DELHI METRO RAIL CORPORATION LIMITED

CONTRACT NO: PC-08

CONTRACT PC-08: "Design and Construction of Single Tunnel (SUBWAY) between Bihar Museum and Patna Museum by Shield TBM, Fire Escapes, Ancillary building, Entry/Exits building including Architectural Finishing, Water Supply, Sanitary Installation & Drainage works at Patna."

ADDENDUM NO. 2

Summary Sheet

S.No.	Tender Document	Page No	Clause No./Item No.	Addendum/Corrigendum	Remarks
1	Volume-3 (Employer's Requirement/ Appendices)	_	Appendix-2D	Appendix-2D is added	22 Pages added
2	Volume-05 (Tender Drawing)	-	Alignment drawings and Key Plan of Subway	Alignment drawings and Key Plan of Subway are added.	New drawings added
3		-	Utility drawings	Utility drawings are added.	New drawings added
4		-	Vidyut Bhawan Station drawings	Vidyut Bhawan Station drawings are added.	New drawings added
5		-	Patna Metro Alignment drawings	Patna Metro Alignment drawings are added.	New drawings added
6	Prebid Queries and Replies				

APPENDIX-2D

INTERFACE MANAGEMENT DOCUMENT FOR CIVIL, E&M, S&T OF SUBWAY CONNECTIVITY BETWEEN BIHAR MUSEUM AND PATNA MUSEUM.

This document describes the interface responsibilities and obligations of civil contractor with other system contractors like E&M, S&T. All above "Contractors" have been addressed as "SYSTEM WIDE CONTRACTOR" for all interface purposes wherein any specific mention has not been done. This document shall be made part of all these contracts so that clear responsibility of each contractor is defined in every contract. This document is for underground and elevated works.

S.NO.	Item Description	Role of civil Contractor	Role of System-Wide Contractor
1	**ATTENDANCE ON OTHER CONTRACTOR**		
i.	Work Area	Civil to provide properly levelled and debris free site storage space and works areas, access to and within the site, offloading and lowering areas for the use of all Contractors subject to availability. Civil to provide compacted and fully levelled space for movement of Hydra and parking of Cranes for lifting and lowering activities including the space required for crane outriggers	System Wide Contractors to advise requirements and date for handover to suit civil Contractor's site program. System Wide Contractor to coordinate with Civil Contractor for proper Work Areas, Access to/from site and loading / unloading areas.
ii.	Cranes	Civil to permit use of cranes on site by other Contractors on a mutually agreed rental basis and subject to the availability of the same at the worksite.	System Wide Contractors to ensure their own arrangements for cranes and other machinery in case of the unavailability of the same with civil contractor
iii.	Scaffold	Civil to permit other Contractors the usage of scaffolding erected at site but only within the timings as agreed by the Civil Contractor so that it does not hamper the progress of civil works at mutually agreed terms and conditions	System Wide Contractors have to arrange their own scaffolding. The usage of scaffolding erected by the civil contractor shall be allowed only during the periods as agreed by the civil contractor, under the supervision of SHE staff of System Wide Contractors
iv.	Medical	As per Phase-4 Conditions of Contract on Safety & Health and Environment	As per Phase-4 Conditions of Contract on Safety & Health and Environment
v.	Drinking Water	As per Phase-4 Conditions of Contract on Safety & Health and Environment	As per Phase-4 Conditions of Contract on Safety & Health and Environment
vi.	Lighting	Civil to provide general lighting to all common/general areas of the worksite till permanent lights become functional in that area or issuance of Taking over certificate whichever is earlier.	Task lighting will be the responsibility of the various agencies/ system contractors.
vii.	Power	Civil to supply power distribution boards at entry/exit and Ancillary building at each level and at 150m	System-Wide Contractors may obtain power supply from civil contractor on mutually agreed

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		intervals along the tunnel length for the use of all contactors, power capacity to suit the combined requirement of each consumption is to be mutually agreed with the system contractors. The power supply shall be maintained until one month after energization of the LV system at ASS level or the confirmation from the system Contractors whichever is later. Thereafter Civil may take power supply at single point from ASS level on chargeable basis from DMRC, as per the rates conveyed by DMRC to the contractor for that period and the same shall be re-distributed to all system wide contractors by civil contractor on suitably revised rates.	basis.
viii.	Survey and marking	Civil to provide survey/ setting out grid line and level reference for stations and tunnels. Civil Contractor to promptly provide Grid Marking, Finish Floor Level (FFL) marking at Entry/exit and Tunnel Centre line marking as required by system wide contractors for ducting, piping, and cable tray work etc. in case the marking gets faded/ erased due to painting or any other work, then civil should restore it promptly.	
ix.	Cleaning	Civil will be responsible for general site, Tunnel & Viaduct cleaning (except for removal of material pertaining to System contractors) and will identify separate designated dump areas for each contractor for material to be deposited prior to removal. In case any system contractor fails to remove his material, the Engineer / Engineer's representative (DMRC employee) of Civil contract along with the	Once technical room is handed over, the principal system contractor for that room will take over responsibility for cleaning the room. Other system contractor to be permitted to continue their work mutually agreed and following a reasonable sequence on sharing basis without hampering/ damaging the work of any other system contractor. System wide

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		Engineers /Engineer's representative (DMRC employee) of respective system wide contractors shall inspect the site jointly and prepare a joint note. After written notice of minimum three days to the system contractor to remove his material, thereafter civil Engineer may instruct civil Contractor to remove it and the cost of the same shall be borne by the system contractor as mutually agreed upon by DMRC Engineers of various system wide contractors and civil. Civil will hand over the rooms to respective system contractor in properly cleaned condition and after providing proper lockable door & key in as secured condition.	contractor shall be responsible only for cleaning of room/ area after taking over the room / area from civil.
x.	Security	Civil in general will be responsible for establishing an overall site security system to the approval of the Engineer. The system should ensure that no person from any agency working at site may take out / bring in material without written authorization from the respective contractor's nominated site incharge and civil security in charge. The verification of any person removing material from site or bringing any material to site, shall be sole responsibility of the contractor to whom the material belongs. The system once approved by the Engineer of civil contractor shall be binding on all system contractors. In case civil contractor is demobilized before completion of System-wide contractors work, the Engineer / Engineer's representative (DMRC employee) of Civil contract along with the Engineers Engineer's representative (DMRC employee) of system wide contractors shall	System Wide contractors has to provide prior authorisation in case they have to bring in/remove any material from worksite. No loading/unloading of material shall be allowed without prior authorisation. In case civil contractor is demobilized before completion of System-wide contractors work, the Engineer/Engineer's representative (DMRC employee) of Civil contract along with the Engineers / Engineer's representative (DMRC employee) of system-wide contractors shall decide to entrust the responsibility to the system-wide contractor generally having the largest scope of remaining work.

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		decide to entrust the responsibility to the system wide contractor generally having the largest scope of remaining work	
xi.	Safety	As per Phase-4 Conditions of Contract on Safety & Health and Environment	As per Phase-4 Conditions of Contract on Safety & Health and Environment
xii.	Toilet and Amenities	As per Phase-4 Conditions of Contract on Safety & Health and Environment	As per Phase-4 Conditions of Contract on Safety & Health and Environment
xiii.	Drainage	Civil Contractor to provide and maintain temporary pump arrangements for all requirements related to entry/exit, Ancillary area and tunnel until commissioning of permanent pumps or completion of civil works (issue of Taking over certificate)	Civil and E&M contractors will coordinate to install permanent pumps such that drainage of the sump is not interrupted. E&M contractor shall promptly commission the permanent pumps post installation
xiv.	Access Dates	Civil contractor to provide and update system-wide contractor the access date for various area in entry/exit building, tunnel, ancillary building, etc.	System wide contractor to coordinate and interface with civil contractor to obtain the access dates for various area in entry/exit building, tunnel, ancillary building, etc.
xv.	Civil Drawings	Civil Contractor to provide the same as requested by System Wide Contractor. Any proposed Change in drawings to be promptly communicated by Civil contractor to System Wide Contractor for his consent and subsequent updation of drawings prior to execution of civil works. In case common BIM interface is implemented, the drawings to be obtained from the same.	System-Wide Contractor shall collect Station, Tunnel, Architectural Structural drawings and sectional views in the Roof level, Ground level, Basement 1 & 2 level, Subway level, undercroft level etc. from your Civil Contractor. Any proposed design/drawing changes as communicated by civil contractor to System-Wide Contractors are to be approved/commented by respective System Wide Contractors promptly prior to execution of civil works. Any proposed Change in system drawings which may affect civil drawings to be promptly communicated by System Wide Contractor to Civil contractor for his consent and subsequent updation of drawings prior to execution of civil works In case common BIM interface is implemented, the drawings to be obtained from the same.
xvi.	Services	Civil contractor to carry out works	System-wide contractor to timely

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	Requirement	as per requirement of latest approved	provide the room size, door size, and finish details for equipment rooms to DDC for incorporation in drawings.
xvii.	Niches	Civil contractor to provide the same as per the latest approved drawings. Niches for Sockets/Panels as requires. FHC niches with proper drain arrangement to be provided by civil contractor.	System wide contractor to timely provide details of niches required by them in the entry/exit and ancillary area along with necessary cut-outs.
xviii.	Site Office and storage space	Civil contractor to provide properly levelled and debris free site storage space and Office Space to System Wide Contractor as per the instructions of the Engineer.	System Wide Contractor to coordinate with Civil Contractor for provision of Proper and adequate Site Office and Storage Space
xix.	Regular interface meeting	Civil Contractor to organize coordination meetings as per project requirement to discuss interface issue, exchange information, drawings, documents etc. and inform DMRC for critical issues. Minutes of Meeting for these meetings to be maintained and communicated by Civil Contractor.	System Wide Contractor to attend coordination meetings as per project requirement to discuss interface issue, exchange information, drawings, documents etc. and inform DMRC for critical issues
xx.	Cut-outs in slab (floor/ceiling), walls etc.	Civil contractor to provide the cut-outs and recesses in slab, walls etc. for passage of services as per SEM, WRD, CSD etc. Civil contractor to coordinate with system-wide contractor for joint inspection of cut-outs prior to casting.	System Wide Contractor to coordinate with DDC for timely incorporation of his requirement in SEM, WRD, CSD etc drawings. System Wide Contractor to jointly verify the compliance of requirements prior to casting as per approved drawings.
xxi.	Lifting / pulling hooks	Civil contractor to provide the lifting hooks to the System Wide Contractors as per the location and hook design communicated by the System Wide Contractors	System Wide Contractor to provide the equipment / plant weight, hook location and dimensional drawing of the hooks
xxii.	Foundation for equipment	Civil contractor to provide foundations as per requirements of System Wide Contractor Any structural detailing required for foundations has to be carried out by Civil Contractor based on design from System Wide Contractor. Filling of concrete in pump bore etc to be done by civil contractor. All foundations should be properly	System wide contractor to provide details of Foundations required by them in various station areas for various equipment.

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		levelled and edge protection (Nosing) to be provided as per drawings.	
xxiii.	Water tanks	Civil contractor to provide Water tanks of required capacity with partitions. Waterproofing, interconnection etc. as per details provided in latest approved drawings, as per Employer's requirements with all necessary sleeves, cut-out, flanges, access manholes, manhole covers, monkey ladder, drainage arrangement etc. as per requirements given by System Wide Contractor in approved architectural drawings. Tiling to be provided in all the tanks and drain with sump also to be provided in all the tanks. The Tank opening covers are to be provided with lock and key arrangements. Unused sleeves to be closed by civil contractor. Overflow of water tanks to be property drained out to respective sump by civil contractor as per approved drawings.	System-Wide Contractor to coordinate and interface with Civil Contractor for adequacy of the provisions for water tanks.
xxiv.	Tunnel Cross Passage with/without Sump	Civil contractor to provide the cross passage as per the approved drawings. Connection of pipes from Pump Deliver Header and piping network for discharge of sump water along with all associated accessories like butterfly valve, NRV, PG etc. To be done by Civil Contractor.	System Wide Contractor(s) to coordinate with Civil contractor for requirement of cross passages and provide the details of Emergency Phones, Sump pits, cutouts for pumps, access manhole, Sleeves/cutout for pipes in cross passage wherever required for incorporation in cross passage drawings by DDC prior to construction of cross passage. Supply & Installation of Sump Pumps with LV Panel & Cabling etc. to be done by System Wide Contractor.
xxv.	Reflected Ceiling Plan (RCP)	Civil Contractor to provide the RCP and False Ceiling Installation Schedule to the System Wide Contractor whenever required by a system contractor. Furthermore, Civil Contractor to interface and coordinate with System Wide Contractor for provisions and	DDC/Civil/Architect to provide the coordinated RCP along with all service arrangement and location. System-wide contractor to further coordinate with DDC and Civil contractor for finalisation of E&M, services and installation arrangement along

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		installation arrangement of Services. Civil Contractor to obtain clearance from System Wide Contractor before starting False Ceiling Works in any area. System Wide Contractor to provide the same without unnecessary delay. Civil Contractor shall provide openings and any specific supporting arrangement if required by System Wide Contractor in false ceiling to install PIDS, Speaker, micro phone, CCTV, Analog/Digital clock, Leaky cables, light fixtures, detectors or any other minor equipment etc. Easily Openable and refixable access doors / Trap doors for piping valves, duct dampers etc to be provided by Civil contractor in the false ceiling as per the requirement given by System Wide Contractors in approved drawings. False ceiling supports should be installed after coordination with System Wide Contractor as per approved RCP.	with false ceiling installation schedule. System Wide Contractor to ensure that no fixtures/installations/cabling is done over the ceiling after issuing clearance for False Ceiling Works. Only those works which can only be done subsequently/after installation of false ceiling shall be allowed in coordination with civil contractor. System Wide Contractor to provide location and opening size for any opening required to be left by the civil contractor to facilitate installation of fixtures such as lights, detectors etc
xxvi.	Flooring /wall cladding works	Civil contractor to provide the cutouts and recesses in flooring/cladding works as per latest architectural drawings, provided by DDC. Civil contractor to coordinate with System Wide Contractor for joint inspection of the same prior to carrying out flooring/cladding in that area.	System Contractor to coordinate with DDC/Civil/Architect for timely incorporation of his requirement in architectural drawings. They also need to jointly verify the compliance of all requirements prior to execution of works.
xxvii.	Dewatering	Civil Contractor to provide temporary pumping arrangements along with Discharge piping at all locations to avoid water logging in the Station and Tunnel Areas. Pumping arrangement to be provided till Taking Over Certificate.	After issuing of Taking Over Certificate issued to Civil, E&M Contractor will do the same till ROD.
xviii.	Closing of cutouts	Civil contractor to close /optimize all cutouts as cleared by system wide contractor where the gap for closing in more than 200 mm in under/above ground structure. Civil contractor will carry out fire proof sealing of all cutouts	System Wide Contractor to give clearance to civil for optimization/closing of cutouts after installation of services. In under/above ground structure fire sealing of openings of 200mm and below gap shall be done by

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		opening of more then 200mm size gap at under/above ground structure with concrete/block work.	the respective system contractors whose services is passing through the cut-out.
xxix.	Temporary Doors	Civil contractor to provide proper temporary Doors with locking arrangement at the time of giving access to work areas till the provision of permanent doors.	System Wide Contractor to take over the rooms for working only after provision of temporary doors with proper locking arrangement by civil contractor.
xxx.	Epoxy Flooring	Civil contractor will provide epoxy flooring in ASS, Lift pit and and technical room as per the procedure and specification provided System Wide Contractor in the contract /as per the instructions of the engineer and as per the provision in BOQ if Civil /Finishing works.	System Wide Contractor will coordinate with civil contractor for epoxy flooring in ASS, lift pit and technical room.
2	**GENERAL INTERFACE REQUIREMENTS**		
		(i)Civil to provide openings as per the latest approved drawings. Civil will get pour card signed by concerned System Wide Contractor prior to casting to ensure that work has been done as per approved drawings. Any modification in cutouts etc for improvement / better functioning of the system shall be done by civil along with undertaking from Electrical systems contractors duly approval by respective DMRC Engineers. (ii) Civil to assist System Wide Contractors in planning equipment delivery route for major materials and plant of the system contractors showing temporary and permanent provisions in slabs and walls to permit future replacement of plant and to allow initial transport from ground level to final room location in consultation with system contractors. Civil to provide ingress/ egress route including loading deck (in case of elevated stations), closing /opening arrangements in	Any changes if proposed are to be requested by system wide contractor in writing well in advance, through the Engineer of his contract to architecture wing of DMRC for incorporation in architectural drawings, prior to execution of civil works. System Contractor to sign the pour card in coordination with civil contractor. Any changes (such as change in service opening, lifting / pulling hooks, foundation, ducts etc.) desired by the System Wide Contractor post execution of any civil work shall be on the account of the agency/System Wide Contractor responsible for the change, if not as per approved drawings. System Wide Contractor to plan and propose their own Equipment Delivery Route in consultation with civil contractor.

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		consultation with System Wide Contractor. Civil contractor to provide the temporary opening of required size and access routes for delivery of equipment as proposed in equipment delivery route. No wall etc. to be altered/closed in the delivery route before clearance from respective System Wide Contractors. (iii) Civil contractor to provide earthing terminal for their Structures false ceiling structures etc. (at entry/exit & Ancillary building) for which E&M contractors will provide no's of earthing points. (iv) **Raw <u>WATER (QUANTITY & TYPE OF WATER AS PER REQUIREMENT OF SYSTEM CONTRACTOR</u>**shall be provided by civil for carrying out testing activities if a permanent water supply arrangement is not available. (v) Louvers (with bird mesh)/ Wire mesh in Ancillary building or entry/exit locations to be provided by civil contractor. (vi) The civil contractor shall conduct regular meetings with other system contractors' advice versa as necessary to clarify particular aspect of the requirement of the work. (vii) Civil contractor as well as other system contractors shall, in carrying out their interface coordination responsibilities, raise their observations well in time and provide sufficient information for the employer to decide on any disagreement between contractors. If any contractor, despite having made reasonable efforts, cannot resolve any such disagreement, then the decision of the employer shall be final.	All System Wide Contractors to provide the equipment & plants weight, dimension etc. to Civil contractor to provide temporary opening and access route and the same to be agreed and reflected in Equipment Delivery Route Drawings. System Wide Contractor to deliver the plants and equipment E&M contractors will connect earthing points to earth civil structures, false ceiling structures etc. Louvers size/Wire mesh and specifications to be provided by E&M contractor in the required locations. All system contractors shall ensure the presence of their qualified / experienced coordinating engineer during CIVIL construction works to enable proper interface with civil contractor so as to ensure timely intervention (if necessary) and swift interfacing of works.
<u>3</u>	**ADDITIONAL INTERFACE WITH E&M CONTRACTORS**		
	Tunnel	i. Civil to provide in	System Contractor to supply the

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1.	Ventilation System (TVS)	designated rooms for system contractors drainage, shafts, precast RCC slabs for covering the access hatch, galleries cut-outs, lifting/pulling hooks. ii. The internal surface of shafts/plenums including floors to be provided with anti-dust paint as per finishing schedule. iii. Louvers pertaining to architectural finishing works to be provided by civil contractor as per the architectural drawings. For any open to sky shaft, MS gratings to be provided by civil contractor as per approved drawings. iv. Access doors suitably rated for Fire shall be Provided by civil in shafts as per requirements given by system contractor. v. Lifting hooks shall be provided in fan rooms at location provided by system contractor in approved drawings.	details of all loads, plant layouts, equipment foundation for room sizes. Cutout recesses, shaft/gallery sizes and Changes required to details incorporated in approved drawings to be provided well in advance of casting. The details of lifting hooks to be provided by Electrical System Contractors to the civil contractor prior to the casting. Louvers pertaining to tunnel ventilation purposes and other technical requirements such as in shaft and other locations are to be provided by respective Electrical System Contractors. Any pipe pedestals if required by system contractor shall be installed by them.
2	Air conditioning	i. Civil to design & build the tunnel of considering the services of the system wide contractor. ii. Civil to provide in designated rooms for system contractors drainage, equipment foundations, pipe /pedestals, shafts cut-outs, lifting / pulling hooks, canopy/slabs to cover access hatch as per drawing. iii. Civil to design and build architectural finishes in public areas with provision for ECS & E&M fixtures including cut-outs in architectural finishes for passage of services and installation of fixtures. iv. Civil to carry out a joint check with System contractor	E&M contractor will provide details of loading on the tunnel surface & the location of the anchor/fasteners provided by E&M contractor. System contractor to supply details of all loads, plant layouts, equipment foundations, room drainage requirements, room sizes, pipe support pedestals, lowering hatches, cut-outs, recesses, shaft/gallery sizes. Louvers pertaining to E&M such as in shafts and other locations are to be provided by the respective Electrical system contractors.

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		for all drain points provided for E&M to be free of any obstruction and hand over before commencement of testing of ECS Equipment. Drain channel shall be covered with perforated drain traps. Concealed Drain pipe (vertical and horizontal) will be laid by civil contractor Wherever required as per design. v. Louvers pertaining to architectural finishing works to be provided by Civil contractor as per architectural drawings. For any open to sky shaft, MS gratings to be provided by civil contractor as per approved drawings vi. All ECS Shafts, all the rooms provided with air conditioning with **FCUS/VRV** or other means, are to be provide with drainage arrangements vii. All shafts, Masonry plenums, Masonry ducts, etc. to be sealed and to be provided with evenly finished internal surface free from any extra sticking/hanging ply, wooden pieces or any other material, any protrusions, debris and unwanted material etc. The internal surface including floors to be provided with anti-dust paint as per finishing schedule. viii. Access doors suitably rated for Fire shall be provided by civil in ECS shafts as per requirements given by ECS contractor. ix. All **FCUS/VRV** coming above false ceiling are to be provided with good quality hinged openable access doors as per the sizes given by E&M contractor.	Any pipe pedestals if required by E&M contractor shall be installed by them.

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		x. All the cut outs in the slabs for Piping, cables / cable trays and ducts – whether inside or coming under open sky- are to be provided with adequate protection to prevent any ingress of seepage / rain water etc.	
3.	**Electrical**	i. Civil to provide in designated rooms for system contractors drainage, equipment foundations shafts/galleries, cut-outs & recesses in entry/exit & tunnel lifting/pulling hooks, earth mat, earthing risers through base slab to earthing terminals. ii. Civil to design and build architectural finishes in public area with provision for E&M fixtures including cutout and provision in architectural finishes for passage of services and installation of fixtures. The same shall be done in accordance with approved architectural drawing. Civil contractor will also provide structure member for installation of lighting arrestors (LA), etc. as per details furnished by E&M contractor and DDC. iii. Civil to provide drainage channels at tunnel as per approved drainage plan. iv. All borewell Pumps to be provided by Civil Contractor. For all pumps including all drainage pumps, all piping, fittings, accessories, etc. shall be provided by civil contractor however civil to provide details of submersible & borewell pumps rating & quality of all pumps to E&M contractor for providing required braker feeder & cabling up to civil	E&M contractor / E&M DDC to supply details of all loads, plant layouts, equipment foundations room drainage requirements, room sizes, cutouts, recesses, cables gallery/shaft sizes poles / structures for lighting, support structure for cable trays /lighting arrester, LV earth mat (entry/exit) and earthing terminals (entry/exit) for assisting civil contractor in planning his activities. E&M contractor to provide chequer plate /fire rated infill where opening in floors exceed the dimensions of LV equipment in ASS. E&M contractor will provide required breaker feeder, cabling and terminations up to civil starter panel of submersible and borewell pumps. All hydraulic & Plumbing pumps (except bore well pumps) as well as their starter panels shall be provided by E&M. External Busduct / cable tray support to be provided by E&M contractor.

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		starter panel. Civil contractor to provide and maintain temporary drainage pumps for all requirements related to tunnel until commissioning of permanents pumps. All plumbing /Pining along with associated accessories for water supply requirements be done by civil contractor. v. Civil to provide HDPE pipes for cables as required by E&M contractor for external lighting poles at road crossing, foot-path area etc. In case of FOB (Where roof is not provide), Civil contactor to provide mounting arrangement as per E&M requirement. vi. Equipment foundation shall be provided by Civil contractor as per approved drawings. vii. Concealed drain pipe (vertical and horizontal) will be laid by Civil contractor wherever required as pet design. viii. The civil contractor needs to coordinate with E&M contractor so that both the E&M and civil works are executed in sync and no rework is required. ix. All finishing work of cut-outs wall chipping and AC drainage provided by E&M contractor to be done by civil contractor. x. For laying of earth strip in floor of ASS, etc the interface to be done by E&M and civil contactor. xi. Civil to provide suitable location for outdoor units of AC installation and easy maintenance. xii. Water connection with drainage arrangement to be provide by civil contactor at	The E&M Contractor needs to provide all foundation details /drawings, hook details, cut out details etc. to DMRC well in advance so that the same are incorporated in the approved GFC Prior to execution of Civil work. The E&M contractor needs to coordinate with civil contactor so that both the E&M and Civil works are executed in Sync and no rework is required.

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		outdoor units as per approved drawings. xiii. Civil contractor to interface with E&M contractor before laying of stones/granite. Any cutting of floor/wall granite required for laying raceway by E&M contractor as per approved drawing to be done by civil contractor.	
		Earthing Risers (for entry/exit building only) E&M contractor to coordinate with DDC/Civil/Architect for provided proper drawings and design of earth mat to civil contractor.	Proper earthing raisers as per approved design with desired value shall be provided by Civil contactor. Earthing riser have to be provided up to the location of test links provided up to location of test links provided by E&M contractor. Furthermore, the risers shall be covered by suitable and mutually agreeable means top avoid theft.
4.	**power supply**	i. Civil contractor to construct rooms, knockout panels, room finishes, equipment foundations, shafts / galleries, cut-outs, recesses, cable ducts within slabs, lifting/pulling hooks, earth mat, earthing risers through base slab to earthing terminations as per the approved drawings.	Power supply contractor to supply details of all loads, plant layouts, equipment foundations, room sizes (ASS, UPS, etc.), cut-outs, recesses, cable gallery/shaft sizes, cable ducts within slabs, lifting/pulling hooks, HV earth mat and earthing terminations. Power supply contractor to provide chequer plate / fire rated infill where openings in floors or walls exceed the dimension of the HT equipment or due to any other reason.
		Auxiliary Substations Civil contractor will provide ASS room complete in all respects, including flooring, access doors, and interior finish, but excluding foundations for transformer and panels. Station building contractor will provide the necessary cut-outs for cables entry and exit.	System contractor will provide ASS layout drawings showing equipment layout, access doors etc. Power supply contractor will provide necessary details of foundations for transformers, panels other equipment etc. Alternatively, the Contractor of this Tender can provide suitably designed anchor fasteners to fix transformers,33Kv/11Kv panels, Battery chargers etc to the basic floor / pedestal.
		Provision of openings in slabs	System contractor will provide

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S.NO.	Item Description	Role of civil Contractor	Role of System-Wide Contractor
		etc. for cable entry and cable exit HDPE pipes for cables as per approved drawing / will be provided by Civil contractor. The construction should take into consideration cable bending radius (specified in the drawing), cable fastening arrangements and suitable provision to cover the cables in public places Provision of cable path shafts, cables support for cables to ASS. Civil contractor will provide a cable gallery or shaft for entry of cables coming from buried in ground/pipes etc. for taking them up to ASS (at designated structure).Sealing and waterproofing ,if any required shall be provided by civil.	drawings showing the location and sizes of openings to be provided in slabs etc. to allow passage of cables. DDC/Civil/Architect will prepare cable route drawing and contractor will provide opening as per drawing. E&M contractor will interface with Building contractor to ensure correct and adequate cable Routings, openings etc. E&M contractor will supply install and connect cables. E&M contractor /DDC will provide necessary drawings &details for cable routing. Cable path / route from Source to ASS to be done by E&M contractor.
3.E	**Lifts**	i. Civil contractor to design and build lift shaft and machine room (where as applicable) with cut-outs recesses, provision for lifting beam, drainage, rain shelter and internal shaft plaster & anti dust paint finish as per approved drawings (Finishing of the shaft as per approved drawings and BOQ). ii. Civil Contractor to provide properly levelled, clean, clear and debris free work areas, shaft access (including cable entry holes / cut-out), hooks / holes, loading / unloading areas and clear access from road to shaft for erection of LIFT as per requirement of E&M Contractor. iii. Civil Contractor to provide gravitation drainage system of Lift Pit as per requirement of lift contactor. In addition, for entry/exit building drainage system with sump pump and its depth must be more than lift pit. Drainage sump pit of elevator should be away from the elevator landing to avoid	E&M contractor to supply shaft dimensional data and details of cut-outs, recesses, lifting beams, drainage provision for surface mounted fixtures, detailed load calculation, design and drawings of load beams/hooks etc. well in advance so that the same can be incorporated in the architectural GFCs prior to casting of lift shaft.

- System-wide contractor means E&M, S&T, telecom Contractors.

PD/PM-02 ED/Electrical GM/S&T/Patna

S.NO.	Item Description	Role of civil Contractor	Role of System-Wide Contractor
		any inconvenience to users. iv. Civil contractor to do waterproofing of lift shaft (wherever required) as per requirement of Engineer. v. Civil contractor to provide Slope and proper drainage arrangement of accumulated water on roof of lift shaft. vi. Civil contractor to provide ventilation cut-out for adequate fresh air ventilation asper requirement of Lift Contractor as per approved drawings. vii. Civil contractor to provide canopy (including drainage system at roof of Lift Shaft) and rain shower protection for Lifts Shaft exposed to open sky. viii. Civil contractor to construct lift shaft asper dimensions in drawing with proper plumpness. In case of any subsequent correction/alteration, civil contractor to provide certificate that Lift Shaft is suitable for installation and safe operation of lift. ix. Civil contractor to match stone finished floor level with the level of Lift Landing Sill(at all landings). If required, civil contractor will create suitable slope in stone finishing work as per approved architectural drawings. x. Civil contractor to provide adequate slope (away from lift landing) as per approved drawings. xi. Civil contractor to provide plaster on the rear side (Visible from inside of lift shaft) of landing brick/block work as per the provision in scope of work. xii. Civil contractor to provide embedded hooks in case of drilled hooks, load test also to be conducted and test report to be provided.	

- System-wide contractor means E&M, S&T, telecom Contractors.

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S.NO.	Item Description	Role of civil Contractor	Role of System-Wide Contractor
		xiii. Civil contractor to interface with DMRC and Lift Contractor for the placement of water tank to avoid any seepage in lift Shaft. xiv. Civil contractor to coordinate with lift contractor for the construction of lift landing brick and finishing work at each landing. xv. Civil contractor to provide ramp along with SS Handrails on both sides for access to ground floor elevators as per the provision in scope of work. xvi. Future elevator shafts to be protected suitability block /brick work by civil contractor. xvii. Civil contractor to fill PCC at entrance sill and sill stone at all landings. xviii. Landing sill stone flaming for marking it rough surface to be done by civil contractor as per the provision in scope of work.	

- System-wide contractor means E&M, S&T, telecom Contractors.

11/01/2023

PD/PM-02 ED/Electrical GM/S&T/Patna

S. No.	Item Description	Role of Civil /DDC Contractor(s)	Role of System Wide Contractor(s)
1.	ADDITIONAL INTERFACE BETWEEN CIVIL / DDC AND SYSTEM WIDE CONTRACTOR(S)(TELECOM)		
1.1	Common Requirements		
(i)	a) There should not be any water flowing in Telecom/Control rooms. Any drainage pipe passing through Telecom Room should be avoided. There should not be any provision of water Tank above the Telecom rooms.	a) DDC/Architect to make relevant provisions in the drawing as per inputs given by Telecom System contractor(s). b) Civil Contractor to execute the work as per drawing	a) Inputs to be given by Telecom Contractor(s) b) Execution of the work to be coordinated with civil contractor.
(ii)	There should not be any kind of infringement with Telecom installations in Tunnel and Building area with other systems.	a) DDC/Architect to make relevant provisions in the drawing as per inputs given by Telecom System contractor(s).	Telecom contractor to coordinate with DDC/Architect contractor.
(iii)	a) Provision of architectural finishes in Telecom rooms, acoustic treatment and building materials of the entire Tunnel. b) In Telecom Room, other Rooms, Tunnel etc. provision of space for Telecom cable tray connectivity between different levels of buildings, Rooms, Tunnel Entry exit, Tunnel etc. Access provision at each level for future maintenance should be kept. c) Telecom shaft of appropriate size to be provided for each level. and Slab (working platform) appropriate size in Telecom Shaft is required at each level.	a) Material for Acoustic treatment shall be jointly decided by DDC/Architect, Telecom and Civil contractors. DDC/Architect to make relevant provisions in the drawing as per inputs given by Telecom System contractor(s). b) Civil Contractor to execute the work as per drawing. c) However, since Telecom system Contractor(s) are not in place at time of finalisation of drawings, minor changes, if required, in the drawings (pre-execution) / work (post execution) may have to be undertaken, based on inputs from the respective contractors, when they are on board.	Inputs to be given by Telecom Contractor(s).
(iv)	a) Provision of Temporary power and illumination in Tunnel/station area tobe provided for Installation of telecom system equipment(s). b) The energy charge rate per unit of consumption to be mutually agreed between concerned contractors.	a) Civil to provide power distribution boards at 150 m interval along tunnel length for use ofall contractors, power capacity to suit the combined requirements of each contractor. b) Civil Contractor to coordinate with Telecom Contractor(s).	a) Task lighting will be responsibility of Telecom contractor(s). b) Compliance to Safety, Health and Environment (SHE) requirements shall be ensured by Telecom Contractor.

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S. No.	Item Description	Role of Civil /DDC Contractor(s)	Role of System Wide Contractor(s)
1.2	**Tunnel Requirements**		
(i)	Provision of space on outer edge of tunnel wall of Bored Tunnel /Cut & Cover tunnel for installation of stand-offs for laying of LCX cables for GSM/TETRA System.	DDC/Architect to make relevant provisions in the drawing as per inputs given by Telecom System contractor(s)	Inputs to be given by Telecom Contractor(s)
(ii)	Provision of space on tunnel, outer edge/Inner edge of tunnel wall of Bored Tunnel and Cut &Cover area of tunnel for installation of Telecom equipment(s) (Speakers, Cameras, Emergency Telephones, PIDS, Digital Clock, Switches/Junction Boxes etc.) as per Telecom requirements.	DDC/Architect to make relevant provisions in the drawing as per inputs given by Telecom System contractor(s)	Inputs to be given by Telecom Contractor(s))
(iii)	Provision of Signage and Operating instructions for Emergency/ Help Telephone in Tunnel and at Emergency/Fire Exit.	a) DDC/Architect to make relevant provisions in the drawing as per inputs given by Telecom. System contractor(s). b) Civil/Signage Contractor to execute as per drawing	Inputs to be given by Telecom Contractor

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S. No.	Item Description	Role of Civil /DDC Contractor(s)	Role of System Wide Contractor(s)
1.3	**TELECOM Rooms (TER / Control Room)**		
(i)	Area of Telecom rooms	a) DDC/Architect to make relevant provisions in the drawing as per inputs given by Telecom System contractor(s). b) Civil Contractor to execute the work as per drawing.	Inputs to be given by Telecom Contractor(s).
(ii)	Provision of Fire rated Door(s) with clear opening size (FD1) of min. 1500 mm (W) x 2405 mm (H) with glass vision panel in TELECOM rooms.	DDC / Civil to provide required fire rated doors with glass vision panel in Telecom rooms. Height of center of glass vision panel from bottom will be 1500 mm.	Inputs to be given by Telecom Contractor(s).
(iii)	Height Clearance	DDC/Civil to ensure availability of clear height of: i) 3 meters min. from FFL (False Floor Level) of Telecom rooms	Inputs to be given by Telecom Contractor(s).
(iv)	False Ceiling/ Window/ false floor	a) False ceiling, windows/ ventilators are not required to be provided by Civil contractors in Telecom rooms.	a) Inputs to be given by Telecom Contractor(s). b) Under floor tray & False floor in TER to be provided by nominated Telecom Contractor respectively.
(v)	Handover of TELECOM rooms	Civil to ensure availability of following items as a minimum during handover of TELECOM rooms: - - concrete floor with anti-dust/Epoxy paint, - Wall finish with paint, - Doors with lock arrangement with three keys, Temporary lighting etc.	a) Inputs to be given byTelecom Contractor(s). b) Execution of the work to be coordinated with civil contractor

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S. No.	Item Description	Role of Civil /DDC Contractor(s)	Role of System Wide Contractor(s)
1.4	**Operational Rooms Requirement**		
(i)	Control room	a) Civil to provide counter /slab / furniture in control room to keep Telecom/ systems equipment, MMIs etc. b) Holes are to be provided on counter table as per requirement for installation of Telecom systems equipment MMIs, etc c) In case false ceiling is provided in Control Room, Openable Trap doors / Openable type False Ceiling are to be provided near cable tray risers.	Inputs to be given by, Telecom Contractor(s).
1.5	**Telecom Specific Requirement**		
(i)	a) Suitable arrangement for separate pipes i.e., Hume pipe/HDPE pipe for data & power cables up to Entry/Exit gate of parking. If entry & exit is through separate gate, then, connectivity for power/data cable is required, for both. b) Hume pipe /HDPE pipe/ Cable Tray connectivity with pulpit arrangement for any rooms at road level. Pull Pits are to be provided at every bend and after every 15mts. Separate suitable arrangement i.e., Hume pipe/HDPE pipe will be provided by Civil for data cables. If above connectivity is not provided by Civil, following connectivity provided by E&M shall be shared: Hume pipe/ HDPE pipe to be shared b/w E&M and Telecom for Power & Data Cable.	a) DDC/Architect to make relevant provisions in the drawing as per inputs given by Telecomm. contractor(s). b) Civil Contractor to execute the work as per drawing.	Inputs to be given by Telecom Contractor(s).
(ii)	The route for LCX cable of TETRA shall have following conditions. a) False ceiling shall be non-metallic and atleast 200mm below LCX route. b) There shall be no obstructions between the ceiling and leaky coaxial cable. Wherever, LCX is close to wall, there should not be any obstructions for hanging the brackets.	a) DDC/Architect to make relevant provisions in the drawing as per inputs given by Telecomm contractor(s). b) Civil Contractor toexecute the work as per drawing	Inputs to be given by Telecom Contractor(s).

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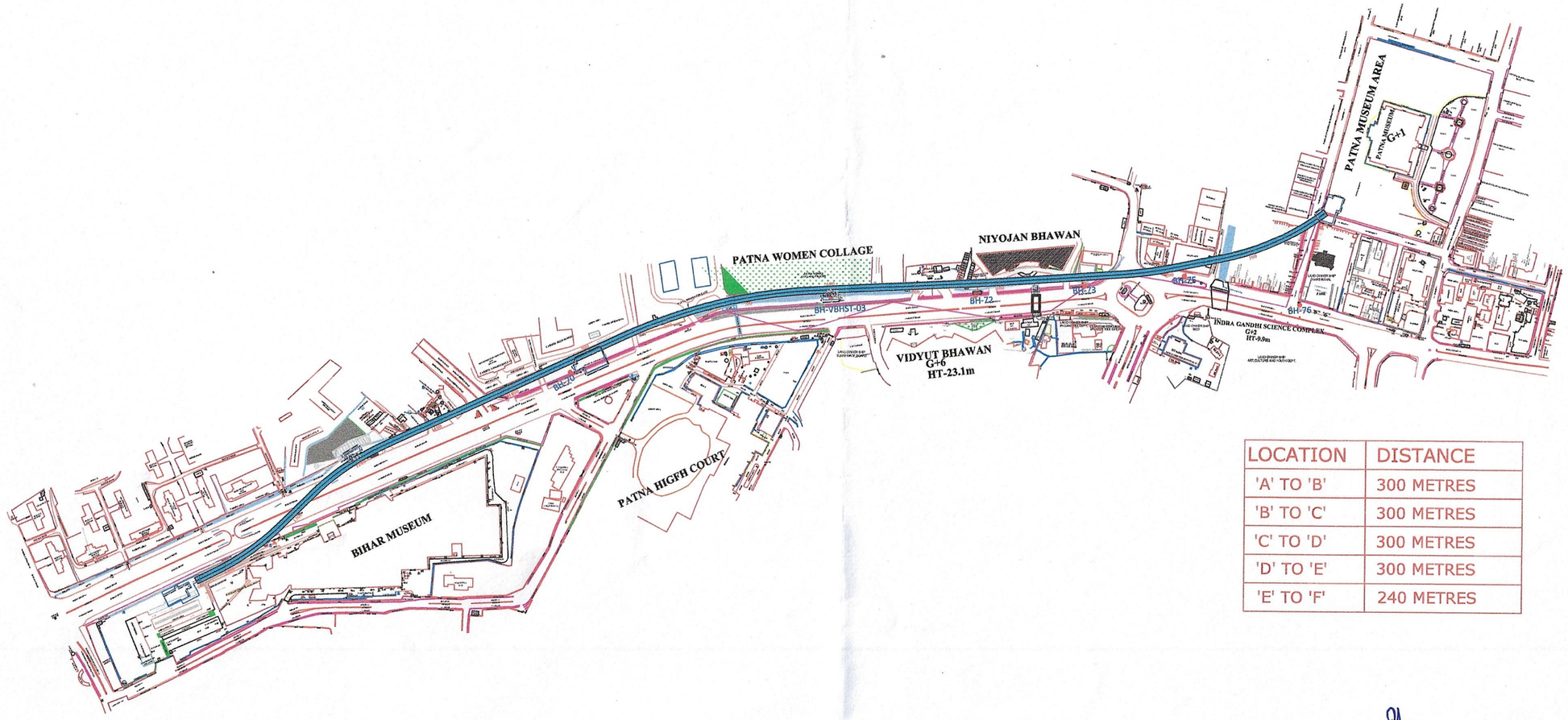
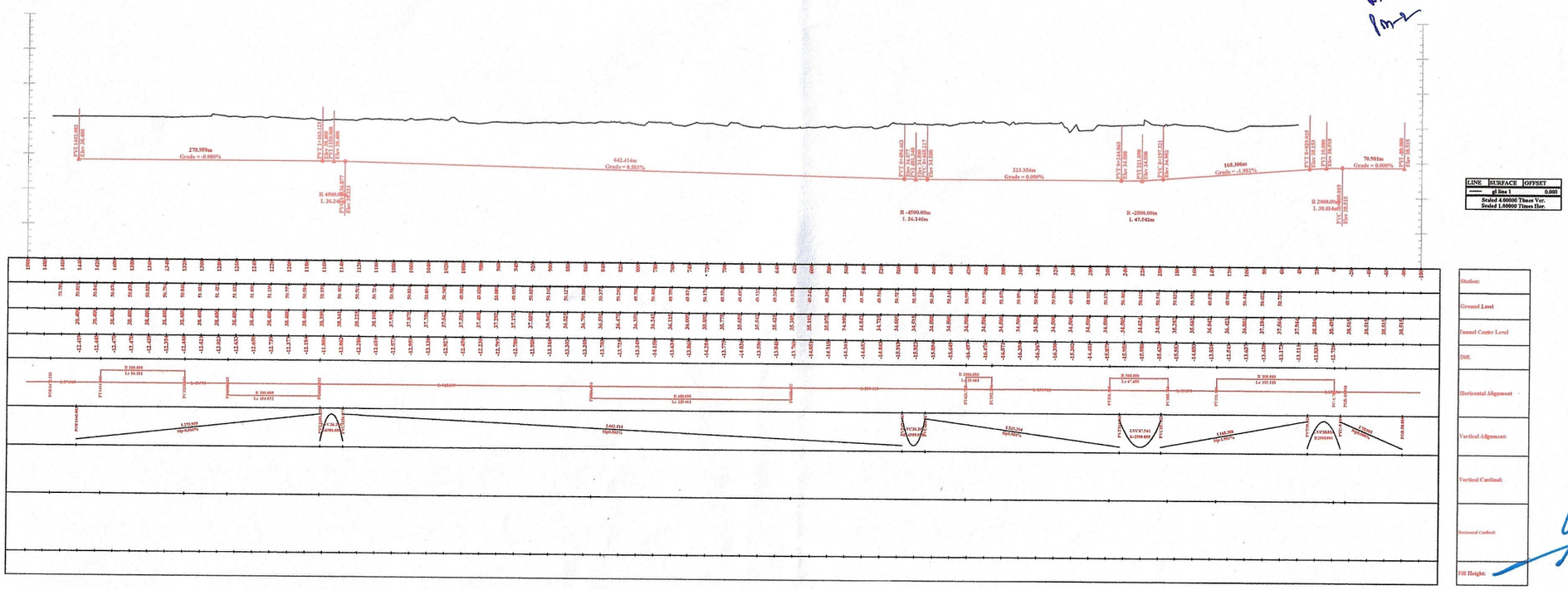
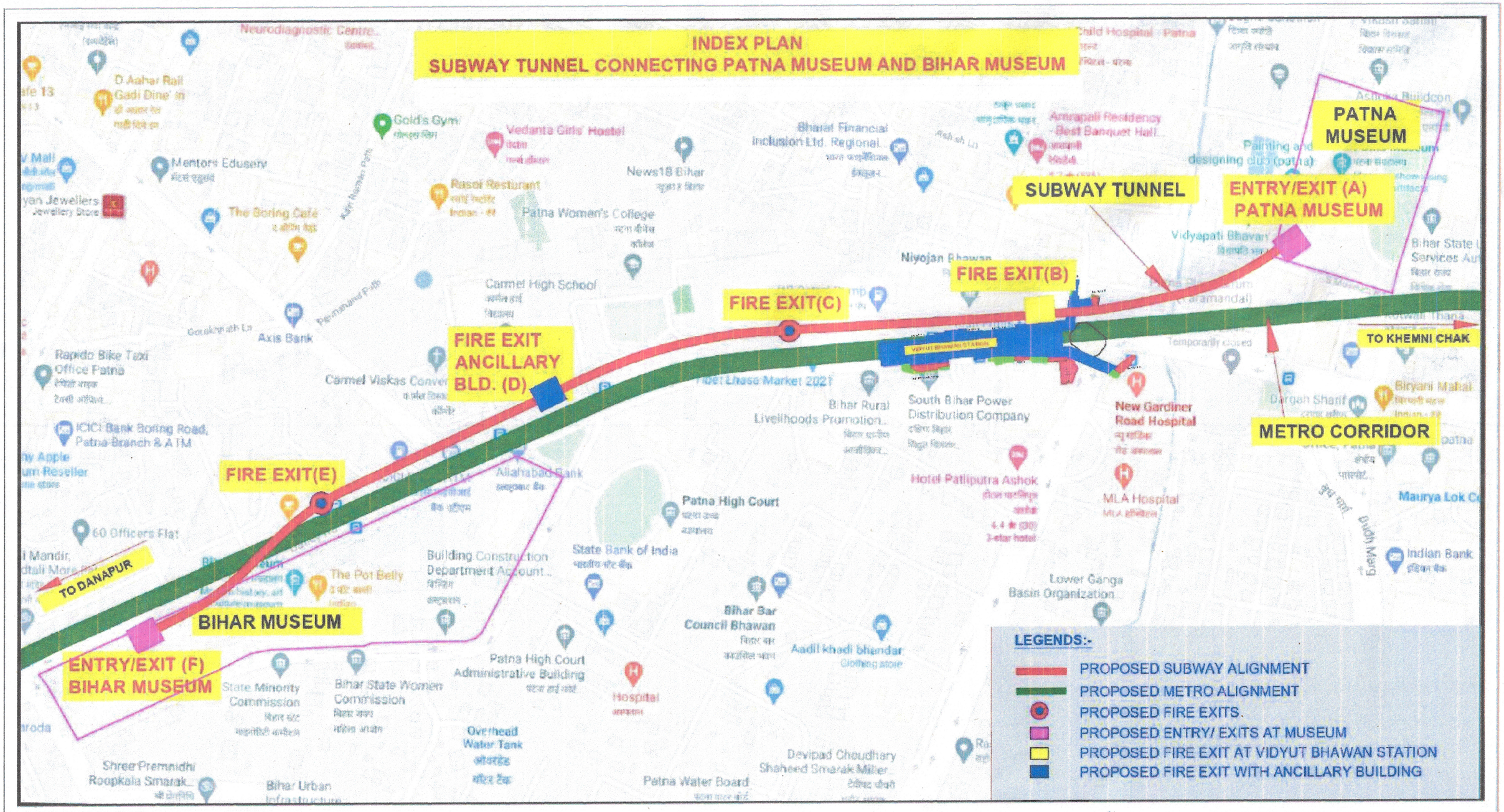
S. No.	Item Description	Role of Civil /DDC Contractor(s)	Role of System Wide Contractor(s)
	a. Provision of space for installation and mounting of PIDS/ Speaker/ CCTV/Clock on portal in Tunnel. b. Signage should not block vaisibility of PID, Clocks, CCTV cameras. c. In Tunnel and Building area with false ceilings, cut outs/ openable type Ceiling are to provide for installation of speakers, clocks, PIDs and CCTV cameras. d. In Tunnel and Building area, holes are to be provided in wall cladding for insatalling Telecom equipment and Cut outs in false ceiling are to be provided for mounting of speakers, PIDs, Clocks, CCTV cameras etc.	a) DDC/Architect to make relevant provisions inthe drawing as per inputs given by (Telecom) system contractor(s). b). Civil contractor to execute the work as per drawing.	Inputs to be given by Telecom, Contractor(s)

PD/PM-02 ED/Electrical 11/01/2023 GM/S&T/Patna



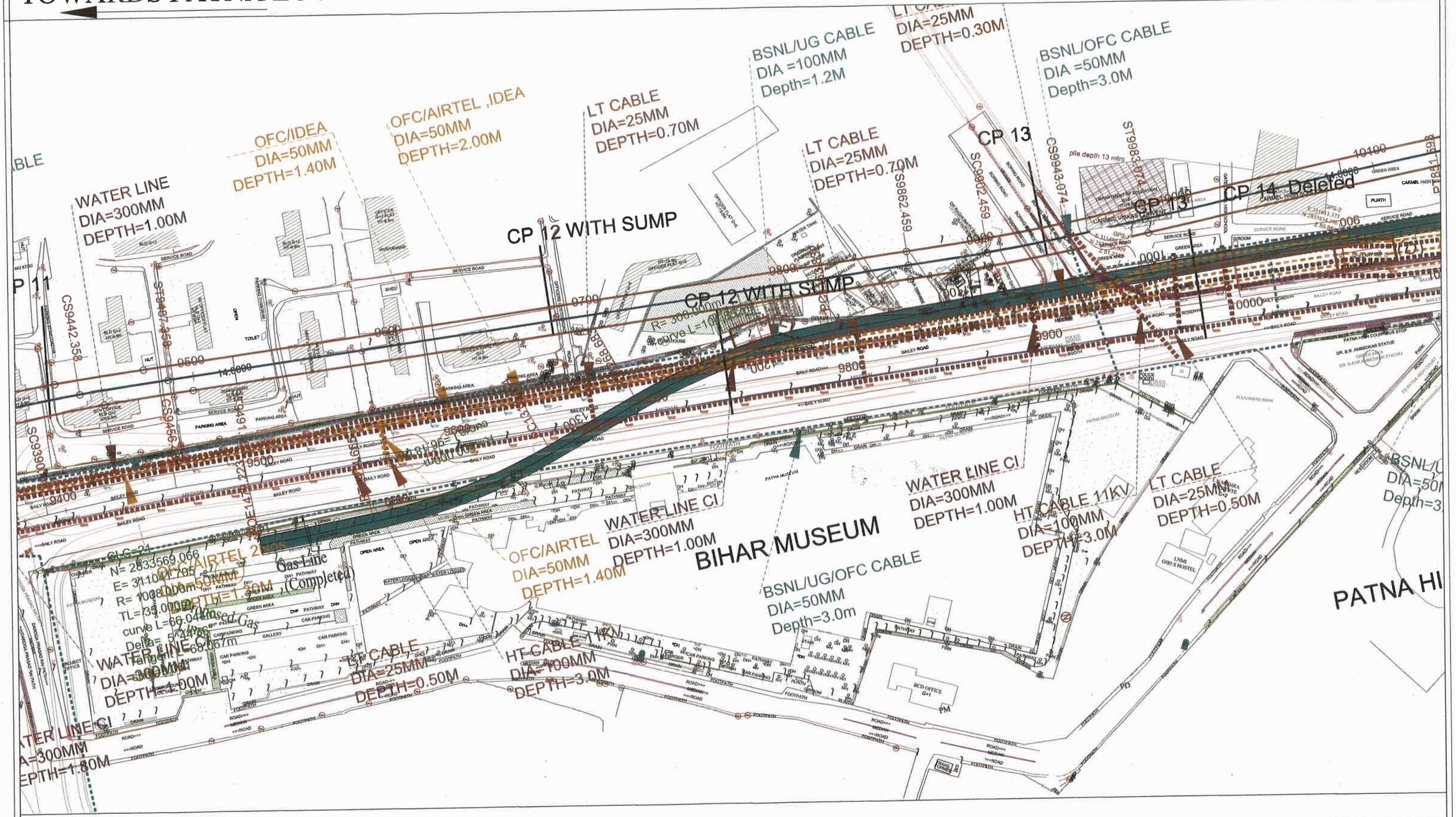
LOCATION	DISTANCE
'A' TO 'B'	300 METRES
'B' TO 'C'	300 METRES
'C' TO 'D'	300 METRES
'D' TO 'E'	300 METRES
'E' TO 'F'	240 METRES




INDEX PLAN
SUBWAY TUNNEL CONNECTING PATNA MUSEUM AND BIHAR MUSEUM
PATNA MUSEUM
SUBWAY TUNNEL
ENTRY/EXIT (A)
PATNA MUSEUM
FIRE EXIT(B)
FIRE EXIT(C)
FIRE EXIT
ANCILLARY
BLD. (D)
TO KHEMNI CHAK
METRO CORRIDOR
FIRE EXIT(E)
TO DANAPUR
BIHAR MUSEUM
ENTRY/EXIT (F)
BIHAR MUSEUM
LEGENDS:-
PROPOSED SUBWAY ALIGNMENT
PROPOSED METRO ALIGNMENT
PROPOSED FIRE EXITS.
PROPOSED ENTRY/ EXITS AT MUSEUM
PROPOSED FIRE EXIT AT VIDYUT BHAWAN STATION
PROPOSED FIRE EXIT WITH ANCILLARY BUILDING

TOWARDS PATNA ZOO STN.

TOWARDS MITHAPUR STN.



SCALE-1:1000

S.No	LEGEND	SYMBOLS
1	ALIGNMENT PATNA METRO	
2	ALIGNMENT SUBWAY	
3	GAS PIPE LINE	
4	B.S.N.L/UG	
5	WATER LINE	
6	SEWER LINE	
7	HT/LT LINE	
8	OFC AIRTEL	

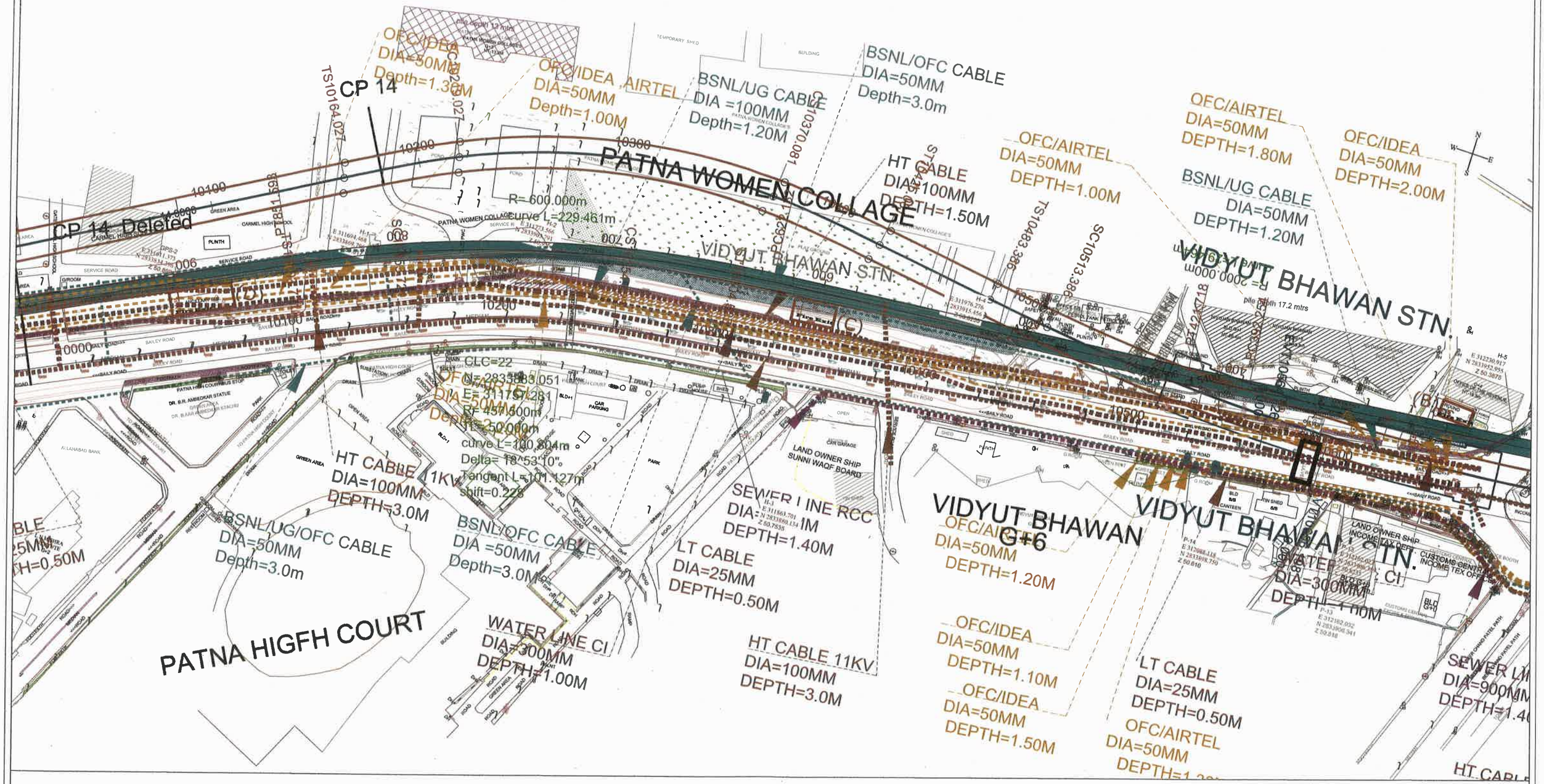
NOTE:-UITILITY LOCATION & DEPTH SHOWN TENTATIVE.THECONTRACTOR HAS TO VERIFY THE EXACT LOCATION ALL UITILITY SHOWN IN DRAWING ARE CHARTED UTILITY.

DELHI METRO RAIL CORPORATION LTD.
13 Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

JE		TITLE:	UTILITY DRAWING OF PC-08
AM/MANAGER		PROJECT:-	SUBWAY BETWEEN MUSEUM
PM		CONTRACT:- PC-08	
PD		DRAWING NO:- DMRC/UTILITY/01	
		SHEET NO :- 1/3	REVISION :R 01

TOWARDS PATNA ZOO STN.

TOWARDS MITHAPUR STN.



S.No	LEGEND	SYMBOLS
1	ALIGNMENT PATNA METRO	
2	ALIGNMENT SUBWAY	
3	GAS PIPE LINE	
4	B.S.N.L/UG	
5	WATER LINE	
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7	HT/LT LINE	
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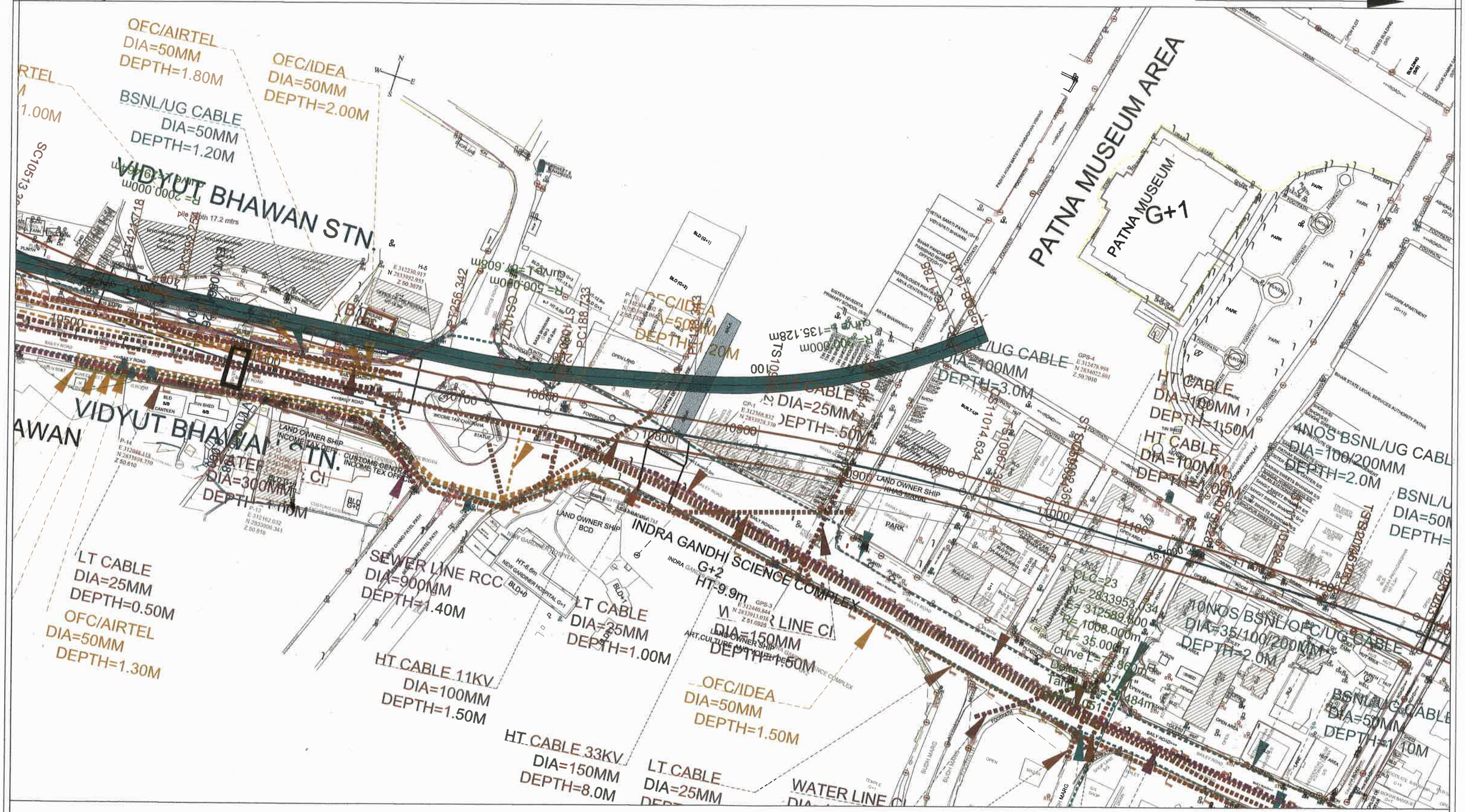
SCALE-1:1000

DELHI METRO RAIL CORPORATION LTD.
13 Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

JE		TITLE:	UTILITY DRAWING OF PC-08
AM/MANAGER		PROJECT:-	SUBWAY BETWEEN MUSEUM
PM		CONTRACT:- PC-08	
PD		DRAWING NO:- DMRC/UTILITY/02	
		SHEET NO :- 2/3	REVISION :R 01

TOWARDS PATNA ZOO STN.

TOWARDS MITHAPUR STN.



S.No	LEGEND	SYMBOLS
1	ALIGNMENT PATNA METRO	
2	ALIGNMENT SUBWAY	
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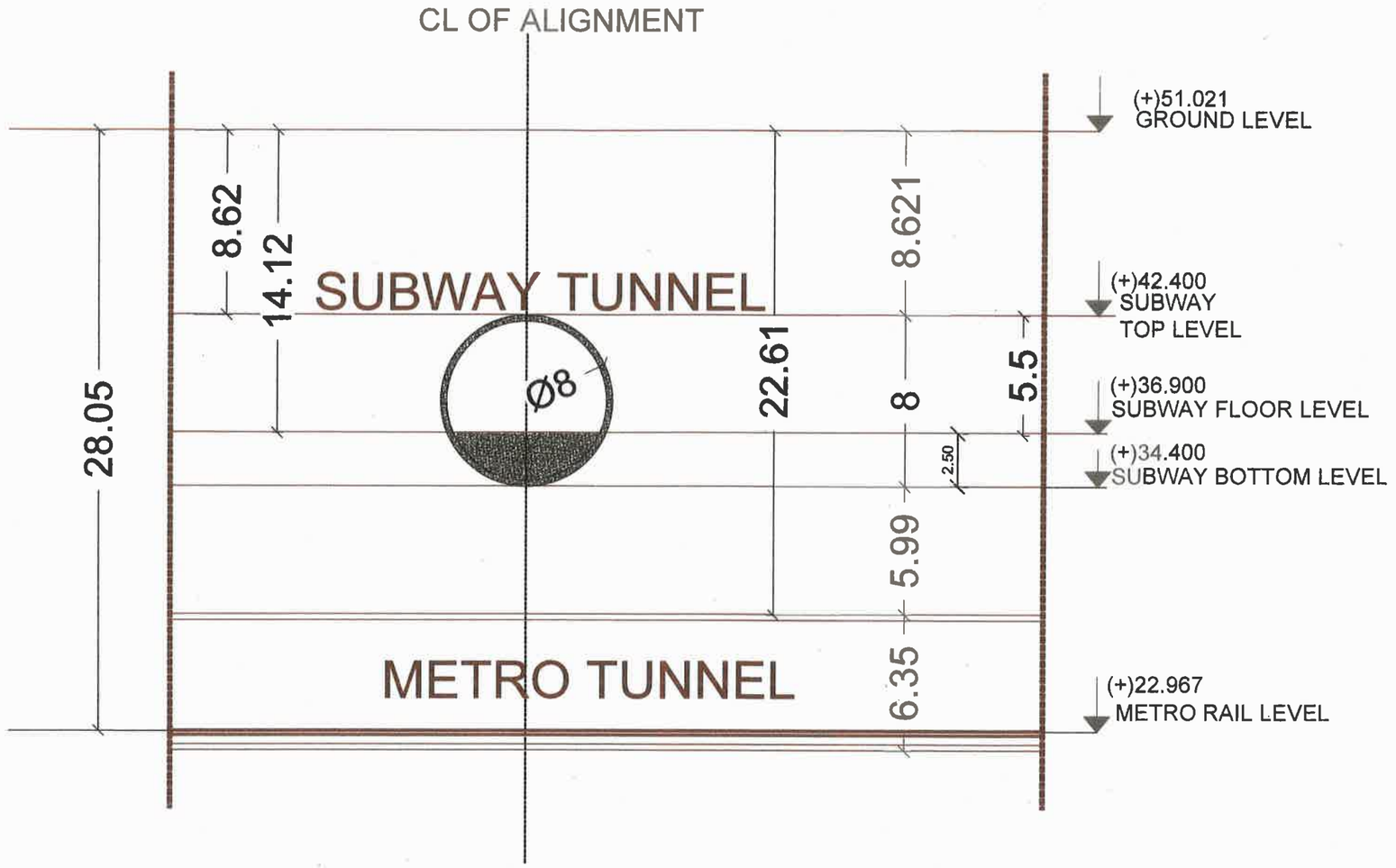
NOTE:-UITILITY LOCATION & DEPTH SHOWN TENTATIVE.THECONTRACTOR HAS TO VERIFY THE EXACT LOCATION ALL UITILITY SHOWN IN DRAWING ARE CHARTED UTILITY.

SCALE-1:1000

DELHI METRO RAIL CORPORATION LTD.
13 Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

JE		TITLE:	UTILITY DRAWING OF PC-08
AM/MANAGER		PROJECT:-	SUBWAY BETWEEN MUSEUM
PM		CONTRACT:- PC-08	
PD		DRAWING NO:- DMRC/UTILITY/03	
		SHEET NO :- 3/3	REVISION :R 01



SUBWAY SECTION-'X-X' AT CH:1300

OFFICE OF ORIGIN:-

First Floor
East Tower,NBCC Place Lodhi Road,
New Delhi - 110003, India

दिल्लीमेट्रोरेल कॉर्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-08

भवन BUILDING NAME: SUBWAY SECTION

DRAWN BY:

चित्रांक-शीर्षक DRAWING TITLE:

दिनांक DATE: 28.09.22 | संशोधन REV: R0 | चित्रलघुमापक GRAPHICAL SCALE: 1:100 | स्थिति STATUS: TENDER

चित्रांक-संख्या DRAWING NUMBER: | पृष्ठसंख्या SHEET NO: | पृष्ठआप SHEET SIZE: ISO A1

NORTH AS PER ALIGNMENT

ARCHITECTURAL

INDICATIVE

DRAWING LIST

Sr. No.	DRAWING NUMBER	Drawing Title	Scale	Revision
1	PMP-C1- VDB-UG-ACM- AR- DR- 0001	DRAWING LIST	NTS	A
2	PMP-C1- VDB-UG-ACM- AR- DR- 0002	DOOR SCHEDULE	NTS	A
3	PMP-C1- VDB-UG-ACM- AR- DR- 0100A	STREET LEVEL PLAN-PART A	1:250	A
4	PMP-C1- VDB-UG-ACM- AR- DR- 0100B	STREET LEVEL PLAN-PART B	1:250	A
5	PMP-C1- VDB-UG-ACM- AR- DR- 0102A	TOP OF BOX LEVEL PLAN-PART A	1:250	A
6	PMP-C1- VDB-UG-ACM- AR- DR- 0102B	TOP OF BOX LEVEL PLAN-PART B	1:250	A
7	PMP-C1- VDB-UG-ACM- AR- DR- 0200A	CONCOURSE LEVEL PLAN- PART A	1:250	A
8	PMP-C1- VDB-UG-ACM- AR- DR- 0200B	CONCOURSE LEVEL PLAN- PART B	1:250	A
9	PMP-C1- VDB-UG-ACM- AR- DR- 0300A	PLATFORM LEVEL PLAN-PART A	1:250	A
10	PMP-C1- VDB-UG-ACM- AR- DR- 0300B	PLATFORM LEVEL PLAN-PART B	1:250	A
11	PMP-C1- VDB-UG-ACM- AR- DR- 0400A	UNDERCROFT LEVEL PLAN-PART A	1:250	A
12	PMP-C1- VDB-UG-ACM- AR- DR- 0400B	UNDERCROFT LEVEL PLAN-PART B	1:250	A
13	PMP-C1- VDB-UG-ACM- AR- DR- 0800	LONG SECTION - 1	1:200	A
14	PMP-C1- VDB-UG-ACM- AR- DR- 0801	LONG SECTION - 2	1:200	A
15	PMP-C1- VDB-UG-ACM- AR- DR- 0802	LONG SECTION - 3	1:200	A
16	PMP-C1- VDB-UG-ACM- AR- DR- 0900	CROSS SECTION - A	1:100	A
17	PMP-C1- VDB-UG-ACM- AR- DR- 0901	CROSS SECTION - B	1:100	A
18	PMP-C1- VDB-UG-ACM- AR- DR- 0902	CROSS SECTION - C	1:100	A
19	PMP-C1- VDB-UG-ACM- AR- DR- 0903	CROSS SECTION - D	1:100	A

NORTH

MODEL VERSION 2

जारी किये गए चित्रांकन
ISSUED DRAWINGS

दिनांक DATE	संशोधन REV.	विवरण DESCRIPTION	विकृत DRAWN	जांच CHECKED	सत्यापित VERIFIED
27.12.22	A	TENDER SUBMISSION	MG	MK	AP

चित्रांकन संदर्भ
REFERENCE DRAWINGS

क्रमांक S.NO.	चित्रांकन संख्या DRAWING NO.	विवरण DESCRIPTION

डीएमआरसी द्वारा अनुमोदन
APPROVAL BY DMRC

पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE
प्रबंधक / वास्तुक MGR/ ARCH		उपमुख्य विद्युत अभियंता विद्युत एवं यांत्रिक DY CE/E & M	
उपमुख्य वास्तुक DY CA		उपमुख्य विद्युत अभियंता पर्यावरण नियंत्रण प्रणाली DY CE/ECS	
मुख्य / वास्तुक CA/ ARCH		महाप्रबंधक विद्युत / भूमिगत – १ GM / E / UG-1	
उपमुख्य अभियंता / रचना DY CE/ DESIGN		परियोजना प्रबंधक PM	
मुख्य अभियंता / रचना CE/ DESIGN	–	मुख्य परियोजना प्रबंधक CPM	
उप महाप्रबंधक संकेतन व दूरसंचार DGM / S & T		उप महाप्रबंधक संचालन DGM / OPERATIONS	

प्रमाणित किया जाता है कि यह है कि दस्तावेज डी डी सी की ओर से गुणवत्ता आश्वासन योजना के अनुसार तैयार किया गया है।
Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan

डी डी सी प्राधिकृत हस्ताक्षरकर्ता पीसीडीडी-०१ परियोजना प्रबंधक
Authorised Signatory for DDC
PCDD-01 Project Manager
SRIRUP MITRA

वास्तुकला रचना प्रभारी
Architecture Team Leader: SANTANU BANERJEE

संरचना प्रभारी
Structure Team Leader: SRIRUP MITRA

विद्युत एवं यांत्रिकी रचना प्रभारी
E&M Team Leader: SAMPATH MANIVANAN

OFFICE OF ORIGIN:-

AECOM

विकृतकर्ता DRAWN BY: MG Ghosh, Mayukh

जांचकर्ता CHECKED BY: MK KAGRA, MANISH

सत्यापितकर्ता VERIFIED BY: AP Pramanick, Anupam

दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-05

स्टेशन STATION: VIDYUT BHAWAN STATION

चित्रांकन शीर्षक DRAWING TITLE: DRAWING LIST

दिनांक DATE	संशोधन REV	चित्रात्मक पैमाना GRAPHICAL SCALE	स्थिति STATUS
27.12.2022	A	NTS @ A1	TENDER SUBMISSION

चित्रांकन संख्या DRAWING NUMBER	पृष्ठ संख्या SHEET NO	पृष्ठ का आकार SHEET SIZE	वास्तु ARCHITECTURAL
PMP-C1- VDB-ACM- AR-DR- 0001		ISO A1	

INDICATIVE

STREET LEVEL PLAN DOOR SCHEDULE

ROOM NUMBER	ROOM NAME	DOOR TYPE	OPENING WIDTH	OPENING HEIGHT (ABOVE FFL)	SILL HEIGHT (W.R.T FFL)	LINTEL HEIGHT (ABOVE FFL)	FIRE RATING	LEAF
ST-06	STAIRCASE	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
FM-01B	STAIRCASE	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
ENTRY-1	STAIRCASE	MG01	3000	3000	0	3000	-	SLIDING
ENTRY-3	STAIRCASE	MG03	3000	3000	0	3000	-	SLIDING
ENTRY-2	STAIRCASE	MG02	3000	3000	0	3000	-	SLIDING

TOP OF BOX LEVEL PLAN DOOR SCHEDULE

ROOM NUMBER	ROOM NAME	DOOR TYPE	OPENING WIDTH	OPENING HEIGHT (ABOVE FFL)	SILL HEIGHT (W.R.T FFL)	LINTEL HEIGHT (ABOVE FFL)	FIRE RATING	LEAF
ST-08	STAIRCASE	FD08	1210	2115	0	2105	1.5 HRS	SINGLE
ST-06	STAIRCASE	FD4	1210	2115	0	2105	1.5 HRS	SINGLE

PLATFORM LEVEL PLAN DOOR SCHEDULE

ROOM NUMBER	ROOM NAME	DOOR TYPE	OPENING WIDTH	OPENING HEIGHT (ABOVE FFL)	SILL HEIGHT (W.R.T FFL)	LINTEL HEIGHT (ABOVE FFL)	FIRE RATING	LEAF
U14F.1	OTE 01 PLENUM	FD08	1000	2105	0	2095	1.5 HRS	SINGLE
U14E.1	OTE 01 FAN ROOM	FD08	1000	2105	0	2095	1.5 HRS	SINGLE
U14F.3	OTE 02 PLENUM	FD08	1000	2105	0	2095	1.5 HRS	SINGLE
U14F.4	OTE 02 PLENUM	FD06	1000	2105	0	2095	1.5 HRS	SINGLE
U14E.2	OTE 02 FAN ROOM	FD03	1500	2405	0	2395	3HRS	DOUBLE
U25B	ASS ROOM	FD02	1000	2105	0	2095	3HRS	SINGLE
U31B	SEEPAGE SUMP ROOM	FD05	1000	2105	0	2095	1.5 HRS	SINGLE
U18B	DB ROOM	FD03	1000	2105	0	2095	1.5 HRS	SINGLE
U28A	STATION UPS & UPS ROOM	FD03	1500	2405	0	2395	3HRS	DOUBLE
U25B	ASS ROOM	FD03	1500	2405	0	2395	3HRS	DOUBLE
S &T-01	SIGNALING & TELECOM	FD7	760	2115	300	2405	1.5 HRS	SINGLE
FE-01	FIRE ESCAPE	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
U25A	ASS ROOM	FD03	1500	2405	0	2395	3HRS	DOUBLE
U25A	ASS ROOM	FD02	1000	2105	0	2095	3HRS	SINGLE
U28A	STATION UPS & UPS ROOM	FD03	1500	2405	0	2395	3HRS	DOUBLE
U31A	SEEPAGE SUMP ROOM	FD06	1000	2105	0	2095	1.5 HRS	SINGLE
U18A	DB ROOM	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
U14E.1	OTE 01 FAN ROOM	FD03	1500	2405	0	2395	3HRS	DOUBLE
ELEC. CUTOUT	ELEC. SHAFT	FD7	760	2115	300	2405	1.5 HRS	SINGLE
S & T CUTOUT	S &T SHAFT	FD7	760	2115	300	2405	1.5 HRS	SINGLE
CUTOUT	SHAFT	FD7	760	2115	300	2405	1.5 HRS	SINGLE
BOH CORRIDOR	BOH CORRIDOR	FD8	1510	2415	150	2555	1.5 HRS	DOUBLE
FM-01	FIRE MAN	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
FE-03	FIRE ESCAPE	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
FE-04	FIRE ESCAPE	FD4	1210	2115	0	2105	1.5 HRS	SINGLE

CONCOURSE LEVEL PLAN DOOR SCHEDULE

ROOM NUMBER	ROOM NAME	DOOR TYPE	OPENING WIDTH	OPENING HEIGHT (ABOVE FFL)	SILL HEIGHT (W.R.T FFL)	LINTEL HEIGHT (ABOVE FFL)	FIRE RATING	LEAF
U57A.2	TVS ROOM	FD06	1000	2105	0	2095	1.5 HRS	SINGLE
U57A	TVS ROOM	FD06	1000	2105	0	2095	1.5 HRS	SINGLE
U57A.3	TVS ROOM	FD06	1000	2105	0	2095	1.5 HRS	SINGLE
U57B.2	TVS ROOM	FD06	1000	2105	0	2095	1.5 HRS	SINGLE
U57B	TVS ROOM	FD06	1000	2105	0	2095	1.5 HRS	SINGLE
U57B.1	TVS ROOM	FD06	1000	2105	0	2095	1.5 HRS	SINGLE
BOH CORRIDOR	BOH CORRIDOR	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
U51	EMERGENCY EQUIPMENT ROOM	FD04	1010	2115	0	2105	1.5 HRS	SINGLE
U03	SCR	FD04	1010	2115	0	2105	1.5 HRS	SINGLE
FM-01	STAIRCASE	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
BOH CORRIDOR	BOH CORRIDOR	FD2	1500	2405	0	2395	1.5 HRS	DOUBLE
BOH CORRIDOR	BOH CORRIDOR	FD2	1500	2405	0	2395	1.5 HRS	DOUBLE
BOH CORRIDOR	BOH CORRIDOR	FD2	1500	2405	0	2395	1.5 HRS	DOUBLE
U16	STAFF MESS ROOM	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
U05A	TOM	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
U14	TOILET AREA	D2	1010	2115	0	2105	-	SINGLE
U14	TOILET AREA	D2	1010	2115	0	2105	-	SINGLE
U14	TOILET AREA	D2	1010	2115	0	2105	-	SINGLE
U14	TOILET AREA	D2	1010	2115	0	2105	-	SINGLE
U14	TOILET AREA	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
U05B	TOM	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
U19B.2	ECS PLANT ROOM	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
U19B.2	ECS PLANT ROOM	FD8	1510	2415	0	2405	1.5 HRS	DOUBLE
EL04	ELEC. SHAFT	FD7	760	2115	0	2105	1.5 HRS	SINGLE
	SHAFT	FD7	760	2115	0	2105	1.5 HRS	SINGLE
U19B.1	ECS PANEL ROOM	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
ST-06	STAIRCASE	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
ST-06	STAIRCASE	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
U43	CHILLER PLANT ROOM	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
U 43	PUMP ROOM	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
EL03	ELEC. SHAFT	FD7	760	2115	0	2105	1.5 HRS	SINGLE
PL03	PLUMBING SHAFT	FD7	760	2115	0	2105	1.5 HRS	SINGLE
FE-02	STAIRCASE	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
FE-03	STAIRCASE	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
U09	SECURITY ROOM	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
U48	CHILLER PLANT ROOM	FD04	1510	2115	0	2105	1.5 HRS	DOUBLE
U43	PUMP ROOM	FD04	1510	2115	0	2105	1.5 HRS	DOUBLE
U19A.2	ECS PANEL ROOM	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
U19B.1	ECS PANEL ROOM	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
FE-01	STAIRCASE	FD4	1210	2115	0	2105	1.5 HRS	SINGLE
U57B.3	TVS ROOM	FD06	1000	2105	0	2095	1.5 HRS	SINGLE
U57A.1	TVS ROOM	FD06	1000	2105	0	2095	1.5 HRS	SINGLE
U23	TER	FD8	1510	2415	300	2705	1.5 HRS	DOUBLE
U22	SER	FD8	1510	2415	300	2705	1.5 HRS	DOUBLE
U24	SMPS/SAT UPS	FD8	1510	2415	300	2705	1.5 HRS	DOUBLE
BOH CORRIDOR	BOH CORRIDOR	FD8	1510	2415	0	2405	1.5 HRS	DOUBLE
BOH CORRIDOR	BOH CORRIDOR	FD8	1510	2415	0	2405	1.5 HRS	DOUBLE
U29	G5M	FD8	1010	2115	0	2105	1.5 HRS	SINGLE
U10	STORE (MAINTENANCE EQUIPMENT)	FD8	1010	2115	0	2105	1.5 HRS	SINGLE
U12	CLEANERS ROOM	FD8	1010	2115	0	2105	1.5 HRS	SINGLE
U13	REFUSE STORE	FD8	1010	2115	0	2105	1.5 HRS	SINGLE
U52	COMMON OFFICE SPACE	FD8	1010	2115	0	2105	1.5 HRS	SINGLE
U19A.2	ECS PANEL ROOM	FD4	1210	2115	0	2105	1.5 HRS	SINGLE

NORTH

MODEL VERSION 3

जारी किये गए चित्रांकन
ISSUED DRAWINGS

दिनांक DATE	संशोधन REV.	विवरण DESCRIPTION	चित्रांकन DRAWN	जांच CHECKED	सत्यापित VERIFIED
27.12.22	A	TENDER SUBMISSION	MG	MK	AP

चित्रांकन संदर्भ
REFERENCE DRAWINGS

क्रमांक S.NO.	चित्रांकन संख्या DRAWING NO.	विवरण DESCRIPTION

डीएमआरसी द्वारा अनुमोदन
APPROVAL BY DMRC

पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE
प्रबंधक / वास्तु MGR/ ARCH		उपमुख्य विद्युत अभियंता विद्युत एवं संचरण DY.CE/E&M	
उपमुख्य वास्तुक DY CA		उपमुख्य विद्युत अभियंता पर्यवेक्षण नियंत्रण प्रणाली DY.CE/ECS	
मुख्य / वास्तुक CAI ARCH		महाप्रबंधक/ विद्युत / भुगिसा – १ GM/E/DG-1	
उपमुख्य अभियंता / रचना DY CE/ DESIGN		परियोजना प्रबंधक PM	
मुख्य अभियंता / रचना CE/ DESIGN		मुख्य परियोजना प्रबंधक CPM	
उप महाप्रबंधक स्थापना व भूसंपदा DGM / S & T		उप महाप्रबंधक संचालन DGM / OPERATIONS	

प्रमाणित किया जाता है कि यह है कि दस्तावेज़ सी॰ सी॰ सी॰ की ओर से गुणवत्ता आश्वासन योजना के अनुसार तैयार किया गया है।
Certified that this document has been designed and checked in accordance with CDC Quality Assurance Plan

सी॰ सी॰ सी॰ प्राधिकृत हस्ताक्षरकर्ता/ पीसीडी-01 परियोजना प्रबंधक
Authorised Signatory for CDC/ PCCD-01 Project Manager
SRIRUP MITRA

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परचना प्रभारी Structure Team Leader SRIRUP MITRA

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DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-05

स्टेशन STATION: VIDYUT BHAWAN STATION

चित्रांकन शीर्षक : DRAWING TITLE: DOOR SCHEDULE

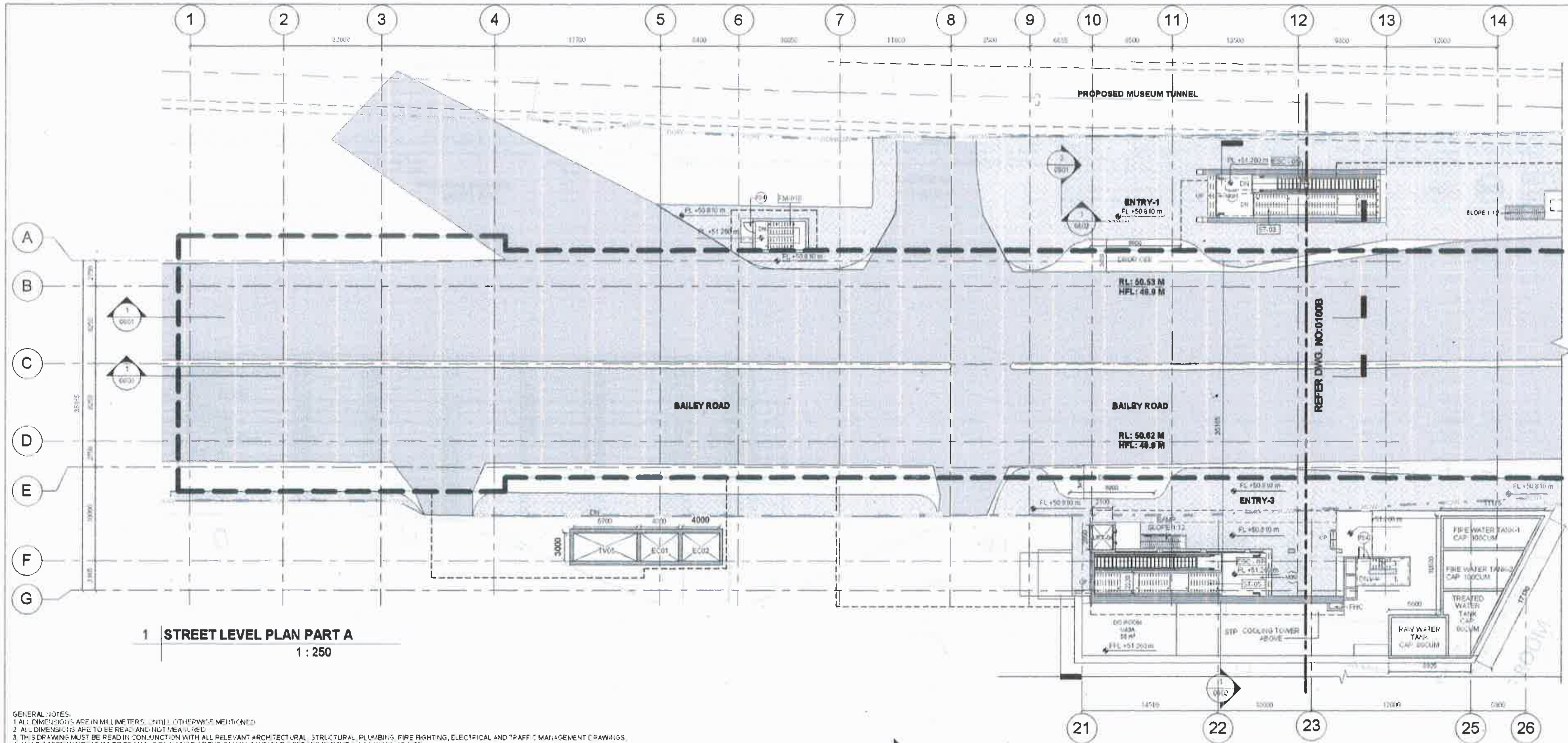
दिनांक DATE: 27.12.2022 | संशोधन REV: A | डिजाइन पैमाना GRAPHICAL SCALE: NTS @ A1 | स्थिति STATUS: TENDER SUBMISSION

चित्रांकन संख्या DRAWING NUMBER: PMP-C1- VDB-ACM- AR-DR- 0002

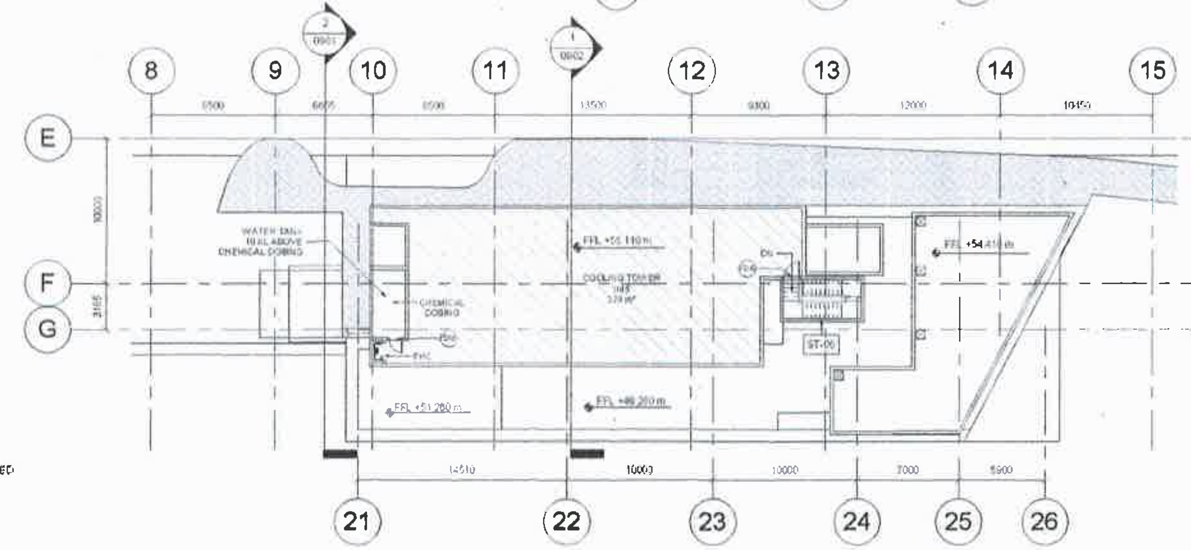
पृष्ठ का आकार SHEET NO: ISO A1

ARCHITECTURAL

INDICATIVE



1 STREET LEVEL PLAN PART A
1 : 250



2 COOLING TOWER
1 : 250

WALL PATTREN

	BLOCKWORK
	RCC WALL

LEGEND

	FILLED FLOOR
	FALSE FLOOR
	DOUBLE FLOOR

ABBREVIATIONS

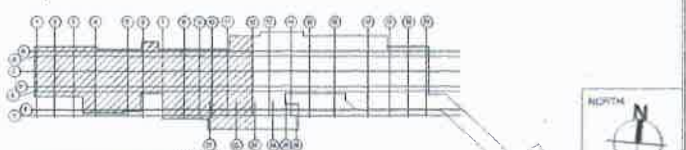
ALS	ASSISTANT LINE SUPERVISOR
AHU	AIR HANDLING UNIT
CD	COOLING DUMPING
CONC	CONCOURSE
DRD	DRAUGHT RELIEF DAMPER
EFO	EXCESS FARE OFFICE
ELEC	ELECTRICAL
EVS	EXHAUST VENTILATION SHAFT
E&M	ELECTRICAL AND MECHANICAL
FE	FIRE ESCAPE
FHC	FIRE HOSE CABINET
FM	FIRE MAN
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
OTE	OVER TRACK EXHAUST
PLANT	PLANT ROOM
PLT	PLATFORM
PSB	PLATFORM SUPERVISOR BOOTH
SAD	SUPPLY AIR DUCT
S&T	SIGNALING AND TELECOM
TOM	TICKET OPERATING MACHINE
TVF	TUNNEL VENTILATION FAN
TVM	TICKET VENDING MACHINE
TVS	TUNNEL VENTILATION SYSTEM
UNA	UNASSIGNED

ROOM SCHEDULE STREET LEVEL PLAN-PART A

ROOM NUMBER	ROOM NAME	AREA (SQM)
U43A	DG ROOM	55 m²

SHAFT SCHEDULE STREET LEVEL PLAN-PART A

ROOM NUMBER	ROOM NAME	CUTOUT DIMENSION	SHAFT DIMENSION	AREA (SQM)
EC01	EXHAUST CUTOUT	3000X4000	3000X4000	12 m²
EC02	EXHAUST CUTOUT	3000X4000	3000X4000	12 m²
L04	LIFT-04	2650X2100	2650X2100	5.57 m²
TV05	TUNNEL VENTILATION SHAFT-05 (VENT SHAFT)	3000X6700	3000X6700	20.1 m²



KEY PLAN STREET LEVEL

GENERAL NOTES-
1 ALL DIMENSIONS ARE IN MILLIMETERS, UNTILL OTHERWISE MENTIONED
2 ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED
3 THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL, STRUCTURAL, PLUMBING, FIRE FIGHTING, ELECTRICAL AND TRAFFIC MANAGEMENT DRAWINGS
4 ANY DISCREPANCIES MUST BE BROUGHT TO NOTICE OF THE CONSULTANT/ DMRC BEFORE EXECUTION OF WORK AT SITE
5 CONCOURSE LENGTH MAY GET REVISED AS PER FUTURE ROOMS REQUIREMENTS GIVEN BY TECHNICAL DEPT. OF DMRC
6 FOR FURTHER INFORMATION ABOUT FINISHES REFER TO FINISHES SCHEDULE
7 FOR ANY DEVIATION FROM BOQ IN MATERIALS / QUANTITIES APPROVAL MAY BE TAKEN
8 ALL DOORS/WINDOWS SILL & LINTEL LEVELS ARE FROM MAIN FLOOR FINISH LEVEL
9 COLUMN LOCATION AND STRUCTURAL ARRANGEMENT SHOWN ARE INDICATIVE ONLY

NOTES-
1 GROUND LEVELS (GL), ROAD LEVELS (RL), FOOTPATH LEVELS(FL) ARE INDICATIVE. CONTRACTOR TO VERIFY EXISTING FINISHED LEVELS AT SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION
2 CONTRACTOR TO VERIFY THE LEVELS FOR STAIRCASE, AND VERTICAL TRANSPORTATION ELEMENTS OF THE ENTRY STRUCTURES PRIOR TO COMMENCEMENT OF CONSTRUCTION
3 ALL LEVELS ARE IN METERS, INDICATING TOC (TOP OF CONCRETE), FFL (FLOOR FINISH LEVEL), FL (FOOTPATH LEVEL), PL (PLINTH LEVEL) & RL (ROAD LEVEL) WHEREVER APPLICABLE
4 ABSOLUTE RAIL LEVEL SHALL BE TAKEN FROM DMRC ALIGNMENT DRAWING
5 ALL MINIMUM INTERNAL CLEARANCE ARE MANDATORY AND SHALL BE PROVIDED
6 REFER LATEST STRUCTURAL & SETTING OUT DRAWINGS IN CONJUNCTION WITH ARCHITECTURE DRAWINGS PRIOR TO COMMENCEMENT OF CONSTRUCTION
7 ALL CUTOUT AND FIRST FIX PROVISIONS FOR MEP SYSTEMS REQUIREMENTS TO BE REFERRED FROM LATEST REVISION OF DISCIPLINE DRAWINGS
8 MASONRY WORK OF THE STATION MAY VARY AS PER DETAILED ARCHITECTURAL LAYOUT OF THE STATION
9 DOUBLE SLAB MAY BE PROVIDED UNDER STAIRCASE/ESCALATOR FOR ALL ROOMS TO AVOID SEEPAGE BETWEEN THE GAP OF STAIRCASE AND ESCALATOR
10 APPROVAL TO BE TAKEN BY THE CONTRACTOR FOR ANY DEVIATION IN MATERIAL / QUANTITIES ON THE BOQ
11 FOR LIGHTING ARRANGEMENT & ELECTRICAL DETAILS PLEASE REFER SPECIFIC ELECTRICAL DRAWINGS
12 [illegible] SHOULD BE REVIEWED BY RESPECTIVE SYSTEM WISE CONTRACTOR
13 EARTH MAT SIZE AND LOCATION TO BE CONFIRMED BY E&M (DMRC)
14 WATER PROOFING TO BE DONE AT O.H & U.G TANK LEVEL/OTHER WET AREA MATERIAL AS PER BOQ
15 REFER VENDOR DRAWINGS FOR ESCALATOR AND LIFT PIT SIZE AS FINALIZED BY DMRC
16 REFER VERTICAL TRANSPORTATION VENDOR DRAWINGS FOR FINAL STRUCTURAL PROVISIONS AS FINALIZED BY DMRC
17 BEFORE STARTING ANY E&M WORK INTERFACE WITH CIVIL CONTRACTOR TO BE REQUIRED
18 THE UTILITY PLANS HAVE BEEN REVIEWED. ALL AFFECTED UTILITIES TO BE DIVERTED AND REINSTATED AS PER SITE CONDITIONS
19 ALL THE WORKS AS SHOWN IN DRAWING ARE IN LUMP SUM UNLESS OTHERWISE SPECIFIED
20 TRACK BED BY OTHERS
21 S & T SHAFT BLOCK WORK SHALL BE KEPT ON HOLD UNTIL THE INSTALLATION OF CABLE TRAYS AT PLATFORM LEVEL
22 COLUMN LOCATION IN THE SERVICE AREA TO BE CO-ORDINATED AND CONFIRMED BASED ON EQUIPMENT LAYOUT PROVIDED BY - E&M CONTRACTOR
23 PROVISIONS SHALL BE MADE FOR RACEWAYS IN [illegible]
24 PLUMBING & DRAINAGE ARRANGEMENT SHOWN IN DRAWING ARE INDICATIVE , ALL THE PLUMBING INCLUDING EMBEDDED SYSTEM TO BE AS PER DETAILED DESIGN
25 STRUCTURAL WALL PROFILE AND TBM SHAFTS SIZE TO SUIT THE FINAL TRACK ALIGNMENT AND AS PER CONTRACTOR'S DESIGN
26 FHC NICHES SHALL BE PROVIDED AT EVERY 60 METER DISTANCE AND TO BE COORDINATED WITH E&M CONTRACTOR
27 FIRE DOORS NUMBER & LOCATION SHOWN IN DRAWING ARE INDICATIVE & FINAL DETAIL TO BE TAKEN FROM DETAILED DRAWING
28 ALL SHAFT LOCATIONS AND SIZES ARE TENTATIVE AND SHALL BE FINALIZED IN CONSULTATION WITH E&M CONTRACTOR
29 HFL FOR THE AREA AROUND PATNA ZOO STATION = 49.900 M FROM MEAN SEA LEVEL
30 DETAILS OF ACCESS FOR MAINTENANCE AND INSPECTION OF MEP FACILITIES i.e. CAT LADDER, COVERING OF ACCESS HATCH AND MAIN HOLES, SHAFT DOORS, DOG HOUSE DETAILS, DRAIN CHANNEL GRATING, COVER, etc. SHALL BE SUBMITTED DURING DETAIL DESIGN STAGE
31 ALL STAIRCASES HAVING SERVICES PASSING THROUGH THEM WILL HAVE INTERMEDIATE SLAB FOR MEP EQUIPMENT PLACEMENT OR SERVICES SUPPORT. INTERMEDIATE SLAB LEVEL WILL BE WORKED OUT DURING DETAILED DESIGN OF THE PROJECT
32 PLINTH LEVEL IS MINIMUM 450MM HIGHER THAN HFL OR FOOTPATH LEVEL WHICHEVER IS HIGHER
33 ALL STATION BOX RELATED DIMENSIONS ARE INTERNAL CLEAR DIMENSIONS AFTER STRUCTURE AND TOLERANCE
34 D-WALL THICKNESS IS SHOWN TENTATIVELY AS PER STRUCTURE DRAWING
35 UPDATED ROW LINE FOR STATION RECEIVED THROUGH MAIL ON 25.03.2021 FROM DMRC. AS PER DMRC COMMENTS, WE ARE MENTIONING ROW AS EPL (EXISTING PROPERTY LINE)
36 DRAIN LEVEL TO BE SLOPED TO MATCH FOOTPATH LEVEL. DRAIN WILL BE REINSTATED AFTER STATION BOX CONSTRUCTION
37 PLATFORM HAS A SLOPE OF [illegible] FROM THE PLATFORM EDGE [illegible] TOWARDS THE BACK OF THE PLATFORM. THIS MAY AFFECT THE STAIR ESCALATOR AND LIFT [illegible]
38 CONTRACTOR TO PROPOSE STRUCTURAL SOLUTION IN DISCUSSION WITH DMRC DESIGN TEAM. ALTERNATE PROPOSAL MAY BE SUGGESTED WITHOUT ANY FINANCIAL IMPLICATION
39 GAPS BETWEEN STAIRS & ESCALATOR AND THE ESCALATORS WILL BE FILLED WITH SUITABLE FLASHING
40 LIFT AND ESCALATOR LIFTING HOOK ARRANGEMENT TO BE PROVIDED AS PER VENDOR REQUIREMENT
41 ESCALATOR NOTCH TO BE AS PER VENDOR DETAILS
42 FOR TRACK DRAINAGE, REFER DRAWING NO. [illegible]

जारी किये गए चित्रांकन
ISSUED DRAWINGS

दिनांक DATE	संशोधन REV.	विवरण DESCRIPTION	चित्रित DRAWN	जांच CHECKED	सत्यापित VERIFIED
27.12.22	A	TENDER SUBMISSION	MG	MK	AP

चित्रांकन संदर्भ
REFERENCE DRAWINGS

क्रमांक S.NO	चित्रांकन संख्या DRAWING NO	विवरण DESCRIPTION

डीएमआरसी द्वारा अनुमोदन
APPROVAL BY DMRC

पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE
MGR/ARCH		DY CE/E & M	
DY CA		DY CE/ECS	
CA/ARCH		GM/E(DG)	
DY CE/DESIGN		PM	
CE/DESIGN		CPM	
DGM / S&T		DGM / OPERATIONS	

Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan

Authorised Signatory for DDC
PCDD-01 Project Manager
SRIRUP MITRA

Architecture Team Leader: SANTANU BANERJEE
Structure Team Leader
E&M Team Leader: SAMPATH MANIVANAN
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जांचकर्ता CHECKED BY: MK KADRA, MANISH
सत्यापितकर्ता VERIFIED BY: AP

दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-05

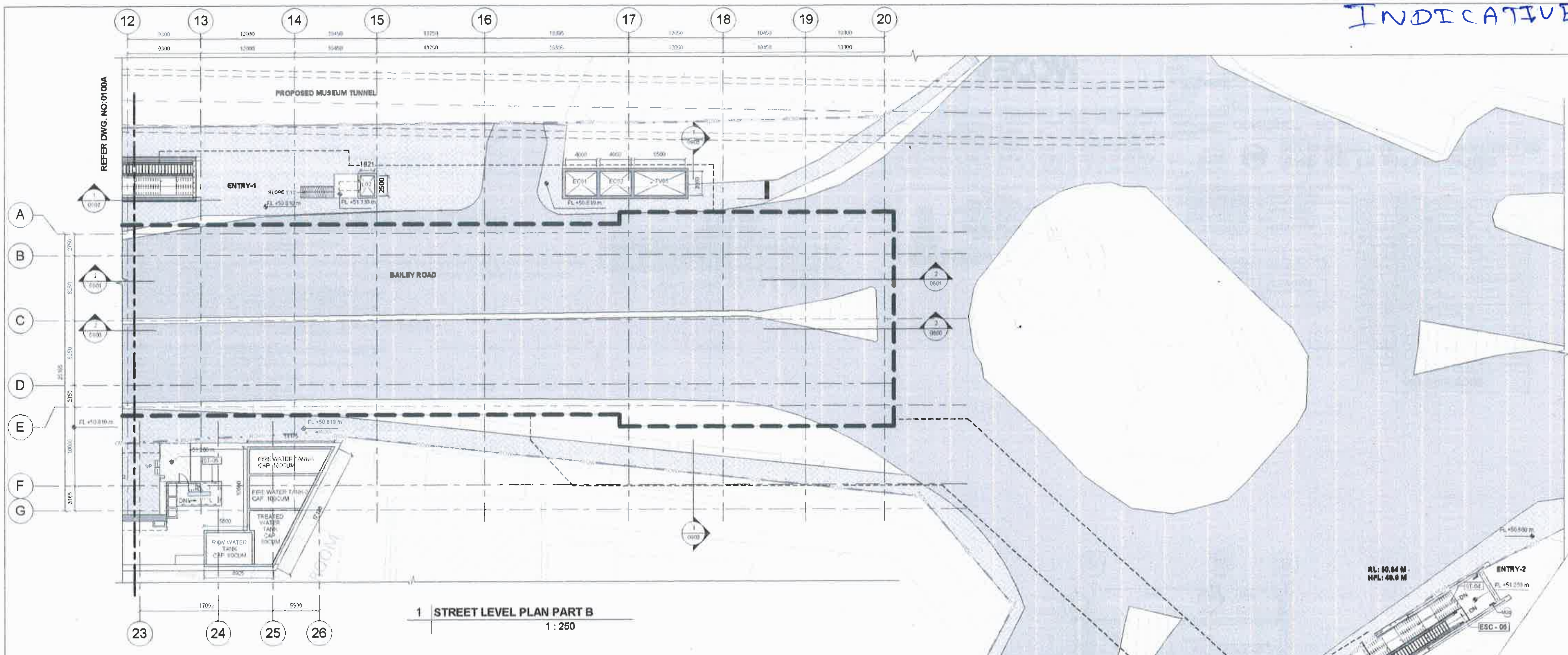
स्टेशन STATION: VIDYUT BHAWAN STATION

चित्रांकन शीर्षक DRAWING TITLE: STREET LEVEL PLAN-PART A

दिनांक DATE: 27.12.2022 | संशोधन REV: A | ग्राफिकल पैमाना GRAPHICAL SCALE: 1:250 @ A1 | स्थिति STATUS: TENDER SUBMISSION

चित्रांकन संख्या DRAWING NUMBER: PMP-C1- VDB-ACM- AR-DR- 0100A | पृष्ठ संख्या SHEET NO: SHEET 1 OF 2 | पृष्ठ का आकार SHEET SIZE: ISO A1

ARCHITECTURAL



1 STREET LEVEL PLAN PART B
1 : 250

NOTES:-
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2 CONTRACTOR TO VERIFY THE LEVELS FOR STAIRCASE, AND VERTICAL TRANSPORTATION ELEMENTS OF THE ENTRY STRUCTURES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3 ALL LEVELS ARE IN METERS, INDICATING TOC (TOP OF CONCRETE), FFL (FLOOR FINISH LEVEL), FL (FOOTPATH LEVEL), PL (PLINTH LEVEL) & RL (ROAD LEVEL) WHEREVER APPLICABLE
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5 ALL MINIMUM INTERNAL CLEARANCE ARE MANDATORY AND SHALL BE PROVIDED
6 REFER LATEST STRUCTURAL & SETTING OUT DRAWINGS IN CONJUNCTION WITH ARCHITECTURE DRAWINGS PRIOR TO COMMENCEMENT OF CONSTRUCTION
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15 REFER VENDOR DRAWINGS FOR ESCALATOR AND LIFT PIT SIZE AS FINALIZED BY DMRC
16 REFER VERTICAL TRANSPORTATION VENDOR DRAWINGS FOR FINAL STRUCTURAL PROVISIONS AS FINALIZED BY DMRC
17 BEFORE STARTING ANY E&M WORK INTERFACE WITH CIVIL CONTRACTOR TO BE REQUIRED
18 THE UTILITY PLANS HAVE BEEN REVIEWED. ALL AFFECTED UTILITIES TO BE DIVERTED AND REINSTATED AS PER SITE CONDITIONS
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24 PLUMBING & DRAINAGE ARRANGEMENT SHOWN IN DRAWING ARE INDICATIVE , ALL THE PLUMBING INCLUDING EMBEDDED SYSTEM TO BE AS PER DETAILED DESIGN
25 STRUCTURAL WALL PROFILE AND TBM SHAFTS SIZE TO SUIT THE FINAL TRACK ALIGNMENT AND AS PER CONTRACTOR'S DESIGN
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30 DETAILS OF ACCESS FOR MAINENANCE AND INSPECTION OF MEP FACILITIES i.e. CAT LADDER, COVERING OF ACCESS HATCH AND MAIN HOLES, SHAFT DOORS, DOG HOUSE DETAILS, DRAIN CHANNEL GRATING, COVER, etc. SHALL BE SUBMITTED DURING DETAIL DESIGN STAGE
31 ALL STAIRCASES HAVING SERVICES PASSING THROUGH THEM WILL HAVE INTERMEDIATE SLAB FOR MEP EQUIPMENT PLACEMENT OR SERVICES SUPPORT. INTERMEDIATE SLAB LEVEL WILL BE WORKED OUT DURING DETAILED DESIGN OF THE PROJECT
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40 LIFT AND ESCALATOR LIFTING HOOK ARRANGEMENT TO BE PROVIDED AS PER VENDOR REQUIREMENT
41 ESCALATOR NOTCH TO BE AS PER VENDOR DETAILS
42 FOR TRACK DRAINAGE , REFER DRAWING NO. PMP-C1-VDB-UG-ACM-ME-DR-0150

ABBREVIATIONS	
ALS	ASSISTANT LINE SUPERVISOR
AHU	AIR HANDLING UNIT
CD	COOLING DUMPING
CONC	CONCOURSE
DRD	DRAUGHT RELIEF DAMPER
EFO	EXCESS FARE OFFICE
ELEC	ELECTRICAL
EVS	EXHAUST VENTILATION SHAFT
E&M	ELECTRICAL AND MECHANICAL
FE	FIRE ESCAPE
FHC	FIRE HOSE CABINET
FM	FIRE MAN
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
OTE	OVER TRACK EXHAUST
PLANT	PLANT ROOM
PLT	PLATFORM
PSB	PLATFORM SUPERVISOR BOOTH
SAD	SUPPLY AIR DUCT
S&T	SIGNALING AND TELECOM
TOM	TICKET OPERATING MACHINE
TVF	TUNNEL VENTILATION FAN
TVM	TICKET VENDING MACHINE
TVS	TUNNEL VENTILATION SYSTEM
UNA	UNASSIGNED

GENERAL NOTES:
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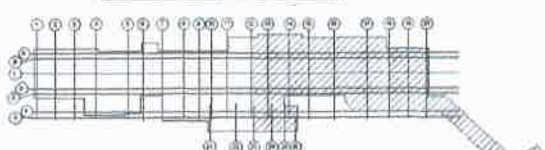
2 ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED
3 THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL, STRUCTURAL, PLUMBING, FIRE FIGHTING, ELECTRICAL AND TRAFFIC MANAGEMENT DRAWINGS.
4 ANY DISCREPANCIES MUST BE BROUGHT TO NOTICE OF THE CONSULTANT/DMRC BEFORE EXECUTION OF WORK AT SITE
5 CONCOURSE LENGTH MAY GET REVISED AS PER FUTURE ROOMS REQUIREMENTS GIVEN BY TECHNICAL DEPT. OF DMRC
6 FOR FURTHER INFORMATION ABOUT FINISHES REFER TO FINISHES SCHEDULE
7 FOR ANY DEVIATION FROM BOQ IN MATERIALS / QUANTITIES APPROVAL MAY BE TAKEN
8 ALL DOOR &WINDOWS SILL & LINTEL LEVELS ARE FROM MAIN FLOOR FINISH LEVEL
9 COLUMN LOCATION AND STRUCTURAL ARRANGEMENT SHOWN ARE INDICATIVE ONLY

WALL PATTREN	
(hatch)	BLOCKWORK
(hatch)	RCC WALL

ROOM SCHEDULE STREET LEVEL PLAN-PART B		
ROOM NUMBER	ROOM NAME	AREA (SQM)

LEGEND	
(hatch)	FILLED FLOOR
(hatch)	FALSE FLOOR
(hatch)	DOUBLE FLOOR



KEY PLAN

SHAFT SCHEDULE STREET LEVEL PLAN-PART B

ROOM NUMBER	ROOM NAME	CUTOUT DIMENSION	SHAFT DIMENSION	AREA (SQM)
EC01	EXHAUST CUTOUT	3060X4000	3060X4000	23.08 m²
EC02	EXHAUST CUTOUT	3060X4000	3060X4000	20.4 m²
L02	LIFT-02	2500X1821	2500X1821	4.55 m²
L03	LIFT-03	2500X2100	2500X2100	5.25 m²
TV05	TUNNEL VENTILATION SHAFT-05 (VENT SHAFT)	3060X6500	3060X6500	38.95 m²

NORTH

MODEL VERSION 3

यह चित्रांकन दिल्ली मेट्रो रेल कॉर्पोरेशन लिमिटेड की संपत्ति है / THIS DRAWING IS THE PROPERTY OF DELHI METRO RAIL CORPORATION LTD.

जारी किये गए चित्रांकन
ISSUED DRAWINGS

दिनांक DATE	संशोधन REV	विवरण DESCRIPTION	चित्रण DRAWN	जांच CHECKED	सत्यापित VERIFIED
27.12.22	A	TENDER SUBMISSION	MG	MK	AP

चित्रांकन संदर्भ
REFERENCE DRAWINGS

क्रमांक S.NO.	चित्रांकन संख्या DRAWING NO.	विवरण DESCRIPTION

डीएमआरसी द्वारा अनुमोदन
APPROVAL BY DMRC

पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE
प्रबंधक / वास्तुक MGR/ARCH		उपमुख्य विद्युत अभियंता विद्युत एवं यांत्रिक Dy.CE/E & M	
उपमुख्य वास्तुक DY.CA		उपमुख्य विद्युत अभियंता पर्यावरण नियंत्रण प्रणाली DY.CE/ECS	
मुख्य / वास्तुक CA/ARCH		महाप्रबंधक विद्युत / भूमिगत - १ GM/E/UG-I	
उपमुख्य अभियंता / रचना DY.CE/DESIGN		परियोजना प्रबंधक PM	
मुख्य अभियंता / रचना CE/DESIGN		मुख्य परियोजना प्रबंधक CPM	
उप महाप्रबंधक सिग्नल व दूरसंचार DGM/S&T		उप महाप्रबंधक संचालन DGM/OPERATIONS	

प्रमाणित किया जाता है कि यह है कि दस्तावेज सी सी सी की ओर से गुणवत्ता आश्वासन योजना के अनुसार तैयार किया गया है। Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan

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वास्तुकला रचना प्रभारी Architecture Team Leader SANTANU BANERJEE | संरचना प्रभारी Structure Team Leader SRIRUP MITRA | विद्युत एवं यांत्रिकी रचना प्रभारी E&M Team Leader SAMPATH MANIVANAN Kondal Deepak

OFFICE OF ORIGIN:-

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जांचकर्ता CHECKED BY MK KAGRA MANISH
सत्यापितकर्ता VERIFIED BY AP

दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-05

स्टेशन STATION VIDYUT BHAWAN STATION

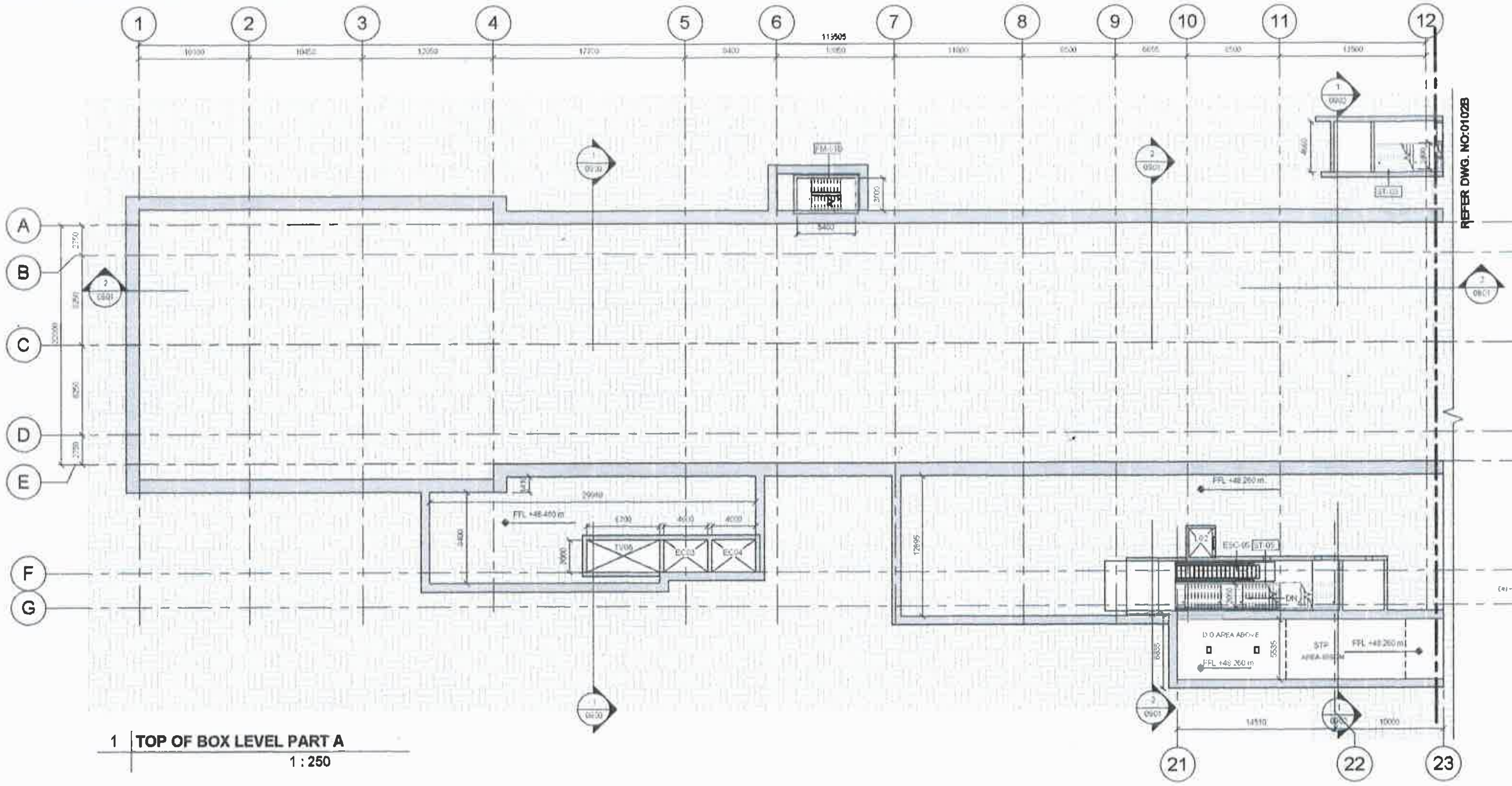
चित्रांकन शीर्षक DRAWING TITLE STREET LEVEL PLAN-PART B

दिनांक DATE 27.12.2022 | संशोधन REV A | चित्रात्मक पैमाना GRAPHICAL SCALE 1:250 @ A1 | स्थिति STATUS TENDER SUBMISSION

चित्रांकन संख्या DRAWING NUMBER PMP-C1- VDB-ACM- AR-DR- 0100B | पृष्ठ संख्या SHEET NO. SHEET 2 OF 2 | पृष्ठ का आकार SHEET SIZE ISO A1

ARCHITECTURAL

INDICATIVE



1 TOP OF BOX LEVEL PART A
1 : 250

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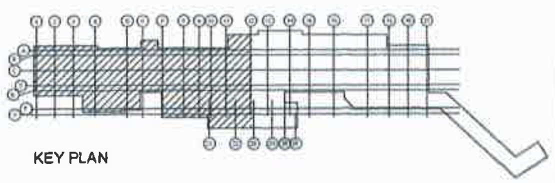


KEY PLAN

SHAFT SCHEDULE TOP OF BOX LEVEL PLAN-PART A

ROOM NUMBER	ROOM NAME	CUTOUT DIMENSION	SHAFT DIMENSION	AREA (SQM)
EC03	EXHAUST CUTOUT	3000X6700	3000X6700	12 m²
EC04	FRESH AIR DUCT	3000X4000	3000X4000	12 m²
TV06	TUNNEL VENTILATION SHAFT-01 (VENT SHAFT)	3000X4000	3000X4000	20.1 m²

WALL PATTREN	
[pattern]	BLOCKWORK
[pattern]	RCC WALL

LEGEND	
[pattern]	FILLED FLOOR
[pattern]	FALSE FLOOR
[pattern]	DOUBLE FLOOR

ABBREVIATIONS

ALS	ASSISTANT LINE SUPERVISOR
AHU	AIR HANDLING UNIT
CD	COOLING DUMPING
CONC	CONCOURSE
DRD	DRAUGHT RELIEF DAMPER
EFO	EXCESS FARE OFFICE
ELEC	ELECTRICAL
EVS	EXHAUST VENTILATION SHAFT
E&M	ELECTRICAL AND MECHANICAL
FE	FIRE ESCAPE
FHC	FIRE HOSE CABINET
FM	FIRE MAN
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
OTE	OVER TRACK EXHAUST
PLANT	PLANT ROOM
PLT	PLATFORM
PSB	PLATFORM SUPERVISOR BOOTH
SAD	SUPPLY AIR DUCT
S&T	SIGNALING AND TELECOM
TOM	TICKET OPERATING MACHINE
TVF	TUNNEL VENTILATION FAN
TVM	TICKET VENDING MACHINE
TVS	TUNNEL VENTILATION SYSTEM
UNA	UNASSIGNED

NORTH

MODEL VERSION

जारी किये गए चित्रांकन
ISSUED DRAWINGS

दिनांक DATE	संशोधन REV	विवरण DESCRIPTION	चित्रण DRAWN	जांच CHECKED	सत्यापित VERIFIED
27.12.22	A	TENDER SUBMISSION	MG	MK	AP

चित्रांकन संदर्भ
REFERENCE DRAWINGS

क्रमांक S NO	चित्रांकन संख्या DRAWING NO.	विवरण DESCRIPTION

डीएमआरसी द्वारा अनुमोदन
APPROVAL BY DMRC

पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE
प्रधान / वास्तुक MGR/ ARCH		उपमुख्य विद्युत अभियंता विद्युत एवं यांत्रिक Dy CE/E & M	
उपमुख्य वास्तुक DY CA		उपमुख्य विद्युत अभियंता सर्वेक्षण नियंत्रण प्रणाली DY CE/ ECS	
मुख्य / वास्तुक CA/ ARCH		महाप्रबंधक विद्युत / भूमिगत - १ GM / E / UG-1	
उपमुख्य अभियंता / रचना DY CE/ DESIGN		परियोजना प्रबंधक PM	
मुख्य अभियंता / रचना CE/ DESIGN		मुख्य परियोजना प्रबंधक CPM	
उप महाप्रबंधक संकेत व दूरसंचार DGM / S & T		उप महाप्रबंधक संचालन DGM / OPERATIONS	

प्रमाणित किया जाता है कि यह है कि दस्तावेज डी० डी० सी० की ओर से गुणवत्ता आश्वासन योजना के अनुसार तैयार किया गया है।
Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan

डी० डी० सी० प्राधिकृत हस्ताक्षरकर्ता पीसीडीडी-01 परियोजना प्रबंधक
Authorised Signatory for DDC PCDD-01 Project Manager
BRIRUP MITRA

वास्तुकला रचना प्रभारी Architecture Team Leader: SANTANU BANERJEE
संरचना प्रभारी Structure Team Leader: BRIRUP MITRA
विद्युत एवं यांत्रिकी रचना प्रभारी E&M Team Leader: SAMPATH MANIVANAN (Kondal Deepak)

OFFICE OF ORIGIN:-

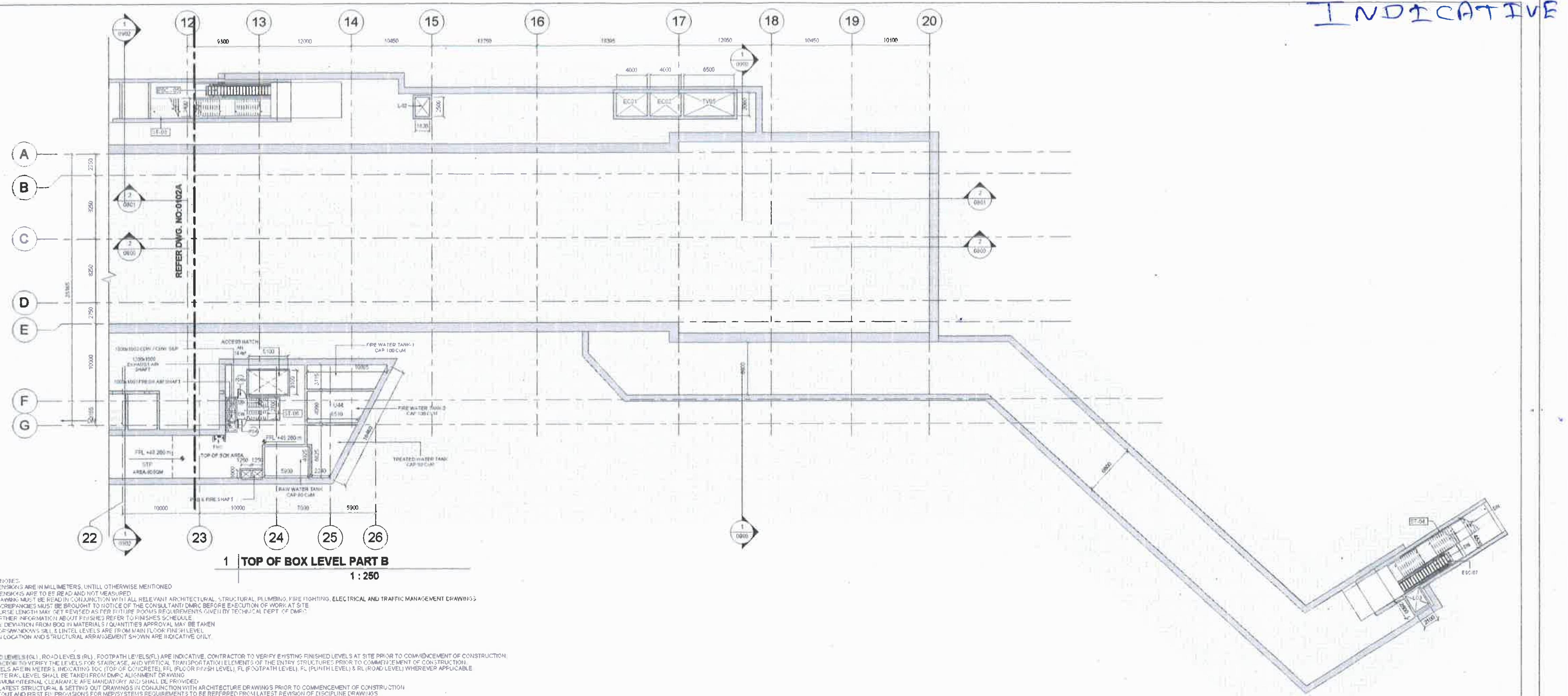
AECOM
8F, INFINITY TOWER C, DLF CYBER CITY, PHASE II, GURGAON 122002, INDIA

दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-05

चित्रकार DRAWN BY: MG Ghosh, Mayukh
जांचकर्ता CHECKED BY: MK KADRA, MANSI
सत्यापितकर्ता VERIFIED BY: AP Pramanick, Anupam

स्टेशन STATION: VIDYUT BHAWAN STATION
चित्रांकन शीर्षक DRAWING TITLE: TOP OF BOX LEVEL PLAN-PART A
दिनांक DATE: 27.12.2022
संशोधन REV: A
चित्रात्मक पैमाना GRAPHICAL SCALE: 1:250 @ A1
स्थिति STATUS: TENDER SUBMISSION
चित्रांकन संख्या DRAWING NUMBER: PMP-C1- VDB-ACM- AR-DR- 0102A
पृष्ठ संख्या SHEET NO: SHEET 1 OF 2
पृष्ठ का आकार SHEET SIZE: ISO A1



1 TOP OF BOX LEVEL PART B
1 : 250

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NOTES-
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16 REFER VERTICAL TRANSPORTATION VENDOR DRAWINGS FOR FINAL STRUCTURAL PROVISIONS AS FINALIZED BY DMRC
17 BEFORE STARTING ANY E&M WORK INTERFACE WITH CIVIL CONTRACTOR TO BE REQUIRED
18 THE UTILITY PLANS HAVE BEEN REVIEWED. ALL AFFECTED UTILITIES TO BE DIVERTED AND REINSTATED AS PER SITE CONDITIONS
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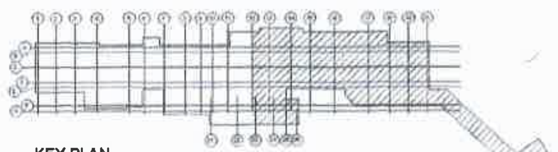
42 FOR TRACK DRAINAGE , REFER DRAWING NO. PMP-C1-VDB-UG-ACM-ME-DR-0150



KEY PLAN

LEGEND

	FILLED FLOOR
	FALSE FLOOR
	DOUBLE FLOOR

WALL PATTREN

	BLOCKWORK
	RCC WALL

SHAFT SCHEDULE TOP OF BOX LEVEL PLAN-PART B

ROOM NUMBER	ROOM NAME	CUTOUT DIMENSION	SHAFT DIMENSION	AREA (SQM)
EC01	EXHAUST CUTOUT	3060X4000	3060X4000	12.24 m²
EC02	EXHAUST CUTOUT	3060X4000	3060X4000	12.24 m²
TOB	TOP OF BOX AREA			117.12 m²
TV05	TUNNEL VENTILATION SHAFT-01 (VENT SHAFT)	3060X6500	3060X6500	20.08 m²
U44	WATER TANK			119.12 m²

ROOM SCHEDULE TOP OF BOX LEVEL PLAN-PART B

ROOM NUMBER	ROOM NAME	AREA (SQM)
TOB	TOP OF BOX AREA	117 m²
U44	WATER TANK	119 m²

ABBREVIATIONS

ALS	ASSISTANT LINE SUPERVISOR
AHU	AIR HANDLING UNIT
CD	COOLING DUMPING
CONC	CONCOURSE
DRD	DRAUGHT RELIEF DAMPER
EFO	EXCESS FARE OFFICE
ELEC	ELECTRICAL
EVS	EXHAUST VENTILATION SHAFT
E&M	ELECTRICAL AND MECHANICAL
FE	FIRE ESCAPE
FHC	FIRE HOSE CABINET
FM	FIRE MAN
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
OTE	OVER TRACK EXHAUST
PLANT	PLANT ROOM
PLT	PLATFORM
PSB	PLATFORM SUPERVISOR BOOTH
SAD	SUPPLY AIR DUCT
S&T	SIGNALING AND TELECOM
TOM	TICKET OPERATING MACHINE
TVF	TUNNEL VENTILATION FAN
TVM	TICKET VENDING MACHINE
TVS	TUNNEL VENTILATION SYSTEM
UNA	UNASSIGNED

NORTH

MODEL VERSION 3

जारी किये गए चित्रांकन
ISSUED DRAWINGS

दिनांक DATE	संशोधन REV	विवरण DESCRIPTION	चित्रण DRAWN	जांच CHECKED	सत्यापित VERIFIED
27.12.22	A	TENDER SUBMISSION	MG	MK	AP

चित्रांकन संदर्भ
REFERENCE DRAWINGS

क्रमांक S NO	चित्रांकन संख्या DRAWING NO	विवरण DESCRIPTION

डीएमआरसी द्वारा अनुमोदन
APPROVAL BY DMRC

पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE
प्रबंधक / वास्तुक MGR/ARCH		उपमुख्य विद्युत अभियंता DY.CEE/E&M	
उपमुख्य वास्तुक DY.CA		उपमुख्य विद्युत अभियंता / सिविल DY.CE/ECS	
मुख्य / वास्तुक CA/ARCH		महाप्रबंधक विद्युत / भूमिगत	
उपमुख्य अभियंता / रचना DY.CE/DESIGN		परियोजना प्रबंधक PM	
मुख्य अभियंता / रचना CE/DESIGN		मुख्य परियोजना प्रबंधक CPM	
उप महाप्रबंधक संरचना एवं सुरक्षा DGM/S & T		उप महाप्रबंधक संचालन DGM/OPERATIONS	

प्रमाणित किया जाता है कि यह है कि दस्तावेज डी डी सी की ओर से गुणवत्ता आश्वासन योजना के अनुसार तैयार किया गया है।
Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan

डी डी सी प्राधिकृत हस्ताक्षरकर्ता पीसीडीडी-01 परियोजना प्रबंधक
Authorised Signatory for DDC
PCDD-01 Project Manager
SRIRUP MITRA

वास्तुकला रचना प्रभारी Architecture Team Leader: SANTANU BANERJEE
संरचना प्रभारी Structure Team Leader: SRIRUP MITRA
विद्युत एवं यांत्रिकी रचना प्रभारी E&M Team Leader: SAMPATH MANIVANNAN (Kondal, Deepak)

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चित्रणकर्ता DRAWN BY: MG (Ghosh, Mayukh)
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सत्यापितकर्ता VERIFIED BY: AP (Pramanick, Anupam)

दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-05

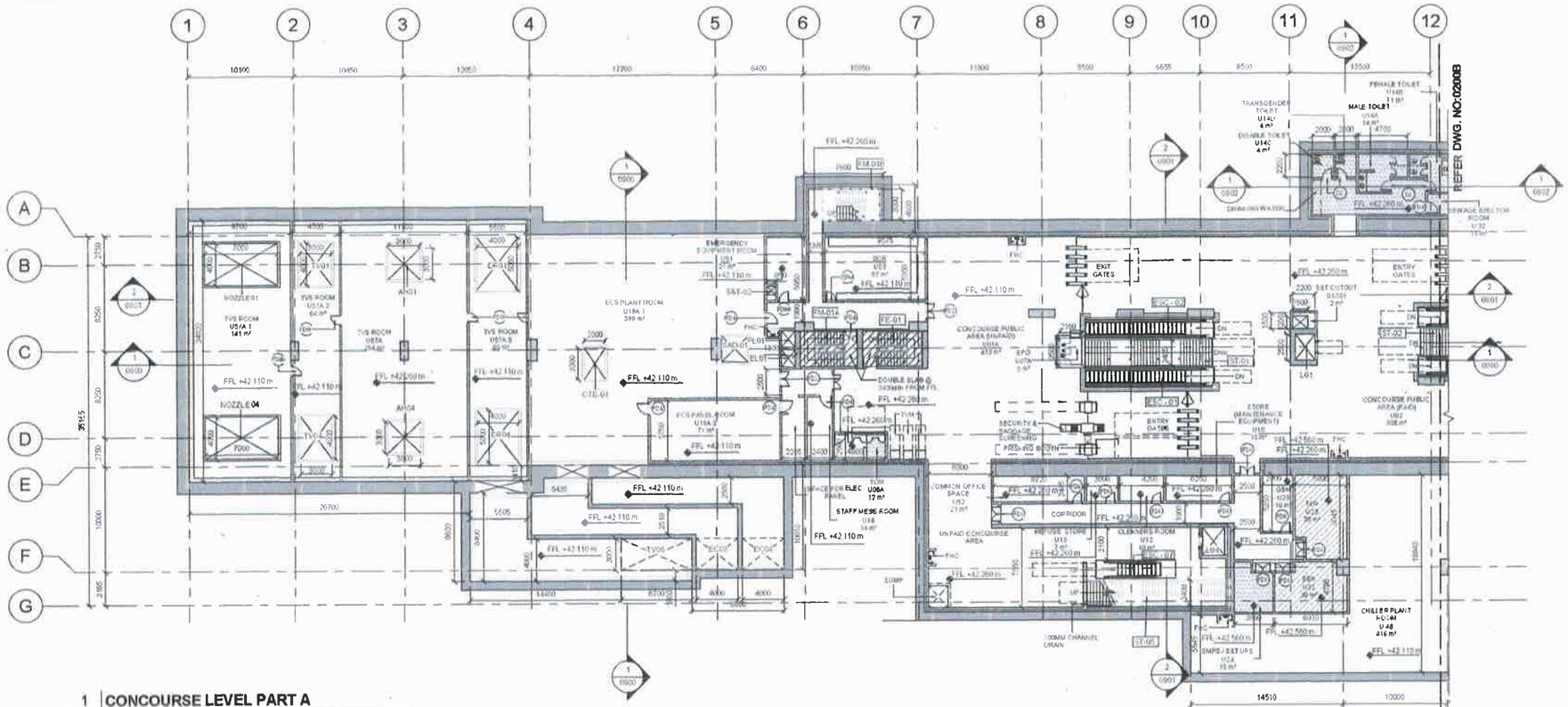
स्टेशन STATION: VIDYUT BHAWAN STATION

चित्रांकन शीर्षक DRAWING TITLE: TOP OF BOX LEVEL PLAN-PART B

दिनांक DATE	संशोधन REV	चित्रात्मक पैमाना GRAPHICAL SCALE	स्थिति STATUS
27.12.2022	A	1:250 @ A1	TENDER SUBMISSION

चित्रांकन संख्या DRAWING NUMBER: PMP-C1- VDB-ACM- AR-DR- 0102B

पृष्ठ संख्या SHEET NO: SHEET 2 OF 2
पृष्ठ का आकार SHEET SIZE: ISO A1



INDICATIVE

1 CONCOURSE LEVEL PART A

1 : 250

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ROOM SCHEDULE CONCOURSE LEVEL PLAN-PART A		
ROOM NUMBER	ROOM NAME	AREA (SQM)
U01A	CONCOURSE PUBLIC AREA (UNPAID)	813 m²
U02	CONCOURSE PUBLIC AREA (PAID)	928 m²
U03	SCR	57 m²
U05A	TOM	12 m²
U07A	EFO	5 m²
U10	STORE (MAINTENANCE EQUIPMENT)	15 m²
U12	CLEANERS ROOM	10 m²
U13	REFUSE STORE	7 m²
U14A	MALE TOILET	14 m²
U14B	FEMALE TOILET	11 m²
U14C	DISABLE TOILET	4 m²
U14D	TRANSGENDER TOILET	4 m²
U16	STAFF MESS ROOM	14 m²
U19A.1	ECS PLANT ROOM	399 m²
U19A.2	ECS PANEL ROOM	71 m²
U22	SER	30 m²
U23	TER	38 m²
U24	SMPS / S&T UPS	15 m²
U29	GSM	16 m²
U51	EMERGENCY EQUIPMENT ROOM	21 m²
U52	COMMON OFFICE SPACE	21 m²
U57A	TVS ROOM	254 m²
U57A.1	TVS ROOM	141 m²
U57A.2	TVS ROOM	64 m²
U57A.3	TVS ROOM	65 m²

SHAFT SCHEDULE CONCOURSE LEVEL PLAN-PART A				
ROOM NUMBER	ROOM NAME	CUTOUT DIMENSION	SHAFT DIMENSION	AREA (SQM)
	DRINKING WATER			3 m²
AH01	ACCESS HATCH	3000X3000	3000X3000	9 m²
AH04	ACCESS HATCH	3000X3000	3000X3000	9 m²
DR01	DRAUGHT RELIEF SHAFT-01	5000X4000	5000X4000	20 m²
DR04	DRAUGHT RELIEF SHAFT-04	5000X4000	5000X4000	20 m²
EC03	EXHAUST CUTOUT	3000X4000	3000X4000	72.73 m²
EC04	EXHAUST CUTOUT	3000X4000	3000X4000	67.32 m²
EL01	ELEC SHAFT	1650X1300	1650X1300	2.15 m²
L01	LIFT-01	2500X1900	2500X1900	4.75 m²
L04	LIFT-02	2500X1900	2500X1900	5.57 m²
NOZZLE 04	NOZZLE CUTOUT	4000X7000	4000X7000	28 m²
OTE-01	OTE DUCT	2000 X 3000	2000 X 3000	6 m²
PL01	PLUMBING SHAFT	1600X1300	1600X1300	2.08 m²
S&T01	S&T CUTOUT	1200X1600	1600X2200	1.5 m²
S&T-02	S&T CUTOUT	850X850	1350X850	0.72 m²
TV01	TUNNEL VENTILATION SHAFT-01 (VENT SHAFT)	3000X4000	3000X4000	12 m²
TV04	TUNNEL VENTILATION SHAFT-04 (VENT SHAFT)	3000X4000	3000X4000	12 m²
TV06	TUNNEL VENTILATION SHAFT-06 (VENT SHAFT)	3000X4000	3000X4000	94.83 m²

ABBREVIATIONS	
ALS	ASSISTANT LINE SUPERVISOR
AHU	AIR HANDLING UNIT
CD	COOLING DUMPING
CONC	CONCOURSE
DRD	DRAUGHT RELIEF DAMPER
EFO	EXCESS FARE OFFICE
ELEC	ELECTRICAL
EVS	EXHAUST VENTILATION SHAFT
E&M	ELECTRICAL AND MECHANICAL
FE	FIRE ESCAPE
FHC	FIRE HOSE CABINET
FM	FIRE MAN
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
OTE	OVER TRACK EXHAUST
PLANT	PLANT ROOM
PLT	PLATFORM
PSB	PLATFORM SUPERVISOR BOOTH
SAD	SUPPLY AIR DUCT
S&T	SIGNALING AND TELECOM
TOM	TICKET OPERATING MACHINE
TVF	TUNNEL VENTILATION FAN
TVM	TICKET VENDING MACHINE
TVS	TUNNEL VENTILATION SYSTEM
UNA	UNASSIGNED

LEGEND	
▨	FILLED FLOOR
▨	FALSE FLOOR
▨	DOUBLE FLOOR

WALL PATTREN	
▩	BLOCKWORK
▭	RCC WALL

KEY PLAN

NORTH

MODEL VERSION 3

यह चित्रांकन दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड की संपत्ति है।
THIS DRAWING IS THE PROPERTY OF DELHI METRO RAIL CORPORATION LTD

जारी किये गए चित्रांकन ISSUED DRAWINGS					
27.12.22	A	TENDER SUBMISSION	MG	MK	AP
दिनांक DATE	संशोधन REV	विवरण DESCRIPTION	चित्रकृत DRAWN	जांच CHECKED	सत्यापित VERIFIED

चित्रांकन संदर्भ REFERENCE DRAWINGS		
क्रमांक S.NO	चित्रांकन संख्या DRAWING NO.	विवरण DESCRIPTION

डीएमआरसी द्वारा अनुमोदन
APPROVAL BY DMRC

पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE
प्रबंधक / वास्तुक MGR/ ARCH		उपमुख्य विद्युत अभियंता विद्युत एवं यांत्रिक DY CE/E & M	
उपमुख्य वास्तुक DY CA		उपमुख्य विद्युत अभियंता पर्यावरण नियंत्रण प्रणाली DY CE/ECS	
मुख्य / वास्तुक CA/ ARCH		महाप्रबंधक विद्युत / भूमिगत – १ GM / E / UG-1	
उपमुख्य अभियंता / रचना DY CE/ DESIGN		परियोजना प्रबंधक PM	
मुख्य अभियंता / रचना CE/ DESIGN		मुख्य परियोजना प्रबंधक CPM	
उप महाप्रबंधक संकेतन व दूरसंचार DGM / S & T		उप महाप्रबंधक संचालन DGM / OPERATIONS	

प्रमाणित किया जाता है कि यह है कि दस्तावेज डी डी सी की ओर से गुणवत्ता आश्वासन योजना के अनुसार तैयार किया गया है।
Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan

डी डी सी प्राधिकृत हस्ताक्षरकर्ता पीसीडीडी–01 परियोजना प्रबंधक
Authorised Signatory for DDC PCDD-01 Project Manager
SRIRUP MITRA

वास्तुकला रचना प्रभारी Architecture Team Leader SANTANU BANERJEE
संरचना प्रभारी Structure Team Leader SRIRUP MITRA
विद्युत एवं यांत्रिकी दल प्रभारी E&M Team Leader SAMPATH MANIVANAN Kondal, Deepak

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9F, INFINITY TOWER C, DLF CYBER CITY, PHASE II, GURGAON 122002, INDIA

चित्रणकर्ता DRAWN BY: MG Ghosh, Mayukh
जांचकर्ता CHECKED BY: MK KACRA, MANISH
सत्यापितकर्ता VERIFIED BY: AP

दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-05

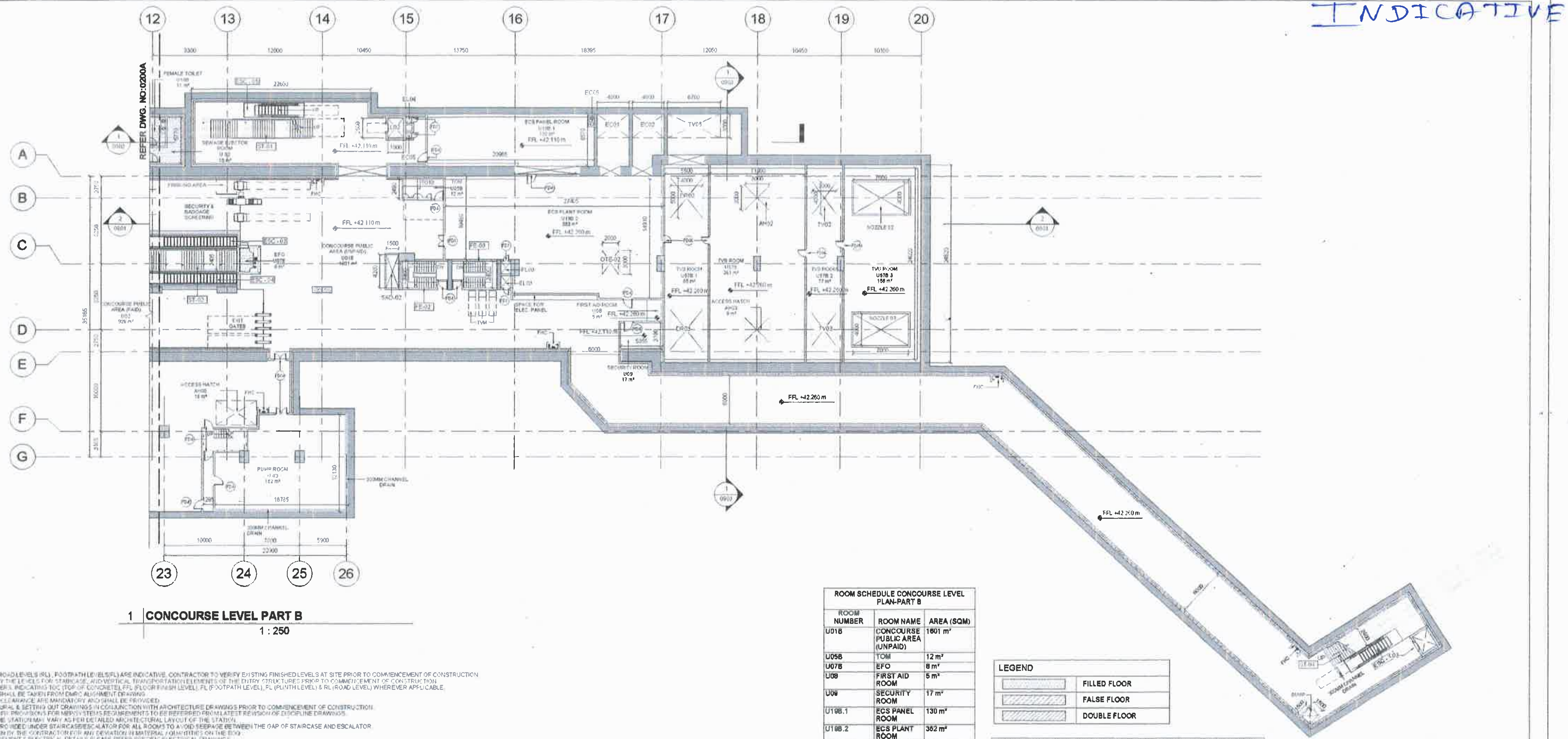
स्टेशन STATION VIDYUT BHAWAN STATION

चित्रांकन शीर्षक DRAWING TITLE: CONCOURSE LEVEL PLAN- PART A

दिनांक DATE 27.12.2022
संशोधन REV A
चित्रात्मक पैमाना GRAPHICAL SCALE 1:250 @ A1
स्थिति STATUS TENDER SUBMISSION

चित्रांकन संख्या DRAWING NUMBER: PMP-C1- VDB-ACM- AR-DR- 0200A
पृष्ठ संख्या SHEET NO SHEET 1 OF 2
पृष्ठ का आकार SHEET SIZE ISO A1
ARCHITECTURAL

INDICATIVE



1 CONCOURSE LEVEL PART B

1 : 250

ROOM SCHEDULE CONCOURSE LEVEL PLAN-PART B		
ROOM NUMBER	ROOM NAME	AREA (SQM)
U01B	CONCOURSE PUBLIC AREA (UNPAID)	1601 m²
U05B	TOM	12 m²
U07B	EFO	8 m²
U08	FIRST AID ROOM	5 m²
U09	SECURITY ROOM	17 m²
U19B.1	ECS PANEL ROOM	130 m²
U19B.2	ECS PLANT ROOM	352 m²
U57B	TVS ROOM	261 m²
U57B.1	TVS ROOM	85 m²
U57B.2	TVS ROOM	77 m²
U57B.3	TVS ROOM	158 m²
U 43	PUMP ROOM	182 m²
U 46	CHILLER PLANT ROOM	416 m²

LEGEND	
	FILLED FLOOR
	FALSE FLOOR
	DOUBLE FLOOR

SHAFT SCHEDULE CONCOURSE LEVEL PLAN-PART B				
ROOM NUMBER	ROOM NAME	CUTOUT DIMENSION	SHAFT DIMENSION	AREA (SQM)
AH02	ACCESS HATCH	3000X3000	3000X3000	9 m²
AH03	ACCESS HATCH	3000X3000	3000X3000	9 m²
AH06	ACCESS HATCH	3000X3000	3000X3000	15.81 m²
DR02	DRAUGHT RELIEF SHAFT-02	5000X4000	5000X4000	20 m²
DR03	DRAUGHT RELIEF SHAFT-03	5000X4000	5000X4000	20 m²
EC05	EXHAUST CUTOUT	700 X 750	770 X 770	0.59 m²
EC06	EXHAUST CUTOUT	800 X 1000	500 X 1000	0.5 m²
EL03	ELEC SHAFT	1800X1300	1800X1300	1.79 m²
EL04	ELEC. CUTOUT	760X700	765X770	0.59 m²
L02	LIFT-02	2500X1900	2500X1900	4.75 m²
L03	LIFT-03	2500X1900	2500X1900	Redundant Room
PL03	PLUMBING SHAFT	1800X1300	1800X1300	1.79 m²
SAD-02	SUPPLY AIR DUCT	1500 X 4200	1500 X 4200	6.3 m²
TV02	TUNNEL VENTILATION SHAFT-01 (VENT SHAFT)	4000X3000	4000X3000	12 m²
TV03	TUNNEL VENTILATION SHAFT-01 (VENT SHAFT)	4000X3000	4000X3000	12 m²

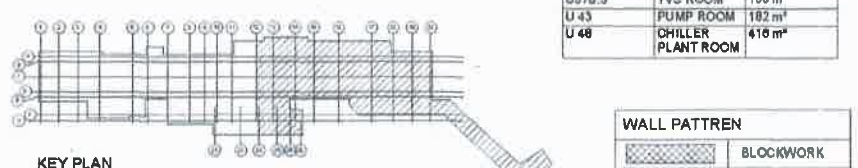
WALL PATTREN	
	BLOCKWORK
	RCC WALL

ABBREVIATIONS	
ALS	ASSISTANT LINE SUPERVISOR
AHU	AIR HANDLING UNIT
CD	COOLING DUMPING
CONC	CONCOURSE
DRD	DRAUGHT RELIEF DAMPER
EFO	EXCESS FARE OFFICE
ELEC	ELECTRICAL
EVS	EXHAUST VENTILATION SHAFT
E&M	ELECTRICAL AND MECHANICAL
FE	FIRE ESCAPE
FHC	FIRE HOSE CABINET
FM	FIREMAN
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
OTE	OVER TRACK EXHAUST
PLANT	PLANT ROOM
PLT	PLATFORM
PSB	PLATFORM SUPERVISOR BOOTH
SAD	SUPPLY AIR DUCT
S&T	SIGNALING AND TELECOM
TOM	TICKET OPERATING MACHINE
TVF	TUNNEL VENTILATION FAN
TVM	TICKET VENDING MACHINE
TVS	TUNNEL VENTILATION SYSTEM
UNA	UNASSIGNED

NORTH

MODEL VERSION 3

NOTES:
1. GROUND LEVELS (GL), ROAD LEVELS (RL), FOOTPATH LEVELS (FL) ARE INDICATIVE. CONTRACTOR TO VERIFY EXISTING FINISHED LEVELS AT SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION
2. CONTRACTOR TO VERIFY THE LEVELS FOR STAIRCASE, AND VERTICAL TRANSPORTATION ELEMENTS OF THE ENTRY STRUCTURES PRIOR TO COMMENCEMENT OF CONSTRUCTION
3. ALL LEVELS ARE IN METERS, INDICATING TOC (TOP OF CONCRETE), FFL (FLOOR FINISH LEVEL), FL (FOOTPATH LEVEL), PL (PLINTH LEVEL) & RL (ROAD LEVEL) WHEREVER APPLICABLE
4. ABSOLUTE RAIL LEVEL SHALL BE TAKEN FROM DMRC ALIGNMENT DRAWING
5. ALL MINIMUM INTERNAL CLEARANCE ARE MANDATORY AND SHALL BE PROVIDED
6. REFER LATEST STRUCTURAL & SETTING OUT DRAWINGS IN CONJUNCTION WITH ARCHITECTURE DRAWINGS PRIOR TO COMMENCEMENT OF CONSTRUCTION
7. ALL CUTOUT AND FIRST FIX PROVISIONS FOR MEP SYSTEMS REQUIREMENTS TO BE REFERRED FROM LATEST REVISION OF DISCIPLINE DRAWINGS
8. MASONRY WORK OF THE STATION MAY VARY AS PER DETAILED ARCHITECTURAL LAYOUT OF THE STATION
9. DOUBLE SLAB MAY BE PROVIDED UNDER STAIRCASE/ESCALATOR FOR ALL ROOMS TO AVOID SEEPAGE BETWEEN THE GAP OF STAIRCASE AND ESCALATOR
10. APPROVAL TO BE TAKEN BY THE CONTRACTOR FOR ANY DEVIATION IN MATERIAL / QUANTITIES ON THE BOQ
11. FOR LIGHTING ARRANGEMENT & ELECTRICAL DETAILS PLEASE REFER SPECIFIC ELECTRICAL DRAWINGS
12. FOR SKWA AND S&T SHAFT SHOULD BE REVIEWED BY RESPECTIVE SYSTEM WIDE CONTRACTOR
13. EARTH PIT SIZE AND LOCATION TO BE CONFIRMED BY E&M (DMRC)
14. WATER PROOFING TO BE DONE AT O.H & UG TANK LEVEL/OTHER WET AREA MATERIAL AS PER BOQ
15. REFER VENDOR DRAWINGS FOR ESCALATOR AND LIFT PIT SIZE AS FINALIZED BY DMRC
16. REFER VERTICAL TRANSPORTATION VENDOR DRAWINGS FOR FINAL STRUCTURAL PROVISIONS AS FINALIZED BY DMRC
17. BEFORE STARTING ANY E&M WORK INTERFACE WITH CIVIL CONTRACTOR TO BE REQUIRED
18. THE UTILITY PLANS HAVE BEEN REVIEWED. ALL AFFECTED UTILITIES TO BE DIVERTED AND REINSTATED AS PER SITE CONDITIONS
19. ALL THE WORKS AS SHOWN IN DRAWING ARE IN LUMP SUM UNLESS OTHERWISE SPECIFIED
20. TRACK BED BY OTHERS
21. S&T SHAFT BLOCK WORK SHALL BE KEPT ON HOLD UNTIL THE INSTALLATION OF CABLE TRAYS AT PLATFORM LEVEL
22. COLUMN/LOCATION IN THE SERVICE AREA TO BE CO-ORDINATED AND CONFIRMED BASED ON EQUIPMENT LAYOUT PROVIDED BY- E&M CONTRACTOR
23. PROVISIONS SHALL BE MADE FOR RACEWAYS IN SLAB/FLOOR
24. PLUMBING & DRAINAGE ARRANGEMENT SHOWN IN DRAWING ARE INDICATIVE. ALL THE PLUMBING INCLUDING EMBEDDED SYSTEM TO BE AS PER DETAILED DESIGN
25. STRUCTURAL WALL PROFILE AND TBM SHAFTS SIZE TO SUIT THE FINAL TRACK ALIGNMENT AND AS PER CONTRACTOR'S DESIGN.
26. FHC NICHES SHALL BE PROVIDED AT EVERY 60 METER DISTANCE AND TO BE COORDINATED WITH E&M CONTRACTOR
27. FIRE DOORS NUMBER & LOCATION SHOWN IN DRAWING ARE INDICATIVE & FINAL DETAIL TO BE TAKEN FROM DETAILED DRAWING
28. ALL SHAFT LOCATIONS AND SIZES ARE TENTATIVE AND SHALL BE FINALIZED IN CONSULTATION WITH E&M CONTRACTOR
29. HFL FOR THE AREA AROUND PATNA ZOO STATION = 49.900 M FROM MEAN SEA LEVEL
30. DETAILS OF ACCESS FOR MAINTENANCE AND INSPECTION OF MEP FACILITIES i.e. CAT LADDER, COVERING OF ACCESS HATCH AND MAIN HOLES, SHAFT DOORS, DOG HOUSE DETAILS, DRAIN CHANNEL GRATING / COVER, etc. SHALL BE SUBMITTED DURING DETAIL DESIGN STAGE
31. ALL STAIRCASES HAVING SERVICES PASSING THROUGH THEM WILL HAVE INTERMEDIATE SLAB FOR MEP EQUIPMENT PLACEMENT OR SERVICES SUPPORT. INTERMEDIATE SLAB LEVEL WILL BE WORKED OUT DURING DETAILED DESIGN OF THE PROJECT
32. PLINTH LEVEL IS MINIMUM 450MM HIGHER THAN HFL OR FOOTPATH LEVEL WHICHEVER IS HIGHER
33. ALL STATION BOX RELATED DIMENSIONS ARE INTERNAL CLEAR DIMENSIONS AFTER STRUCTURE AND TOLERANCE
34. D-WALL THICKNESS IS SHOWN TENTATIVELY AS PER STRUCTURE DRAWING
35. UPDATED ROW LINE FOR STATION RECEIVED THROUGH MAIL ON 25.08.2021 FROM DMRC. AS PER DMRC COMMENTS, WE ARE MENTIONING ROW AS EPL (EXISTING PROPERTY LINE)
36. DRAIN LEVEL TO BE SLOPPED TO MATCH FOOTPATH LEVEL. DRAIN WILL BE REINSTATED AFTER STATION BOX CONSTRUCTION
37. PLATFORM HAS A SLOPE OF 1:100 FROM THE PLATFORM EDGE FOR 3000 MM TOWARDS THE BACK OF THE PLATFORM. THIS MAY AFFECT THE STAIR ESCALATOR AND LIFT RISE
38. CONTRACTOR TO PROPOSE STRUCTURAL SOLUTION IN DISCUSSION WITH DMRC DESIGN TEAM. ALTERNATE PROPOSAL MAY BE SUGGESTED WITHOUT ANY FINANCIAL IMPLICATION
39. GAPS BETWEEN STAIRS & ESCALATOR AND THE ESCALATORS WILL BE FILLED WITH SUITABLE FLASHING
40. LIFT AND ESCALATOR LIFTING HOOK ARRANGEMENT TO BE PROVIDED AS PER VENDOR REQUIREMENT
41. ESCALATOR NOTCH TO BE AS PER VENDOR DETAILS
42. FOR TRACK DRAINAGE, REFER DRAWING NO. PMP-C1-VDB-UG-ACM-ME-DP-0150



KEY PLAN

GENERAL NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS, UNTILL OTHERWISE MENTIONED
2. ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED
3. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL, STRUCTURAL, PLUMBING, FIRE FIGHTING, ELECTRICAL AND TRAFFIC MANAGEMENT DRAWINGS
4. ANY DISCREPANCIES MUST BE BROUGHT TO NOTICE OF THE CONSULTANT/ DMRC BEFORE EXECUTION OF WORK AT SITE
5. CONCOURSE LENGTH MAY GET REVISED AS PER FUTURE ROOMS REQUIREMENTS GIVEN BY TECHNICAL DEPT. OF DMRC
6. FOR FURTHER INFORMATION ABOUT FINISHES REFER TO FINISHES SCHEDULE
7. FOR ANY DEVIATION FROM BOQ IN MATERIALS / QUANTITIES APPROVAL MAY BE TAKEN
8. ALL DOORS/WINDOWS SILL & LINTEL LEVELS ARE FROM MAIN FLOOR FINISH LEVEL
9. COLUMN LOCATION AND STRUCTURAL ARRANGEMENT SHOWN ARE INDICATIVE ONLY

जारी किये गए चित्रांकन
ISSUED DRAWINGS

27.12.22	A	TENDER SUBMISSION	MG	MK	AP
दिनांक DATE	संशोधन REV.	विवरण DESCRIPTION	चित्रित DRAWN	जांच CHECKED	सत्यापित VERIFIED

चित्रांकन संदर्भ
REFERENCE DRAWINGS

क्रमांक S.NO.	चित्रांकन संख्या DRAWING NO.	विवरण DESCRIPTION

डीएमआरसी द्वारा अनुमोदन
APPROVAL BY DMRC

पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE
प्रबंधक / वास्तुकार MGR/ ARCH		उपमुख्य विद्युत अभियंता DY CE/E & M	
उपमुख्य वास्तुकार DY CA		उपमुख्य विद्युत अभियंता DY CE/ECS	
मुख्य / वास्तुकार CA/ ARCH		महाप्रबंधक विद्युत / भुमिगत - 1 GM / E / UG-1	
उपमुख्य अभियंता / रचना DY CE/ DESIGN		परियोजना प्रबंधक PM	
मुख्य अभियंता / रचना CE/ DESIGN		मुख्य परियोजना प्रबंधक CPM	
मुख्य महाप्रबंधक स्टेशन व भूस्थापत्य DGM / S & T		उप महाप्रबंधक संचालन DGM / OPERATIONS	

प्रमाणित किया जाता है कि यह है कि दस्तावेज डी सी की ओर से गुणवत्ता आश्वासन योजना के अनुसार तैयार किया गया है।
Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan

डी सी प्राधिकृत हस्ताक्षरकर्ता पीसीडीडी-01 परियोजना प्रबंधक
Authorised Signatory for DDC PCDD-01 Project Manager SRIRUP MITRA

वास्तुकला रचना प्रभारी Architecture Team Leader SANTANU BANERJEE

संरचना प्रभारी Structure Team Leader SRIRUP MITRA

विद्युत एवं यांत्रिकी रचना प्रभारी E&M Team Leader SAMPATH MANIVANAN Kondal, Deepak

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जांचकर्ता CHECKED BY MK KAGRA, MANISH

सत्यापितकर्ता VERIFIED BY AP Prasanna, Anupam

दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-05

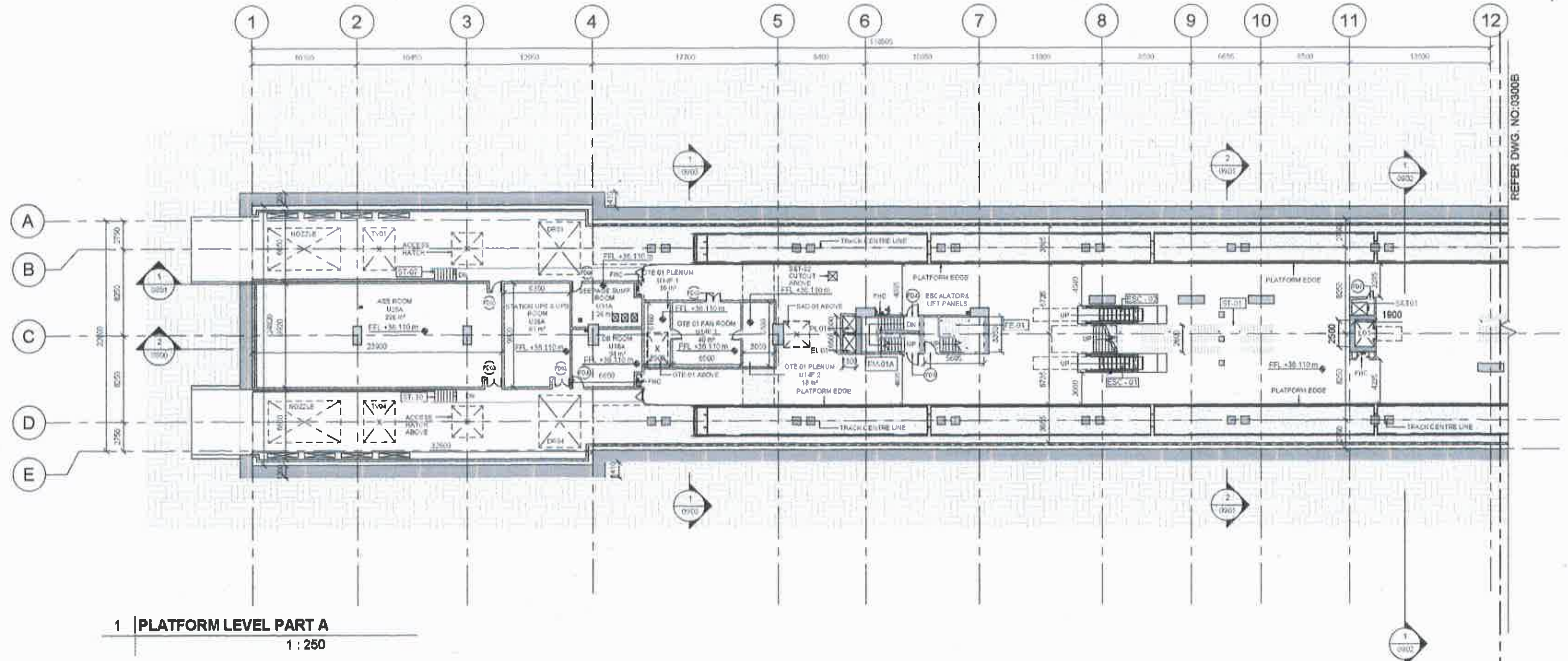
स्टेशन STATION: VIDYUT BHAWAN STATION

चित्रांकन शीर्षक DRAWING TITLE: CONCOURSE LEVEL PLAN- PART B

दिनांक DATE 27.12.2022	संशोधन REV A	चित्रात्मक पैमाना GRAPHICAL SCALE 1:250 @ A1	स्थिति STATUS TENDER SUBMISSION
चित्रांकन संख्या DRAWING NUMBER PMP-C1- VDB-ACM- AR-DR- 0200B		पृष्ठ संख्या SHEET NO SHEET 2 OF 2	पृष्ठ का आकार SHEET SIZE ISO A1

ARCHITECTURAL

INDICATIVE



1 PLATFORM LEVEL PART A

1 : 250

NOTES-

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12 FOR 35KVA AND S&T SHAFT SHOULD BE REVIEWED BY RESPECTIVE SYSTEM VIDE CONTRACTOR
13 EARTH MAT SIZE AND LOCATION TO BE CONFIRMED BY E&M (DMRC)
14 WATER PROOFING TO BE DONE AT O H & UG TANK LEVEL/OTHER WET AREA MATERIAL AS PER BOQ
15 REFER VENDOR DRAWINGS FOR ESCALATOR AND LIFT PIT SIZE AS FINALIZED BY DMRC
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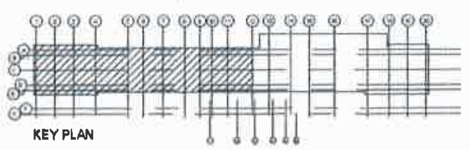
40 LIFT AND ESCALATOR LIFTING HOOK ARRANGEMENT TO BE PROVIDED AS PER VENDOR REQUIREMENT
41 ESCALATOR NOTCH TO BE AS PER VENDOR DETAILS
42 FOR TRACK DRAINAGE , REFER DRAWING NO. PMP-C1-VDB-UG-ACM-ME-DR-0150



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5 CONCOURSE LENGTH MAY GET REVISED AS PER FUTURE ROOMS REQUIREMENTS GIVEN BY TECHNICAL DEPT. OF DMRC
6 FOR FURTHER INFORMATION ABOUT FINISHES REFER TO FINISHES SCHEDULE.
7 FOR ANY DEVIATION FROM BOQ IN MATERIALS / QUANTITIES APPROVAL MAY BE TAKEN
8 ALL DOORS/WINDOWS SILL & LINTEL LEVELS ARE FROM MAIN FLOOR FINISH LEVEL
9 COLUMN LOCATION AND STRUCTURAL ARRANGEMENT SHOWN ARE INDICATIVE ONLY

WALL PATTREN	
	BLOCKWORK
	RCC WALL

LEGEND	
	FILLED FLOOR
	FALSE FLOOR
	DOUBLE FLOOR

SHAFT SCHEDULE PLATFORM LEVEL PLAN-PART A

ROOM NUMBER	ROOM NAME	CUTOUT DIMENSION	SHAFT DIMENSION	AREA (SQM)
EL01	ELEC SHAFT	1650X1300	1650X1300	2.15 m²
L01	LIFT-01	2500X1900	2500X1900	4.75 m²
PL01	PLUMBING SHAFT	1600X1300	1600X1300	2.08 m²
S&T01	S&T SHAFT	1200X1500	1500X2200	3.3 m²

ROOM SCHEDULE PLATFORM LEVEL PLAN-PART A

ROOM NUMBER	ROOM NAME	AREA (SQM)
EL01	ELEC SHAFT	2 m²
L01	LIFT-01	5 m²
PL01	PLUMBING SHAFT	2 m²
S&T01	S&T SHAFT	3 m²
U14E.1	OTE 01 FAN ROOM	40 m²
U14F.1	OTE 01 PLENUM	15 m²
U14F.2	OTE 01 PLENUM	18 m²
U18A	DB ROOM	34 m²
U25A	ASS ROOM	226 m²
U26A	STATION UPS & UPS ROOM	61 m²
U31A	SEEPAGE SUMP ROOM	26 m²

ABBREVIATIONS

ALS	ASSISTANT LINE SUPERVISOR
AHU	AIR HANDLING UNIT
CD	COOLING DUMPING
CONC	CONCOURSE
DRD	DRAUGHT RELIEF DAMPER
EFO	EXCESS FARE OFFICE
ELEC	ELECTRICAL
EVS	EXHAUST VENTILATION SHAFT
E&M	ELECTRICAL AND MECHANICAL
FE	FIRE ESCAPE
FHC	FIRE HOSE CABINET
FM	FIRE MAN
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
OTE	OVER TRACK EXHAUST
PLANT	PLANT ROOM
PLT	PLATFORM
PSB	PLATFORM SUPERVISOR BOOTH
SAD	SUPPLY AIR DUCT
S&T	SIGNALING AND TELECOM
TOM	TICKET OPERATING MACHINE
TVF	TUNNEL VENTILATION FAN
TVM	TICKET VENDING MACHINE
TVS	TUNNEL VENTILATION SYSTEM
UNA	UNASSIGNED

NORTH

MODEL VERSION 2

यह चित्रांकन दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड की संपत्ति है। THIS DRAWING IS THE PROPERTY OF DELHI METRO RAIL CORPORATION LTD.

जारी किये गए चित्रांकन / ISSUED DRAWINGS

दिनांक DATE	संशोधन REV	विवरण DESCRIPTION	विकृत DRAWN	जांच CHECKED	सत्यापित VERIFIED
27.12.22	A	TENDER SUBMISSION	MG	MK	AP

चित्रांकन संदर्भ / REFERENCE DRAWINGS

क्रमांक S NO	चित्रांकन संख्या DRAWING NO	विवरण DESCRIPTION

डीएमआरसी द्वारा अनुमोदन / APPROVAL BY DMRC

पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE
प्रबंधक / वास्तुक MGR/ ARCH		उपमुख्य विद्युत अभियंता विद्युत एवं यांत्रिक DY CE/E&M	
उप मुख्य वास्तुक DY CA		उपमुख्य विद्युत अभियंता पर्यावरण नियंत्रण प्रणाली DY CE/ECS	
मुख्य / वास्तुक CA/ARCH		महाप्रबंधक विद्युत / भूमिगत – १ GM/E/UG-1	
उपमुख्य अभियंता / रचना DY CE/ DESIGN		परियोजना प्रबंधक PM	
मुख्य अभियंता / रचना CE/ DESIGN		मुख्य परियोजना प्रबंधक CPM	
उप महाप्रबंधक संकेत व दूरसंचार DGM/S&T		उप महाप्रबंधक संचालन DGM / OPERATIONS	

प्रमाणित किया जाता है कि यह है कि दस्तावेज डी डी सी की ओर से गुणवत्ता आश्वासन योजना के अनुसार तैयार किया गया है। Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan

डी डी सी प्राधिकृत हस्ताक्षरकर्ता पीसीडीडी–01 परियोजना प्रबंधक Authorised Signatory for DDC PCDD-01 Project Manager SRIRUP MITRA

वास्तुकला रचना प्रभारी Architecture Team Leader SANTANU BANERJEE

संरचना प्रभारी Structure Team Leader SRIRUP MITRA

विद्युत एवं यांत्रिकी रचना प्रभारी E&M Team Leader SAMPATH MANIVANAN Kondal, Deepak

OFFICE OF ORIGIN -

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9F, INFINITY TOWER C, DLF CYBER CITY, PHASE II, GURGAON 122002, INDIA

चित्रणकर्ता DRAWN BY: MG Ghosh, Mayukh

जांचकर्ता CHECKED BY: MK NAGRA, MANISH

सत्यापितकर्ता VERIFIED BY: AP Prasanth, Anupam

दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-05

स्टेशन STATION: VIDYUT BHAWAN STATION

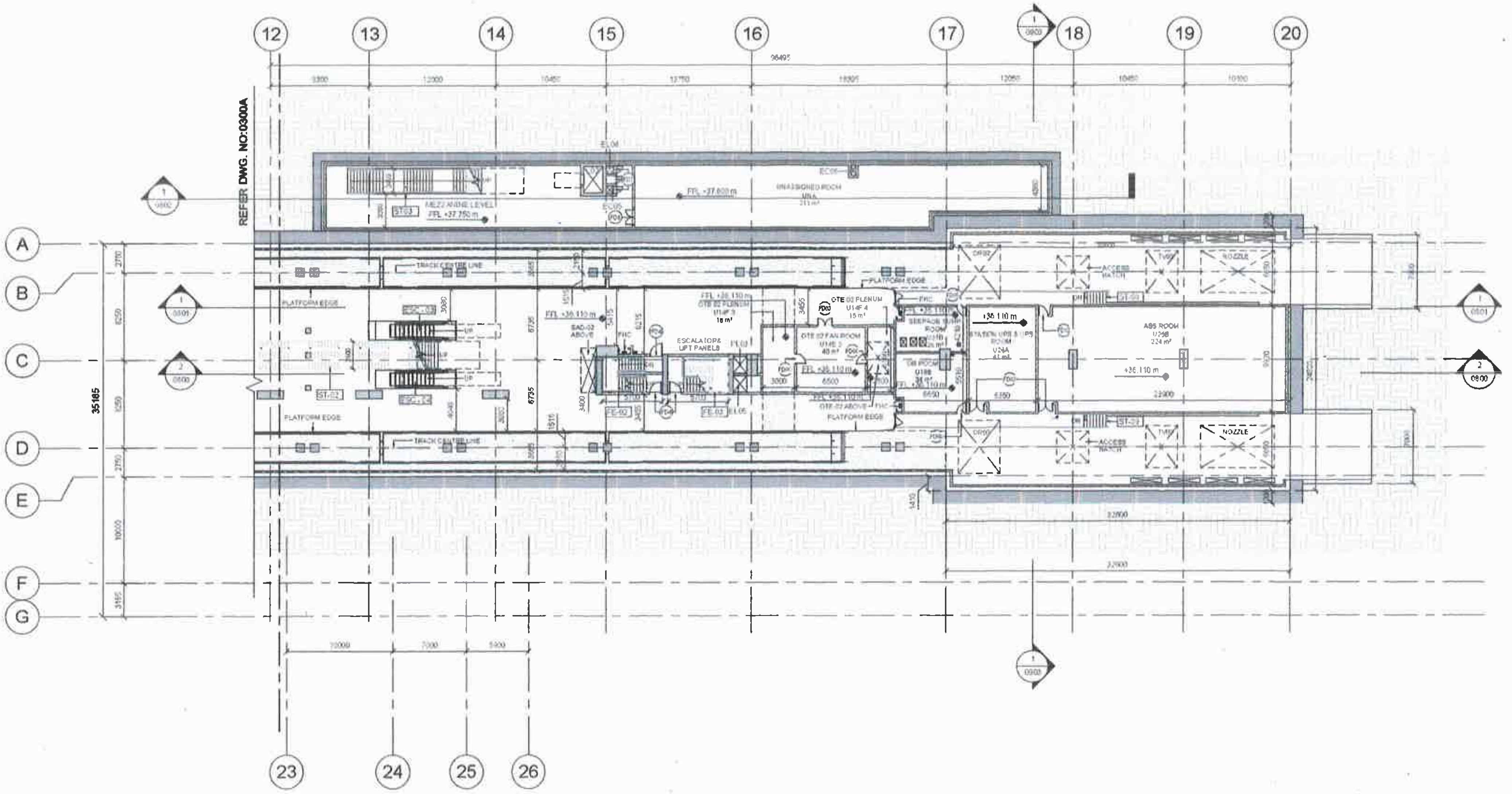
चित्रांकन शीर्षक DRAWING TITLE: PLATFORM LEVEL PLAN-PART A

दिनांक DATE 27.12.2022 | संशोधन REV A | चित्रांकन पैमाना GRAPHICAL SCALE 1:250 @ A1 | स्थिति STATUS TENDER SUBMISSION

चित्रांकन संख्या DRAWING NUMBER: PMP-C1- VDB-ACM- AR-DR- 0300A

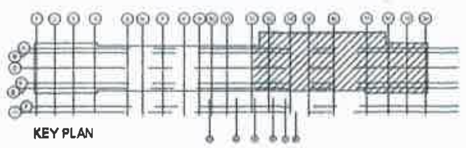
पृष्ठ संख्या SHEET NO SHEET 1 OF 2 | पृष्ठ का आकार SHEET SIZE ISO A1 | ARCHITECTURAL

INDICATIVE



1 PLATFORM LEVEL PART B
1 : 250

NOTES-
1 GROUND LEVELS (GL), ROAD LEVELS (RL), FOOTPATH LEVELS(FL) ARE INDICATIVE, CONTRACTOR TO VERIFY EXISTING FINISHED LEVELS AT SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION
2 CONTRACTOR TO VERIFY THE LEVELS FOR STAIRCASE, AND VERTICAL TRANSPORTATION ELEMENTS OF THE ENTRY STRUCTURES PRIOR TO COMMENCEMENT OF CONSTRUCTION
3 ALL LEVELS ARE IN METERS, INDICATING TOC (TOP OF CONCRETE), FFL (FLOOR FINISH LEVEL), FL (FOOTPATH LEVEL), PL (PLINTH LEVEL) & RL (ROAD LEVEL) WHEREVER APPLICABLE
4 ABSOLUTE RAIL LEVEL SHALL BE TAKEN FROM DMRC ALIGNMENT DRAWING
5 ALL MINIMUM INTERNAL CLEARANCE ARE MANDATORY AND SHALL BE PROVIDED
6 REFER LATEST STRUCTURAL & SETTING OUT DRAWINGS IN CONJUNCTION WITH ARCHITECTURE DRAWINGS PRIOR TO COMMENCEMENT OF CONSTRUCTION
7 ALL CUTOUT AND FIRST FIX PROVISIONS FOR MEP/SYSTEMS REQUIREMENTS TO BE REFERRED FROM LATEST REVISION OF DISCIPLINE DRAWINGS
8 MASONRY WORK OF THE STATION MAY VARY AS PER DETAILED ARCHITECTURAL LAYOUT OF THE STATION.
9 DOUBLE SLAB MAY BE PROVIDED UNDER STAIRCASE/ESCALATOR FOR ALL ROOMS TO AVOID SEEPAGE BETWEEN THE GAP OF STAIRCASE AND ESCALATOR
10. APPROVAL TO BE TAKEN BY THE CONTRACTOR FOR ANY DEVIATION IN MATERIAL / QUANTITIES ON THE BOQ
11 FOR LIGHTING ARRANGEMENT & ELECTRICAL DETAILS PLEASE REFER SPECIFIC ELECTRICAL DRAWINGS
12 FOR 33KVA AND S&T SHAFT SHOULD BE REVIEWED BY RESPECTIVE SYSTEM WIDE CONTRACTOR
13. EARTH MAT SIZE AND LOCATION TO BE CONFIRMED BY E&M (DMRC)
14. WATER PROOFING TO BE DONE AT O H & UG TANK LEVEL/OTHER WET AREA MATERIAL AS PER BOQ
15 REFER VENDOR DRAWINGS FOR ESCALATOR AND LIFT PIT SIZE AS FINALIZED BY DMRC
16 REFER VERTICAL TRANSPORTATION VENDOR DRAWINGS FOR FINAL STRUCTURAL PROVISIONS AS FINALIZED BY DMRC
17 BEFORE STARTING ANY E&M WORK INTERFACE WITH CIVIL CONTRACTOR TO BE REQUIRED
18 THE UTILITY PLANS HAVE BEEN REVIEWED ALL AFFECTED UTILITIES TO BE DIVERTED AND REINSTATED AS PER SITE CONDITIONS
19 ALL THE WORKS AS SHOWN IN DRAWING ARE IN LUMP SUM UNLESS OTHERWISE SPECIFIED
20 TRACK BED BY OTHERS
21 S & T SHAFT BLOCK WORK SHALL BE KEPT ON HOLD UNTIL THE INSTALLATION OF CABLE TRAYS AT PLATFORM LEVEL
22 COLUMN LOCATION IN THE SERVICE AREA TO BE CO-ORDINATED AND CONFIRMED BASED ON EQUIPMENT LAYOUT PROVIDED BY - E&M CONTRACTOR
23 PROVISIONS SHALL BE MADE FOR RACEWAYS IN SLAB/FLOOR
24 PLUMBING & DRAINAGE ARRANGEMENT SHOWN IN DRAWING ARE INDICATIVE, ALL THE PLUMBING INCLUDING EMBEDDED SYSTEM TO BE AS PER DETAILED DESIGN
25 STRUCTURAL WALL PROFILE AND TBM SHAFTS SIZE TO SUIT THE FINAL TRACK ALIGNMENT AND AS PER CONTRACTOR'S DESIGN
26 FHC NICHES SHALL BE PROVIDED AT EVERY 60 METER DISTANCE AND TO BE COORDINATED WITH E&M CONTRACTOR
27. FIRE DOORS NUMBER & LOCATION SHOWN IN DRAWING ARE INDICATIVE & FINAL DETAIL TO BE TAKEN FROM DETAILED DRAWING
28 ALL SHAFT LOCATIONS AND SIZES ARE TENTATIVE AND SHALL BE FINALIZED IN CONSULTATION WITH E&M CONTRACTOR
29 HFL FOR THE AREA AROUND PATNA ZOO STATION = 49.900 M FROM MEAN SEA LEVEL.
30 DETAILS OF ACCESS FOR MAINENANCE AND INSPECTION OF MEP FACILITIES i.e. CAT LADDER, COVERING OF ACCESS HATCH AND MAIN HOLES, SHAFT DOORS, DOG HOUSE DETAILS, DRAIN CHANNEL GRATING COVER, etc. SHALL BE SUBMITTED DURING DETAIL DESIGN STAGE
31. ALL STAIRCASES HAVING SERVICES PASSING THROUGH THEM WILL HAVE INTERMEDIATE SLAB FOR MEP EQUIPMENT PLACEMENT OR SERVICES SUPPORT. INTERMEDIATE SLAB LEVEL WILL BE WORKED OUT DURING DETAILED DESIGN OF THE PROJECT
32 PLINTH LEVEL IS MINIMUM 450MM HIGHER THAN HFL OR FOOTPATH LEVEL WHICHEVER IS HIGHER
33 ALL STATION BOX RELATED DIMENSIONS ARE INTERNAL CLEAR DIMENSIONS AFTER STRUCTURE AND TOLERANCE
34 DWALL THICKNESS IS SHOWN TENTATIVELY AS PER STRUCTURE DRAWING
35 UPDATED ROW LINE FOR STATION RECEIVED THROUGH MAIL ON 25.08.2021 FROM DMRC. AS PER DMRC COMMENTS, WE ARE MENTIONING ROW AS EPL (EXISTING PROPERTY LINE)
36 DRAIN LEVEL TO BE SLOPPED TO MATCH FOOTPATH LEVEL. DRAIN WILL BE REINSTATED AFTER STATION BOX CONSTRUCTION
37 PLATFORM HAS A SLOPE OF 1:100 FROM THE PLATFORM EDGE FOR 3000 MM TOWARDS THE BACK OF THE PLATFORM. THIS MAY AFFECT THE STAIR ESCALATOR AND LIFT RISE
38 CONTRACTOR TO PROPOSE STRUCTURAL SOLUTION IN DISCUSSION WITH DMRC DESIGN TEAM. ALTERNATE PROPOSAL MAY BE SUGGESTED WITHOUT ANY FINANCIAL IMPLICATION
39 GAPS BETWEEN STAIRS & ESCALATOR AND THE ESCALATORS WILL BE FILLED WITH SUITABLE FLASHING
40 LIFT AND ESCALATOR LIFTING HOOK ARRANGEMENT TO BE PROVIDED AS PER VENDOR REQUIREMENT
41 ESCALATOR NOTCH TO BE AS PER VENDOR DETAILS
42 FOR TRACK DRAINAGE, REFER DRAWING NO. PMP-C1-VDB-UG-ACM-ME-DR-0150



KEY PLAN

GENERAL NOTES-
1 ALL DIMENSIONS ARE IN MILLIMETERS, UNTILL OTHERWISE MENTIONED.
2 ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL, STRUCTURAL, PLUMBING, FIRE FIGHTING, ELECTRICAL AND TRAFFIC MANAGEMENT DRAWINGS
4. ANY DISCREPANCIES MUST BE BROUGHT TO NOTICE OF THE CONSULTANT/ DMRC BEFORE EXECUTION OF WORK AT SITE
5 CONCOURSE LENGTH MAY GET REVISED AS PER FUTURE ROOMS REQUIREMENTS GIVEN BY TECHNICAL DEPT. OF DMRC
6 FOR FURTHER INFORMATION ABOUT FINISHES REFER TO FINISHES SCHEDULE
7 FOR ANY DEVIATION FROM BOQ IN MATERIALS / QUANTITIES APPROVAL MAY BE TAKEN
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9 COLUMN LOCATION AND STRUCTURAL ARRANGEMENT SHOWN ARE INDICATIVE ONLY

WALL PATTREN	
	BLOCKWORK
	RCC WALL

LEGEND	
	FILLED FLOOR
	FALSE FLOOR
	DOUBLE FLOOR

SHAFT SCHEDULE PLATFORM LEVEL PLAN-PART B

ROOM NUMBER	ROOM NAME	CUTOUT DIMENSION	SHAFT DIMENSION	AREA (SQM)
EC05	VENT SHAFT			0.6 m²
EC06	EXHAUST CUTOUT	500 X 1000	500 X 1000	0.5 m²
EL04	ELECTRICAL SHAFT			0.59 m²
EL05	ELEC SHAFT	1300X1600	2645X1600	4.28 m²
PL03	PLUMBING SHAFT	1300X1600	1300X1600	2.08 m²

ROOM SCHEDULE PLATFORM LEVEL PLAN-PART B

ROOM NUMBER	ROOM NAME	AREA (SQM)
EC05	VENT SHAFT	1 m²
EC06	EXHAUST CUTOUT	1 m²
EL04	ELECTRICAL SHAFT	1 m²
EL05	ELEC SHAFT	4 m²
PL03	PLUMBING SHAFT	2 m²
U14E.2	OTE 02 FAN ROOM	40 m²
U14F.3	OTE 02 PLENUM	18 m²
U14F.4	OTE 02 PLENUM	15 m²
U18B	DB ROOM	34 m²
U25B	ASS ROOM	224 m²
U26A	STATION UPS & UPS ROOM	81 m²
U31B	SEEPAGE SUMP ROOM	26 m²
UNA	UNASSIGNED ROOM	211 m²

ABBREVIATIONS

ALS	ASSISTANT LINE SUPERVISOR
AHU	AIR HANDLING UNIT
CD	COOLING DUMPING
CONC	CONCOURSE
DRD	DRAUGHT RELIEF DAMPER
EFO	EXCESS FARE OFFICE
ELEC	ELECTRICAL
EVS	EXHAUST VENTILATION SHAFT
E&M	ELECTRICAL AND MECHANICAL
FE	FIRE ESCAPE
FHC	FIRE HOSE CABINET
FM	FIRE MAN
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
OTE	OVER TRACK EXHAUST
PLANT	PLANT ROOM
PLT	PLATFORM
PSB	PLATFORM SUPERVISOR BOOTH
SAD	SUPPLY AIR DUCT
S&T	SIGNALING AND TELECOM
TOM	TICKET OPERATING MACHINE
TVF	TUNNEL VENTILATION FAN
TVM	TICKET VENDING MACHINE
TVS	TUNNEL VENTILATION SYSTEM
UNA	UNASSIGNED

NORTH

MODEL VERSION 1

जारी किये गए चित्रांकन ISSUED DRAWINGS					
27.12.22	A	TENDER SUBMISSION	MG	MK	AP
दिनांक DATE	संशोधन REV	विवरण DESCRIPTION	चित्रण DRAWN	जाँच CHECKED	सत्यापित VERIFIED

चित्रांकन संदर्भ REFERENCE DRAWINGS		
क्रमांक S.NO.	चित्रांकन संख्या DRAWING NO.	विवरण DESCRIPTION

डीएमआरसी द्वारा अनुमोदन
APPROVAL BY DMRC

पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE
प्रबंधक / वास्तुकला MGR/ARCH		उपमुख्य विद्युत अभियंता विद्युत एवं संरचना DY CE/E&M	
उपमुख्य वास्तुकार DY CA		उपमुख्य विद्युत अभियंता प्रणालीगत विशेषज्ञ प्रणाली DY CE/ECS	
मुख्य / वास्तुकार CA/ARCH		महाप्रबंधक विद्युत / प्रणाली – १ GM/E&SYS-1	
उपमुख्य अभियंता / रचना DY CE/DESIGN		परियोजना प्रबंधक PM	
मुख्य अभियंता / रचना CE/DESIGN		मुख्य परियोजना प्रबंधक CPM	
उप महाप्रबंधक संचालन एवं रखरखाव DGM/O&M		उप महाप्रबंधक संचालन O&M / OPERATIONS	

Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan. Authorised Signatory for DDC, PCDDH Project Manager: SRIRUP MITRA

Architecture Team Leader: SANTANU BANERJEE. Structure Team Leader. E&M Team Leader: SAMPATH MANIVANAN. Kondal Deepak.

OFFICE OF ORIGIN:-

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3F, INFINITY TOWER C, DLF CYBER CITY, PHASE II, GURGAON 122002, INDIA

दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-05

चित्रकर्ता DRAWN BY: MG Ghosh, Mayukh
जांचकर्ता CHECKED BY: MK KAGRA, MANISH
सत्यापितकर्ता VERIFIED BY: AP Pramanik, Anupam

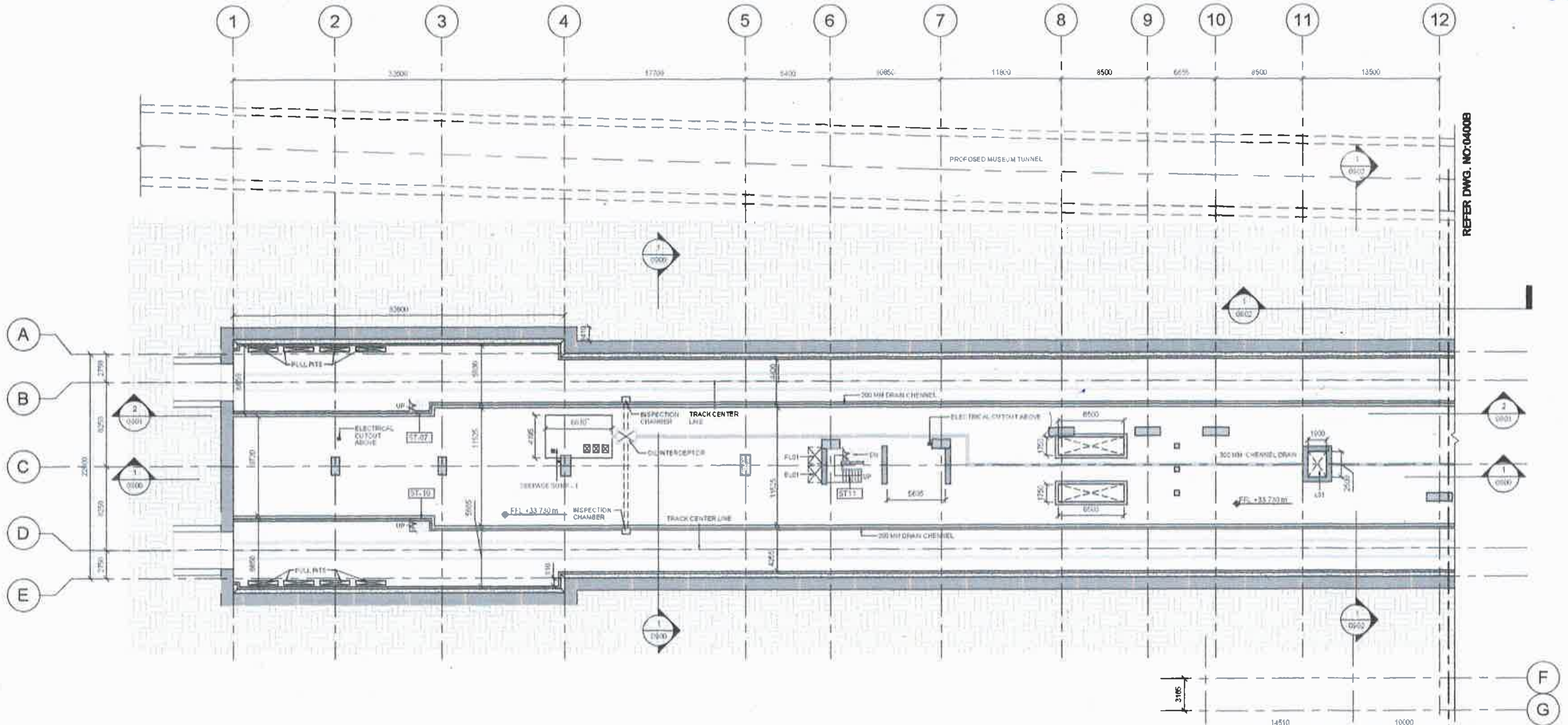
स्टेशन STATION: VIDYUT BHAWAN STATION

चित्रांकन शीर्षक DRAWING TITLE: PLATFORM LEVEL PLAN-PART B

दिनांक DATE 27.12.2022	संशोधन REV A	चित्रात्मक पैमाना GRAPHICAL SCALE 1:250 @ A1	स्थिति STATUS TENDER SUBMISSION

चित्रांकन संख्या DRAWING NUMBER: PMP-C1- VDB-ACM- AR-DR- 0300B
पृष्ठ संख्या SHEET NO: SHEET 2 OF 2
पृष्ठ का आकार SHEET SIZE: ISO A1
ARCHITECTURAL

INDICATIVE



1 **UNDERCROFT LEVEL PART A**
1 : 250

NOTES-
1 GROUND LEVELS (GL) , ROAD LEVELS (RL) , FOOTPATH LEVELS(FL) ARE INDICATIVE, CONTRACTOR TO VERIFY EXISTING FINISHED LEVELS AT SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION
2 CONTRACTOR TO VERIFY THE LEVELS FOR STAIRCASE, AND VERTICAL TRANSPORTATION ELEMENTS OF THE ENTRY STRUCTURES PRIOR TO COMMENCEMENT OF CONSTRUCTION
3 ALL LEVELS ARE IN METERS, INDICATING TOC (TOP OF CONCRETE), FFL (FLOOR FINISH LEVEL), FL (FOOTPATH LEVEL), PL (PLINTH LEVEL) & RL (ROAD LEVEL) WHEREVER APPLICABLE
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13 EARTH MAT SIZE AND LOCATION TO BE CONFIRMED BY E&M (DMRC)
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17 BEFORE STARTING ANY E&M WORK INTERFACE WITH CIVIL CONTRACTOR TO BE REQUIRED
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19 ALL THE WORKS AS SHOWN IN DRAWING ARE IN LUMP SUM UNLESS OTHERWISE SPECIFIED
20 TRACK BED BY OTHERS
21 S & T SHAFT BLOCK WORK SHALL BE KEPT ON HOLD UNTIL THE INSTALLATION OF CABLE TRAYS AT PLATFORM LEVEL
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27 FIRE DOORS NUMBER & LOCATION SHOWN IN DRAWING ARE INDICATIVE & FINAL DETAIL TO BE TAKEN FROM DETAILED DRAWING
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29 HFL FOR THE AREA AROUND PATNA ZOO STATION = 49 900 M FROM MEAN SEA LEVEL
30 DETAILS OF ACCESS FOR MAINENANCE AND INSPECTION OF MEP FACILITIES I.e. CAT LADDER, COVERING OF ACCESS HATCH AND MAIN HOLES, SHAFT DOORS, DOG HOUSE DETAILS, DRAIN CHANNEL GRATING COVER, etc SHALL BE SUBMITTED DURING DETAIL DESIGN STAGE
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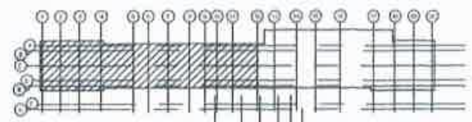
35 UPDATED ROW LINE FOR STATION RECEIVED THROUGH MAIL ON 25.08.2021 FROM DMRC, AS PER DMRC COMMENTS, WE ARE MENTIONING ROW AS EPL (EXISTING PROPERTY LINE)
36 DRAIN LEVEL TO BE SLOPPED TO MATCH FOOTPATH LEVEL. DRAIN WILL BE REINSTATED AFTER STATION BOX CONSTRUCTION.
37 PLATFORM HAS A SLOPE OF 1:100 FROM THE PLATFORM EDGE FOR 2000 MM TOWARDS THE BACK OF THE PLATFORM. THIS MAY AFFECT THE STAIR ESCALATOR AND LIFT RISE
38 CONTRACTOR TO PROPOSE STRUCTURAL SOLUTION IN DISCUSSION WITH DMRC DESIGN TEAM. ALTERNATE PROPOSAL MAY BE SUGGESTED WITHOUT ANY FINANCIAL IMPLICATION.
39 GAPS BETWEEN STAIRS & ESCALATOR AND THE ESCALATORS WILL BE FILLLED WITH SUITABLE FLASHING
40 LIFT AND ESCALATOR LIFTING HOOK ARRANGEMENT TO BE PROVIDED AS PER VENDOR REQUIREMENT
41 ESCALATOR NOTCH TO BE AS PER VENDOR DETAILS
42 FOR TRACK DRAINAGE , REFER DRAWING NO PMP-C1-VDB-UG-ACM-ME-DR-0150



KEY PLAN

GENERAL NOTES-
1 ALL DIMENSIONS ARE IN MILLIMETERS, UNTILL OTHERWISE MENTIONED
2 ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED
3. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL, STRUCTURAL, PLUMBING, FIRE FIGHTING, ELECTRICAL AND TRAFFIC MANAGEMENT DRAWINGS.
4. ANY DISCREPANCIES MUST BE BROUGHT TO NOTICE OF THE CONSULTANT/ DMRC BEFORE EXECUTION OF WORK AT SITE
5 CONCOURSE LENGTH MAY GET REVISED AS PER FUTURE ROOMS REQUIREMENTS GIVEN BY TECHNICAL DEPT. OF DMRC
6 FOR FURTHER INFORMATION ABOUT FINISHES REFER TO FINISHES SCHEDULE.
7 FOR ANY DEVIATION FROM BOQ IN MATERIALS / QUANTITIES APPROVAL MAY BE TAKEN
8 ALL DOORS/WINDOWS SILL & LINTEL LEVELS ARE FROM MAIN FLOOR FINISH LEVEL
9 COLUMN LOCATION AND STRUCTURAL ARRANGEMENT SHOWN ARE INDICATIVE ONLY

ABBREVIATIONS

ALS	ASSISTANT LINE SUPERVISOR
AHU	AIR HANDLING UNIT
CD	COOLING DUMPING
CONC	CONCOURSE
DRD	DRAUGHT RELIEF DAMPER
EFO	EXCESS FARE OFFICE
ELEC	ELECTRICAL
EVS	EXHAUST VENTILATION SHAFT
E&M	ELECTRICAL AND MECHANICAL
FE	FIRE ESCAPE
FHC	FIRE HOSE CABINET
FM	FIRE MAN
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
OTE	OVER TRACK EXHAUST
PLANT	PLANT ROOM
PLT	PLATFORM
PSB	PLATFORM SUPERVISOR BOOTH
SAD	SUPPLY AIR DUCT
S&T	SIGNALING AND TELECOM
TOM	TICKET OPERATING MACHINE
TVF	TUNNEL VENTILATION FAN
TVM	TICKET VENDING MACHINE
TVS	TUNNEL VENTILATION SYSTEM
UNA	UNASSIGNED

LEGEND

	FILLED FLOOR
	FALSE FLOOR
	DOUBLE FLOOR

WALL PATTREN

	BLOCKWORK
	RCC WALL

NORTH
MODEL VERSION 3

जारी किये गए चित्रांकन
ISSUED DRAWINGS

दिनांक DATE	संशोधन REV	विवरण DESCRIPTION	चित्रण DRAWN	जांच CHECKED	सत्यापित VERIFIED
27.12.22	A	TENDER SUBMISSION	MG	MK	AP

चित्रांकन संदर्भ
REFERENCE DRAWINGS

क्रमांक S NO	चित्रांकन संख्या DRAWING NO	विवरण DESCRIPTION

डीएमआरसी द्वारा अनुमोदन
APPROVAL BY DMRC

पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE
प्रबंधक / वास्तुकार MGR/ ARCH		उप मुख्य विद्युत अभियंता DY CE/E & M	
उप मुख्य वास्तुकार DY CA		उप मुख्य विद्युत अभियंता DY CE/ECS	
मुख्य / वास्तुकार CA/ARCH		महाप्रबंधक विद्युत / सामान्य GM / E / GS-1	
उप मुख्य अभियंता / रचना DY CE/ DESIGN		परियोजना प्रबंधक PM	
मुख्य अभियंता / रचना CE/ DESIGN		मुख्य परियोजना प्रबंधक CPM	
उप महाप्रबंधक DGM / S & T		उप महाप्रबंधक / संचालन DGM / OPERATIONS	

प्रमाणित किया जाता है कि यह है कि दस्तावेज डी डी सी की ओर से गुणवत्ता आश्वासन योजना के अनुसार तैयार किया गया है।
Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan

डी डी सी प्राधिकृत हस्ताक्षरकर्ता पीसीडीडी–01 परियोजना प्रबंधक
Authorised Signatory for DDC PCDD-01 Project Manager
SRIRUP MITRA

वास्तुकला रचना प्रभारी Architecture Team Leader SANTANU BANERJEE
संरचना प्रभारी Structure Team Leader SRIRUP MITRA
विद्युत एवं यांत्रिकी रचना प्रभारी E&M Team Leader SAMPATH MANIVANAN (Kondal Deepak)

OFFICE OF ORIGIN:-
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9F, INFINITY TOWER C, DLF CYBER CITY, PHASE II, GURGAON 122002, INDIA

चित्रकर्ता : DRAWN BY: MG (Ghosh, Mayukh)
जांचकर्ता : CHECKED BY: MK (KADRA, MANISH)
सत्यापितकर्ता VERIFIED BY: AP (Prasuneck, Anupam)

दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-05

स्टेशन : STATION: VIDYUT BHAWAN STATION

चित्रांकन शीर्षक DRAWING TITLE: UNDERCROFT LEVEL PLAN-PART A

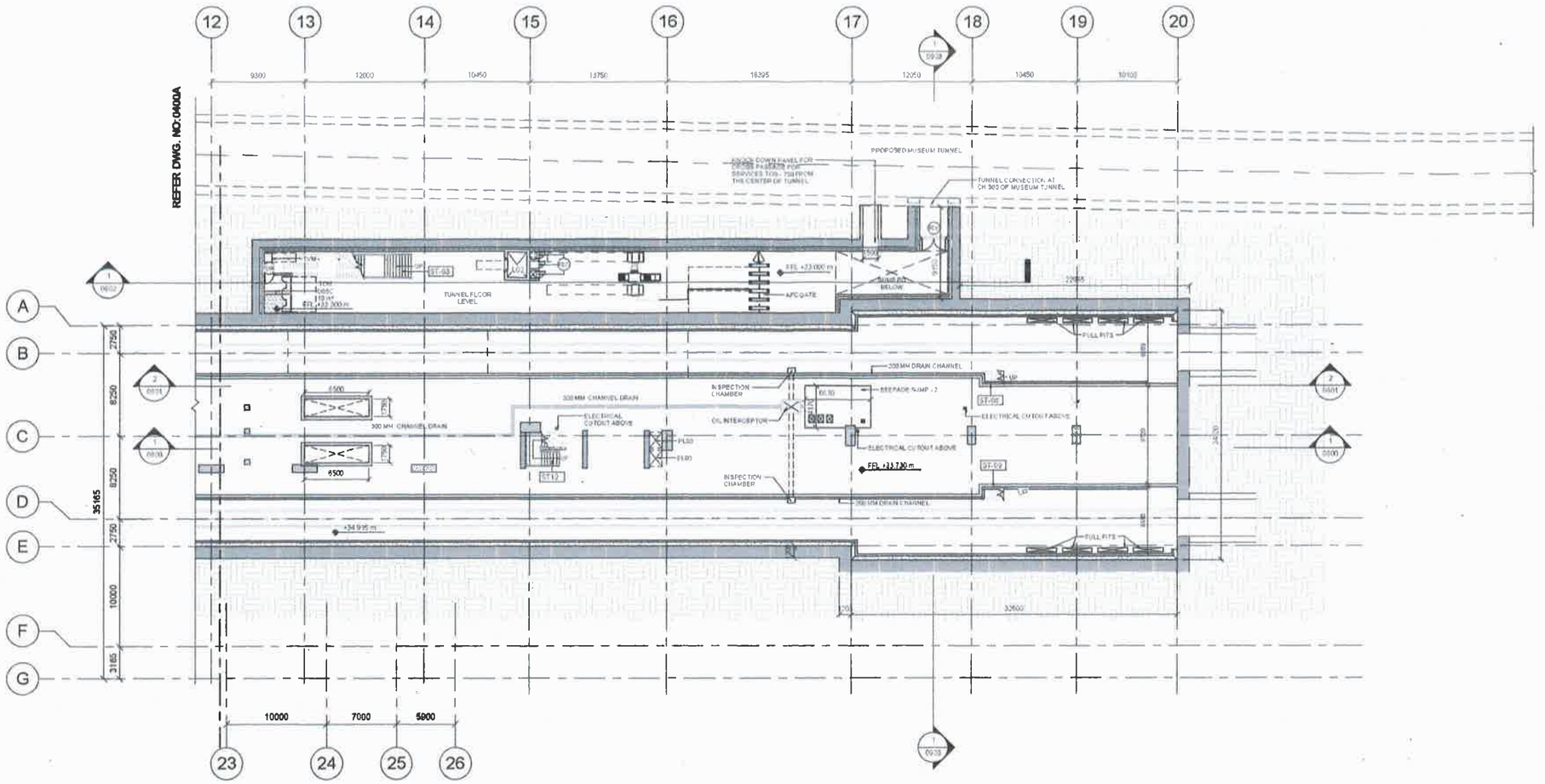
दिनांक DATE	संशोधन REV	चित्रात्मक पैमाना GRAPHICAL SCALE	स्थिति STATUS
27.12.2022	A	1:250 @ A1	TENDER SUBMISSION

चित्रांकन संख्या DRAWING NUMBER: PMP-C1- VDB-ACM- AR-DR- 0400A

पृष्ठ संख्या SHEET NO: SHEET 1 OF 2

ARCHITECTURAL

INDICATIVE



1 | UNDERCROFT LEVEL PART B
1 : 250

NOTES:
1. GROUND LEVELS (GL) , ROAD LEVELS (RL) , FOOTPATH LEVELS (FL) ARE INDICATIVE, CONTRACTOR TO VERIFY EXISTING FINISHED LEVELS AT SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION
2. CONTRACTOR TO VERIFY THE LEVELS FOR STAIRCASE, AND VERTICAL TRANSPORTATION ELEMENTS OF THE ENTRY STRUCTURES PRIOR TO COMMENCEMENT OF CONSTRUCTION
3. ALL LEVELS ARE IN METERS, INDICATING TOC (TOP OF CONCRETE), FFL (FLOOR FINISH LEVEL), FL (FOOTPATH LEVEL), PL (PLINTH LEVEL) & RL (ROAD LEVEL) WHEREVER APPLICABLE
4. ABSOLUTE RAIL LEVEL SHALL BE TAKEN FROM DMRC ALIGNMENT DRAWING
5. ALL MINIMUM INTERNAL CLEARANCE ARE MANDATORY AND SHALL BE PROVIDED
6. REFER LATEST STRUCTURAL & SETTING OUT DRAWINGS IN CONJUNCTION WITH ARCHITECTURE DRAWINGS PRIOR TO COMMENCEMENT OF CONSTRUCTION
7. ALL CUTOUT AND FIRST FIX PROVISIONS FOR MEP/SYSTEMS REQUIREMENTS TO BE REFERRED FROM LATEST REVISION OF DISCIPLINE DRAWINGS
8. MASONRY WORK OF THE STATION MAY VARY AS PER DETAILED ARCHITECTURAL LAYOUT OF THE STATION
9. DOUBLE SLAB MAY BE PROVIDED UNDER STAIRCASE/ESCALATOR FOR ALL ROOMS TO AVOID SEEPAGE BETWEEN THE GAP OF STAIRCASE AND ESCALATOR
10. APPROVAL TO BE TAKEN BY THE CONTRACTOR FOR ANY DEVIATION IN MATERIAL / QUANTITIES ON THE BOQ .
11. FOR LIGHTING ARRANGEMENT & ELECTRICAL DETAILS PLEASE REFER SPECIFIC ELECTRICAL DRAWINGS
12. FOR 33kVA AND S&T SHAFT SHOULD BE REVIEWED BY RESPECTIVE SYSTEM WISE CONTRACTOR
13. EARTH MAT SIZE AND LOCATION TO BE CONFIRMED BY E&M (DMRC)
14. WATER PROOFING TO BE DONE AT O.H & U/S TANK LEVEL/OTHER WET AREA MATERIAL AS PER BOQ
15. REFER VENDOR DRAWINGS FOR ESCALATOR AND LIFT PIT SIZE AS FINALIZED BY DMRC
16. REFER VERTICAL TRANSPORTATION VENDOR DRAWINGS FOR FINAL STRUCTURAL PROVISIONS AS FINALIZED BY DMRC.
17. BEFORE STARTING ANY E&M WORK INTERFACE WITH CIVIL CONTRACTOR TO BE REQUIRED
18. THE UTILITY PLANS HAVE BEEN REVIEWED. ALL AFFECTED UTILITIES TO BE DIVERTED AND REINSTATED AS PER SITE CONDITIONS
19. ALL THE WORKS AS SHOWN IN DRAWING ARE IN LUMP SUM UNLESS OTHERWISE SPECIFIED
20. TRACK BED BY OTHERS
21. S & T SHAFT BLOCK WORK SHALL BE KEPT ON HOLD UNTIL THE INSTALLATION OF CABLE TRAYS AT PLATFORM LEVEL
22. COLUMN LOCATION IN THE SERVICE AREA TO BE CO-ORDINATED AND CONFIRMED BASED ON EQUIPMENT LAYOUT PROVIDED BY- E&M CONTRACTOR
23. PROVISIONS SHALL BE MADE FOR RACEWAYS IN SLAB/FLOOR
24. PLUMBING & DRAINAGE ARRANGEMENT SHOWN IN DRAWING ARE INDICATIVE , ALL THE PLUMBING INCLUDING EMBEDDED SYSTEM TO BE AS PER DETAILED DESIGN
25. STRUCTURAL WALL PROFILE AND TBM SHAFTS SIZE TO SUIT THE FINAL TRACK ALIGNMENT AND AS PER CONTRACTOR'S DESIGN
26. FHC NICHES SHALL BE PROVIDED AT EVERY 60 METER DISTANCE AND TO BE COORDINATED WITH E&M CONTRACTOR
27. FIRE DOORS NUMBER & LOCATION SHOWN IN DRAWING ARE INDICATIVE & FINAL DETAIL TO BE TAKEN FROM DETAILED DRAWING
28. ALL SHAFT LOCATIONS AND SIZES ARE TENTATIVE AND SHALL BE FINALIZED IN CONSULTATION WITH E&M CONTRACTOR
29. HFL FOR THE AREA AROUND PATNA ZOO STATION = 49.900 M FROM MEAN SEA LEVEL.
30. DETAILS OF ACCESS FOR MAINENANCE AND INSPECTION OF MEP FACILITIES I.e CAT LADDER, COVERING OF ACCESS HATCH AND MAIN HOLES, SHAFT DOORS, DOG HOUSE DETAILS, DRAIN CHANNEL GRATING COVER, etc SHALL BE SUBMITTED DURING DETAIL DESIGN STAGE
31. ALL STAIRCASES HAVING SERVICES PASSING THROUGH THEM WILL HAVE INTERMEDIATE SLAB FOR MEP EQUIPMENT PLACEMENT OR SERVICES SUPPORT. INTERMEDIATE SLAB LEVEL WILL BE WORKED OUT DURING DETAILED DESIGN OF THE PROJECT
32. PLINTH LEVEL IS MINIMUM 450MM HIGHER THAN HFL OR FOOTPATH LEVEL WHICHEVER IS HIGHER.
33. ALL STATION BOX RELATED DIMENSIONS ARE INTERNAL CLEAR DIMENSIONS AFTER STRUCTURE AND TOLERANCE
34. DWALL THICKNESS IS SHOWN TENTATIVELY AS PER STRUCTURE DRAWING
35. UPDATED ROW LINE FOR STATION RECEIVED THROUGH MAIL ON 25.08.2021 FROM DMRC AS PER DMRC COMMENTS, WE ARE MENTIONING ROW AS EPL (EXISTING PROPERTY LINE)
36. DRAIN LEVEL TO BE SLOPPED TO MATCH FOOTPATH LEVEL. DRAIN WILL BE REINSTATED AFTER STATION BOX CONSTRUCTION.
37. PLATFORM HAS A SLOPE OF 1:100 FROM THE PLATFORM EDGE FOR 3500MM TOWARDS THE BACK OF THE PLATFORM. THIS MAY AFFECT THE STAIR, ESCALATOR AND LIFT RISE.
38. CONTRACTOR TO PROPOSE STRUCTURAL SOLUTION IN DISCUSSION WITH DMRC DESIGN TEAM. ALTERNATE PROPOSAL MAY BE SUGGESTED WITHOUT ANY FINANCIAL IMPLICATION
39. GAPS BETWEEN STAIRS & ESCALATOR AND THE ESCALATORS WILL BE FILLED WITH SUITABLE FLASHING
40. LIFT AND ESCALATOR LIFTING HOOK ARRANGEMENT TO BE PROVIDED AS PER VENDOR REQUIREMENT.
41. ESCALATOR NOTCH TO BE AS PER VENDOR DETAILS.
42. FOR TRACK DRAINAGE , REFER DRAWING NO. PMP-C1-VDB-UG-ACM-ME-DR-0150

KEY PLAN

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6. FOR FURTHER INFORMATION ABOUT FINISHES REFER TO FINISHES SCHEDULE.
7. FOR ANY DEVIATION FROM BOQ IN MATERIALS / QUANTITIES APPROVAL MAY BE TAKEN
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ABBREVIATIONS

ALS	ASSISTANT LINE SUPERVISOR
AHU	AIR HANDLING UNIT
CD	CONCOURSE DOWN
CONC	CONCOURSE
DRD	DRAUGHT RELIEF DAMPER
EFO	EXCESS FARE OFFICE
ELEC	ELECTRICAL
EVS	EXHAUST VENTILATION SHAFT
E&M	ELECTRICAL AND MECHANICAL
FE	FIRE ESCAPE
FHC	FIRE HOSE CABINET
FM	FIRE MAN
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
OTE	OVER TRACK EXHAUST
PLANT	PLANT ROOM
PLT	PLATFORM
PSB	PLATFORM SUPERVISOR BOOTH
SAD	SUBWAY ENTRANCE
TEL	TELEPHONE AND TELECOM
TOM	TICKET OPERATING MACHINE
TVF	TUNNEL VENTILATION FAN
TVM	TICKET VENDING MACHINE
TVS	TUNNEL VENTILATION SYSTEM
UNA	UNASSIGNED

LEGEND

	FILLED FLOOR
	FALSE FLOOR
	DOUBLE FLOOR

WALL PATTREN

	BLOCKWORK
	RCC WALL

NORTH

MODEL VERSION 3

यह चित्रकल दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड की संपत्ति है। THIS DRAWING IS THE PROPERTY OF DELHI METRO RAIL CORPORATION LTD

जारी किये गए चित्रकल ISSUED DRAWINGS

दिनांक DATE	संशोधन REV.	विवरण DESCRIPTION	तैयार DRAWN	जांच CHECKED	सत्यापित VERIFIED
27.12.22	A	TENDER SUBMISSION	MG	MK	AP

संदर्भ चित्रकल REFERENCE DRAWINGS

क्रमांक S.NO	चित्रकल संख्या DRAWING NO	विवरण DESCRIPTION

डीएमआरसी द्वारा अनुमोदन APPROVAL BY DMRC

पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE
प्रबंधक / वास्तुकला MGR/ ARCH		उपमुख्य विद्युत अभियंता विद्युत एवं संचरण DY. CE/E & M	
उपमुख्य वास्तुकार DY. CA		उपमुख्य विद्युत अभियंता परियोजना नियंत्रण प्रभाग DY. CE/EPCB	
मुख्य / वास्तुकार CA/ ARCH		महाप्रबंधक विद्युत / मुख्यालय – १ GM/E/HQ-1	
उपमुख्य अभियंता / रचना DY. CE/ DESIGN		परियोजना प्रबंधक PM	
मुख्य अभियंता / रचना CE/ DESIGN		मुख्य परियोजना प्रबंधक CPM	
एवं महाप्रबंधक संचालन एवं रखरखाव DGM / S & T		उप महाप्रबंधक संचालन DGM / OPERATIONS	

प्रमाणित किया जाता है कि यह है कि दस्तावेज की जाँच की ओर से गुणवत्ता आश्वासन योजना के अनुसार तैयार किया गया है।
Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan

डी.डी.सी. हेतु प्राधिकृत हस्ताक्षरकर्ता पी.सी.डी.सी.-01 परियोजना प्रबंधक
Authorised Signatory for DDC PCDD-01 Project Manager
SWARUP MITRA

वास्तुकला रचना प्रभारी Architecture Team Leader: SANTANU BANERJEE

संरचना प्रभारी Structure Team Leader

विद्युत एवं यांत्रिकी रचना प्रभारी Deepak E&M Team Leader: SAMPATH MANIVANAN

OFFICE OF ORIGIN:-

AECOM
8F, INFINITY TOWER C, DLF CYBER CITY, PHASE II, GURGAON 122002, INDIA

दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-05

स्टेशन STATION: VIDYUT BHAWAN STATION

चित्रकल शीर्षक DRAWING TITLE: UNDERCROFT LEVEL PLAN-PART B

दिनांक DATE 27.12.2022	संशोधन REV A	चित्रकल पैमाना GRAPHICAL SCALE 1:250 @ A1	स्थिति STATUS TENDER SUBMISSION

चित्रकल संख्या DRAWING NUMBER: PMP-C1- VDB-ACM- AR-DR- 0400B

पृष्ठ संख्या SHEET NO: SHEET 2 OF 2

पृष्ठ का आकार SHEET SIZE: ISO A1

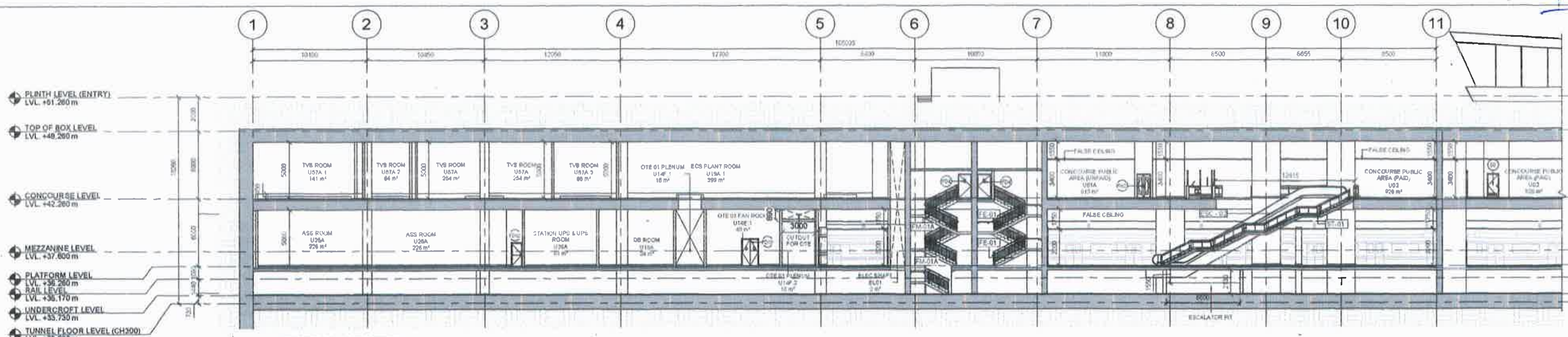
ARCHITECTURAL

DRAWN BY: MG Ghosh, Mayukh

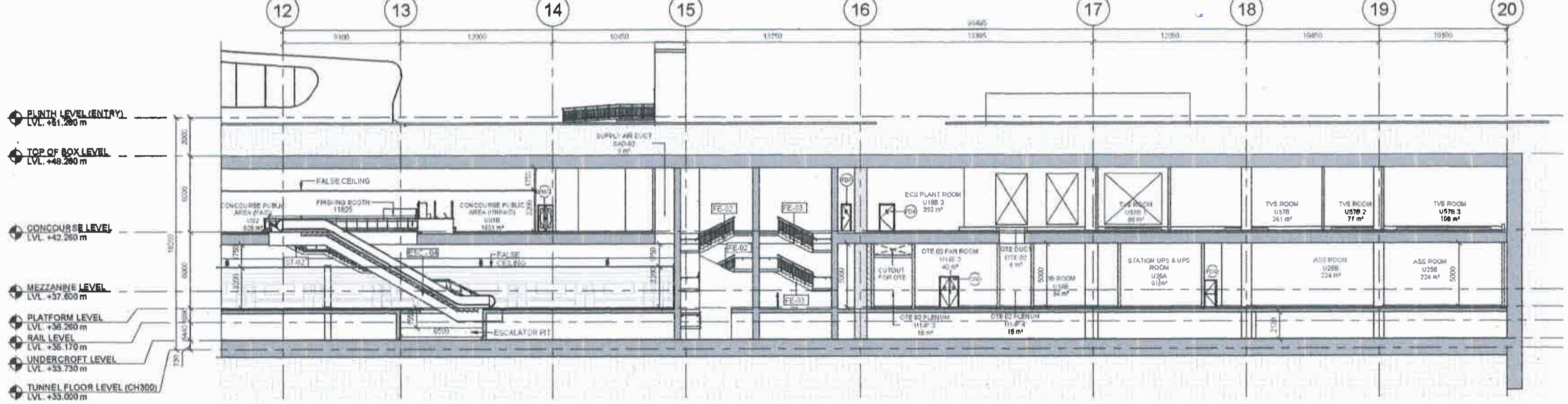
CHECKED BY: MK KADRA, MANISH

VERIFIED BY: AP Pramerk Anejan

INDICATIVE



1 LONG SECTION - 1 PART A
1 : 200



2 LONG SECTION - 1 PART B
1 : 200

NOTES:
1. GROUND LEVELS (GL), ROAD LEVELS (RL), FOOTPATH LEVELS(FL) ARE INDICATIVE. CONTRACTOR TO VERIFY EXISTING FINISHED LEVELS AT SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION
2. CONTRACTOR TO VERIFY THE LEVELS FOR STAIRCASE, AND VERTICAL TRANSPORTATION ELEMENTS OF THE ENTRY STRUCTURES PRIOR TO COMMENCEMENT OF CONSTRUCTION
3. ALL LEVELS ARE IN METERS, INDICATING TOC (TOP OF CONCRETE), FFL (FLOOR FINISH LEVEL), FL (FOOTPATH LEVEL), PL (PLINTH LEVEL) & RL (ROAD LEVEL) WHEREVER APPLICABLE.
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14. WATER PROOFING TO BE DONE AT OH & UG TANK LEVEL/OTHER WET AREA MATERIAL AS PER BOQ
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20. TRACK BED BY OTHERS
21. S & T SHAFT BLOCK WORK SHALL BE KEPT ON HOLD UNTIL THE INSTALLATION OF CABLE TRAYS AT PLATFORM LEVEL
22. COLUMN LOCATION IN THE SERVICE AREA TO BE CO-ORDINATED AND CONFIRMED BASED ON EQUIPMENT LAYOUT PROVIDED BY- E&M CONTRACTOR
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32. PLINTH LEVEL IS MINIMUM 450MM HIGHER THAN HFL OR FOOTPATH LEVEL WHICHEVER IS HIGHER
33. ALL STATION BOX RELATED DIMENSIONS ARE INTERNAL CLEAR DIMENSIONS AFTER STRUCTURE AND TOLERANCE
34. DWALL THICKNESS IS SHOWN TENTATIVELY AS PER STRUCTURE DRAWING
35. UPDATED ROW LINE FOR STATION RECEIVED THROUGH MAIL ON 25.08.2021 FROM DMRC. AS PER DMRC COMMENTS, WE ARE MENTIONING ROW AS EPL (EXISTING PROPERTY LINE)
36. DRAIN LEVEL TO BE SLOPPED TO MATCH FOOTPATH LEVEL. DRAIN WILL BE REINSTATED AFTER STATION BOX CONSTRUCTION.
37. PLATFORM HAS A SLOPE OF 1:100 FROM THE PLATFORM EDGE FOR 2000 MM TOWARDS THE BACK OF THE PLATFORM. THIS MAY AFFECT THE STAIR ESCALATOR AND LIFT RISE
38. CONTRACTOR TO PROPOSE STRUCTURAL SOLUTION IN DISCUSSION WITH DMRC DESIGN TEAM. ALTERNATE PROPOSAL MAY BE SUGGESTED WITHOUT ANY FINANCIAL IMPLICATION
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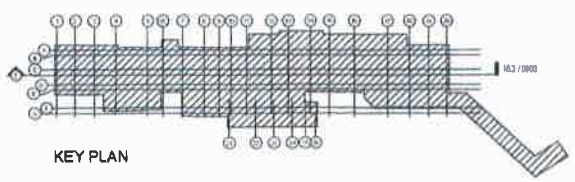
41. ESCALATOR NOTCH TO BE AS PER VENDOR DETAILS
42. FOR TRACK DRAINAGE , REFER DRAWING NO PMP-C1-VDB-UG-ACM-ME-DR-0150



KEY PLAN

GENERAL NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS, UNTILL OTHERWISE MENTIONED
2. ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL, STRUCTURAL, PLUMBING, FIRE FIGHTING, ELECTRICAL AND TRAFFIC MANAGEMENT DRAWINGS
4. ANY DISCREPANCIES MUST BE BROUGHT TO NOTICE OF THE CONSULTANT/ DMRC BEFORE EXECUTION OF WORK AT SITE
5. CONCOURSE LENGTH MAY GET REVISED AS PER FUTURE ROOMS REQUIREMENTS GIVEN BY TECHNICAL DEPT. OF DMRC
6. FOR FURTHER INFORMATION ABOUT FINISHES REFER TO FINISHES SCHEDULE
7. FOR ANY DEVIATION FROM BOQ IN MATERIALS / QUANTITIES APPROVAL MAY BE TAKEN.
8. ALL DOORS/WINDOWS SILL & LINTEL LEVELS ARE FROM MAIN FLOOR FINISH LEVEL
9. COLUMN LOCATION AND STRUCTURAL ARRANGEMENT SHOWN ARE INDICATIVE ONLY

ABBREVIATIONS

ALS	ASSISTANT LINE SUPERVISOR
AHU	AIR HANDLING UNIT
CD	COOLING DUMPING
CONC	CONCOURSE
DRD	DRAUGHT RELIEF DAMPER
EFO	EXCESS FARE OFFICE
ELEC	ELECTRICAL
EVS	EXHAUST VENTILATION SHAFT
E&M	ELECTRICAL AND MECHANICAL
FE	FIRE ESCAPE
FHC	FIRE HOSE CABINET
FM	FIRE MAN
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
OTE	OVER TRACK EXHAUST
PLANT	PLANT ROOM
PLT	PLATFORM
PSB	PLATFORM SUPERVISOR BOOTH
SAD	SUPPLY AIR DUCT
S&T	SIGNALING AND TELECOM
TOM	TICKET OPERATING MACHINE
TVF	TUNNEL VENTILATION FAN
TVM	TICKET VENDING MACHINE
TVS	TUNNEL VENTILATION SYSTEM
UNA	UNASSIGNED

ROOM SCHEDULE LONG SECTION 1

ROOM NO.	ROOM NAME	Area
U25A	ASS ROOM	226 m²
U25B	ASS ROOM	224 m²
U18A	DB ROOM	34 m²
U18B	DB ROOM	34 m²
U14E.1	OTE 01 FAN ROOM	40 m²
U14F.2	OTE 01 PLENUM	18 m²
U14F.1	OTE 01 PLENUM	15 m²
U14E.2	OTE 02 FAN ROOM	40 m²
U14F.3	OTE 02 PLENUM	18 m²
U14F.4	OTE 02 PLENUM	15 m²
U26A	STATION UPS & UPS ROOM	61 m²
U26A	STATION UPS & UPS ROOM	61 m²
U02	CONCOURSE PUBLIC AREA (PAID)	928 m²
U01A	CONCOURSE PUBLIC AREA (UNPAID)	613 m²
U01B	CONCOURSE PUBLIC AREA (UNPAID)	1601 m²
U19B.2	ECS PLANT ROOM	352 m²
U19A.1	ECS PLANT ROOM	399 m²
U07A	EFO	6 m²
U 44	FIRE ESCAPE-04	18 m²
U57A	TVS ROOM	254 m²
U57B	TVS ROOM	261 m²
U57A.1	TVS ROOM	141 m²
U57A.2	TVS ROOM	84 m²
U57A.3	TVS ROOM	85 m²
U57B.3	TVS ROOM	158 m²
U57B.2	TVS ROOM	77 m²
U57B.1	TVS ROOM	85 m²

NORTH

MODEL VERSION 2

जारी किये गए चित्रांकन
ISSUED DRAWINGS

दिनांक DATE	संशोधन REV.	विवरण DESCRIPTION	चित्रक DRAWN	जांच CHECKED	सत्यापित VERIFIED
27.12.22	A	TENDER SUBMISSION	MG	MK	AP

चित्रांकन संदर्भ
REFERENCE DRAWINGS

क्रमांक S NO	चित्रांकन संख्या DRAWING NO	विवरण DESCRIPTION

डीएमआरसी द्वारा अनुमोदन
APPROVAL BY DMRC

पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE
प्रधान / वास्तुकार MGR / ARCH		मुख्य विद्युत अभियंता / विद्युत एवं यांत्रिकी DY CE/E & M	
उपमुख्य वास्तुकार DY CA		उपमुख्य विद्युत अभियंता / पर्यावरण नियंत्रण प्रणाली DY CE/ECS	
मुख्य वास्तुकार CA/ ARCH		विद्युत / भूमिगत CE/ E/ UG-1	
उपमुख्य अभियंता / रचना DY CE/ DESIGN		परियोजना प्रबंधक PM	
मुख्य अभियंता / रचना CE/ DESIGN		मुख्य परियोजना प्रबंधक CPM	
उप महाप्रबंधक संचालन एवं दूरसंचार DGM / S & T		उप महाप्रबंधक संचालन DGM / OPERATIONS	

प्रमाणित किया जाता है कि यह दस्तावेज डी डी सी की गुणवत्ता आश्वासन योजना के अनुसार तैयार किया गया है।
Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan.

डी डी सी प्राधिकृत हस्ताक्षरकर्ता पीसीडीडी-01 परियोजना प्रबंधक
Authorised Signatory for DDC
PCDD-01 Project Manager
SRIRUP MITRA

वास्तुकला रचना प्रभारी
Architecture Team Leader: SANTANU BANERJEE

संरचना प्रभारी
Structure Team Leader: SRIRUP MITRA

विद्युत एवं यांत्रिकी रचना प्रभारी
E&M Team Leader: SAMPATH MANIVANNAN; Kondal, Deepak

OFFICE OF ORIGIN:-

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8F, INFINITY TOWER C, DLF CYBER CITY, PHASE II, GURGAON 122002, INDIA

चित्रकर्ता : DRAWN BY: MG Ghosh, Mayukh

जांचकर्ता : CHECKED BY: MK KAGRA, MANISH

सत्यापितकर्ता : VERIFIED BY: AP

दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-05

स्टेशन STATION: VIDYUT BHAWAN STATION

चित्रांकन शीर्षक DRAWING TITLE: LONG SECTION - 1

दिनांक DATE 27.12.2022	संशोधन REV A	चित्रात्मक पैमाना GRAPHICAL SCALE 1:200 @ A1	स्थिति STATUS: TENDER SUBMISSION

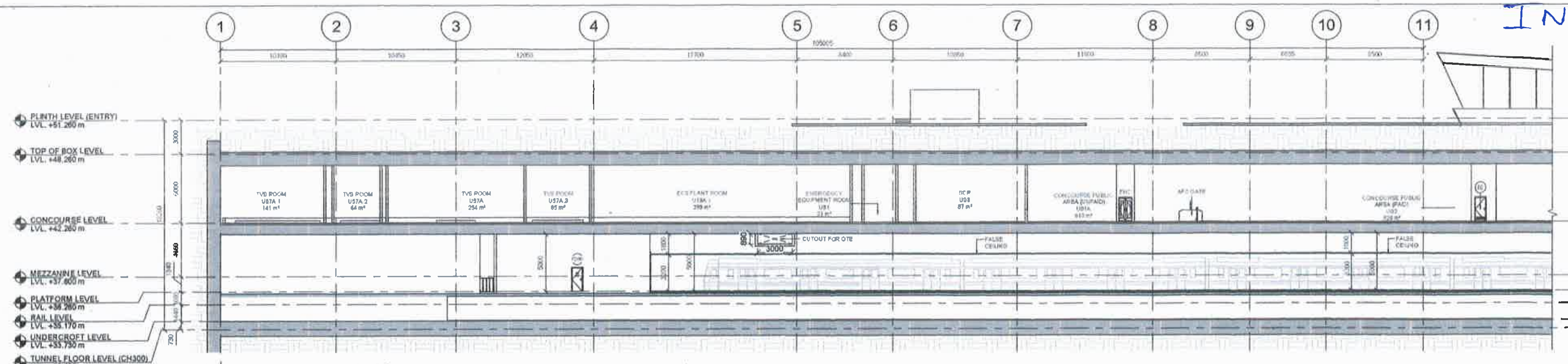
चित्रांकन संख्या DRAWING NUMBER: PMP-C1- VDB-ACM- AR-DR- 0800

पृष्ठ संख्या SHEET NO SHEET 1 OF 1

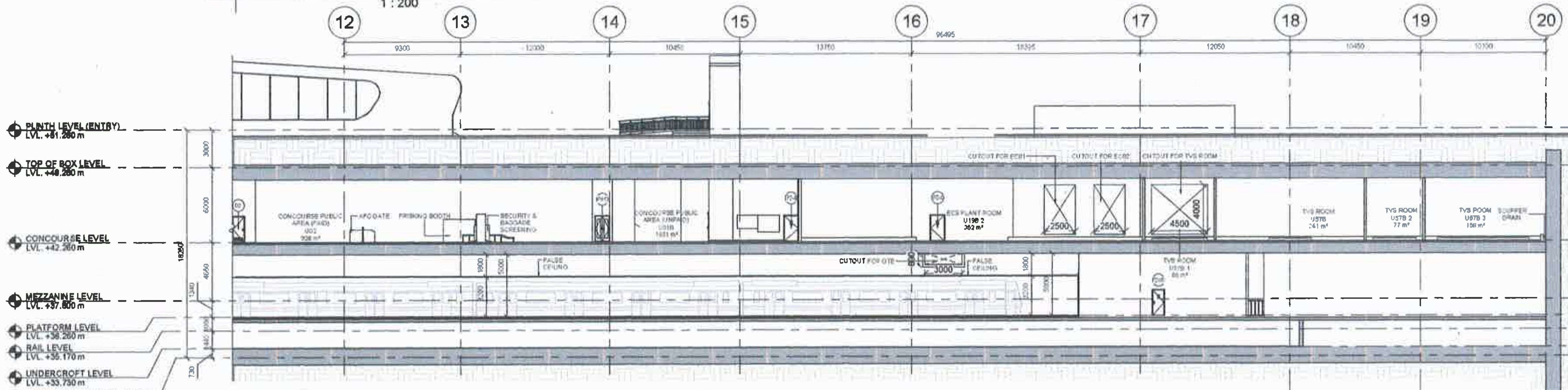
पृष्ठ का आकार SHEET SIZE ISO A1

ARCHITECTURAL

INDICATIVE

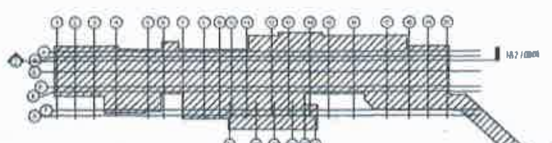


1 | LONG SECTION - 2 PART A
1 : 200



2 | LONG SECTION - 2 PART B
1 : 200

NOTES-
1. GROUND LEVELS (GL), ROAD LEVELS (RL), FOOTPATH LEVELS (FL) ARE INDICATIVE. CONTRACTOR TO VERIFY EXISTING FINISHED LEVELS AT SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. CONTRACTOR TO VERIFY THE LEVELS FOR STAIRCASE, AND VERTICAL TRANSPORTATION ELEMENTS OF THE ENTRY STRUCTURES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3. ALL LEVELS ARE IN METERS, INDICATING TOC (TOP OF CONCRETE), FFL (FLOOR FINISH LEVEL), FL (FOOTPATH LEVEL), PL (PLINTH LEVEL) & RL (ROAD LEVEL) WHEREVER APPLICABLE.
4. ABSOLUTE RAIL LEVEL SHALL BE TAKEN FROM DMRC ALIGNMENT DRAWING.
5. ALL MINIMUM INTERNAL CLEARANCE ARE MANDATORY AND SHALL BE PROVIDED.
6. REFER LATEST STRUCTURAL & SETTING OUT DRAWINGS IN CONJUNCTION WITH ARCHITECTURE DRAWINGS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
7. ALL CUTOUT AND FIRST FIX PROVISIONS FOR MEP/SYSTEMS REQUIREMENTS TO BE REFERRED FROM LATEST REVISION OF DISCIPLINE DRAWINGS.
8. MASONRY WORK OF THE STATION MAY VARY AS PER DETAILED ARCHITECTURAL LAYOUT OF THE STATION.
9. DOUBLE SLAB MAY BE PROVIDED UNDER STAIRCASE/ESCALATOR FOR ALL ROOMS TO AVOID SEEPAGE BETWEEN THE GAP OF STAIRCASE AND ESCALATOR.
10. APPROVAL TO BE TAKEN BY THE CONTRACTOR FOR ANY DEVIATION IN MATERIAL / QUANTITIES ON THE BOQ.
11. FOR LIGHTING ARRANGEMENT & ELECTRICAL DETAILS PLEASE REFER SPECIFIC ELECTRICAL DRAWINGS.
12. FOR 33KVA AND S&T SHAFT SHOULD BE REVIEWED BY RESPECTIVE SYSTEM WIDE CONTRACTOR.
13. EARTH MAT SIZE AND LOCATION TO BE CONFIRMED BY E&M (DMRC).
14. WATER PROOFING TO BE DONE AT O.H & U/G TANK LEVEL/OTHER WET AREA MATERIAL AS PER BOQ.
15. REFER VENDOR DRAWINGS FOR ESCALATOR AND LIFT PIT SIZE AS FINALIZED BY DMRC.
16. REFER VERTICAL TRANSPORTATION VENDOR DRAWINGS FOR FINAL STRUCTURAL PROVISIONS AS FINALIZED BY DMRC.
17. BEFORE STARTING ANY E&M WORK INTERFACE WITH CIVIL CONTRACTOR TO BE REQUIRED.
18. THE UTILITY PLANS HAVE BEEN REVIEWED. ALL AFFECTED UTILITIES TO BE DIVERTED AND REINSTATED AS PER SITE CONDITIONS.
19. ALL THE WORKS AS SHOWN IN DRAWING ARE IN LUMP SUM UNLESS OTHERWISE SPECIFIED.
20. TRACK BED BY OTHERS.
21. S & T SHAFT BLOCK WORK SHALL BE KEPT ON HOLD UNTIL THE INSTALLATION OF CABLE TRAYS AT PLATFORM LEVEL.
22. COLUMN LOCATION IN THE SERVICE AREA TO BE CO-ORDINATED AND CONFIRMED BASED ON EQUIPMENT LAYOUT PROVIDED BY - E&M CONTRACTOR.
23. PROVISIONS SHALL BE MADE FOR RACEWAYS IN SLAB/FLOOR.
24. PLUMBING & DRAINAGE ARRANGEMENT SHOWN IN DRAWING ARE INDICATIVE. ALL THE PLUMBING INCLUDING EMBEDDED SYSTEM TO BE AS PER DETAILED DESIGN.
25. STRUCTURAL WALL PROFILE AND TPM SHAFTS SIZE TO SUIT THE FINAL TRACK ALIGNMENT AND AS PER CONTRACTOR'S DESIGN.
26. FHC NICHES SHALL BE PROVIDED AT EVERY 60 METER DISTANCE AND TO BE COORDINATED WITH E&M CONTRACTOR.
27. FIRE DOORS NUMBER & LOCATION SHOWN IN DRAWING ARE INDICATIVE & FINAL DETAIL TO BE TAKEN FROM DETAILED DRAWING.
28. ALL SHAFT LOCATIONS AND SIZES ARE TENTATIVE AND SHALL BE FINALIZED IN CONSULTATION WITH E&M CONTRACTOR.
29. HFL FOR THE AREA AROUND PATNA ZOO STATION = 49.900 M FROM MEAN SEA LEVEL.
30. DETAILS OF ACCESS FOR MAINTENANCE AND INSPECTION OF MEP FACILITIES i.e. CAT LADDER, COVERING OF ACCESS HATCH AND MAIN HOLES, SHAFT DOORS, DOG HOUSE DETAILS, DRAIN CHANNEL GRATING, COVER, etc. SHALL BE SUBMITTED DURING DETAIL DESIGN STAGE.
31. ALL STAIRCASES HAVING SERVICES PASSING THROUGH THEM WILL HAVE INTERMEDIATE SLABS FOR MEP EQUIPMENT PLACEMENT OR SERVICES SUPPORT. INTERMEDIATE SLAB LEVEL WILL BE WORKED OUT DURING DETAILED DESIGN OF THE PROJECT.
32. PLINTH LEVEL IS MINIMUM 450MM HIGHER THAN HFL OR FOOTPATH LEVEL WHICHEVER IS HIGHER.
33. ALL STATION BOX RELATED DIMENSIONS ARE INTERNAL CLEAR DIMENSIONS AFTER STRUCTURE AND TOLERANCE.
34. DWALL THICKNESS IS SHOWN TENTATIVELY AS PER STRUCTURE DRAWING.
35. UPDATED ROW LINE FOR STATION RECEIVED THROUGH MAIL ON 25.08.2021 FROM DMRC. AS PER DMRC COMMENTS, WE ARE MENTIONING ROW AS EPL (EXISTING PROPERTY LINE).
36. DRAIN LEVEL TO BE SLOPPED TO MATCH FOOTPATH LEVEL. DRAIN WILL BE REINSTATED AFTER STATION BOX CONSTRUCTION.
37. PLATFORM HAS A SLOPE OF 1:100 FROM THE PLATFORM EDGE FOR 2000 MM TOWARDS THE BACK OF THE PLATFORM. THIS MAY AFFECT THE STAIR ESCALATOR AND LIFT RISE.
38. CONTRACTOR TO PROPOSE STRUCTURAL SOLUTION IN DISCUSSION WITH DMRC DESIGN TEAM. ALTERNATE PROPOSAL MAY BE SUGGESTED WITHOUT ANY FINANCIAL IMPLICATION.
39. GAPS BETWEEN STAIRS & ESCALATOR AND THE ESCALATORS WILL BE FILLED WITH SUITABLE FLASHING.
40. LIFT AND ESCALATOR LIFTING HOOK ARRANGEMENT TO BE PROVIDED AS PER VENDOR REQUIREMENT.
41. ESCALATOR NOTCH TO BE AS PER VENDOR DETAILS.
42. FOR TRACK DRAINAGE, REFER DRAWING NO. PMP-C1-VDB-UG-ACM-AE-DR-0150.



KEY PLAN

GENERAL NOTES-
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8. ALL DOORS/WINDOWS SILL & LINTEL LEVELS ARE FROM MAIN FLOOR FINISH LEVEL
9. COLUMN LOCATION AND STRUCTURAL ARRANGEMENT SHOWN ARE INDICATIVE ONLY

ABBREVIATIONS

ALS	ASSISTANT LINE SUPERVISOR
AHU	AIR HANDLING UNIT
CD	COOLING DUMPING
CONC	CONCOURSE
DRD	DRAUGHT RELIEF DAMPER
EFO	EXCESS FARE OFFICE
ELEC	ELECTRICAL
EVS	EXHAUST VENTILATION SHAFT
E&M	ELECTRICAL AND MECHANICAL
FE	FIRE ESCAPE
FHC	FIRE HOSE CABINET
FM	FIRE MAN
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
OTE	OVER TRACK EXHAUST
PLANT	PLANT ROOM
PLT	PLATFORM
PSB	PLATFORM SUPERVISOR BOOTH
SAD	SUPPLY AIR DUCT
S&T	SIGNALING AND TELECOM
TOM	TICKET OPERATING MACHINE
TVF	TUNNEL VENTILATION FAN
TVM	TICKET VENDING MACHINE
TVS	TUNNEL VENTILATION SYSTEM
UNA	UNASSIGNED

ROOM SCHEDULE LONG SECTION -2

ROOM NO.	ROOM NAME	Area
U02	CONCOURSE PUBLIC AREA (PAID)	928 m²
U01A	CONCOURSE PUBLIC AREA (UNPAID)	613 m²
U01B	CONCOURSE PUBLIC AREA (UNPAID)	1601 m²
U198.2	ECS PLANT ROOM	352 m²
U19A.1	ECS PLANT ROOM	399 m²
U51	EMERGENCY EQUIPMENT ROOM	21 m²
U03	SCR	57 m²
U57A	TVS ROOM	254 m²
U57B	TVS ROOM	281 m²
U57A.1	TVS ROOM	141 m²
U57A.2	TVS ROOM	64 m²
U57A.3	TVS ROOM	65 m²
U57B.3	TVS ROOM	158 m²
U57B.2	TVS ROOM	77 m²
U57B.1	TVS ROOM	88 m²

NORTH

MODEL VERSION 1

जारी किये गए विज्ञापन ISSUED DRAWINGS						
27.12.22	A	TENDER SUBMISSION	MG	MK	AP
दिनांक DATE	संशोधन REV	विवरण DESCRIPTION	विद्युत DRAWN	जांच CHECKED	सत्यापित VERIFIED

चित्रांकन संदर्भ REFERENCE DRAWINGS		
क्रमांक S.NO	चित्रांकन संख्या DRAWING NO.	विवरण DESCRIPTION

डीएमआरसी द्वारा अनुमोदन
APPROVAL BY DMRC

पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE
प्रबंधक / वास्तुकार MGR / ARCH		उपमुख्य विद्युत अभियंता DY CE/E & M	
उपमुख्य वास्तुकार DY CA		उपमुख्य विद्युत अभियंता / ट्रेक्शन प्रणाली DY CEE/S	
मुख्य / वास्तुकार CA / ARCH		महाप्रबंधक विद्युत / डिज़ाइन - 1 GM / E / DS-1	
उपमुख्य अभियंता / रचना DY CE / DESIGN		परियोजना प्रबंधक PM	
मुख्य अभियंता / रचना CE / DESIGN		मुख्य परियोजना प्रबंधक CPM	
प्रधान महाप्रबंधक / डिज़ाइन DGM / S & T		प्रधान महाप्रबंधक संचालन DGM / OPERATIONS	

प्रमाणित किया जाता है कि यह है कि दस्तावेज़ डी. डी. सी. की ओर से गुणवत्ता आश्वासन योजना के अनुसार तैयार किया गया है। Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan

डी डी सी अधिकृत हस्ताक्षरकर्ता पीसीडीडी-01 परियोजना प्रबंधक Authorised Signatory for DDC PCDD-01 Project Manager SRIRUP MITRA

वास्तुकला रचना प्रभारी Architecture Team Leader: SANTANU BANERJEE
संरचना प्रभारी Structure Team Leader: SRIRUP MITRA
विद्युत एवं यांत्रिकी रचना प्रभारी E&M Team Leader: SAMPATH MANIVANAN (Kondal, Deepak)

OFFICE OF ORIGIN:-
AECOM
9F, INFINITY TOWER C, DLF CYBER CITY, PHASE II, GURGAON 122002, INDIA

चित्रकर्ता DRAWN BY: MG (Ghosh, Mayukh)
जांचकर्ता CHECKED BY: MK (KAGRA, MANISH)
सत्यापितकर्ता VERIFIED BY: AP (Pramanick, Anupam)

दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-05

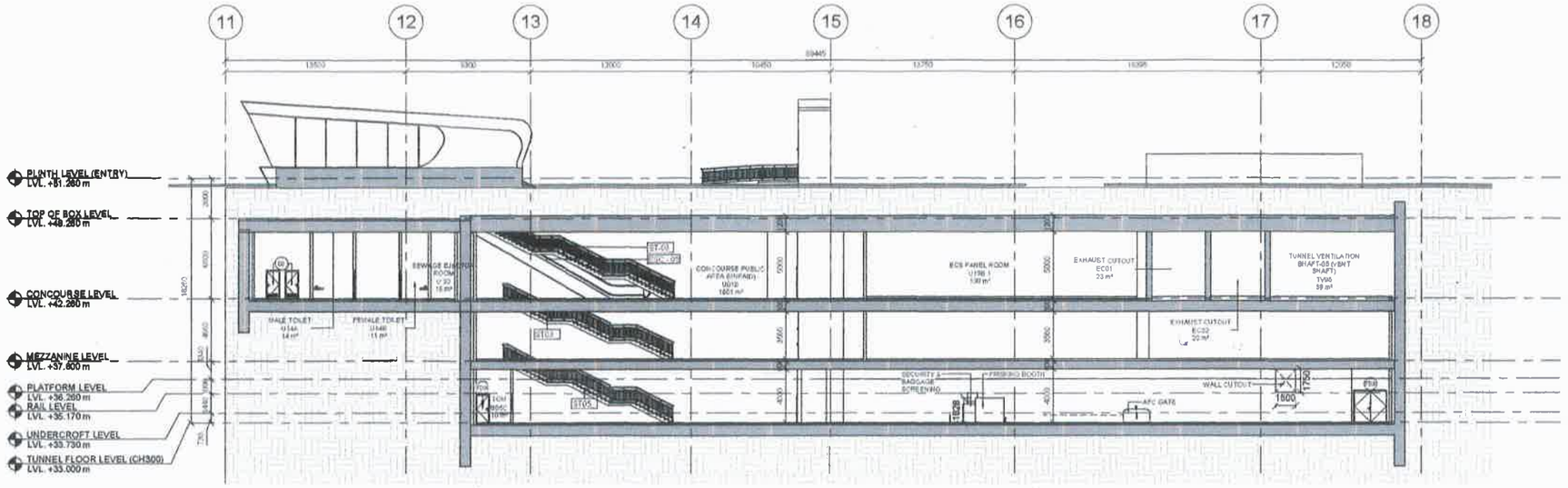
स्टेशन STATION: VIDYUT BHAWAN STATION

चित्रांकन शीर्षक DRAWING TITLE: LONG SECTION - 2

दिनांक DATE	संशोधन REV	चित्रात्मक पैमाना GRAPHICAL SCALE	स्थिति STATUS
27.12.2022	A	1:200 @ A1	TENDER SUBMISSION

चित्रांकन संख्या DRAWING NUMBER: PMP-C1-VDB-ACM-AR-DR-0801
पृष्ठ संख्या SHEET NO: SHEET 1 OF 1
पृष्ठ का आकार SHEET SIZE: ISO A1
ARCHITECTURAL

INDICATIVE



1 **LONG SECTION - 3**

1 : 200

GENERAL NOTES-
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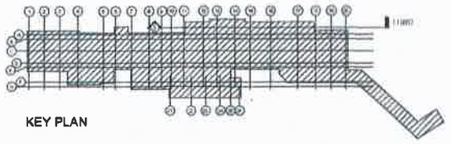
8 ALL DOORS/WINDOWS SILL & LINTEL LEVELS ARE FROM MAIN FLOOR FINISH LEVEL
9 COLUMN LOCATION AND STRUCTURAL ARRANGEMENT SHOWN ARE INDICATIVE ONLY.

NOTES-
1 GROUND LEVELS (GL), ROAD LEVELS (RL), FOOTPATH LEVELS(FL) ARE INDICATIVE, CONTRACTOR TO VERIFY EXISTING FINISHED LEVELS AT SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2 CONTRACTOR TO VERIFY THE LEVELS FOR STAIRCASE, AND VERTICAL TRANSPORTATION ELEMENTS OF THE ENTRY STRUCTURES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3 ALL LEVELS ARE IN METERS, INDICATING TOC (TOP OF CONCRETE), FFL (FLOOR FINISH LEVEL), FL (FOOTPATH LEVEL), PL (PLINTH LEVEL) & RL (ROAD LEVEL) WHEREVER APPLICABLE.
4 ABSOLUTE RL LEVEL SHALL BE TAKEN FROM DMRC ALIGNMENT DRAWING.
5 ALL MINIMUM INTERNAL CLEARANCE ARE MANDATORY AND SHALL BE PROVIDED.
6 REFER LATEST STRUCTURAL & SETTING OUT DRAWINGS IN CONJUNCTION WITH ARCHITECTURE DRAWINGS PRIOR TO COMMENCEMENT OF CONSTRUCTION
7 ALL CUTOUT AND INSERT FIX PROVISIONS FOR MEP SYSTEMS REQUIREMENTS TO BE REFERRED FROM LATEST REVISION OF DISCIPLINE DRAWINGS.
8 MASONRY WORK OF THE STATION MAY VARY AS PER DETAILED ARCHITECTURAL LAYOUT OF THE STATION.
9 DOUBLE SLAB MAY BE PROVIDED UNDER STAIRCASE/ESCALATOR FOR ALL ROOMS TO AVOID SEEPAGE BETWEEN THE GAP OF STAIRCASE AND ESCALATOR
10 APPROVAL TO BE TAKEN BY THE CONTRACTOR FOR ANY DEVIATION IN MATERIAL / QUANTITIES ON THE BOQ.
11 FOR LIGHTING ARRANGEMENT & ELECTRICAL DETAILS PLEASE REFER SPECIFIC ELECTRICAL DRAWINGS.
12 FOR ADKA AND SAT SHAFT SHOULD BE REVIEWED BY RESPECTIVE SYSTEM WISE CONTRACTOR
13 EARTH MAT SIZE AND LOCATION TO BE CONFIRMED BY E&M (DMRC).
14 WATER PROOFING TO BE DONE AT O.H.S.D. TANK LEVEL/OTHER WET AREA MATERIAL AS PER BOQ.
15 REFER VENDOR DRAWINGS FOR ESCALATOR AND LIFT PIT SIZE AS FINALIZED BY DMRC.
16 REFER VERTICAL TRANSPORTATION VENDOR DRAWINGS FOR FINAL STRUCTURAL PROVISIONS AS FINALIZED BY DMRC.
17 BEFORE STARTING ANY E&M WORK INTERFACE WITH CIVIL CONTRACTOR TO BE REQUIRED.
18 THE UTILITY PLANS HAVE BEEN REVIEWED. ALL AFFECTED UTILITIES TO BE DIVERTED AND REINSTATED AS PER SITE CONDITIONS
19 ALL THE WORKS AS SHOWN IN DRAWING ARE IN LUMP SUM UNLESS OTHERWISE SPECIFIED.
20 TRACK BED BY OTHERS.
21 S & T SHAFT BLOCK WORK SHALL BE KEPT ON HOLD UNTIL THE INSTALLATION OF CABLE TRAYS AT PLATFORM LEVEL.
22 COLUMN LOCATION IN THE SERVICE AREA TO BE CO-ORDINATED AND CONFIRMED BASED ON EQUIPMENT LAYOUT PROVIDED BY - E&M CONTRACTOR
23 PROVISIONS SHALL BE MADE FOR RACEWAYS IN SLAB/FLOOR.
24 PLUMBING & DRAINAGE ARRANGEMENT SHOWN IN DRAWING ARE INDICATIVE , ALL THE PLUMBING INCLUDING EMBEDDED SYSTEM TO BE AS PER DETAILED DESIGN.
25 STRUCTURAL WALL PROFILE AND TEM SHAFTS SIZE TO SUIT THE FINAL TRACK ALIGNMENT AND AS PER CONTRACTOR'S DESIGN
26 FHC NICHES SHALL BE PROVIDED AT EVERY 60 METER DISTANCE AND TO BE COORDINATED WITH E&M CONTRACTOR.
27 FIRE DOORS NUMBER & LOCATION SHOWN IN DRAWING ARE INDICATIVE & FINAL DETAIL TO BE TAKEN FROM DETAILED DRAWING.
28 ALL SHAFT LOCATIONS AND SIZES ARE TENTATIVE AND SHALL BE FINALIZED IN CONSULTATION WITH E&M CONTRACTOR
29 HFL FOR THE AREA AROUND PATHA ZOO STATION # 49.900 M FROM MEAN SEA LEVEL.
30 DETAILS OF ACCESS FOR MAINTENANCE AND INSPECTION OF MEP FACILITIES i.e. CAT LADDER, COVERING OF ACCESS HATCH AND MAIN HOLE'S, SHAFT DOORS, DOG HOUSE DETAILS, DRAIN CHANNEL GRATING, COVER, etc. SHALL BE SUBMITTED DURING DETAIL DESIGN STAGE.
31 ALL STAIRCASES HAVING SERVICES PASSING THROUGH THEM WILL HAVE INTERMEDIATE SLAB FOR MEP EQUIPMENT PLACEMENT OR SERVICES SUPPORT. INTERMEDIATE SLAB LEVEL WILL BE WORKED OUT DURING DETAILED DESIGN OF THE PROJECT.
32 PLINTH LEVEL IS MINIMUM 450MM HIGHER THAN HFL OR FOOTPATH LEVEL WHICHEVER IS HIGHER.
33 ALL STATION BOX RELATED DIMENSIONS ARE INTERNAL CLEAR DIMENSIONS AFTER STRUCTURE AND TOLERANCE
34 EWALL THICKNESS IS SHOWN TENTATIVELY AS PER STRUCTURE DRAWING.
35 UPDATED ROW LINE FOR STATION RECEIVED THROUGH MAIL ON 25.08.2021 FROM DMRC. AS PER DMRC COMMENTS, WE ARE MENTIONING ROW AS EPL (EXISTING PROPERTY LINE).
36 DRAIN LEVEL TO BE SLOPPED TO MATCH FOOTPATH LEVEL. DRAIN WILL BE REINSTATED AFTER STATION BOX CONSTRUCTION.
37 PLATFORM HAS A SLOPE OF 1:80 FROM THE PLATFORM EDGE FOR 600 MM TOWARDS THE BACK OF THE PLATFORM. THIS MAY AFFECT THE STAIR ESCALATOR AND LIFT RISE.
38 CONTRACTOR TO PROPOSE STRUCTURAL SOLUTION IN DISCUSSION WITH DMRC DESIGN TEAM. ALTERNATE PROPOSAL MAY BE SUGGESTED WITHOUT ANY FINANCIAL IMPLICATION
39 GAPS BETWEEN STAIRS / ESCALATOR AND THE ESCALATORS WILL BE FILLED WITH SUITABLE FLASHING
40 LIFT AND ESCALATOR LIFTING HOOK ARRANGEMENT TO BE PROVIDED AS PER VENDOR REQUIREMENT.
41 ESCALATOR NOTCH TO BE AS PER VENDOR DETAILS.
42 FOR TRACK DRAINAGE, REFER DRAWING NO. PMP-C1-VDB-U/G-ACM-ME-DR-0150

KEY PLAN



ROOM SCHEDULE LONG SECTION -3		
ROOM NO.	ROOM NAME	Area
U05C	TOM	10 m²
U05C	TOM	10 m²
UNA	UNASSIGNED ROOM	211 m²
U01B	CONCOURSE PUBLIC AREA (UNPAID)	1601 m²
U198.1	ECS PANEL ROOM	130 m²
U14B	FEMALE TOILET	11 m²
U14A	MALE TOILET	14 m²
U 32	SEWAGE EJECTOR ROOM	16 m²

ABBREVIATIONS	
ALS	ASSISTANT LINE SUPERVISOR
AHU	AIR HANDLING UNIT
CD	COOLING DUMPING
CONC	CONCOURSE
DRC	DRAUGHT RELIEF DAMPER
EPO	EXCESS FARE OFFICE
ELEC	ELECTRICAL
EVS	EXHAUST VENTILATION SHAFT
E&M	ELECTRICAL AND MECHANICAL
FE	FIRE ESCAPE
FHC	FIRE HOSE CABINET
FM	FIRE MAN
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
OTE	OVER TRACK EXHAUST
PLANT	PLANT ROOM
PLT	PLATFORM
PSB	PLATFORM SUPERVISOR BOOTH
SAD	SUPPLY AIR DUCT
SET	SIGNALLING AND TELECOM
TOM	TICKET OPERATING MACHINE
TVF	TUNNEL VENTILATION FAN
TVM	TICKET VENDING MACHINE
TVS	TUNNEL VENTILATION SYSTEM
UNA	UNASSIGNED

NORTH

MODEL VERSION 3

जारी किये गए चित्रांकन
ISSUED DRAWINGS

DATE	REV.	DESCRIPTION	DRAWN	CHECKED	VERIFIED
27.12.22	A	TENDER SUBMISSION	MG	MK	AP

चित्रांकन संदर्भ
REFERENCE DRAWINGS

क्रमांक S.NO.	चित्रांकन संख्या DRAWING NO.	विवरण DESCRIPTION

डीएमआरसी द्वारा अनुमोदन
APPROVAL BY DMRC

पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE
प्रबंधक / वास्तुक MGR/ ARCH		उपमुख्य विद्युत अभियंता विद्युत एवं संचरण Dy. CE/ E & M	
उपमुख्य वास्तुक Dy. CA		उपमुख्य विद्युत अभियंता संचालन नियंत्रण प्रणाली Dy. CE/ ECS	
मुख्य वास्तुक CA/ ARCH		महाप्रबंधक विद्युत / मुख्यालय – १ GM/ E / HQ-1	
उपमुख्य अभियंता / रचना Dy. CE/ DESIGN		परियोजना प्रबंधक PM	
मुख्य अभियंता / रचना CE/ DESIGN		मुख्य परियोजना प्रबंधक CPM	
एग्जी महाप्रबंधक संचालन एवं दूरसंचार DGM / S & T		एग्जी महाप्रबंधक संचालन DGM / OPERATIONS	

I hereby certify that this document has been designed and checked in accordance with DDC Quality Assurance Plan.

Architecture Team Leader: SANTANU BANERJEE

Structure Team Leader: SRIRUP MITRA

E&M Team Leader: SAMPATH MANIVANAN

OFFICE OF ORIGIN -

AECOM
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VERIFIED BY: AP

दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-05

स्टेशन STATION: VIDYUT BHAWAN STATION

चित्रांकन शीर्षक : DRAWING TITLE: LONG SECTION - 3

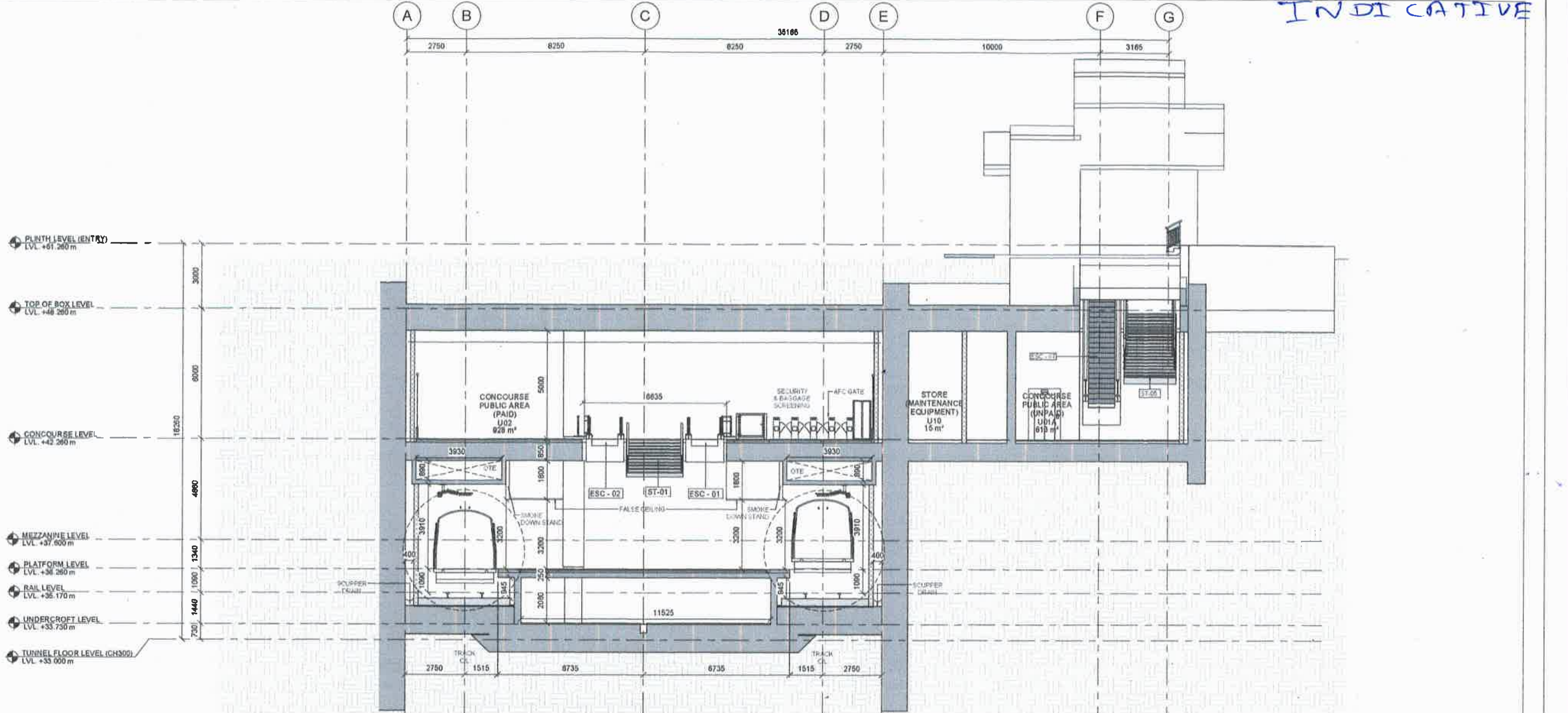
दिनांक DATE: 27.12.2022 | संशोधन REV: A | चित्रांकन पैमाना GRAPHICAL SCALE: 1:200 @ A1 | स्थिति STATUS: TENDER SUBMISSION

चित्रांकन संख्या DRAWING NUMBER: PMP-C1-VDB-ACM-AR-DR-0802

शीट संख्या SHEET NO: SHEET 1 OF 1 | शीट का आकार SHEET SIZE: ISO A1

ARCHITECTURAL

INDICATIVE

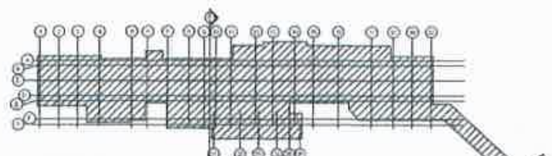


2 CROSS SECTION - B

1 : 100

NOTES

1. GROUND LEVELS (GL), ROAD LEVELS (RL), FOOTPATH LEVELS(FL) ARE INDICATIVE, CONTRACTOR TO VERIFY EXISTING FINISHED LEVELS AT SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION
2. CONTRACTOR TO VERIFY THE LEVELS FOR STAIRCASE, AND VERTICAL TRANSPORTATION ELEMENTS OF THE ENTRY STRUCTURES PRIOR TO COMMENCEMENT OF CONSTRUCTION
3. ALL LEVELS ARE IN METERS, INDICATING TOC (TOP OF CONCRETE), FFL (FLOOR FINISH LEVEL), FL (FOOTPATH LEVEL), PL (PLINTH LEVEL) & RL (ROAD LEVEL) WHEREVER APPLICABLE.
4. ABSOLUTE RAIL LEVEL SHALL BE TAKEN FROM DMRC ALIGNMENT DRAWING
5. ALL MINIMUM INTERNAL CLEARANCE ARE MANDATORY AND SHALL BE PROVIDED
6. REFER LATEST STRUCTURAL & SETTING OUT DRAWINGS IN CONJUNCTION WITH ARCHITECTURE DRAWINGS PRIOR TO COMMENCEMENT OF CONSTRUCTION
7. ALL CUTOUT AND FIRST FIX PROVISIONS FOR MEP SYSTEMS REQUIREMENTS TO BE REFERRED FROM LATEST REVISION OF DISCIPLINE DRAWINGS
8. MASONRY WORK OF THE STATION MAY VARY AS PER DETAILED ARCHITECTURAL LAYOUT OF THE STATION
9. DOUBLE SLAB MAY BE PROVIDED UNDER STAIRCASE/ESCALATOR FOR ALL ROOMS TO AVOID SEEPAGE BETWEEN THE GAP OF STAIRCASE AND ESCALATOR
10. APPROVAL TO BE TAKEN BY THE CONTRACTOR FOR ANY DEVIATION IN MATERIAL / QUANTITIES ON THE BOQ
11. FOR LIGHTING ARRANGEMENT & ELECTRICAL DETAILS PLEASE REFER SPECIFIC ELECTRICAL DRAWINGS
12. FOR 33kVA AND S&T SHAFT SHOULD BE REVIEWED BY RESPECTIVE SYSTEM WIDE CONTRACTOR
13. EARTH MAT SIZE AND LOCATION TO BE CONFIRMED BY E&M (DMRC)
14. WATER PROOFING TO BE DONE AT O.H & U.G TANK LEVEL/OTHER WET AREA MATERIAL AS PER BOQ
15. REFER VENDOR DRAWINGS FOR ESCALATOR AND LIFT PIT SIZE AS FINALIZED BY DMRC
16. REFER VERTICAL TRANSPORTATION VENDOR DRAWINGS FOR FINAL STRUCTURAL PROVISIONS AS FINALIZED BY DMRC
17. BEFORE STARTING ANY E&M WORK INTERFACE WITH CIVIL CONTRACTOR TO BE REQUIRED
18. THE UTILITY PLANS HAVE BEEN REVIEWED. ALL AFFECTED UTILITIES TO BE DIVERTED AND REINSTATED AS PER SITE CONDITIONS
19. ALL THE WORKS AS SHOWN IN DRAWING ARE IN LUMP SUM UNLESS OTHERWISE SPECIFIED
20. TRACK BED BY OTHERS
21. S & T SHAFT BLOCK WORK SHALL BE KEPT ON HOLD UNTIL THE INSTALLATION OF CABLE TRAYS AT PLATFORM LEVEL
22. COLUMN LOCATION IN THE SERVICE AREA TO BE CO-ORDINATED AND CONFIRMED BASED ON EQUIPMENT LAYOUT PROVIDED BY E&M CONTRACTOR
23. PROVISIONS SHALL BE MADE FOR RACEWAYS IN SLAB/FLOOR
24. PLUMBING & DRAINAGE ARRANGEMENT SHOWN IN DRAWING ARE INDICATIVE. ALL THE PLUMBING INCLUDING EMBEDDED SYSTEM TO BE AS PER DETAILED DESIGN
25. STRUCTURAL WALL PROFILE AND TBM SHAFTS SIZE TO SUIT THE FINAL TRACK ALIGNMENT AND AS PER CONTRACTOR'S DESIGN
26. FHC NICHES SHALL BE PROVIDED AT EVERY 60 METER DISTANCE AND TO BE COORDINATED WITH E&M CONTRACTOR
27. FIRE DOORS NUMBER & LOCATION SHOWN IN DRAWING ARE INDICATIVE & FINAL DETAIL TO BE TAKEN FROM DETAILED DRAWING
28. ALL SHAFT LOCATIONS AND SIZES ARE TENTATIVE AND SHALL BE FINALIZED IN CONSULTATION WITH E&M CONTRACTOR
29. HFL FOR THE AREA AROUND PATNA ZOO STATION = 49.900 M FROM MEAN SEA LEVEL
30. DETAILS OF ACCESS FOR MAINTENANCE AND INSPECTION OF MEP FACILITIES i.e. CAT LADDER, COVERING OF ACCESS HATCH AND MAIN HOLES, SHAFT DOORS, DOG HOUSE DETAILS, DRAIN CHANNEL GRATING / COVER, etc. SHALL BE SUBMITTED DURING DETAIL DESIGN STAGE
31. ALL STAIRCASES HAVING SERVICES PASSING THROUGH THEM WILL HAVE INTERMEDIATE SLAB FOR MEP EQUIPMENT PLACEMENT ON SERVICES SUPPORT. INTERMEDIATE SLAB LEVEL WILL BE WORKED OUT DURING DETAILED DESIGN OF THE PROJECT
32. PLINTH LEVEL IS MINIMUM 450MM HIGHER THAN HFL OR FOOTPATH LEVEL WHICHEVER IS HIGHER
33. ALL STATION BOX RELATED DIMENSIONS ARE INTERNAL CLEAR DIMENSIONS AFTER STRUCTURE AND TOLERANCE
34. DWALL THICKNESS IS SHOWN TENTATIVELY AS PER STRUCTURE DRAWING
35. UPDATED ROW LINE FOR STATION RECEIVED THROUGH MAIL ON 25.08.2021 FROM DMRC. AS PER DMRC COMMENTS, WE ARE MENTIONING ROW AS EPL (EXISTING PROPERTY LINE)
36. DRAIN LEVEL TO BE SLOPPED TO MATCH FOOTPATH LEVEL. DRAIN WILL BE REINSTATED AFTER STATION BOX CONSTRUCTION.
37. PLATFORM HAS A SLOPE OF 1:100 FROM THE PLATFORM EDGE FOR 3000 MM TOWARDS THE BACK OF THE PLATFORM. THIS MAY AFFECT THE STAIR ESCALATOR AND LIFT RISE
38. CONTRACTOR TO PROPOSE STRUCTURAL SOLUTION IN DISCUSSION WITH DMRC DESIGN TEAM. ALTERNATE PROPOSAL MAY BE SUGGESTED WITHOUT ANY FINANCIAL IMPLICATION.
39. GAPS BETWEEN STAIRS & ESCALATOR AND THE ESCALATORS WILL BE FILLED WITH SUITABLE FLASHING
40. LIFT AND ESCALATOR LIFTING HOOK ARRANGEMENT TO BE PROVIDED AS PER VENDOR REQUIREMENT
41. ESCALATOR NOTCH TO BE AS PER VENDOR DETAILS
42. FOR TRACK DRAINAGE, REFER DRAWING NO. PMP-C1-VDB-UG-ACM-ME-DR-0150



KEY PLAN

GENERAL NOTES-

1. ALL DIMENSIONS ARE IN MILLIMETERS, UNTILL OTHERWISE MENTIONED
2. ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED
3. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL, STRUCTURAL, PLUMBING, FIRE FIGHTING, ELECTRICAL AND TRAFFIC MANAGEMENT DRAWINGS
4. ANY DISCREPANCIES MUST BE BROUGHT TO NOTICE OF THE CONSULTANT/ DMRC BEFORE EXECUTION OF WORK AT SITE
5. CONCOURSE LENGTH MAY GET REVISED AS PER FUTURE ROOMS REQUIREMENTS GIVEN BY TECHNICAL DEPT OF DMRC
6. FOR FURTHER INFORMATION ABOUT FINISHES REFER TO FINISHES SCHEDULE
7. FOR ANY DEVIATION FROM BOQ IN MATERIALS / QUANTITIES APPROVAL MAY BE TAKEN
8. ALL DOORS/WINDOWS SILL & LINTEL LEVELS ARE FROM MAIN FLOOR FINISH LEVEL
9. COLUMN LOCATION AND STRUCTURAL ARRANGEMENT SHOWN ARE INDICATIVE ONLY

ABBREVIATIONS

ALS	ASSISTANT LINE SUPERVISOR
AHU	AIR HANDLING UNIT
CD	COOLING DUMPING
CONC	CONCOURSE
DRD	DRAUGHT RELIEF DAMPER
EFO	EXCESS FARE OFFICE
ELEC	ELECTRICAL
EVS	EXHAUST VENTILATION SHAFT
E&M	ELECTRICAL AND MECHANICAL
FE	FIRE ESCAPE
FHC	FIRE HOSE CABINET
FM	FIRE MAN
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
OTE	OVER TRACK EXHAUST
PLANT	PLANT ROOM
PLT	PLATFORM
PSB	PLATFORM SUPERVISOR BOOTH
SAD	SUPPLY AIR DUCT
S&T	SIGNALING AND TELECOM
TOM	TICKET OPERATING MACHINE
TVF	TUNNEL VENTILATION FAN
TVM	TICKET VENDING MACHINE
TVS	TUNNEL VENTILATION SYSTEM
UNA	UNASSIGNED

ROOM SCHEDULE CROSS SECTION-B

ROOM NO.	ROOM NAME	Area
U02	CONCOURSE PUBLIC AREA (PAID)	928 m²
U01A	CONCOURSE PUBLIC AREA (UNPAID)	613 m²
U10	STORE (MAINTENANCE EQUIPMENT)	15 m²

NORTH

MODEL VERSION 2

यह चित्रांकन दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड की सम्पत्ति है। THIS DRAWING IS THE PROPERTY OF DELHI METRO RAIL CORPORATION LTD

जारी किये गए चित्रांकन ISSUED DRAWINGS					
27.12.22	A	TENDER SUBMISSION	MG	MK	AP
दिनांक DATE	संशोधन REV	विवरण DESCRIPTION	चित्रित DRAWN	जांच CHECKED	सत्यापित VERIFIED

चित्रांकन सन्दर्भ REFERENCE DRAWINGS		
क्रमांक S.NO	चित्रांकन संख्या DRAWING NO	विवरण DESCRIPTION

डीएमआरसी द्वारा अनुमोदन APPROVAL BY DMRC			
पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE
प्रबंधक / वास्तुक MGR/ ARCH		उपमुख्य विद्युत अभियंता विद्युत एवं यांत्रिक DY CE/ E & M	
उपमुख्य वास्तुक DY CA		उपमुख्य विद्युत अभियंता पर्यावरण नियंत्रण प्रणाली DY CE/ ECS	
मुख्य / वास्तुक CA/ ARCH		महाप्रबंधक विद्युत / भूमिगत – १ GM / E / UG-I	
उपमुख्य अभियंता / रचना DY CE/ DESIGN		परियोजना प्रबंधक PM	
मुख्य अभियंता / रचना CE/ DESIGN		मुख्य परियोजना प्रबंधक CPM	
उप महाप्रबंधक संकेतन व दूरसंचार DGM / S & T		उप महाप्रबंधक संचालन DGM / OPERATIONS	

प्रमाणित किया जाता है कि यह है कि दस्तावेज डी डी सी की ओर से गुणवत्ता आश्वासन योजना के अनुसार तैयार किया गया है। Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan

डी डी सी प्राधिकृत हस्ताक्षरकर्ता पीसीडीडी-01 परियोजना प्रबंधक Authorised Signatory for DDC PCDD-01 Project Manager SRIRUP MITRA

वास्तुकला रचना प्रभारी Architecture Team Leader SANTANU BANERJEE

संरचना प्रभारी Structure Team Leader SRIRUP MITRA

विद्युत एवं यांत्रिकी रचना प्रभारी E&M Team Leader SAMPATH MANIVANAN

OFFICE OF ORIGIN:-

AECOM

9F, INFINITY TOWER C, DLF CYBER CITY, PHASE II, GURGAON 122002, INDIA

चित्रकर्ता : DRAWN BY MG Ghosh Mayukh

जांचकर्ता : CHECKED BY: MK KADRA MANISH

सत्यापितकर्ता VERIFIED BY: AP Pramanick Anupam

दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-05

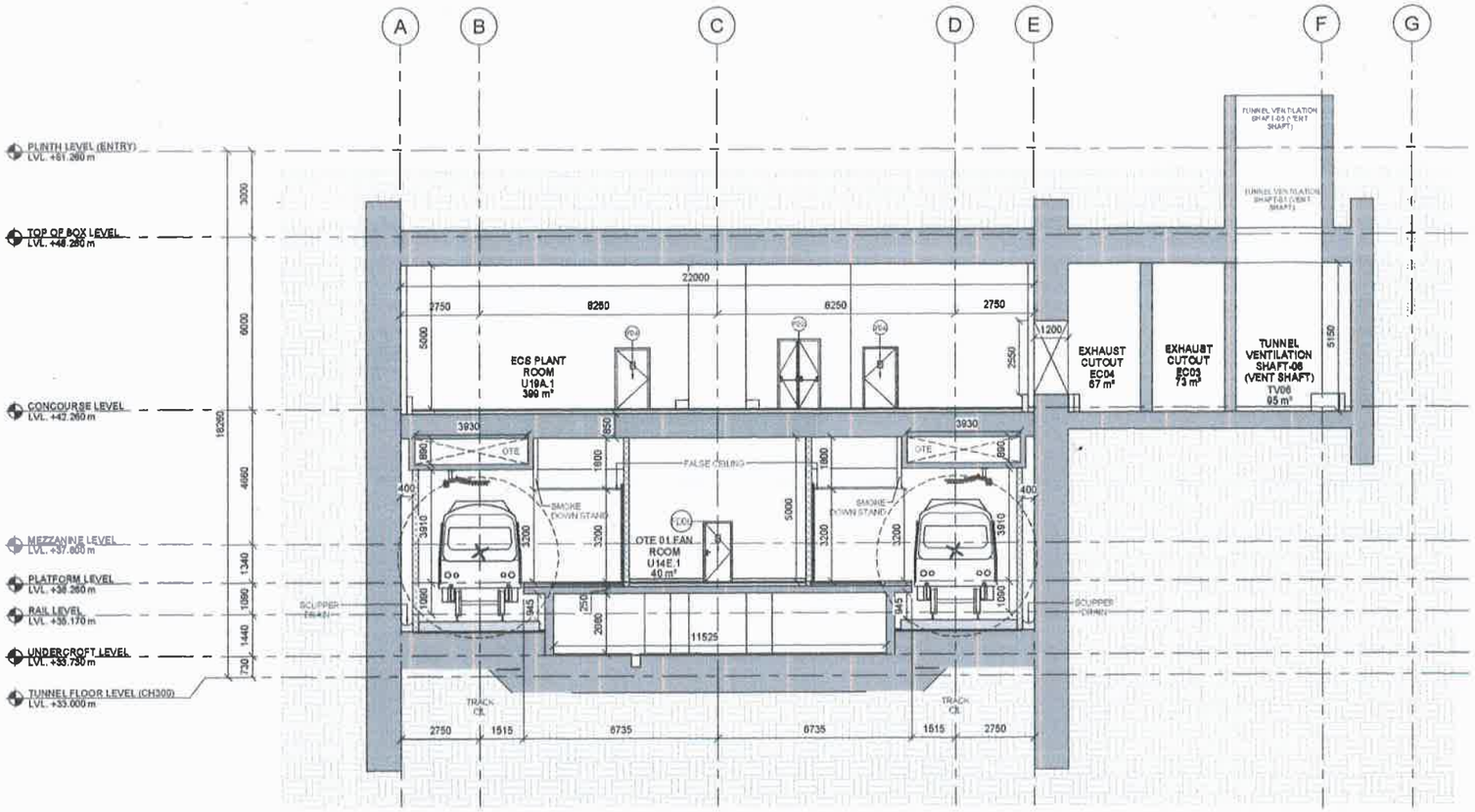
स्टेशन STATION: VIDYUT BHAWAN STATION

चित्रांकन शीर्षक DRAWING TITLE: CROSS SECTION - B

दिनांक DATE 27.12.2022 | संशोधन REV A | चित्रात्मक पैमाना GRAPHICAL SCALE 1:100 @ A1 | स्थिति STATUS TENDER SUBMISSION

चित्रांकन संख्या DRAWING NUMBER: PMP-C1-VDB-ACM-AR-DR-0901 | पृष्ठ संख्या SHEET NO SHEET 1 OF 1 | पृष्ठ का आकार SHEET SIZE ISO A1 | वास्तु ARCHITECTURAL

INDICATIVE



1 | CROSS SECTION - A

1 : 100

NOTES:
1. GROUND LEVELS (GL) , ROAD LEVELS (RL), FOOTPATH LEVELS(FL) ARE INDICATIVE. CONTRACTOR TO VERIFY EXISTING FINISHED LEVELS AT SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. CONTRACTOR TO VERIFY THE LEVELS FOR STAIRCASE, AND VERTICAL TRANSPORTATION ELEMENTS OF THE ENTRY STRUCTURES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3. ALL LEVELS ARE IN METERS. INDICATIVE TOC (TOP OF CONCRETE), FL (FLOOR FINISH LEVEL), FL (FOOTPATH LEVEL), FL (PLINTH LEVEL) & RL (ROAD LEVEL) WHEREVER APPLICABLE.
4. ARCHITECTURAL LEVEL SHALL BE TAKEN FROM DMRC ALIGNMENT DRAWING.
5. ALL MINIMUM INTERNAL CLEARANCE ARE MANDATORY AND SHALL BE PROVIDED.
6. REFER LATEST STRUCTURAL & SETTING OUT DRAWINGS IN CONJUNCTION WITH ARCHITECTURE DRAWINGS PRIOR TO COMMENCEMENT OF CONSTRUCTION
7. ALL OUTPUT AND AVAILABLE PROVISIONS FOR MEP SYSTEMS REQUIREMENTS TO BE REFERRED FROM LATEST REVISION OF EXECUTIVE DRAWINGS.
8. MASONRY WORK OF THE STATION MAY VARY AS PER DETAILED ARCHITECTURAL LAYOUT OF THE STATION.
9. COURSE SLAB MAY BE PROVIDED UNDER STAIRCASE/ESCALATOR FOR ALL ROOMS TO AVOID SEEPAGE BETWEEN THE GAP OF STAIRCASE AND ESCALATOR.
10. APPROVAL TO BE TAKEN BY THE CONTRACTOR FOR ANY DEVIATION IN MATERIAL/QUANTITIES ON THE BOQ.
11. FOR LIGHTING ARRANGEMENT & ELECTRICAL DETAILS PLEASE REFER SPECIFIC ELECTRICAL DRAWINGS.
12. FOR 33KVA AND SAT SHAFT SHOULD BE REVIEWED BY RESPECTIVE SYSTEM VIDE CONTRACTOR.
13. EARTH MAT SIZE AND LOCATION TO BE CONFIRMED BY E&M (DMRC).
14. WATER PROOFING TO BE DONE AT O.H.S.R. TANK LEVEL/OTHER WET AREA MATERIAL AS PER BOQ.
15. REFER VENDOR DRAWINGS FOR ESCALATOR AND LIFT PIT SIZE AS FINALIZED BY DMRC.
16. REFER VERTICAL TRANSPORTATION VENDOR DRAWINGS FOR FINAL STRUCTURAL PROVISIONS AS FINALIZED BY DMRC.
17. RESPONSE STARTING ANY E&M WORK INTERFACE WITH CIVIL CONTRACTOR TO BE REQUIRED.
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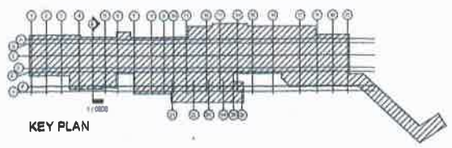
22. COLUMN LOCATION IN THE SERVICE AREA TO BE CO-ORDINATED AND CONFIRMED BASED ON EQUIPMENT LAYOUT PROVIDED BY- E&M CONTRACTOR
23. PROVISIONS SHALL BE MADE FOR DEPRESSION IN SLAB/FLOOR.
24. PLUMBING & DRAINAGE ARRANGEMENT SHOWN IN DRAWING ARE INDICATIVE , ALL THE PLUMBING INCLUDING EMBEDDED G.I STEM TO BE AS PER DETAILED DESIGN.
25. STRUCTURAL WALL PROFILE AND TEM SHAFTS SIZE TO SUIT THE FINAL TRACK ALIGNMENT AND AS PER CONTRACTOR S DESIGN.
26. SPRINKLERS SHALL BE PROVIDED AT EVERY 60 METER IN STAIRCASE AND TO BE COORDINATED WITH E&M CONTRACTOR.
27. FIRE DOORS NUMBER & LOCATION SHOWN IN DRAWING ARE INDICATIVE & FINAL DETAIL TO BE TAKEN FROM DETAILED DRAWING.
28. ALL SHAFT LOCATIONS AND SIZES ARE TENTATIVE AND SHALL BE FINALIZED IN CONSULTATION WITH E&M CONTRACTOR.
29. IMPL FOR THE AREA AROUND PATNA ZOO STATION + 49.50 M FROM MEAN SEA LEVEL.
30. DETAILS OF ACCESS FOR MAINTENANCE AND INSPECTION OF MEP FACILITIES i.e. CAT LADDER, COVERING OF ACCESS HATCH AND MAIN HOLES, SHAFT DOORS, DOG HOUSE DETAILS, DRAIN CHANNEL GRATING COVER, etc. SHALL BE SUBMITTED DURING DETAIL DESIGN STAGE.
31. ALL STAIRCASES HAVING SERVICES PASSING THROUGH THEM WILL HAVE INTERMEDIATE SLAB FOR MEP EQUIPMENT PLACEMENT OR SERVICES SUPPORT. INTERMEDIATE SLAB LEVEL WILL BE WORKED OUT IN THE DETAILED DESIGN OF THE PROJECT.
32. PLINTH LEVEL IS MINIMUM 450MM HIGHER THAN FRL OR FOOTPATH LEVEL WHICHEVER IS HIGHER.
33. ALL STATION BOX RELATED DIMENSIONS ARE INTERNAL CLEAR DIMENSIONS AFTER STRUCTURE AND TOLERANCE.
34. OVERALL THICKNESS IS SHOWN TENTATIVELY AS PER STRUCTURE DRAWING.
35. UPDATED ROW LINE FOR STATION RECEIVED THROUGH MAIL ON 25.06.2021 FROM DMRC. AS PER DMRC COMMENTS, WE ARE MENTIONING ROW AS BPL (EXISTING PROPERTY LINE)
36. DRAIN LEVEL TO BE SLOPED TO MATCH FOOTPATH LEVEL. DRAIN WILL BE REINSTATED AFTER STATION BOX CONSTRUCTION.
37. PLATFORM HAS A SLOPE OF 1:100 FROM THE PLATFORM EDGE FOR 2000 MM TOWARDS THE BACK OF THE PLATFORM. THIS MAY AFFECT THE STAIR ESCALATOR AND LIFT RISE.
38. CONTRACTOR TO PROPOSE STRUCTURAL SOLUTION IN DISCUSSION WITH DMRC DESIGN TEAM. ALTERNATE PROPOSAL MAY BE SUGGESTED WITHOUT ANY FINANCIAL IMPLICATION.
39. GAPS BETWEEN STAIRS & ESCALATOR AND THE ESCALATORS WILL BE FILLED WITH GI STARTLE FLASHING.
40. LIFT AND ESCALATOR LIFTING HOOK ARRANGEMENT TO BE PROVIDED AS PER VENDOR REQUIREMENT.
41. ESCALATOR NOTCH TO BE AS PER VENDOR DETAILS.
42. FOR TRACK DRAINAGE , REFER DRAWING NO. PMP-C1-VDB-ITS-ACM-ME-DR-0150



KEY PLAN

GENERAL NOTES:
1 ALL DIMENSIONS ARE IN MILLIMETERS, UNTILL OTHERWISE MENTIONED
2. ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED
3 THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL, STRUCTURAL, PLUMBING, FIRE FIGHTING, ELECTRICAL AND TRAFFIC MANAGEMENT DRAWINGS.
4 ANY DISCREPANCIES MUST BE BROUGHT TO NOTICE OF THE CONSULTANT/ DMRC BEFORE EXECUTION OF WORK AT SITE
5 CONCOURSE LENGTH MAY GET REVISED AS PER FUTURE ROOMS REQUIREMENTS GIVEN BY TECHNICAL DEPT. OF DMRC
6 FOR FURTHER INFORMATION ABOUT FINISHES REFER TO FINISHES SCHEDULE.
7 FOR ANY DEVIATION FROM BOQ IN MATERIALS / QUANTITIES APPROVAL MAY BE TAKEN.
8 ALL DOOR/WINDOWS SILL & LINTEL LEVELS ARE FROM MAIN FLOOR FINISH LEVEL.
9 COLUMN LOCATION AND STRUCTURAL ARRANGEMENT SHOWN ARE INDICATIVE ONLY.

ABBREVIATIONS

ASS	ASSISTANT LINE SUPERVISOR
AHU	AIR HANDLING UNIT
CD	COOLING DOMPING
CONC	CONCOURSE
DRD	DRAUGHT RELIEF DAMPER
EFO	EXCESS FARE OFFICE
ELEC	ELECTRICAL
EVS	EXHAUST VENTILATION SHAFT
E&M	ELECTRICAL AND MECHANICAL
FE	FIRE ESCAPE
FHC	FIRE HOSE CABINET
FM	FIRE MAN
HVAC	HEATING VENTILATION AND AIR CONDITIONING
OTE	OVER TRACK EXHAUST
PLANT	PLANT ROOM
PLT	PLATFORM
PSB	PLATFORM SUPERVISOR BOOTH
SAP	SUPPLY AIR DUCT
SIG	SIGNALING AND TELECOM
TOM	TICKET OPERATING MACHINE
TVF	TUNNEL VENTILATION FAN
TVM	TICKET VENDING MACHINE
TVS	TUNNEL VENTILATION SYSTEM
UNA	UNASSIGNED

ROOM SCHEDULE CROSS SECTION-A

ROOM NO.	ROOM NAME	Area
U14E.1	OTE 01 FAN ROOM	40 m²
U19A.1	ECS PLANT ROOM	399 m²

NORTH

MODEL VERSION 3

जारी किये गए विवरण
ISSUED DRAWINGS

दिनांक DATE	संशोधन REV	विवरण DESCRIPTION	विद्युत DRAWN	जांच CHECKED	सत्यापित VERIFIED
27.12.22	A	TENDER SUBMISSION	MG	MK	AP

विन्यास संदर्भ
REFERENCE DRAWINGS

क्रमांक SI NO	विन्यास संख्या DRAWING NO.	विवरण DESCRIPTION

डीएमआरसी द्वारा अनुमोदन
APPROVAL BY DMRC

पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE
एमजी / वास्तुक MGR/ ARCH		उपमुख्य विद्युत अभियंता विद्युत एवं स्थापत्य DY CE/E & M	
उपमुख्य वास्तुक DY CA		उपमुख्य सिग्नल अभियंता परियोजना प्रणाली DY CE/ECS	
मुख्य / वास्तुक CE/ ARCH		महाप्रबंधक, विद्युत / मुनिमत – १ GM/E / UG-1	
उपमुख्य अभियंता / रचना DY CE/ DESIGN		परियोजना प्रबंधक PM	
मुख्य अभियंता / रचना CE/ DESIGN		मुख्य परियोजना प्रबंधक CPM	
उप महाप्रबंधक संचालन व दूरसंचार DGM / S & T		उप महाप्रबंधक संचालन DGM / OPERATIONS	

प्रमाणित किया जाता है कि यह है कि दस्तावेज की जाँच की और से गुणवत्ता आश्वासन योजना के अनुसार तैयार किया गया है।
Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan

वास्तुकला रचना इकाई Architecture Team Leader SANTANU BANERJEE		संरचना प्रभारी Structure Team Leader	
विद्युत एवं यांत्रिकी इकाई प्रभारी Team Leader SAMPATH NARAYANAN		पीसीडी–01 परियोजना प्रबंधक Authorised Signatory for DDC PCED 01 Project Manager	SRIRUP MITRA

OFFICE OF ORIGIN :-

AECOM

8F, INFINITY TOWER C, DLF CYBER CITY, PHASE II, GURGAON 122002, INDIA

दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-05

स्टेशन : VIDYUT BHAWAN STATION
STATION

चित्रांकन शीर्षक : CROSS SECTION - A
DRAWING TITLE

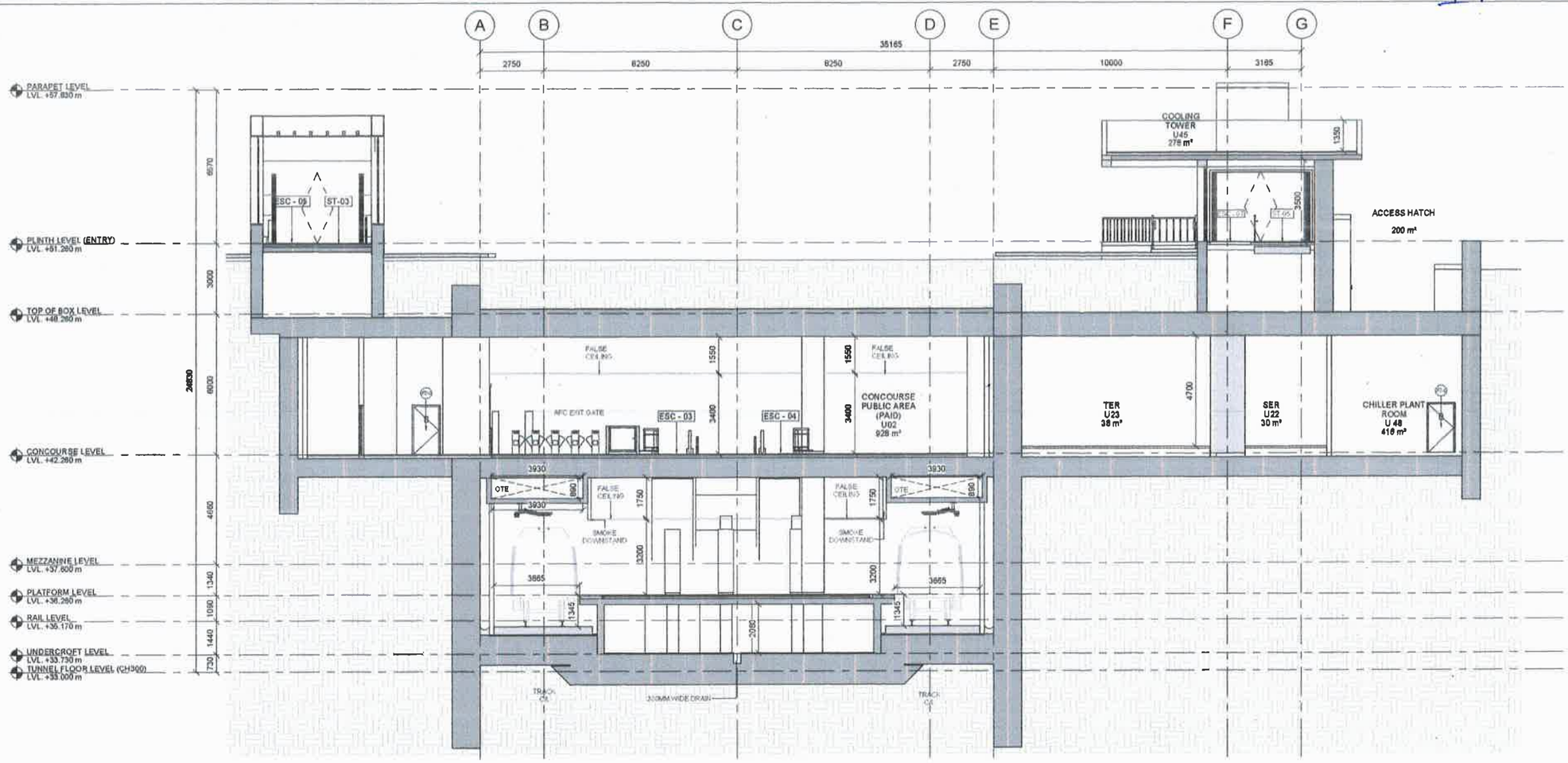
दिनांक DATE 27.12.2022	संशोधन REV A	चित्रांकन पैमाना GRAPHICAL SCALE 1:100 @ A1	स्थिति STATUS TENDER SUBMISSION	
चित्रांकन संख्या DRAWING NUMBER PMP-C1- VDB-ACM- AR-DR- 0900		पृष्ठ संख्या SHEET NO: SHEET 1 OF 1	पृष्ठ का आकार SHEET SIZE: ISO A1	ARCHITECTURAL

विवरण तैयार किया गया
DRAWN BY: Ghosh, MG Mayukh

जांचकर्ता
CHECKED BY: MK KAGRA MANSHI

सत्यापितकर्ता
VERIFIED BY: AP Priyanka Anupam

INDICATIVE



1 CROSS SECTION - C

1 : 100

NOTES:
1. GROUND LEVELS (GL) , ROAD LEVELS (RL) , FOOTPATH LEVELS(FL) ARE INDICATIVE, CONTRACTOR TO VERIFY EXISTING FINISHED LEVELS AT SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION
2. CONTRACTOR TO VERIFY THE LEVELS FOR STAIRCASE, AND VERTICAL TRANSPORTATION ELEMENTS OF THE ENTRY STRUCTURES PRIOR TO COMMENCEMENT OF CONSTRUCTION
3. ALL LEVELS ARE IN METERS, INDICATING TOC (TOP OF CONCRETE), FFL (FLOOR FINISH LEVEL), FL (FOOTPATH LEVEL), PL (PLINTH LEVEL) & RL (ROAD LEVEL) WHEREVER APPLICABLE
4. ABSOLUTE RAIL LEVEL SHALL BE TAKEN FROM DMRC ALIGNMENT DRAWING
5. ALL MINIMUM INTERNAL CLEARANCE ARE MANDATORY AND SHALL BE PROVIDED
6. REFER LATEST STRUCTURAL & SETTING OUT DRAWINGS IN CONJUNCTION WITH ARCHITECTURE DRAWINGS PRIOR TO COMMENCEMENT OF CONSTRUCTION
7. ALL CUTOUT AND FIRST FIX PROVISIONS FOR MEP/SYSTEMS REQUIREMENTS TO BE REFERRED FROM LATEST REVISION OF DISCIPLINE DRAWINGS
8. MASONRY WORK OF THE STATION MAY VARY AS PER DETAILED ARCHITECTURAL LAYOUT OF THE STATION.
9. DOUBLE SLAB MAY BE PROVIDED UNDER STAIRCASE/ESCALATOR FOR ALL ROOMS TO AVOID SEEPAGE BETWEEN THE GAP OF STAIRCASE AND ESCALATOR
10. APPROVAL TO BE TAKEN BY THE CONTRACTOR FOR ANY DEVIATION IN MATERIAL / QUANTITIES ON THE BOQ.
11. FOR LIGHTING ARRANGEMENT & ELECTRICAL DETAILS PLEASE REFER SPECIFIC ELECTRICAL DRAWINGS
12. FOR SKY-VA AND SAT SHAFT SHOULD BE REVIEWED BY RESPECTIVE SYSTEM VIDE CONTRACTOR
13. EARTH MAT SIZE AND LOCATION TO BE CONFIRMED BY E&M (DMRC)
14. WATER PROOFING TO BE DONE AT O H & UG TANK LEVEL/OTHER WET AREA MATERIAL AS PER BOQ
15. REFER VENDOR DRAWINGS FOR ESCALATOR AND LIFT PIT SIZE AS FINALIZED BY DMRC
16. REFER VERTICAL TRANSPORTATION VENDOR DRAWINGS FOR FINAL STRUCTURAL PROVISIONS AS FINALIZED BY DMRC.
17. BEFORE STARTING ANY E&M WORK INTERFACE WITH CIVIL CONTRACTOR TO BE REQUIRED
18. THE UTILITY PLANS HAVE BEEN REVIEWED. ALL AFFECTED UTILITIES TO BE DIVERTED AND REINSTATED AS PER SITE CONDITIONS
19. ALL THE WORKS AS SHOWN IN DRAWING ARE IN LUMP SUM UNLESS OTHERWISE SPECIFIED
20. TRACK BED BY OTHERS
21. S & T SHAFT BLOCK WORK SHALL BE KEPT ON HOLD UNTIL THE INSTALLATION OF CABLE TRAYS AT PLATFORM LEVEL
22. COLUMN LOCATION IN THE SERVICE AREA TO BE CO-ORDINATED AND CONFIRMED BASED ON EQUIPMENT LAYOUT PROVIDED BY- E&M CONTRACTOR
23. PROVISIONS SHALL BE MADE FOR RACEWAYS IN SLAB/FLOOR
24. PLUMBING & DRAINAGE ARRANGEMENT SHOWN IN DRAWING ARE INDICATIVE , ALL THE PLUMBING INCLUDING EMBEDDED SYSTEM TO BE AS PER DETAILED DESIGN
25. STRUCTURAL WALL PROFILE AND TERM SHAFTS SIZE TO SUIT THE FINAL TRACK ALIGNMENT AND AS PER CONTRACTOR'S DESIGN
26. FHC NICHES SHALL BE PROVIDED AT EVERY 60 METER DISTANCE AND TO BE COORDINATED WITH E&M CONTRACTOR
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37. PLATFORM HAS A SLOPE OF 1:100 FROM THE PLATFORM EDGE FOR 3000 MM TOWARDS THE BACK OF THE PLATFORM. THIS MAY AFFECT THE STAIR ESCALATOR AND LIFT RISE
38. CONTRACTOR TO PROPOSE STRUCTURAL SOLUTION IN DISCUSSION WITH DMRC DESIGN TEAM. ALTERNATE PROPOSAL MAY BE SUGGESTED WITHOUT ANY FINANCIAL IMPLICATION.
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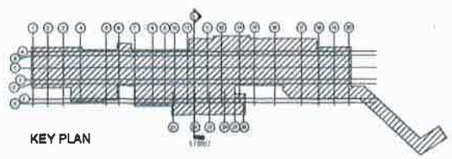
41. ESCALATOR NOTCH TO BE AS PER VENDOR DETAILS
42. FOR TRACK DRAINAGE , REFER DRAWING NO. PMP-C1-VDB-U5-ACM-ME-DR-0150



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9. COLUMN LOCATION AND STRUCTURAL ARRANGEMENT SHOWN ARE INDICATIVE ONLY.

ABBREVIATIONS

ALS	ASSISTANT LINE SUPERVISOR
AHU	AIR HANDLING UNIT
CT	COOLING TOWER
CONC	CONCOURSE
DRD	DRAUGHT RELIEF DAMPER
EFC	EXCESS FARE OFFICE
ELEC	ELECTRICAL
EVS	EXHAUST VENTILATION SHAFT
E&M	ELECTRICAL AND MECHANICAL
FE	FIRE ESCAPE
FHC	FIRE HOSE CABINET
FM	FIRE MAIN
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
OTE	OVER TRACK EXHAUST
PLANT	PLANT ROOM
PLT	PLATFORM
PSB	PLATFORM SUPERVISOR BOOTH
SAD	SUPPLY AIR DUCT
SIG	SIGNALING AND TELECOM
TOM	TICKET OPERATING MACHINE
TVF	TUNNEL VENTILATION FAN
TVM	TICKET VENDING MACHINE
TVS	TUNNEL VENTILATION SYSTEM
UNA	UNASSIGNED

ROOM SCHEDULE CROSS SECTION-C

ROOM NO.	ROOM NAME	Area
U 48	CHILLER PLANT ROOM	416 m²
U02	CONCOURSE PUBLIC AREA (PAID)	928 m²
U22	SER	30 m²
U23	TER	38 m²
U14D	TRANSGENDER TOILET	4 m²
U 50	ACCESS HATCH	200 m²
U45	COOLING TOWER	278 m²

NORTH

MODEL VERSION 3

यह चित्रांकन दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड की संपदा है
THIS DRAWING IS THE PROPERTY OF DELHI METRO RAIL CORPORATION LTD

जारी किये गए चित्रांकन ISSUED DRAWINGS

DATE	REV	DESCRIPTION	DRAWN	CHECKED	VERIFIED
27.12.22	A	TENDER SUBMISSION	MG	MK	AP

चित्रांकन संदर्भ REFERENCE DRAWINGS

DRAWING S.NO.	चित्रांकन संख्या DRAWING NO.	विवरण DESCRIPTION

डीएमआरसी द्वारा अनुमोदन APPROVAL BY DMRC

पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE
प्रबंधक / वास्तु MGR/ ARCH		एजीएम/ विद्युत अभियंता विद्युत एवं रोलस्टाक DY.CE/E & M	
उपमुख्य वास्तुज्ञ DY CA		एजीएम/ विद्युत अभियंता पर्यावरण नियंत्रण प्रणाली DY.CE/ECS	
मुख्य / वास्तुज्ञ CA/ ARCH		महाप्रबंधक/ विद्युत / मुख्यालय – I GM/E(HQ)-I	
उपमुख्य अभियंता / रचना DY CE/ DESIGN		परियोजना प्रबंधक PM	
मुख्य अभियंता / रचना CE/ DESIGN		मुख्य परियोजना प्रबंधक CPM	
मुख्य महाप्रबंधक संचालन एवं दूरसंचार CGM/ O & T		उप महाप्रबंधक संचालन DGM / OPERATIONS	

प्रमाणित किया जाता है कि यह है कि दस्तावेज़ की जाँच की गई और से गुणवत्ता आश्वासन योजना के अनुसार तैयार किया गया है।
Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan

पीएमसी–01 परियोजना प्रबंधक
Authorised Signatory for DDC
PCCD-01 Project Manager

वास्तुकला रचना प्रभारी Architecture Team Leader: SANTANU BANERJEE

संरचना प्रभारी Structure Team Leader:

विद्युत एवं यांत्रिकी रचना प्रभारी Kondal. Deepak E&M Team Leader: SAMPATH MANIVANNAN

OFFICE OF ORIGIN:-

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8F, INFINITY TOWER C, DLF CYBER CITY, PHASE II, GURGAON 1220022, INDIA

दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-05

स्टेशन : STATION VIDYUT BHAWAN STATION

चित्रांकन शीर्षक : DRAWING TITLE CROSS SECTION - C

दिनांक DATE 27.12.2022	संशोधन REV A	चित्रांकन पैमाना GRAPHICAL SCALE 1:100 @ A1	स्थिति STATUS TENDER SUBMISSION

चित्रांकन संख्या DRAWING NUMBER PMP-C1- VDB-ACM- AR-DR- 0902

पृष्ठ संख्या SHEET NO SHEET 1 OF 1

पृष्ठ का आकार SHEET SIZE ISO A1

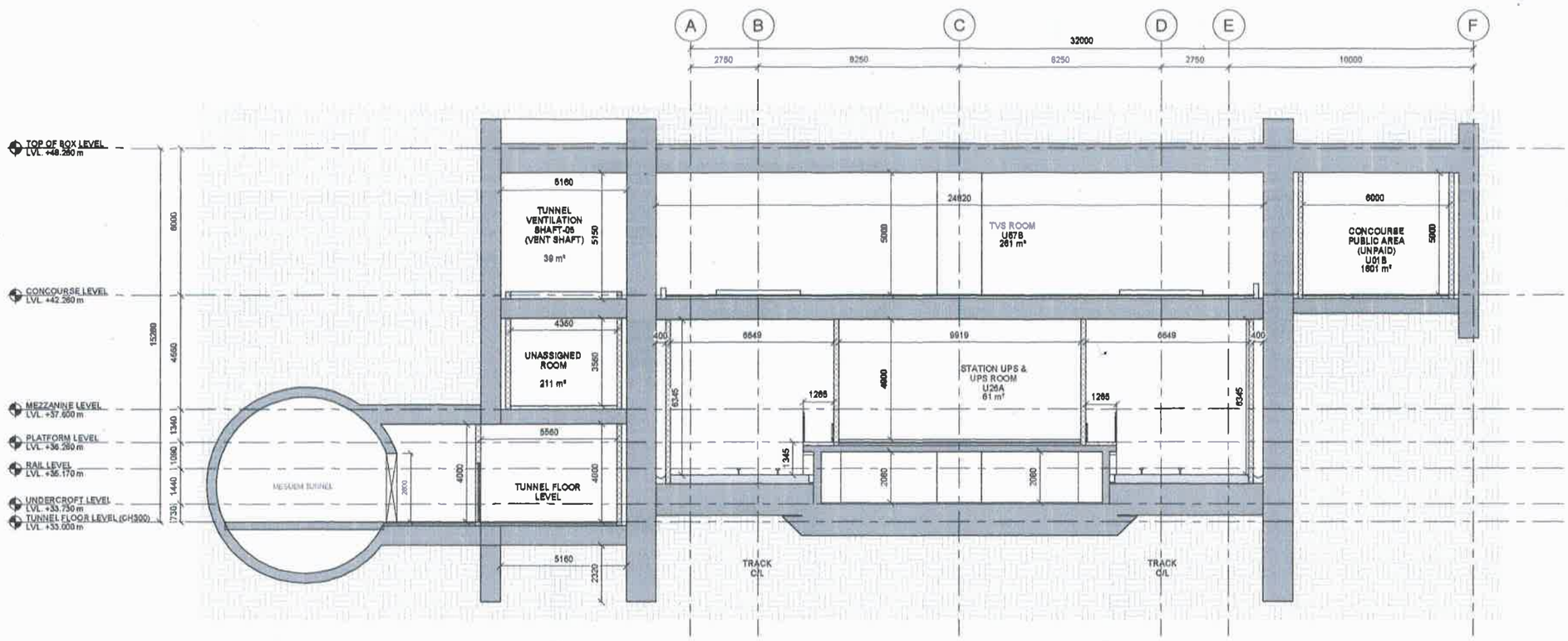
ARCHITECTURAL

विद्युतकार्ता DRAWN BY MG Mayukh Ghosh

जांचकर्ता : CHECKED BY: MK KAGRA MANISH

सत्यापितकर्ता VERIFIED BY: AP Pramanick Anupam

INDICATIVE



1 **CROSS SECTION - D**

1 : 100

NOTES-
1. GROUND LEVELS (GL) , ROAD LEVELS (RL) , FOOTPATH LEVELS(FL) ARE INDICATIVE, CONTRACTOR TO VERIFY EXISTING FINISHED LEVELS AT SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION
2. CONTRACTOR TO VERIFY THE LEVELS FOR STAIRCASE, AND VERTICAL TRANSPORTATION ELEMENTS OF THE ENTRY STRUCTURES PRIOR TO COMMENCEMENT OF CONSTRUCTION
3. ALL LEVELS ARE IN METERS, INDICATING TOC (TOP OF CONCRETE), FFL (FLOOR FINISH LEVEL) ,FL (FOOTPATH LEVEL), PL (PLINTH LEVEL) & RL (ROAD LEVEL) WHEREVER APPLICABLE
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11. FOR LIGHTING ARRANGEMENT & ELECTRICAL DETAILS PLEASE REFER SPECIFIC ELECTRICAL DRAWINGS
12. FOR 33kVA AND 5&T SHAFT SHALL BE REVIEWED BY RESPECTIVE SYSTEM VIDE CONTRACTOR
13. EARTH MAT SIZE AND LOCATION TO BE CONFIRMED BY E&M (E&MC)
14. WATER PROOFING TO BE DONE AT OH & UG TANK LEVEL(OTHER WET AREA MATERIAL AS PER BOQ
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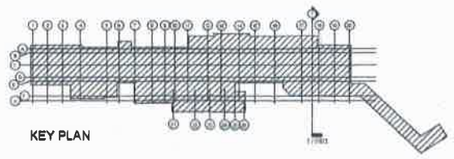
27. FIRE DOORS NUMBER & LOCATION SHOWN IN DRAWING ARE INDICATIVE & FINAL DETAIL TO BE TAKEN FROM DETAILED DRAWING
28. ALL SHAFT LOCATIONS AND SIZES ARE TENTATIVE AND SHALL BE FINALIZED IN CONSULTATION WITH E&M CONTRACTOR
29. HFL FOR THE AREA AROUND PATNA ZOO STATION = 49.900 M FROM MEAN SEA LEVEL
30. DETAILS OF ACCESS FOR MAINTENANCE AND INSPECTION OF MEP FACILITIES i.e. CAT LADDER , COVERING OF ACCESS HATCH AND MAIN HOLES, SHAFT DOORS, DOG HOUSE DETAILS, DRAIN CHANNEL GRATING COVER, etc SHALL BE SUBMITTED DURING DETAIL DESIGN STAGE
31. ALL STAIRCASES HAVING SERVICES PASSING THROUGH THEM WILL HAVE INTERMEDIATE SLAB FOR MEP EQUIPMENT PLACEMENT OR SERVICES SUPPORT. INTERMEDIATE SLAB LEVEL WILL BE WORKED OUT DURING DETAILED DESIGN OF THE PROJECT
32. PLINTH LEVEL IS MINIMUM 450MM HIGHER THAN HFL OR FOOTPATH LEVEL WHICHEVER IS HIGHER
33. ALL STATION BOX RELATED DIMENSIONS ARE INTERNAL CLEAR DIMENSIONS AFTER STRUCTURE AND TOLERANCE
34. OVERALL THICKNESS IS SHOWN TENTATIVELY AS PER STRUCTURE DRAWING
35. UPDATED ROW LINE FOR STATION RECEIVED THROUGH MAIL ON 26.08.2021 FROM DMRC. AS PER DMRC COMMENTS, WE ARE MENTIONING ROW AS EPL (EXISTING PROPERTY LINE)
36. DRAIN LEVEL TO BE SLOPPED TO MATCH FOOTPATH LEVEL. DRAIN WILL BE REINSTATED AFTER STATION BOX CONSTRUCTION.
37. PLATFORM HAS A SLOPE OF 1:100 FROM THE PLATFORM EDGE FOR 3000MM TOWARDS THE BACK OF THE PLATFORM. THIS MAY AFFECT THE STAIR, ESCALATOR AND LIFT RISE
38. CONTRACTOR TO PROPOSE STRUCTURAL SOLUTION IN DISCUSSION WITH DMRC DESIGN TEAM. ALTERNATE PROPOSAL MAY BE SUGGESTED WITHOUT ANY FINANCIAL IMPLICATION.
39. GAPS BETWEEN STAIRS & ESCALATOR AND THE ESCALATORS WILL BE FILLLED WITH SUITABLE FLASHING
40. LIFT AND ESCALATOR LIFTING HOOK ARRANGEMENT TO BE PROVIDED AS PER VENDOR REQUIREMENT.
41. ESCALATOR NOTCH TO BE AS PER VENDOR DETAILS
42. FOR TRACK DRAINAGE , REFER DRAWING NO PMP-C1-VDB-UG-ACM-ME-DR-0150



KEY PLAN

GENERAL NOTES-
1 ALL DIMENSIONS ARE IN MILLIMETERS, UNTILL OTHERWISE MENTIONED
2 ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED
3 THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL, STRUCTURAL, PLUMBING, FIRE FIGHTING, ELECTRICAL AND TRAFFIC MANAGEMENT DRAWINGS.
4 ANY DISCREPANCIES MUST BE BROUGHT TO NOTICE OF THE CONSULTANT/ DMRC BEFORE EXECUTION OF WORK AT SITE
5 CONCOURSE LENGTH MAY GET REVISED AS PER FUTURE ROOMS REQUIREMENTS GIVEN BY TECHNICAL DEPT. OF DMRC
6 FOR FURTHER INFORMATION ABOUT FINISHES REFER TO FINISHES SCHEDULE
7 FOR ANY DEVIATION FROM BOQ IN MATERIALS / QUANTITIES APPROVAL MAY BE TAKEN
8 ALL DOORS/WINDOWS SILL & LINTEL LEVELS ARE FROM MAIN FLOOR FINISH LEVEL
9 COLUMN LOCATION AND STRUCTURAL ARRANGEMENT SHOWN ARE INDICATIVE ONLY

ROOM SCHEDULE CROSS SECTION-D

ROOM NO.	ROOM NAME	Area
U26A	STATION UPS & UPS ROOM	61 m²
UNA	UNASSIGNED ROOM	211 m²
U57B	TVS ROOM	261 m²

ABBREVIATIONS

ALS	ASSISTANT LINE SUPERVISOR
AHU	AIR HANDLING UNIT
CD	COOLING DUMPING
CONC	CONCOURSE
DCD	DRAUGHT RELIEF DAMPER
EFD	EXCESS FARE OFFICE
ELEC	ELECTRICAL
EVS	EXHAUST VENTILATION SHAFT
EDU	ELECTRICAL AND MECHANICAL
FE	FIRE ESCAPE
FHC	FIRE HOSE CABINET
FM	FIRE MAN
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
OTE	OVER TRACK EXHAUST
PLANT	PLANT ROOM
PLT	PLATFORM
PSB	PLATFORM SUPERVISOR BOOTH
SAD	SUPPLY AIR DUCT
SAT	SIGNALING AND TELECOM
TCM	TICKET OPERATING MACHINE
TVF	TUNNEL VENTILATION FAN
TVM	TICKET VENDING MACHINE
TVS	TUNNEL VENTILATION SYSTEM
UNA	UNASSIGNED

NORTH

MODEL VERSION 3

जारी किये गए चित्रांकन
ISSUED DRAWINGS

क्रमांक S.NO	चित्रांकन संख्या DRAWING NO.	विवरण DESCRIPTION

चित्रांकन संदर्भ
REFERENCE DRAWINGS

दिनांक DATE	संशोधन REV	विवरण DESCRIPTION	चित्रांकन DRAWN	जांच CHECKED	स्वीकृति VERIFIED
27.12.22	A	TENDER SUBMISSION	MG	MK	AP

डीएमआरसी द्वारा अनुमोदन
APPROVAL BY DMRC

पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पद DESIGNATION	दिनांक एवं हस्ताक्षर DATE & SIGNATURE
प्रबंधक / वास्तुक MGR/ ARCH		उपमुख्य विद्युत अभियंता विद्युत एवं एस्केलेटर DY CE/E & M	
उपमुख्य वास्तुक DY CA		उपमुख्य विद्युत अभियंता मार्शलिंग नियंत्रण प्रणाली DY CE/ECS	
मुख्य / वास्तुक CA/ ARCH		महाप्रबंधक विद्युत / मुख्यालय – १ GM/E / Hq-1	
उपमुख्य अभियंता / प्रबंधक DY CE/ DESIGN		परियोजना प्रबंधक PM	
मुख्य अभियंता / प्रबंधक CE/ACC/DSH		मुख्य परियोजना प्रबंधक CPM	
उप महाप्रबंधक स्थापत्य व इलाहाबाद DGM / S & T		उप महाप्रबंधक संचालन DGM / OPERATIONS	

प्रमाणित किया जाता है कि यह है कि दस्तावेज़ को डीए सीए सीई की ओर से सुनिश्चित आश्वासन योजना के अनुसार तैयार किया गया है।
Certified that this document has been designed and checked in accordance with DDC Quality Assurance Plan

डीए सीए सीई प्राधिकृत हस्ताक्षरकर्ता
पीसीडी-01 परियोजना प्रबंधन
Authorised Signatory for DDC
PCDO-01 Project Manager

वास्तुकला रचना प्रभारी Architecture Team Leader SANTANU BANERJEE

संरचना प्रभारी Structure Team Leader

विद्युत एवं मार्शिनरी Kondal रचना प्रभारी Deepak E&M Team Leader SAMPATH MANIVANAN

OFFICE OF ORIGIN:-

AECOM
8F, INFINITY TOWER C, DLF CYBER CITY, PHASE II, GURGAON 122002, INDIA

दिल्ली मेट्रो रेल कार्पोरेशन लिमिटेड
DELHI METRO RAIL CORPORATION LTD.

CONTRACT :- PC-05

स्टेशन : STATION VIDYUT BHAWAN STATION

चित्रांकन शीर्षक : DRAWING TITLE CROSS SECTION - D

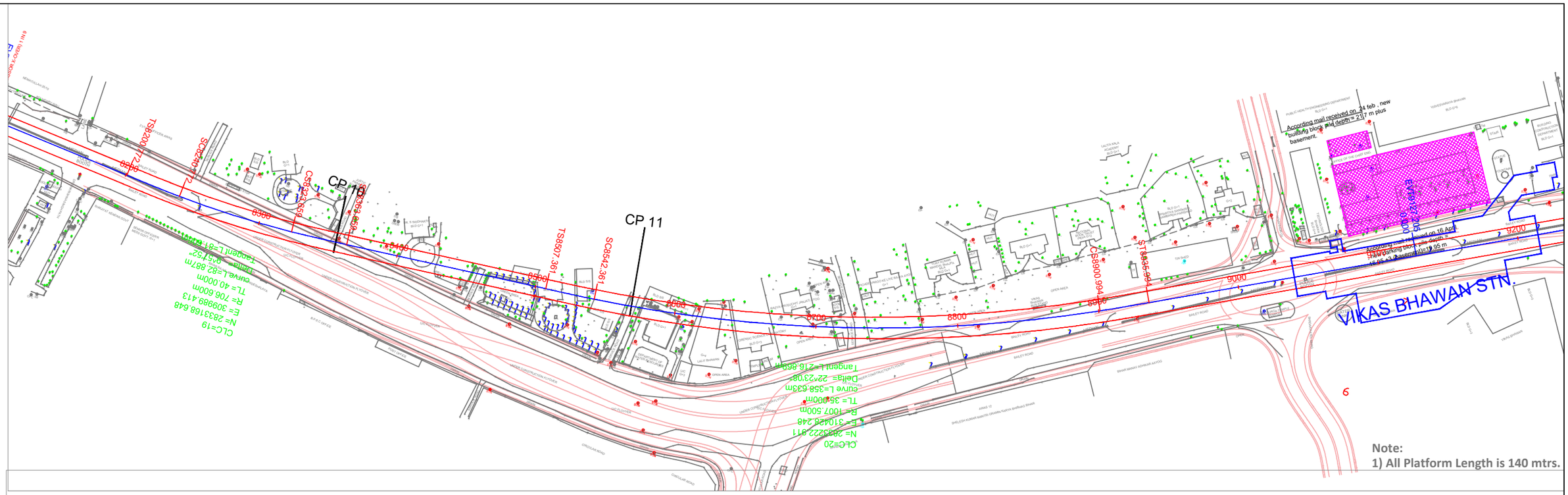
दिनांक DATE	संशोधन REV	चित्रांकन पैमाना GRAPHICAL SCALE	स्थिति STATUS
27.12.2022	A	1:100 @ A1	TENDER SUBMISSION

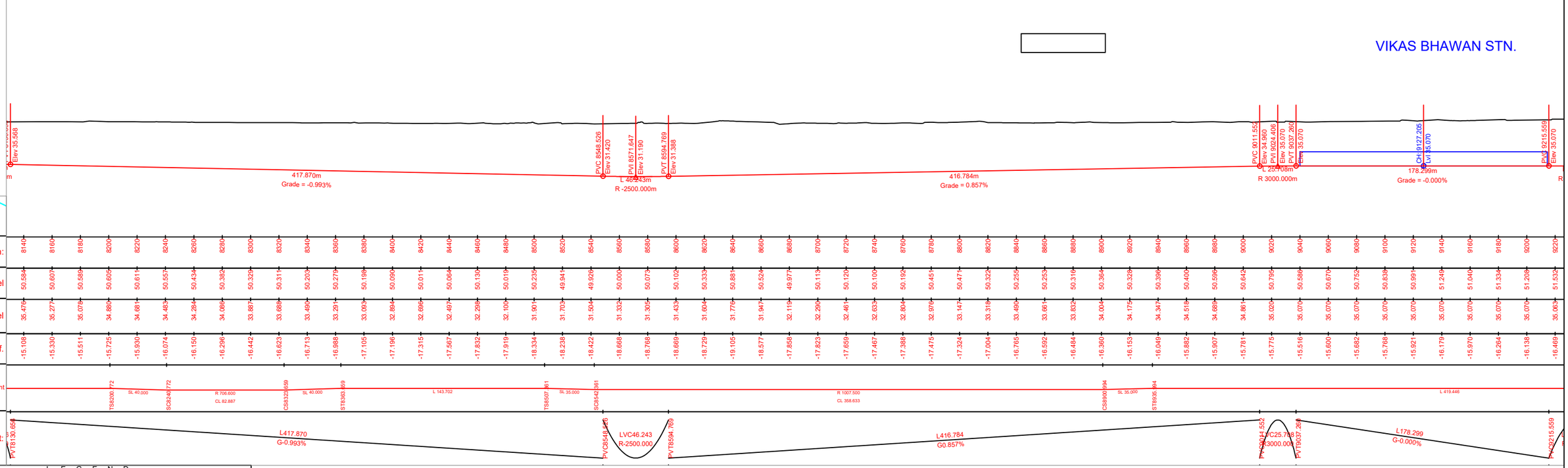
चित्रांकन संख्या DRAWING NUMBER: PMP-C1-VDB-ACM- AR-DR- 0903

मुख्य संख्या SHEET NO	मुख्य का आकार SHEET SIZE
SHEET 1 OF 1	ISO A1

जांचकर्ता : CHECKED BY: MK KAGRA MANISH

स्वीकृतिकर्ता : VERIFIED BY: AP





Station:	Ground Level	Rail Level	Diff.
8140	50.584	35.476	-15.108
8160	50.607	35.277	-15.330
8180	50.589	35.078	-15.511
8200	50.605	34.880	-15.725
8220	50.611	34.681	-15.930
8240	50.557	34.483	-16.074
8260	50.434	34.284	-16.150
8280	50.382	34.086	-16.296
8300	50.329	33.887	-16.442
8320	50.311	33.689	-16.623
8340	50.203	33.490	-16.713
8360	50.279	33.291	-16.988
8380	50.199	33.093	-17.105
8400	50.090	32.894	-17.196
8420	50.011	32.698	-17.315
8440	50.064	32.497	-17.567
8460	50.130	32.298	-17.832
8480	50.019	32.100	-17.919
8500	50.235	31.901	-18.334
8520	49.941	31.703	-18.238
8540	49.926	31.504	-18.422
8560	50.000	31.332	-18.668
8580	50.073	31.305	-18.768
8600	50.102	31.433	-18.669
8620	50.333	31.604	-18.729
8640	50.881	31.776	-19.105
8660	50.524	31.947	-18.577
8680	49.977	32.119	-17.858
8700	50.113	32.290	-17.823
8720	50.120	32.461	-17.659
8740	50.100	32.633	-17.467
8760	50.192	32.804	-17.388
8780	50.451	32.976	-17.475
8800	50.471	33.147	-17.324
8820	50.322	33.318	-17.004
8840	50.255	33.490	-16.765
8860	50.253	33.661	-16.592
8880	50.316	33.832	-16.484
8900	50.364	34.004	-16.360
8920	50.329	34.175	-16.153
8940	50.399	34.347	-16.049
8960	50.400	34.518	-15.882
8980	50.596	34.688	-15.907
9000	50.642	34.861	-15.781
9020	50.795	35.020	-15.775
9040	50.586	35.070	-15.516
9060	50.670	35.070	-15.600
9080	50.752	35.070	-15.682
9100	50.839	35.070	-15.768
9120	50.991	35.070	-15.921
9140	51.249	35.070	-16.179
9160	51.040	35.070	-15.970
9180	51.334	35.070	-16.264
9200	51.208	35.070	-16.138
9220	51.532	35.063	-16.469

Horizontal Alignment: TS8200.772 | SL 40.000 | SC8240.772 | R 706.600 | CL 82.887 | CS8323.659 | SL 40.000 | ST8363.659 | L 143.702 | TS8507.361 | SL 35.000 | SC8542.361 | R 1007.500 | CL 358.633 | CS8900.994 | SL 35.000 | ST8935.994 | L 419.446

L E G E N D

SL.NO	DESCRIPTION	SYMBOL	SL.NO	DESCRIPTION	SYMBOL	SL.NO	DESCRIPTION	SYMBOL
1.	Road	ROAD	15	Bridge		29	OHE	
2	Boundary Wall		16	Bus Stop	B/Stop	30	Signal Post	STN
3	Footpath		17	Fly Over		31	Cantrol Point	
4	Fence		18	Water Pipeline		32	Tree	
5	Electric Line		19	Drain Hole	DH	33	Gail Gas Limited	GAIL
6	POND	POND	20	Main Hole	MH	34	Well	
7	Drain		21	Lamp Post		35	Culvert	
8	Nala	NALA	22	Optical F-Cable	OFC	36	Junction Box	JB
9	PARK/GREEN		23	Dustbin	DB	37	Electric Pole	EP
10	Building	BUILD.	24	Transformer	TR	38	Bore Hole	BH
11	Shop	SHOP	25	Telephone Pole	TP	39	Sign Board	SB
12	Shed	SHED	26	Flood Light	FL	40	Tree No.	P100
13	Temple	TMPL	27	Km Stone	KMS	41		
14	Gate		28	Handpump	HP	42		

TO DANAPUR

	Curve No.	CLC 18	CLC 19	CLC 20	CLC 21	CLC 22
1	Radius (m)	606.675	706.600	1007.500	1008.000	457.500
2	Transition Length (m)	40	40	35	35	50
3	Proposed Cant (mm)	80	80	55	55	110
4	Cant Deficiency (mm)	62	42	30	30	78
5	Max. Speed (Kmph)	85	85	85	85	85

TO KHEMNICHAK

APPROVAL BY DMRC			
Designation	Date & Signature	Designation	Date & Signature
SURVEYOR		DY CE / TRACK	
DY CA		JGM/E&UD/PATNA	
CA		ADV/E&UD/PATNA	
DY CE / DESIGN		DGM/E /PATNA	
CE / DESIGN		GM/E/PATNAT	
DGM / S&T		PM	
GM / S&T		PD	

NOTES :-

■ ALL DIMENSIONS AND LEVELS ARE IN METRES.

REV.		NOTES :-
	R-1	The revision (R-1) is due to shifting of alignment from chainage 8175 to 11069

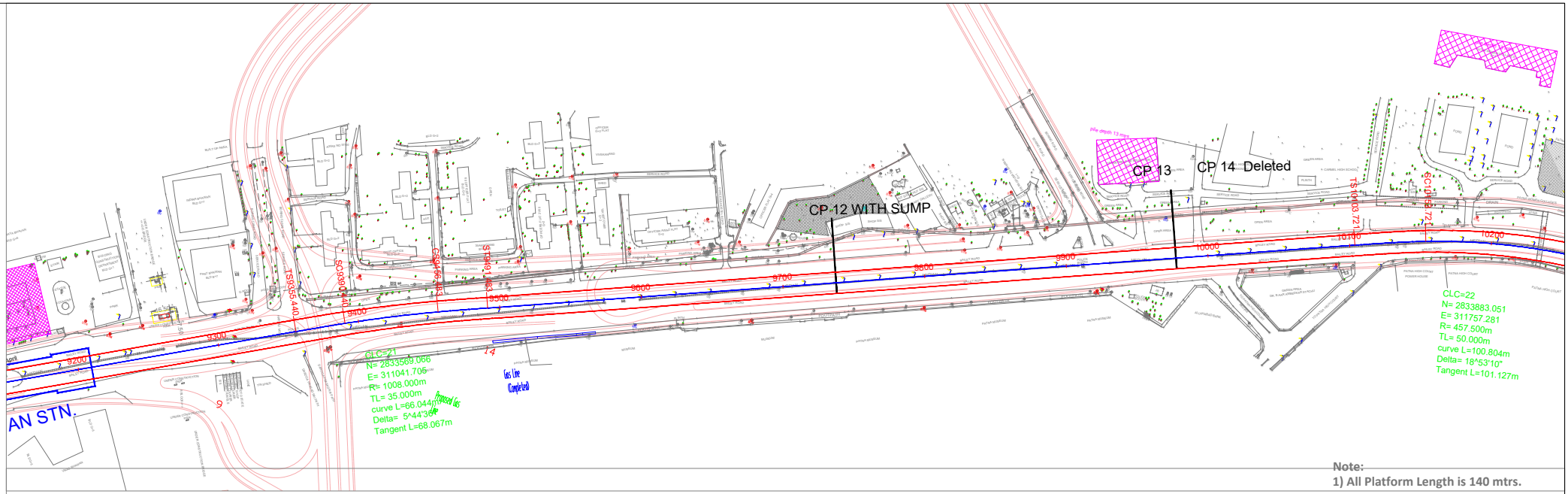
DELHI METRO RAIL CORPORATION LTD.
13 Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

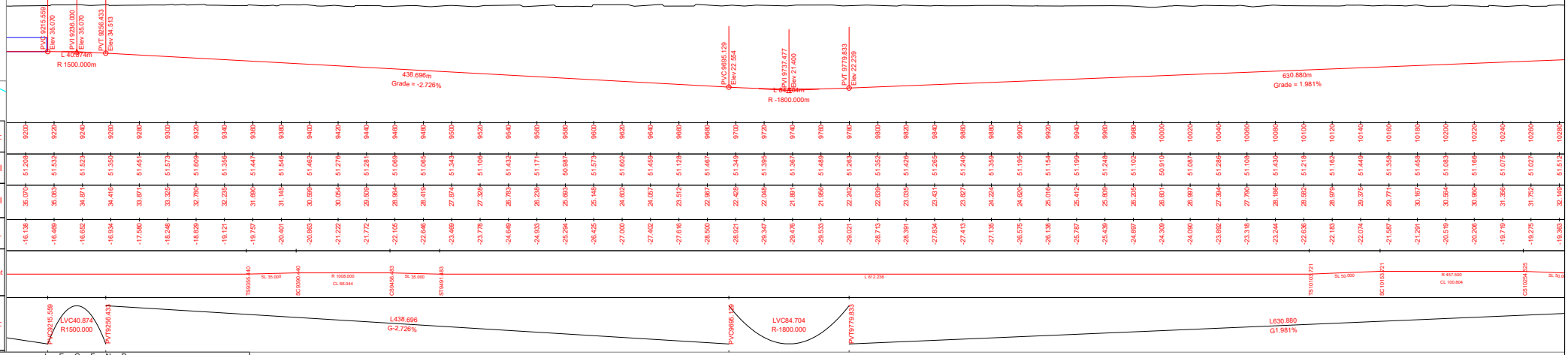
PROJECT: DETAILED TOPOGRAPHICAL SURVEY OF DANAPUR-PATNA RAILWAY STATION-MITHAPUR OF PATNA METRO RAIL PROJECT OF CORRIDOR-1

TITLE: GENERAL ALIGNMENT DRAWING (GAD) OF DANAPUR TO KHEMNICHAK CORRIDOR-1 (PATNA METRO)

DRAWING No. DMRC/DANAPUR TO MITHAPUR/TOPO/2019 | REV. R1

SHEET NO. 09/17 | SCALE - 1 :1000 | FORMAT A-1





L E G E N D

SLNO	DESCRIPTION	SYMBOL	SLNO	DESCRIPTION	SYMBOL	SLNO	DESCRIPTION	SYMBOL
1.	Road		15	Bridge		29	OHE	
2	Boundary Wall		16	Bus Stop	B/Stop	30	Signal Post	
3	Footpath		17	Fly Over		31	Cantrol Point	
4	Fence		18	Water Pipeline		32	Tree	
5	Electric Line		19	Drain Hole		33	Gail Gas Limited	
6	POND		20	Main Hole		34	Well	
7	Drain		21	Lamp Post		35	Culvert	
8	Nala		22	Optical F-Cable		36	Junction Box	
9	PARK/GREEN		23	Dustbin		37	Electric Pole	
10	Building	BUILD	24	Transformer		38	Bore Hole	
11	Shop	SHOP	25	Telephone Pole		39	Sign Board	
12	Shed	SHED	26	Flood Light		40	Tree No.	P100
13	Temple	TMPL	27	Km Stone		41		
14	Gate		28	Handpump		42		

TO DANAPUR

	Curve No.	CLC 20	CLC 21	CLC 22	CLC 23
1	Radius (m)	1007.500	1008.000	457.500	1008.000
2	Transition Length (m)	35	35	50	35
3	Proposed Cant (mm)	55	55	110	55
4	Cant Deficiency (mm)	30	30	78	30
5	Max. Speed (Kmph)	85	85	85	85

APPROVAL BY DMRC

Designation	Date & Signature	Designation	Date & Signature
SURVEYOR		DY/CE/TRACK	
DY CA		JGM/E&UD/PATNA	
CA		ADV/E&UD/PATNA	
DY CE / DESIGN		DGM/E /PATNA	
CE / DESIGN		GM/E/PATNAT	
DGM / S&T		PM	
GM / S&T		PD	

TO KHEMNICHAK

NOTES :-

■ ALL DIMENSIONS AND LEVELS ARE IN METRES.

NOTES :-

REV.		
	R-1	The revision (R-1) is due to shifting of alignment from chainage 8175 to 11069

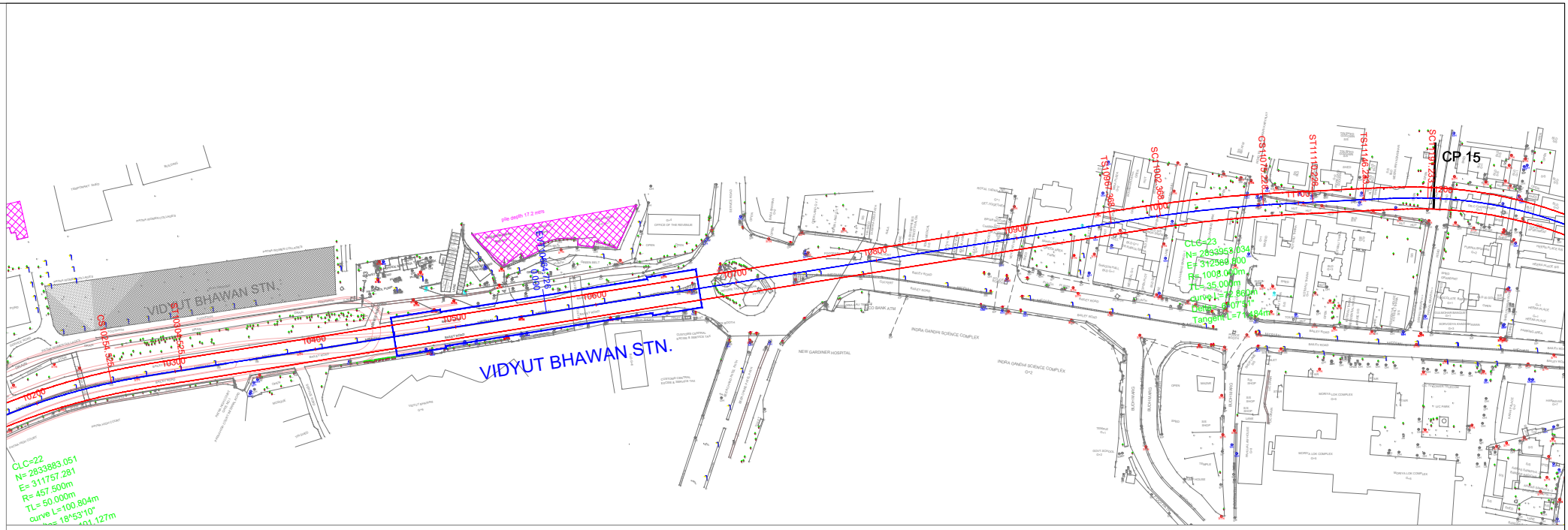
DELHI METRO RAIL CORPORATION LTD.
13 Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PROJECT: DETAILED TOPOGRAPHICAL SURVEY OF DANAPUR-PATNA RAILWAY STATION-MITHAPUR OF PATNA METRO RAIL PROJECT OF CORRIDOR-1

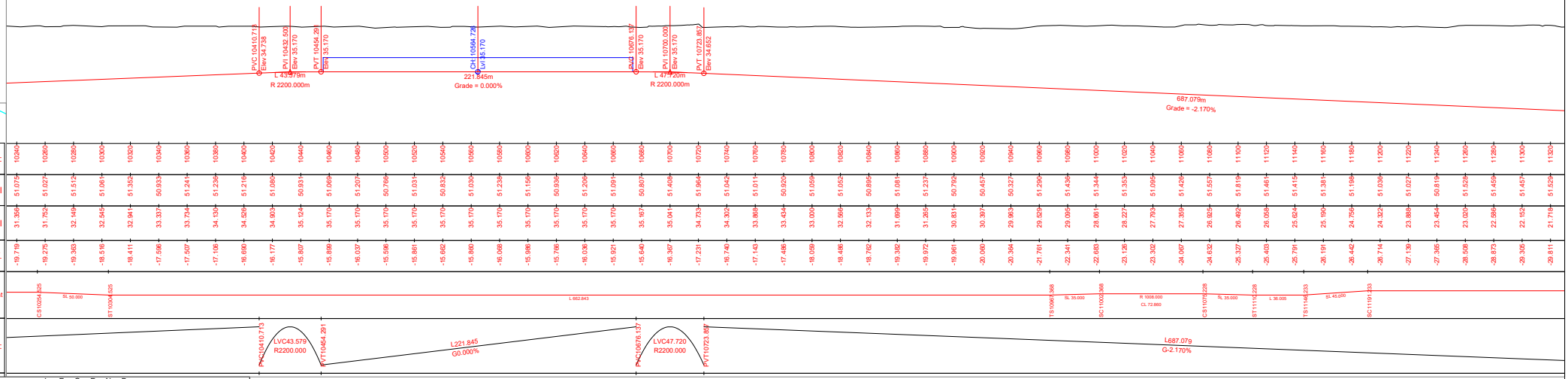
TITLE: GENERAL ALIGNMENT DRAWING (GAD) OF DANAPUR TO KHEMNICHAK CORRIDOR-1 (PATNA METRO)

DRAWING No. DMRC/DANAPUR TO MITHAPUR/TOPO/2019 | REV. R-1

SHEET NO. 10/17 | SCALE - 1 : 1000 | FORMAT A1



Note:
1) All Platform Length is 140 mtrs.



L E G E N D

SLNO	DESCRIPTION	SYMBOL	SLNO	DESCRIPTION	SYMBOL	SLNO	DESCRIPTION	SYMBOL
1.	Road		15	Bridge		29	OHE	
2	Boundary Wall		16	Bus Stop	BStop	30	Signal Post	
3	Footpath		17	Fly Over		31	Cantrol Point	
4	Fence		18	Water Pipeline		32	Tree	
5	Electric Line		19	Drain Hole		33	Gail Gas Limited	
6	POND		20	Main Hole		34	Well	
7	Drain		21	Lamp Post		35	Culvert	
8	Nala		22	Optical F-Cable		36	Junction Box	
9	PARK/GREEN		23	Dustbin		37	Electric Pole	
10	Building	BUILD	24	Transformer		38	Bore Hole	
11	Shop	SHOP	25	Telephone Pole		39	Sign Board	
12	Shed	SHED	26	Flood Light		40	Tree No.	P100
13	Temple	TMPL	27	Km Stone		41		
14	Gate		28	Handpump		42		

TO DANAPUR

	Curve No.	CLC 21	CLC 22	CLC 23	CLC 24
1	Radius (m)	1008.000	457.500	1008.000	300.000
2	Transition Length (m)	35	50	35	45
3	Proposed Cant (mm)	55	110	55	90
4	Cant Deficiency (mm)	30	78	30	77
5	Max. Speed (Kmph)	85	85	85	65

TO KHEMNICHAK

APPROVAL BY DMRC			
Designation	Date & Signature	Designation	Date & Signature
SURVEYOR		DY/CE/TRACK	
DY CA		JGM/E&UD/PATNA	
CA		ADV/E&UD/PATNA	
DY CE / DESIGN		DGM/E /PATNA	
CE / DESIGN		GM/E/PATNAT	
DGM / S&T		PM	
GM / S&T		PD	

NOTES :-
■ ALL DIMENSIONS AND LEVELS ARE IN METRES.

REV.		NOTES :-
	R-1	The revision (R-1) is due to shifting of alignment from chainage 8175 to 11069

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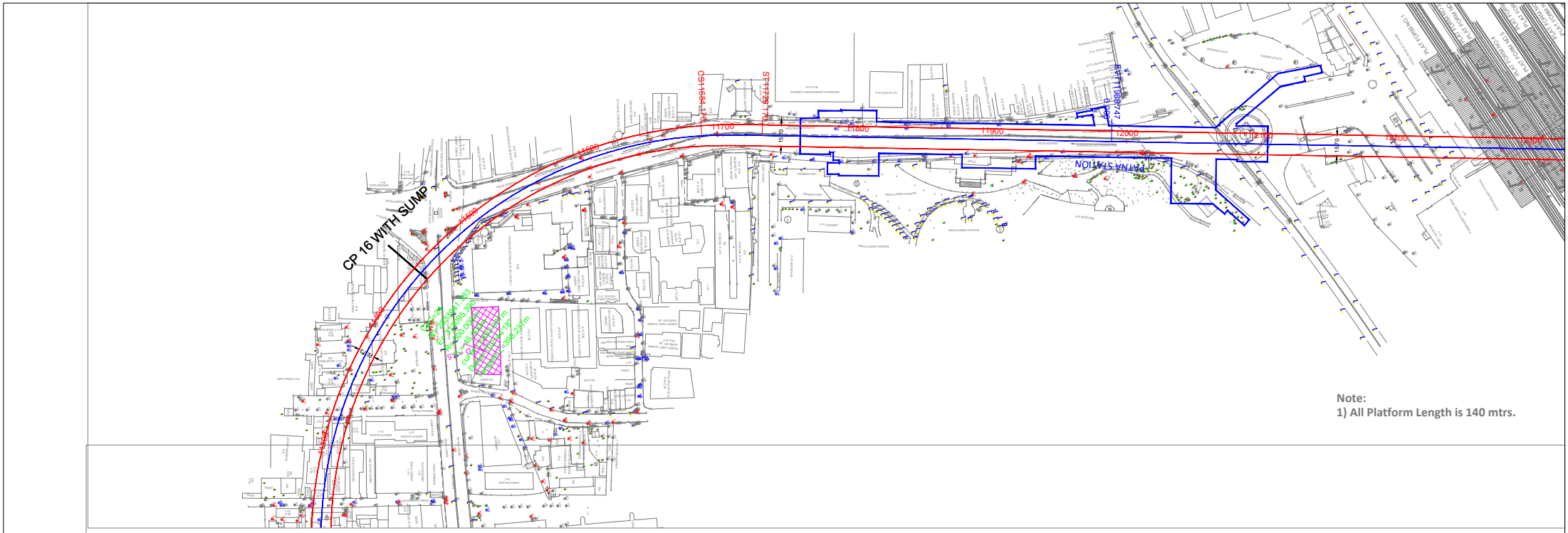
13 Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

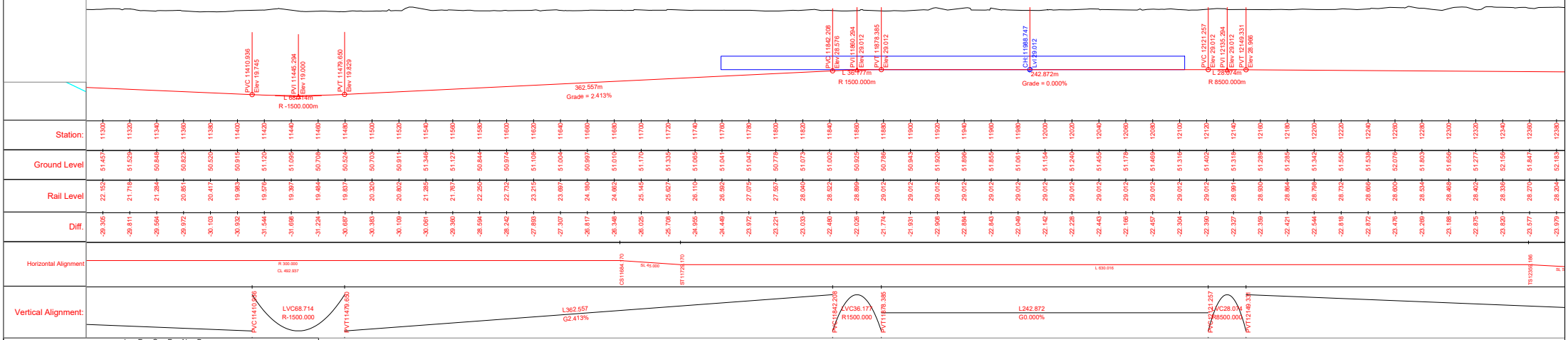
PROJECT: DETAILED TOPOGRAPHICAL SURVEY OF DANAPUR-PATNA RAILWAY STATION-MITHAPUR OF PATNA METRO RAIL PROJECT OF CORRIDOR-1

TITLE: GENERAL ALIGNMENT DRAWING (GAD) OF DANAPUR TO KHEMNICHAK CORRIDOR-1 (PATNA METRO)

DRAWING No. DMRC/DANAPUR TO MITHAPUR/TOPO/2019 | REV. R-1

SHEET NO. 11/17 | SCALE - 1 :1000 | FORMAT A1





L E G E N D

SLNO	DESCRIPTION	SYMBOL	SLNO	DESCRIPTION	SYMBOL	SLNO	DESCRIPTION	SYMBOL
1.	Road		15	Bridge		29	OHE	
2	Boundary Wall		16	Bus Stop	BStop	30	Signal Post	
3	Footpath		17	Fly Over		31	Cantrol Point	CP16
4	Fence		18	Water Pipeline		32	Tree	
5	Electric Line		19	Drain Hole		33	Gail Gas Limited	
6	POND		20	Main Hole		34	Well	
7	Drain		21	Lamp Post		35	Culvert	
8	Nala		22	Optical F-Cable		36	Junction Box	
9	PARK/GREEN		23	Dustbin		37	Electric Pole	
10	Building	BUILD	24	Transformer		38	Bore Hole	
11	Shop	SHOP	25	Telephone Pole		39	Sign Board	
12	Shed	SHED	26	Flood Light		40	Tree No.	P100
13	Temple	TMPL	27	Km Stone		41		
14	Gate		28	Handpump		42		

TO DANAPUR

	Curve No.	CLC 23	CLC 24	CLC 25
1	Radius (m)	1008.000	300.000	307.000
2	Transition Length (m)	35	45	55
3	Proposed Cant (mm)	55	90	105
4	Cant Deficiency (mm)	30	77	85
5	Max. Speed (Kmph)	85	65	70

TO KHEMNICHAK

APPROVAL BY DMRC			
Designation	Date & Signature	Designation	Date & Signature
SURVEYOR		DY/CE/TRACK	
DY CA		JGM/E&UD/PATNA	
CA		ADV/E&UD/PATNA	
DY CE / DESIGN		DGM/E /PATNA	
CE / DESIGN		GM/E/PATNAT	
DGM / S&T		PM	
GM / S&T		PD	

NOTES :-

REV.		
	R-1	The revision (R-1) is due to shifting of alignment from chainage 8175 to 11069

NOTES :-

■ ALL DIMENSIONS AND LEVELS ARE IN METRES.

DELHI METRO RAIL CORPORATION LTD.
13 Metro Bhawan , Fire Brigade Lane, Barakhamba Road, New Delhi-110001

PROJECT: DETAILED TOPOGRAPHICAL SURVEY OF DANAPUR-PATNA RAILWAY STATION-MITHAPUR OF PATNA METRO RAIL PROJECT OF CORRIDOR-1

TITLE: GENERAL ALIGNMENT DRAWING (GAD) OF DANAPUR TO KHEMNICHAK CORRIDOR-1 (PATNA METRO)

DRAWING No. DMRC/DANAPUR TO MITHAPUR/TOPO/2019 REV. R-1

SHEET NO. 12/17 SCALE - 1 :1000 FORMAT A1

CONTRACT PC-08: "Design and Construction of Single Tunnel (SUBWAY) between Bihar Museum and Patna Museum by Shield TBM, Fire Escapes, Ancillary building, Entry/Exits building including Architectural Finishing, Water Supply, Sanitary Installation & Drainage works at Patna".

REPLY TO PRE BID QUERIES

S. No.	Volume No.	Clause No.	Description of Clause	Clarifications Sought/ Queries	DMRC Reply
1.0 - Ist Set of Queries					
1	Vol-1 (Notice Inviting Tender)	Note as mentioned at page 3 & 4 of NIT	This is an Urban Development and Housing Department (UD&HD) Government of Bihar funded work. As per the MOU signed between DMRC and UD&HD, this work is being executed by DMRC on deposit work basis wherein there is provision of Closure of Contracts and Taking over which is reproduce as below, Accordingly, Tenderer shall ensure due closure of this contract for execution of works with DMRC. Tenderer shall ensure that all risks, rewards and claims associated with this contract are settled before closure of this contract. Tenderer to note above while submitting bid with DMRC. However, if this closure is not possible within one year of commissioning of Subway for public due to Arbitration etc. the further management of contract will be handled by UD&HD. Further, the contractor shall ensure, indemnifying and hold harmless the DMRC & UD&HD and its officers for any loss or damage sustained by it on account of any fault or negligence in the designing, execution if any untoward incident occurred for these reasons within 5 years of completion of Contract PC-08.	We understand that the funding for the project is being provided by UD&HD-Bihar and DMRC will be the implementing agency for the project. The contractor for the project shall complete the closure of the contract with DMRC in all respect with in one year of commissioning of subway i.e. up to the project defect liability period and receives the Performance certificate from the client accordingly. If, closure not possible with in one year of commissioning of the project for the stipulated reasons than in that case UD&HD-Bihar will handle the management of the contract and the contractor indemnify and hold harmless the DMRC & UD&HD-Bihar for any damages sustained up to 5 years of completion of contract PC-08 as per the GCC Clause 15.1 for Professional Indemnity Insurance. Kindly clarify	Tender Condition is self explanatory.
2	Vol-3 (Employer's Requiremenst/ Functional)	Clause 2.8 (Construction Depot & Dumping Area)	For casting yard, batching plant and other activities a plot of land of approx. 30,000 Sqm (approx.) will be made available by DMRC near LCT Ghat on as is where is basis within 10 Km radius from the work site free of cost.	The land parcel of Approx. 30,000 sqm shall be handed over to the contractor on Appointment date. Does the land parcel of approx. 30,000 sqm also includes the land for muck dumping. However, contractor will make the land plan to utilize the land parcel in a well-planned manner and If, in case, the land parcel provided by the DMRC will not be sufficient to setup and run all such activities than contractor may request to DMRC for providing extra land parcel at not cost to the contractor. kindly confirm	Please refer clause 2.8 of Employer's Requirement/ Functional. Another location for the dumping will be provided. No extra land will be provided for the casting yard.
3	Vol-3 (Employer's Requirements/ Construction)	Clause 10. (ii) Contractors Site Accommodation	The Contractor shall provide and maintain its own site accommodation at locations consented to by the Engineer	Does the Engineer identify any land parcel for contractor's site facilities. kindly confirm	No.
4	Vol-1 (Notice Inviting Tender)	Clause 1.1.3.1.(vii).a & b.	JV/Consortium: Lead partner/ non substantial partners/ change in JV/ consortium	Since, the major component of the work in the subject tender pertains to TBM tunnelling and to have a healthy competition / increased participation in the subject tender, It is requested to kindly consider the participation percentage of minimum 25% for the non-substantial partners rather than 26% as specified in the relevant Clause. How many members can participate in a JV/Consortium as a combination of substantial and non-substantial members. Kindly confirm	No change in tender conditions.
5	Vol-3 (Employer's Requirements/ Construction)	Clause 18	Tunnel Boring Machines: The Contractor shall provide a minimum of one (1) Tunnel Boring Machine complete with all back-up equipment and spares such that the machine can be operated continually without any interruption. However, the Contractor has to provide and deploy additional TBM if required to complete the work within the completion time.	Under what conditions the contractor has to deploy additional TBM. The Underground excavation through TBM will take nearly 4 to 5 months to complete, taking in to consideration the minor breakdowns and maintenance also. If TBM progress is as scheduled, then the condition to provide additional TBM becomes irrelevant. Kindly confirm	In case of delay of work on account of failure of the contactor to achieve key dates.

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6	Vol-3 (Employer's Requirements/ Construction) & Vol-4 (OCS)	Clause 18.(iv) of ER & Clause 14.9.2 (a) of OCS	Tunnel Boring Machines & General Requirement of TBM: The machine shall be shop manufactured in units of convenient size, suitable for field erection, dismantling and reassemble under the site conditions of the Contract. & All TBMs shall be robust with adequate safety margins for the anticipated duty, designed and manufactured to comply with all relevant safety standards. The Tunnel Boring Machines shall be either: i. New machine; or ii. Remanufacturing type	It is requested to kindly confirm, whether the refurbished TBM can be used for the project, provided that the refurbished TBM fulfils all the desired parameters, as set forth in the tender documents.	Tender Condition is self explanatory.
7	--	--	Diameter of TBM	Diameter of TBM to be deployed in the subject project is 8 (Eight) meters which seems to be unconventional. After award, such diameter of TBM will take much more time for remanufacturing and will affect the delivery time at site and the start of the initial drive as per the key dates. Therefore, it is requested to kindly consider the 7.50 diameter TBM which is currently used in on going tunnelling projects in India.	The internal diameter of Subway tunnel is fixed. i.e. 7.2m.
8	Vol-3 (Employer's Requirements/ Functional)	--	Land acquisition	It is requested to kindly confirm the status of land acquisition by DMRC for the Entry/Exit structures, fire escapes etc.	Please refer clause 2.2 of GCC
2.0 - 2nd Set of Queries					
1	Vol-2 (GCC)	Clause 4.2.1	Performance Security: 10% of the Contract Price.	As a relief from Covid-19 to contractors and bidders, many other Clients have reduced the performance security from 10% to 3% of the Contract Price. Therefore, **we request you to reduce the performance security to 3% of the Contract Price**. Kindly consider the same.	Kindly refer clause F5 of ITT.
2	Vol-2 (GCC)	Clause 11.1.1	Contract Price: The contract price, subject to any adjustment thereto in accordance with the contract shall be **inclusive of all taxes,** duties, levies, cess, royalties, etc.	It is requested to modify the clause as under, The Contract shall be inclusive of all taxes, duties, custom duties, royalties, cess, etc. Excluding provisional sum & GST. OR **We request you to allow contractor to submit Performance BG, Advance payment BG, and insurnaces on the value exclusive of GST.** **Please consider the same.**	No change in tender conditions.
3	Vol-2 (GCC)	Clause 11.2.2	Plant & Machinery Advance: 5% of the Contract Price.	5% of Contract Price is only **14.82 Crores** (5% x 296.41 Crs) of the amount against Plant & machinery Advance. However, procurement of a new TBM (incl. backup equipments) would cost us approximately 150 Crs. Therefore, we request you to provide additional or special advance for the procurement of TBM.	No change in tender conditions.
4	Vol-3 (Employer's Requirement/ Appendices)	Appendix 2B	Liquidated Damages: KD 1 to KD 10 - 0.01% of the fixed lump sum price quoted in schedule "A" per week of delay for the key date. KD 11 to KD 12 - 0.05% of the fixed Lump sum price quoted in schedule "A" per week of delay for the key Date relating to taking over on the Completion of the entire Works. Refund of LD once levied - not mentioned.	It is presumed that LD once levied on non-achievement of a KD, shall be released upon achievement of subsequent KD. Kindly confirm.	Tender Condition is self explanatory.
5	--	--	Bonus for early completion: Not mentioned	It is requested to include bonus for completion of works earlier than original contract duration including approved extension @ 1% of contract value per month, maxm of 5% of CV.	No change in tender conditions.
6	--	--	Seignorage Charges: Not mentioned in the document.	Kindly confirm whether subject work attract seignorage charges.	Query is not clear.

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S. No.	Volume No.	Clause No.	Description of Clause	Clarifications Sought/ Queries	DMRC Reply
7	Vol-5 (Tender Drawings)	Tender Drawings	Subway Tunnel Alignment: Not provided in the document	It is requested to the Client to upload the tunnel alignment or GAD profile of the subway tunnel between Bihar Museum and Patna Museum along with the existing DMRC Patna UG metro PC05 alignment.	Please refer Addendum-2.
8	Vol-2 (GCC)	Clause 2.2	Access to and Possession of Site:	It is requested to modify the clause so as to compensate the contractor in case of delay in handover of Site. **Modify Clause 2.2 of GCC:** The Employer shall grant the Contractor right of access to, and / or possession of, the Site .progressively for the completion of Works. Such right and possession may not be exclusive to the Contractor. The Contractor will draw/modify the schedule for completion of Works according to progressive possession/right of such sites. If the Contractor suffers delay from failure on the part of the Employer to grant right of access to, or possession of the Site, the Contractor shall give notice to the Engineer In a period of 28 days of such occurrence. After receipt of such notice the Engineer shall proceed to determine any extension of time and additional cost to which the Contractor is entitled subject to Clause 17: (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and (b) payment of any such Cost plus reasonable profit, which shall be added to the Contract Price. After receiving this notice, the Employer shall proceed in accordance with Sub-Clause 3.5.	No change in tender conditions.
9	Vol-2 (GCC)	Clause 4.23	Unforeseeable Physical Conditions: **First para of Clause 4.23 GCC Unforeseeable Physical Conditions:** In this Clause " Physical conditions" means natural physical conditions, which the Contractor encounters at site while executing the works excluding climatic conditions.	It is requested to include man-made and other physical obstructions and pollutants under the head of "physical conditions". In order to overcome the unforeseeable physical conditions, the Contractor should be entitled to claim extension of time and additional cost which shall be included in the Contract Price. In recent Contracts across the country, such provisions have been stipulated in tender documents by Nagpur Metro Rail authorities.	No change in tender conditions.
10	Vol-2 (GCC)	Cluase 8.3	Delay	**It is requested to modify (delete second para of Clause 8.3) the Clause in order to avoid speculative bidding and potential increase in the Contract Price.** **Modify Clause 8.3 GCC as noted below:** In case of delay on the part of the Contractor, the Contractor shall be liable to pay liquidated damages and any other compensation for the damages suffered by the Employer as per clause 8.5. This is without prejudice to the right of the Employer to rescind the Contract.	No change in tender conditions.
11	Vol-2 (GCC)	Clause 5.2b	Contractors Warranty: **Second para of Clause 5.2 b. GCC Contractor's warranty of Design:** b. The Contractor warrants that the Contractor's Proposals meet the Employer's Requirements and is fit for the purpose thereof. Where there is any inadequacy, insufficiency, impracticality or unsuitability in or of the Employer's Requirements or any part thereof, the Contractor's Proposal shall take into account, address or rectify such inadequacy, insufficiency, impracticality or unsuitability at Contractor's own cost.	The Employer's Requirements provide a fundamental consideration based on which the tenderers would be submitting their bids. Hence the Employer's Requirement should be sacrosanct. The rectification or addressing inadequacy, insufficiency, impracticality or unsuitability in the Employer's requirement by the Contractor over which he has no control, will result in increase in the contractor's risk and thus result in speculative bidding resulting in potential increase in the Contract Price. Accordingly, we seek modification as stated. **Delete b. of Clause 5.2 as noted below:** b. The Contractor warrants that the Contractor's Proposals meet the Employer's Requirements and is fit for the purpose thereof. Where there is any inadequacy, insufficiency, impracticality or unsuitability in or of the Employer's Requirements or any part thereof, the Contractor's Proposal shall take into account, address or rectify such inadequacy, insufficiency, impracticality or unsuitability at Contractor's own cost.	No change in tender conditions.

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12	--	--	Request to introduce additional clause for Interest on delayed payments	It is requested to introduce clause providing remedy to the contractor in case of delayed payments from the Employer. Accordingly, we seek the modification as stated. **Introduce Clause : Interest on Delayed Payments:** If the Contractor does not receive payment/certificate for acceptance of payment in accordance with GCC Clause 11.6 the Contractor shall be entitled to receive interest on the amount unpaid during the period of delay. This period shall be deemed to commence on the day following the date for payment specified in GCC Clause 11.6. The interest shall be calculated at an interest rate equal to State Bank of India (MCLR) + 3% per annum The Contractor shall submit their claim for the interest for the above period of delay along with detailed reasons for the said delays to the Engineer within 14 days of the expiry of time stated in GCC Clause 11.6.	No change in tender conditions.
13	Vol-2 (SCC)	Sub-Cluase 4.9	Site Data	It is requested to delete such arbitrary provision from the contract conditions. The inclusion of such provisions in conditions of contract particularly for underground works may lead to speculative bidding and increase in contract price to the Employer.	No change in tender conditions.
14	Vol-2 (SCC)	Sub-Clause 11.1.4	Changes in Taxes/Duty	It is requested to modify the Clause to the extent that the Contract Price shall be adjusted for any Change in taxes, duties, cess, royalties or for the enactment of any new Indian law,the repeal, modification, re-enactment of any existing Indian law which occur after the Base Date.	No change in tender conditions.
3.0 - 3rd Set of Queries					
1	Vol-3 (Employer's Requirement/Functional)	3-ER, Functional, Page No. 14 Clause 4. Alignment of Tunnel	The alignment shall be as shown in the tender drawings. The alignment has been developed by the Employer to meet operational and technical criteria.	Kindly provide Alignment drawings.	Kindly refer Addendum-2.
2	Vol-7 (GIR)	7-GIR Borehole Log		Kindly provide Borehole location plan and Chainages corresponding to the project.	Kindly refer Alignment drawings issued in Addendum-2.
3	Vol-5 (Tender Drawings)	5-1_Tender_Dwg General		Kindly provide Key plan for entire length of the project.	Kindly refer Addendum-2.
4	Vol-3 (Employer's Requirement/Functional)	3-ER, Functional, Sec. 2, Page No. 7 Clause (xxxiv), (e) Typical Fire Escape Building.	Four numbers of fire escapes will be constructed at a distance of every 300m for the subway.	In 5-2_Tender_Dwg, Page No. 17, two 600m, 1200m chainage and one is mentioned at 900m chainage integrated with Ancillary building. Kindly make clarification for Fire exit chainages because there is mismatch with the Vidyut bhavan reference chainage.	Zero Chainange is at Patna Museum. Kindly refer Alignment drawings issued in Addendum-2.
5	Vol-3 (Employer's Requirement/Functional)	3-ER, Functional, Sec. 2, Page No. 7 Clause (xli)	The location of the launching shaft will be at Subway Entry/Exit Building in Bihar Museum. The contractor shall have to plan drive through/drag through of the tunnel at ancillary building location (Subway chainage 900m) and nothing extra shall be payable against the same. However, it is conveyed that retrieval of TBM to be allowed from the shaft to be constructed at Patna Museum.	Integration of museum subway and Patna Metro is done at Vidyut Bhavan Station. In 5-2_Tender_Dwg, Page No. 22, chainage at this location is 300m but according to map it should lie approximately 1000m. Kindly clarify the reference chainage.	Kindly refer Alignment drawings issued in Addendum-2.

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6	Vol-3 (Employer's Requirement/ General)	3-ER, General, Sec. 2, Page No. 7 Clause 11.4 (i)	The proposed subway will have a vertical clearance of 6.5 m from Patna Metro tunnel of corridor -1 at approx. Subway chainage 1300m.The subway is proposed to be integrated with underground Vidyut Bhawan station of corridor -1 of Patna Metro Rail Transport System (PMRTS) at approx. Subway chainage 300m. It will pass through Mandiri Nala with an approx. Invert level of 5.5 m approx. from service road level at approx. Subway chainage 130m.Interface with Patna Museum, Bihar Museum, contractor of contract PC-05 Patna Metro Project, and other concerned state department is in scope of contractor.	Kindly provide Interface alignment Drawings. Also, the chainage is mismatching with the actual.	Kindly refer drawing no. DMRC_MS_TE_VBE_001
7	Vol-5 (Tender Drawings)	5-1_Tender_Dwg DMRC_MS_TE_SBW_001		Kindly let us know whether the segment lining shown in drawing is indicative or the minimum thickness to be maintained. Also let us know the number of segments to be used per ring.	This is a design-built contract and Contractor will submit the proposal with design calculation before execution of work.
8	Vol-5 (Tender Drawings)	5-1_Tender_Dwg DMRC_MS_TE_SBW_001		Kindly let us know whether the size of the Tunnel can be modified as per available TBM sizes from contractor.	There will be no change in internal diameter of tunnel.
9	Vol-5 (Tender Drawings)			Kindly clarify the construction methodology sequence for entry-exit or the contractor can choose the methodology and retaining system.	No change in tender conditions.
10	Vol-3 (Employer's Requirement/Functional)	3-ER, Functional, Sec. 2, Page No. 7 Clause (xli)	The location of the launching shaft will be at Subway Entry/Exit Building in Bihar Museum	Is it Mandatory that Launching should be from Bihar Museum or the contractor can decide launching from Patna Museum as well.	No change in tender conditions.
11	Vol-5 (Tender Drawings)			Kindly provide plan drawings which constitutes the buildings along the alignment and tolerance limit	Kindly refer Addendum-2.
12	Vol-5 (Tender Drawings)			Kindly provide the cross passages cross section details connecting subway to the structures	Please refer tender drawings no. DMRC_MS_TE_ABF_005 and MRC_MS_TE_ABF_011

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13	Vol-7 (GIR)	7-GIR		Kindly provide geotechnical profile drawings along the subway alignment.	Please refer clause no.2.1.3 of ER (Functional).
14	Vol-5 (Tender Drawings)			Provide the work area drawings for different structures in the project.	Kindly refer Alignment drawings issued in Addendum-2.
15	Vol-6 (BOQ)	BOQ- water supply B2 - 3	Roof water tank and Underground storage sump are provided for the building with no pump specification and requirement in BOQ	The Bidder understands that water supply pumps are not in the scope of this contract. Kindly confirm	Appendix -2D will be provided and please refer the same. The pumps required for the water supply will be part of E&M contract.
16		scope of work 2.1 (ix) Pg:18	Two nos of tube wells are to be provided for the auxiliary building are to be relocated in a new space	Please provide the source coordinate for the borewell to be relocated	Location of borewell will be provided at the time of execution
17	Vol-6 (BOQ)	BOQ- drainage system B2 - 2	Underground seepage sump is constructed at the under-croft level of the buildings and connected on to the drain channel in the ground level	The Bidder understands that dewatering pumps & sewage pumps are not in scope of this contract. Kindly confirm	Seepage and Sewage Pump will be in scope of E& M contract while the associated piping with accessories shall be part of Civil Contract.
18		11 Pg:333 S 1.6	Drainage arrangement in running tunnel	Since the sump size designed based on the hydrant discharge at testing or emergency, kindly confirm how many hydrants to be considered for sump capacity design.	Minimum 02 number of hydrant operation is to be considered for sump sizing as per the NFPA-13
19		8 (vii) Pg:16 Operational requirements	Lift pits shall be designed to enable drainage by gravity flow system. However, where length of the drainage is exceptionally long, the pumping system may be considered subject to approval of Employer. Installation of pumps is not in the scope of this contract.	Bidder understands that dewatering pumps for lift pit is not scope of in this contract. Kindly confirm.	Lift pits shall be designed to enable drainage by gravity flow system. No dewatering pump is required to be provided in the lift pits.
20	Vol-3 (Employer's Requirements/ Functional) & Vol-5 (Tender Drawings)	Volume-3 Employer's Requirements - Functional Page 4 Volume 5 Tender Drawings Clause No. 2.1 (xiv) Point No.32 under NOTES	1. Supply, delivery, installation, functional testing, and handover of earth mat at the ancillary building as per the requirement of system wide contractor. 2. Earth mat size and location to be confirmed by E&M (DMRC).	Bidder understands that design of power and clean earth mats is not in the scope of this contract. However, only supply, installation, functional testing, and handover of earth mat to be done by the contractor i.e., from earth mat to risers above slab. Please confirm and share an earth mat drawing with scope demarcation w.r.t this contract.	Design of the earth mat Will be provided by E&M Contractor to the successful bidder after award of the work.

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21	Vol-3 (Employer's Requirements/ Appendices)	APPENDIX - 16 Page 52 Clause No.1	… With Drawings as Annexure 1 & 2 to this Appendix… …For reference, drawing is enclosed at F/A… …For reference, Tender drawing for Earthing Grid/ Mat is enclosed….	Please share the drawings of power and clean earth mat for the ancillary building.	Design of the earth mat Will be provided by E&M Contractor to the successful bidder after award of the work.
22	Vol-6 (BOQ)	Volume-6 Bill of Quantities Annexure of Schedule-A Schedule of On- Account Payment Sub Head A3: Construction of Under/above ground Structure Item No.3	Construction of Base Slab (Based on proportional progress) including Earth Mats	As contractors' scope for earth mat limits to supply and installation only, Bidder understands that Employer shall pay as per approved design drawing and documents during detailed design engineering stage provided by employer to the contractor. Please confirm.	Design of the earth mat Will be provided by E&M Contractor to the successful bidder after award of the work.
23	Vol-3 (Employer's Requirements/Functional)	Cl.no. 2.1, (xvi)	Supply, installation & testing of all pipes for water, sewage and drainage works as per requirement including their connection from sump/pump to existing civic drainage / sewage point. All sump pits shall be covered with proper RCC slab/heavy duty G.I. gratings. Drains at Ancillary building shall be covered with proper heavy-duty G.I. gratings.	Bidder understand that complete plumbing system design and GFC drawings shall be provided other contractor / client. In this contract only Supply, installation & testing is the scope. Kindly confirm.	The plumbing system design and GFC drawings shall be provided by DMRC
24	Vol-3 (Employer's Requirements/Functional)	Cl.no. 2.1, (xv)	Installation of embedded pipes as per the requirement of system contractors. However, pipes either be issued by DMRC or by other system contractor(s) free of cost.	Bidder understand that design & GFC drawings for Embedded pipes (drainage system / conduits) shall be provided other contractor / client. Kindly confirm.	Yes
25	Vol-3 (Employer's Requirements/Functional)	Cl.no. 2.1, (x)	Design and Construction of tunnel (TBM Tunnel) drainage system including fixing of heavy-duty sump riser pipe of required size (min 80 mm dia.) and main drainage pipe (min 100 mm dia.) up to the drainage system of next/previous under/above ground structure in the alignment.	Tunnel drainage pumps related instrumentation / electrical panels are not specified in ER & BOQ also. Kindly confirm the scope related pumps is part of this contract or not. If yes, please provide the BOQ for the same.	No
26	Vol-3 (Employer's Requirements/Functional)	Volume-3, EMPLOYER'S REQUIREMENT, Page No. 6 & 14 Scope of Work, Clause 2.1 & Alignment of Tunnel, Clause 4.	(xxx) Vertical Alignment of tunnel given in GAD has been planned having gradient for the purpose of drainage. Sumps, at the end of the gradients shall be provided and their design and construction including their connections is in the scope of this work. Minor changes in Alignment are permitted but the change should not affect the drainage system of the tunnel. The alignment shall be as shown in the tender drawings. The alignment has been developed by the Employer to meet operational and technical criteria. The Contractor is not required to evaluate the alignment for compliance with these criteria but shall review it with respect to his own design and construction proposals and shall satisfy himself that there is no conflict with existing structures which are to be preserved.	As per the Clause "Scope of work" & "Alignment of tunnel" it is mentioned that the tunnel alignment shall be as per tender drawings. Whereas the tender drawings volume does not have any Alignment layout or Key plan. Kindly, clarify and share the appropriate drawings.	Kindly refer Alignment drawings issued in Addendum-2.

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27	Vol-3 (Employer's Requirements/Functional)	Volume-3, EMPLOYER'S REQUIREMENT, Page No. 15 Clearances, Clause 5, Point No. (iv)	The limits of land for the Works are shown on the Work site Drawings	As per the clause 5 it is mentioned that work area boundary is shown in worksite drawings. Whereas the work area layout for 4 Nos. of Fire escape staircase & Ancillary buildings are not specific. Kindly, share the work area boundary layout marked in Topo drawings with chainage.	Kindly refer Alignment drawings issued in Addendum-2.
28	Vol-4 (OCS)	Outline construction Specifications for Civil Works, Page No. 264 Clause No. 14.6 - Invert Concrete & Drawing No. DMRC_MS_TE_SB W_001	• "The minimum grade of concrete for primary/invert concrete shall be M-25". GENERAL NOTES: 34. All Plain cement concrete shown in the drawings should be of minimum M20 Grade.	The mentioned Clause from OCS & General notes drawings are contradicting. However, it is assumed that "(xvii) filling of sand and RCC below the subway floor finish level in the tunnel" as per Volume-3, Employer's Requirements, Page No. 4, SCOPE OF WORK" holds good. Kindly, confirm.	Minimum M-20 grade.
29	Vol-3 (Employer's Requirements/Functional)	Volume-3, Employer's Requirements, Page No. 3 Clause No. 2 SCOPE OF WORK, 2.1 Scope under Lump Sum Price (Schedule A)	(vii) Diversion of chartered utilities and supports of chartered/uncharted as well as maintenance of unchartered utilities during construction including maintenance and annual desilting of diverted/supported chartered utilities. Besides utilities indicated in the tender drawings, all at ground/above ground utilities encountered at the work sites along with their underground/at ground/above ground extension such as cables, pipes, transformers, manholes etc. shall also be deemed as chartered utility.	It is mentioned that utility drawings are already available in the tender documents. Whereas, it is not available. Kindly, issue the same.	Kindly refer Addendum-2.
30	Vol-5 (Tender Drawings)	General	The Alignment is running parallel to the Danapur to Khemni Chak (Corridor-1 of Patna Metro) and in proximity to proposed Vidyut Bhavan Metro Station.	Kindly, share the existing tunnel and station detail drawings. It will be better to understand the actual need and proper planning of The Subway. Wherever, it is passing close to metro tunnel.	Kindly refer Addendum-2.
31	Vol-3, (Employer's Requirements)	Volume-3, Employer's Requirements, Page No. 3 Clause No. 8, Damage, and Interference	The alignment is passing near the heritage/protected monuments. The contractor shall ensure to protect these monuments during the construction of work.	Kindly, share the list of heritage/protected monuments and building with detail drawings to determine the impact on the buildings and its remedial measures.	Kindly refer Addendum-2.
32	Vol-3 (Employer's Requirements/Functional)	Volume-3, Employer's Requirements, Page No. 6 Clause No. 2 SCOPE OF WORK,2.1 Scope under Lump Sum Price (Schedule A)	Integrated Ancillary / Service building and Fire Escape Staircase & Four Numbers of Fire escape Staircase.	As per the Scope of works there are 4 nos. of fire escape staircase is proposed at every 300m of the alignment. Kindly, confirm whether the above mentioned 4 nos. of FES includes the Fire staircase provided in Ancillary/Service building.	Yes Fire Escape Staircase includes the fire staircase provided in Ancillary/ Service building.
33	Vol-1 (Instruction to Tenderers)	Clause F2	F2 Employer's Right to Accept any Tender and to Reject any or all Tenders	We seek that adequate reason for such rejection has to be stated by the Employer.	No change in tender conditions.
34	Vol-1 (Instruction to Tenderers)	Clause F2.1	The Employer is not bound to accept the lowest or any tender and may at any time by notice in writing to the Tenderers terminate the tendering process	We seek deletion of this clause as the bidder incurs substantial cost in submitting the tender.	No change in tender conditions.
35	Vol-1 (Instruction to Tenderers)	Clause F4	The Tenderer should note that in the event of acceptance of the Tender, the Tenderer will be required. to execute the Contract Agreement in the form specified in Special Conditions of Contract with such. modifications as may be considered necessary at the time of finalisation of the contract within a period. of 30 days of submission of Performance Security or 60 days from the date of issue of the Letter of Acceptance whichever is later.	We seek that such modification has to be mutually agreed by the Parties.	No change in tender conditions.
36	Vol-2 (GCC)	Clause 1.5	n) Any other document forming part of the Contract.	We seek clarification on the term "any other documents forming the part of the documents"	All unforeseen documents, which are not listed under clause 1.5 of GCC point a) to m).

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REPLY TO PRE BID QUERIES

S. No.	Volume No.	Clause No.	Description of Clause	Clarifications Sought/ Queries	DMRC Reply
37	Vol-2 (GCC)	Clause 2.2	2.2 The Employer shall grant the Contractor right of access to, and / or possession of, the Site progressively for the completion of Works. Such right and possession may not be exclusive to the Contractor. The Contractor will draw/modify the schedule for completion of Works according to progressive possession/right of such sites. If the Contractor suffers delay from failure on the part of the Employer to grant right of access to, or possession of the Site, the Contractor shall give notice to the Engineer in a period of 28 days of such occurrence. After receipt of such notice, the Engineer shall proceed to determine any extension of time to which the Contractor is entitled and shall notify the Contractor accordingly. For any such delay in handing over of site, Contractors will be entitled to only reasonable extension of time and no monetary claims, whatsoever shall be paid or entertained on this account.	We seek clarity on the exact time line for granting access/possession to the site. Further We seek that the Contractor is entitled to claim additional cost as per GCC Clause 17.1 for delay in granting the access and possession of the site.	No change in tender conditions.
38	Vol-2 (GCC)	Clause 2.4	2.4 The Employer shall be fully entitled without the consent of the Contractor, to assign the benefit of the part thereof and any interest therein or thereunder to any third Party.	We seek that the consent of the Contractor is required for assigning the benefits/ interest to any third party. No such assignment by Employer shall diminish the Contractor's rights, remedies under the Contract or increase the Contractor's liabilities and obligations in the Contract.	No change in tender conditions.
39	Vol-2 (GCC)	Clause 4.2.1	i) Performance Security for an amount of 10% of Contract value, if the same is in the form of Bank Guarantee/FDR, it shall be valid up to 6 months beyond the Defect Liability Period, or ii) Performance Security in the form of two Bank Guarantees/FDRs, each for an amount of 5% of Contract Value with one Bank Guarantee/FDR valid up to 6 months beyond the date of completion of work and second Bank Guarantee/FDR valid up to 6 months beyond the Defect Liability Period, or iii) One part of Performance Security for an amount of 5% of Contract value, if the same is in the form of Bank Guarantee/FDR, it shall be valid up to 6 months beyond the Defect Liability Period. For 2nd part of Performance Security for an amount of 5% of Contract value, amount shall be deducted at the rate of 5% of the gross amount of each running on-account bill. The Performance Security so deducted from running on-account bill, shall be released on completion of entire work in terms of Clause 4.2.3(i) of GCC. After achieving every 25% of financial progress w.r.t. Original Contract Value, Contractor can ask for release of such amount deducted towards Performance Security on submission of Bank Guarantee/FDR for an equal amount with validity up to 6 months beyond the date of completion of work. The Contractor shall always have the option during the currency of Contract to submit 2nd part of Performance Security for an amount of 5% of Contract value in the form of Bank Guarantee/FDR with validity up to 6 months beyond the date of completion of work. In such a case, further deduction of Performance Security amount from running on-account bill shall be stopped and the amount deducted towards Performance Security shall be released.	We seek that the Performance Security to be returned within 7 days of completion of Defect Liability Period.	No change in tender conditions.
40	Vol-2 (GCC)	Clause 4.5.2	b) the prior consent of the Engineer shall be obtained for other proposed Sub-contractors;	We seek that the prior consent of the Engineer shall not be obtained for other proposed Sub- Contractors. The Contractor shall intimate the Employer with respect to any other proposed Sub-Contractors.	No change in tender conditions.
41	Vol-2 (GCC)	Clause 4.5.3	4.5.3 The Contractor shall be responsible for observance by all Sub-contractors of all the provisions of the Contract. The Contractor shall be responsible for the acts or defaults of any Sub-contractor, his representatives or employees, as fully as if they were the acts or defaults of the Contractor, his representatives or employees and nothing contained in Sub-clause (a) of clause 4.5 shall constitute a waiver of the Contractor's obligations under this Contract. The Contractor shall provide to the Engineer of all the Sub-contracts including terms, conditions and pricing. The Contractor shall endeavour to resolve all matters and payments amicably and speedily with the Sub-contractors.	We seek deletion of the sentence "The Contractor shall provide to the Engineer of all the Sub- Contracts including terms, conditions and pricing". We seek that the Contractor shall have unhindered rights over the Sub-contracts.	No change in tender conditions.
42	Vol-2 (GCC)	Clause 4.6	If a Sub-contractor's obligations extend beyond the expiry date of Defects Liability Period then the Contractor shall assign the benefits of such obligations to the Employer.	We seek that nothing in this Clause shall affect any rights and remedies of the Contractor against such Subcontractors which have accrued due to the Subcontractor's defaults committed prior to such assignment.	No change in tender conditions.
43	Vol-2 (GCC)	Clause 8.5	The decision of the Engineer as to the Liquidated Damages payable by the Contractor under this Clause shall be final and binding.	We seek deletion of this Clause.	No change in tender conditions.
44	Vol-2 (GCC)	GCC 8.8	a) provided for in the Contract, or b) necessary for proper execution of Woks or by reasons of weather condition or by some default on the part of the Contractor, or	We seek deletion of the following "a) provided for in the Contract"	No change in tender conditions.
45	Vol-2 (GCC)	Clause 12.2.1	The decision of the Engineer in this regard shall be final and binding.	We seek deletion of this sentence.	No change in tender conditions.

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S. No.	Volume No.	Clause No.	Description of Clause	Clarifications Sought/ Queries	DMRC Reply
46	Vol-2 (GCC)	Clause 12.2.3	12.2.3 The Employer may in his sole discretion, accept or reject the Contractor's Variation or any part thereof and determine the estimated net saving in the construction cost. The Employer shall not be liable for delays or damages to the Contractor due to any failure of the Employer to accept or act upon any such Variation proposal submitted pursuant to this Clause.	We seek that the Contractor is entitled to Extension of time if there is any delay or damages due to any failure of the Employer to accept or act upon such variation proposal.	No change in tender conditions.
47	Vol-2 (GCC)	Clause 13.3.1	The Engineer's decision on the certified amount payable on this account shall be final and binding.	We seek that the Employer's decision shall not be final and binding.	No change in tender conditions.
48	Vol-2 (GCC)	Clause 13.3.5	13.3.5 In case termination/foreclosure of the Contract under whatsoever circumstances, any remaining Tools, Plants, Equipments and surplus materials of Employer with Contractor will be returned to the Employer in good condition at Employer's depot at Contractor's cost. In case of the failure of the Contractor to do so, the Employer will be entitled to recover their cost from the Contractor from the amount becoming due to the Contractor or from any other money due in any other Contracts. The decision of the Engineer of the amount to be recovered will be final and full credit at rates initially charged to the Contractor shall be allowed for such materials. Similarly the Employer shall be entitled to recover the cost of the unreturned material, Plant, Equipment and Tools from the Contractor where such material have been supplied free of cost or on lease basis to the Contractor as stipulated in the Conditions of Contract.	We seek that the Contractor shall return to the Employer's depot at Contractor's Cost only when the termination is initiated due to Contractor's defaults.	No change in tender conditions.
49	Vol-2 (GCC)	Clause 14.6	b) under any other provisions of the Contract which expressly impose a greater liability,	We seek clarity on this sub-clause.	Tender Condition is self explanatory.
50	Vol-2 (GCC)	Clause 16.1	16 Force Majeure 16.1 In this Clause, "Force Majeure" means an event beyond the control of the Employer and the Contractor, which makes it impossible or illegal for a Party to perform, including but not limited to: a) act of God; b) war, hostilities (whether war be declared or not), invasion, act of foreign enemies, mobilisation, requisition, or embargo; c) rebellion, revolution, insurrection, or military or usurped power, or civil war; d) contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosive, or other hazardous properties of any explosive nuclear assembly or nuclear component of such an assembly; e) riot, commotion or disorder, unless solely restricted to employees of the Contractor or of his Sub-contractors currently or formerly engaged on the Works.	We seek the addition of "pandemic, epidemic" in the definition of Force Majeure.	No change in tender conditions.
51	Vol-2 (GCC)	Clause 16.6	In case of doubt or dispute, whether a particular occurrence should be considered an "event" as defined under this Clause, the decision of the Engineer shall be final and binding.	We seek that the decision of the Engineer shall not be final and binding.	No change in tender conditions.
52	Vol-2 (GCC)	Clause 17.4	Notice of Dispute 17.4 For the purpose of Sub-clause 17.5, a Dispute shall be deemed to arise when one Party serves on the other Party a notice in writing (hereinafter called a "Notice of Dispute") stating the nature of the Dispute provided that no such notice shall be served later than 28 days after the date of issue of Performance Certificate by the Engineer.	We seek deletion of this Clause.	No change in tender conditions.
53	Vol-2 (GCC)	Clause17.6	The Conciliation shall be undertaken by one Conciliator selected from a panel of Conciliators maintained by the Employer. The Conciliator shall assist the Parties to reach an amicable settlement in an independent and impartial manner.	We seek that the Conciliator to be appointed mutually by the Parties	No change in tender conditions.
54	Vol-2 (GCC)	Clause 17.9.2	17.9.2 Procedure for Appointment of Arbitrators: The Arbitrators shall be appointed as per following procedure: i) In case of Sole Arbitrator: Within 60 days from the day when a written and valid demand for Arbitration is received by MD/DMRC, the Employer will forward a panel of 03 names to the Contractor. The Contractor shall have to choose one Arbitrator from the panel of three, to be appointed as Sole Arbitrator within 30 days of dispatch of the request by the Employer. In case the Contractor fails to choose one Arbitrator within 30 days of dispatch of the request of the Employer then MD/DMRC shall appoint any one Arbitrator from the panel of 03 Arbitrators, as sole Arbitrator. ii) In case of 3 Arbitrators: a) Within 60 days from the day when a written and valid demand for Arbitration is received by MD/DMRC, the Employer will forward a panel of 5 names to the Contractor. The Contractor will then give his consent for any one name out of the panel to be appointed as one of the Arbitrators within 30 days of dispatch of the request by the Employer.	Considering the arbitration proceedings for domestic bidder shall be as per the Indian Arbitration & Conciliation Act, 1996 as may be amended from time to time, we seek to include a condition that the number of arbitrator(s) constituting the tribunal shall be 3 and the appointment procedure shall be that each party shall without reference to the panel maintained by the Employer, appoint one arbitrator and the two appointed arbitrators shall appoint the third presiding arbitrator, with mutual consent. In the event of failure to appoint the arbitrator by a Party or failure of two appointed arbitrator to appoint third and presiding arbitrator, the arbitrator shall be appointed as per the provisions of the aforesaid Act.	No change in tender conditions.
55	Vol-2 (GCC)	Clause 17.9.4	17.9.4 No new claim shall be added during proceedings by either Party. However, a Party may amend or supplement the original claim or defence thereof during the course of Arbitration proceedings subject to acceptance by Tribunal including having due regard to the delay in making it.	We seek deletion of this Clause. Addition of new Claims will be subject to the proposed Arbitrator.	No change in tender conditions.
56	Vol-2 (GCC)	Clause 17.9.7	17.9.7 If the Contractor(s) does/do not prefer his/their specific and final claims in writing, within a period of 90 days of receiving the intimation from the Employer/Engineer that the final bill is ready for signature of the Contractor(s), he/they will be deemed to have waived his/their claim(s) and the Employer shall be discharged and released of all liabilities under the Contract in respect of these claims.	We seek deletion of this Clause. There should be no specific restriction on Contractor's right to claim.	No change in tender conditions.

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S. No.	Volume No.	Clause No.	Description of Clause	Clarifications Sought/ Queries	DMRC Reply
57	Vol-2 (GCC)	Correction Slip 1 Clause 11.20	All damages (including, without limitation, Liquidated Damages), costs, charges, expenses, debts, or sums for which the Contractor is liable to the Employer under any provision of the Contract may be deducted by the Employer from monies due to the Contractor under the Contract (including, without limitation, Liquidated Damages) and the Employer shall have the power to recover any balance not so deducted from monies due to the Contractor under any other Contract between the Employer and the Contractor **or from Performance Security amount**.	We seek deletion of the following "under any other Contract between the Employer and the Contractor"	No change in tender conditions.
58	Vol-2 (GCC)	Correction Slip 1 Clause 13.2.4	In case of Sub-para(g), the Engineer at its sole discretion may terminate only part of the Contract also by taking out some part of the total scope of Work and may get it completed or arranged from any other entity through the process of Open/Limited/Single Tender or by calling quotations, to do so at the risk and cost of the Contractor. **In such a case, Performance Security amount shall not be forfeited. However, if it is not possible to recover/ adjust the risk and cost amount from any on-account / final bill of the Contractor under the Contract or any other Contract between the Employer and the Contractor, in that case, the risk and cost amount shall be recovered from the amount of Performance Security by forfeiting it to that extent.**	We seek deletion of the following "under any other Contract between the Employer and the Contractor"	No change in tender conditions.
59	Vol-2 (SCC)	Clause 4	A copy of the contract between the Contractor and Sub- Contractor shall be given to the Engineer within 15 days of signing and in any case 7 days before the Sub Contractor starts the Work and thereafter the Contractor shall not carry any modification without the consent in writing of the Engineer.	We seek deletion of the Clause.We seek that the Contractor shall have unhindered rights over the Sub-contracts.	No change in tender conditions.
60	Vol-2 (SCC)	Clause 4	In case the Employer intends to withhold his consent, he should inform the Contractor within 15 days to enable him to make alternative arrangements to fulfil his programme.	We seek that the Employer shall state the reasons for withholding such consent.	No change in tender conditions.
61	Vol-2 (SCC)	Clause 4	Notwithstanding any consent to sub-contract given by the Engineer, if in his opinion it is consider necessary, the Engineer shall have full authority to order the removal of any sub- contractor from the Site or off-Site place of manufacture or storage.	We seek deletion of this Clause.	No change in tender conditions.
62	Vol-2 (SCC)	Clause 23	If the Engineer withdraws the request for an Employer's Variation, the Contractor shall have no claim of any kind whatsoever arising out of the amount determined above	We seek modification of the Clause as "If the Engineer withdraws the request for an Employer's Variation before the Contractor takes any action to commence the said variation, the Contractor shall have no claim of any kind whatsoever arising out of the amount determined above	No change in tender conditions.
63	Vol-2 (SCC)	Clause 25	**Sub-Clause 17.9 OF GCC** **Arbitration** **Sub-Clause 17.9 b)** "The Arbitration proceedings shall be assumed to have commenced from the day, a written and valid demand for arbitration is received by Sr.GM/Contracts on behalf of MD/DMRC" at following address: Office of Sr.GM/Contracts, Delhi Metro Rail Corporation Ltd. 5th Floor, A-Wing, Metro Bhawan, Fire Brigade Lane, Barakhamba Road, New Delhi – 110001 Tel: 011-23415838 **Sub-Clause 17.9.2 i)** In case of Sole Arbitration: Within 60 days from the day when a written and valid demand for arbitration is received by Sr.GM/Contracts on behalf of MD/DMRC, the Employer will forward a panel of 03 names to the Contractor. **Sub-Clause 17.9.2(ii)(a)** Within 60 days from the day when a written and valid demand for arbitration is received by Sr.GM/Contracts on behalf of MD/DMRC, the Employer will forward a panel of 05 names to the Contractor.	Considering the arbitration proceedings for domestic bidder shall be as per the Indian Arbitration & Conciliation Act, 1996 as may be amended from time to time, we seek to include a condition that the number of arbitrator(s) constituting the tribunal shall be 3 and the appointment procedure shall be that each party shall without reference to the panel maintained by the Employer, appoint one arbitrator and the two appointed arbitrators shall appoint the third presiding arbitrator, with mutual consent. In the event of failure to appoint the arbitrator by a Party or failure of two appointed arbitrator to appoint third and presiding arbitrator, the arbitrator shall be appointed as per the provisions of the aforesaid Act.	No change in tender conditions.