

P. N. SHIDHORE CIVIL ENGINEERS (I) PVT. LTD.
SURVEYORS, GEOTECHNICAL & CIVIL ENGINEERS

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THE PROFILE

1.1 INTRODUCTION:

P. N. Shidhore Civil Engineers (I) Pvt. Ltd. is amongst the leading firms in the field of Civil Engineering with our core competency in Engineering Surveys and Geotechnical Investigation. In addition to these sectors, we offer services in the field of Transportation Engineering, GIS and Project Management Consultancy.

Our Survey and Geotechnical departments strive to provide the most accurate and detailed data required by the Engineers in various projects, such as highways, railways, irrigation, etc. Reliable information is our most important product. Over decades, the company has built a strong goodwill among clients ranging from government organizations to private corporate houses.

Our departments of Transportation Engineering, GIS and Project Management Consultancy employ the most capable personnel and are equipped with latest software and tools to successfully complete even the most complex projects envisioned.

From strategic planning to project closeout; from large multiyear projects to quick turn-around assignments; from permitting services to claims management; our market-oriented, multidiscipline teams have what it takes to make your project a grand success.

1.2 SERVICES:

Our service offering includes:

1. Surveying and Geoinformatics

- Topographical (Land/Contour) Survey
- Hydrographic Survey
- Marine Survey
- Cadastral Survey
- Route Survey for Road, Railway Lines, Transmissions Lines, Pipe lines, etc

2. Geotechnical Investigation

- On-shore
- Off-shore

3. Transportation Engineering

- Highway/Roadway Design
- Traffic Engineering
- Transportation/Traffic Planning

4. Geographic Information System (GIS)

5. Project Management Consultancy

1.3 PROJECT LOCATIONS:

We have performed various engineering works including surveying and soil investigation throughout India, among which states are Maharashtra, Gujarat, Diu & Daman, Meghalaya, Uttaranchal, Uttar Pradesh, Rajasthan, Madhya Pradesh, Chhattisgarh, Orissa, Karnataka, Tamil Nadu, Kerala, Andhra Pradesh, Goa, and Jammu & Kashmir.

1.4 HISTORY:

The company was established as a partnership concern in the year 1978 by Late Mr. K. P. Shidhore, with a view to provide accurate and timely Land and Marine Engineering Survey data required by various private and government agencies in their planning for design and development of projects.

Later, in the year 1979, with a view to support and aid survey data, the company diversified its service offerings to undertake Geotechnical Investigation by establishing a fully equipped soil testing laboratory and adding field drilling capabilities for sample collection.

With the future in mind, a Private Limited company in the same name was formed in 2009, which offers, in addition to the existing array of services, consultancy in the field of GIS and Transportation Engineering.

In its almost four decades of existence, the company has achieved a prestigious position in the field of Civil Engineering with a particular focus on Survey and Geotechnical Investigation. The survey data, maps and other engineering designs, analysis and reports submitted by the company have been well received and highly appreciated by Government Organizations, Consulting Engineers, Architects, and Construction Companies.

The overall management of the company is under the control of company directors, Mr. Vilas K. Shidhore and Mr. Aniruddha V. Shidhore, Civil Engineers by education and profession, who look after the day-to-day affairs of the company and Mrs. Rekha Vilas Shidhore, who provides additional administrative and managerial support to the company.

OUR ASSETS

2.1 THE PEOPLE:

Our employees are our biggest asset! With their endeavours, involvement and commitment, the company has continued to be among the top players in the field of Civil Engineering.

“Individual commitment to a group effort – that is what makes a team work, a company work, a society work, a civilization work.”

It is imperative to understand the importance of the people working in the company and motivate them from time to time. People are the most valued asset in our organization, and the company owes its success to its well-motivated and disciplined staff. We strongly believe that the key to success is thorough planning and that the best form of problem resolution is to avoid problems in the first place.

We have established direct lines of organizational responsibility. The project leader oversees the participation of each member of the team and keeps the clients and/or contractors in regular loop of communication, together with the team, throughout the project. This method ensures that the end result is, finishing of the project on time and with in the budget.

Mr. Vilas K. Shidhore
Managing Director

An expert in the field of surveying and geotechnical investigation, he has spearheaded the company for the last 30 years with his in depth knowledge and wealth of experience. He lends a strong support and foundation to the company and ensures the continuation of its long legacy. He has strong relations with various government and semi-government organizations, some of which are CIDCO, NMMC, ONGC, KRCL, MMRDA, WAPCOS and NHAI.

Mr. Aniruddha V. Shidhore
Director

Having extensive education and training in the field of Civil Engineering, he provides much needed global perspective to the company. He holds a Masters Degree from North Carolina State University in Civil Engineering and a MBA from University of Massachusetts at Amherst. He also is a Licensed Professional Engineer in the State of Connecticut. He has worked extensively in the U.S. as well as in India. His area of expertise is primarily in the field of Transportation Engineering gained from years of professional experience.

2.2 DEPARTMENTS:

The organization is broadly divided into the following departments:

1) Survey Department

Our company has a strong and competent team of surveyors with proper III certifications. With their professional knowledge and experience, our surveyors undertake various survey activities at many sites all over India.

2) Geotechnical Department

Our Geotechnical Department is a blend of well qualified people and expert associates. This team includes Geotechnical Engineers, Geologist, Laboratory Technicians, Trained Operators and other skilled labour.

3) Engineering Department

Our Engineering Department employs experienced civil engineers from reputed universities with advanced degrees in varied specialisations such as Transportation Engineering, Geotechnical Engineering and Hydraulic Engineering.

4) GIS Department

Our GIS Department contains a unique mix of talent with backgrounds in GIS Application Development, Database Management and Surveying. Our staff is proficient in leading industry GIS Platforms such as ARC GIS, GRAM++ and other open source software such as QGIS and KOSMO.

5) CAD Department

Our CAD Department is a proficient team of CAD operators who are specialists in various computer software such as AutoCAD, Auto Plotter, AutoCAD Land Desktop 2007 and Auto Civil. The Computer Department is well furnished with latest software and has an in-house software development team to cater the company's drive towards automation. Sophisticated surveying equipment, coupled with electronic data collection capabilities, ensures the accuracy of survey data through direct computer downloading. High quality maps provide a conveniently accessible, traditional form of technical reference.

6) HR , Administration and Accounts Department

Our HR, Administration and Accounts team coordinates all the stakeholders of our company. Managing human as well as financial capital is the core task of this team. An essential duty of ensuring a good amount of harmony in various activities of the company is accomplished by this team.

7) There are also many other employees, some permanent, some temporary, who contribute to the perpetual growth of the company such as our Labours, Cooks, Drivers, Housekeeping and Office Boys.

2.3 SURVEY INSTRUMENTS:

The Survey department is equipped with latest and sophisticated survey instruments such as G.P.S. (Global Positioning System), Total Station, Digital Level, and portable Hand-Held Data terminals for field data collections. The Company is fully geared to take-up all types of Land Survey, Marine Survey works and to process the data collected in its ultra-modern computerized drawing office for final output.

2.4 LABORATORY:

The Company has a well-equipped laboratory for soil & concrete testing at Kalyan and also fully equipped to carry out field-testing like Vane Shear Test, Proctor Density, Plate Load Test, C.B.R., Dynamic Cone Test, Benkelman Beam Test etc. All the laboratory and field tests are conducted as per relevant Indian Standard Specifications and Standard Codes of Practice. For pavement testing, we are equipped with Benkelman Beam Test instrument and other testing machines which are well calibrated in the competent testing laboratories.

2.5 OFFICE SETUP AND SOFTWARE:

The computerized drawing office is well equipped with the latest state-of-the-art PC's with Pentium processors (total 20 nos. with LCD monitors). All computers in our head office are networked and are connected to an IBM DS3300 storage server with 4TB disk space which offers superior data availability and reliability. The company also possesses five (5) laptops with necessary accessories for field deployment and out-of-station projects.

Other computer peripherals include: Xerox WorkCentre 5020/DN, two (2) A0 size Designjet 510 colour plotters, HP OfficeJet K7108 colour printer, HP Laserjet P1007, and HP Laserjet 1040 printer.

For drafting purposes, the computer department is equipped with licensed copies of AutoCAD 2007, AutoCAD 2010, and FlexiCAD. Sophisticated engineering calculations such as earthwork calculations, L-sections, etc are processed in software such as AutoCIVIL, AutoPlotter and E-Survey Solutions. Postprocessing software such as Geogenious is used for processing raw GPS data. The company also possesses GIS software such as GRAM++ (indigenously developed by IIT-Bombay) and open source software such as Quantum GIS and Kosmo.

2.6 TRANSPORT AND COMMUNICATION:

To move the most important 3 M's i.e. Men, Machinery and Materials for survey and soil investigation works, the company maintains a fleet of transport vehicles along with complete camping kits. The company owns fully equipped engineering workshop garage to service, maintain and repair the vehicles.

SURVEYING AND GEOINFORMATICS

3.1 PLANE TABLE SURVEY:

The plane table survey is conducted to collect all salient features above the ground such as bridges, roads, drains, water hydrants, electric poles, telephone poles, factory, buildings, temples, schools, sheds, transmission line towers, culverts, major trees, field bunds, local humps, depressions, ponds, railway lines etc., which are shown at their exact position. The symbols representing these features are constantly refined to better relate to the features they represent, improve the appearance or readability of the map, or to reduce production cost.

Before beginning a topographic survey, accuracy requirements and property characteristics, as well as client's desires, are considered to determine which method would be best. Our Total Stations provide input for our CAD systems, enabling direct digital mapping of topographic surveys and computer analysis of contours, slope, and quantities. Plotting is done on grid sheets, generally, in the scale of 1:500 or as specified by the client.

3.2 CONTOUR SURVEY:

Contours are imaginary lines that join points of equal elevation on the surface of the land above or below a reference surface such as mean sea level. Contours make it possible to measure the height of mountains, depths of the ocean bottom, and steepness of slopes.

Contour survey is carried out by observing spot levels at 15, 10, 5 m. grid or as per the client's specification. They are plotted on the drawings and the contours are drawn using the AutoCIVIL or Auto Plotter Software. Contours are interpolated at 0.5, 1.0, 2.0 m. interval or as specified by the clients. Generally, additional levels are taken to show the exact profile of the land.

3.3 GRID PILLARS OR REFERENCE PILLARS AND TEMPORARY BENCHMARK:

We generally cast these pillars, depending on availability of material nearby the site and as per the project requirement. The location of these and reference pillars are marked with great accuracy.

3.4 HYDROGRAPHIC SURVEY:

General flow and soundings are measured with the use of the motorboat in rivers, creeks and sea. We are equipped with instruments like Water Current Meter and Echo Sounder. Water-Current Meters for measuring velocity and flow are calibrated in Central Water and Power Research Center at Khadakwasla, Pune.

3.5 ROAD, RAILWAY LINE, PIPE LINE, CHANNEL & NALLAH SURVEY:

The preliminary traversing is done along the proposed route; various alternatives are checked to get most suitable alignment.

Generally longitudinal levels are taken at 15, 20, 25 m. interval as specified and cross-sectional levels are taken to cover the proposed width of the road channel railway line to access the quantity of earthwork to be done.

The vertical and horizontal profiles are designed by various programs written in Autolisp. The various alternatives can be run in computer for various profiles. Further the plane table details are collected to cover the required width.

3.6 TRANSMISSION LINE SURVEY:

Transmission line survey is done by Traversing and by Tachometric Survey. The alignment is generally proposed to avoid the villages, habitations & crossing of railway, highway and old high-tension lines. If the crossings are unavoidable they are crossed at about 90 degrees. The line should be straight as far as possible. Generally the suspension towers are proposed for straight portion or up to 3-degree deflection, after every 10 towers one tension tower is proposed. The tension tower is proposed at the turning points having deflection from 2 to 45 degree of the alignment. Special towers are proposed at vital points like railway, highway and major river crossings.

The levels are taken in such a way that the profile could be drawn to measure ground clearance required by sag template. Plane table details for about 15 m. on either side of alignment are collected. This work is done to suit requirements for erecting towers and other structures.

GEOTECHNICAL ENGINEERING

Our company is fully capable of carrying out sophisticated soil exploration and testing of any magnitude of project. Our Geotechnical Department is a blend of well qualified people and expert associates. This team includes Geotechnical Engineers, Geologist, Laboratory Technicians, Trained Operators and other skilled labour.

4.1 SOIL EXPLORATION:

The boring and drilling methodology is based on the Indian standard code of practice. Based on the client requirement a single tube, double tube or a triple tube is used for exploring different ground strata.

The company is capable of undertaking exploration in both land and marine environments. For the purposes of marine investigation, the company possesses floating platforms.

4.2 GEOTECHNICAL TESTING:

The company strictly adheres to the IS codes while conducting any test and it is equipped with several field testing equipments for conducting the following field tests. Also, the company possesses a full fledged laboratory with state-of-the-art testing equipments which is capable of conducting the following lab tests:

4.2.1 FIELD TESTING:

1. Standard Penetration Test as per IS: 2131
2. California Bearing Ratio Test as per IS: 2720
3. Plate Load Test as per IS: 1888
4. Dynamic Cone Test – Light & heavy Probe as per IS: 4968 (Part I & II)
5. Benkelman Beam Test as per IS: 81:1997
6. Soil Resistivity
7. Vane Shear Test as per IS: 4434
8. Permeability Test (Single/Double/Packer) as per IS: 5529 (Part I & II)
9. Pocket Vane Shear Test

4.2.2 LABORATORY TESTING:

1. Natural Moisture Content as per IS: 2720
2. Liquid Limit, Shrinkage Limit, Specific Gravity Test as per IS:2720 Part V:1985
3. Grain size Analysis (Hydrometer/Sieve) Test as per IS: 2720 Part IV
4. Specific Gravity as per IS: 2720 Part III
5. Direct Shear Test as per IS: 2720
6. Consolidation Test as per IS: 2720
7. Unconfined Compression Test as per IS: 2720 Part X – 1991
8. Lab. California Bearing Ratio Test as per IS: 2720 Part XVI – 1987
9. Lab. Permeability Test (Constant/Falling Head Method) as per IS: 2720 Part XVII

10. Lab. Vane Shear Test as per IS: 2720 Part XII
11. Swelling Pressure Test
12. Proctor Compaction Test (Standard modified) as per IS: 2720 Part XIV

4.3 GEOTECHNICAL INVESTIGATION REPORT:

Up on completion of the entire field and laboratory work, a formal report containing the procedure adopted for investigation, field observations, detailed bore logs, subsoil sections, field test results, laboratory observations and test results both in tabular as well as graphical form and practical and theoretical considerations for the interpretation of test results is prepared.

Then, as per clients' requirement, a detailed final report is prepared taking in to consideration the above parameters and recommendations are made for foundations under different types of structures envisaged in the area under investigation.

TRANSPORTATION ENGINEERING

We offer services in all three key fields in Transportation Engineering: Roadway Design, Traffic Design and Transportation Planning. Highly qualified staff and associates with both national and international experience ensure technically sound and timely completion of projects.

5.1 ROAD INFRASTRUCTURE DESIGN:

Design of roads and bridge structures is governed by the Indian Roads Congress (IRC) Codes and Specifications for Road and Bridges as set out by the Ministry of Road Transport & Highways (MoRTH).

Design of a highway/road begins with a conceptual design and a proposal. Based on this and a detailed survey, the task of detailed engineering of the highway/road is undertaken. The geometric design of the new highway entails design of horizontal alignment, vertical profile and cross-section elements based on relevant IRC codes and MoRTH specifications. Pavement design and roadway drainage design are also an integral part of the overall design. The end product of this assignment is Final Report and a set of working drawings (Plan, Profile, Cross-sections, Specification drawings and ancillary drawings).

The scope and level of detail for the work is dictated by the overall stage of the project. We provide services at all stages of design – Pre-feasibility, Feasibility/Preliminary and Detailed Engineering Design.

Following design services are offered under ‘Roadway Design’ umbrella:

- New Highway/Roadway design
- Interchange design
- Existing Roadway widening and rehabilitation design
- Urban street design
- Intersection design
- Traffic calming measures
- Streetscaping

5.2 TRAFFIC ENGINEERING:

With India and its urban areas growing at a breakneck pace, it leaves the relevant development authorities grappling with problems of traffic congestion and mismanagement of traffic. Any new development creates an impact on the surrounding road infrastructure. And it is advisable, prior to developing an area, to determine the overall effects, the proposed business is likely to incur and whether the current road/traffic infrastructure is adequate to accommodate the additional traffic volume.

Following value added services are offered by us:

- Traffic studies
- Traffic impact assessment
- Traffic signal design

5.3 TRANSPORTATION PLANNING:

Transportation planning which is an integral part of any Town Planning project involves numerous elements in order to provide for a harmonious development: adequate and convenient access, roadway systems capable of accommodating the traffic associated with the development uses, sufficient parking, proper signing, etc.

We are capable of providing the following services to cater to your Transportation Planning needs:

- Traffic management plan
- Detour plan
- Parking Studies
- Parking Design
- Parking Management
- Disaster management plan
- Traffic modeling

GEOGRAPHIC INFORMATION SYSTEM (GIS)

Our experienced and well-equipped GIS department is capable of handling even the most complex GIS assignments. Having an in-house Survey department enables us to provide superior services along the value chain. Following value added GIS services are offered by us:

6.1 BASIC GIS SERVICES:

- Data Migration
- Data Conversion & Maintenance
- Aerial Image Mapping
- Image Processing

6.2 INTERMEDIATE GIS SERVICES:

We also provide GIS solutions to private and government organizations to better visualize, manage and optimize their resources by providing the following services:

- Property Tax Assessment System
- Geospatially synergic solutions
- Geocoding and Asset Management
- Data Management

6.3 ADVANCED GIS SERVICES:

For complex requirements, the company is capable in providing following services:

- Satellite Image Analysis
- Process Integration
- Geospatial Consulting
- Custom Application Development
- Spatial Content Development & Management

FEW OF OUR PRESTIGIOUS PROJECTS:

1. Contour survey for the proposed Navi Mumbai International Airport (**Client: CIDCO, Navi Mumbai**)
2. Topographical Survey, demarcation and Soil Investigation for the proposed Shirdi Airport (**Client: Maharashtra Airport Development Corporation**)
3. City Survey work for **Client: Thane Municipal Corporation** (113 Sq. Kms.), **Client: Kalyan Dombivli Municipal Corporation** (64 Sq.Kms.), **Client: Mira-Bhayander Municipal Corporation** (78 Sq. Kms.) and **Client: Pune Municipal Corporation** (80 Sq. Kms.)
4. Hydrographic survey for 30 rivers between Palghar and Balsad section in Gujarat State (**Client: Oil and Natural Gas Corporation Ltd.**)
5. Detailed survey, final location cum construction survey and geotechnical investigation for Konkan Railway from Roha to Punjim for various viaducts, bridges, tunnels and cuttings. (**Client: Konkan Railway Corporation Ltd.**)
6. Topographic Survey for proposed Worli-Bandra Sea Link Project (**Client: Maharashtra State Road Development Corporation**)
7. Creation of Urban Base Maps, Infrastructure Maps & Database using Satellite Images, GIS & GPS Technology for Navi Mumbai Municipal Corporation. (**Client: Navi Mumbai Municipal Corporation**)
8. High-tension line survey for 150 Km. from Bara Bungalow to Mongap and Nangawalbibra to Kirdamkulai in Khansi-Garo Hills District of Meghalaya State (**Client: Meghalaya State Electricity Board**)
9. Land and Road Survey for Gujarat Earthquake Rehabilitation and Reconstruction Project at Anjar, Bhachau and Ghandhidham in Gujarat (**Client: TCE Consulting Engineering Ltd.**)
10. Detailed route survey for Ring Railway for Thane Municipal Corporation: 22 Kms. and Pimpri Chinchwad Municipal Corporation: 35 Kms (**Client: Rail India Technical & Economic Services Limited**)
11. Survey, demarcation and Soil Investigation for proposed Railway line (Fright Corridor) from JNPT to Vaitarna (Section-1) (**Client: Dedicated Fright Corridor Corporation India Ltd.**)
12. Carrying out topographical survey for proposed Dabhol Power Project (ENRON) at Dabhol for 700 Hectares (**Client: Afcons Infrastructure Ltd.**)

13. G.P.S. Survey for Lebad – Jaora road project (Via Ratlam) 125 kms. (**Client: STUP Consultants Pvt. Ltd.**)
14. Detailed Topographic survey and Establishment of ground marker pillars using GPS at DACC office complex in Nocil, Navi Mumbai (**Client: Reliance**)
15. Survey for water supply and sewerage systems for six municipal towns and 104 villages in Thane district from Badlapur to Bhayander–Uttan (**Client: Shah Technical Consultants Pvt. Ltd.**)
16. Survey of alternate route for Expressway from Talasari to Valsad of about 70 Kms. (**Client: Consulting Engineering Services Pvt. Ltd.**)
17. Survey for proposed Petrochemical Plant site at Taloja and survey for proposed gas pipeline from Uran to Factory site at Taloja for about 92 Kms. (**Client: Deepak Fertilizers & Petrochemicals Corporation Ltd.**)
18. Soil investigation work at Naval Dock Yard, Mumbai. (**Client: Water & Power Consultancy Services (India) Ltd.**)
19. Survey for gas pipeline from Thane-Bhiwandi-Wada-Manor upto Surya River for about 97 Kms. (**Client: Oil and Natural Gas Corporation Ltd.**)
20. Consultancy services for preparing regional rural water supply scheme for Shahapada R.R.W.S. scheme North Zone (Part-A): 27 villages and South Zone (Part-B): 42 villages in Taluka - Pen, District: Raigad (**Client: Maharashtra Jeevan Pradhikaran**)

THE CLIENTS

GOVERNMENT / SEMI GOVERNMENT BODIES:

City & Industrial Development Corporation of Maharashtra Limited, (CIDCO), Navi Mumbai

Various survey and soil investigation works including line outs of plots, roads and railways in various nodes in Navi Mumbai (Area for CIDCO more than 15,000 Hectares) and Vasai-Virar Sub-Region. (Area for CIDCO more than 10,000 Hectares) (For details refer separate list).

Oil & Natural Gas Corporation (O.N.G.C.):

Gas transmission main from Uran to Surat, traverse, Plane table, contour survey and soil investigation works for their various sites in Maharashtra, Gujarat and Uttar Pradesh (For details refer separate list).

Bombay Suburban Electric Supply Limited (B.S.E.S.):

High-tension line survey 150 Km. Bara Bungalow to Mongap and Nangawalbibra to Kirdamkulai in Khansi and Garo Hills District of Meghalaya State for Meghalaya State Electricity Board.

Metropolitan Transport Project (Rlys.), Mumbai:

A) Survey Works:

- Location survey for Mankhurd-Belapur Railway project and soil investigation for bridges.
- Fixing of reference points along the alignment for diversion of Jui creek channel at Vashi.
- Erection of co-ordinate pillars in Car Shed Area at Sanpada.
- Fixing co-ordinate points in connection with provision of New Car Shed for Mankhurd-Belapur Railway line.
- Survey for proposed reversal facilities at Wadala Road station with fly over at Ravli Junction.
- Plane Table Survey work between Vidya Vihar and Ghatkopar for Thane Kurla project of laying two additional lines.
- Techno-Economic feasibility survey for proposed Mansarovar-Taloja Railway line (BG) Double line.

B) Soil Investigation Works:

- Trial bores for construction of workshops and offices in the Car Shed area at Sanpada, Navi Mumbai.

- Soil investigation by taking trial bores from CH: 6590 to CH: 8200 in connection with construction of Rly. Line from Mankhurd to Belapur.
- Soil Investigation work for proposed Mansarovar - Taloja Railway line (BG) Double line.

Indian Railway Construction Company Limited:

A) Survey Works:

Detailed survey on both sides of the railway alignment for Turbhe–Sanpada, Sanpada–Belapur, Belapur–Panvel Railway Project 22 KM.

B) Soil Investigation Works:

Geotechnical investigation in connection with Belapur Panvel B.G. Railway Line.

Rashtriya Chemical Fertilizers:

Pipeline alignment from Uran Oil Terminal Complex, Uran to Rashtriya Chemical Fertilizers, Thal.

Konkan Railway Corporation Limited (KRCL):

Detailed survey and setting out the curves for the center alignment of Proposed Konkan Railway from Roha to Kudal for about 200 Kms. for Mahad Division, Ratnagiri (North) Division, Ratnagiri (South) Division and Kudal Division.

Rail India Technical & Economic Services Limited (RITES):

- Carrying out Preliminary engineering survey and final location survey for a New Railway siding from Ghugus to New Majri on Central Railway, Nagpur Division for M/s. Western Coalfields Limited.
- Detailed route survey for Ring Railway (H.C.M.T.R.) for Thane Municipal Corporation for 22 Kms.
- Detailed survey for Ring Railway (H.C.M.T.R.) for Pimpri Chinchwad Municipal Corporation, 35 Kms.
- Detailed survey for railway line from Ghughus to Majri via Vani for Coal mines for 35 Kms.
- Preliminary survey of railway siding from Keshvganj Railway Station to M/s. Binani Cement Factory.

Modern Road Marker Pvt. Ltd.

Survey for project of 4/6 laning Udaipur-Ratanpur Gandhinagar section of NH-8.

TCE Consulting Engineering Ltd. Carnac, Mumbai:

- Land & Road survey for Gujarat Earthquake Rehabilitation & Reconstruction Project in Anjar, Bhachau & Gandhidham in Gujarat.
- Land Road & Utilities Survey at Halwad, Gujarat.

**Chief Construction Engineer (R&D) – Government of India
Ministry of Defence, Research & Development Organization:**

Topographical Survey for Propellant Augmentation Facility at H.E.M.R.L., Begadewadi near Pune.

Bharat Petroleum Corporation Limited (BPCL):

Site survey for LPG bottling plant at Jalgaon 16 Hectares.

Municipal Corporation of Greater Mumbai (MCGM):

- Soil investigation for Sewerage Project in Eastern Suburbs.
- Soil investigation for future expansion of R.N. Cooper Hospital, Mumbai.
- Soil investigation for strengthening of existing Tansa Dam.
- Soil investigation for the work of construction of a) Retaining wall along Dahisar River from Kandarpada to Mun. Cemetary, Dahisar (W), b) T & C of nalla near Gokhale College Borivali (W)
- Taking Trial bore and Soil investigation in Eastern Suburbs for the work of
1) Construction of separate ward office building 2) Completing incomplete work of fire station at Shivaji Nagar
- Conducting Geotechnical investigation works for various works for various forthcoming sewerage works of M.C.G.M. in Eastern Suburbs L, S & T Ward.
- Digitization & Vectorization of Electoral Block (22000 Nos.) of 227 wards for Mumbai Municipal Corporation.

Food Corporation of India (FCI):

- Contour survey for proposed godown at Kalamboli ware housing complex, 45 Ha.
- Plane table and contour survey for poposed godown at Bhiwandi Dist.: Thane, 13 Ha.

Kalyan Dombivali Municipal Corporation (KDMC):

- Taking 50 trial bores for various projects in Kalyan Dombivali Municipal Corporation Area.
- Geotechnical investigation for proposed R. O. B. at Shahad in lieu of level crossing gate no. 47/13 at km.57/16-58/1 on Kalyan – Titwala Road
- Geotechnical investigation for proposed R.O.B. at Kalyan in lieu of level crossing gate No.1 between Km.54/18-19 on Kalyan – Katemanivali road via F- Cabin.

- Carrying out City Survey for about 64 Sq.Kms. extended area of K.D.M.C.

Public Works Department (P.W.D.):

- Soil investigation for alternative to existing steel bridge on Kalyan Bhiwandi road for Public Works Department, Thane Division.
- Soil investigation for major bridge across Barvi River at Dapivali village, Dist.: Thane.

Mumbai Metropolitan Regional Development Authority (MMRDA):

- Engineering Survey at Bandra Kurla Complex.
- Survey work for Truck Terminal at Wadala, Mumbai.
- Contour and Plane table survey for Chitalsar Manpada, Thane.
- Tidal observation & water current observation at Bandra Kurla Complex.
- Survey and Demarcation of G Block of Bandra –Kurla Complex.

Nuclear Power Corporation, Tarapur (NPC):

- Contour survey for proposed Waste Management Area, Colony Access road and Main Plant Area.
- Planimetric Survey of existing structures at TAPP 3 & 4 Plant site.
- Survey of vertical faces of existing branch channel at TAPP 3 & 4 Plant site.
- Carrying out Topographical Survey of the area in around TAPP 3 & 4

Gammon India Ltd. Mumbai:

Route Survey from J.J. Hospital to J.J. School of Arts near C.S.T.

Thane Municipal Corporation (TMC):

- Plane Table survey for the integrated road development program (Phase III) in Thane city.
- Survey for 100 MLD water supply scheme of TMC.
- Plane table survey for tree canopy in TMC area.
- Carrying out Engineering Survey for widening of existing Ghodbunder Road from Km.0.0 to Km. 5.0 length.
- Topographic Survey for existing Ghodbunder road from Kapurbawadi Junction in Thane area.
- Survey for longitudinal levels and `X`sectional levels of various roads in TMC area.
- Survey for roads in Indira Nagar and Mhada Colony in Thane.
- Plane Table survey for nallah between Leelavati Society and Sea Rock Society at Kalwa.
- Carrying out City Survey for about 113 Sq.Kms. area of T.M.C.

B. A. R. C. Trombay:

Topographical Survey in the vicinity of the layout of RSMS and its new expansion near Gamma Field at North site BARC

Indian Institute of Technology, Powai, Mumbai (IIT, POWAI):

- Conducting plane table Survey in IIT Campus at Powai, Mumbai.
- Plane table survey of I.I.T. land at Paspoli village.
- Preparation of development plan for the 90 acre land of IIT, Mumbai across the BMC pipeline in CST No.67 of Paspoli village
- Construction of monuments for GPS reference in connection with Proposed Navi Mumbai Airport.
- Scanning and Vectorization/Digitization for all I.I.T. revenue maps.
- Contour Survey for several plots in I.I.T. Premises.
- Demarcation of several plots in I.I.T. Premises.

Jawaharlal Nehru Port Trust (J.N.P.T., URAN):

Carrying out detailed survey for 700 Ha. Area.

Garrison Engineer (NW), Naval Station, Karanja:

Soil investigation for building hanger 11 to 14 INS TUNIR Karanja

Maharashtra Water Supply & Sewerage Board (MWSSB):

- Consultancy services for preparing regional rural water supply scheme for Shahapada R.R.W.S. scheme North Zone (Part-A): 27 villages and South Zone (Part-B): 42 villages in Pen Taluka, District: Raigad.
- Survey for water supply scheme for eight villages in Taluka Varora, District: Chandrapur.

Navi Mumbai Municipal Corporation (NMMC):

- Soil investigation work along the channel from Arenja Corner to Petrol Pump at Kopari Vashi, Navi Mumbai.
- Creation of Urban Base Maps, Infrastructure Maps & Database using Satellite Images, GIS & GPS Technology for Navi Mumbai Municipal Corporation.

Maharashtra State Road Development Corporation (MSRDC):

- Topographic Survey for proposed Worli-Bandra Sea Link Project.
- Topographical Survey along K.C. Marg in Bandra Reclamation area

Shivshahi Punarvasan Prakalpa Ltd:

Soil Investigation for proposed S.R.A. scheme on open plot at Shramik Vidyapeeth near transit camp, Mumbai.

Water & Power Consultancy Services (India) Limited (WAPCOS):

- Geotechnical investigation for Setu-Bandh Bridge between Dwarka and Kyu Island near Okha, Gujarat.
- Soil investigation work for proposed lagoon near Umargaon, Gujarat.
- Soil investigation work for proposed harbour development at Harnai and Sakharinate in Ratnagiri district.
- Soil investigation for Maroli Port near Umargaon, Gujarat.
- Soil investigation work at Naval Dock Yard, Mumbai.

Gujarat Narmada Valley Fertilizer Company Limited:

- Engineering survey for their prestigious T.V. Tube project at Borkhedi and other projects
- College Campus survey at Zadeshwar and various nallahs in Bharuch town for reclaiming land and developing nallah effluent course.

Gujarat Narmada Fertilizer Corporation Limited, Bharuch:

Line out of roads, Factory Building and Water Supply Lines to Scooter Factory at Walia, District: Bharuch.

Gujarat State Fertilizer Corporation Limited:

- Land survey in connection with coastal DAP project at Sikka and Motikhawadi near Jamnagar for 400 Ha.
- Survey of land for plant expansion at Vadodra.

Gujarat Heavy Chemicals Limited:

Survey work for Village Sutarpada near Verawal, Gujarat State, 50 Ha.

Mira – Bhayander Municipal Corporation:

Carrying out City Survey for 19 villages for 78 Sq. Kms. area.

Pune Municipal Corporation:

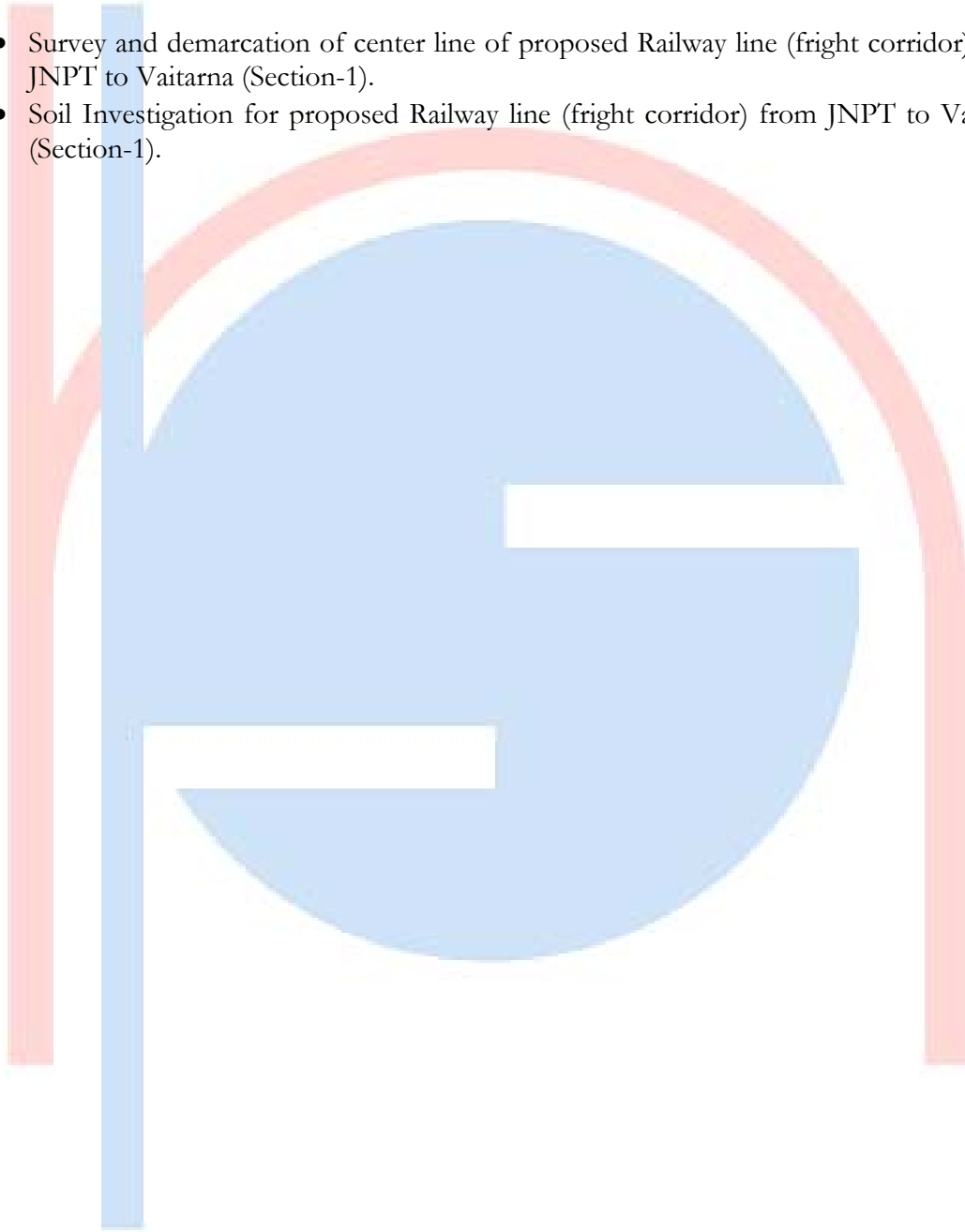
Carrying out City Survey for 23 villages for 80 Sq.Kms. area.

Maharashtra Airport Development Company Ltd.:

Topographic survey and geotechnical investigation and collection of land records for the proposed airport at Shirdi.

Dedicated Fright Corridor Corporation India Ltd. :

- Survey and demarcation of center line of proposed Railway line (fright corridor) from JNPT to Vaitarna (Section-1).
- Soil Investigation for proposed Railway line (fright corridor) from JNPT to Vaitarna (Section-1).



CIDCO OF MAHARASHTRA LIMITED

(A) SURVEY WORKS:

- Panvel Action Area.....500 Acres.
- Kalamboli Ware Housing Complex.....465 Acres.
- Nhavasheva Complex and other areas.....625 Acres.
- Vashi, Navi Mumbai.....250 Acres.
- Residential Complex at Kalamboli.....400 Acres.
- Nhavasheva Island.....120 Acres.
- Additional work for Panvel Action Area.....425 Acres.
- Engineering survey near Asudgaon village, Panvel.....180 Acres.
- Engineering survey of Agricultural Produce Market at Vashi.....380 Acres.
- Detailed Engineering survey for Sanpada Node.....865 Acres.
- Detailed Engineering survey at Sector 15,16,17,18,20,23,24,25,33,34, at C.B.D., Belapur Node.....320 Acres.
- Contour survey at Sector 10A, Vashi.....140 Acres.
- Detailed Engineering survey for Airoli Action Area.....650 Acres.
- Contour & Plane Table survey for Kalundra and Bhingarpada
- Gaothan Expansion Scheme.....60 Acres.
- Contour survey for Bungalow plots in Sector 21 at Nerul Node.....54 Acres.
- Engineering survey for North area of Vikas Nagar near Sawali village.....200 Acres.
- Contour & Plane Table survey for the total land under Panvel Phase-II.....108 Acres.
- Topographical survey and cross sectional levels for land sliding and retaining wall at Samadhi Hill, C.B.D., Navi Mumbai.....150 Acres.
- Detailed Engineering survey for Sector-19 (Part), 25 & 27 of Nerul Node.....138 Acres.
- Additional survey for New proposed Holding pond at Vashi, Sanpada Node.....285 Acres.
- Engineering survey for Targhar Area, Belapur Node.....235 Acres.
- Engineering survey for Kharghar Hill Area at C.B.D., Navi Mumbai....265 Acres.
- Topographical survey & soil investigation for Sector 21 & 22 at CBD, Belapur, Navi Mumbai.....73 Acres.
- Engineering survey and soil investigation of the area between MIDC Shil Reservoir and Koparkhairane.....75 Acres.
- Engineering survey and soil investigation of the plots for New Housing adjacent to Sector 7, 16 & 17 at Koparkhairane, Navi Mumbai.....88 Acres.
- Contour and Plane survey for village Juipada.....13 Acres.
- Engineering survey for proposed Holding Pond at Vashi.....250 Acres.
- Engineering survey for Demand Registration Housing at Nerul Node...100 Acres.
- Engineering survey of the area (remaining part) North side of Koparkhairane and up to Ghansoli.....650 Acres.

- Engineering survey for 800 mm. Dia. M.S. water pipe line from Kalamboli to CBD and Belapur-Nerul.....255 Acres.
- Survey work of extended area for Arterial Channel at Sanpada.....175 Acres.
- Detailed Engineering survey for Nerul Node.....150 Acres.
- Detailed Engineering survey works for Extended area in Panvel (W)
- Detailed Engineering survey work for Dronagiri Node.....1500 Acres.
- Carrying out survey work for new area along Taloja-Owe road for the plots earmarked to Tata Memorial Hospital, Army Head Quarters, Central Industrial Security Force, Canteen Store department & S.R.P.F.....750 Acres.
- Engineering survey work for Sector 40, 42, 44 of Nerul Node.....150 Acres.
- Engineering survey work at C.B.D., Belapur.....25 Acres.
- Engineering survey work for Sector 28, 30 and 31 at C.B.D., Belapur.....50 Acres.
- Engineering survey for Sector 8A & 8B at C.B.D., Belapur.....100 Acres.
- Providing and fixing Master Bench Marks at various Nodes in Navi Mumbai Area.
- Survey work for the additional area from NH4 to Panvel Creek.....750 Acres.
- Carrying out survey for development of land under 12.5% scheme at Nawade, Navi Mumbai.
- Carrying out contour & plane table survey for Timber Market at New Panvel.
- Engineering survey for proposed M.B.R, G.S.R. sites for proposed water pipe line route from Hetawane Dam to Nerul Node.....175 Acres.
- Carrying out contour and plane table survey of channel for hilly catchment area beyond Diva-Panvel railway line at Kalamboli node.
- Contour survey near Valavali village at Kalamboli node.....350 Acres.
- Survey work at Airoli node.....200 Acres.
- Survey work extended area in Sanpada node.....150 Acres.
- Survey work at Dronagiri node.....400 Acres.
- Survey work at Oras, Dist.: Sindhudurg.....500 Acres.
- Survey and soil investigation in Sec.23, 28, 29, 30, 36, 38, 40 at Nerul Node.....750 Acres.
- Carrying out plane table survey road demarcation, grid marking at Oras.....200 Acres.
- Engineering survey for B.U.D.P. Project in Sector 16, 18 at Nerul100 Acres.
- Engineering survey for the land between railway line and highway in Sector 30 at Vashi.
- Survey work for holding pond in Sector 10-A and channel along Sion Panvel highway.
- Engineering survey for Sector 13, 19 (Part) and 23 at Nerul node.....250 Acres.
- Engineering survey for Sector 28, 30, 31 at C.B.D. Belapur.....140 Acres.
- Engineering survey for fishing and allied activities zone beyond Nava Sheva at Dronagiri node.....400 Acres.
- Carrying out contour and plane table survey for Ghansoli node.....800 Acres.
- Engineering survey for Diva and Airoli Gaothan.....250 Acres.

- Carrying out contour and plane table survey for additional holding pond area near Vashi village.....600 Acres.
- Plane table survey at N.R.I. Housing Scheme Sector 52, 54, 56, 58 at Nerul.....350 Acres.
- Survey for forecourt area around Belapur station building cum commercial complex.....60 Acres.
- Survey work of plots for octroi post for N.M.M.C. under S.E. Circle at Vashi.
- Carrying out contour & plane table survey of west creek side of GES at Koparkhairane node.....250 Acres.
- Detailed engineering survey and demarcation of road alignment for proposed R.O.B at villages Kalwa and Digha.....150 Acres.
- Plane table survey & soil investigation work for proposed STP site in Sector 26 and E.S.R.,G.S.R. site at Vashi.
- Survey of Kille Gaothan area in C.B.D. area.....60 Acres.
- Detailed survey of R.O.B. at Vashi.....100 Acres.
- Plane table and contour survey for G.E.S. of Khairane Bonkode village.....150 Acres.
- Carrying out engineering survey for Sector 1,13-A, 13 and 20 at Sanpada node and the area beyond existing Salt Pan Bund up to Creek.....700 Acres.
- Survey for Kharghar node area.....750 Acres.
- Detail Engineering Survey of 32 m. & 45m. wide Road from Belpada (Sector 3) to Sector-35 including super facility Hospital in Sec.10 at Kharghar.
- Engineering Survey of existing road in Kharghar Node, Navi Mumbai.
- Survey & demarcation of plots under 12.5% scheme in Sector 50 to 55 at Dronagiri.
- Demarcation of SEZ area (Phase-I & Holding) at Dronagiri.
- Plane table survey for proposed Central Garden in Sector 23, 24 &25 at Kharghar.
- Survey and Soil Investigation for development of Infrastructures for Sector 25 to 45 at Kharghar.
- Plane table survey for demarcation of plot earmarked for NMMC Headquarters at CBD & existing STP plot at Nerul and contour Survey for proposed MBR at Parsik Hill.
- Survey & Soil investigation for sector 62 & 64 (part) in 12.5% Scheme at Dronagiri.
- Survey for Land & demarcation for plot boundary in various nodes at Navi Mumbai.
- Carrying out survey work for Kharghar Hill Plateau at Kharghar.
- Carrying out plane table & spot level survey on carriageway of Palm Beach Marg.
- Survey, Demarcation, Soil investigation for road from Gokhivare talao to Acholegaon in Vasai & Virar bypass road in Virar (W) at Vasai Virar Sub Region.
- Establishment of reference point for Delineating creek regulation zone (CRZ) at Vasai-Virar sub region.
- Karanjade and Chota Khanda village under 12.5% scheme at New Panvel.
- Carrying out Engineering survey & Soil Investigation for strengthening & widening of Taloja link road & balance area.

- Demarcation of plots under 12.5% scheme in Sector – 34, 35 & 36 of Kamothe and plots in Buddhapada & Kirukpada of Kalamboli.
- Contour Survey of Kharghar Hill Plateau Balance area of Central park of Sector 25 at Kharghar.
- Carrying out contour survey of the proposed Navi Mumbai International Airport.
- Surveying / Levelling and plotting L section and Cross Sections, Preparation of Plan and Index Map along Five major rivers and their tributaries in Navi Mumbai Area.

(B) ROAD, NALLA, CHANNEL, RAILWAY LINE SURVEY:

- Engineering survey for land Earmarked for NMSEZ to the south of proposed Airport at Ulwe Node.
- Cross Sectional levels for Kadadi river.
- Detailed Engineering survey of channel for hilly catchment area, Navi Mumbai.
- Engineering survey for proposed diversion channel at Valavali village.
- Survey work of diversion channel at C.B.D. Belapur.
- Survey work for link road from Airoli to Mulund.
- Engineering survey for reclamation and roads at sector 3, 4, 7 and adjoining area at Sanpada.
- Survey for fixing of alignment for North & South channel from Panvel N.H.4 to Panvel creek.
- Demarcation of road alignment and carrying out route survey for Airoli bridge project.
- Demarcation of roads and diversion channel alignment in residential complex at Dronagiri.
- Survey of 30 M. wide road from Crematorium to M.S.E.B. plot boundaries in Sector 18, 19 at Airoli.
- Demarcation of boundaries stone in Sector 21 at Nerul node.
- Carrying out survey of invert levels and top levels of S.W. drains and sewers line in Sector 18, 21, 22 at Vashi.
- Demarcation and road alignment and carrying out route survey for valley no. 3
- Survey of area from bridge over Khairne nala up to creek near Sector 14 of Koparkhairane.
- Conducting survey for proposed coastal road from Talavali to Airoli Creek Bridge.
- Carrying out longitudinal survey of various nallahs for study of flood in Koparkhairane Node.
- Longitudinal survey for 10 M. wide service road joining P.C.B. to Shivaji Nagar.
- Longitudinal survey for link road from P.C.B. to Uran Panvel road.
- Engineering survey for 1500mm. Dia P.S.C. and M.S. Pipeline from Hetawane dam to Nerul, Navi Mumbai.
- Carrying out C.P.T. survey, road demarcation, nallah demarcation and grid marking at Oras as D.H.Q. for Sindhudurg.
- Engineering survey for grid marking and road sections for Oras.
- Hydrographic survey for Kalundri River near Panvel.

- Longitudinal section and cross sections for proposed roads at Bungalow plots in Sector-21, Nerul Node.
- Detailed Engineering survey for connecting channel parallel to MIDC road from Turbhe to Khairane Nallah.
- Taking invert and top levels of existing storm water drains in Sector-1 to 8 at Vashi, Navi Mumbai.
- Taking invert and top levels of S.W.Drains and sewer lines in C.B.D. Belapur.
- Survey for Diversion Channel at C.B.D. Belapur & Nerul Node.
- Demarcation of roads and grid pillars at Oras (Budruk), Taluka: Kudal, Dist.: Sindhudurg.
- Engineering survey work for proposed 800mm. Dia. water pipe line from C.B.D. to Nerul.
- Engineering survey work for proposed 800 mm. Dia. water pipe line from C.B.D. to Nerul along the Mankhurd Belapur Railway Line.
- Engineering survey work for proposed 800 mm. Dia water pipe line from Nerul to Airoli.
- Engineering survey work for proposed 800 mm. Dia water pipe line from Jasai M.B.R.to Dronagiri Node.
- Engineering survey along Sion-Panvel Highway from Turbhe Circle to C.B.D. Devi saddle.
- Survey for Dam site of Valley No.3 & 4 near Ovale village, Navi Mumbai..
- Carrying out plane table survey for Proposed Railway Station on Nerul and Belapur-Uran Railway line.
- Carrying out plane table and contour survey for area of North side of proposed Urban Railway line in Sector 4,6,7,8,9,10,10A,10B,11,12,13,13A & 22 at Ulwe, Navi Mumbai.
- Soil Investigation for proposed ROB at NH-4B near Khandeshwar Railway Station.
- Survey, Demarcation and soil investigation for D.P.Road from Vasamt Nagari in Vasai(East) to Nallasopara Station (East) and Central Park at Nallasopara (East) to Giri Vihar in Virar(East).
- Plane Table survey of Cattle Shed Zone in Kaman Area at VVSR.
- Survey work for Coastal Road from Junction of Sector 53 to 63 at Dronagiri, Navi Mumbai.
- Soil Investigation work for structures in Sector-24 of Central Park at Kharghar.
- Survey / Demarcation of roads at Karanjade 12.5% scheme at New Panvel Node.
- Topographic survey for Golf Course in Sector-22 and for M.B.R. near Sector-36 at Kharghar, Navi Mumbai.
- Carrying out survey for demarcation of plots, roads, channel for 12.5% scheme in sectors 29, 41, 56 and 59 at Dronagiri Node, Navi Mumbai.
- Survey for land & demarcation of plot boundary in Ulwe & Dronagiri Node.

(C) HYDROGRAPHIC SURVEY:

- Hydrographic survey for Airoli Bridge project (225 Acres. & 4.5 Kms.): Water Velocity Observation.

- Hydrographic survey for Gadhi River area 4.0 Kms.: Water Velocity Observation.
- Velocity and tidal observation at Expressway bridge in Kalamboli node: Water Velocity Observation.
- Hydrographic survey for Talaja Creek Bridge.
- Hydrographic survey for Kasadi river at M.I.D.C. Road Bridge, water velocity Observation.
- Water velocity observation and discharge observations over Gadhi and Kalundri rivers Observation.
- Water velocity observation at Gadhi river near Panvel.

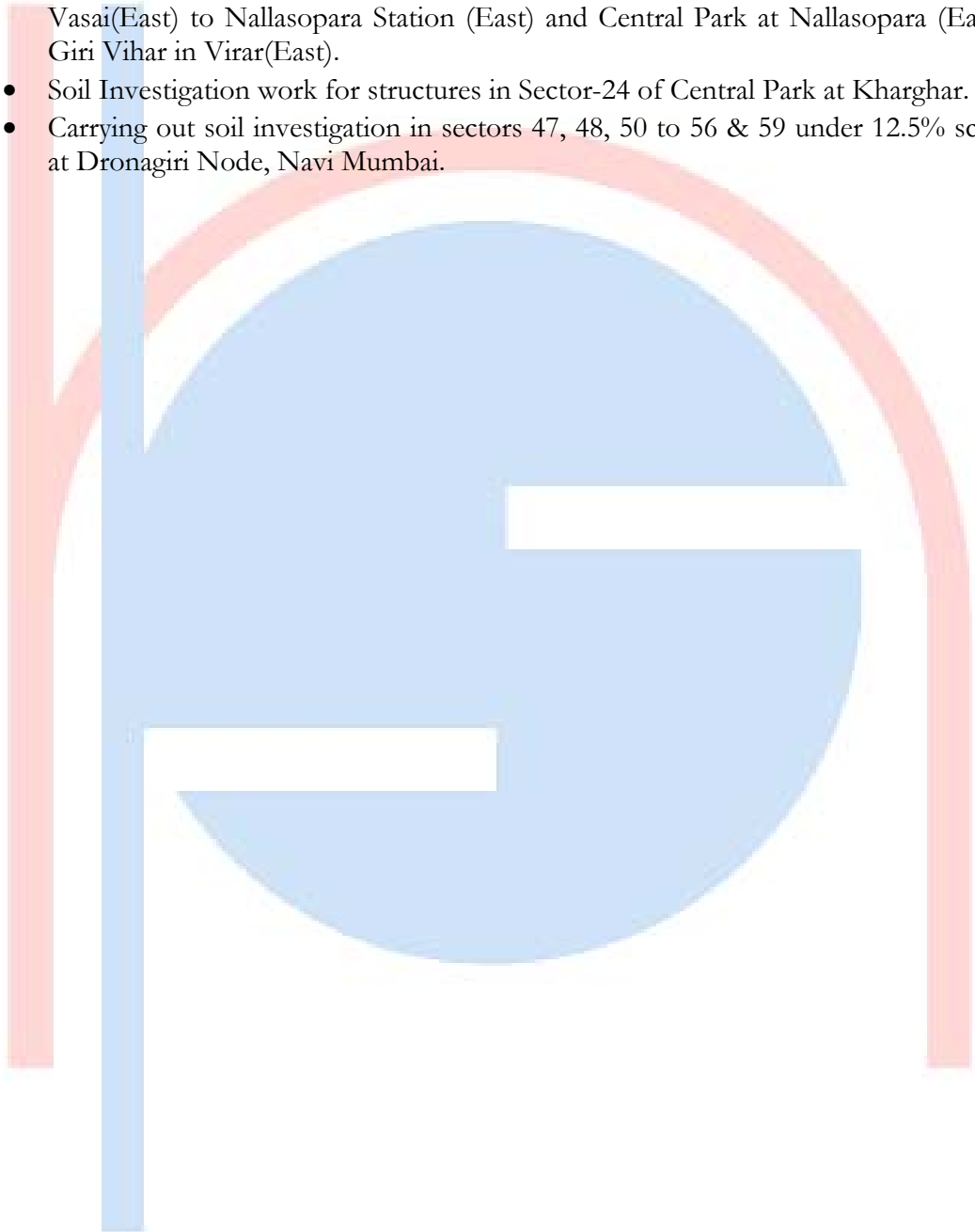
(D) DEMARCATION:

- Demarcation of center line of proposed roads in various nodes in Navi Mumbai area.
- Demarcation of center line of proposed channels in various nodes in Navi Mumbai area.
- Survey for land & Demarcation of plot boundary in Ulwe & Dronagiri Node, Navi Mumbai.
- Demarcation of plot boundary in every node at Navi Mumbai.

(E) GEOTECHNICAL INVESTIGATION WORK:

- Soil Investigation for Godown shopping complex in Plot at Sector 19, Vashi Node.
- Soil Investigation for Workshop building, Composite building, Public Health at Koparkhairane.
- Soil Investigation for Workshop for NMMC and Primary Health Center at Koparkhairane and bridges at Ghansoli Node.
- Soil Investigation for proposed Mass Housing Scheme in Sector 14 at Koparkhairane.
- Taking trial bores for strata classification for bridges across Talaja River for 12.5% scheme at Talaja Panchanand.
- Soil Investigation along the proposed Belapur (Seawood) Uran Rail Line Part I and II. Soil Investigation for two major bridges CD1 & CD2 on Palm Beach Marg.
- Soil Investigation for major bridge CD10 on Palm Beach Marg.
- Soil Investigation for Amra Marg.
- Soil investigation at Dronagiri Rly. Station.
- Sub-soil investigation of domestic airport and international exhibition center near Panvel
- Carrying out various Tests (CBR, Plate Load & Benkelman Beam Test) on road at Panvel (East & West)
- Carrying out bore holes for various water Retaining structures at Kharghar Node.
- Soil Investigation for Sea Woods Estate Phase-II Nerul, Navi Mumbai.
- Soil Investigation for arterial and internal roads (Part-I) in Dronagiri Node.
- Detailed Soil Investigation of Sea Woods Estate (NRI- Phase-II) Bldg. No. 47 to 52 at Nerul, Navi Mumbai.
- Detailed Soil Investigation of Seawoods Estate (NRI-Phase-II) for bldg No. 53 to 60 at Nerul, Navi Mumbai.

- Survey and soil investigation for Development of infrastructure for sector 25 to 45 at Kharghar.
- Soil Investigation work of proposed 60 m. wide road from NH-4-B near Navghar to Bokadvira adjoining NMSEZ at Dronagiri.
- Survey, Demarcation and soil investigation for D.P.Road from Vasamt Nagari in Vasai(East) to Nallasopara Station (East) and Central Park at Nallasopara (East) to Giri Vihar in Virar(East).
- Soil Investigation work for structures in Sector-24 of Central Park at Kharghar.
- Carrying out soil investigation in sectors 47, 48, 50 to 56 & 59 under 12.5% scheme at Dronagiri Node, Navi Mumbai.



OIL & NATURAL GAS CORPORATION:

(A) SURVEY WORKS:

(1) Gas Pipe Line Survey:

- Gas pipeline from Uran-Jasai-Gavhan.....15 Kms.
- Gas pipeline from Uran-Panju-Nhavasheva.....22 Kms.
- Gas pipeline from Uran-Panju-Nhavasheva (post construction).....22 Kms.
- Gas pipeline from Uran-MSEB.....6 Kms.
- Gas pipeline from Uran-MSEB (final survey)6 Kms.
- Gas pipeline from Uran-Mandwa-Thal.....15 Kms.
- Gas pipeline from Uran-Thal Vaishet.....22 Kms.
- Gas Pipeline from Umbergaon-Bhilad-Vapi-Balsad.....60 Kms.
- Gas Pipeline from Khadki to Daman.....1.8 Kms.
- Gas Pipeline from Vesma to Kawas.....30 Kms.
- Gas Pipeline from Umrat to Kawas.....29 Kms.
- Gas Pipeline from Utran to Kawas.....22 Kms.
- Gas Pipeline from Kathor to Variyav.....15 Kms.
- Gas Pipeline from Umrat to Kawas (Hajira).....16 Kms.
- Gas Pipeline from Umrat to Kawas (Hajira).....15 Kms.
- Gas Pipeline from Thane-Bhiwandi-Wada-Manor up to Surya River97 Kms.
- Gas Pipeline from Uran to Trombay.....30 Kms.
- Post construction survey for Gas pipelines from Uran to Trombay.....30 Kms.
- Gas Pipeline from Uran to Heera Gas.....6 Kms.
- Gas Pipeline (Alternative Route) from Umrat to Hazira Via Sachin.....21.5 Kms.

(2) Road Survey:

- Uran Oil Complex – L.P.G. and Terminal Area.....12 Kms.
- Panvel Housing Complex- Internal road survey.....3 Kms.

(3) Hydrographic Survey:

- Hydrographic survey for Mindhola Creek and Tapi river..... 5.2 Kms.
- Hydrographic survey for rivers between Palghar and Balsad section in Gujarat State.....30 Rivers.

(4) Plane Table & Contour Survey:

- Uran Oil Terminal.....450 Acres.
- Nhava-Sheva Complex.....200 Acres.
- Uran Oil Terminal Expansion of Project for L.P.G. Plant at Hajira (Kawas) Gujarat State Completion Period within 45 days.....1250 Acres.
- Post Construction survey for ONGC Colony at Ankleshwar and Deharadun.....105 Acres.
- Theodolite survey for L.P.G. Plant at Kawas.....100 Acres.
- Bhingari, Panvel Residential Complex, Phase-I.....68 Acres.

- Bhingari, Panvel Residential Complex, Phase-II.....3 Acres.

KONKAN RAILWAY CORPORATION LIMITED:

1) KUDAL DIVISION:

A) Survey Works:

Final location cum construction survey of Kharepatan-Banda Division Pinguli to Kalnavali Section for proposed Konkan Railway.

B) Soil Investigation Works:

Geotechnical investigation by rotary drilling method for proposed Konkan Railway from Kasal to Kudal.

2) RATNAGIRI DIVISION (NORTH):

A) Survey Works:

- Detailed survey for proposed alignment for Konkan Railway in between Chiplun and Ratnagiri.
- Proof checking of various tunnel alignments in Chiplun and Ratnagiri Section.

B) Soil Investigation Works:

- Geotechnical investigation for Tunnel No.22 and other three tunnels.
- Geotechnical investigation for Viaducts in the Section from Km.179.497 to 197.574 on proposed Konkan railway route.
- Geotechnical investigation for Viaducts between Chiplun and Ratnagiri on proposed Konkan Railway.
- Geotechnical investigation for tunnel No.11, Viaduct at Dhamandevi and other three tunnels & viaducts (Lajul, Bhoke, Karbude) on proposed Konkan Railway.
- Geotechnical investigation by taking bores at Sangameshwar station yard, Parchuri, reach No.10.

C) Grouting Works:

- Pressure grouting on various tunnels between Ratnagiri and Khed.
- Pressure grouting on various tunnels and tunnel portals between Khed and Chiplun.
- Curtain grouting at Lajul Shaft of Karbude Tunnel.
- Curtain grouting for Kondmala Shaft of Savarde Tunnel(RN-10).
- Curtain grouting for Dahivali Tunnel No.10.
- Curtain grouting for various tunnels & portals between Khed and Ratnagiri.

3) RATNAGIRI DIVISION (SOUTH):

A) Survey Works:

Detailed survey work and setting-out the curves for proposed Konkan railway from Ratnagiri to Lanja Section.

4) MAHAD DIVISION:

A) Survey Works:

Detailed survey work and setting-out the curves for proposed Konkan railway from Roha to Dasgaon Section.

B) Soil Investigation Works:

- Geotechnical investigation work for proposed Konkan railway alignment from Roha to Dasgaon Section.
- Soil investigation work for Konkan railway at Tunnels viaducts, cuttings bridges from Roha to Ratnagiri.

5) GOA DIVISION:

A) Survey Works:

- Control survey for Four Tunnels in Goa Division (Pernem, Old Goa, Verna and Padi tunnel).
- Control survey for one tunnel in Goa Division (Pernem Tunnel).

6) CBD, BELAPUR DIVISION:

A) Survey Works:

- Survey alignment for construction of Twin Tube tunnel on Mumbai-Pune Expressway at Bhatanpada, Panvel.
- Survey work at Kamshet.
- Survey alignment for construction of Tunnel at Khandala, Mumbai-Pune Expressway.
- Survey alignment for construction of tunnel at Khandala Mumba- Pune Expressway.
- Survey of alignment for construction of Twin Tube Tunnel for Mumbai – Pune Expressway

7) KRCL (Belapur, Navi Mumbai):

A) Survey Works:

Survey of Alternate Alignment form 33 Kms. to 53 Kms. On the Katra-Laole section of the Udhampur –Baramulla Rail Link project in Jammu & Kashmir State.2003

B) Soil Investigation Works:

Geotechnical investigation for Bhatan tunnel on Mumbai-Pune Expressway.

NON GOVERNMENT AGENCIES:

United India Technical and Economic Services Pvt. Ltd.:

- Survey of railway final location between Savni-morasa.
- Survey for proposed Railway siding from Jawad road station to Factory site in M.P. for 7 Kms. for Vikram Cement Factory.
- Topographic survey for proposed Railway siding near Jawad road station in M.P. for 76 Hectares.

Deepak Fertilizers & Petrochemicals Corporation Ltd.:

- Survey for proposed Petrochemical Plant site at Taloja.
- Survey for proposed gas pipeline from Uran to Factory site at Taloja, and alternate route, 92 Kms.

Cement Corporation of India Ltd:

Engineering survey for proposed Dam site in Rajasthan of 450 Hectare.

Bajaj Auto Ltd.:

Engineering survey for proposed plant at Valunj, Aurangabad of 255 Hectares.

Shah Technical Consultants Pvt. Ltd.:

- Survey for water supply and sewerage systems for six municipal towns and 104 villages in Thane district from Badlapur to Bhayander – Uttan.
- Survey for Storm Water Drainage and Sewerage Line, 90 Kms. at Aurangabad.
- Survey of Storm Water drainage System for 33 Kms. at Dharvi

Consulting Engineering Services Ltd.:

- Survey for National Highway NH-8 from Bassein Creek Bridge to Manor for four-lane highway, 58 Kms.
- Survey of alternate expressway from Talasari to Valsad, 70 Kms.
- Topographic survey of proposed interchanges at Amra Marg with NH-4B near Gavhan Phata & NH-4B with SH-54 near JNPT.

Godrej Foods Ltd.:

Soil investigation at Wadala Factory, Mumbai.

Godrej Industries Ltd.:

Professional Services for Land Survey of Vikhroli factory.

Conwood Agencies Pvt. Ltd.:

- Plane Table survey work of the property S.No.163 (pt), C.T.S. No. 128A, 128/1 to 36 at Kandivali (W), Mumbai.
- Contour survey and marking of boundary for survey no.123/1 and survey no. 125A at village Hedutane near Taloja M.I.D.C. Area.
- Contour & Plane Table Survey work in Maldunge village, Taluka: Panvel.
- Carrying out survey work at village Nagaon, Bagmala, Chaul and Revdanda.
- Contour & Plane Table survey of land near village Nere on Panvel Matheran road.
- Engineering survey work at village Taje Borje, District: Pune
- Engineering survey work of the area at Mahul, Mumbai.
- Plane table survey for slum rehabilitation at Sahar, Mumbai.
- Plane table survey of Vasant Vihar at village Majiwade. Pokharan Road, Thane.
- Engineering survey of the Plot J1 & J2 at Upper Govind Nagar, Malad (E), Mumbai.
- Engineering survey work for S.No. 36, at village Dindoshi, Goregaon (E).
- Plane Table Survey work for bungalow at Mahabaleshwar.

PHE Consultant, Mumbai:

Bombay Sewerage Disposal Project, Stage II- Master Plan, Ground Level Survey

Stup Consultants Pvt. Ltd.:

- Land survey for Widening of existing 2-lane road to 4-lane road of Bhivandi bypass.
- Road Survey for widening and strengthening of Hubli – Bellary road (NH-63).
- Road center line demarcation and cross-sectional levels in Dronagiri Node, Uran.
- Detail survey for 58 existing rail bridges and cross-sectional levels (downstream 300m. & upstream 1000m.) from Vaitarna railway station to Surat railway station of Western Railway.
- G.P.S. Survey for 125 kms. of Lebad – Jaora road project (via Ratlam).

Technogem Consultants Pvt. Ltd.:

- Survey for proposed water pipe line near Kalwa Bridge.
- Engineering Survey for construction of Mumbai – Pune expressway from Kon to Kalamboli.
- Survey of Mumbra bypass for about 5.30 km. on Mumbai – Pune Highway.
- Additional survey for proposed fly over bridge at Mumbra.
- Survey for proposed flyover on Miraj Belgam Railway Line at Miraj.

Valecha Engineering Pvt. Ltd.:

Engineering survey for construction of Mumbra bypass of Mumbai Pune road NH-4 from Km. 133/800 to 138/200 in District: Thane.

Reliance:

- Carrying out plane table survey for proposed OFC Route from Indapur to Solapur.
- Carrying out plane table survey for proposed OFC Route from Solapur to Talmod.
- Carrying out plane table survey for proposed OFC Route from Thane to Turbhe naka Junction.

Reliance Engineering Associates Pvt. Ltd.:

- To carryout contour survey work for proposed DACC office complex in Nocil, Navi Mumbai.
- Establishment of Master Bench Mark, Secondary Bench Mark and boundary pillar establishment for proposed DACC office complex in Nocil, Navi Mumbai.
- Carrying out Detailed Topographic survey and Establishment of Ground Marker GPS pillars in pairs at Reliance Premises (Obstruction survey for Heliport).

AFCONS Infrastructure Ltd.:

- Topographical survey for proposed Dabhol Power Project site (**ENRON**) at Dabhol of 700 Hectares.
- Survey of land for proposed Residential Colony at Dabhol.
- Survey of land for proposed housing Colony “Site C” at Dabhol.
- Engineering survey for proposed L.N.G. Tank site at Dabhol.
- Demarcation of 500 m. set back from Coastline near Dabhol.
- Additional survey work of LNG and Fuel Oil Storage tanks at alternate location – Site ‘B’
- Additional survey work for power facility at Dabhol Power Project.
- Topographical survey for proposed Jetty and Quarry site at Usgaon & Navsha.
- Plane table survey of the hutment area near Powai Flyover opposite Larsen and Toubro, Mumbai.
- Topographical survey for proposed Binani Cement Factory at Bina in Madhya Pradesh.
- Carrying out quantity survey for dredging at IMS Pump House at Porbandar Port.

Gammon India Ltd.:

Route survey for proposed flyover from J.J.Hospital to J.J.School of Arts, Mumbai.

Permenant Prestress Corporation Ltd.:

- Railway alignment Survey from Ghuggus to Wani.
- Survey for setting out the centerline alignment of the proposed flyover and cross-sectional levels at Jejuri.

- Fixing of centerline of proposed ROB across Daund – Manmad railway line at MSRDC Dehre.

Nagarjuna Construction:

Survey work for proposed flyover at Latur.

Maroli Port & Harbour Ltd.:

Soil investigation at Maroli Port near Umargaon, Gujarat.

Prakash Construction & Co.:

- Fixing of proposed centerline for Panvel bypass.
- Cross sectional levels at Worli – Bandra Sea Link Project.

Shirish Patel & Associates:

Survey work at Vasai Virar sub-region.

Manek Shah & Associates:

Survey work at Ujloli.

Hindustan Construction Company:

- Survey work at Madras Site.
- Engineering Survey for Ennorn quarrying works at Sholingur, Madras.
- Road survey for existing Mugal Road Project in Jammu & Kashmir state.

Skypak Resort Pvt. Ltd.:

Survey work in Goa.

H.R. Johnson (India) Ltd.:

Soil investigation at Kandla Dist.: Gujarat.

HAFED:

Soil investigation work at Vashi.

National Organic Chemical Industries Ltd. (NOCIL):

- Plant Survey site.
- Gas Pipe Line Survey from Plant site at Nocil to Uran

- Gas Pipe Line Survey from Plant site at Nocil to I.O.T.L. Plot at J.N.P.T.

N.M.Barai Architect, Mumbai:

- Survey at Thane site.
- Survey at Walkeshwar site, Mumbai.

Ideal Road Builders:

Road Survey work for Bhiwandi Bypass

I.A.G. Consultants Pvt. Ltd.:

Soil Investigation and Survey work at Malad site

Terna Public Charitable Trust, Nerul:

Soil investigation work for educational campus at Nerul.