THE PROFESSIONAL SURVEYOR

A.1 Definition

Surveying in a licensed profession. Public Act 299 of 1980 defines a professional surveyor as one "...who by reason of knowledge of law, mathematics, physical sciences, and techniques of measuring acquired by professional education and practical experience, is qualified to engage in the practice of professional surveying."³² The act defines the practice of professional surveying as

"...providing professional services such as consultation, investigation, testimony, evaluation, planning, mapping, assembling, and interpreting reliable scientific measurements and information relative to the location, size, shape, or physical features of the earth, improvements on the earth, the space above the earth, or any part of the earth, and the utilization and development of these facts and interpretations into an orderly survey map, plan, report, description, or project. The practice of professional surveying includes all of the following:

(i) Land surveying that is the surveying of an area for its correct determination or description for its conveyance, or for the establishment or reestablishment of a land boundary and the designing or design coordination of the plotting of land and the subdivision of land.

(ii) Geodetic surveying that includes surveying for determination of the size and shape of the earth both horizontally and vertically and the precise positioning of point on the earth utilizing angular and linear measurements through spatially oriented spherical geometry.

(iii) Utilizing and managing land information systems through establishment of datums and local coordinate systems and points of reference.

(iv) Engineering and architectural surveying for design and construction layout of infrastructure.

(v) Cartographic surveying for making maps, including topographic and hydrographic mapping. $^{\rm 2}$

All surveys performed by or for the Michigan Department of Transportation shall comply with the laws of the United States and the State of Michigan and shall be conducted under the direct supervision of a Professional Surveyor licensed to practice in the State of Michigan.

A.2 Rights and Responsibilities

Through additional statutes the People of the State of Michigan have provided the professional surveyor special trust and privilege relating to entering and accessing private property. These statutes are Public Act 208 of 1959 and Public Act 115 of 1976. The full text of these and other public acts affecting the

practice of surveying may be accessed through Appendix G of this Survey Manual.

P.A. 208 of 1959, "Surveys on Public and Private Property", empowers highway and road authorities to make surveys on both public and private lands and waterways for the planning, construction and maintenance of state highways and county roads. Such action is not considered trespass or entry. Authorities are only liable for actual damage done in the course of lawful activities but are required to obtain the written consent of the owner prior to the removal of any fences, trees or shrubbery.

P.A. 354 of 1993, "The Railroad Code of 1993", an act "...to revise, consolidate and codify the laws relating to railroads..." ³ exempts the surveyor (PS) or his employees making surveys from certain prohibitions relating to accessing railroad property.

P.A. 115 of 1976, "Right of Entry by Surveyors", provides the surveyor with the right of entry and limits liability to actual damages provided that certain conditions are met. The full text of this act may be accessed through **Appendix G** of this survey manual. The surveyor should insure that (s)he is familiar with the terms of the act and has provided proper identification for vehicles and personnel.

The prudent surveyor will always seek permission to access private property for the purpose of making a survey. The Michigan Society of Professional Surveyors (MSPS) will provide to members blank "Act 115" identification cards at no cost and blank "door hanger" notices to property owners at a nominal cost. These items may be ordered by calling MSPS offices at (517) 484-2413.

If a surveyor working for or under contract with MDOT is denied access to private property (s)he should report it immediately to the MDOT survey project manager for resolution with the appropriate legal authorities.

Surveyors shall adhere to all applicable OSHA and MIOSHA safety standards including appropriate signage, traffic signaling devices and personal clothing and equipment. Further details may be found in **Appendix C**, "Safety".

All necessary permits must be obtained prior to beginning any field work.

A.3 Continuing Competence

The discipline of surveying is undergoing tremendous change bringing with it increasing opportunities to expand the breadth and depth of the profession. To take full advantage of this situation surveyors are

encouraged to broaden their knowledge through additional formal education, active participation in professional societies, attendance at workshops and seminars, and regular self study. The result will be innovative approaches to classical survey problems leading to better service to the public.

A.4 Quality Assurance/Quality Control

A well designed, thoroughly understood, sufficiently coordinated, properly supervised, professionally conducted survey that meets or exceeds required standards and is completed on time, within budget is the goal of each design project. The recent past has seen a great deal of emphasis placed upon achieving quality products and services. Quality Assurance/Quality Control (QA/QC) is more than a requirement, it is a mind set that when instilled in each individual forming part of the survey project team brings out best efforts and successful completions.

Organizations need to look at all policies and procedures to insure that quality is part of every operation. Major areas are pro-active leadership, having qualified people and enough of them, continuing education and training, developing core competencies, and insuring that each phase of the project meets the requirements of the next phase. Communication, effective management, and a spirit of teamwork among all involved are key elements.

End Notes

- 2. Ibid.
- 3. P.A. 354 of 1993, Chapter 462, Section 273 (4)(g), Michigan Statutes Annotated

^{32.} P.A. 299 of 1980, Chapter 339, Section 2001 (j), Michigan Statutes Annotated