



दिल्ली मेट्रो रेल कॉर्पोरेशन लि०

DELHI METRO RAIL CORPORATION LTD.

(भारत सरकार एवं दिल्ली सरकार का एक संयुक्त उपक्रम)
(A JOINT VENTURE OF GOVERNMENT OF INDIA AND GOVT. OF DELHI)

No. DMRC/Land/15/FCA/Ph-IV/4007A / 4230

Dated:- 14.02.2022

Dy. Conservator of Forest (West)
Govt. of NCT of Delhi
Department of Forest & Wildlife,
West Forest Division, Mandir Lane,
New Delhi - 110060

Sub: Diversion of 0.32 Ha. (Modified to 3.31 Ha.) Forest land for construction of Aerocity to Tughlakabad Corridor of MRTS Phase-IV-Reg.

Ref:- F. No. 142/WFD/COT/FCA/DMRC/21-22/6667-70 dated 17.12.2021

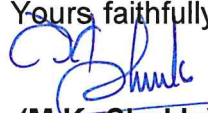
Dear Sir,

With reference to the above subject, please find below the point wise reply of the observation raised against the proposal for diversion of 0.32 Ha. (Modified to 3.31 Ha.) forest land processed through PARIVESH Portal vide proposal no. FP/DL/RAIL/146349/2021.

Sl. No.	Observation by Department of Forest, GNCT of Delhi	DMRC Reply
1.	DDA has allotted 25 Ha. land to DMRC for Compensatory Afforestation, wherein DDA has given the details of Geo-coordinates only. (The user agency need to submitted land details like Khasra No., Village Name, Tehsil, District)	Checklist-16 is enclosed herewith showing the details of CA land. A drawing showing the land details are also enclosed at Sheet No. 19.
2.	Survey sheet of India indicating Compensatory Afforestation land and Geo-referenced map of C.A. land.	Enclosed at sheet no. 17 & 16.
3.	KML files of Diversion site/Compensatory Afforestation site prepared with DGPS/TSM need to be submitted if submitted files are prepared with GPS only.	KML file of diversion site and CA land with DGPS is submitted (CD enclosed).
4.	Muck disposal scheme with block diagram.	Enclosed at Annexure-'A'
5.	As the project alignment is passing through Eco-Sensitive Zone of Asola Bhatti Wildlife Sanctuary in Tughlakabad region. Permission from National Board of Wildlife is required to be submitted.	MRTS Project is not included in the list of activities for which environmental clearance is required as per the notification published in the Gazette of India, Extraordinary, Part-II and Section-3, Sub-section (ii), Ministry of Environment

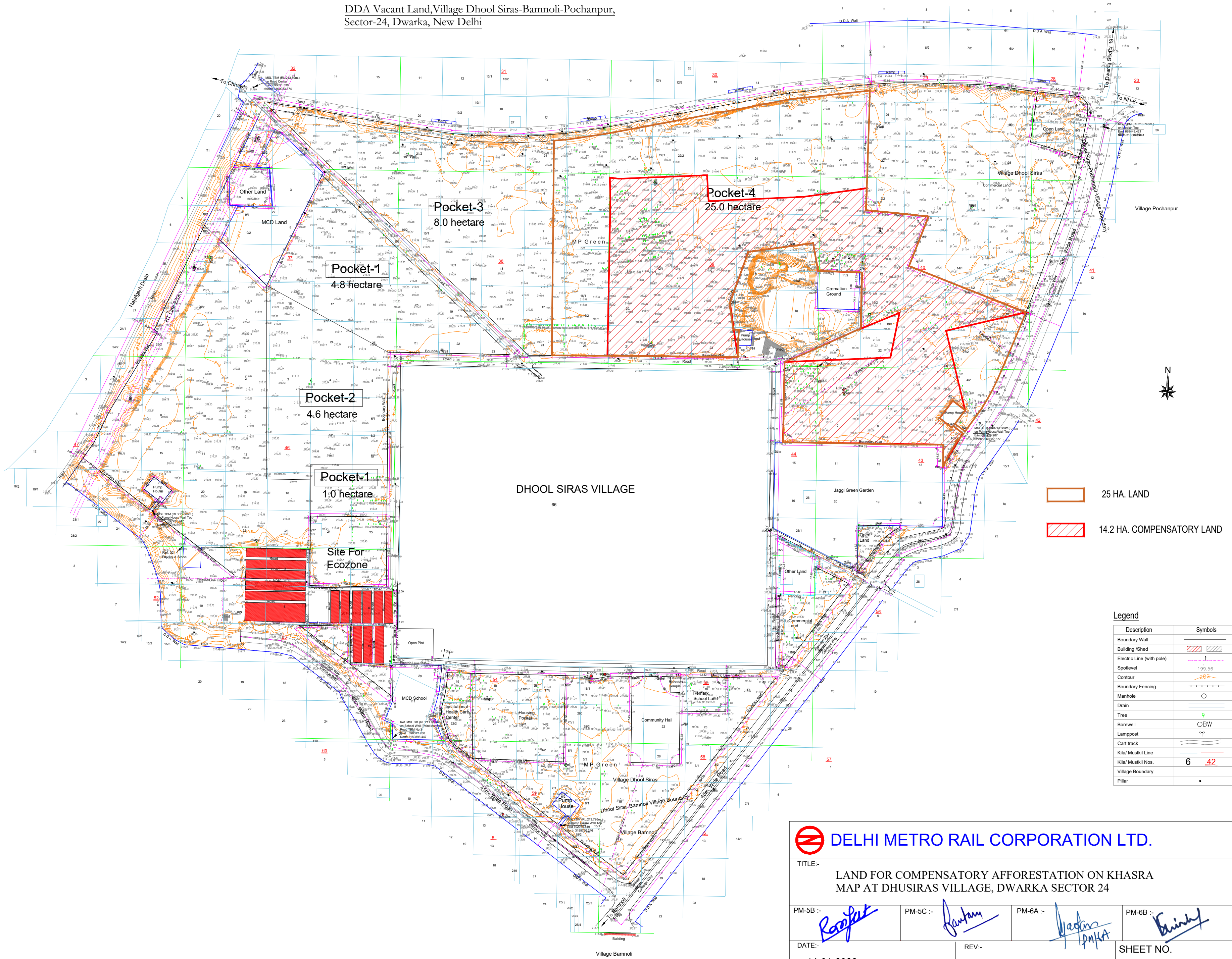
		and Forest, New Delhi dated 14 th September, 2006. The above matter has been further clarified by Ministry of Environment, Forest and Climate Change vide letter dated 16 th July, 2020. Accordingly, permission from National Board of Wildlife is not required however Chief Wildlife Warden has been requested to consider the construction of MRTS Project through the Eco-sensitive Zone of Asola Bhati Wildlife Sanctuary vide this office letter dated 06.09.2021 & 17.12.2021 (Copy enclosed).
6.	Area calculation sheet for forest and non-forest land should include length and breadth of the alignment need to be provided.	Enclosed at Annexure-'C'
7.	KML files of diversion site and compensatory afforestation site need to be submitted in this office in PEN Drive/CD	CD enclosed
8.	You have submitted combined tree list for both division. You are requested to submit the tree list of West Division separately.	Tree list enclosed.
9.	You have submitted undertaking for complete diversion of 11.16 Ha. forest land,. However, 0.32 Ha. land falls under the jurisdiction of West Forest Division (need to submit the undertakings for 0.32 Ha. only)	The combined proposal has been submitted for diversion of 14.15 Ha. to the Nodal Officer. All the checklists & undertakings have been revised accordingly and enclosed. Certificate against respective area under the jurisdiction of the division may be issued.
10.	Project Sanction/Approval Letter	Project Sanction/Approval letter was enclosed with the original proposal at point no. 4 however again it is enclosed.

Thanking you,

Yours faithfully

(M.K. Shukla)
General Manager/Land

OK

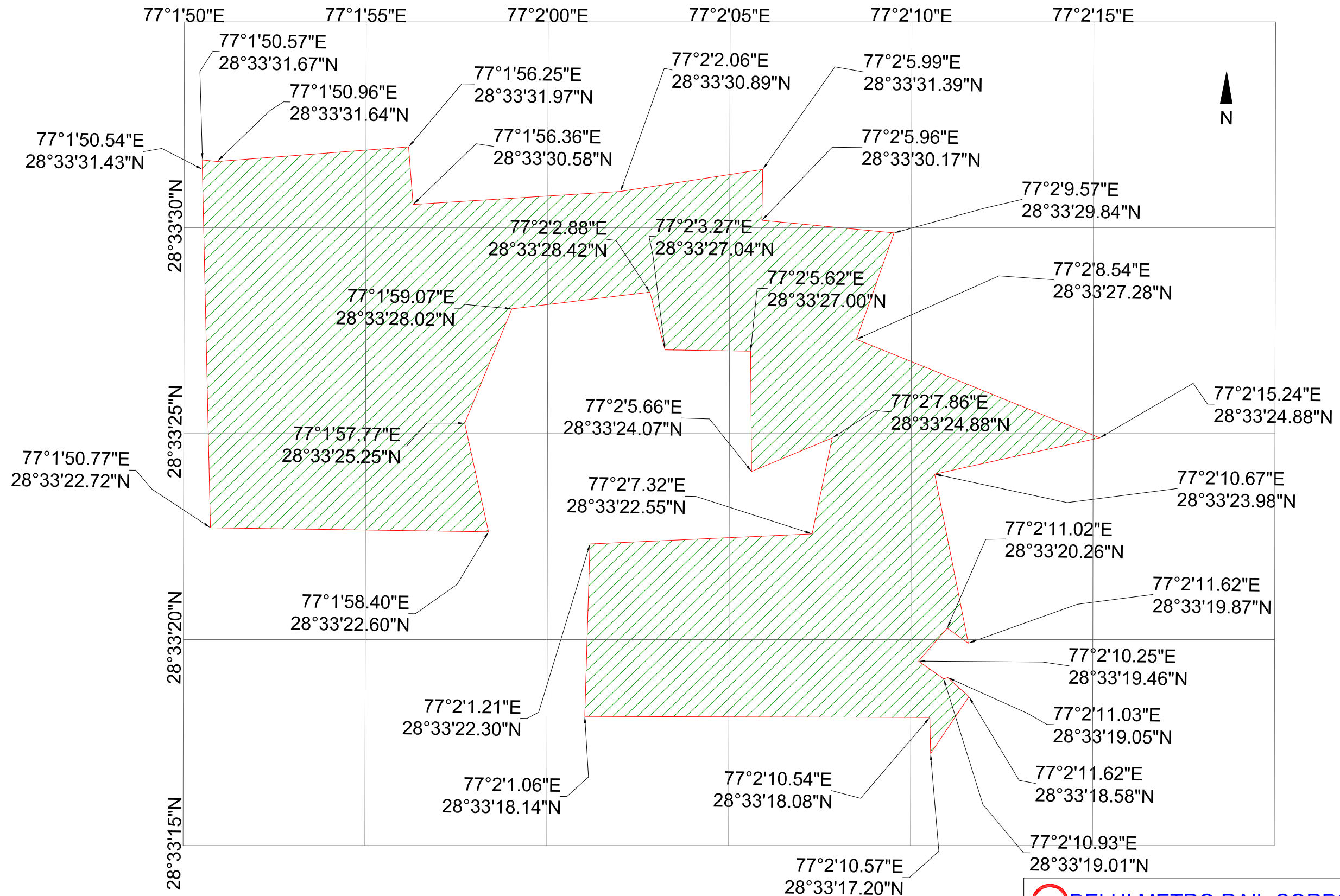
DDA Vacant Land,Village Dhool Siras-Bamnoli-Pochanpur,
Sector-24, Dwarka, New Delhi



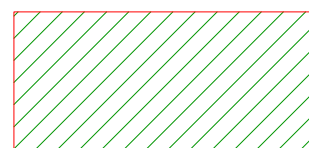
DELHI METRO RAIL CORPORATION LTD.

TITLE:- LAND FOR COMPENSATORY AFFORESTATION ON KHASRA MAP AT DHUSIRAS VILLAGE, DWARKA SECTOR 24			
PM-5B :- <i>[Signature]</i>	PM-5C :- <i>[Signature]</i>	PM-6A :- <i>[Signature]</i>	PM-6B :- <i>[Signature]</i>
DATE:- 14-01-2022		REV:- R0	SHEET NO. 19
DRAWING NO.:- DMRC/AERO TO SAKET G/CPM-5/LAND/Compensatory/2021			SCALE:- N.T.S.

DGPS MAP OF COMPENSATORY AFFORESTATION LAND



LEGEND :-



COMPENSATORY AFFORESTATION LAND 14.2Ha.

 DELHI METRO RAIL CORPORATION LTD.		
TITLE:- LAND FOR COMPENSATORY AFFORESTATION AT DHUSIRAS VILLAGE, DWARKA SECTOR 24		
AM :- <i>Abhishek</i>	PM :- <i>Rajiv</i>	
DATE:- 14-01-2022	REV:- R0	SHEET NO. 16
DRAWING NO.:- DMRC/AERO TO SAKET G/CPM-5/LAND/Compensatory/2021		SCALE:- N.T.S.

Muck Disposal Management Plan for Aerocity to Tughlakabad corridor in DCF wset section from Ch--760.0 m to 4545.0 m				
Sr. No.		Section	Description	Quantity(cum)
1	Calculation of muck to be generated swell factor has to be applied	Construction of Aerocity to Tughlakabad corridor from Ch. -760.0 m to Ch.44800. m in Aerocity to Tughlakabad corridor	(i) Section Length = 5.305 Km	2,65,525.51
			(ii) Construction of 3 no of station and assosiated Tunnel (Total 3 nos.)	
			Geology of this corridor from Aerocity to Tughlakabd sectoion comprises of mainly rock strata.Therefore, most of the excavated materail will be in the form of rock which is a usable materail. Approx 20 % of the excavated materail is soil and use for filling of station area.	0.2 * 2,65,525.51 = 53,105.10
			Swelling factor@20%	0.20* 53,105.10 = 10,621.02
			Total muck generated from excavation of Earth	63,726.12
2	Quantity of muck to be utilized in the project activities in the project activities		Utilization of muck generated from TBM Tunelling: about 63,726.12 cu.m required for the refilling of low lying areas. Therefore, this project requires land for muck disposal.	-
3	Balance quantity of muck, which requires disposal/management plan		balance muck	63,726.12
4	Carriage of muck from the muck generation site to the dumping site.		By Truck	
5	Ownership of land and the consent of land owner, in case muck disposal is proposed dumping site (muck disposal site)		Consent letters of DDA and NHAI are enclosed. (DDA Letter no. F1(10) SPD-2/DDA/A/2019-20/108 dated 15.06.2021 and NHAI Letter no. NHAI/PIU/UER-II/49/01/432 dated 14.02.2022 are enclosed.)	
6	Photograph and carring capacity of propsed dumping site (muck disposal site)		Not applicable (Construction phase has not started yet)	
7	Development of dumping site construction of retaining walls and other construction as per requirement		Not applicable (Construction phase has not started yet)	
8	Rehabilitation of dumping site like leveling, planting of grass, shrubs and their species.		Not applicable (Construction phase has not started yet)	

MUCK disposal scheme for Aerocity to Tughlakabad Metro Corridor of Phase IV MRTS

During the construction of metro corridor, the excavated material will be in the form of soil and rock. It is to mention that geology of this corridor from Aerocity to Tughlakabad comprises mainly of rocky strata. Therefore, most of the excavated material will be in the form of rock which is a usable material and hence shall not be disposed off openly. The remaining excavated material will be in the form of soil. In case of wet soil muck, the same is dried at construction site itself before transporting them out of the construction site. The soil obtained during excavation is normally good soil as it is obtained from deep excavation deep down below the ground surface. Such soil is having a good demand as it best suited for filling of low lying areas and plantation. Hence this soil will be filled in low lying areas in and around Delhi based on the requisitions received from the land owning agencies like DDA, MCD, NDMC, Horticulture departments etc. One such requisition for 2 lacs cubic meter of soil has already been received from DDA, copy of which is enclosed herewith for reference. It is also to submit that the excavated material will not have any ingredients which are harmful to the environment.



11.09.2021

CPM-5

(A.S. Bisht)



11.09.2021

CPM-6

(Ramesh Kumar)

	दिल्ली विकास प्राधिकरण अधिसूची अभियंता कार्यालय द. परि. खंड- 2, डीडीए कार्यालय परिसर नेल्सन मंडेला रोड, वसंत कुंज नई दिल्ली 110070 फ़ोन नंबर:- 01126892385 ईमेल :-sandeep.poonia2048@dda.gov.in	DELHI DEVELOPMENT AUTHORITY OFFICE OF THE EXECUTIVE ENGINEER SOUTHERN PROJECT DIVISION NO.2 DDA OFFICE COMPLEX, NELSON MANDELA ROAD VASANT KUNJ, NEW DELHI-110070 PHONE NO :- 01126892385 EMAIL ID :- sandeep.poonia2048@dda.gov.in
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No. F1(10)SPD-2/DDA/A/2019-20/108

Dated: 15/6/2021

To,

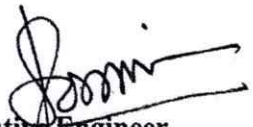
✓ Chief Project Manager-06,
Press Enclave Road,
Malviya Nagar,
New Delhi - 110017

Subject : Request for supply of good earth.

It is learned that you have surplus good earth for which you are looking for disposal site. DDA has planned to construct Delhi Cycle Walkway Phase-1 at Tughlakabad, New Delhi for which we need approximately 2 Lakhs cum good earth for filling of low lying area.

In view of above, you are requested that the surplus good earth may be disposed off at our site at Tughlakabad, New Delhi. This may please be noted that this office will neither pay any charges such as royalty, lead etc. nor take any charges for disposal site.

Mr. Vikas Kumar Kushwaha, J.E. (Civil) (Mb. No. 8595291969) may be contacted for disposal site.


Executive Engineer
SPD-2/SZ/DDA

Copy to :-

1. CE(SZ)DDA, for kind information.
2. SE/SCC-3/SZ/DDA, for kind information.
3. AE-III/SPD-2/DDA, for information.

Executive Engineer
SPD-2/SZ/DDA



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
(सड़क परिवहन और राजमार्ग मंत्रालय, भारत सरकार)
NATIONAL HIGHWAYS AUTHORITY OF INDIA
(MINISTRY OF ROAD TRANSPORT AND HIGHWAYS, GOVT. OF INDIA)



परियोजना निदेशक कार्यालय, परियोजना कार्यान्वयन इकाई

2018/ए. द्वितीय तल, डी-21, कॉर्पोरेट पार्क, (नजदीक द्वारका सेक्टर-8 मेट्रो स्टेशन) सेक्टर-21, द्वारका, नई दिल्ली-110075

OFFICE OF THE PROJECT DIRECTOR, PROJECT IMPLEMENTATION UNIT

2018/A, Second Floor, D21, Corporate Park (Near Dwarka Sector- 8 Metro Station), Sector-21, Dwarka New Delhi-110075

दूरभाष/Phone No. : +91-9717892100, +91-9717623100 ईमेल/E-mail : piudwarka@nhai.org, piudwarka@gmail.com

NHAI/PIU/UER-II/49/01/432

Date: 14.02.2022

To

Sh. Ranjeet Kumar
Project Manager-5B
DMRC, Airport Express Metro Station,
Dhaura Kuan, New Delhi-110021
E-mail: dmrc.cpm5@gmail.com

Sub: Development of NH-344 M, N & P (UER-II): Regarding supply of Surplus earth from Aerocity to Kishabgarh section of Aerocity to Tughlakabad Metro Corridor of Phase IV MRTS-reg.

Ref: DMRC/PH-IV/CPM-5/2053/2022/13768 dated 07.02.2022

Sir,

In reference to the letter cited above regarding supply of Surplus earth from Aerocity to Kishabgarh section of Aerocity to Tughlakabad. The Contractors appointed for packages of UER-II were requested to provide the quantum of subjected material that may be utilized in the highway. Data provided by Contractors in this regard is tabulated below:-

Packages	Quantity (in cum)	Remarks
I	3,60,000	Approx. 20.0 Lakh M.T
II	2,70,000	
III	1,20,000	
IV	6,00,000	
V	80,000	
Total	14,30,000 cum	

3. The above material may be utilized in projects of highways subject to the following conditions:-
 - (a) Quality of material shall meet the requisite specifications as specified in relevant MoRTH/IRC any other guideline. Testing of material shall be carried out prior to use in projects of highways.
 - (b) The desired quantity of material shall be required within the a short span of four months (March, April, May & June, 2022) and the same must be provided within the strict timelines.
4. In view of the above, necessary pursuance with the contractors may be done and preparation towards timely providing of requisite quantity of material may be carried out.

Yours Sincerely,

(R.N Gupta)
Manager (T)

मुख्यालय : जी-5 एवं 6, सेक्टर-10, द्वारका, नई दिल्ली-110075

Head Office : Plot No. : G-5 & 6, Sector-10, Dwarka, New Delhi-110075 Website : <http://www.nhai.org>



CIN No. U74899DL1995GOI068150

दूरभाष Tel.: 23417910/12

फैक्स Fax : 23417921

दिल्ली मेट्रो रेल कॉर्पोरेशन लि० DELHI METRO RAIL CORPORATION LTD.

(भारत सरकार एवं दिल्ली सरकार का संयुक्त उपक्रम)
(A JOINT VENTURE OF GOVERNMENT OF INDIA AND GOVT. OF DELHI)

No. DMRC/Land/15/FCA/Ph-IV/4007-A/ 3909

Dated:- 06.09.2021

Chief Wildlife Warden,
(Chairman of Monitoring Committee of Eco-Sensitive Zone),
Asola Bhatti Wildlife Sanctuary,
Department of Forests and Wildlife,
Govt. of NCT of Delhi, A-Block,
2nd Floor, Vikas Bhawan,
I.P. Estate, New Delhi-110002.

Sub: Construction of MRTS Corridor of Aerocity - Tughlakabad through Eco-Sensitive Zone of Asola Bhatti Wildlife Sanctuary

Ref:- 1. GNCTD Letter No. F. No. 3(129)TPT/MRTS/2011/PF/562 dated 27.12.2018
2. MoHUA Letter No. K-140011/60/2014-MRTS (Vol-I) dated 09.03.2019
3. MoHUA Letter No. K-140011/60/2014-MRTS (Vol-I) dated 04.07.2019

Dear Sir,

The Aerocity - Tughlakabad Corridor of Delhi MRTS Phase-IV Project has been sanctioned by the Government vide letter referred above. Proposed Aerocity to Tughlakabad Metro Corridor of Phase-IV passes through Mahipalpur (along Mahipalpur - Mehrauli Road), Chattarpur, IGNOU, Saket (Mehrauli - Badarpur Road) and Anandmayee Marg T Junction (the brief discription of the project is Annexed-I).

The alignment is planned in such a way to use the minimum ridge area/forest area and serve the maximum number of population connectivity for the benefit of the local mass.

On scrutiny, with respect to the Notification of the Eco-Sensitive Zone of Asola Bhatti Wildlife Sanctuary, Ministry of Environment, Forest and Climate Change S.O. 2996(E) dated 11.09.2017. It was found that the part of proposed IGNOU Metro Station and 10 mtr. of tunnel near Tughlakabad is infringing the Eco-Sensitive Zone of Asola Bhatti Wildlife Sanctuary.

In this regard, it is stated that, MRTS project is not included in the list of activities for which environmental clearance is required as per the notification published in the Gazette of India, Extraordinary, Part-II and Section-3, Sub-section (ii), Ministry of Environment and Forests, New Delhi dated 14th September 2006. The above matter has been further clarified by Ministry of Environment, Forest and Climate Change vide letter dated 16 July, 2020.

As per the provision 6 (4) of the Notification dated 11.09.2017 with regard to Eco-Sensitive Zone of Asola Wildlife Sanctuary, the Monitoring Committee shall scrutinize the case on site specific condition. The corridor has already been agreed by RMB in its meeting dated 14.07.2021 and CEC recommendation dated 28.08.2021, DMRC will engage an agency to monitor the effect on Flora & Fauna during the construction period.

In view of the above, it is requested to consider the construction of MRTS Corridor which is infringing the Eco-Sensitive Zone of Asola Bhatti Wildlife Sanctuary at two locations

Thanking you,

Yours faithfully

(M.K. Shukla) 09/09/2021

General Manager/Land

(मेट्रो भवन, फायर ब्रिगेड लेन, बाराखम्बा रोड़, नई दिल्ली-110001)

Metro Bhawan, Fire Brigade Lane, Barakhamba Road, New Delhi-110001

Brief description of Aerocity – Tughlakabad of Delhi MRTS, Phase-IV

The Aerocity – Tughlakabad Metro Corridor was sanctioned by GOI as a priority corridor with a total cost 8230 cr with Scheduled Date of Start and completion as Jan 2020 and March 2024 respectively. The total Length of corridor is 23.622 km out of which 19.343 km is Underground and 4.279 km is elevated with 11 underground stations and 4 elevated stations (Key plan at Annexure A). This Corridor is integrated with other important lines at four locations which are i) Airport Express Line at existing Aerocity station , ii) Samaypur Badli - HUDA City Centre Line Gurgaon (Yellow Line) at existing Chattarpur Metro station, iii) Proposed Lajpat Nagar – Saket line at proposed Saket-G and iv) Faridabad Line (Violet line) at existing Tughlakabad Station.

The main purpose of this corridor is to serve the densely populated areas of Mahipalpur, Vasant Kunj, Kishangarh, Mehrauli , Chhaterpur, IGNOU , Maidangarhi, Neb Sarai , Saket, Khanpur, Sangam Vihar and Tughlakabad . The alignment has been decided based on the proximity to the populated areas to be served which are mostly along Mehrauli – Mahipalpur Road , Mehrauli- Badarpur Road and IGNOU Road . In addition the integration of this corridor with Airport Express line at Aerocity provides metro connectivity of a Major portion of South Delhi to Indira Gandhi International Airport. The integration of this Corridor with Samaypur Badli to HUDA City Centre Gurgaon Line (Yellow Line) at Chattarpur provides much needed metro connectivity of Gurgaon with Faridabad. The integration of this corridor with Faridabad Line at Tughlakabad provides the much awaited connectivity of Faridabad with Airport and densely populated area along Mehrauli - Badarpur / Mehrauli - Mahipalpur Road.

Once implemented , the Aerocity – Tughlakabad Corridor is expected to get a ridership of 1.66 lakhs per day by 2024. Implementation of this project will yield considerable Socio-Economic benefits due to reduction in traffic, pollution, travel time etc amounting to Rs 1,110 cr per year (Annexure B). During the construction stage, it will generate approx 3500 employment by way of employing technical, financial and management personals in addition to the skilled and unskilled labour. After the implementation of the project, 4710 employment will be generated by including operational and maintenance staff.



2. Finalization of best fit alignment and approval of RMB and CEC.

The area to be fed by this Metro Corridor has many sensitive zones like presence of Protected Monuments, Large extent of Morphological and Notified Ridge area, densely built up areas etc. The alignment and station locations has to be finalized in a such a way that there is least interference with these sensitive zones without compromising with the main purpose of the corridor viz. to provide convenient metro connectivity to the populations centers in these areas. Keeping this criteria in mind various alternative alignments and station locations were explored by DMRC in consultation with Forest department, National Monument Authorities, DDA, PWD etc . Finally these alternatives were discussed in various meetings of Ridge Management board and site visit of Central Empowered Committee appointed by Hon'ble Supreme Court of India whereby the best fit alignment and station locations serving the population centers with minimum interference with the above sensitive zones has been worked out and approved by the Ridge Management Board and recommended by Central Empowered Committee . The final alignment is enclosed in Annexure A.

3. Alignment through Eco-Sensitive Zone.

The finalized alignment mentioned in para 2 above is passing through the eco-sensitive zone of Asola Wild Life Sanctuary at following two locations :

- a) **Near IGNOU** : Metro alignment measuring 1.642 km is passing through the eco-sensitive zone of Asola Wild Life Sanctuary near IGNOU as per drawing at Annexure C . As the metro corridor has to serve population centers of Chatterpur, IGNOU and Nebsarai therefore the metro alignment has to connect these three areas. As evident from the enclosed drawing in Annexure C , for connecting these three areas , the alignment has to pass through the eco-sensitive zone and thus avoiding eco-sensitive zone is not possible. Out of 1.642 km, 1.390 km is underground tunnel at a depth of 15 to 20 m below ground level to be constructed by Tunnel Boring Machine without disturbing the ground features. Only 0.252 km length of station near IGNOU shall be constructed by excavating the ground. Regarding the location of IGNOU station , the drawing at Annexure C shows that the IGNOU station is tightly fit in the only small

vacant land pocket available between the densely populated areas of Neb Sarai and Maidanagarhi. The station is located along the main road connecting Neb Sarai and Maidanagarhi for accessibility of metro commuters of Neb Sarai and Maidanagarhi through the existing main connecting road. Also this station is placed adjacent to IGNOU campus for ease of accessibility of commuters of IGNOU. Any other location of station will take the station deep inside the dense forest area away from the existing main road and will require additional dedicated service road for the station from the existing main road which will affect larger areas of forest and associated flora and fauna in addition to causing inconvenience to the metro commuters .

As mentioned above the surrounding area of IGNOU station location is already densely populated with human habitation of Neb Sarai, Madanagarhi and IGNOU . Therefore the possibility of wildlife in this area is extremely low. Thus construction of station in this area will not affect the wildlife .

- b) **Near Tughlakabad** : Metro alignment measuring 2.554 km is passing through the eco-sensitive zone of Asola Wild Life Sanctuary near Tughlakabad as per drawing at Annexure D . The metro alignment is mainly following the Mehruuli-Badarpur road to serve the population along the road and to have easy accessibility of metro stations. A portion of this road and adjacent area is falling in the eco-sensitive zone of Asola Wild Life Sanctuary near Tughlakabad .There are four ASI protected monuments namely Tughlakabad Fort, Gayasuddin Tomb, Adilabad Fort and Nai ki Kot in this area which are nearby to the Metro alignment. As per Ancient Monuments and archaeological sites and Remains Act 1958, the alignment has to be kept at a minimum distance of 100 m from these monuments. Hence the alignment has been shifted away from the M.B. Road and realigned in such a way that the minimum distance of 100 m from Monuments is maintained. The alignment shown in Annexure D is the only possible alignment fulfilling the 100m distance criteria and hence unavoidable.

Out of 2.554 km, a length of 2.111 km is underground tunnel at a depth varying from 10 to 20 m below ground level which is to be constructed by Tunnel Boring Machine without disturbing the ground features and wild life. Balance 0.443 km is elevated/underground ramp along M.B. road having the human habitation area of

[Signature]

[Signature]

[Signature]
13/9

[Signature]

Tughlakabad Airforce station and no interference in wildlife activity is envisaged. RMB has already granted approval for the tunnel alignment in this stretch. CEC has also accepted this alignment and station locations in their recommendations to Hon'ble Supreme Court of India.



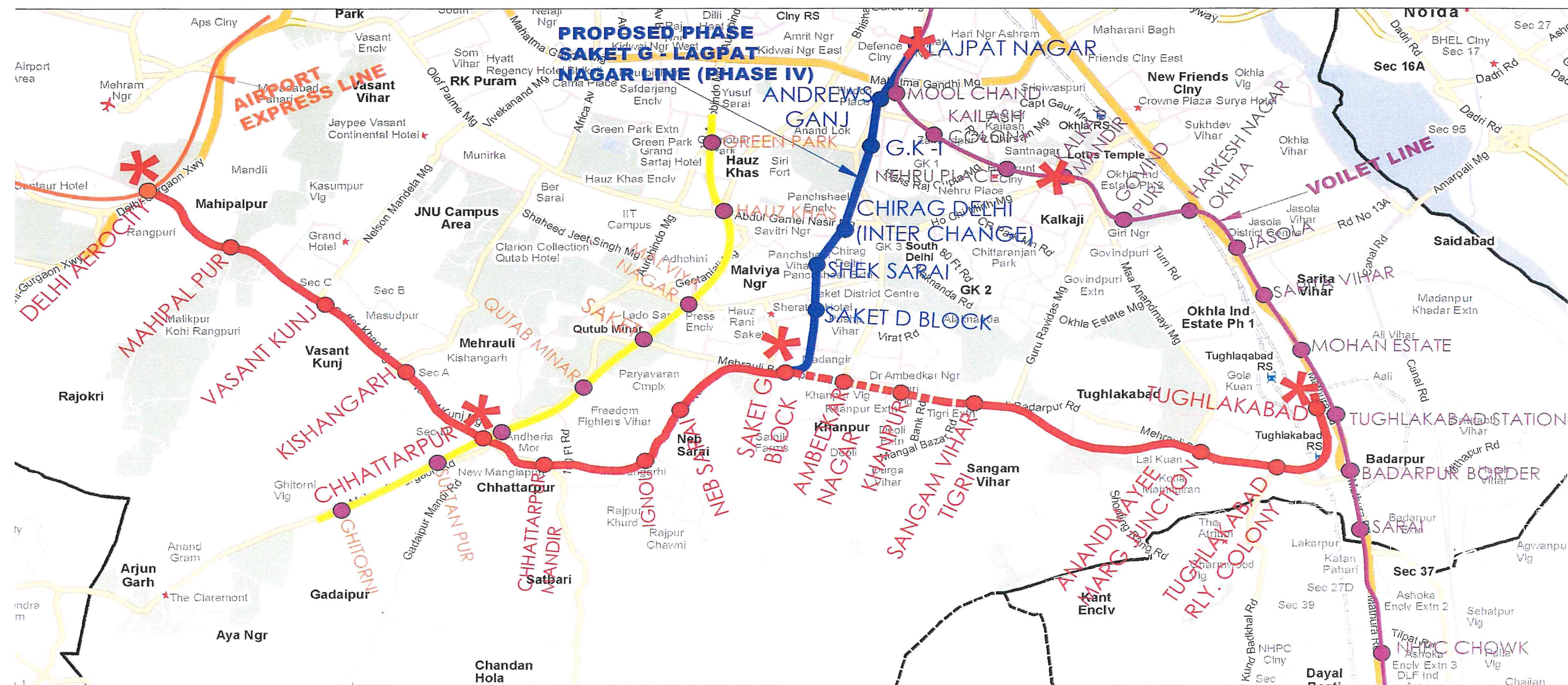
ए. एस. बिष्ट/A. S. BISHT
मुख्य परियोजना प्रबन्धक-5
Chief Project Manager-5
डी.एम.आर.सी. लि./DMRC Ltd.
नई दिल्ली/New Delhi



03.09.2021
CPM 6

(RAMESH KUMAR)

AEROCITY TO TUGHLAKABAD CORRIDOR



Total Length of Aerocity - Tughlakabad Corridor
 Under Ground Corridor (19.343 km)
 Elevated Corridor (4.279 km)

23.622 km



Total Stations
 Interchange Stations

15 nos
 (4 nos) *

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Annexure- B

SOCIO-ECONOMIC BENEFITS

Sr. No.	Description	Saving (2024-25)
1)	Saving from operation cost due to decongestion	Rs. 316 Crore
2)	The passenger time saving in Aerocity to Tughlakabad	Rs. 588 Crore
3)	Saving on account of prevention of accidents and pollution	Rs. 5 Crores
4)	Saving in infrastructure maintenance cost	Rs. 54 Crores.
5)	Savings in fuel consumption	Rs. 147 Crores
Total Socio-economical benefit		Rs. 1,110 Crores



ECO-SENSITIVE ZONE OF ASOLA
BHATTI WILDLIFE SANCTUARY

IGNOU
STATION

1642 M

STATION - TO BE CONSTRUCTED BY EXCAVATING THE GROUND (252 M)
TUNNEL - TO BE CONSTRUCTED BY TUNNEL BORING MACHINE WITHOUT
DISTURBING THE GROUND FEATURES (1390 M)

DELHI METRO RAIL CORPORATION LTD Metro Bhawan, First Engage Lane, Barakhamba Road, New Delhi-110001		
TITLE:- Details of Alignment Falling in Eco-Sensitive Zone of Asola Bhatti Wildlife Sanctuary of Aerocity to Tughlakabad Section of Phase-I MRTS Project		
AM / XEN 	PM/5C:- 	CPM/5:-
DATE:- 03.09.2021	REV:- R0	SCALE:- N.T.S.
DRAWING NO.:-		

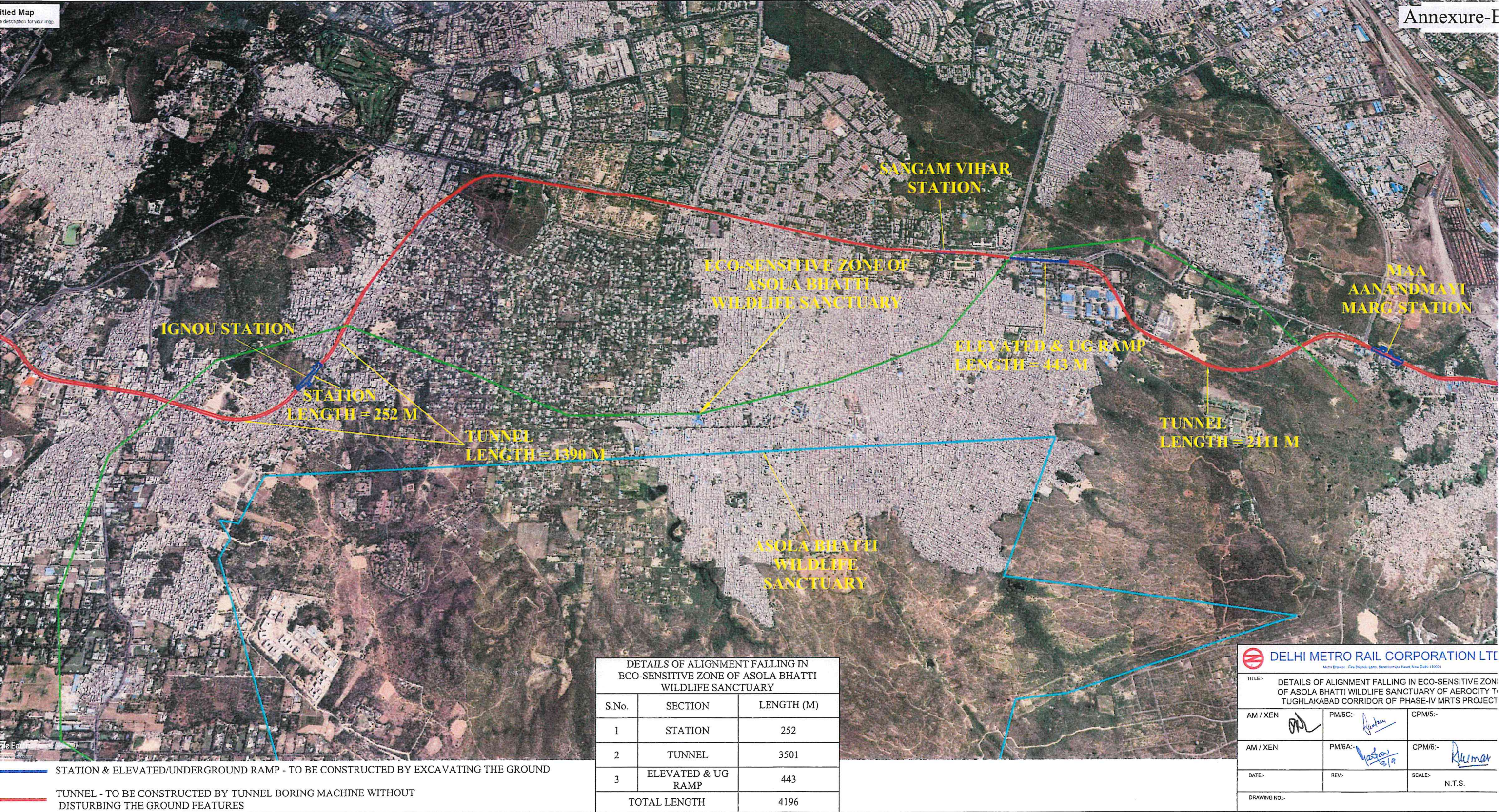
Annexure-D



— ELEVATED/UNDERGROUND RAMP - TO BE CONSTRUCTED BY EXCAVATING THE GROUND (443 M)

— TUNNEL - TO BE CONSTRUCTED BY TUNNEL BORING MACHINE WITHOUT DISTURBING THE GROUND FEATURES (2111 M)

DELHI METRO RAIL CORPORATION LTD Metro Division, First Engineer, Laid, Barabanki Road, New Delhi-110001		
TITLE:- Details of Alignment Falling in Eco-Sensitive Zone of Ashola Bhatti Wildlife Sanctuary of Aerocity to Tughlakabad Section of Phase-IV MRTS Project		
AEN	PM/6A <i>10/09/21</i>	CPM/6 <i>Rumer</i>
DATE:- 03.09.2021	REV:- R-0	SCALE:- N.T.S.
DRAWING NO.:-		





दिल्ली मेट्रो रेल कॉर्पोरेशन लि० DELHI METRO RAIL CORPORATION LTD.

(भारत सरकार एवं दिल्ली सरकार का एक संयुक्त उपक्रम)
(A JOINT VENTURE OF GOVERNMENT OF INDIA AND GOVT. OF DELHI)

No. DMRC/Land/15/Tree/Misc./4007A/ 4102

Dated:- 17.12.2021

Chief Wildlife Warden,
(Chairman of Monitoring Committee of Eco-Sensitive Zone),
Asola Bhatti Wildlife Sanctuary,
Department of Forest and Wildlife,
Govt. of NCT of Delhi, A-Block,
2nd Floor, Vikas Bhawan,
I.P. Estate, New Delhi - 110002.

Sub: Construction of MRTS Corridor of Aerocity - Tughlakabad through Eco-Sensitive Zone of Asola Bhatti Wildlife Sanctuary.

Ref:- DMRC/Land/15/FCA/Ph-IV/4007-A/3909 dated 06.09.2021.

Dear Sir,

With reference to the above letter and subject, it is submitted that Aerocity - Tughlakabad Corridor of Delhi MRTS Phase-IV project has been sanctioned by Government and necessary clearance from the Ridge Management Board and Hon'ble Supreme Court has been obtained. Hon'ble Supreme Court vide order dated 29.11.2021 advised Forest Department of GNCT of Delhi to process the case under FCA, 1980 within one month after submission of the proposal by DMRC. DMRC has submitted proposal under FCA, 1980 on the 'Parivesh' Portal vide proposal No. FP/DL/RAIL/146349/2021 the proposal has been forwarded to the concerned Forest Division for scrutiny. On scrutiny of the proposal DCF (South) vide letter dated 16.12.2021 informed that the project site is passing through the Eco-Sensitive Zone of Asola Bhatti Wildlife Sanctuary in Tughlakabad Region and accordingly advised to take permission from the National Board of Wildlife.

In this regard kindly refer the DMRC letter dated 06.09.2021 (copy enclosed) in which details of the project proponent has been submitted and requested that construction of MRTS Project may be allowed as MRTS Project is not included in the list of activities for which environmental clearance is required as per the notification published in the Gazette of India, Extraordinary, Part-II and Section-3, Sub-section (ii), Ministry of Environment and Forest, New Delhi dated 14th September, 2006. The above matter has been further clarified by Ministry of Environment, Forest and Climate Change vide letter dated 16th July, 2020.

Accordingly, it is requested to issue a clarification/permission for construction of MRTS Corridor through the Eco-Sensitive Zone of Asola Bhatti Wildlife Sanctuary so that case under FCA, 1980 can be processed.

Thanking you,

Yours faithfully

(M.K. Shukla)

General Manager/Land

OC

Area calculation for Forest and non forest area for Aerocity to Tughlakabad corridor in DCF west section

Forest Land Calculation				
Sr. no	Description	Length in m	Area in Sqm.	Remarks
1	Tunnel near Mahipalpur Station	-	1345	As per DCF West email dated 12/01/22
2	Partial Mahipalpur Station	-	6757	
3	Deemed Forest Tunnel Between Mahipalpur and Vasant kunj Station	-	18296	
4	Deemed Forrest at RSS Land	-	6685	As per DCF West letter dated 08/09/2021
	Total Forest Land in Sqm .	-	33083	
	Total Forest Land in Ha.	-	3.31 Ha.	

Non Forest Land Calculation				
Sr. no	Description	Length in m (Upline + Downline)	Area in SQM	Remarks
1	Launching Shaft At Dead End to Aerocity Station	-	42007.04	
2	Tunnel between Aerocity to Mahipalpur	2469.092	15555.281	Tunnel dia is 6.3m
3	Mahipalpur Station	-	11820	
4	Tunnel between Mahipalpur to Vasant Kunj	39.798	250.7274	Tunnel dia is 6.3m
5	Vasant Kunj Station	-	8298.1	
6	Tunnel Between Vasant Kunj to CH.4545	1873.01	11799.96	Tunnel dia is 6.3m
	Total Non-Forest Land in Sqm .	-	89731.10	
	Total Non-Forest Land in Ha. .	-	8.97 Ha.	

Rajiv
PM-5B

Tree Species Girth-Wise Detail of Aerocity to Tughlakabad Corridor (Phase-IV) in DCF West Section for Ridge and Notified Reserved Forest/Deemed Forest Area

S.no.	Tree Species	Girth Wise Detail of Trees						
		≤30 cm	> 30 cm & ≤ 60 cm	> 60 cm & ≤ 90 cm	> 90 cm & ≤ 120 cm	> 120 cm & ≤ 150 cm	> 150 cm	Total
1	Kikar	270	98	67	13	4	1	453
2	Subabul	0	0	0	0	0	0	0
3	Safeda / Eucalyptus	0	0	0	0	0	0	0
4	Babul	8	2	3	0	0	0	13
5	Aam/Mango	0	0	0	0	0	0	0
6	Alstonia	0	0	0	0	0	0	0
7	Amaltash	5	2	0	0	0	0	7
8	Amla	0	0	0	0	0	0	0
9	Amrud/Guava	0	0	0	0	0	0	0
10	Ashoka	0	0	0	0	0	0	0
11	Bargad	0	0	0	0	0	0	0
12	Ber	1	0	0	0	0	0	1
13	Ficus	0	0	0	0	0	0	0
14	Gular	0	0	0	0	0	0	0
15	Gulmohar	0	0	0	0	0	0	0
16	Jamun	0	0	0	0	0	0	0
17	Janglee Jalebi	0	0	0	0	0	0	0
18	Kadam	0	0	0	0	0	0	0
19	Kaner	0	0	0	0	0	0	0
20	Neem	0	5	3	0	0	0	8
21	Pakad	0	0	0	0	0	0	0
22	Palm	0	0	0	0	0	0	0
23	Papri	0	0	0	0	0	0	0
24	Pilkhan	0	0	0	0	0	0	0
25	Pipal	0	0	0	1	0	1	2
26	Sagwan	0	0	0	0	0	0	0
27	Semal	0	0	0	0	0	0	0
28	Shehtoot	0	0	0	0	0	0	0
29	Sheeshum	0	1	0	0	0	0	1
30	Khajur	0	0	0	0	0	0	0
31	Shirish	0	1	0	0	0	0	1
32	Bakayan	0	0	0	0	0	0	0
33	Mahaneem	0	0	0	0	0	0	0
34	Imli	0	0	0	0	0	0	0
35	Kachnar	0	0	0	0	0	0	0
36	Laseda	0	0	0	0	0	0	0
37	Arjun	0	0	0	0	0	0	0
38	Haar Singar	0	0	0	0	0	0	0
39	Chudail Papdi	0	0	0	0	0	0	0
40	Dhak	0	0	0	0	0	0	0
41	Ullu Neem	0	0	0	0	0	0	0
42	Bel Patra	0	0	0	0	0	0	0
43	Gudhal	0	0	0	0	0	0	0
44	Khair	0	0	0	0	0	0	0
45	Others	2	28	14	5	0	0	49
46	Dry	0	0	0	0	0	0	0
Total		286	137	87	19	4	2	535

Reefat

Tree Species Girth-Wise Detail of Aerocity to Tughlakabad Corridor (Phase-IV) for Ridge and Notified Reserved Forest/Deemed Forest Area

S.no.	Tree Species	Girth Wise Detail of Trees						
		≤30 cm	> 30 cm & ≤ 60 cm	> 60 cm & ≤ 90 cm	> 90 cm & ≤ 120 cm	> 120 cm & ≤ 150 cm	> 150 cm	Total
1	Kikar	291	177	130	33	8	4	643
2	Subabul	558	144	28	8	2	0	740
3	Safeda / Eucalyptus	0	0	3	4	1	0	8
4	Babul	8	4	3	0	0	0	15
5	Aam/Mango	2	1	0	0	0	1	4
6	Alstonia	4	3	2	3	5	0	17
7	Amaltash	56	56	30	10	5	2	159
8	Amla	90	117	9	1	0	1	218
9	Amrud/Guava	2	3	0	0	0	0	5
10	Ashoka	17	9	3	1	0	4	34
11	Bargad	2	8	2	0	1	3	16
12	Ber	2	3	3	1	0	0	9
13	Ficus	15	9	5	0	0	0	29
14	Gular	6	1	1	1	0	1	10
15	Gulmohar	0	1	4	1	3	1	10
16	Jamun	4	2	2	7	0	0	15
17	Janglee Jalebi	1	1	5	1	0	0	8
18	Kadam	0	3	22	4	0	0	29
19	Kaner	32	17	2	0	0	0	51
20	Neem	168	231	98	28	13	7	545
21	Pakad	1	19	4	2	0	2	28
22	Palm	1	3	3	3	1	0	11
23	Papri	58	32	7	8	1	0	106
24	Pilkhan	1	1	1	1	1	2	7
25	Pipal	8	10	4	6	0	6	34
26	Sagwan	1	11	2	1	0	0	15
27	Semal	1	8	8	6	4	1	28
28	Shehtoot	6	13	4	2	1	2	28
29	Sheeshum	14	12	8	4	5	4	47
30	Khajur	0	0	0	0	0	0	0
31	Shirish	406	93	17	16	3	1	536
32	Bakayan	5	5	7	3	0	0	20
33	Mahaneem	0	0	0	0	0	0	0
34	Imli	1	0	3	0	2	0	6
35	Kachnar	0	1	0	0	0	0	1
36	Laseda	18	5	2	0	0	0	25
37	Arjun	0	0	0	0	0	0	0
38	Haar Singar	1	1	0	0	0	0	2
39	Chudail Papdi	0	3	1	0	0	0	4
40	Dhak	2	2	0	0	0	0	4
41	Ullu Neem	0	1	0	0	0	0	1
42	Bel Patra	1	2	0	1	0	0	4
43	Gudhal	0	0	0	0	0	0	0
44	Khair	0	0	0	0	0	0	0
45	Others	79	117	40	10	2	0	248
46	Dry	82	52	20	4	0	2	160
Total		1944	1181	483	170	58	44	3880



PM-5B



PM-5C



PM-6A



PM-6B

Full Title of the Project : Aerocity to Tughlakabad Corridor of MRTS Phase-IV falling in South District of Delhi having total length of corridor is 23.62 km including 11 underground and 4 elevated stations. Total area of 7.42 Ha. is falling in the Southern & South Central Ridge and 6.73 Ha. is falling in the Notified Reserved forest/Deemed forest

File No. :

Date of Proposal :

CHECK LIST SERIAL NUMBER-06

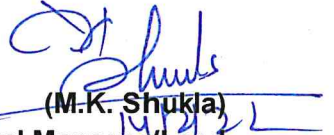
Statement showing details of forest area involved in the proposal

Sl. No.	District	Division	Village /Tehsil	Khasra/Survey or compartment number of KM stone	Forest area involved in the proposal (Ha)
1.	New Delhi	West Forest Division	Mahipal pur/ Vasant Vihar	0/834, 0/838, 0/840, 0/1311	0.13
2.	New Delhi		Rangpuri /Vasant Vihar	0/1342, 0/1343, 0/1321, 0/1343, 0/1527, 0/1344, 0/1345, 0/1524, 0/1360, 0/1369, 0/1371, 0/1372, 0/1377, 0/1378, 0/1522, 0/1523, 0/1732, 0/1730, 0/1729, 0/1728, 0/1727, 0/1726, 0/1381, 0/1520, 0/1521	2.81
3.	New Delhi		Masoodpur /Vasant Vihar	0/14, 0/112	0.37
4.	South	South Forest Division	Mehrauli/ Mehrauli	0/1260, 1267, 0/478, 0/479, 0/483, 0/484, 0/485, 0/486, 0/487, 0/498, 0/493, 0/495, 0/498, 0/501, 0/503, 0/504, 0/505, 0/507, 0/511, 0/512, 0/513, 0/518, 0/528, 0/520, 0/515, 0/530, 0/540, 0/545, 0/547, 0/598 to 564, 0/605, 0/607, 0/430, 0/413, 414, 0/243, 250, 0/261, 0/264, 0/265, 0/280	5.25
5.	South		Chhatarpur/ Saket	0/5, 0/335, 0/298, 0/273, 0/299	0.07
6.	South		Maidangarhi /Saket	0/560, 0/558, 0/568, 0/569, 0/570	1.79
7.	South		Neb Sarai /Saket	0/440, 0/448, 0/449, 0/421, 0/442, 0/322	0.54
8.	South		Hauzrani /Hauz Khas	0/350, 0/349, 0/348, 0/351, 0/376, 0/377, 0/379, 0/386, 0/385, 0/383	1.69

9.	South East	South Forest Division	Tuglakabad/ Kalkaji	0/1237,0/1238,0/1235,0/1236,0/1167,0/1 168,0/1169,0/1188,0/946,0/1662, 0/1666, 0/747, 0/394, 0/1233, 0/1151, 0/1194, 0/1665, 0/1234, 0/953, 0/946, 0/945	1.5
Total					14.15

Place: New Delhi
Date: 14.02.2022

Signature of user Agency


(M.K. Shukla)
General Manager/Land
Delhi Metro Rail Corporation
M. K. SHUKLA
General Manager / Land
Delhi Metro Rail Corporation Ltd.
Metro Bhawan, Fire Bridge Lane,
New Delhi-110001

Divisional Forest Officer
_____ Forest Division

Full Title of the Project : Aerocity to Tughlakabad Corridor of MRTS Phase-IV falling in South District of Delhi having total length of corridor is 23.62 km including 11 underground and 4 elevated stations. Total area of 7.42 Ha. is falling in the Southern & South Central Ridge and 6.73 Ha. is falling in the Notified Reserved forest/Deemed forest

File No. :

Date of Proposal :

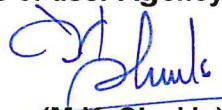
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Statement showing details of non-forest area involved in the proposal

Sl. no	District	Division	Village /Tehsil	Khasra/Survey or compartment number	Non Forest area involved in the proposal (in Ha)
1.	New Delhi	West Forest Division	Mahipalpur /Vasant Vihar	0/82, 0/81, 0/96, 0/573, 0/575, 0/574, 0/586, 0/655, 0/656, 0/654, 0/657, 0/659, 0/660, 0/661, 0/131, 0/141, 0/717, 0/141, 0/718, 0/139, 0/142, 0/719, 0/711, 0/710, 0/720, 0/145, 0/721, 0/734, 0/735, 0/736, 0/738, 0/739, 0/749, 0/751, 0/753, 0/752, 0/755, 0/795, 0/796, 0/798, 0/799, 0/804, 0/803, 0/805, 0/806, 0/813, 0/814, 0/815, 0/816, 0/831, 0/832, 0/835, 0/836, 0/834, 0/838, 0/1311, 0/1301, 0/840, 0/812	5.83
2.	New Delhi		Rangpuri /Vasant Vihar	0/1318, 0/1319, 0/1325, 0/1526, 0/1321, 0/1746, 0/1731	1.13
3.	New Delhi		Masoodpur /Vasant Vihar	0/110, 0/112, 0/126, 0/106, 0/107, 0/108, 0/102, 0/99, 0/98, 0/95, 0/96, 0/94, 0/93, 0/97, 0/82, 0/84, 0/83, 0/80, 0/79, 0/72, 0/75, 0/73	2.01
4.	South	South Forest Division	Mehrauli /Mehrauli	0/1260, 1267, 0/208, 0/413, 424, 0/408, 0/406, 0/405, 0/400, 0/401, 0/404, 0/385, 386, 0/373 to 380, 0/391, 0/256, 0/257, 258, 0/260, 0/261, 0/268, 0/280, 0/265, 0/270, 271	1.24
5.	South		Chattarpur /Saket	0/2/1, 0/10/1, 0/8, 0/2/2, 0/7, 0/4/1, 0/201, 0/365, 0/364, 0/361, 0/359, 0/360/1, 0/336, 0/337, 0/322, 0/321, 0/316, 0/77, 0/317, 0/315, 0/81, 0/80, 0/79, 0/82, 0/300, 0/301, 0/83, 0/299, 0/273/2, 0/271, 0/274, 0/270/3, 0/270/2, 0/270/1, 0/241, 0/243, 0/240/3, 0/244, 0/245, 0/246/2, 0/246/1	3.67
6.	South		Maidangarhi /Saket	0/66, 0/68, 0/63, 0/62, 0/61, 0/561, 0/560, 0/562, 0/558, 0/566, 0/15, 0/569	0.6

7.	South	South Forest Division	Neb Sarai /Saket	0/442, 0/322, 0/316, 0/180/2, 0/180/1, 0/178/3, 0/179, 0/178/2, 0/178/1, 0/184/1, 0/177, 0/166, 0/165, 0/157, 0/156/1, 0/156/2, 0/151, 0/141, 0/150, 0/103, 0/100, 0/142	1.14
8.	South		Saidulajaib /Saket	0/145, 0/148, 0/151, 0/149, 0/152, 0/153, 0/154, 0/69, 0/67, 0/66, 0/65, 0/64, 0/62	1.26
9.	South		Khirki /Hauz Khas	0/425,0/423,0/506	1.39
10.	South		Khanpur /Hauz Khas	0/122,0/66,0/68,0/70	0.55
11.	South		Tigri /Saket	0/128,0/129,0/132,0/135,0/136,0/138,0/127,0/139,0/140,0/189,0/190,0/191,0/1,0/192,0/206,0/207,0/208	0.66
12.	South East		Tuglakabad /Kalkaji	0/124,0/1364,0/1362,0/1361,0/1360,0/1363,0/1359,0/1353,0/353,0/1270,0/1265,0/1276,0/1266,0/1267,0/1268,0/1247,0/1246,0/1245,0/1151,0/1234,0/1197,0/1188,0/1197,0/1185,0/1195,0/1194,0/969,0/971,0/953,0/945,0/942,0/877,0/941,0/940,0/1661,0/828,0/1665,0/1668,0/746,0/739,0/398,0/738,0/710,0/711,0/736,0/735,0/720,0/4	4.8
13.	South East		Pul Pehlad /Kalkaji	0/309,0/5,0/13,0/291,0/290,0/289,0/15,0/16,0/287,0/27,0/286,0/28,0/285,0/45,0/46,0/263,0/262,0/247,0/248,0/246,0/287,0/165,0/87,0/88,0/242,0/89,0/90,0/165,0/86,0/47,0/91,0/92,0/184,0/183,0/179,0/178,0/176,0/191,0/173,0/193,0/194,0/166	2.68
14.	South East		Badarpur /Sarita Vihar	0/46,0/32/13,0/32/18,0/32/8,0/32/3,0/32/26,0/28/24,0/28/17,0/28/14,0/28/26,0/28/7,0/28/4	2.17
15.	South East		Molar Band /Sarita Vihar	0/28/5,0/205,0/197,0/212,0/213,0/203,0/215,0/202,0/187,0/176,0/165,0/167,0/154,0/155,0/11,0/30,0/20,0/14,0/16,0/23,0/24,0/160/1,0/159/1,0/36/2,0/144/3,0/144/2,0/144/1	1.17
Total					30.3

Signature of user Agency


(M.K. Shukla)
General Manager / Land
Delhi Metro Rail Corporation Ltd.
Metro Bhawan, Fire Bridge Lane,
Barakhamba Road, New Delhi-110001

Place: New Delhi
Date: 14.02.2022

Divisional Forest Officer

Forest Division

Full Title of the Project : Aerocity to Tughlakabad Corridor of MRTS Phase-IV falling in South District of Delhi having total length of corridor is 23.62 km including 11 underground and 4 elevated stations. Total area of 7.42 Ha. is falling in the Southern & South Central Ridge and 6.73 Ha. is falling in the Notified Reserved forest/Deemed forest

File No. :

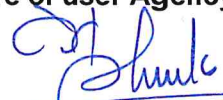
Date of Proposal :

CHECK LIST SERIAL NUMBER-11

Undertaking for payment of cost of compensatory afforestation

I, M.K. Shukla, General Manager/Land, DMRC hereby undertake to pay the entire amount for compensatory afforestation in lieu of the 14.15 Ha. forest area diverted for construction of Aerocity to Tughlakabad Corridor of MRTS Phase-IV Project as per the prevailing wage rates at the time of undertaking the plantation activities.

Signature of user Agency



(M.K. Shukla) 14/2/22

General Manager/Land

Delhi Metro Rail Corporation

M.K. SHUKLA
General Manager / Land

Delhi Metro Rail Corporation Ltd.
Metro Bhawan, Fire Bridge Lane,
Barakhamba Road, New Delhi-110004

Place: New Delhi

Date: 14.02.2022

Divisional Forest Officer

Forest Division

Full Title of the Project : Aerocity to Tughlakabad Corridor of MRTS Phase-IV falling in South District of Delhi having total length of corridor is 23.62 km including 11 underground and 4 elevated stations. Total area of 7.42 Ha. is falling in the Southern & South Central Ridge and 6.73 Ha. is falling in the Notified Reserved forest/Deemed forest

File No. :

Date of Proposal :

CHECK LIST SERIAL NUMBER-10

Certificate for Minimum use of Forest Land

This is certify that the forest area involved in the proposal is unavoidable and barest minimum i.e. 14.15 Ha which is proposed for diversion.

Place: New Delhi
Date: 14.02.2022

Signature of user Agency



(M.K. Shukla)

General Manager/Land
Delhi Metro Rail Corporation
Delhi Metro Rail Corporation Ltd.
Metro Bhawan, Fire Bridge Lane,
Barakhamba Road, New Delhi-110001

Divisional Forest Officer

Forest Division

Full Title of the Project : Aerocity to Tughlakabad Corridor of MRTS Phase-IV falling in South District of Delhi having total length of corridor is 23.62 km including 11 underground and 4 elevated stations. Total area of 7.42 Ha. is falling in the Southern & South Central Ridge and 6.73 Ha. is falling in the Notified Reserved forest/Deemed forest

File No. :

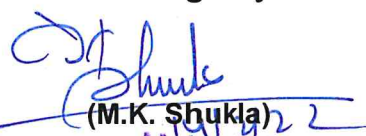
Date of Proposal :

CHECK LIST SERIAL NUMBER-12

Undertaking for payment of not present value of forest area

It is to certify that I, M.K. Shukla, General Manager/Land, DMRC has applied for diversion of 14.15 Ha of forest area for the purpose of construction of Aerocity to Tughlakabad Corridor of MRTS Phase-IV Project. I hereby, undertake to pay the net present value (NPV) of the above forest land.

Signature of user Agency


(M.K. Shukla)
General Manager/Land
Delhi Metro Rail Corporation
General Manager / Land
Delhi Metro Rail Corporation Ltd.
Metro Bhawan, Fire Bridge Lane,
Bansalamba Road, New Delhi-110001

Place: New Delhi
Date: 14.02.2022

Divisional Forest Officer

Forest Division

Full title of the Project : Aerocity to Tughlakabad Corridor of MRTS Phase-IV falling in South District of Delhi having total length of corridor is 23.62 km including 11 underground and 4 elevated stations. Total area of 7.42 Ha. is falling in the Southern & South Central Ridge and 6.73 Ha. is falling in the Notified Reserved forest/Deemed forest

File No. :

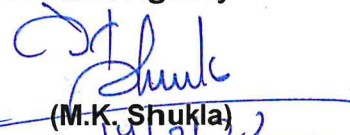
Proposal Number :

Check List Serial Number-16

Statement Showing Details of Forest Area for Compensatory Afforestation

Sl. No.	District	Division	Tehsil	Name of Village	Khasra Nos.	Compensatory Land
1.	South-West	West	Dwarka	Dhulsiras	39/1, 39/2/1, 39/2/2, 39/3(partly), 39/4(partly), 39/5(partly), 39/6(partly), 39/7(partly), 39/8, 39/9, 39/10, 39/11, 39/12/1, 39/12/2, 39/13, 39/14(partly), 39/18, 39/19, 39/20, 39/21, 39/22, 39/23, 39/26, 39/27, 39/28, 40/1(partly), 40/10, 40/9/1, 40/9/2, 40/8/1(partly), 40/8/2(partly), 40/11/1(partly), 40/11/2(partly), 40/12, 40/13(partly), 40/14/2(partly), 40/16(partly), 40/17(partly), 40/18, 40/19/1(partly), 40/19/2(partly), 40/23, 40/24/1, 40/27, 40/28, 43/1, 43/2, 43/3, 43/4/1(partly), 43/8, 43/9, 43/10, 39/7/2(partly), 43/14/2(partly), 43/26, 44/5, 44/6	14.20 Ha.
Total						14.20

Signature of user Agency



(M.K. Shukla)

General Manager/Land

Delhi Metro Rail Corporation Ltd.
Metro Bhawan, Fire Bridge Lane,
Barakhamba Road, New Delhi-110001

Place : New Delhi

Date : 14.02.2022

Divisional Forest Officer

Forest Division

Annexure-B

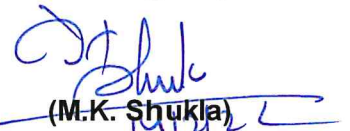
UNDERTAKING

Full Title of the Project:

Aerocity to Tughlakabad Corridor of MRTS Phase-IV falling in South District of Delhi having total length of corridor is 23.62 km including 11 underground and 4 elevated stations. Total area of 7.42 Ha. is falling in the Southern & South Central Ridge and 6.73 Ha. is falling in the Notified Reserved forest/Deemed forest

I M.K. Shukla, General Manager/Land, on behalf of DELHI METRO RAIL CORPORATION, hereby undertake to bear the cost of raising and maintenance of compensatory afforestation and /Or penal compensatory afforestation as well as cost for protection and regeneration of safety zone, etc as per the scheme prepared by state Government for forest area to be diverted for Aerocity to Tughlakabad Corridor of MRTS Phase-IV.

Signature of user Agency



(M.K. Shukla)

General Manager/Land
Delhi Metro Rail Corporation Ltd.
Delhi Metro Rail Corporation Ltd.
Metro Bhawan, Fire Bridge Lane,
Barakhamba Road, New Delhi-110001

Place: New Delhi

Date: 14.02.2022

Divisional Forest Officer

Forest Division

No. K-14011/60/2014-MRTS-I (Vol.I)
Government of India
Ministry of Housing and Urban Affairs
(MRTS-I)

322-C, Nirman Bhawan, New Delhi.

Dated, the 4th July, 2019.

ORDER

Sanction of the President is accorded for implementation of three Priority Corridors of Delhi Mass Rapid Transit System (MRTS) Phase-IV Project viz. (i) Aerocity to Tughlakabad, (ii) R.K Ashram to Janakpuri (West) and (iii) Mukundpur-Maujpur within Delhi Area covering a total length of 61.679 km at the total completion cost of ₹ 24,948.65 crores (Rupees Twenty Four Thousand Nine Hundred Forty Eight Crore and Sixty Five Lakh Only) (including escalation and Central taxes & duties, Land cost and State taxes), as per the costing details given in the Annexure, with contribution of Government of India (GoI) in the form of Equity and interest free Subordinate Debt as per the details given in Para 4 below and subject to the conditions as detailed in Para 7 below.

2. The Project is scheduled to be completed in five years from the date of start of work.

3. **Alignment:** The following lines of Delhi MRTS Phase-IV project have been approved on priority:

Sr. No.	Corridor	Route Length in KMs	Under-ground in KMs	Elevated in KMs
1	Aerocity to Tughlakabad (Nine Coach Length Station)	20.201	14.619	5.582
2	Janakpuri West to R.K Ashram (Six coach Length Station)	28.920	7.740	21.180
3	Mukundpur-Maujpur (Six Coach Length Station)	12.558	0.000	12.558
Total		61.679	22.359	39.320

4. **Project Financing:** The cost of the Project will be financed as per the funding pattern given below:

Sources of Funding	Amount (Rupees in crore)	Percentage
Equity by Government of India (GoI)	3,399.06	16.36%
Equity by Government of National Capital Territory of Delhi (GNCTD)	3,399.06	16.36%
Subordinate Debt for Central Taxes (Custom & CGST) by GoI (50%)	755.14	3.64%
Subordinate Debt for Central Taxes (Custom & CGST) by GNCTD (50%)	755.14	3.64%
Grant from Delhi Development Authority (DDA)	1,000.00	4.81%
Loan from Bilateral/Multilateral Agency	11,462.60	55.19%
Sub-Total	20,771.00	100.00%
Concessional Fund [Public Private Partnership (PPP) Component]	427.64	
Subordinate Debt for State Taxes (SGST) by GNCTD	1,243.31	
Subordinate Debt for Land and Rehabilitation & Resettlement (R&R) by GNCTD	2,447.19	
Sub Total	24,889.14	
Interest During Construction (IDC) on external loan (to be borne by DMRC)	59.51	
Grand Total	24,948.65	

5. **Institutional Arrangement:** The above three Priority Corridors of Delhi MRTS Phase-IV Project will be implemented by the existing Special Purpose Vehicle (SPV), namely the Delhi Metro Rail Corporation Ltd. (DMRC), which is a joint ownership (50:50) SPV of Government of India (GoI) and Government of National Capital Territory of Delhi (GNCTD).

6. **High Powered Committee:** During implementation of the project, the High Powered Committee under the chairmanship of the Chief Secretary to the GNCTD, with other Secretaries concerned as members, will take expeditious decisions on matters relating to land acquisition, shifting of utilities and other structures in the project alignment, rehabilitation of Project Affected Persons, Multimodal Integration and such other matters where the State Government has to facilitate quick action including various conditions of sanction of this project.

7. **Conditions:** The Terms and Conditions of Sanction for implementation of three Priority Corridors of Delhi MRTS Phase-IV are as under:

(a) A Memorandum of Understanding (MoU) shall be signed amongst the GoI, GNCTD and DMRC to ensure effective implementation of the project and conditions of sanction. Government of India share will not be released till the tripartite MoU is signed.

(b) GNCTD would ensure price-based measures to promote and facilitate Metro ridership, as part of an integrated traffic rationalization plan and Comprehensive Mobility Plan for Delhi with a view to ensure that the projected ridership is realized.

(c) Integration of various modes of transport which would act as feeder/evacuation systems to the proposed Metro for improved ridership including adequate parking space at Stations, National common mobility card being introduced by Ministry of Housing and Urban Affairs and integrated ticketing across all modes and all operators would be given high priority by the GNCTD and DMRC.

(d) A suitable arrangement shall be provided by GNCTD for periodic and automatic fare revision for other competing modes.

(e) The GNCTD would set up a dedicated Urban Transport Fund (UTF) at State level in consultation with Ministry of Housing and Urban Affairs, Government of India through levy of dedicated taxes/levies etc., capturing the increased land and property value from sale proceeds/rental (as well as increased FAR) all along the metro corridors in Delhi as envisaged in National Urban Transport Policy, 2006 to create pool of resources for replacement of assets, interest subsidy and providing operational subsidies, if any, not only for this project but other Urban Transport projects as well. 75% of the amount realized from the increased land and property value capture from sale/rental proceeds would be credited to Dedicated Urban Transport Fund at Central Government level.

(f) Ministry of Housing and Urban Affairs (MoH&UA), Government of India will take necessary steps in regard to standardization and indigenization across all metro systems.

(g) MoH&UA, Government of India will get safety certification for all metro systems done through Commissioner of Metro Railway Safety.

(h) The DMRC shall generally adopt the guidelines of Department of Public Enterprises, the Department of Economic Affairs and the Central Vigilance Commission as necessary to strengthen the Corporate Governance and shall be subject to Parliamentary scrutiny.

(i) DMRC and GNCTD along with New Delhi Municipal Council (NDMC) and Municipal Corporations of Delhi and Delhi Cantonment Board would ensure development of facilities for pedestrians and cyclists in the catchment area of all the metro stations in Delhi. A modern ITS enabled cycle sharing facility (like Velib in Paris) would be set up and maintained by DMRC in the catchment area of all the metro stations in the metro network to promote green and clean transport.

(j) In order to promote indigenization, the growth of industry and employment in India, the DMRC would insist on manufacturing facilities in India for majority of its procurement.



- (k) The DMRC shall generally be bound by such directions on question of policy, as the Central Government may give in writing from time to time after giving due opportunity to the DMRC to express its views before giving any direction.
- (l) The DMRC shall continue to maintain, revamp and enhance the existing National Level Facility set up at Anand Vihar Metro Station Building, Delhi as per the directions of MoHUA, GoI for providing comprehensive technical guidance, appraisal, capacity building, research, national database, etc. at institutional level in the field of urban transport, including metro rail, which would be managed by the National Institute of Urban Transport as envisaged in the National Urban Transport Policy, 2006 and Metro Rail Policy, 2017. A fresh tripartite MoU shall be executed for this purpose by the stakeholders i.e. DMRC, National Institute of Urban Transport (India) and MoHUA, GoI.
- (m) The land belonging to various Ministries/ Departments as well as autonomous/statutory bodies/agencies of the GoI/GNCTD, which is required for the project, shall be taken over by the GoI/GNCTD at inter-departmental transfer rates as notified by MoHUA. The land so taken over/acquired for the project by respective Governments shall be allotted to the DMRC on 99 years' lease at a nominal rent of Re. 1/- per annum in line with the approach adopted during implementation of Delhi Metro phase III project. The cost of land and R&R will be borne by GNCTD.
- (n) Government of India will provide financial support to DMRC Phase-IV connecting three Metro corridors in the form of equity and subordinate debt (for part of taxes), subject to an overall ceiling of 20% of the cost of the project excluding private investment, cost of land, rehabilitation and resettlement. Any subsequent Cost escalation due to price escalation or exchange rate variation leading to increase in the cost of the project within or beyond the approved project time limit, inclusion of any item not referred to in DPR and also any other cost escalation due to change in scope or delay beyond the approved time cycle shall be borne/met/arranged by the SPV. In case SPV fails, the liabilities will be borne by GNCTD. As per Metro Rail Policy 2017 land and R&R cost will be borne by GNCTD.
- (o) Expenditure on O&M and debt servicing should be the responsibility of the SPV. In case the SPV fails in respect of this, the liabilities will be borne by GNCTD in terms of Para (D) (iv) (d) of Metro Rail Policy, 2017.
- (p) The external assistance, if any, will flow on back to back basis as per standard arrangement of Department of Economic Affairs.
- (q) The SPV will explore the possibility of PPP in other areas of activities related to the metro project in terms of Para (E) (iii) (b) of Metro Rail Policy, 2017.
- (r) Interest during Construction on external loan will be arranged by DMRC from internal resources and to the extent possible by monetization of assets.
- (s) Concerns of IB on Security issues shall be properly addressed and complied by DMRC as per extant guidelines.

Copy forwarded to:

1. Cabinet Secretary, Cabinet Secretariat, Rashtrapati Bhawan, New Delhi.
2. Principal Secretary to Prime Minister, South Block, New Delhi.
3. PS to Minister of Finance, North Block, New Delhi.
4. Secretary to Lt. Governor of Delhi, Raj Niwas, Delhi.
5. CEO, NITI Aayog, Yojana Bhawan, New Delhi.
6. Chairman, Railway Board, Ministry of Railways, Rail Bhawan, New Delhi.
7. Secretary, Ministry of Home Affairs, North Block, New Delhi.
8. Secretary, Department of Economic Affairs, North Block, New Delhi.
9. Secretary, Department of Expenditure, North Block, New Delhi.
10. Secretary, Department of Revenue, North Block, New Delhi.
11. Secretary, Ministry of Road Transport & Highways, Parivahan Bhawan, Delhi.
12. Secretary, Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawan, Prithvi Block, Job Bagh, CGO Complex, New Delhi.
13. Secretary, Ministry of Statistics and Programme Implementation, Sardar Patel Bhawan, Sansad Marg, New Delhi.
14. Director (Cabinet), Cabinet Secretariat, Rashtrapati Bhawan, New Delhi w.r.t. reference No. 11/CM/2019(i) dated 08.03.2019.
15. Chief Secretary, Govt. of NCT of Delhi, Delhi Sachivalaya, T.P. Estate, Delhi.
16. Vice-Chairman, Delhi Development Authority, Vikas Sadan, INA Colony, Delhi.
17. Managing Director, Delhi Metro Rail Corporation Ltd., Metro Bhawan, Fire Brigade Lane, Barakhamba Road, New Delhi-110001.

Copy also to:

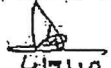
1. PS to MoS (IC), HUA
2. Secretary (HUA), MoHUA,
3. AS (D), MoHUA
4. JS&FA, MoHUA
5. OSD(UT) & E.O. JS, MoHUA
6. Director(MRTS-I)/Director(MRTS-II)/US(MRTS-Coord)/US(UT-V), MoHUA
7. Chief Controller of Accounts, MoHUA, Nirman Bhawan, New Delhi.
8. Finance Division, MoHUA, Nirman Bhawan, New Delhi.
9. Budget Section, MoHUA, Nirman Bhawan, New Delhi.
10. Guard file of MRTS Project.


4/7/19

(Deen Dayal)

Under Secretary to the Govt. of India

- (t) Escalation due to compounding and contingency on land cost will be deducted from the cost to arrive at the final cost.
- (u) Cost escalation due to price escalation or exchange rate variation leading to increase in the cost of the project within or beyond the approved project time limit, inclusion of any item not referred to in DPR and also any other cost escalation due to change in scope or delay beyond the approved time cycle shall be borne/met/arranged by the SPV and/or GNCTD.
- (v) Keeping in view overarching fiscal consolidation path, the respective State Governments should ensure flow of realisable VCF in the SPV account in terms of Para (D) (vii) (b) of Metro Rail Policy, 2017 for meeting O&M, escalation, debt servicing etc. of the project in a manner that will reduce burden on the State exchequer.
- (w) Central Laws, i.e., the Metro Railways (Construction of Works) Act, 1978, the Metro Railways (Operation & Maintenance) Act, 2002 as amended through Metro Railways (Amendment) Act, 2009 and the Railways Act, 1989 would be applicable.
- (x) The DMRC, a joint venture of Government of India and GNCTD, which will implement the Phase IV corridors shall generally adopt the guidelines of Department of Public Enterprises, the Department of Economic Affairs and the Central Vigilance Commission as necessary to strengthen the Corporate Governance and shall be subject to the Parliamentary scrutiny.
- (y) The Joint Venture shall be bound by such directions on question of policy, as the Central Government may give in writing from time to time after giving due opportunity to the Joint Venture to express its views before giving any direction.
- (z) All relevant initiatives under 'Make in India' are to be followed by DMRC.
- (aa) The GoI would not finance cash losses and capital expenditure during the operational phase and its requirements would be financed by the SPV and/ or the State Government from its own resources.
- (bb) In case of SPV not being able to repay the loan (as and when it becomes due), the responsibility for the same shall be borne by the State Government and not by the Government of India.
8. This issues with the concurrence of Integrated Finance Division vide Computer No. 9058252 dated 01.07.2019.


4/7/19
(Deen Dayal)

Under Secretary to the Govt. of India
Tele. 23062594

To

Pay & Accounts Officer (Sectt.)
Ministry of Housing and Urban Affairs
Nirman Bhawan,
New Delhi.

Annexure

Details of component-wise cost of three priority corridors of Delhi MRTS Phase-IV project at January, 2019 price level and with escalation of 5% per annum are given below:

S. N.	Item	(Rupees in crore)
1	Alignment and Formation	
2	Station Buildings	3874.25
3	Depot	4647.64
4	Permanent Way	407.5
5	Traction & power supply	582.5
6	Signaling	993.21
7	Telecommunication	454.67
8	Automatic Fare Collection (AFC) system	229.00
9	Platform Screen Doors (PSD)	161.00
10	Shifting of Miscellaneous Utilities	147.00
11	Security	383.27
12	Staff quarter for O & M	17.02
13	Multimodal Integration and Last mile connectivity	103.32
14	Rolling Stock	138.00
15	Total of all items except land and R&R at January, 2019 price level (SN 1 to 14)	1920.00
16	Taxes	14058.38
17	General Charges @ 5% of SN 15	2139.15
18	Contingency @ 3% of SN 15	702.92
19	Total cost incl. GC, Contingency, and Taxes at January, 2019 price level (SN 15+16+17+18)	421.75
20	Escalation @ 5% pa	17322.20
21	Total cost incl. escalation (SN 19+20)	2260.54
22	Land	19582.74
23	R&R including contingency @ 3%	2170.85
24	GC on R&R including contingency @ 5%	263.18
25	Total Land and R&R (SN 22+23+24)	13.16
26	Total completion cost of phase IV including land and R&R (SN 21+25)	2447.19
Additional Rolling Stock		22029.93
27	Cost of additional 244 Rolling Stock	
28	Cost of on-board signaling on additional new rakes (20)	1952.00
29	Augmentation of Shastri Park, Khyber Pass and Najafgarh Depots for additional Rolling Stock	94.00
30	Total cost on account of additional rolling stock at January, 2019 price level (SN 27+28+29)	180.00
31	GC on additional rolling stock @ 5% of SN 30	2166.00
32	Contingency @ 3% of SN 30	108.30
33	Taxes	64.98
34	Escalation @ 5% of (SN 30+31+32+33)	383.78
35	Total cost on additional rolling stock incl. taxes, GC, contingency and escalation (SN 30+34)	136.15
36	Total completion cost including additional rolling stock and augmentation of depot (SN 26+35)	2859.21
37	Interest During Construction	24889.14
38	Grand Total (SN 36+37)	59.51
		24948.65