carried out as per the said plan submitted by the Utility agency.
- 7.—Execution plan based on Bar Charts/Gantt charts submitted by utility shall be strictly followed. Fortnightly progress report shall be submitted to Astt Commissioner/Deputy Chief Engineer (Roads). The entire work of laying utility including reinstatement of trenches shall be completed by stipulated date.
- 8.—That the defects, if any, in the reinstatement shall be rectified by utility agency at its own cost during the defect liability period of reinstatement of three years irrespective of category of road surface.
- 9.—That in case of default by the agency in reinstatement or in rectifications during defect liability period, the work shall be got done at the risk and cost of the HDD applicant and such expenses incurred shall be recovered from their deposits. In case of shortfall, the utility agency will have to pay the difference within 15 days of demand raised; failing which further permissions to such defaulting agencies will be withheld.
- 10.—Pits of appropriate size (Maximum 2m X 2m x 1.5m depth) shall be excavated in the roads where optical Fiber cables are to be laid at a distance of approximately every 80 to 100M. The depth of laying the ducts shall be approximately up to 4 M below the road crust except where obstruction is met with cross utilities. The reinstatement of the pits so excavated shall be done by the HDD applicant in existing type of surface treatment under Municipal



Supervision and as per Municipal specification. The HDD applicant shall make proper arrangement for access control of the chambers to avoid misuse / illegal use of ducts and chambers.

- ~~11.~~—The pits shall be refilled exclusively with granular material and shall be compacted as per the Municipal specifications.
- ~~12.~~—The pits/Trenches taken shall be reinstated within 48 hours after the work at that location is over, failing which, penalty as applicable as prescribed under these guidelines will be applicable. HDD applicant shall inform ward office beforehand completion of work so as to start the work of reinstatement immediately.
- ~~13.~~—The HDD applicant shall lay the number of ducts under the roads for which permission is granted by DIT, Government and Chief Engineer (Roads & Traffic)/Astt. Commissioner of ward. Under the same permission; one additional duct shall be laid by the Utility agency free of cost for the dedicated use of BMC on the road suggested by Chief Engineer (Roads & Traffic)/Astt Commissioner of ward for length equal to 30% of total length permitted or total length of the road where such duct is proposed to be laid; whichever is more. Size of duct for BMC shall not be less than size of largest duct laid by the HDD applicant under the relevant permission. The duct which will be laid for BMC shall be color coded preferably yellow or as suggested by Chief Engineer (Roads & Traffic)/Astt Commissioner of ward. After completion of the said additional duct; it shall be handed over to BMC in neat, through and through clean and clear state to concerned Astt Engineer (Maint) of the ward. The BMC duct will be allotted by BMC to any other operator/party at the sole discretion of the Municipal Commissioner. The HDD applicant shall maintain the BMC duct free of cost, till its allotment by BMC to another operator. Laying of additional duct for BMC will not be insisted if the total length of duct to be laid through HDD by the applicant is less than 100 M or the same is only to establish connectivity or to provide new connections to the

customers on existing line or for replacement of existing duct.

- 14.**—No damage shall be caused to existing underground utilities; pertaining to BMC or other external Agencies; while laying the conduits by using Horizontal Directional Drilling Methodology. In case any other utility is damaged, the damage so caused, shall be made good by the HDD applicant at its risk & cost OR the expenses incurred by the respective utility agency towards rectification of the damages caused shall be borne by the utility agency carrying out HDD work. In addition, if negligence or absence of due diligence is observed leading to such damages, fine equivalent to twice the cost of rectification will be charged. A clause to this effect will have to be inserted in the registered undertaking to be submitted to BMC. In case of work carried out in monsoon months, extra precautions will be taken to ensure that no damage is caused to other underground utilities.
- 15.**—If the conduits/OFCs laid by HDD methods by any agency along any road are required to be shifted in future on account of requirement of Municipal projects; same shall done by the HDD applicant entirely at its risk and cost. No compensation will be entertained on this account. Instructions of BMC in this respect shall be complied with in the prescribed time frame. A clause to this effect will have to be inserted in the registered undertaking to be submitted to BMC.
- 16.**—BMC will not be responsible for any damage to OFC and resultant losses if any, due to any act of employee of Government of Maharashtra, BMC, while performing official duties.
- 17.**—Utility Company shall submit registered undertaking on Rs.200/- stamp paper to Astt Commissioner of concerned ward office and to Deputy Chief Engineer (Roads) if the proposed work is along ongoing project roads or along roads under defect liability of Chief Engineer (Roads & Traffic) for faithful compliance of all the relevant conditions mentioned herein, along with application seeking permission to carry out HDD work, with details of works

and roads mentioned therein; in per the format as enclosed in **Annexure E**.

- 18.**—Before commencing the HDD work as permitted by BMC; the concerned Utility agency shall inform all other related utility agencies such as "Tata Power Limited/B.E.S.T./Adani Electricity/MGL/HE/SO etc. well in advance about the proposed work. Joint survey shall be conducted by these agencies & tentative cable/utility location shall be informed to "HDD" execution team along route map of their cable/utility laid. In case location of any utility/cable shall be posted at site while the HDD work is carried out at the location. List of contact persons shall be shared with above utilities by agency executing "HDD" work.
- 19.**—Work may be allowed during dry spells of monsoons subject to obtaining specific permission from Traffic Police Department. No work shall be carried out during rains.
- 20.**—During the period of "Ganapati Festival" and two days prior to Ganapati Festival, (about 12 days) and certain sensitive/critical days so declared by BMC/Police/GOM, HDD work shall not be carried out. Two days before start of "Ganapati Festival", excavated pits shall be reinstated as per BMC specifications. During this period, all roads shall be cleared of any kind of obstructions, debris, including removal of machinery etc.

## **Part G: Micro Trenching**

Micro Trenching is the least invasive and least disruptive advanced trench technology method where a trench of about 50MM width and maximum depth 450MM is saw cut in the road carriageway by cutting wheels of automated machines. It is advanced method of laying OFCs either in a miniature duct or as inset in an inlaid. Simultaneous to the micro-trenching work, OFCs are laid through a conduit and immediately thereafter the miniature trench is reinstated by the respective agency in approved Sealant and the top 40 MM layer is reinstated in bituminous material.

### **Micro-Trenching work will not be allowed in CC road carriageway.**

While making an application for micro trench, along with the application, the agency will have to submit the explicit details of material to be used for reinstatement and submit estimate of reinstatement work to the respective ward. AE (Maint) of ward shall scrutinize the methodology of reinstatement and if it is found workable; shall allow the agency to carry out micro trench work and it's reinstatement with the proposed material. As the reinstatement will be carried out by the agency itself, only 15% supervision charges on reinstatement amount shall be recovered. A security deposit of Rs 5,00,000/- per KM shall be recovered from the agency to ensure that unforeseeable damages caused during course of micro trench work are rectified by the agency immediately. 90% amount of this deposit shall be released immediately after satisfactory completion of reinstatement of Micro-Trench work satisfactorily. If any service of any utility agency is damaged during course of Micro-Trench work, it shall be made good by the agency carrying out the Micro-Trench work and if the agency fails to do so or in case of delay in rectifying such damages; it shall be carried out by the respective external agency in case of the damage to its services and by BMC in case of damages to its own services. Expenses incurred on this account shall be recovered from the micro-trench agency through the balance 10% deposit. For any shortfall, demand shall be raised and the Micro-trench agency shall pay the charges within fifteen days of such demand. In case of default, the agency shall be blacklisted. In other case, the 10% deposit shall be retained with BMC till expiry of Three years defect liability

period. Such retained deposit shall be released after completion of defect liability period which will be Three years from date of completion of work.

This method has the advantage over conventional trenching in the manner that roads are not dug up for days altogether leading to disruption of normal traffic and inconvenience to public in general. Chances of settlement of reinstated trenches are remote hence lesser consequent maintenance related troubles. However, Micro Trenching method has its own inherent disadvantages. The OFC conduit being laid at a shallow depth of 300MM to 450MM, is highly prone to getting damaged if other agencies e.g. Power cable laying agencies or BMC departments like HE, Sewerage Department or Sewerage Operations etc undertake open cut excavations/Micro tunneling works along the alignment of the Micro Trench. So in case of a micro trench, it has to be laid as far as to the extreme edge of the road where possibilities of excavations for open cut methods are relatively less. However, when reconstruction of road is undertaken by BMC, the OFCs laid through micro trench will get invariably damaged.

In view of such circumstances, the onus of protecting the OFCs laid through Micro Trenches naturally rests with the respective agency which has laid the OFCs through Micro Trench. As the depth of the OFCs laid through micro trench is shallower and as presently most of the underground services laying is carried out through either open cut method or to some extent by HDD and as the services which are laid through these methods are laid at deeper levels underground, such agencies cannot be held responsible for obvious reasons for damages to the OFCs laid through Micro Trench.

The agency which lays the OFC conduits through Micro Trenches has to exercise utmost care to ensure safety of its services and guard its services through manning. It has to coordinate with all the service laying agencies, AE (Maint) of ward and HE, Sewerage Project, SWD and Sewerage Operations departments of BMC to keep track of programs of trench activities of these agencies. Whenever any other agency proposes open cut trench/HDD trench along the alignment of Micro Trench then in such case, the agency owning micro-trench services will have to remove its services and lay the same again through Micro Trench; once the

laying of utility by open cut method/HDD method is completed by the another agency. In such cases, the agency will not again be required to pay the 15% supervision charges.

As the services laid through Micro Trench are at shallow depth hence are vulnerable to damages; therefore responsibility of guarding such services lies with the parent agency. Hence for any damages caused to such services by other agencies cannot be a cause for claiming compensation. While granting permission to the Micro Trench agency, such condition shall be put in the permit as well as such a registered undertaking cum indemnity bond on Rs 200/- stamp paper stating that the agency agrees to all the relevant conditions shall be obtained from the utility agency. This method shall be allowed only as last mile connectivity where laying of cables through open cut or HDD method is not possible.

While issuing permit for micro trench; following points shall be stressed.

- 1) The agency shall follow the safety guidelines.
- 2) The agency shall submit and carry out the work as per work execution plan submitted by it. The entire work including reinstatement of trenches shall be completed by stipulated date.
- 3) The micro trenches shall be reinstated within 48 hours after the work at that location is over, failing which, penalty of Rs 500 per Meter per day will be imposed and will be recovered through the security deposit. In case of shortfall, until such excess amount of penalty is deposited by the agency with BMC; further permissions for laying cables; be it through open cut excavation, HDD or Micro Trench method will not be granted.
- 4) If damage occurs to the Micro-trench duct /OFC in future due to excavation of trench or due to any other activity by municipal or external utility, the same shall be restored by the agency which has laid OFCs through Micro trench at risk and cost of it as the duct is at shallower depth and so is vulnerable to damages.
- 5) That the security deposit of Rs 5,00,000/- per KM shall be deposited by the agency in concerned ward. That, 90% of the deposit will be

refunded if completion of Reinstatement work is carried out satisfactorily and without causing damages to other utilities. The remaining 10% amount will be refunded after completion of the defect liability period. The defect liability period will be 3 years. During this period, the Agency will have to make good all the defects, damages to the reinstated trench at its own cost.

- 6) That in case of default in reinstatement of micro trench or rectifications during defect liability period, the work will be got done at risk and cost of the agency and the expenses will be recovered from its deposits and/or additional payments in case of shortfall shall be deposited by it with BMC on demand.
- 7) That the N.O.C. from Traffic Police shall be obtained and the conditions thereof shall be binding upon the agency.
- 8) Micro trenches of maximum size; up to width 50 mm x 450 mm depth shall be saw cut along roads where Optical Fiber cables are to be laid as last mile connectivity to reach the end consumers including construction of Manholes at every 100 M intervals.
- 9) For detection of existing underground utilities; the agency will have to carry out GPR survey before taking up the micro trench work along the route where the ducts are proposed to be laid. The data of utilities so collected through GPR survey shall be submitted to BMC in the form of GIS WEB MAP Services (WMS) which is OGC compliant and can be ingested in ESRI platform while making application for permit.
- 10) No damage shall be caused to other underground utilities while laying the ducts by using micro trenching technology. In case any utility is damaged, the damage so caused to the other utilities, shall be rectified by the agency carrying out micro trench at its risk and cost. Further, suitable penalty as deemed fit will be imposed on the Micro-Trench laying utility agency by BMC. In case the utility agencies defers the reinstatement work or fails to rectify the damages to



services of other utility agencies, such work will be got carried out by BMC at risk and cost of the said agency and such agency will be blacklisted for future works. The expenditure so incurred will be recovered from the security deposit with BMC.

- 11) The depth of laying the ducts shall be 300 mm to 450 mm below the road surface.
- 12) The cost of shifting/removing the conduits/OFCs and relaying the same shall be borne by the agency that has carried out the micro trench work, whenever required and/or during execution of open cut trenches/HDD activities by other utilities. BMC or for that matter; any other utility agency will not be responsible for any damage to OFC laid by micro-trenching and resultant losses, as the OFC ducts having been laid at shallower depth are vulnerable to damages due to open cut or HDD works.
- 13) The agency shall submit registered undertaking cum indemnity bond on Rs200/- stamp paper to BMC for faithful compliance of all the conditions. **(Annexure-F)**
- 14) It shall make proper arrangement for access control of the chambers proposed to be constructed at every 100 M intervals to avoid misuse/illegal use of ducts and the chambers.
- 15) It shall be solely responsible for any mishap during execution of micro-trenching work. It shall indemnify BMC against such mishap and its consequences.

### **Part H- Methods of reinstatement of trenches**

- 1) After laying service cables/conduits; those shall be covered with sand layer of sufficient thickness and then it shall be covered by tiles by the Utility agency. The thickness of such sand cushioning shall be sufficient enough to withstand compaction by vibratory roller during reinstatement of the trench. This will be strictly the liability of the Utility Agency and any claim of damages by Utility agency in this regard will not be entertained by BMC
- 2) The reinstatement contractor shall backfill the trench with granular layers. Each layer of granular material shall not be more than 150 mm in thickness. Maximum 5 layers of granular layers shall be operated. In case of more depth of trench, depth below the thickness of maximum five granular layers shall be backfilled by excavated earth first. Sufficient watering and ramming of each layer shall be done with vibratory hammer to avoid settlement of these layers and to achieve effective compaction.
- 3) Over the layers of granular materials, further reinstatement shall be done as per as per **Annexure- C** and as directed.
- 4) All reinstatement work including Asphaltting shall be completed prior to 10th May of every year

## **Part I- Trench Tracking System**

After successful implementation of online Potholes Tracking System in BMC; which proved to be helpful to address the problem of potholes in real time and to fix up the responsibility of lapse on the particular defaulters and has thereby assisted in reducing number of unattended potholes, on similar principles, BMC has now adopted the Trench Tracking System. The general principles of Trench Tracking System are very similar to Potholes Tracking System. Presently this system has been made applicable to only open cut trenching method for planned jobs.

Broadly the system will work on following steps.

After issue of excavation permit, concerned AE will assign the trench to concerned RE through his login id. The concerned RE will enter all the relevant details of the proposed trench in the Trench Tracking System e.g. Name of agency taking the trench, length of trench, width of trench, date of start and date of end of the trench work as per permit, existing road surface, Total reinstatement charges recovered from the agency as per demand note etc. Photos of the trench before starting the work, during progress of trench shall be uploaded by the RE in system. If the trench work is completed as per dates mentioned in permit; then next timeline event will appear. However; in case of delay or exceeding the length of trench than permitted, the RE will have to enter actual date of completion of trench work and if applicable the extra length of excavation carried out by the agency in the system. Penalty as per annexure B for delay in completion of trench will be imposed on the utility. For the excess length of trench carried out, reinstatement charges for additional length shall be recovered at the rate of 1.5 times of the regular RI charges applicable per meter. Once the actual data is entered in system by RE, the penalty will be auto generated by system and will be added cumulatively. Depending upon the start date and end date mentioned in trench permit, the system will display name of the trench reinstatement contractor; date of start and date of end of reinstatement work. Estimate of the proposed trench work in the system shall be entered in the system by RE. Defect liability period of two years for the individual trench will commence from the completion date of

reinstatement of trench.

After completion of trench work by utility agency and once the actual end date of trench by utility agency is entered by RE; the trench will be assigned to the reinstatement contractor by system for reinstatement along with the estimate of the trench. The said estimate shall be entered in the system by the RE at the time of entering actual end date of completion of trench work by utility agency. Flat seven days' time will be allowed to complete the reinstatement of trench up to 500M length. For per additional length of 200M trench reinstatement or fraction thereof, additional two days of time period will be allowed. After completion of reinstatement of trench, the reinstatement contractor shall close the trench by completing and finishing the work and by uploading photos of finished work. Thereafter the concerned ward RE shall visit the site, ascertain if the trench has been in fact attended in the manner it should have been, then he shall close the trench through his id. If the reinstatement of trench is completed by the reinstatement contractor BY or BEFORE the system assigned END date, there will be no penalty on this account. However, if the actual end date is later than the system assigned END date, then for delay beyond stipulated end date of reinstatement of trench, penalty of Rs. 5000 per day will be imposed on the contractor by the system.

The penalties mentioned in **Annexure-D** will be automatically imposed by the system if variation in time line of events is observed. Penalties for not providing barricades as per specifications, non-removal of debris shall be manually entered in system by the RE. Depending upon the data entered by ward RE, system will generate penalty as per annexure-B. The cumulative penalty will be recovered from the concerned underground service laying utility agency by raising a demand. After receipt of such demand, the agency shall deposit the said amount with BMC. In case of delay or reluctance to pay the fine, no further permits shall be granted to such agencies. After seven days of raising such demand for recovery of penalty is raised by BMC, red alert against the respective agency will be generated by the system. This alarm can be turned off from the login of concerned ward RE; only after payment of penalty is made by the agency in the

ward which has generated the penalty letter. Till such time, the Trench Tracking system will not accept details of new proposal of trenching of the said agencies.

In case settlement is observed in reinstated trench then the trench shall be re- opened and re-assigned to the reinstatement contractor who will attend the trench within 7 days. For delay beyond seven days in attending the trench, penalty of Rs 5000 per day will be imposed by the system.

Each new trench will be assigned unique identification number by the system. This will be permanent identification number of that trench till the defect liability of the trench reinstatement is over or till such earlier period when the said stretch is again excavated for trench or other purpose. Once the reinstated trench is again excavated within the defect liability period, defect liability of originally reinstated trench will cease to be in effect.

The synchronization of trench work through Trench Tracking system will help manage the data base at click of mouse. Information such as total length of trenches taken in every ward, its cumulative length for entire Mumbai, agency wise break up of trench length per ward and for Mumbai, Total reinstatement charges recovered from each ward from one as well as all agencies, amount of penalties recovered from various agencies etc. will be available immediately through system

**Part J-Monitoring /reporting status of trenching activity.**

It is necessary to have centralized co-operation & monitoring mechanism so as to make administration/public/traffic police aware of such activity & its status from time to time.

All Chief Engineers, ACs and H.E. are therefore required to invariably forward utility wise/ ward wise details of trenching activity in the enclosed format. Report for every month must reach the office of Chief Engineer (Roads & Traffic) by **5th of the next month.**

No other Municipal department shall issue any circular in this regard without referring to Ch.Eng (Rds & Tr) office.

## **Part K-Submission of GIS data for mapping of underground utilities**

It is necessary to have data of network of all the underground utilities in one format. It is proposed to collect the GIS data of all utilities in one format and incorporate in One BMC portal. As such for submission of GIS data for mapping of underground for all utilities following guidelines should be followed:-

1. Utilities shall share their GIS layers to BMC in the form of **GIS Web Map Services (WMS)** which is **OGC compliant** and can be ingested in ESRI platform, for all type of trenching method.
2. Utilities shall submit the GIS data (**in the form of GIS Web Map Services (WMS) which is OGC compliant and can be ingested in ESRI platform.**) of existing network within three months from issue of this circular. After the stipulated time of three months is over, penalty of Rs. 5000/- per day will be imposed, for all type of trenching method.
3. In case of new lines to be laid, GIS data (**in the form of GIS Web Map Services (WMS) which is OGC compliant and can be ingested in ESRI platform.**) shall be submitted immediately within a span of seven days from completion of trenching work otherwise penalty of Rs.1000/- per day will be imposed on utility agency, for all type of trenching method.
4. Updating of GIS in the One BMC portal and recovery of penalty if any will be verified by concern RE before releasing of security deposit and /or issuing next permit to the same utility agency.
5. The GIS data shall be maintained by concern Asst. Commissioner of Ward office and monthly report of updation shall be submitted through Ch.E. (Roads & Traffic)/ DMC(Infra.) to AMC(P).

## **Part L: Barricading along trenches –**

When the trenches are dug up, it is necessary to erect barricades along the trench to ensure safety of passer-by. The barricades shall be stout, sturdy, and strong enough to serve the intended purpose. It is therefore now decided to insist the utility agencies to provide barricades as per following guidelines:

- i. Polyethylene plastic water/sand fillable Barricades having approximate size 2000 MM X 560 MM X 1000 MM, (L x W x D), 20-23 Kgs empty weight and tank capacity of 80-100 litres, close to the specifications of barricades being used on BMC sites as per USOR item R3-RW-7-51.
- ii. The height of the barricades shall not be less than 1.0M.
- iii. Excavated material shall be stacked within barricaded area, failing which utility services shall be penalized as per policy.
- iv. The barricades shall be provided in straight line along trench in continuity, the individual units should interconnect with locking arrangement.
- v. The barricades shall be of either yellow or red colour. Retro-reflective sheeting strips shall be fixed in the panels of the barricades for making the barricades visible during night or night blinkers / reflectors shall be provided on barricades at regular intervals.
- vi. No advertisement will be allowed on the panels of the barricades.
- vii. Date of Commencement & completion of the work, should be mentioned on separate display boards at starting and end points of the trenches.
- viii. It shall be wholly the responsibility of the utility agency to provide secure and continuous barricades on site to safeguard life and limb of passer-by. If the agency fails to provide continuous and secure barricades, penalty as per Annexure B of the trench policy guidelines shall be imposed.
- ix. In case of any accidents due to inadequate or absence of barricades along the trenches, the utility agency shall be entirely responsible.  
The Images of barricades to be permitted are attached in this policy.



**Part M: Additional Guidelines for trenching for telecom sector utilities as per Maharashtra Telecom Infrastructure Guidelines for Urban Local Bodies 2022.**

These Guidelines for trenching for Telecom Sector Utilities are based on Maharashtra Telecom Infrastructure Guidelines for Urban Local Bodies 2022 issued by Government of Maharashtra vide Government Resolution No. Sankirna-2021/C.R. 242/UD-20 Date : 19th December, 2022.

**1) Definitions:-**

For the purposes of guidelines, unless the context otherwise requires, -

- (a) "Act" means the Indian Telegraph Act, 1885 (Central Act 13 of 1885);
- (b) "Applicant" shall mean an agency who is a telecom or cable infrastructure provider, registered with the Department of Telecommunication to install new Telecommunication Infrastructure Towers (TTT) or to lay cable wires either below the surface of the earth or above the surface of the earth for any communication purposes recognized under the appropriate law.
- (c) "Appropriate Authority" means the authority as defined under clause (b) of rule 2 of the Indian Telegraph Right of Way Rules, 2016;
- (d) "Cable" shall mean an assembly of one or more insulated conductors or optical fibres or a combination of both within an enveloping jacket which may be above the surface of the Earth or below the surface of the Earth and shall be a high-speed physical medium for transmitting data or information and shall not include those cables utilized for broadcasting or provision of programming services under the Cable Television Networks Regulations Act, 1995 (Central Act 7 of 1995).
- (e) "Cable duct" shall mean a pipe or tubular hollow structure designed to accommodate the running of one or more cables within it.
- (f) "Government" means the Government of Maharashtra.

- (g) "Nodal Officer" for the purpose of these guidelines means, the Commissioner, Directorate of Municipal Administration, Mumbai Commissioner or officer authorized by him.
- (h) "Permission holder" means any person holding a permission/ licence issued under these guidelines;
- i) "Over ground cable infrastructure" means a cable over the ground and includes posts or other above ground contrivances appliances and apparatus for the purpose of establishment or maintenance of the cable;
- j) "Permission" means the permission granted by the urban local bodies to an applicant for the purpose of installing telecommunication infrastructure tower or laying down optical fibre cables above the surface of the earth or below the surface of the earth in accordance with the Telecom Infrastructure Policy/guidelines;
- (k) "Schedule" means the schedule appended to these Telecom Infrastructure guidelines;
- (l) "Telecommunication Infrastructure Tower (TTT)" shall include Ground Based Tower (GBT), Roof Top Tower (RTT), Roof Top Poles (RTP), Cell Phone Tower (CPT). Antenna fixtures, fabricated antenna, Tower to install the telephone lines. Transmission Towers, Cell On Wheels, In-Building Solutions and Micro Sites. But it shall not include the Antennas installed for domestic purpose, namely Television Antennas or Dish Antennas;
- (m) "Underground cable infrastructure" includes manholes, marker stones, appliances and apparatus for the purposes of establishment or maintenance of the cables,
- (n) "Registered Telecom Infrastructure Provider" are the one who hold valid licence issued by DoT, GoI.

(o) "Rule" means the Indian Telegraph Right of Way Rules, 2016, and "Urban Areas" means areas within the limits of Urban Local Bodies.

(p) Words and expressions used and not defined herein but defined in the Act shall have the meaning assigned to them in the Act.

**2) Applicability/Eligibility :-**

- 1) These instructions shall apply to the whole of the State of Maharashtra and shall be implemented by all Municipal Corporations, Municipal Councils, the appropriate authorities mentioned in the Telecom Infrastructure Policy 2022.
- 2) The Guidelines shall be applicable to all telecom licensees and Registered Telecom Infrastructure Providers (Registered with DOT) within the State.
- 3) Either by content or by intent, the purpose of extending Right of Way facility is not to enhance the scope of license of a licensee and such Right of Way permissions shall be only enabling in nature.
- 4) The Municipal commissioner shall be the appropriate authority in the areas under its jurisdiction.

**3) Survey of the existing underground telecom infrastructure i.e., OFC, Cables below the surface of the earth.**

**a)** The survey of existing underground utilities shall be carried out by ward offices which shall identify areas where cables or cable ducts have been laid below and the agencies responsible for laying such cables or cable ducts and such a survey shall ordinarily be completed before 30<sup>th</sup> September 2023.

**b)** Assistant Commissioner shall co-ordinate with telecom infrastructure providers whereas if necessary for survey purposes.

**c)** The telecommunication infrastructure that have previously registered with BMC or have remained unregistered shall register themselves with The BMC in accordance with the procedure laid down under these guidelines:

- i. Upon undertaking the survey of cables and cable ducts laid below the surface of the earth, Ward offices shall identify such empty cable ducts within which new cables may be accommodated and record such details for the purposes of scrutinizing any application received under these guidelines.
- ii. Based on the survey undertaken, the Assistant Commissioner shall direct such agencies who have laid down cables or cable ducts prior to the publication of these guidelines to register themselves, afresh, with BMC in accordance with the procedure laid down under these guidelines.
- iii. The details of the survey undertaken for the installation of telecom infrastructure cables shall be recorded in such manner as may be appropriate and the particulars of the survey shall be communicated to the State Government.

**4) Establishment and Maintenance of Underground cable infrastructure (OFC):**

**A) Application:-**

Till the integration of BMC portal with Gati Shakti/ Mahasanchar Portal, all applications shall be made on BMC portal as per existing policy and applications received on Gati Shakti/ Mahasanchar Portal will not be considered. Once the integration is completed the applications shall be made through Gati Shakti / Mahasanchar Portal.

After Integration of BMC portal with Gati Shakti/ Mahasanchar Portal, following Guidelines will be followed:-

1. An applicant shall, for the purposes of installation of cable infrastructure/ laying of cables under any immovable property vested in or under the control or management of the appropriate authority make an online application, supported by documents as per **SCHEDULE III** .
2. An applicant shall provide indicative action plan and layout of OFC/Ducts to be laid down in a year on or before 1<sup>st</sup> of April each year. In this case the operators who got the approval will be entitled for the payment of ROW/Restoration and other charges as mentioned in **Annexure AA**.
3. For most of the Roads ducts are being provided by BMC. However where ducts are not available and utility needs to lay the cable for entire length for planned work, following procedure will be followed,
4. That, all utility holders including telecom operators shall be called at the zonal office of Dy.Ch.E (Roads) for doing the RoW/Ducting work who is interested to do so for himself and for others also so that frequently granting permission and frequently digging, excavating the roads and putting public in trouble etc would be avoided.
5. In this case all interested utility holders will prepare their annual plan of ducts to be laid down every year and will submit it to the concerned authority before 31 July of every year and the zonal office of Dy.Ch.E (Roads) will call a joint meeting of all such operators, utility holders and will obtain their expression of interest till the end of first week of August. Out of all these applicants one operators/utility holders should be selected for doing this work at the rate of one third of the amount as defined after analyzing the expression of interest by the end of 15 August every year.
6. In this case the selected applicant will lay down all the ducts one for their organisation and other for the use of other applicant from which the local bodies will be entitled to recover per kilometre or per meter annual rent on prorata basis depending upon the rates as defined.

7. In any case all permissions to lay ducts shall be given by the zonal office of Dy.Ch.E (Roads) to the selected applicant on or before 31<sup>st</sup> of August of that year. If such permissions are not given within this stipulated time the same will be deemed to be granted provided it is not otherwise rejected by the authority with proper reason of rejection and that too within five days from the last date of granting permissions i.e. 31<sup>st</sup> of Aug every year.
8. At present one time Standing Deposit or 50% of RI Charges as Security deposit is being recovered against faithful compliance of the permission. Affidavit and/ or agreement will be insisted after commencement of applications through Mahasanchar/ gatishakti Portal. After approval the format will be finalized with legal department.
9. At present one time Standing Deposit or 50% of RI Charges as Security deposit is being recovered to recover penalties for various lapses, and also to recover additional reinstatement charges in case the utility agency exceeds the excavation. To continue to recover Security deposit at the rate of 50% of RI charges instead recovery of the bank Guarantee.
10. At present Separate R.I. contractor is appointed by BMC. As such clause for Self restoration is not incorporated in Comprehensive policy. However, self restoration will be allowed if specific directions are received from GOM.
11. In BMC there are 24 wards, no. of trenching issues are solved at ward level. In case of any Difficulty necessary directions are obtained from Ch.E.(Roads), D.M.C.(Infra.), A.M.C.(P) to resolve the issues. Therefore it is felt that it is not necessary as far as BMC is Concerned.
12. Once the "Call Before u Dig" (CBuD) Mobile Application is activated, all digging agencies to mandated by State Govt. to do any type of digging only after prior intimation through "Call Before u Dig" (CBuD) App and as per its terms and conditions below.
  - a. All underground utility/asset owner agencies viz. Electricity Cables, Water-pipe. Gas-pipe, Sewerage etc. to be directed by BMC:

- b. To register contact details/ escalation matrix of their local/zonal/district officers in charge in the "Call Before u Dig" App for receiving SMS/email notifications.
- c. To direct owners of excavators, public works contractors to download and register themselves on CBUD app and educate the drivers of these machines.
- d. To be mandated to respond to excavation requests/messages received on "Call Before u Dig" App and take actions accordingly, even if they have mapped or not mapped their assets.
- e. To GIS map their assets on PM GatiShakti NMP as a layer (<https://nad.ncog.gov.in/gatishakti/login>)
- f. All agencies carrying out excavation in public lands to be mandated by State Govt:
- g. To do any type of digging only after prior intimation through "Call Before u Dig" App and as per its terms and conditions.

**5) Every applicant shall pay following fees :-**

Administrative and Reinstatement charges including other charges are to be paid online by applicants before granting permission. Reinstatement charges will be decided as per type of the road mentioned in **ANNEXTURE AA**.

**6) Obligations of permission holder in undertaking work :-**

- a) The permission holder shall ensure that—
  - i. Prior to the commencement of work of laying the underground cable infrastructure and at all times during the execution of work, the measures to mitigate public inconvenience and provide for public safety are implemented.

- ii. The work of laying underground cable infrastructure is carried out in accordance with the conditions specified in the grant of permission by the BMC.
- b) The permission holder shall ensure provision of positional intelligence, through appropriate technology, of all underground cable infrastructures to enable the to obtain real time information on its location.
- c) The permission holder shall comply with the technical guidelines provided as below
- d) Licensee will carry out Ground Penetrating Radar (GPR) survey along the route where the duct has to be laid for detection of existing utility. The data of utility collected through GPR survey would be unconditionally shared with BMC free of cost.
- e) Permission granted to the applicant licensee will not be transferable and will be applicable only for the period for which it has been granted.
- f) If required the BMC can direct the applicant licensee to change the optical fibre cable in stipulated time period or shift the cable to other area and the applicant licensee shall be bound to do the same for which all the expenses would be borne by the applicant company.
- g) The BMC shall not be responsible for any damage to Optical Fibre Cable and resultant losses, if any, during the course of official duty by any of their employees.
- h) In case of any damage to the essential services i.e. water supply, sewerage system and telecommunication lines, electricity supply etc., it will be the responsibility of the licensee to get the services restored from the BMC within 24 hours and the cost so incurred would be borne by the applicant licensee.

**6) Essentiality of Permit:-**



- a) No person shall lay underground utilities/ cables or make alteration or cause the same to be done without obtaining a separate permission for each such laying from the Ward office.
- b) Provided, if any person lays down underground utilities/ cables in the absence of permission under these guidelines, the Ward Office shall initiate action, after giving notice, for removal of cables as per law.

**1. Technical Standards and parameters:-**

**A) Technical Parameters to be followed by the infrastructure service providers while laying the cables below the surface of the earth.**

Laying down of underground cables/OFC

- a) The applicant shall carry out the work by using Horizontal Directional Drilling method only so as to minimize the damage and to cause minimum inconvenience to the public.
- b) The cable shall ordinarily be laid below the footpath or berm or the shoulder of the road.
- c) The top of the casing or conduit pipe containing the cables shall be at least 1.6 meter below the top surface subject to at least 0.3 meter below the drains inverts and other utility supplies.
- d) Pits of 2 meter x 1 meter and 1.5 meter deep, or of lower size shall be made at a convenient distance but not less than 80 meter, centre-to- centre, for laying cables. However, in case of special site condition variable depth or dimensions may be permitted by the Nodal officer depending on the site conditions
- e) The name of the permission holder shall be indicated on the cables boldly.

**B) For Construction of RCC Manhole/ Chamber :-**

- a) The structure of the manhole will be designed as per the norms of Indian Road Congress (IRC). The top level of the manhole will be as per existing road level and whenever the road level is changed the changed, the agency will be bound to finish it to the road level at its own expenses.
- b) The agency will be responsible for maintenance and upkeep of the manholes from time to time and will be responsible for obstruction free flow of traffic and loss of any Government or Private property during and after the construction of manhole.
- c) If any manhole comes in the way of approved alignment of any proposed water supply, sewerage or any other service the agency will be bound to shift or remove the manhole/cable. The agency will make changes in the location/alignment of manhole at its own cost wherever required by the BMC and will be bound to obey any directions of the BMC issued from time to time.

**2. Maintenance of Cables :-**

- a) The permission holder shall not remove or translocate the cables without the prior approval.
- b) In the event the widen or modify the roads below which the cables of the permission holder exist, such permission holder shall coordinate with Concern Zonal Office of Dy.Ch.E. (Roads) for removal or shifting of the cable ducts.
- c) The permission holder shall be notified by Concern Zonal Office of Dy.Ch.E. (Roads), 30 days prior, if any coordination is required to reposition the underground assets to accommodate the requirements of government projects and developmental works.
- d) In the event the cable ducts laid down by the permission holder is required to be removed for the purposes provided for under sub- clause (ii), he shall apply for permission, afresh under these guidelines for laying cables in another

location but shall be exempted from payment of fees or furnishing bank guarantee.

**3. Penalties :-**

- a) The permission holder shall be responsible for restoration of any damages caused to any public or private property during the course of laying cables. In addition, penalty of 2 times of regular charges per meter per year for causing such damage will be levied.
- b) In case of any untoward incidences or accidents arising due to negligence on the part of permission holder during laying of underground cable infrastructure, the criminal proceedings against the permission holder and take necessary action as per law, in addition to levy of penalty will be initiated at respective ward level.

**10. District Level Telecom Committee (DLTC) :-**

In BMC there are 24 wards, no. of trenching issues are solved at ward level. In case of any Difficulty necessary directions are obtained from Ch.E.(Roads), D.M.C.(Infra.), A.M.C.(P) to resolve the issues.

## ANNEXURE - A

The RI charges for CC Roads, UTWT Road, TWT Road is calculated as follows:-

- Initial RI will be done in 100 mm thick paver block through DLP contractor or trench reinstatement contractor as per the case for the size of the trench as shown in the section attached.
- Final RI of the trench will be carried out by the concerned office of zonal Dy. Ch. Eng. (Roads) for entire width of the bay. For CC Road, width of the bay is considered as 3.5m
- RI charges are worked out by considering both initial and final RI as mentioned above.

### **Schedule of Rates for Recovering Reinstatement Charges from Non Telecom sector Utility agencies**

A) For Footpath

Sr.No.	Existing Surface	Finished to	Rate in Rs. Per Rmt.		
			Trench Size 0.60 M X 1.0 M	Trench Size 0.75M X 1.50 M	Trench Size 1.0 M X 1.50 M
1	Gray or any specified colour with shot blasted Texture paver Blocks(200x200x60mm) Condition no. a & f at pg no 27 & 28 of this policy shall be referred.	Gray or any specified colour with shot blasted Texture paver Blocks (200x200x60mm)	8518	9743	11215
2	Concrete finished/ Any surface	Concrete finished (M40)	10454	11645	12877
3	Finished in Stencil/Stamp Concrete/ Any surface	Finished in Stencil/Stamp Concrete	11211	12676	13634

4	Finished in marble chips Concrete/ Any surface	Finished in marble chips Concrete	10957	12147	13380
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**B) For Carriageway**

Sr.No.	Existing Surface	Finished to	Rate in Rs. Per Rmt.		
			Trench Size 0.60 M X 1.0 M	Trench Size 0.75M X 1.50 M	Trench Size 1.0 M X 1.50 M
1	Cement Concrete Carriageway	A) 100 MM thick Paver Block Immediately B)Cement Concrete Pavement in due course	32091	33711	35154
2	TWT Carriageway	A) 100 MM thick Paver Block Immediately B)TWT Pavement in due course	19629	21355	22883
3	UTWT Carriageway	A) 100 MM thick Paver Block Immediately B)UTWT Pavement in due course	18082	19754	21491
4	C. C. Passage	Cement Concrete Pavement	13151	14697	15648
5	C. C. side strip	Cement Concrete Pavement	13439	15025	16010
6	Mastic Asphalt 25mm thick	Mastic Asphalt 25mm thick	12469	13660	14802
7	Mastic Asphalt 40 mm thick	Mastic Asphalt 40 mm thick	14936	16127	17269
8	Bituminous Concrete	Bituminous Concrete(VG30 Grade) 30 mm thick	10187	11378	12520
9	Paver Block 80 mm thick (50% Gray & 50% Red Paver Block)	Paver Block 80 mm thick (50% Gray & 50% Red Paver Block)	7126	8246	9782
10	Paver Block 80 mm	Paver Block 80 mm	7011	8246	9667

	thick (Only Gray Colour)	thick (Only Gray Colour)			
11	Paver Block 100 mm thick(50% Gray & 50% Red Paver Block)	Paver Block 100 mm thick (50% Gray & 50% Red Paver Block)	7673	8510	10431
12	Paver Block 100 mm thick (Only Gray Colour)	Paver Block 100 mm thick (Only Gray Colour)	7487	8464	10223

**For breaking of CC carriageway, C.C. passages /TWT / UTWT which are in DLP RI charges should be calculated as mentioned in Annexure 'B' .**

**C) Use of existing duct Rs.2900/- per meter.**

**D) For shifting of cable is Rs.5700/- per mtr.**

**E) If trench is proposed on stretch of project road already excavated by project contractor, Rs. 6711.00 per Rmt. RI charges shall be recovered as flat rate irrespective of the crust of the road.**

**Notes:** 1) The above flat rates are calculated on the basis of **USoR-2023**

2) The flat rates are subject to revision in accordance with revision of Fair Market Rate Schedule.

**ANNEXURE – AA**

**Charges to be recovered from Telecom Sector Utilities:**

**A) For Footpath**

<b>Sr. No.</b>	<b>Existing Surface</b>	<b>Finished to</b>	<b>RI (Reinstatement Charges) Rs. Per Meter</b>	<b>Access Charges Rs. Per Meter</b>	<b>Ground Rent Rs. Per Meter per Year</b>	<b>Administrative Charges</b>
1	Gray or any specified colour with shot blasted Texture paver Blocks(200x200x60mm) Condition no. a & f at pg no 27 & 28 of this policy shall be referred.	Gray or any specified colour with shot blasted Texture paver Blocks (200x200x60m)	As per RI Rates Prescribed in Annexure -A	Nil	Rs.1/-	Rs.1000/- per km
2	Concrete finished/ Any surface	Concrete finished (M40)		Nil	Rs.2/-	Rs.1000/- per km
3	Finished in Stencil/Stamp Concrete/ Any surface	Finished in Stencil/Stamp Concrete (M40)		Nil	Rs.2/-	Rs.1000/- per km
4	Finished in marble chips Concrete/ Any surface	Finished in marble chips Concrete(M40)		Nil	Rs.2/-	Rs.1000/- per km

**B) For Carriageway**

<b>Sr. No.</b>	<b>Existing Surface</b>	<b>Finished to</b>	<b>RI (Reinstatement Charges) Rs. Per Meter</b>	<b>Access Charges Rs. Per Meter</b>	<b>Ground Rent Rs. Per Meter per Year</b>	<b>Administrative Charges</b>
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1	Cement Concrete Carriageway	A) 100 MM thick Paver Block Immediately B)Cement Concrete Pavement in due course	As per RI Rates Prescribed in Annexure-A	Nil	Rs.2/-	Rs.1000/- per km
2	TWT Carriageway	A) 100 MM thick Paver Block Immediately B)TWT Pavement in due course		Nil	Rs.2/-	Rs.1000/- per km
3	UTWT Carriageway	A) 100 MM thick Paver Block Immediately B)UTWT Pavement in due course		Nil	Rs.2/-	Rs.1000/- per km
4	C. C. Passage	Cement Concrete Pavement		Nil	Rs.2/-	Rs.1000/- per km
5	C. C. side strip	Cement Concrete Pavement		Nil	Rs.2/-	Rs.1000/- per km
6	Mastic Asphalt 25mm thick	Mastic Asphalt 25mm thick		Nil	Rs.2/-	Rs.1000/- per km
7	Mastic Asphalt 40 mm thick	Mastic Asphalt 40 mm thick		Nil	Rs.2/-	Rs.1000/- per km
8	Bituminous Concrete	Bituminous Concrete(VG30 Grade) 30 mm thick		Nil	Rs.2/-	Rs.1000/- per km
9	Paver Block 80 mm thick (50% Gray & 50% Red Paver Block)	Paver Block 80 mm thick (50% Gray & 50% Red Paver Block)		Nil	Rs.2/-	Rs.1000/- per km



10	Paver Block 80 mm thick (Only Gray Colour)	Paver Block 80 mm thick (Only Gray Colour)
11	Paver Block 100 mm thick (50% Gray & 50% Red Paver Block)	Paver Block 100 mm thick (50% Gray & 50% Red Paver Block)
12	Paver Block 100 mm thick (Only Gray Colour)	Paver Block 100 mm thick (Only Gray Colour)

Nil	Rs.2/-	Rs.1000/- per km
Nil	Rs.2/-	Rs.1000/- per km
Nil	Rs.2/-	Rs.1000/- per km

**\*For breaking of CC carriageway, C.C. passages /TWT / UTWT which are in DLP RI charges should be calculated as mentioned in Annexure 'B' .**

**C) Use of existing duct Rs.2900/- per meter.**

**D) For shifting of cable is Rs.5700/- per mtr.**

**E) If trench is proposed on stretch of project road already excavated by project contractor, Rs. 6711.00 per Rmt. RI charges shall be recovered as flat rate irrespective of the crust of the road.**

**Notes:**

- 1) The above flat rates are calculated on the basis of **USoR-2023**
- 2) The flat rates are subject to revision in accordance with revision of Fair Market Rate Schedule.

## ANNEXTURE B

### Multiplying factor vis-a-vis Defect Liability Period

Sr.No.	Item	2 Years	3 Years	5 Years (Other Than Concrete Surface)	5 Years ( TWT/UT WT/CC Passage/C. C.Footpath)	10 Years
1	Excavation during 1 <sup>st</sup> year of Defect Liability Period	4	4	4	5	5
2	Excavation during 2 <sup>nd</sup> t year of Defect Liability Period	3	3	3	5	5
3	Excavation during 3rd year of Defect Liability Period	-	2	2	5	5
4	Excavation during 4 <sup>th</sup> year of Defect Liability Period	-	-	1.7	5	5
5	Excavation during 5 <sup>th</sup> year of Defect Liability Period	-	-	1.4	5	5
6	Excavation during 6 <sup>th</sup> year of Defect Liability Period	-	-	-	-	5
7	Excavation during 7 <sup>th</sup> year of Defect Liability Period	-	-	-	-	5
8	Excavation during 8 <sup>th</sup> year of Defect Liability Period	-	-	-	-	5
9	Excavation during 9 <sup>th</sup> year of Defect Liability Period	-	-	-	-	5
10	Excavation during 10 <sup>th</sup> year of Defect Liability Period	-	-	-	-	5
11	Excavation beyond Defect Liability Period	1.0	1.0	1.0	1.0	1.0

### DLP for various types of road surfaces

<b>Sr.No.</b>	<b>Mode of Construction</b>	<b>DLP Period</b>
	<b>A) Footpath</b>	
1	Improvement of Footpath In Gray or any specified colour with shot blasted paver block	3 years
2.	I. in plain Cement Concrete (M40) II. in Stamp / Stencil Concrete (M40) III. in C.C. with marble chip finish(M40)	5 Years
	<b>B) Carriageway</b>	
3	Road Resurfacing in Asphalt mixes	2 years
4	Bituminous Concrete	3 years
5	Paver Block 80 mm & 100 mm thick	3 years
6	Mastic Asphalt	5 years
7	UTWT/TWT	5 years
8	C. C Passage/ C.C. side strip	5 years
9	C. C. Pavement	10 years

## ANNEXTURE D

### SCHEDULE OF PENALTIES

Schedule of Penalties to be recovered from Utility/Ward CWC for various lapses observed during the excavation and reinstatement of trenches.

**For Utility and reinstatement contractor.**

<b>Sr No</b>	<b>Particulars</b>	<b>Penalty in Rs</b>	<b>Per</b>
1	Delay in starting	10000	Day
2	Delay in Completion up-to 2 days	5000	Day
3	Delay in completion by more than 2 days and up-to 5 days.	10000	Day
4	Delay in Completion more than 5 days	15000	Day
5	Delay in completion phase wise.	5000	Day
6	Non-availability of Engineer in charge.	5000	Day
7	Non-fixing of Barricading	1000	Meter/Day
8	Not providing reflector signage	2000	Number
9	Non-Displaying board	2000	Number
10	Non-Appointing of warden	2000	Day
11	Not providing M.S. plate for crossing	5000	Day
12	Non-removal of excavated earth / Debris in time	50000	Day
13	Transporting the excavated earth to other spot than instructed by Engineer	20000	Lump sum
14	Non-covering of water entrance	5000	Each
15	Non-cleaning of water entrance	5000	Each
16	Damages to Municipal Utility	Actual cost	
17	Damages to other utilities	Actual Cost	
18	Damages to private property	Actual cost.	
19	Not providing night lighting	1000	Meter
20	Reinstatement of trenches not done properly	50000/-	Day

**(A) – For Utility Agency**

<b>Sr. No.</b>	<b>Particular.</b>	<b>Penalty in Rs.</b>	<b>Per</b>
1	Increase in length than permitted	RI charges for excess length shall be recovered @ 1.5 times of the applicable RI charges	
2	Change in alignment Lump Sum.	25000	Lump sum
3	Change in Starting point	10000	Each
4	Change in end point	10000	Each
5	Not providing of missing cover.	25000	Each
6	Even though alternative arrangement is established taking excavation under the guise of fault repairs.	25000	Each

**– For reinstatement contractor.**

<b>Sr. No.</b>	<b>Particular.</b>	<b>Penalty in Rs.</b>	<b>Per</b>
1	Not rolling and compacting as per specification	2500	Meter
	Delay in reinstatement of trench beyond end date	5000	Day
2	Not attending damaged trench during defect liability period; within 7 days from the date of reopening & reassignment of trench.	5000	Day
4	Attending damaged trench through Other Agency after 7 days during guarantee period.	Actual cost at his risk and cost.	

Note: Wherever unit is mentioned as meter it shall be taken with reference to length of trench.

## ANNEXTURE E

(For Horizontal Directional Drilling Method)

### REGISTERED UNDERTAKING CUM INDEMNITY BOND

**(On Rs 200/- stamp paper)**

I Shri ..... Age .... Years, resident of ....., working with M/s ..... in capacity of ..... have been authorized to sign & submit the present registered undertaking cum indemnity bond on behalf of ..... to Municipal Corporation of Greater Mumbai in context with the application dated .... Submitted in .... Ward; for permission to lay the services of M/s ..... through horizontal directional drilling method; along ..... road, in .... ward

I hereby give undertaking that M/s ..... will faithfully abide by the following terms and conditions in general and more particularly as spelt out in the circular u/no ..... if the permission to lay the services along ..... road, in ... ward is allowed to M/s .....

That,

1. That we have already obtained permission from Directorate of Information Technology to undertake and lay the optical fiber cable (OFC) along the routes proposed under the current application.
2. No damage will be caused to existing underground utilities; pertaining to BMC or any other external Agency providing underground utility services; while laying the conduits by us using Horizontal Directional Drilling Methodology.
3. In case any utility is damaged in course of the HDD work permitted, the damage so caused, will be made good by us i.e. M/s ..... at its risk & cost OR the expenses so incurred by the respective utility agency towards rectification of the damages caused will be borne by us i.e. M/s ..... and shall be paid within 7 days of demand.
4. M/s ..... is aware that if negligence or absence of due diligence is observed leading to such damages, fine equivalent to twice the cost of rectification will be charged by BMC.
5. If the services laid under the current permission are required to be shifted or relocated in future on account of requirement of Municipal projects; same shall done by us i.e. the HDD applicant entirely at our risk and cost. No compensation will be claimed by us on this account. Instructions of BMC in this respect shall be complied with in the prescribed time frame.
6. That we will lay a duct equal to maximum diameter of duct allowed to us under this permission along any road suggested by Astd Commissioner of ..... ward of length equal to 30% of total length allowed under this permission or the length of the road suggested by the Astd Commissioner of ward whichever is more and handover the same to BMC for free of cost. BMC may itself utilize the said duct or allot it to any other agency at its sole discretion. Till the said duct is put to use, we will maintain the said duct free of cost.

I further undertake to indemnify BMC that if any damage is caused to other underground services, we will make the good at our risk and cost and BMC or its servants will not be held responsible for such damage. I hereby indemnify that if any legal suits or complications arise out of this permission or any damages caused to entity; we shall be wholly be responsible for it and BMC will not be responsible for it.

Authorized  
signatory M/s.....

## ANNEXTURE F

(For Micro Trenching Method)

### REGISTERED UNDERTAKING CUM INDEMNITY BOND

(On Rs 200/- stamp paper)

I Shri ..... Age .... Years, resident of ....., working with M/s ..... in capacity of ..... have been authorized to sign & submit the present registered undertaking cum indemnity bond on behalf of ..... to Municipal Corporation of Greater Mumbai in context with the application dated .... submitted in .... Ward; for permission to lay the services of M/s ..... through micro trenching method; along ..... road, in ..... ward

I hereby give undertaking that M/s ..... will faithfully abide by the following terms and conditions in general and more particularly as spelt out in the circular u/no ..... if the permission to lay the services along ..... road, in ... ward is allowed to M/s .....

That,

1. That we have already obtained permission from Directorate of Information Technology to undertake and lay the optical fiber cable (OFC) along the routes proposed under the current application.
2. No damage will be caused to existing underground utilities; pertaining to BMC or other external Agencies; while laying the conduits by using Micro-Trench Methodology.
3. In case any other utility is damaged, the damage so caused, shall be made good by us i.e. M/s ..... at its risk & cost OR the expenses so incurred by the respective utility agency towards rectification of the damages caused will be borne by us i.e. M/s ..... and will be paid within 7 days of demand.
4. M/s..... is aware that if negligence or absence of due diligence is observed leading to such damages, fine equivalent to twice the cost of rectification will be charged by BMC.
5. If the services laid under the current permission are required to be shifted OR removed and re-laid in future on account of requirement of Municipal projects; or for laying underground services of other agencies including BMC; by open cut or HDD method; we will shift OR remove and re-lay our services free of cost at our risk. No compensation will be claimed by us on this account. Instructions of BMC in this respect shall be complied with in the prescribed time frame.

I further undertake to indemnify BMC that if any damage is caused to other underground services, we will make the good at our risk and cost and BMC or its servants will not be held responsible for such damage. I hereby indemnify that if any legal suits or complications arise out of this permission or any damages caused to entity; we shall be wholly be responsible for it and BMC will not be responsible for it.

Authorized  
signatory  
M/s .....

**ANNEXTURE G**

(On the letter head of Utility)

**DAILY PROGRESS REPORT OF UTILITY.**

To:

Ward Executive Engineer

\_\_\_\_\_ Ward.

Sub:- Trench on \_\_\_\_\_

Ref: - Permit No. \_\_\_\_\_

Sir,

1. Permit No. & Date : \_\_\_\_\_

2. Date of Progress Report: \_\_\_\_\_

The progress of above work is as follows:-

<b>Sr.No.</b>	<b>Particular</b>	<b>Proposed as per plan</b>	<b>Actual Progress</b>
1	Laying of cable		
2	Transporting of excavated earth.		
3	Damage to Municipal Utility	-----	
4	Damages to other Utility	-----	
5			

Date : \_\_\_\_\_

Engineer of Utility.



## Observations of Ward Engineer

1	Delayed in starting	Yes / No
2	Delayed in completion	Yes / No
3	Delayed in phase wise completion	Yes / No
4	Engineer of Utility is available	Yes / No
5	Barricading fixed	Yes / No
6	Reflectory signage provided	Yes / No
7	Name Board displayed	Yes / No
8	Warden appointed	Yes / No
9	M. S. Plate provided	Yes / No
10	Earth removed in time	Yes / No
11	Excavated earth removed	Yes / No
12	Excavated earth transported to identified spot	Yes / No
13	Water entrances covered	Yes / No
14	Water entrances cleaned	Yes / No
15	Municipal Utility damaged	Yes / No
16	Other Utility damaged	Yes / No
17	Damages to private property	Yes / No
18	Length increased	Yes / No
19	Alignment changed	Yes / No
20	Starting Point changed	Yes / No
21	End point change	Yes / No
22	Missing cover provided	Yes / No
23	Night lighting provided	Yes / No

**ANNEXTURE H**

**DAILY PROGRESS REPORT OF REINSTATEMENT CONTRACTOR**

Sub:- Trench on

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Sir,

1. Work Order No. : \_\_\_\_\_
2. Name of Agency: \_\_\_\_\_
3. Date of Progress Report: \_\_\_\_\_

The progress of above work is as follows:-

Sr.No.	Particular	Proposed as per plan	Actual Progress
1	Refilling in metres.		
2	Metalling in metres		
3	Asphalt Macadam in metres		
4	Tack Coat in metres		
5	Seal Coat in metres		
6	Fixing C.C. Paver Block		

Date : \_\_\_\_\_

Engineer of RI Contractor

### Observations of Ward Engineer

1	Delayed in starting	Yes / No
2	Delayed in completion	Yes / No
3	Delayed in phase wise completion	Yes / No
4	Engineer of Utility is available	Yes / No
5	Barricading fixed	Yes / No
6	Reflectory signage provided	Yes / No
7	Name Board displayed	Yes / No
8	Warden appointed	Yes / No
9	M. S. Plate provided	Yes / No
10	Earth removed in time	Yes / No
11	Excavated earth removed	Yes / No
12	Excavated earth transported to identified spot	Yes / No
13	Water entrances covered	Yes / No
14	Water entrances cleaned	Yes / No
15	Municipal Utility damaged	Yes / No
16	Other Utility damaged	Yes / No
17	Damages to private property	Yes / No
18	Compacted as per specifications	Yes / No
19	Night lighting provided	Yes / No

**Date :** \_\_\_\_\_

**Road Engineer** \_\_\_\_\_ **Ward.**

=

**ANNEXTURE I**

**BRIHANMUMBAI MUNICIPAL CORPORATION**

**FORM OF REGISTER**

Sr. No.	Permit No.	Name of the Utility	Location	Length on Footpath/ Passages	Length on carriageway	Surface of carriageway
1	2	3	4	5	6	7

Amount of Reinstatement Charge	Deposit	No. and Date of Work order	Amount of Work order	Actual Bill of Contractor	Actual recovery of Reinstatement charge	Access Charge
8	9	10	11	12	13	14

Ground Rent	Recovery from Deposit	Balance Charges in Rs. Col.8- Col.13	Balance Deposit in Rs. Col.9- Col.14	Amount of Recovery / Refund to Utility (Col.15 + Col.18)	Signature of J.E. /S.E.	Checked by A.E./A.C.
15	16	17	18	19	20	121

**ANNEXTURE J**

**BRIHANMUMBAI MUNICIPAL CORPORATION**

Sub : Monitoring of Trenching Activity

STATUS OF TRENCHING ACTIVITY								
Deptt /Ward				Report for the month				
Name of the utility agency/ deptt.	Length of the trench permitted during the month in metres			Length of the trench excavated in metres (out of 4)	Cumulative length of trench excavated in metres since 1st Oct. (incl. 4)	Cumulative length of trench reinstated in metres since 1st Oct.	Balance length to be reinstated in metres	Reasons for delay & no. of days of delay, if any
	For laying	For repairs	Total (2+3)					
1	2	3	4	5	6	7	8	9

A.E.(Maint.) \_\_\_\_\_ Ward

H.E./

Ch.E.(SWD)/

Ch.E(SP)/

Ch.E.(SO)/

Ch.E.(WSP)/

Ch. Eng.(Roads & Tr.)

## **SCHEDULE – III**

### **LIST OF DOCUMENTS TO BE SUBMITTED FOR INSTALLATION OF OFC/ UNDER GROUND CABLE**

For obtaining permissions from the Appropriate Authority, a locality-wise map with detailed description of location and methodology to be used for laying the Optical Fibre Cables (OFC), (i.e., HDD technology or open trenching or micro trenching or as the case maybe) will be submitted along with application. This will contain relevant details of the land.

Information regarding height of Mast/Tower/Pole, the depth and length of trench, dimensions (length, width and depth) of land required for laying OFC and the width of ducts and number of ducts to be laid down **or** any other details / specification required by the relevant Authority will also be provided.

**a) Documents to be submitted in all cases:-**

- i. Copy of registration certificate as communication infrastructure provider or a telecom service provider granted by the Department of Telecommunications, Government of India;
- ii. Two sets of proposed route for the laying of the cables
- iii. Time schedule (stretch and stage-wise) for completion of work and investment.

**b) Documents for laying cables below the surface of the earth (in addition to those mentioned above):-**

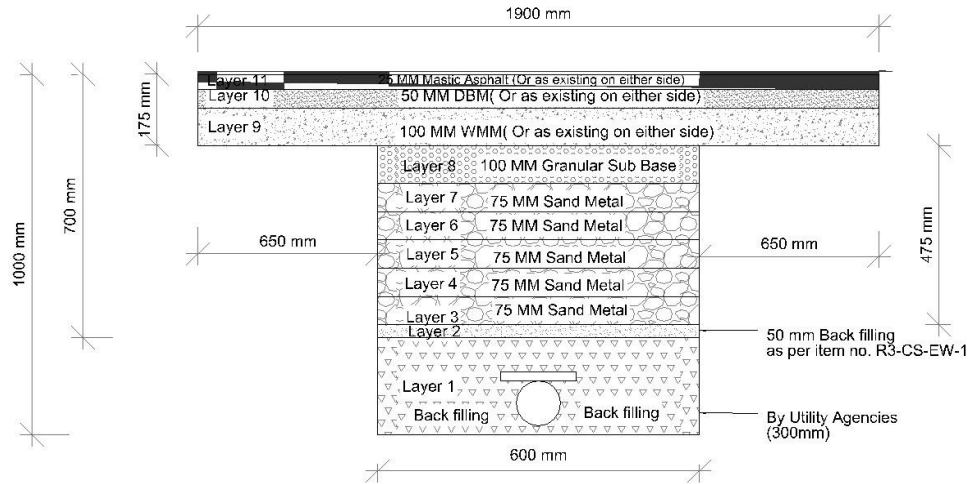
- iv. Technology or method proposed to be used for laying the cables (Horizontal Directional Drilling/ Horizontal Boring methods or Micro Trenching or open digging) with preference for use of Horizontal Directional Drilling or Micro Trenching;
- v. Details of the proposed area such as the manholes that exist and other such existing inlets to the surface below the road.

- vi. Dimensions of the road where such cables are proposed to be laid
- vii. Estimate of the cost for restoration of the damage that the commissioner/ chief officer/ appropriate authority shall necessarily be put in consequence of the work proposed to be undertaken
- viii. Local self body shall not insist any other additional documents except the document mention above.
- ix. PS IT & PS UD2 will decide mutually to shortlist the above mentioned documents as per relevant law and rules or as per convenience for GatiShakti/MahaSanchar portal

## ANNEXTURE C

### Cross Section Drawings and Sample Estimates

## Typical Cross Section of Trench Reinstatement on 25MM Mastic Asphalt Road Trench size 0.600M X 1.0M



### Layer wise details for item / materials to be used & its compaction.

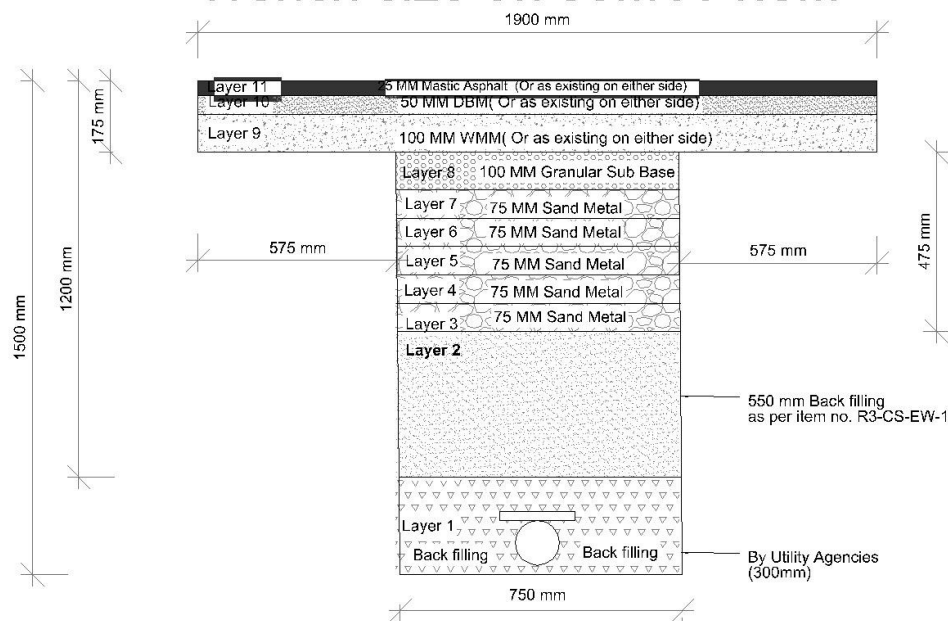
Layer No.	USOR 2023 Item No.	Description of Material	Remarks
Layer 1	--	30 CM Cushioning, not necessarily sand metal	Sufficient watering & ramming by Utility
Layer 2	--	Back filling	Sufficient watering & ramming as per item R3-CS-EW-1 by Reinstatement contractor
Layer 3	R3-RW-10-24	Sand metal	Sufficient watering & ramming by Reinstatement contractor
Layer 4	R3-RW-10-24	Sand metal	Sufficient watering & ramming by Reinstatement contractor
Layer 5	R3-RW-10-24	Sand metal	Sufficient watering & ramming by Reinstatement contractor
Layer 6	R3-RW-10-24	Sand metal	Sufficient watering & ramming by Reinstatement contractor
Layer 7	R3-RW-10-24	Sand metal	Sufficient watering & ramming by Reinstatement contractor



Layer 8	R3-RW-2-21	Granular subbase	Compaction by 10 Tons Vibratory roller
Layer 9	R3-RW-2-20	Wet mix macadam	Compaction by 10 Tons Vibratory roller
--	R3-RW-5-19	Prime Coat	On prepare WMM surface
--	R3-RW-5-23	Tack Coat	On prime Coat
Layer 10	R3-RW-5-45	Premix dense bituminous macadam	Laying by sensor paver & compaction by 10 Tons vibratory roller
--	R3-RW-5-22	Tack Coat	On DBM surface
Layer 11	R3-RW-5-30	Premix Mastic Asphalt	---

**Note:** Granular material (sand Metal) maximum 5 layers of 75MM thickness shall be provided

## Typical Cross Section of Trench Reinstatement on 25MM Mastic Asphalt Road Trench size 0.750M X 1.5M



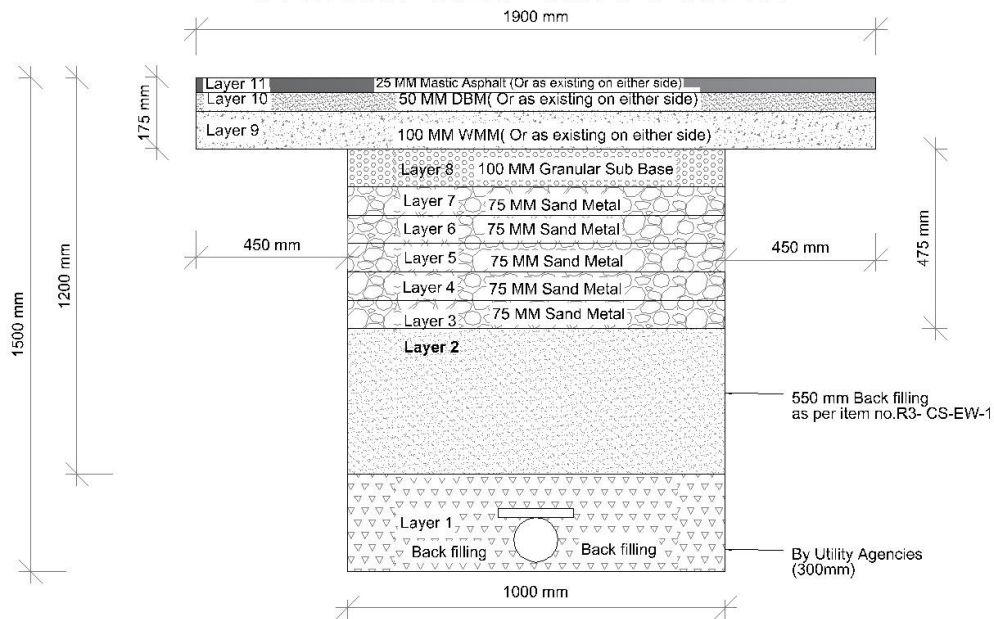
### Layer wise details for item / materials to be used & its compaction.

Layer No.	USOR 2023 Item No.	Description of Material	Remarks
Layer 1	--	30 CM Cushioning, not necessarily sand metal	Sufficient watering & ramming by Utility
Layer 2	--	Back filling	Sufficient watering & ramming as per item R3-CS-EW-1 by Reinstatement contractor
Layer 3	R3-RW-10-24	Sand metal	Sufficient watering & ramming by Reinstatement contractor
Layer 4	R3-RW-10-24	Sand metal	Sufficient watering & ramming by Reinstatement contractor
Layer 5	R3-RW-10-24	Sand metal	Sufficient watering & ramming by Reinstatement contractor
Layer 6	R3-RW-10-24	Sand metal	Sufficient watering & ramming by Reinstatement contractor
Layer 7	R3-RW-10-24	Sand metal	Sufficient watering & ramming by

			Reinstatement contractor
Layer 8	R3-RW-2-21	Granular subbase	Compaction by 10 Tons Vibratory roller
Layer 9	R3-RW-2-20	Wet mix macadam	Compaction by 10 Tons Vibratory roller
--	R3-RW-5-19	Prime Coat	On prepare WMM surface
--	R3-RW-5-23	Tack Coat	On prime Coat
Layer 10	R3-RW-5-45	Premix dense bituminous macadam	Laying by sensor paver & compaction by 10 Tons vibratory roller
--	R3-RW-5-22	Tack Coat	On DBM surface
Layer 11	R3-RW-5-30	Premix Mastic Asphalt	---

**Note:** Granular material (sand Metal) maximum 5 layers of 75MM thickness shall be provided for the trench depth of 1.5M.

## Typical Cross Section of Trench Reinstatement on 25MM Mastic Asphalt road Trench size 1M X 1.5M



### Layer wise details for item / materials to be used & its compaction.

Layer No.	USOR 2023 Item No.	Description of Material	Remarks
Layer 1	--	30 CM Cushioning, not necessarily sand metal	Sufficient watering & ramming by Utility
Layer 2	--	Back filling	Sufficient watering & ramming as per item R3-CS-EW-1 by Reinstatement contractor
Layer 3	R3-RW-10-24	Sand metal	Sufficient watering & ramming by Reinstatement contractor
Layer 4	R3-RW-10-24	Sand metal	Sufficient watering & ramming by Reinstatement contractor
Layer 5	R3-RW-10-24	Sand metal	Sufficient watering & ramming by Reinstatement contractor
Layer 6	R3-RW-10-24	Sand metal	Sufficient watering & ramming by Reinstatement contractor
Layer 7	R3-RW-10-24	Sand metal	Sufficient watering & ramming by Reinstatement contractor

Layer 8	R3-RW-2-21	Granular subbase	Compaction by 10 Tons Vibratory roller
Layer 9	R3-RW-2-20	Wet mix macadam	Compaction by 10 Tons Vibratory roller
--	R3-RW-5-19	Prime Coat	On prepare WMM surface
--	R3-RW-5-23	Tack Coat	On prime Coat
Layer 10	R3-RW-5-45	Premix dense bituminous macadam	Laying by sensor paver & compaction by 10 Tons vibratory roller
--	R3-RW-5-22	Tack Coat	On DBM surface
Layer 11	R3-RW-5-30	Premix Mastic Asphalt	---

**Note:** Granular material (sand Metal) maximum 5 layers of 75MM thickness shall be provided for the trench depth of 1.5M.