

1.0 Name of Work : Engineering, procurement and construction of multistoried residential finished flats based on beam-column conventional framed structure or R.C.C. monolithic shear wall concept using aluminium form work in Nandini Enclave in sector-3, Awadh Vihar Yojana, Lucknow including soil testing, structural design as per relevant code, construction complete in all respect ready to move in for living condition.
The scope of work consists of survey as required and soil testing to ascertain type and depth of foundation of building & supply of vetted (from any Indian Institute of Technology) structural designs and detailed architectural drawings, supply of all material, labour, T&P, machinery etc required for proper completion of the project. The concept architectural drawings are enclosed with BID Document.

| 1.1 Flat Details : | | | |
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| Sl. No. | Flat Type | Number of Flats | Scope of work |
| 1 | 2BHK (F-84) | 336 | Stilt+7Floors + Mumty + water storage tank +parapet walls etc |
| 2 | 2BHK (F-64) | 168 | Stilt+7Floors + Mumty + water storage tank +parapet walls etc |

1.2 Brief Description of Major Items of work under scope of work

| SN | Item of work | Brief Description of Work |
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| 1 | Sub Structure | |
| a | Survey & Soil Testing | Carrying out survey as required & soil testing to ascertain the soil condition, type and depth of foundation of the building.level of general soil |
| b | Excavation, Backfilling, earth filling upto plinth and Disposal of surplus Earth | Excavation up to the desired depth, back filling in layers as per specification and disposal of surplus earth shall include royalty and all other applicable taxes, octories etc. no payment or claim of whatsoever nature shall be entertained on this account. The surplus earth shall have to be disposed true to line and level as per directions of Engineer in Charge with in 5.00 kilometer distance. This shall be included in the scope of work. Filling of earth including 15 cm sand filling upto plinth shall have to be done |
| c | Foundation | Foundation shall be constructed as per architectural drawings and vetted structural design and structural drawings. The work is to be carried out on conventional Beam-column based framed structure or Shear wall technology using aluminum form work. The Anti termite treatment shall be done as per relevant IS Code. The executed work to have warranty of 10 years on Rs. 100/- Stamp paper. The work shall be completed in all respect. all items of work to construct the foundation such as excavation upto the desired level, dewatering, earth/sand filling, laying of 100 mm lean concrete in 1:5:10 with cement, coarse sand and stone aggregate, reinforcement work, foundation casting, RCC work in structural elements of foundation with RCC walls, RCC raft or strip foundation as per structural requirement and relevant code using aluminium form work, Brick work and plaster, back filling & earth filling if required, water proofing, anti termite etc as per design and drawings & as per relevant specification are included in the scope of work along with supply of all relevant material, labour, T&P, shuttering scaffolding etc complete in all respect. 150mm thick lean concrete layer has to be provided as interface layer in the areas where earth filling or cutting/ sand filling is done. |
| d | Earthfilling in plinth and sandfilling in plinth | Earthfilling upto plinth level leaving margin for 15 cm sand filling and 10 cm lean concrete in 1:5:10 with cement, coarse sand and stone aggregate is to be done inside of plinth in 15 cm layer including proper ramming, compaction, watering etc. complete. The earthfilling is also to be done all around the periphery of houses in 2.0 m width for apron in the manner as stated above. 15 cm sand filling is also be done inside the plinth including proper ramming and compaction. The cost to include bringing of earth and sand to site and filling by headload complete. |
| 2 | Super Structure : | |
| A | Structural Work | The work is to be carried out on conventional Beam-column based framed structure or Shear wall technology using aluminum form work. All items of work related to construct the super structure such as RCC in structural element, Reinforcement work, Filler walls, plaster etc as per Design and drawings are included in the scope of work along with supply of all relevant material, labour, T&P, Shuttering, scaffolding etc complete in all respect and as per relevant specification as per design & drawing. |


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| B Door Frames | | |
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| b.1 | Outer door | Made of seasoned Maleshia sal wood finished size 125 mm x65 mm double rebate with 4 to 8 no 100 mm ISI stainless steel hinges as per requirement. Frame shall have teak wood beading 30 x 6 mm. The scope of work to include supply of all relevant materials, its joinery. The joints treated with fevicol, two coats of wood preservatives and one coat of wood primer with black japan on wall side including two to three coats of enamel paint of approved colour and fixing it in position with fasteners and complete in all respect. |
| b.2 | Internal Doors | Made of seasoned Maleshia sal wood Finished size 100 mm x65 mm single rebate with 4 to 8 no 100 mm ISI stainless steel hinges as per requirement. Frame shall have Teak wood Beading 30 x 6 mm. The scope of work to include supply of all relevant materials, its joinery. The joints treated with fevicol, two coats of wood preservatives and one coat of wood primer with black japan on wall side including two to three coats of enamel paint of approved colour and fixing it in position with fasteners and complete in all respect. |
| b.3 | Toilet Doors | Made of PVC Standard sections compatible to approved make & design as directed by Engineer- in- charge. |
| b.4 | Balcony Doors | Made of powder coated aluminium framed, partly sliding partly fixed fully glazed door/window with provision of mosquito s/s jali as directed by Engineer in charge. |
| Note:- For double leaf door and windows shutters additional hinges shall be provided as per requirement for which no extra amount is payable. <i>The Height of door / door cum window to be considered 2.10 m</i> | | |
| C Door shutters | | |
| c.1 | Main door | 30 mm thick ISI walnut finish solid core designer, water proof, phenol bonded, termite proof, flush door shutter single leaf/double leaf or pressed panel doors with malamine spray polished two or more coats of approved quality and approved design with ISI aluminium fittings and fixtures including night latch, magic eye approved, godrej mortice lock, sliding bolts, tower bolts, handles, door stoppers, steel hinges and necessary screws, bolts, nuts etc complete in all respect as per specification. |
| c.2 | All other Internal Doors | 30 mm thick ISI water proof, phenol bonded, termite proof, flush door shutter single leaf/double leaf with enamel paint two or more coats of approved quality and approved design with ISI aluminum fittings and fixtures including sliding bolts, tower bolts, handles, door stoppers, steel hinges and necessary screws, bolts, nuts etc complete in all respect as per specification. |
| c.3 | Mosquito Jali shutters | Main Door (Entrance door) in Each Flat to be provided with laminated factory made 30mm thick Jali Shutter made of approved quality prelaminate wood strictly as per Architectural Drawing. Stainless Steel Wire mesh is to be fixed as per drawing. The Scope of work to include supply of all material, labour, T&P along with fixing in frame complete in all respect. Entrance shall be spray polished with 2 or more coats of malamine and others to be enamel painted 2 or more coats over one coat of primer.S.S. Jali to be painted with blue /green colour. |
| D Glazed Window and Ventilator Frames and Shutters | | |
| d.1 | Sliding door & Windows, ventilators | Window frames shall be made of powder coated aluminium (min. thickness of powder coating 50 micron) three track sliding fully galazed door/window shutters with the provision of s/s mosquito jali as directed by Engineer in charge. Ventilator shutters shall be made of powder coated aluminium (min. thickness of powder coating 50 micron) conforming to relevant IS codes with the provision of louvers. With arrangement for movement. |
| E Flooring | | |
| e.1 | On All Floor Area's of flat but excluding balcony, kitchen and Toilet floor | Polished double charged stain free Vitrified tiles in flooring and in skirting (100mm wide) 8-10 mm thick, size 600mmx600mm of approved brand & shade laid over 1:4 Cement and Coarse sand mortar of 20 mm thick or by approved tile adhesive with cement slurry and joints to be properly filled by approved grouting material finished complete in all respect as per drawing and approved pattern (To be approved by UPAVP) laid to line and level. |
| e.2 | Kitchen & Balcony Floors | Anti skid ceramic tiles in flooring and in skirting (100mm wide) 6-10 mm thick joint less, size 300mmx300mm or more (To be approved by UPAVP) of approved brand & shade laid over 1:4 Cement and Coarse sand mortar of 20 mm thick or by approved tile adhesive with cement slurry and joints to be properly filled by approved grouting material finished complete in all respect as per drawing and approved pattern laid to line and level. Floor below kitchen sinks is to be sunken 40 mm from general floor level. |
| e.3 | Toilet Floors | Anti skid ceramic tiles in flooring 6-10 mm thick joint less, size 300mmx300mm or more (To be approved by UPAVP) of approved brand & shade laid over 1:4 Cement and Coarse sand mortar of 20 mm thick or by approved tile adhesive with cement slurry and joints to be properly filled by approved grouting material finished complete in all respect as per drawing and approved pattern laid to line and level. |


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| e.4 | Common Areas at all Floor | Average 25 mm thick, cut size 22"x22" Kota stone flooring and skirting (100mm wide) with marble strip as per design laid over 20 mm thick 1:4 cement and coarse sand mortar including joints with cement slurry mixed with pigment to match the shade including rubbing & diamond cutting /granite polishing etc true in line and level. |
| e.5 | Risers, Treads, landing of stairs in staircase | Average 20 mm thick thapi Kota stone flooring in floor and in skirting as per design laid over 20 mm thick 1:4 cement and coarse sand mortar including joints with cement slurry mixed with pigment to match the shade including rubbing & polishing and making half round moulding in treads etc true in line and level as per directions of Engineer In charge. Kota stone nosing to be moulded in approved shape on treads true to level and alignment. |
| e.6 | Apron around building | As required as per site condition. |
| e.7 | Stilt Floor | 75 mm thick tremix vacuum dewatered concrete floor including use of approved hardening compound and finished with necessary brooming with hardner as required over 150 mm thick 1:4:8 (Cement, C/sand & Stone Aggregate) base concrete as required and directed by E/I. |
| F | Wall Cladding | |
| f.1 | Wall area inside Toilets | Joint less Ceramic tiles in all wall up to 2.10 meter height, 6-8 mm thick size 300 mm x 600 mm with border or more (To be approved by UPAVP) of approved brand & shade laid over 1:3 Cement and Coarse sand mortar or by approved tile adhesive with cement slurry and joints to be properly filled by approved grouting material finished complete in all respect as per drawing and approved pattern laid to line and level. |
| f.2 | Wall area in Kitchen over Kitchen Platform and facing sink | Ceramic tiles in wall (Height 600 mm from Kitchen platform top) 6-8 mm thick jointless, size 100mmx100 mm or more (To be approved by UPAVP) of approved brand & shade laid over 1:3 Cement and Coarse sand mortar or by approved tile adhesive with cement slurry and joints to be properly filled by approved grouting material finished complete in all respect as per drawing and approved pattern laid to line and level. |
| G | Railings | |
| g.1 | Stairs | M.S. Railing made of 20mm sqr tube 12gauge and standard D section (thickness not less than 12gauge) and two rows of 30x4 mm M.S. flat required as per drawing for proper fabrication, erection and fixing on steps true to line and level as per architectural drawing complete in all respect along with 1 coat of red oxide zinc cromate primer along with 2 or more coats of enamel paint of approved make and shade scope includes fixing of railing on Treads/landing with suitable incharge system including making hole etc complete. |
| g.2 | All Balconies + Other railings | M.S. Railing made of 20mm sqr tube 12gauge and standard D section (thickness not less than 12gauge) and two rows of 30x4 mm M.S. flat required as per drawing for proper fabrication, erection and fixing true to line and level. The design will strictly be followed as per architectural drawing complete in all respect. |
| H | Kitchen Platform | 15-18 mm thick (Black/Maroon) granite stone top of approved quality and shade over 20 mm thick base of 1:4 cement and coarse sand mortar laid and jointed with cement slurry with pigments of approved colour and shade including polishing and full round moulding at edges and strip on front side of platform with necessary hole for gas pipe etc complete in all respect. The scope of work also to include construction of necessary RCC platform 40mm thick with all works associated complete in all respect. The floor area below platform may have to be raised 50 mm or more as directed by E/I. |
| I | Water proofing and antitermite treatment | |
| i.1 | All Terraces and other places | Water proofing by avg 100 mm thick Brick Coba treatment as per standard specification. The executed work shall have warranty of 10 Years. The Firm has to submit affidavit on Rs 100 Stamp Paper for 10 Years Warranty for precautionary measure 40 mm dia PVC spout have to be fixed for drainage purpose. |
| i.2 | Toilet sunk depth more than 250 mm | The area shall be free from any type of seepage. The System of water proofing shall be approved by UP AVP depending upon site condition. The executed work shall have warranty of 10 Years. The Firm has to submit affidavit on Rs 100 Stamp Paper for 10 Years Warranty. |
| J | Finishing | |
| j.1 | On Ceiling of Flats (All rooms excluding toilets, kitchen, balcony) | Surface to be prepared with wall putty of approved make after thoroughly cleaning the concrete ceiling surface as per directions of Engineer in Charge. |
| j.2 | On ceiling of Flats in toilets, kitchen, balcony | Surface to be prepared with Birla Putty /J.K. wall putty after thoroughly cleaning the concrete surface / plastered surface to give an smooth surface, its rubbing and cutting and applying 2 or more coats of approved shade dry distemper over one coat of cement primer to give even and smooth finished surface as per directions of Engineer in Charge. |

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| j.3 | On walls of Flats (Internal) | Surface to be prepared with Birla Putty /J.K. wall putty after thoroughly cleaning the concrete surface /plastered surface to give an smooth surface, its rubbing and cutting and applying 2 or more coats of oil bound distemper over one coat of cement primer to give even and smooth finished surface as per directions of Engineer in Charge. |
| j.4 | On All External Concrete/ Plastered surfaces | Finishing wall with Asian Apex ultima coat 2 or more coats over and including one coat primer of approved brand and shade on undecorated wall surface to give an even shade after thoroughly brushing the surface free from mortar droppings and other foreign matter and also including making the surface perfectly even with Birla putty and sand paper smooth etc complete as per drawing and design . |
| j.5 | On All Internal surfaces not mentioned specifically | Surface to be prepared with cement wall putty of approved make after thoroughlycleaning the concrete surface / plastered surface to give an smooth surface, its rubbing and cutting and applying 2 or more coats of oil bound distemper over one coat of cement primer to give even and smooth finished surface as per directions of Engineer in Charge. |
| j.6 | On All external surfaces not mentioned specifically | Finishing wall with Asian Apex Ultima two or more coats over and including one coat primer of approved brand and shade on undecorated wall surface to give an even shade after thoroughly brushing the surface free from mortar droppings and other foreign matter and also including making the surface perfectly even with Birla putty and sand paper smooth etc complete as per drawing and design . |
| j.7 | Plaster | Plaster shall be 12mm thick of mortar 1:4 (cement & C/sand) for outer surface and 1:6 (cement & C/sand)for inner surface. |
| K | Expansion Joints : | All Expansion joints to be constructed as per structural designs and IS code. The same should be covered / treated to prevent water ingress in line with IS Code / Specification/ CPWD Specifications complete in all respect as per direction of E/I |
| L | RCC Water storage Tank on terrace : | Each tower shall have water storage tank(s) of required capacity according to design and drawing as directed by E/I on the terrace. The same is to be constructed as per approved design, drawing.The glazed ceramic tiles shall be laid on inner walls and floor of tank as per specifications, complete in all respect. The water level indicator has to be provided in the water tank. Tank should be made water proof by suitable means. The tank should be covered with R.C.C.cover having C.I. manhole of suitable size with provision for maintenance including supply & fixing of foot steps The tank should have apex Connection from municipal main pipe/main distribution system of CWR with suitable size of D.I. pipe as per design and specification and including necessary provision of senser based filling system and 25 mm dia over flow pipe shall be done and is included in scope of work complete as per direction of Engineer in charge. The water supply system must have necessary booster pumps to maintain required water pressure and under ground reservoir to meet out water supply and fire fighting requirements. |
| M | Water Supply : | |
| m.1 | Internal areas (Inside the flats or inside the block) | Concealed UPVC as per ASTM pipes shall be used for water supply in flats. Minimum outer diameter shall not be less than 20 mm. The work shall be executed as per design and drawing. The scope of work to include supply of UPVC pipe along with plain and brass threaded fittings having thermal stability for hot and cold water including jointing of pipes, fixing of pipes with clamps @ 1m c/c chase cutting and repairing complete with all respect with all related materials, labour and testing etc complete as per directions of E/I. The necessary ball valves, regulation valves, and other flow controlling and regulating devices shall have to be installed in all respect as per design and drawing. The fittings and fixture shall have to be ISI marked C.P. of approved make |
| m.2 | External Areas (Out side the block or in service shafts) | Concealed DI pipes shall be used for water supply in flats. Minimum outer diameter shall not be less than 150 mm. The work is to be executed as per design and drawing. The scope of work to include supply of pipe along with D.I. / C.I. plain and threaded fittings having thermal stability for hot and cold water including jointing of pipes, fixing of pipes with clamps @ 1m c/c chase cutting and repairing complete with all respect with all related materials, labour and testing etc complete as per directions of E/I. The necessary ball valves, regulation valves, and other flow controlling and regulating devices shall have to be installed in all respect as per design and drawing. Pipes laid horizontally shall have to laid on Mild steel brackets made of ISA 50x50x5 mm duly primed and painted, suspended from ceiling with adequate capacity dash fasteners complete in all respect. All rising pipes & Connection of pipe with R.C.C. overhead tank with G.I. Pipe of required dia shall be included in scope of work. |
| Note : Stilt height and all other floor will 2.90 m. | | |

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| N Sewerage (sanitary) : | | |
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| n.1 | Internal areas (Inside the flats or inside the block and in all toilets, kitchen & washing area) | PVC SWR Ring fit Type-B (as per IS:13592 with latest amendments) of approved brand soil waste and ventilation pipe 90 mm to 150mm Dia complete with all necessary fittings such as bends, connectors, sockets, elbows, tees, reducer, cross and other fittings and accessories as required for proper completion of work complete in all respect as per drawing and design. S.S. nahani trap, P-Trap, Gully Trap shall have to be provided as and where required as per design, drawing and directions of Engineer In Charge. |
| n.2 | External Areas (Out side the block as per drawing and design) | PVC SWR Ring fit Type-B (as per IS:13592 with latest amendments) of approved brand soil waste and ventilation pipe 90 mm to 300mm Outer Dia complete with all necessary fittings such as bends, connectors, sockets, elbows, tees, reducer, cross and other fittings and accessories as required for proper completion of work complete in all respect as per drawing and design. PVC SWR nahani trap, gully trap and brick manhole of suitable size shall have to be provided as and where required as per design, drawing and directions of Engineer In Charge. Pipes laid vertically shall be properly fixed with necessary fixing arrangement. |
| n.3 | Rain Water Drainage Pipe | PVC SWR Ring fit Type-B (as per IS 13592 with latest amendments) of approved brand soil waste and ventilation pipe 110 mm to 150mm Dia complete All necessary fittings such as bends, connectors, sockets, elbows, tees, reducer, cross and other fittings and accessories as required for proper completion of work complete in all respect as per drawing and design. And also including making khurra as required of size 450x450 mm with 1:2:4 cement coarse sand and stone grit neat coat of cement with suitable water proofing complete. |
| O Sanitary Fittings. | | |
| o.1 | ORRISA PAN | Orrisa pan ISI marked size 580 mm of approved quality & make including 10 liter capacity ISI low level PVC cistern, S.S./SWR P-Trap, flush pipe 40 mm dia of CP, PVC connection of heavy duty, one no C.P. angle valve, one no C.P. bib cock, CP flange, CP extension (heavy duty) & fixing to be done in concrete 1:2:4 (1 cement:2 Coarse sand :4 stone grit 20mm) along with all other consumables necessary for fixing etc. complete as per design and drawings. (as per detailed specifications, drawings & design). |
| o.2 | EUROPEAN TYPE W.C | European type WC pan floor mounted with seat cover ISI marked size 580 mm of approved quality including 10 liter capacity low level PVC cistern of approved make, PVC connection of heavy duty, one no C.P. angle valve, one no two way C.P. bib cock, CP flange, CP extension (Heavy Duty) along with provision of C.P. Jet with PVC Flexible pipe & fixing to be done in concrete 1:2:4 (1 cement: 2 coarse sand: 4 stone grit 20mm) along with all other consumables necessary for fixing etc. complete as per design and drawings. (as per detailed specifications, drawings & design). |
| o.3 | WASH BASIN/ Counter Basin | Wash basin (without pedestal) of size 550 x 400 mm of approved quality and make including, CI bracket-1 pair, with necessary arrangement of CP bottle trap 32mm dia heavy duty CP brass coupling waste (half threaded) one nos. C.P.Brass angle valve for basin mixture and geyser points of approved quality & make (for toiled wash basin) one nos. 15 mm CP angle valve, one nos. C.P. brass pillar tap (for counter basin), C.P flange, C.P extension as required, PVC connection of heavy duty etc complete as per drawing & design. (as per detailed specifications, drawing & design). |
| o.4 | Kitchen sink | Steel sink (without drain board) of standard size 610x450x250mm., 1mm thick of approved quality and make including 40mm dia PVC heavy duty waste pipe of appropriate length, CI bracket -1 pair, CP waste jali full threaded, two nos long bdy bib cock, CP extension and CP flange etc complete as per design and drawings. (as per detailed specifications, drawings & design) |
| o.5 | CP angle valve for gyser in toilet. | CP angle valve, CP flange, C.P. extension of approved make and complete as per design and drawings. (as per detailed specifications, drawings & design). |
| o.6 | Towel Rail | PTMT towel rail with CP brass screws with consealed fitting 600 mm long towel rail with total length of 645 mm width 78 mm and effective hight 88 mm. Weigh not less than 190 gram complete with bracket fixed to wooden cleats. |
| o.7 | For Bath | Hot & cold water C.P. angle valve mixture, C.P. extension, C.P.flange as required with seperate 100 mm CP shower with CP arm of approved brand & model. (as per detailed specifications, drawings & design) |
| o.8 | Looking Mirror | 6mm thick Looking mirror oval/rectangular shape of required size as per drawing and approved design without frame beveled edges with hanging arrangement complete as per direction of E/I. (as per detailed specifications, drawings & design). |
| o.9 | Gully Trap and Chamber | Gully traps of suitable size with chamber complete covered with CI grating to be provided as required. This should be suitably connected with M.H. as per drawing design and level. |