

Requesting Engineering Surveys from the Surveying & Land Information Dept.

EThekwini Municipality

Muhammad Seedat – June 2017

The Land Survey branch of the Surveying and Land Information Department undertakes various surveys requested by most of the departments of the eThekwini municipality. The departments that request most of this work are Architecture, Development & Engineering, Coastal Storm Water & Catchment Management, Roads Provision and Housing departments just to name a few. The surveys requested by these departments are Engineering surveys which comprise of detail surveys, setting out data, as built surveys, monitoring surveys, etc.

This article will outline the requirements for requesting a detail survey from our department and it must be stressed that this is for municipal departments only and not for the public or private requests.

Requesting a survey

The department that requires the survey has to forward a request for the survey either by internal mail, email or hand deliver the request to the Land Survey Branch (details at the end of the article). The information that is needed will be:

- 1) **Completed Pro-Forma order (Request for surveys) form and returned to our department (see Figure A). All sections must be completed and signed**
- 2) Name/Title of the project/road/building/address etc.
- 3) The extent of survey required (a plan/drawing or image of the area to be surveyed)
- 4) The type of survey needed (i.e. topographical/as built/monitoring/setting out etc.)
- 5) Other specific requirements of the survey – a brief description
- 6) Contact details of the person requesting the survey and department and contact details (to whom must the completed survey be sent)

It is also important to note with regard to number **3** above that you notify our department of the exact areas to be surveyed as this impacts greatly on the cost of the survey and also the time spent on site in order to complete the survey timeously.

A memo from the requesting department **Figure B** is also accepted, however the surveying department pro forma order is **compulsory** and must accompany the memo as well.

Please note that these requests must be clear and legible in order to proceed. Incomplete and illegible prints will be sent back to the client/sender resulting in delays.

An official from the Land Survey Branch will contact the author of the request to finalize specific details/requirements if required for clarity before the survey commences.

**SURVEYING AND LAND INFORMATION DEPARTMENT
PRO-FORMA ORDER FORM (SURVEY REQUESTS)**



Cluster: _____ Department: _____

Physical Address: _____

Contact Person: _____ Telephone No : _____

E-mail Address: _____ Date: _____

NOTE: FORM TO BE COMPLETED IN FULL

DESCRIPTION OF SURVEY REQUEST

| |
|--|
| |
| |
| |
| |
| |

OPERATING

VOTE NUMBER TO BE CHARGED FOR LABOUR COSTS :

| Business Unit | Item.Sub | Fund | Costing | Project | Region |
|---------------|----------|------|---------|---------|--------|
| | | | | | |

CAPITAL

VOTE NUMBER TO BE CHARGED FOR LABOUR COSTS :

| Business Unit | Item.Sub | Fund | Costing | Project | Region |
|---------------|----------|------|---------|---------|--------|
| | | | | | |

VOTE NUMBER TO BE CHARGED FOR EXTERNAL CONSULTANTS :

| Business Unit | Item.Sub | Fund | Costing | Project | Region |
|---------------|----------|------|---------|---------|--------|
| | | | | | |

APPROVED BY:

ACCOUNTANT OF DEPARTMENT:

Funding Available (Please tick): YES NO If NO: Funding is through Information Services.

If YES: Please complete the Budget Check below:

| | | |
|---------------------------|---|--------|
| Current Year Provision | : | R..... |
| Less: Actual Exp. To Date | : | R..... |
| Less: Commitment (O/S) | : | R..... |
| Balance Available | : | R..... |

| | | | |
|--------------|-------------|---------------|--------|
| Print Name : | Signature : | Telephone No. | Date : |
|--------------|-------------|---------------|--------|

REQUESTER

| | | | |
|-------------|------------|---------------|-------|
| Print Name: | Signature: | Telephone No. | Date: |
|-------------|------------|---------------|-------|

Figure A: Pro Forma Order Form (Survey Requests)



City Engineer's Unit
ROADS DEPARTMENT
Roads Design Branch

Office Memorandum

TO: Muhammad Seedat
Survey Dept. 4th Floor Main Building

FROM: L.N.J. Cloete

YOUR REF.:

OUR REF.:

DATE: 6 April 2017
TEL.: x17728

COPIES TO:

REQUEST FOR SURVEY – HENDON ROAD / WEMBLEY ROAD – PHASE 3 CONSTRUCTION

Please arrange for a survey showing the following road upgrade projects

The following survey information is required along **Hendon Road CH0 to CH310**

- X- Section at 10m intervals from CH0 to CH310 tie in of Phase 2
- CH0 to CH90 – pick up base of wall at NGL – X Section to extend to bottom wall only, but provide level at top of wall.
- CH90 to CH310 – X Sections on right to extend min 30m on right side to bottom of embankment / existing watercourse
- Pick up driveways for grading purposes (longsection along centre of existing driveway)

The following survey information is required along **Wembley Road CH0 to CH360**

- X- Section at 10m intervals from CH0 to CH360
- Survey of new kerb line at approx. CH225 to CH270
- Pick up driveways for grading purposes (longsection along centre of existing driveway)
- Pick up new stormwater Manholes and Inlets along Wembley Road

Attached is the CSV file along the road alignments.

Please supply the information to this Department XYZ Ascii file only. Please ensure that any benchmarks or control points are included in the XYZ Ascii file. Please include Plan.

Please supply the information as soon as possible. Please charge to following

| Project Name | New Business unites | Iterm | Project | Costing | Funding | Region(ward code) |
|-------------------------------|---------------------|-------|---------|---------|---------|-------------------|
| Hendon Road Upgrade - Ward 34 | 49300 | 45130 | P6878 | 0000 | 51080 | W034 |

Thank you.

L.N.J. Cloete

Figure B: A typical Memo request from the Roads Dept.

Starting the survey

a) Establishing control points

Prior to commencing a survey we need to establish if there are control points on site for us to undertake the survey accurately. This is an essential requirement for both during and after the survey is completed as the control points may be required by the contractor appointed for the construction of the project. Occasionally there are existing control points present in the area, so these are adopted and extended to the present site to be surveyed.

If there are no control points then the survey department has a dedicated senior survey technician to establish and fix new control points on site. These are surveyed very accurately within millimetre precision using Global Positioning System (GPS) instruments and software (post processing techniques used).

b) Surveying the site – internal surveyors

There are currently 5 survey technicians in the land survey branch who undertake surveys for the department. Once the control points are finalized the surveyors commence the survey and upon completion the survey is handed over to our draughting staff to complete the drawings and add the final touches. The surveyor then re-checks the plan ensuring the survey is complete according to the client's requests. Final plans and digital files are then forwarded to the client on completion.

c) Surveying the site – external surveyors

Currently there are 26 South African Geomatics Council (SAGC) registered survey firms on the panel who undertake surveys on our behalf. When it is necessary to outsource work, the survey firms on our panel are asked to tender for the work on a rotational basis.

Survey firms are required to submit a quote including completed supporting Supply Chain Management documentation within 5 working days and upon receipt of the tenders, the tenderer who has submitted the most competitive quote is instructed to undertake the survey. A minimum of three quotes are required to select the most competitive tender. When evaluating the tenders, points for price and points for preference (using B-BBEE status) are used to determine the successful tenderer. This is used when the lowest responsive tender is between R30 000 and R200 000. An instruction letter is then sent to the survey firm to commence with the survey.

Upon completion, the drawing and completed survey is verified and once we are satisfied that the client's requirements are met, we will forward this data to the client. The invoice for the payment of the surveyor's services is then processed.

Conclusion

The Surveying and Land Information Department provides a vital and key role in providing an integral source of survey related requirements within the city. Fortunately over the years we have built a favourable and understanding relationship with all the departments of the municipality and have delivered and will continue to be actively involved in all major developments within the eThekweni Municipal area.

Surveying & Land Information – Land Survey branch

Offices: 166 K E Masinga Road (Old Fort Rd)

City Engineers Building

4th Floor

Room 427

Request for Engineering Surveys

Project Survey Technician: Muhammad Seedat

Tel: 031 3117235

Email: Muhammad.Seedat@durban.gov.za

Alternatively

Senior Manager: Alan Mitchell

Tel: 031 3117234

Email: Alan.Mitchell@durban.gov.za