Midtown Holding Leasing and Properties Pvt. Limited
(Formerly Known as Dhartidhan Granites Pvt. Ltd.)

Admn. Office : 5th FLOOR, GITANEEL ARCADE, 85, HILL ROAD, BANDRA (W) MUMBAI - 400 050.
TEL. : 26423306 / 26420359 / 26454718 / 2654701 FAX : 0091-22-26408690
E-mail : dhartidhan@vsnl.com

06.01.2017

To,
The Director,
IA-III Division,
Ministry of Environment Forests and Climate Change, (IA-III Division)
Indira ParyavaranBhawan,
Jor Bagh Road,
New Delhi - 110 003

Subject : Submission of point wise reply raised by Hon'ble EAC during 11th meeting of Expert Appraisal Committee (Infra-2) for Projects related to All ship breaking yard including ship breaking unit, Airport, Common Hazardous Waste Treatment, Storage and Disposal Facilities, Ports and Harbours, Aerial Ropeways, CETPs, Common Municipal Solid Waste Management Facility, Building/Construction Project, Townships and Area Development projects held on 24- 25th November, 2016 for the Proposed Residential and commercial development of Delta-2 at Plot No. -2, Sector- 8, Ulwe, Navi Mumbai, District, Raigad, Maharashtra by M/s. Midtown Holding Leasing and Properties Pvt. Ltd – Environmental Clearance - [F.No.21-41/2016-IA-III] listed as item number- 11.3.10.

Dear Sir,

With reference to the above subject of 11thMoM of EAC, M/s. Midtown Holding Leasing and Properties Pvt. Ltd. Project Delta-2 is located at Plot No. 2, Sector-8, Ulwe, Navi Mumbai and please note we have previously obtained Environment Clearance letter on 31st May, 2014 (SEAC-2013/CR-489/TC-1) and **this is revised application to EAC is due to amendment in plans.**

We are hereby submitting point wise reply:

i.	**Status of application of the project proposal in SEIAA, Maharashtra.** **Compliance:** We have withdrawn our proposal No. SIA/MH/MIS/57415/2016 of Midtown Holding Leasing and Properties Pvt. Ltd., Project Delta-2 from MoEF website and also submitted the withdrawn letter to Member Secretary, State Environment Impact Assessment Authority, Mantralaya, Mumbai dated Nov. 28, 2016. Please refer the Enclosure No. 1.

ii.	**Copy of application submitted for clearance from NBWL.** **Compliance:** NBWL Clearance is not applicable because project site is not located within 10 Km of National park and Sanctuaries. Please refer Enclosure No. 2 for Google image of project location.
iii.	Present land use of the proposed project site. **Compliance:** As per the Sanctioned Demarcation Plan, present land use of the proposed project site for residential Purpose. Please refer the Enclosure No. 3.
iv.	Building sanction plan. **Compliance:** Enclosed, Please refer Enclosure No. 4 for building sanction plan.
v.	Construction status of the proposed building **Compliance:** Status of construction as on date: 17,249.365 Sq. Mtrs and please refer Enclosure No. 5 for latest site photographs.
vi.	Commitment that shops and other establishments in residential blocks with have to conform to residential area norms in terms of noise pollution and vehicular movements and shall not create a nuisance for residents of the Blocks. **Compliance:** Kindly refer Enclosure No. 6 as undertaking for residential area norms in terms of noise pollution and vehicular movements and shall not create a nuisance for residents of the Blocks.
vii.	Layout plan indicating road, greenbelt, drainage, sewer line, STP, solid waste handling area, rain water harvesting structure, etc. in different colour to be furnished. **Compliance:** Please Refer Enclosure No. 7 as Ground Floor- Utilities Plan along with indicating road and greenbelt area.
viii.	Layout of parking plan indicating entry and exit points of vehicular movement as well as traffic management plan. Highlight the fire tender pathway. **Compliance:** Please refer Enclosure No. 8 for Parking Plan and Traffic movement on Ground and first floor and enclosure No. 9 for fire tender movement plan.
ix.	Details of source of water supply along with permission to be submitted. **Compliance:** Please refer Enclosure No. 10 for commencement certificate for source of water supply along with permission to be submitted.
x.	Water balance chart. **Compliance:** Please refer Enclosure No. 11 for water balance chart.
xi.	Proposed scheme for treatment of sewage. **Compliance:** Wastewater generated from the site will be directly treated in STP

	working on Microfiltration technology based on KSQ Flat Sheet Membrane. Please refer Enclosure No. 12 for proposed scheme for treatment of sewage.
xii.	Excess treated sewage disposal plan/scheme to be submitted. **Compliance:** Treated sewage shall be disposed off into NMMC municipal chamber provided outside the plot. Kindly refer attached drawing as Enclosure No. 13.
xiii.	Assessment of ground level concentration of pollutants due to DG set (4x500 kVA). **Compliance:** We have proposed for only 2 nos 200 kVA DG and not 4 nos 500 kVA (wrongly mentioned in minutes) - Please refer attached calculations in Enclosure No. 14.
xiv.	Effort shall be made to reduce capacity of DG set upto 2x500 KVA and remaining standby power shall be met from solar energy. **Compliance:** 2 DG sets 200 KVA will be provided with adequate acoustic enclosure for emergency power back up. External landscape lights and one light + one fan in each apartment are considered on solar power. Please refer attached calculations and drawing in Enclosure No. 14 for DG set details and energy conservation via solar energy.
xv.	Treatment scheme for sewage and its recycling mode. **Compliance:** STP based on Micro Filtration - KSQ Flat Sheet Membrane of 160 KLD (description along with diagram) is attached as Enclosure No.12
xvi.	Details of rain water harvesting system to be furnished. Clarity on recharge pits, storage systems for rain water and use of appropriate filtration system for collected rain water to be detailed. **Compliance:** Rainwater harvesting tank is proposed for capacity 100000 litres storage. (2 days storage is provided). Recharge pits are not provided as ground water table is high. Rain water harvested shall be treated with multigrade sand filter & carbon filter to remove suspended impurities and odour. Kindly refer Enclosure No. 15.
xvii.	Calculation on sizing of solar water heating systems to be furnished. **Compliance:** Solar water heating calculations provided. Kindly refer Enclosure No. 16.
xviii.	A backup arrangement of at least 50% solar powered systems connected to the grid and at least two solar powered lights and one solar powered fan in each flat. **Compliance:** External landscape lights and one light + one fan in each apartment are considered on solar power. Please Refer attached calculations and drawing in Enclosure No. 14.

xix.	A management plan for excavation and dewatering to ensure compliance to the CGWA guidelines and regulation. **Compliance:** The said project already got on 31st May, 2014 vide **Letter No.SEAC-2013/CR-489/TC-1** from SEAC, Maharashtra. Till date we have constructed G + 2 Podia as per earlier EC. So there will not be any further excavation, Hence water accumulation will not take place.
xx.	Solid waste management plan along with area earmarked for solid waste management scheme. **Compliance:** Total solid waste (583.14 Kg/day) will be segregated in to dry (Non-Biodegradable- 174.94 Kg/day) & wet (Biodegradable- 408.20 Kg/day). Dry waste will be collected &supplied to authorized vendors; whereas wet waste will be treated on site in Organic Waste Converter (OWC), & treated material used as manure for landscape purpose.Area provided for the storage and treatment of the solid waste is 40.00Sq. Mt. and detailed description is enclosed as Enclosure 17.
xxi.	Management of excavated soil. Pollution control measures to be taken to control fugitive emission during construction phase including marble /stone cutting. **Compliance:** Approximately 9795.00 cum of soil generated due to excavation. Excavated soil already been used for land levelling & excess handed over to Authorized Vendor for disposal. Pollution control measures to be taken to control fugitive emission during construction phase including marble /stone cutting are as follows: ➢ Per day 2 tankers is being used for water sprinkling for dust suppression. ➢ Raw material carrying vehicles with valid PUC only are being allowed at site per day. ➢ Wheel washes being done for vehicles plying in and out of the construction site. ➢ Periodic Maintenance of construction equipment is being done. ➢ 3 meter height sheets has been provided for barricading the periphery of the site which is acting like continuous dust/ wind breaking walls all around the site. ➢ Plastic / Tarpaulin Sheet covers being provided for vehicles carrying construction material on site & also to the vehicles carrying construction debris from site. ➢ Proper routing and adequate capacity of the storm water run-offs drains will be provided ➢ Movement and parking of heavy machinery and vehicles are being restricted to identify area. ➢ All storage facilities are designed with paved surface, provided with covered shed and adequate facility
xxii.	Details energy conservation measures to be taken (all points mentioned in the proposal such as orientation to support reduced heat gain, use of ASHRAE 90.1, use of ECBC compliant envelope measures to be supported through drawings and

	details in the proposal. **Compliance:** Building complied through building perspective based approach.
xxiii.	Layout plan indicating Greenbelt along with area earmarked to be provided. **Compliance:** Landscape layout plan on ground and podium is attached as Enclosure No.18.

For MIDTOWN HOLDING LEASING & PROPERTIES PVT. LTD.

DIRECTOR

Enclosure No. 1: Withdrawn application

Gmail **Srinivasan Kothandaraman <midtownholdingleasing@gmail.com>**

Withdraw of EC

1 message

monitoring-ec@nic.in <monitoring-ec@nic.in> Mon, Nov 28, 2016 at 2:07 PM
To: midtownholdingleasing@gmail.com
Cc: monitoring-ec@nic.in

Acknowledgement Slip for request of withdrawal of EC application

This is to acknowledge that your request for withdrawal of the EC application(with the following details) has been uploaded on the portal.
Now this request is under consideration of SEIAA portal.

Following should be mentioned in further correspondence

1. Proposal No.	:	SIA/MH/MIS/57415/2016
2. Category of the Proposal	:	Infrastructure and Miscellaneous Projects + CRZ
3. Date of submission for Withdrawal	:	28 Nov 2016
4. Name of the Project proponent along with contact details		
a) Name of the proponent	:	MIDTOWN HOLDING LEASING PROPERTIES PVT LTD
b) State	:	Maharashtra
c) District	:	Raigad
d) Pincode	:	400706

After getting approval of competent authority, the acceptance of same will be uploded on SEIAA protal.

Midtown Holding Leasing and Properties Pvt. Limited
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TEL. : 26423306 / 26420359 / 26454718 / 2654701 FAX : 0091-22-26408690
E-mail : dhartidhan@vsnl.com

Date: 28.11.2016

To,
The Member Secretary,
State Environment Impact Assessment Authority,
Room No. 217, Department of Environment,
Mantralaya, Mumbai, Maharashtra.

28/11/16

Sub: Request regarding withdrawal of project Delta-2 at Plot No. 2, Sector-8, Ulwe, Navi Mumbai.
Reference No.: SIA/MH/MIS/57415/2016

Respected Sir,

With reference to the above subject, we hereby request you to transfer the above case to Expert Appraisal Committee (Infra-2), Ministry of Environment, Forest and Climate change, Indira Paryavaran Bhawan, Jor Bhag road, New Delhi, as the constituted State Level Environment Impact Assessment Authority (SEIAA), Mumbai, Maharashtra is currently not in force.

Request you to kindly withdrawal our proposal and forward to Expert Appraisal Committee (Infra-2), Delhi.

Thanking you.

Yours faithfully,

For,
Midtown Holding leasing and Properties Pvt. Ltd.

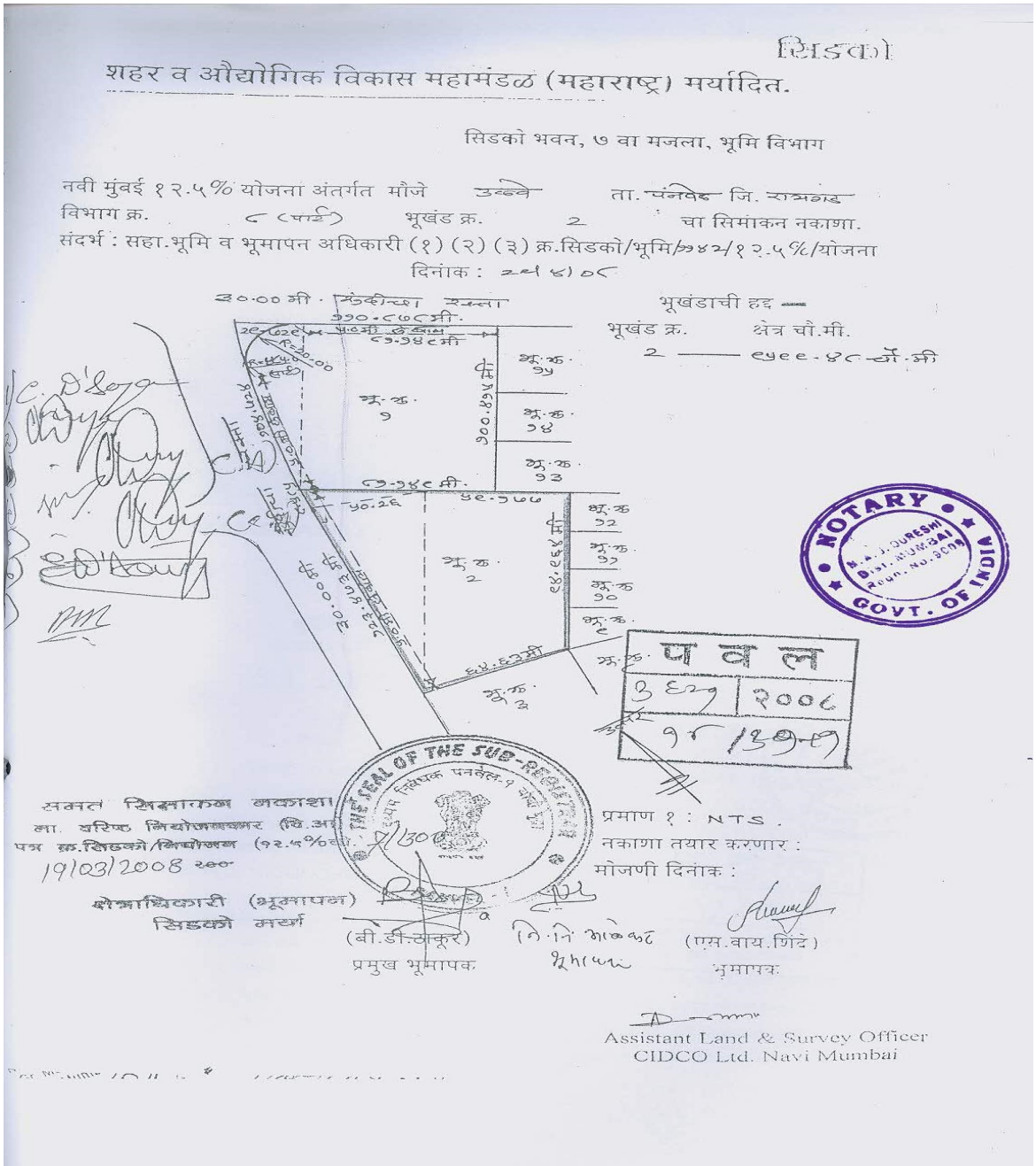
Authorized Signatory

Registered Office : 3, ORINTAL BUILDING, 1ST FLOOR, 65, M. G. ROAD, FORT, MUMBAI - 400 023.
TEL. : 2656707 / 2671554 / 6 • FAX : 0091-22-2654510

Enclosure No. 2: Google Location of project

Plot No. 2, Sector-8,
Ulwe, Navi Mumbai

Enclosure No. 3: Demarcation Plan



सिडको

शहर व औद्योगिक विकास महामंडळ (महाराष्ट्र) मर्यादित.

सिडको भवन, ७ वा मजला, भूमि विभाग

नवी मुंबई १२.५% योजना अंतर्गत मौजे उळवे ता. पनवेल जि. रायगड

विभाग क्र. ८ (पार्ट) भूखंड क्र. 2 चा सिमांकन नकाशा.

संदर्भ : सहा.भूमि व भूमापन अधिकारी (१) (२) (३) क्र.सिडको/भूमि/७४२/१२.५%/योजना

दिनांक : २९/४/०८

भूखंडाची हद्द —

भूखंड क्र. क्षेत्र चौ.मी.

2 —— ९५९९.४८ चौ.मी

पवल

३६२७ | २००८

१८/३९-१९

समत सिमांकन नकाशा

मा. वरिष्ठ नियोजनकार (वि.आ.)

पत्र क्र.सिडको/नियोजन (१२.५%)

19/03/2008

क्षेत्राधिकारी (भूमापन)

सिडको मर्या

(बी.डी.ठाकूर)

प्रमुख भूमापक

प्रमाण १ : NTS.

नकाशा तयार करणार :

मोजणी दिनांक :

(एस.वाय.शिंदे)

भूमापक

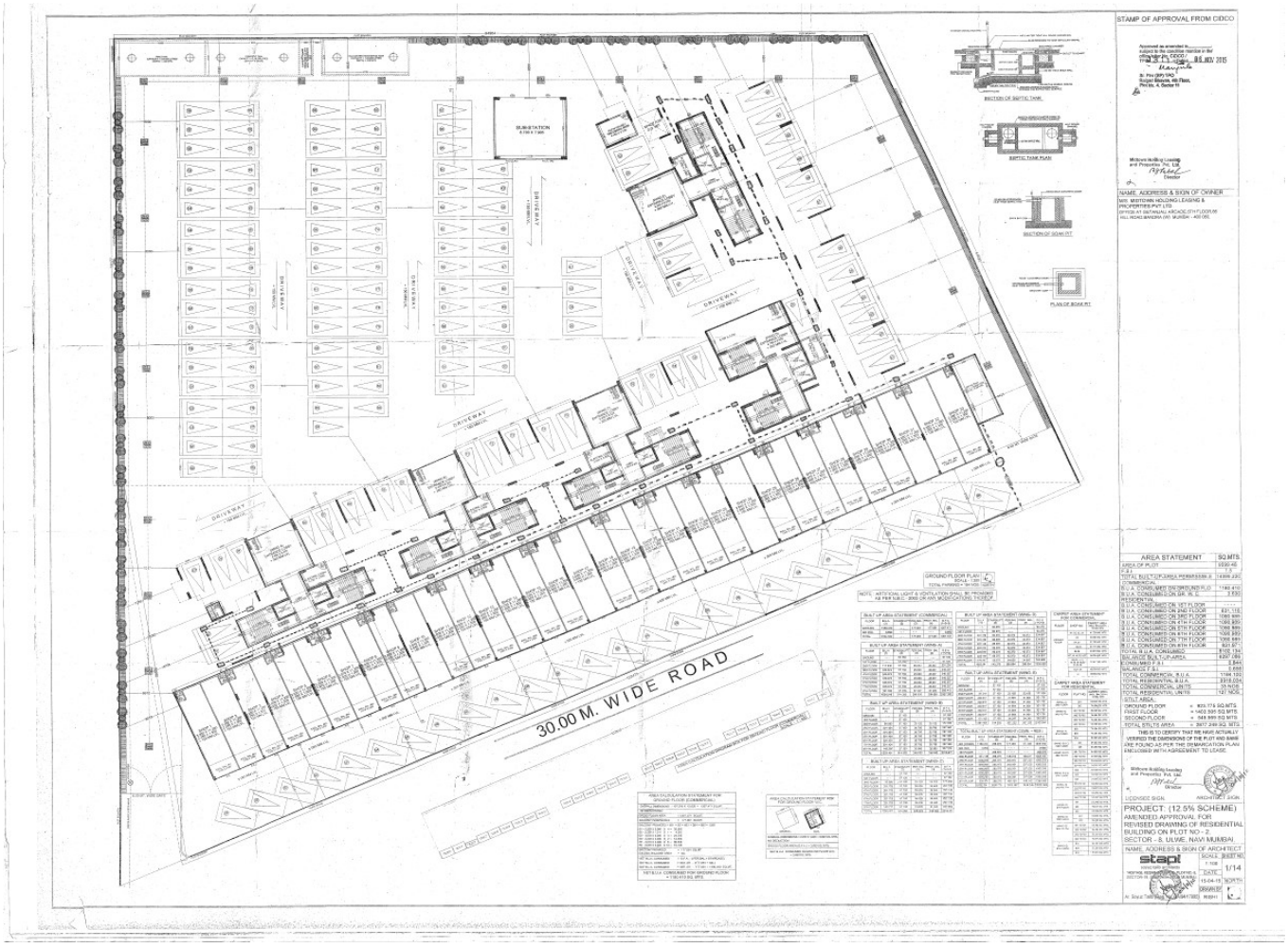
Assistant Land & Survey Officer

CIDCO Ltd. Navi Mumbai

NOTARY

GOVT. OF INDIA

Enclosure No. 4: Building Sanction Plan



Enclosure No. 5: Latest site Photographs

Enclosure No. 6: Undertaking for residential area norms in terms of noise pollution and vehicular movements and shall not create a nuisance for residents of the blocks.

Midtown Holding Leasing and Properties Pvt. Limited

(Formerly known as Dhartidhan Granites Pvt. Ltd.)

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TEL. : 26423306 / 26420359 / 26454718 / 2654701 FAX : 0091-22-26408690
E-mail : rehabhousingpltd@gmail.com

4th January, 2017

UNDERTAKING

To,
The Director,
IA-III Division,
Ministry of Environment Forests and Climate Change, (IA-III Division)
Indira Paryavaran Bhawan,
Jor Bagh Road,
New Delhi – 110 003

Dear Sir,

I, Surendra Patel, Director of Midtown Holding Leasing and Properties Pvt. Ltd., hereby certify that shops and other establishments in residential blocks will conform to residential area norms in terms of noise pollution and vehicular movements and shall not create a nuisance for residents of the Blocks.

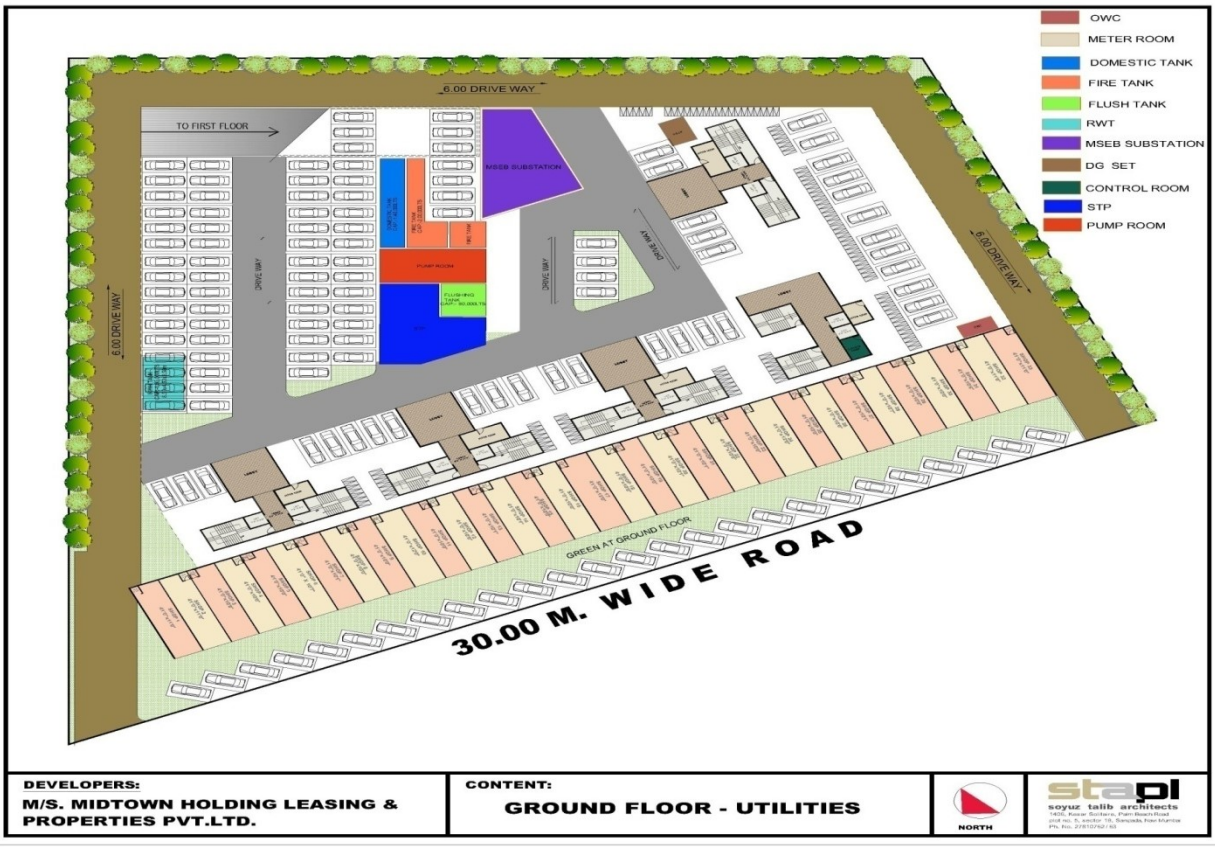
For MIDTOWN HOLDING LEASING & PROPERTIES PVT. LTD.

DIRECTOR

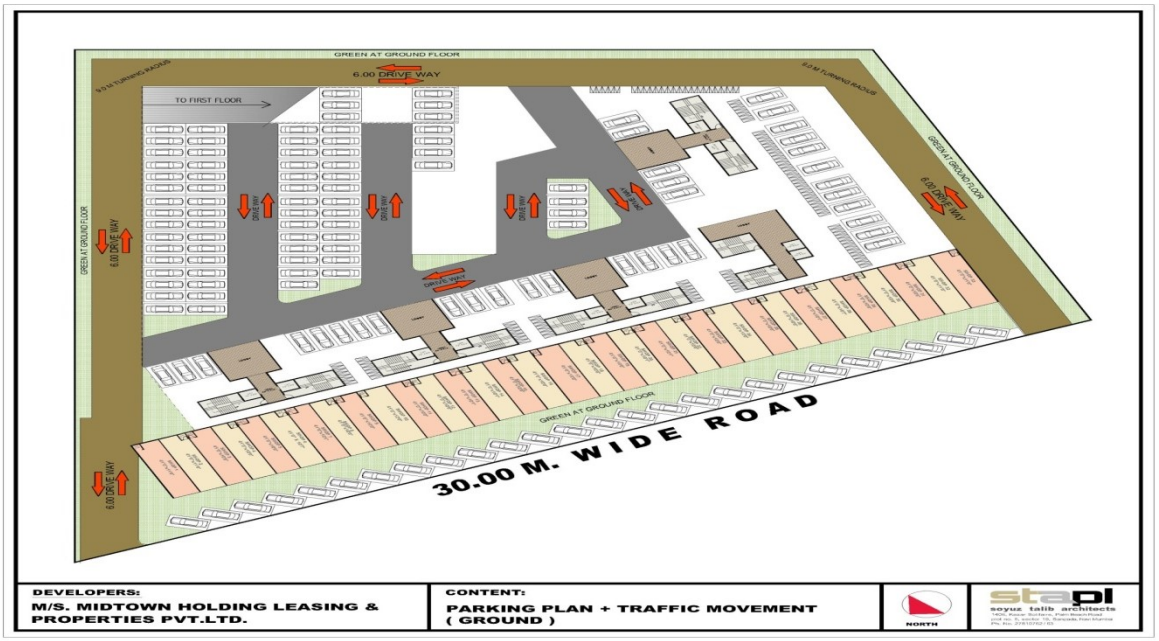
Place : Navi Mumbai

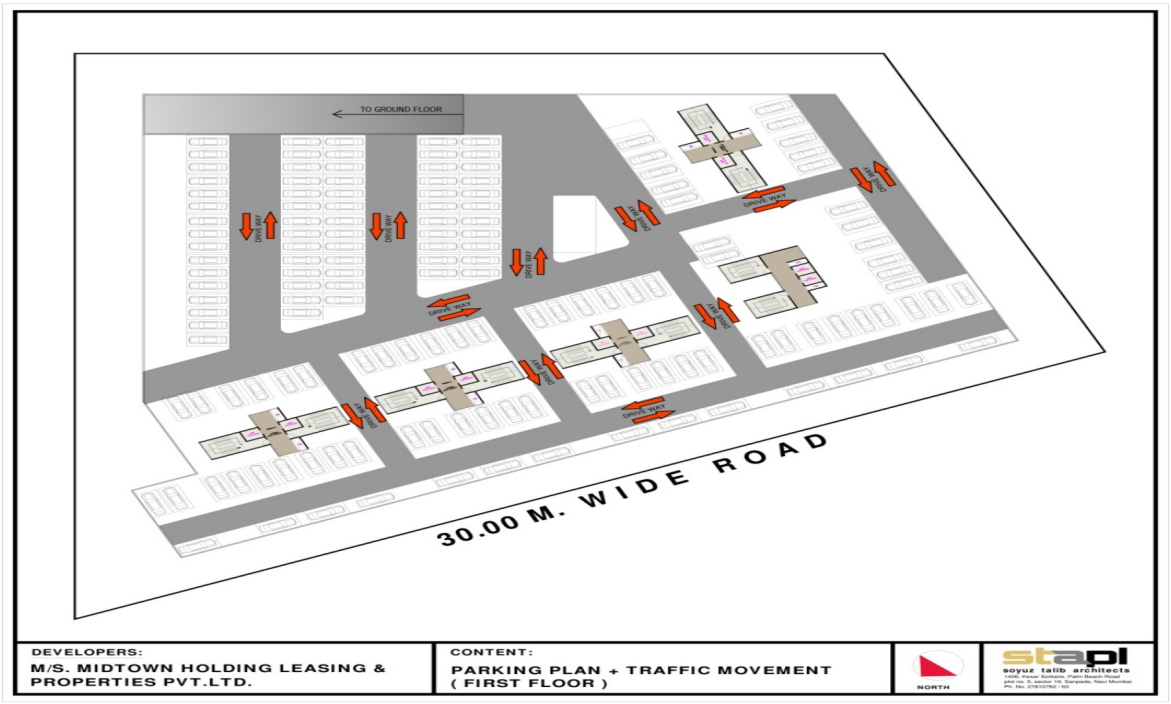
Registered Office : 3, ORIENTAL BUILDING, 1ST FLOOR, 65, M. G. ROAD, FORT, MUMBAI - 400 023.
TEL. : 2656707 / 2671554 / 6 • FAX : 0091-22-2654510

Enclosure No. 7: Location of Utilities along with indicating road and greenbelt area

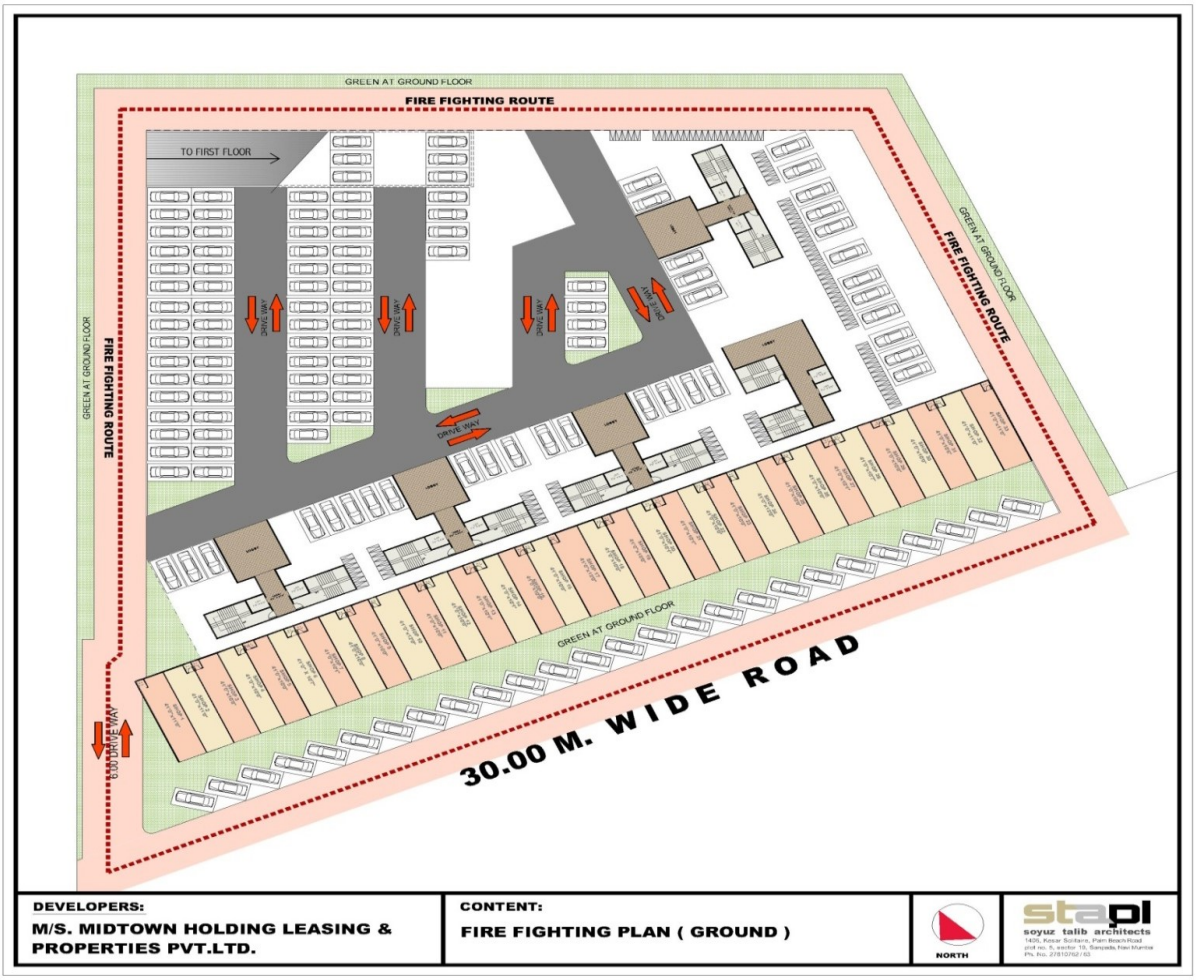


Enclosure No. 8: Parking plan and traffic movement on ground and podium





Enclosure No. 9: Fire Tender Movement Plan



Enclosure No. 10: Commencement Certificate

CIDCO
WE MAKE CITIES

CITY AND INDUSTRIAL DEVELOPMENT CORPORATION OF MAHARASHTRA LIMITED

(CIN - U99999 MH 1970 SGC - 014574)

REGD. OFFICE:
"NIRMAL", 2nd Floor, Nariman Point,
Mumbai - 400 021.
PHONE : 00-91-22-6650 0900
FAX : 00-91-22-2202 2509

HEAD OFFICE:
CIDCO Bhavan, CBD Belapur,
Navi Mumbai - 400 614.
PHONE: 00-91-22-6791 8100
FAX : 00-91-22-6791 8166

CIDCO/BP-8120/TPO(NM & K)/2015/ N311-3

06 NOV 2015

Ref. No. | Unique Code No. | 2 | 0 | 1 | 3 | 0 | 3 | 0 | 2 | 1 | 0 | 2 | 3 | *Date:* | 0 | 6 | 3 | 0 | 1 |

To,
M/s. Midtown Holding Leasing & Properties Pvt. Ltd.,
Through its Director, Mr. Bhupesh Bhagwandas Patel,
Office at Geetanil Arcade, 5th floor, 85 Hill Road,
Bandra (W), Mumbai – 400050.

SUB :- Amended approval to revised plan for Residential Building on Plot No. 02, Sector-08 at Ulwe (12.5% Scheme) Navi Mumbai

REF:- 1) Your architect's application dated 27/07/2015, 12/08/2015 & 01/10/2015
2) Earlier C.C. granted by this office vide letter No. CIDCO/ATPO(BP)/2013/2154,dtd.31/12/2013
3) Extension in Time Limit issued by AEO vide Letter No. CIDCO/Est/12.5% scheme/Ulwe/1142/2015/, dtd. 24/09/2015
4) Rivised Fire NOC issued by Fire Officer CIDCO vide letter No. CIDCO/FIRE/ KHR/042/2015., dtd. 21/10/2015
5) Revised Approval for Location of Elec. Sub-Station issued by EE(O&MDivision) Nerul vide letter No. EE/NERUL/TECH/003153 dtd. 19/09/2015
6) 50% IDC paid of Rs. 47,99,740/- vide Receipt No. 11526, dtd.18/12/2013

Dear Sir,

Please refer to your application for amemded development permission for Residential Building on Plot No. 02, Sector-08 at Ulwe, (12.5% Scheme), Navi Mumbai

The amended development permission is hereby granted to construct Residential Building on the plot mentioned above.

The commencement certificate as required under section 45 of the Maharashtra Regional and Town Planning Act,1966 is also enclosed herewith for the structures referred above.

The Developer / individual Plot Owner should obtain the proposed finished road edge level from the concerned Nodal Executive Engineer.The Developer/ Plot Owner to ensure that the finished plinth level of the proposed buildings / shops to be minimum 750 mm above the proposed finished road edge level. In case, the building is having stilt, the finished stilt level to be minimum 300 mm. above the road edge level.

The approval for plumbing services i.e. drainage and water supply shall be separately obtained by the applicant from the Executive Engineer(W/S), CIDCO prior to the commencement of the construction Work.

The Developers / Builders shall take all precautionary measures for prevention of Malaria breeding during the construction period of the project. If required , you can approach Health Department CIDCO, for orientation program and pest control at project site to avoid epidemic .

You will ensure that the building materials will not be stacked on the road during the construction period.

Since, you have paid 50% IDC of Rs. 47,99,740/- vide Receipt No. 11526, dtd.18/12/2013, you may approach to the Office of Executive Engineer (Ulwe) to get the sewerage connection to your plot.

This set of approved plans supercedes all the plans approved earlier.

Thanking you,

Yours faithfully,
Manjula
6/11/15
(Manjula Nayak)
Sr. Planner (Bldg. Permission)
Navi Mumbai & Khopta

REF.NO.CIDCO/BP-8120/TPO(NM&K)/2015 3711-4 DATE 06 NOV 2015

CITY & INDUSTRIAL DEVELOPMENT CORPORATION OF MAHARSHTRA LTD

AMENDED COMMENCEMENT CERTIFICATE

Permission is hereby granted under section – 45 of the Maharashtra Regional and Town Planning Act, 1966 (Maharashtra XXXVII of 1966) to **M/s. Midtown Holding Leasing & Properties Pvt. Ltd. Through its Director Mr. Bhupesh Bhagwandas Patel on Plot No. 02, Sector-08 at Ulwe, (12.5% Scheme), Navi Mumbai** as per the amended approved plans and subject to the following conditions for the development work of the proposed **Resi. Building (Gr. floor + 08 Upper Floors) of ["Wing "A,B,C,D & E"] Resi. BUA= 6918.034 Sq.mt., Comm. BUA = 1184.10 Sq.mt, Total BUA=8102.134 Sq.mt.**

(Nos. of Residential Units – **127**, Nos. of Commercial units – **33** Nos.)

This Commencement Certificate is valid up to plinth level only. The further order will be given after the plinth is inspected and plinth Completion Certificate is issued.

1. **This Certificate is liable to be revoked by the Corporation if: -**
   - 1(a) The development work in respect of which permission is granted under this certificate is not carried out or the use thereof is not in accordance with the Sanctioned plans.
   - 1(b) Any of the conditions subject to which the same is granted or any of the restrictions imposed upon by the corporation is contravened.
   - 1(c) The Managing Director is satisfied that the same is obtained by the applicant through fraud or Misrepresentation and the applicant and/or any person deriving title under him, in such an event shall be deemed to have carried out the development work in contravention of section – 43 or 45 of the Maharashtra Regional and Town Planning Act- 1966.
2. **The applicant shall:-**
   - 2(a) Give a notice to the Corporation for completion of development work upto plinth level, at least 7 days before the commencement of the further work.
   - 2(b) Give written notice to the Corporation regarding completion of the work.
   - 2(c) Obtain Occupancy Certificate from the Corporation.
   - 2(d) Permit authorized officers of the Corporation to enter the building or premises for which the permission has been granted, at any time for the purpose of ensuring the building control Regulations and conditions of this certificate.
3. The structural design, building materials, installations, electrical installations etc. shall be in accordance with the provision (except for provision in respect of floor area ratio) as prescribed in the National Building Code or and/or GDCRs- 1975 in force.

REF.NO.CIDCO/BP-8120/TPO(NM&K)/2015 3111 DATE 06 NOV 2015

4. The Certificate shall remain valid for period of 1 year from the date of its issue, thereafter revalidation of the same shall be done in accordance with provision of Section – 48 of MRTP Act- 1966 and as per regulations no. 16.1(2) of the GDCRs – 1975.

5. The conditions of this certificate shall be binding not only on the applicant but also on its successors and/or every person deriving title through or under him.

6. A certified copy of the approved plan shall be exhibited on site.

7. The amount of Rs 43,000/- deposited with CIDCO as security deposit shall be forfeited either in whole or in part at the absolute discretion of the Corporation for breach of any of the conditions attached to the permission covered by the Commencement Certificate. Such forfeiture shall be without prejudice to any other remedy or right of Corporation.

8. "Every Building shall be provided with underground and over head water tank. The capacity of the tanks shall be as per norms fixed by CIDCO. In case of high rise buildings underground and over head water tank shall be provided as per the fire fighting requirements of CIDCO. The applicant shall seek approval of the EE (Water Supply) of CIDCO in respect of capacity of domestic water tanks. The applicant shall seek approval of the Fire Officer of CIDCO in respect of capacity of water tanks for the fire fighting purpose".

9. You shall approach Executive Engineer, M.S.E.B. for the power requirements, location of transformer, if any, etc.

10. As per Govt. of Maharashtra memorandum vide No. TBP/4393/1504/C4-287/94, UD-11/RDP, Dated 19th July, 1994 for all buildings following additional conditions shall apply.

i) As soon as the development permission for new construction or re-development is obtained by the Owners/Developer, he shall install a 'Display Board' on the conspicuous place on site indicating following details ;-

a) Name and address of the owner/developer, Architect and Contractor.

b) Survey Number/City survey Number, Plot Number/Sector & Node of Land under reference along with description of its boundaries.

c) Order Number and date of grant of development permission or re-development permission issued by the Planning Authority or any other authority.

d) Number of Residential flats/Commercial Units with areas.

e) Address where copies of detailed approved plans shall be available for inspection.

ii) A notice in the form of an advertisement, giving all the detailed mentioned in (i) above, shall be published in two widely circulated newspapers one of which should be in regional language.

11. As per the notification dtd. 14th September 1999 and amendment on 27th August 2003, issued by Ministry of Environment & Forest (MOEF), Govt. of India and as per Circular issued by Urban Development Deptt., Govt. of Maharashtra, vide No. FAR/102004/160/P. No. 27/UD-20, dtd. 27/02/2004, for all Buildings following additional condition shall apply.

REF.NO.CIDCO/BP-8120/TPO(NM&K)/2015 3111 DATE 06 NOV 2015

The Owners/Developer shall use Fly Ash bricks or blocks or tiles or clay fly ash bricks or cement fly ash bricks or blocks or similar products or a combination of aggregate of them to the extent of 100 % (by volume) of the total bricks, blocks & tiles as the case may be in their construction activity.

12. As directed by the Urban Development Deptt. Government of Maharashtra, under Section - 154 of MR & TP Act- 1966 and vide Provision No. TPB 432001/2133/CR-230/01/UD-11, dated 10/03/2005, for all buildings, greater than 300.00 Sq. m. following additional condition of Rain Water Harvesting shall apply.

a) All the layout open spaces/amenities spaces of Housing Society and new construction /reconstruction / additions on plots having area not less than 300.00 Sq. m. shall have one or more Rain Water Harvesting structures having minimum total capacity as detailed in schedule (enclosed).

Provided that the authority may approve the Rain water Harvesting Structures of specifications different from those in Schedule, subject to the minimum capacity of Rain Water Harvesting being ensured in each case.

b) The owner/society of every building mentioned in the (a) above shall ensure that the Rain Water Harvesting structure is maintained in good repair for storage of water for non potable purposes or recharge of groundwater at all times.

c) The Authority may impose a levy of not exceeding Rs. 100/- per annum for every 100 Sq. m. of built up area for the failure of the owner of any building mentioned in the (a) above to provide or to maintain Rain Water Harvesting structures as required under these byelaws.

Manjula
6/11/15

(Manjula Nayak)
Sr. Planner (Bldg. Permission)
Navi Mumbai & Khopta

C.C. TO: STAPL , Architect
1405/1406, 14TH floor, Kesar Solitaire,
Plot No. 05, Sector – 19, Sanpada, Navi Mumbai

C.C. TO: Separately to:

1. M (TS-II)
2. CUC
3. EE (KHR/PNL/KLM/ULWE/DRON)
4. EE (WS-I)

RAIN WATER HARVESTING

Rain Water Harvesting in a building site includes storage or recharging into ground of rain water falling on the terrace or on any paved or unpaved surface within the building site.

1. The following systems may be adopted for harvesting the rain water drown from terrace and the paved surface.

   (i) **Open well** of a minimum of 1.00 mt. dia and 6 mt. in depth into which rain water may be channeled and allowed after filtration for removing silt and floating material. The well shall be provided with ventilating covers. The water from the open well may be used for non potable domestic purposes such as washing, flushing and for watering the garden etc.

   (ii) Rain water harvesting for recharge of ground water may be done through a **bore well** around which a pit of one metre width may be excavated upto a depth of at least 3.00 mt. and refilled with stone aggregate and sand. The filtered rain water may be channeled to the refilled pit for recharging the borewell.

   (iii) An impervious surface/ underground storage tank of required capacity may be constructed in the setback or other open space and the rain water may be channeled to the storage tank. The storage tank shall always be provided with ventilating covers and shall have draw-off taps suitably placed so that the rain water may be drawn off for domestic, washing, gardening and such other purposes. The storage tanks shall be provided with an overflow.

   (iii) The surplus rain water after storage may be recharged into ground through percolation pits or trenches or combination of pits and trenches. Depending on the geomorphological and topographical condition, the pits may be of the size of 1.20 mt. width X 1.20 mt. length X 2.00 mt. to 2.50. mt. depth. The trenches can be of 0.60 mt. width X 2.00 to 6.00 mt. length X 1.50 to 2.00 mt. depth. Terrace water shall be channeled to pits or trenches. Such pits or trenches shall be back filled with filter media comprising the following materials.

a) 40 mm stone aggregate as bottom layer upto 50% of the depth;

b) 20 mm stone aggregate as lower middle layer upto 20% of the depth;

c) Coarse sand as upper middle payer upto 20% of the depth;

d) A thin layer of fine sand as top layer;

e) Top 10% of the pits/ trenches will be empty and a splash is to be provided in this portion in such a way that roof top water falls on the splash pad.

f) Brick masonry wall is to be constructed on the exposed surface of pits/ trenches and the cement mortar plastered.

The depth of wall below ground shall be such that the wall prevents lose soil entering into pits/ trenches. The projection of the wall above ground shall atleast be 15 cms.

g) Perforated concrete slabs shall be provided on the pits/trenches.

(v) If the open space surrounding the building is not paved, the top layer upto a sufficient depth shall be removed and refilled with course sand to allow percolation of rain water into ground.

2. The terrace shall be connected to the open well/borewell/storage tank/recharge pit/trench by means of HDPE/PVC pipes through filter media. A valve system shall be provided to enable the first washings from roof or terrace catchment, as they would contain undersirable dirt. The mouths of all pipes and opening shall be covered with mosquito (insect) proof wire net. For the efficient discharge of rain water, there shall be at least two rain water pipes of 100 mm dia mtr. for a roof area of 100 Sq. mt.

3. Rain water harvesting structures shall be sited as not to endanger the stability of building or earthwork. The structures shall be designed such that no dampness is caused in any part of the walls or foundation of the building or those of an adjacent building

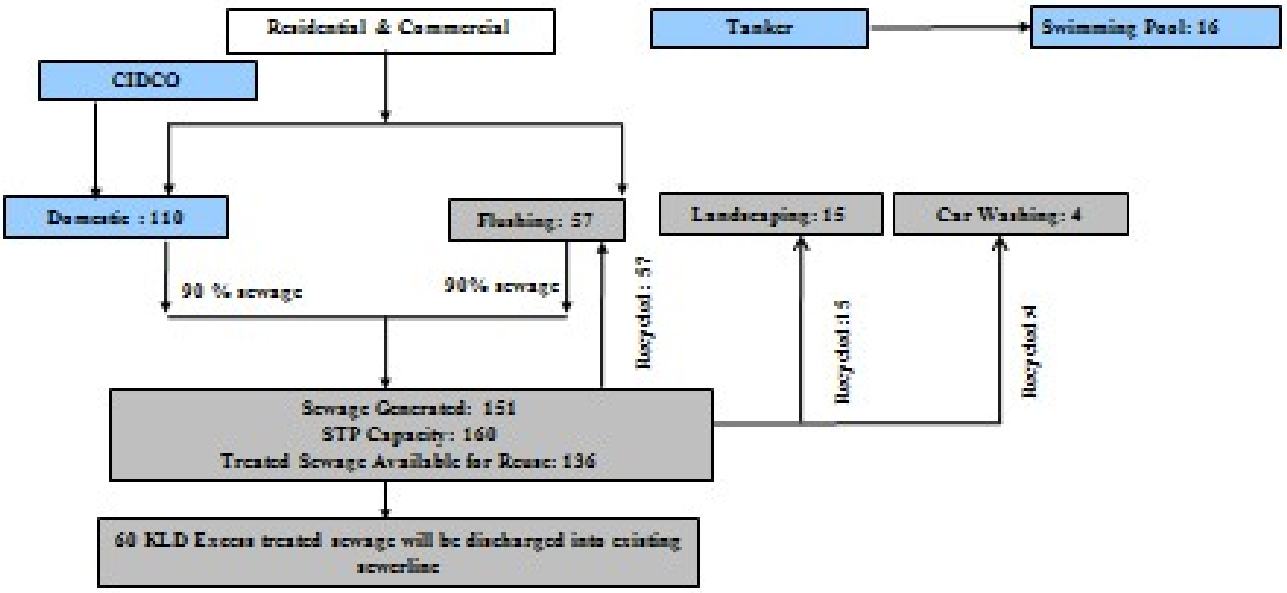
4. The water so collected/recharged shall as far as possible be used for non-drinking and non-cooking purpose.

Provided that when the rain water in exceptional circumstances will be utilized for drinking and/or cooking purpose, it shall be ensured that proper filter arrangement and the separate outlet for by passing the first rain-water has been provided.

Provided further that it will be ensured that for such use, proper disinfectants and the water purification arrangements have been made.

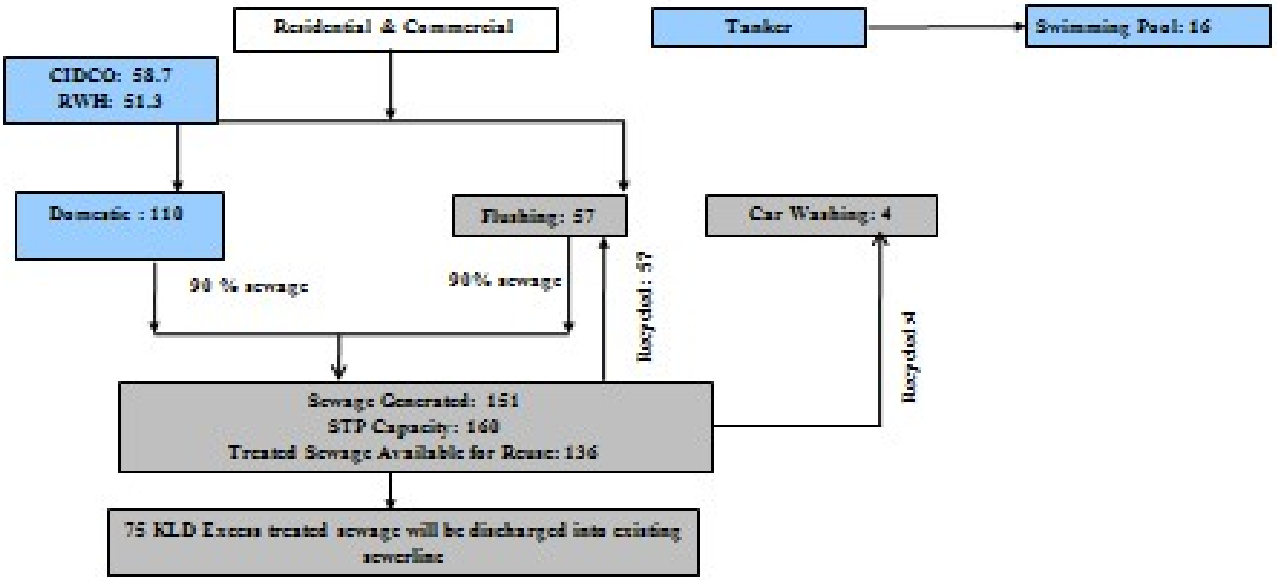
Enclosure No. 11: Water Balance chart

WATER BALANCE PER DAY BASIS NON- MONSOON



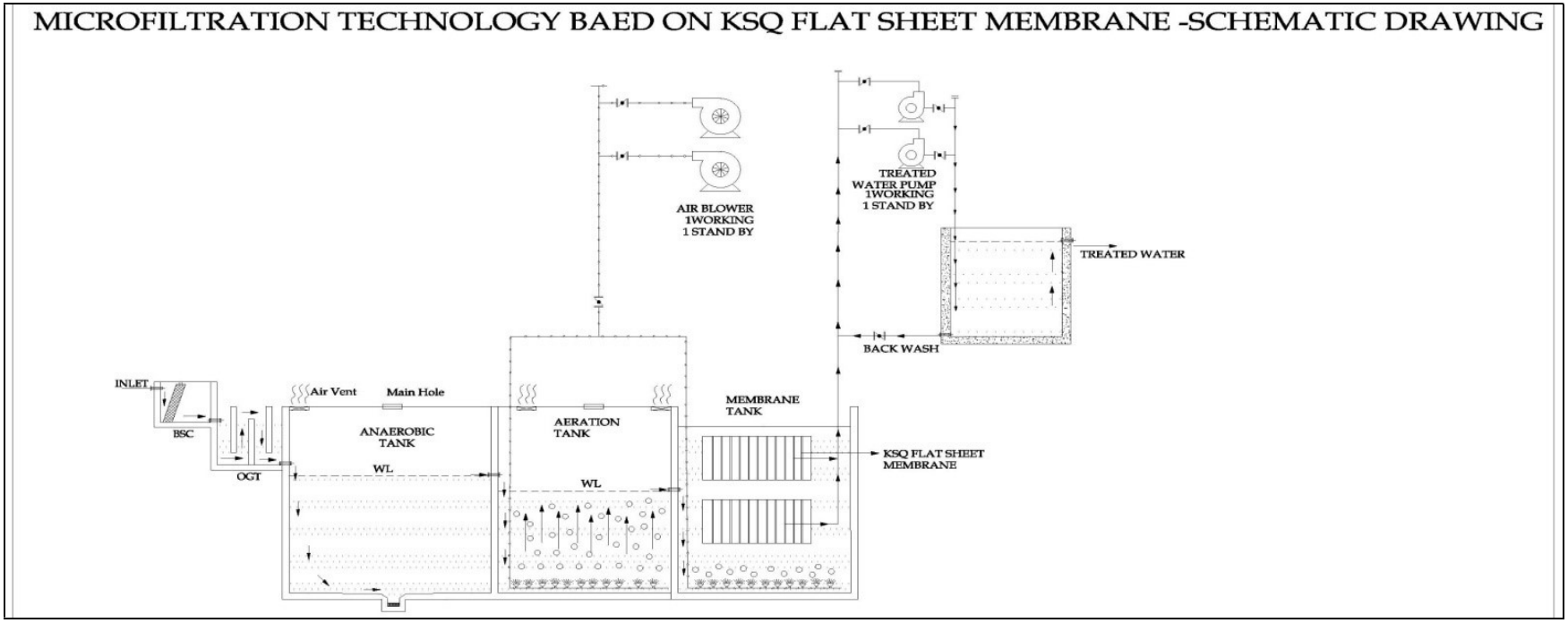
Total water requirement = 202
Treated sewage available for recycling= 136
[Treated sewage only from proposed STP]
After recycling treated sewage will be used for Landscaping (15.0), flushing (57.0), car washing (4.0)
Net water requirement : 110 [Source: From local authority (CIDCO) = 110 (domestic) & From STP =76]
Reduction in Net water Demand = 37.60%

WATER BALANCE PER DAY BASIS MONSOON



Total water requirement = 187
Treated sewage available for recycling= 136
[Treated sewage only from proposed STP]
After recycling treated sewage will be used for flushing (57) & Car washing (4)
Net water requirement : 58.7 [Source: From local authority (CIDCO) = 58.7 (domestic), From RWH (51.3), From STP (61)] RWH= 51.3 for Domestic Use and STP = 61 for flushing and car washing.
Reduction in Net water Demand = 60%

Enclosure No. 12: Proposed Scheme for treatment of sewage



Raw Sewage and Treated sewage quality parameters

Sr. No.	Parameters	Units	Inlet	Outlet
1.	Daily Flow	KLD	97.66	87.90
2.	pH	-	6 -8	6.5 – 8.5
3.	BOD	Mg/L	350 – 400	Less than 10 Mg/L
4.	COD	Mg/L	300	Less than 30 Mg/L
5.	TSS	Mg/L	175 - 200	Traces
6.	Oil and Grease	Mg/L	30	Less than 5 Mg/L

STP based on Micro Filtration - KSQ FLAT SHEET MEMBRANE – 160 KLD (description)

- Sewer Line Invert level is at 1.0 mtrs (assumption) below ground level.

- Sewage water enters through the multiple bar screens of different pore sizes. The bar screens have to be cleaned regularly.

- By way of overflow the sewage water enters the Equalization tank. Toxic gases are vented out through provision of a vent pipe. Depending on the operations of the STP the process of sludge removal should be done periodically for operational efficiency.

- Sewage water moves into the Aeration tank by overflow.

- Air purging is done at this stage with a compressor that caters to the KSQ-membrane tank as well. Also provision of vent pipes to add oxygen is given in this tank.

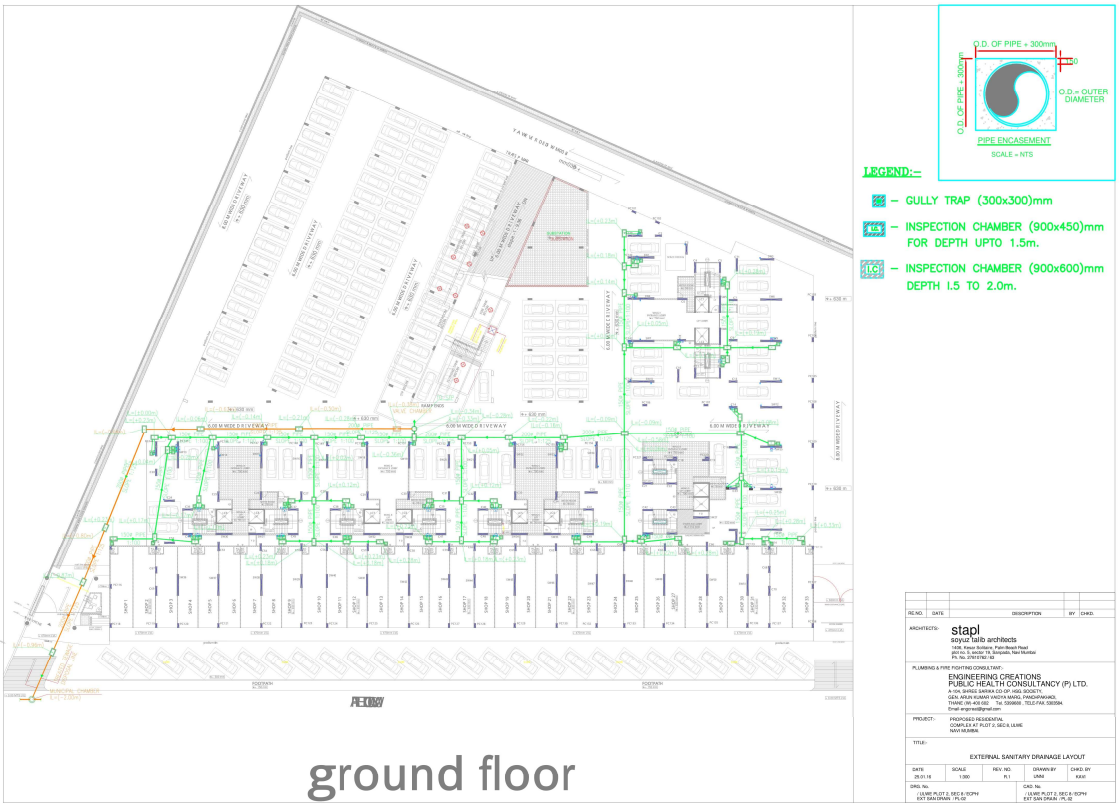
- Water enters the Membrane Tank by overflow.

- In the membrane tank the filtration will take with the help of compressor and membranes of appropriate capacity.

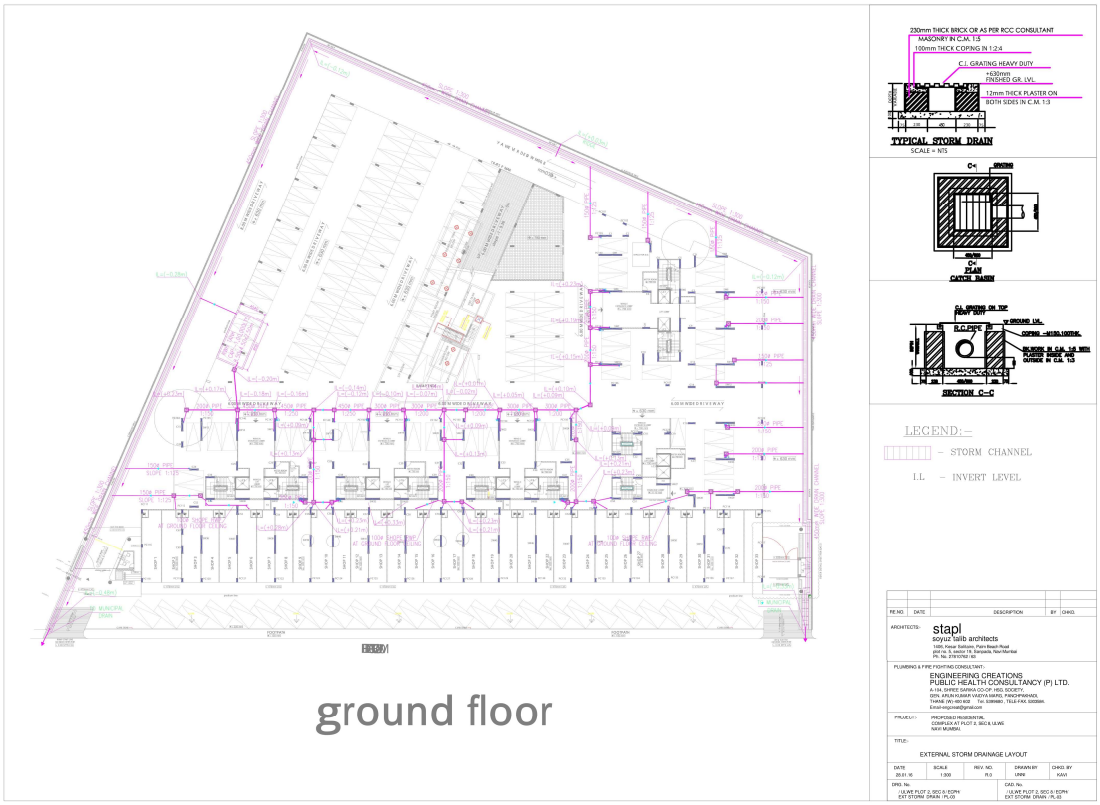
- Then the treated water will be pumped into the Back Wash tank. Depending on the position of the flush tank the treated water will be pumped or will flow by overflow/gravity into the Flush tank.

Enclosure No. 13: Excess treated sewage disposal plan/ scheme to be submitted

External Sanitary Drainage Layout



External Storm Drainage Layout



ground floor

Enclosure No. 14: DG set Details and Energy Conservation

CONSULTANT	CLIENT -	Revision	R1
ENGINEERING CREATIONS PUBLIC HEALTH CONSULTANCY PVT. LTD	SHREENATHJI ORGANISERS PVT. LTD.	Date	01.06.2016
	PROJECT - DELTA TOWER-2_ULWE	Doc No	
		Prepared By	KSM

ELECTRICAL LOAD SHEET

WINGS	FLOOR	DESCRIPTION	Area (Sq Mtr)	LOAD/FLAT (As per MSEB norm 75W/Sq Mt)	TOTAL FLATS	MAX DEMAND IN KW FOR TRANSFORMER	MAX DEMAND IN KW FOR DG	
							Load on DG during normal power failure	Load on DG during fire
WING A	2nd-14th FLOOR	2 BHK	65.0	4.88	36	176	--	--
		3 BHK	85.0	6.38	12	76.50	--	--
WING B	2nd-14th FLOOR	2 BHK	65.0	4.88	46	224.25	--	--
WING C	2nd-14th FLOOR	2 BHK	65.0	4.88	46	224.25	--	--
WING D	2nd-14th FLOOR	2 BHK	65.0	4.88	35	171	--	--
		3 BHK	85.0	6.38	13	82.88	--	--
WING E	2nd-14th FLOOR	2 BHK	65.0	4.88	36	175.50	--	--
		3 BHK	85.0	6.38	12	76.50	--	--
TOTAL RESIDENTIAL LOAD FOR WING A,B,C,D,E						1206.000	--	--
TOTAL LOAD WITH OVERALL DIVERSITY 75 %						904.50	--	--

COMMON AREA	TOTAL LOAD	Demand Factor	MD For Transformer in KW	MD For DG IN KW	
				Load on DG during normal power failure	Load on DG during fire
Ground, First & Second parking area	24	0.8	19.2	19.2	19.2
LIFT (WING A) (2 No.)	22	1	22	22	22
LIFT (WING B) (2 No.)	22	1	22	22	22
LIFT (WING C) (2 No.)	22	1	22	22	22
LIFT (WING D) (2 No.)	22	1	22	22	22
LIFT (WING E) (2 No.)	22	1	22	22	22
SHOPS (33 No.)	200	0.8	160	-	-
Common Area Lighting Load	15	0.8	12	12.0	12
Amenity Area	10	0.8	8	8.0	0
Plumbing	45	0.75	33.75	33.8	0
STP Load	25	0.75	18.75	18.8	0
WTP Load	10	0.75	7.5	7.5	0
Fire Fighting	175	0.2	35	35.0	160
Landscape lighting load	10	0.8	8	8.0	8
External Lighting	5	0.8	4	4.0	4
Extra	30	0.8	24	14.4	0
TOTAL COMMON LOAD (With 70% Diversity)			308.14	270.6	313.2
TOTAL LOAD (RESIDENTIAL+COMMON) IN KW			1213		
TOTAL LOAD For TRANSFORMER IN KVA (With 0.8 Power Factor & 80% loading)			1894.8		
WE PROPOSE TO HAVE 2 NOs OF 1000 KVA TRANSFORMER					
DG SET FOR COMMON AREA					
TOTAL LOAD For DG SET (IN KW)			313		
TOTAL LOAD For DG SET (IN KVA)			392		
2 NOs OF 200KVA					
ONE FOR FIRE FIGHTING LOAD & ONE FOR COMMON SERVICES					

ESTIMATED AVERAGE ANNUAL ELECTRICITY CONSUMPTION

SR.NO	LOAD DESCRIPTION	AVG (KW)	QTY	AVG.HRS/DAY	AVG.KWH/DAY
1	Residential Lighting Load	132.2	1	4	529
2	Residential (1 no. light and 1 no. fan on solar)	28.3	1	4	113
3	Shop Load	200	1	12	2400
4	Lift Lobby passage and Staircase	15.0	1	12	180
5	LIFT Load	11.0	10	6	660
6	Plumbing	45.0	1	2	90
7	Aminities Area	10.0	1	12	120
8	Parking Load	24.0	1	12	288
9	STP LOAD	25.0	1	8	200
10	WTP LOAD	10.0	1	8	80
11	Landscape Lighting	10.0	1	8	80
12	External Lighting	5.0	1	8	40
13	HOT WATER BY GEYSER	3.0	509	1	1527
	Average KWH/ Day				**6307**
	Average KWH/ Annum				**2302026**

REDUCTION IN CONSUMPTION BY USING ENERGY SAVING MEASURE

A	**By Using CFL / T5 Lamps & Electronic Ballast**	
	Basis of camparision	
	Diff Between 28W T5 and 40W T8 lamp	12 W which comes to 30%
	Diff Between 11W CFL and 20W T8 lamp	9 W which comes to 45%
	Hence Overall Saving can be considered as 37%	
B	**By using LED Light in Lift Lobbies**	**50%**
C	**Basis Ballast comparision**	
	Watt losses for VPIT copper ballast compared to electronic ballast	5W which comes to 20% for T5 and 30% for CFL
	Hence Overall Saving can be considered as 25%	
D	**VFD by using Lift**	**30%**
E	**External Lighting will be on Solar lighting system**	**100%**

Sr No.	Area	Per day unit consumption	Saving Percentage	Per day Unit Consumption after saving	Saving in Unit
A	**Saving Due to CFL Lamp**				
1	CFL /T5 Light for Common floor Area & residential	354	37	223	131
2	Shop Load	600	37	378	222
3	Parking area	144	37	91	53
4	EXTERNAL LIGHTS	30	37	19	11
B	**Saving Due to LED Lamp**				
1	LED Light for Amenities area	60	50	30	30
2	LANDSCAPE LIGHTS	40	50	20	20
C	**Saving Due to Electronic Ballast**				
1	Common Floor Area lighting	90	25	68	23
2	Parking area	173	25	130	43
D	**Saving Due to VFD**				
1	Saving in lift by using VFD	660	30	462	198
E	**Saving Due to Solar Lighting**				
1	Saving Due to Solar Lighting for External Lighting	10	100	0	10
1	Saving Due to Solar Lighting for Residential (1 no light and 1 no fan)	113	100	0	113
F	**Saving Due to Solar Hot Water**	764	100	0	764
	Average KWH/Day saving				**1618**
	Average KWH/Annual saving				**590555**

TOTAL ANNUAL SAVING	**590555**
SAVING IN PERCENTAGE %	**26**
ANNUAL SAVING ONLY BY SOLAR	**323675**
SAVING IN PERCENTAGE % (ONLY BY SOLAR)	**14**

Enclosure No. 15: Rain water harvesting system details and calculation

Introduction:

Rainwater harvesting may be defined as process of capturing the runoff from the roof/terraces and storing it for reuse or augmenting the natural infiltration of rainwater or surface run off into the ground by some artificial methods. The choice and effectiveness of any particular method is governed by local hydrological and soil conditions and ultimate use of water.

Aim/Objective:

The planned augmentation of water storage in the ground water reservoirs by Suitable Rainwater harvesting techniques is useful for reducing overdraft, conserving surface runoff and increasing available water supplies.

Methods of Rainwater Harvesting:

Broadly the rain water can be harvested by two methods

- Store the rainwater in tanks above grounds or below grounds;
- Recharge into soil for withdrawal later by ground water recharging basis.

For the project the rain water harvesting will be implemented capturing the roof runoff and storing it into underground storage tank after passing it to suitable filtration chamber.

Design Basis:

Average Annual Rainfall per year	-	94" (2.40m)
Catchment Area – Roof tops / terraces	-	1900 sq.m approx.
Average no. of rainy days	-	80 days
Coefficient of run-off for Roof tops	-	0.90
Average rainfall per day	-	57 cu.m.
Rain water that can be harvested	-	51.3 cu.m.
Rain water Harvesting tank provided	-	1,00,000 litres (2 days storage capacity)

Enclosure No. 16: Solar water heating calculation and Solar Panel PV Location

SOLAR WATER HEATING:

Hot water heater storage or instant type will be provided for Shower and wash basin in the toilet. In addition to the heater, solar water heating system is proposed for Master toilets. The inlet from solar heating system will be connected into the inlet of the heater so that if required, the heater can be switched on to get the desired temperature. The solar system will be designed for temperature of 60^0 C. +/- 5^0C. The solar hot water collector can reach extremely high temperatures and hence Temperature sensors/ thermostatic valve will be provided to control the temperature around 60^0 C. The solar water panels/ collectors along with the storage tank will be installed at roof level. It is also advised to install ball valves in the loop in order, to and from the solar hot water collector, in case maintenance work needs to be done on this section of the system. This allows you to do the maintenance on pipes, the manifold or the circulation pump without having to drain the tank every time. Essentially, the piping and tank will have to be insulated with suitable high quality insulation.

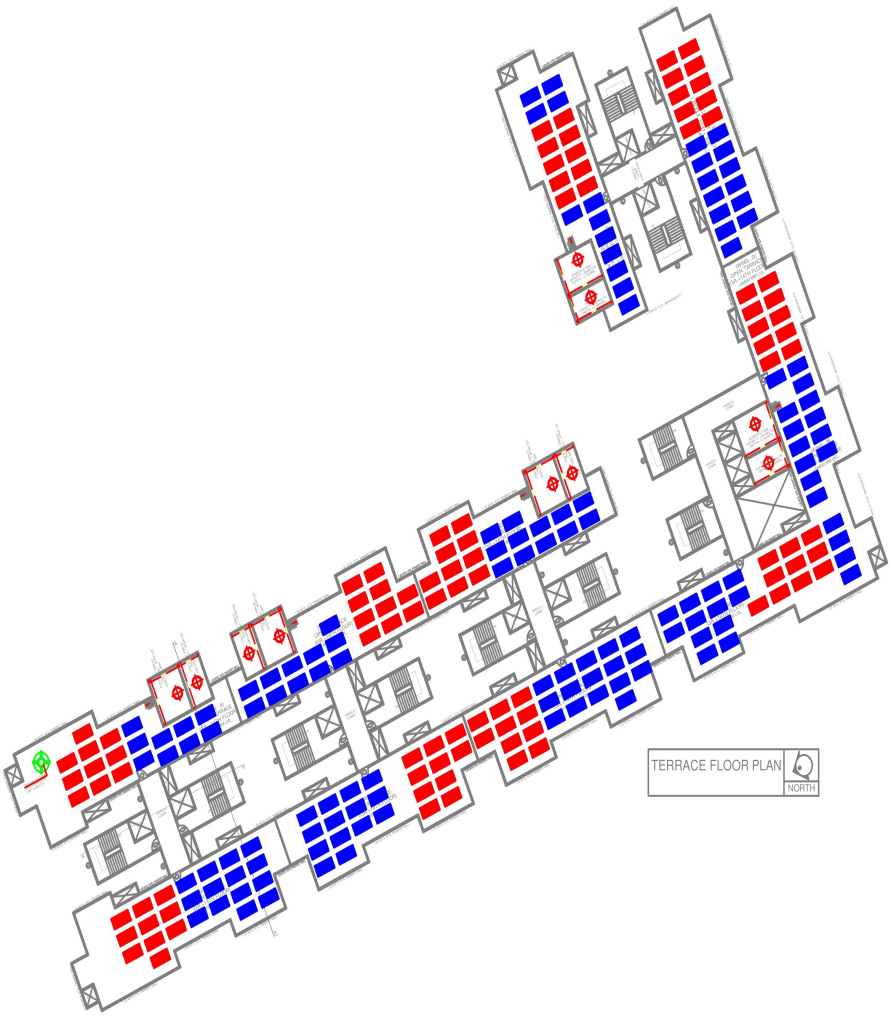
Calculation (Wing A):
Total no of flats - 48 flats
Solar hot water demand - 125 liters/flat
Solar water tank - 6000 litres; hence provide 6,000 litres

Calculation (Wing B):
Total no of flats - 46 flats
Solar hot water demand - 125 liters/flat
Solar water tank - 5750 litres; hence provide 6,000 litres

Calculation (Wing C):
Total no of flats - 46 flats
Solar hot water demand - 125 liters/flat
Solar water tank - 5750 litres; hence provide 6,000 litres

Calculation (Wing D):
Total no of flats - 48 flats
Solar hot water demand - 125 liters/flat
Solar water tank - 6000 litres; hence provide 6,000 litres

Calculation (Wing E):
Total no of flats - 48 flats
Solar hot water demand - 125 litres/flat
Solar water tank - 6000 litres;hence provide 6,000 litres



Note :- 1. Total No. of solar Panel for electrical is 130.
2. Therefore net generation will be 30kW.
2. Solar Panel for electrical is only for 1 no light and 1 no fan of each flat

LEGEND

	250 Watts Solar Panel Electrical 2m x 1m
	Solar Panel Water Heater 2m x 1m

RE.NO.	DATE	DESCRIPTION	BY	CHKD.

ARCHITECTS:-
stapl
soyuz talib architects
1406, Kesar Solitaire, Palm Beach Road
plot no. 5, sector 19, Sanpada, Navi Mumbai
Ph. No. 27810782 / 83

PLUMBING & FIRE FIGHTING CONSULTANT:-
ENGINEERING CREATIONS
PUBLIC HEALTH CONSULTANCY (P) LTD.
Office No. 703, 8th Floor, Ecstacy Business Park
Near Mulund East-West Flyover, Jatashankar Dosa Road,
Mulund (West), Mumbai-400080
Tel. 022 25918279/25918227 TELE-FAX 25918203
E-mail: engcreat@vsnl.com

PROJECT:- PROPOSED RESIDENTIAL
COMPLEX AT PLOT 2, SEC.8, ULWE
NAVI MUMBAI.

TITLE:-
PROPOSED SOLAR PV PANEL LOCATION

DATE	SCALE	REV. NO.	DRAWN BY	CHKD. BY
02.01.2017	1:250	R.0	ROHINI/KULDEEP	KAVI/KALPESH

DRG. No.	CAD. No.
845/ ULWE PLOT 2, SEC.8 / ECPH/ PROPOSED SOLAR PV PANEL LOCATION/EL-07	D/ ULWE PLOT 2, SEC.8 / ECPH/ PROPOSED SOLAR PV PANEL LOCATION

Enclosure No. 17: Solid waste generation and Management scheme

Facilities Provided	Waste Generation Norms	Basis of Assumption	Unit		**Total Waste Generated (KG/ day)**
Residential	0.45	Source: Manual for municipal solid waste management	1210	Persons	544.50
Commercial	0.25	Guidelines for preparation for environmental impacts, CIWMB	99	Persons	24.75
Garden Space	0.003	Discussion with Horticulturists	3795.76	Sq. Mt.	11.39
STP Sludge	250	Manual for Sewerage and Sewage treatment by CPHEEO		Million Liters per Day	2.50
Total Bio Degradable					408.20
Total Non-Bio Degradable					174.94
Total Waste Generated (Kg/day)					583.14
Therefore, space required for waste storage and segregation will be 40 Sq.mt					

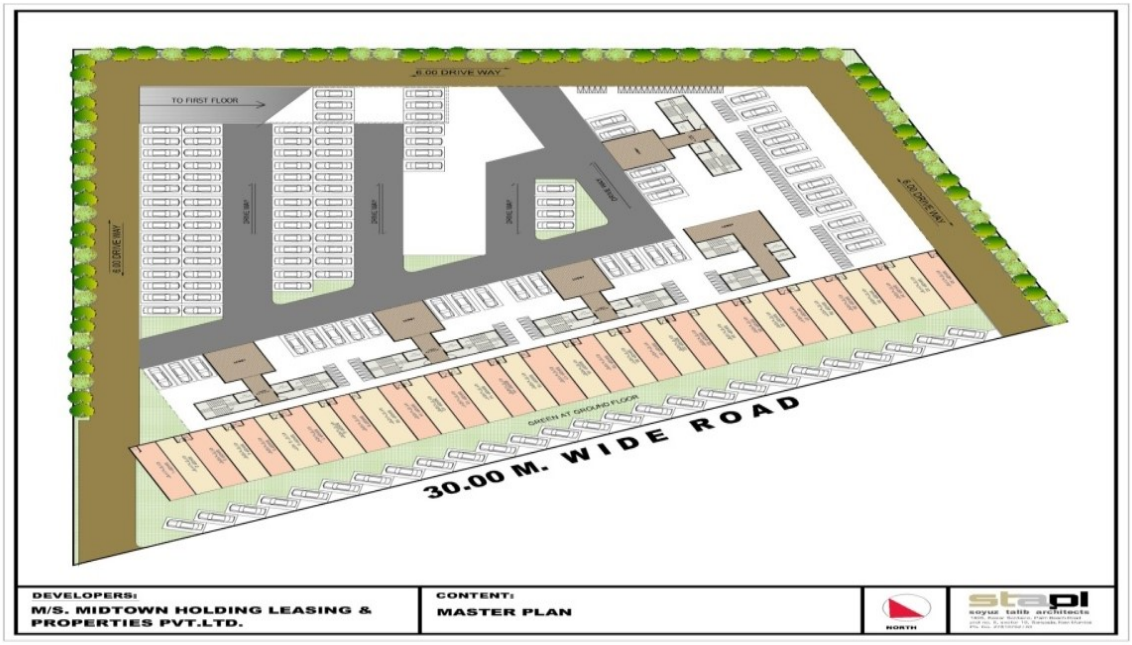
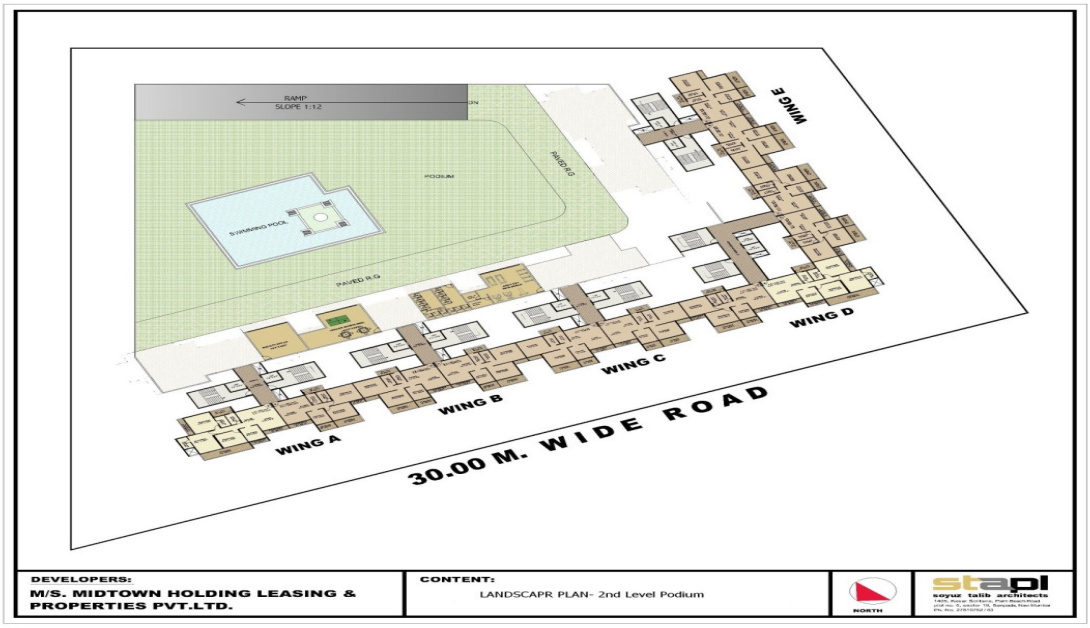
SOLID WASTE TREATMENT TECHNOLOGY

Moisture Content	**21.03 % by weight**	**CPHEEO Manual, 2000**
C / N Ratio	22.45	
Total Biodegradable waste Generated per day 409.24 Kg/day		
Area required for segregation, collection, storage, treatment and disposal	• Space required for waste storing and segregation will be 2.00 m. X 5.00 m. i.e. 10.00 Sq.m. • Area required: Cabin Space for OWC 60 = 6m x 3 m + extra clearance space around machine: 18.00 Sq. m. • Area for Sawdust Storage: 2 Sq.m. • Area required to store compost: 6.00Sq.m. • Area for maturing/curing : 4.00 Sq.m. • Total Area Required for Waste Management Processing of the Project = 40. 00 Sq.m.	
Segregation	The waste will be segregated by flat owners. Two different color buckets shall be provided in each flat	
Collection	Waste will be collected from each flat and delivered to Organic Waste Converter in closed containers	
Treatment	Biodegradable waste: through Organic Waste Composting	
Disposal	Biodegradable waste: Used in garden as manure Non-Biodegradable waste: Handover to Municipality	

TECHNICAL DETAILS

Model	60
Composting Capacity (Kg/day)	1 machines of 400 kgs
Power Connection	4 HP (Main Motor & Chopper Motor)
Dimensions of model(ft)	7.6 X 3.9 X 5
Brim Capacity	60 Lit.
Waste Batch size	25 Kg.
Batch Duration	15 min.
Trolley	One No. of SS-304.

MANURE QUALITY PARAMETES

Parameters	**Proposed Results**	**Unit**
pH	6.8	
Electrical Conductivity	6.78	mS
Total Kjeldahl Nitrogen	0.98	mg/kg
Phosphorus as P	3572	mg/kg
Potassium as K	10090	mg/kg
Total Organic Matter	27.21	%
Total Organic Carbon	18.78	%
Sodium Absorption Ratio	2.87	-
Chloride	157.85	mg/kg
Nitrate	1.52	mg/kg
Sulphate	23.46	mg/kg
Calcium Carbonate	17.80	%
Iron as Fe	9016	mg/kg
Manganese as Mn	52.25	mg/kg

Annexure No. 18: Landscape plan on Ground and Podium