



Professional Engineers, Land Surveyors and Geologists (Board), which concluded that DRG offered to perform and performed professional services without proper licensure in violation of the Engineer, Land Surveyor and Geologist Registration Law (Law),<sup>3</sup> 63 P.S. §§ 148 – 158.2.<sup>4</sup> The primary issue raised on appeal is whether DRG offered to perform and performed an “engineering land survey” when it used various tools, including, *inter alia*, maps and mobile GPS/GIS equipment, to locate and identify a customer’s physical assets for a non-engineering purpose; this is an issue of first impression. After review, we reverse.

The Board’s undisputed findings along with the record reveal that in 2006, Central Electric Cooperative, Inc. (CEC), a rural electric distribution cooperative, contracted with DRG to provide a GIS electric system field inventory in order to create a GIS database.<sup>5</sup> *See* CEC’s Request for Proposal, Section 3, Reproduced Record (R.R.) at 211a. Accordingly, DRG personnel were required to “go out in the field” and locate every piece of electric equipment that CEC owned, such as transmission poles, distribution poles, security and street light poles, pad-

---

<sup>3</sup> The Act of May 23, 1945, P.L. 913, *as amended*.

<sup>4</sup> The Board also imposed a civil penalty in the amount of \$2,000 for the violation and ordered DRG to cease and desist from the practice of land surveying until it has a licensed Professional Land Surveyor in responsible charge and is practicing in accordance with the licensure requirements of the Law. By order dated January 15, 2015, this Court granted DRG’s application for supersedeas.

<sup>5</sup> “GIS,” is the acronym for Geographic Information System, which has been defined in the context of science as: “[a] computer application used to store, view, and analyze geographical information, especially maps;” and in the context of technology as: “[a] computer system for capturing, storing, checking, integrating, manipulating, analyzing and displaying data related to positions on the Earth’s surface[; it is typically] used for handling maps of one kind or another.” [www.dictionary.com/browse/geographic-information-system?s+t](http://www.dictionary.com/browse/geographic-information-system?s+t).

mounted equipment, regulators and meters.<sup>6</sup> CEC's assets were located in an area that spanned six or seven counties, included over 100 square miles of land, and involved 3,200 miles of electrical lines and 100,000 point locations requiring inventory. Using maps and mapping grade GPS/GIS technology, DRG's field staff geographically located CEC's assets to sub-meter accuracy, took an inventory of all equipment at each location and identified and tagged the equipment.<sup>7</sup> *Id.* at 213a, 214a. Based on this evidence, the Board found that DRG's field staff, unlicensed under the Law, used GPS/GIS equipment, mathematical calculations and other tools to search, identify and locate the x-y coordinates of CEC's assets on the Earth's surface.<sup>8</sup> Board's Final Adjudication and Order (November 14, 2014) (Board's decision), Finding of Fact (F.F.) No. 12. DRG then transferred the collection of x-y coordinates for the located assets to CEC electronically to be

---

<sup>6</sup> Notes of Testimony (N.T.) of Fred E. Terwilliger, CEC Director of Engineering and Operations, Reproduced Record (R.R.) at 408a. *See also* CEC's Request for Proposal, Section 3, Task II (listing items to be inventoried), R.R. at 213a.

<sup>7</sup> The Global Positioning System, also known as "GPS," is a constellation of Earth-orbiting satellites, which, in very simple terms, emit signals that hand-held GPS receivers analyze and measure in an elaborate process to calculate a three dimension position on the Earth's surface. *See generally* <http://electronics.howstuffworks.com/gadgets/travel/gps.htm/printable> and [http://www.faa.gov/about/office\\_org/headquarters\\_offices/ato/service\\_units/navservices/gnss/gps/howitworks/](http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/navservices/gnss/gps/howitworks/) (both websites last visited April 4, 2016). As the former article notes, "[f]or less than \$100, you can get a pocket-sized [GPS] gadget that will tell you exactly where you are on Earth at any moment. As long as you have a GPS receiver and a clear view of the sky, you'll never be lost again." According to the Board, while there are hundreds of different GPS receivers available on the market, only certain receivers are suitable for GPS surveying. Unlike GPS receivers used primarily for recreational uses, GPS receivers used for surveying purposes are capable of accuracies of sub-meter to sub-centimeter, capable of differential GPS, real-time GPS, static GPS and other hybrid techniques and often provide post-processing and network adjustment software. Board's decision at 13 n.7.

<sup>8</sup> The mathematical calculations noted by the Board appear to be those performed automatically by the GPS unit or the post-processing software, which further refines or corrects a field position from within 10-20 meters of the object's exact location to within one meter of that location.

plotted on a base map. *Id.*, F.F. Nos. 13, 25. The Board also found that in 2007, DRG represented on its website that it has provided mapping and field inventory services to utility companies on a national basis for over twenty years and that it can provide “GPS surveying for the development of accurate base maps locating fixed objects on the surface of the earth to within a margin of error of one or less meters after post processing.” *Id.*, F.F. No. 15.

Although not determinative of our analysis or legal conclusion, we note that the record which developed before the Board focused on DRG’s use of GPS technology to locate the assets when performing the field inventory, multiple expert opinions regarding how GPS works, the use of GPS technology in the practice of land surveying and whether the use of GPS in these circumstances constituted the performance of an engineering land survey under the Law. *See generally* Board’s discussion at 14 – 17, 18 – 21. The Board ultimately concluded that by performing the actions described, DRG “engag[ed] in activity of determining by measurement methods the position of fixed objects on the [E]arth’s surface [through the use of Global Positioning System and Geospatial Information Systems],”<sup>9</sup> which constitutes an “engineering land survey” under the Law and, therefore, DRG violated the Law when it engaged in the practice of land surveying without the necessary license. Board’s decision at 13, 18. In addition, the Board

---

<sup>9</sup> In general, “[g]eospatial technology refers to equipment used in visualization, measurement, and analysis of earth’s features, typically involving such systems as GPS (global positioning systems), GIS (geographical information systems), and RS (remote sensing).” *See* <http://www.usnews.com/science/articles/2011/05/11/geospatial-technology-as-a-core-tool> (last visited April 4, 2016).

concluded that DRG violated the Law by offering to practice land surveying without employing a licensed professional land surveyor.<sup>10</sup>

The Board also determined that DRG performed a geodetic survey with the GPS equipment, again violating the Law due to its lack of licensed personnel:<sup>11</sup>

The field survey work for this project and violation involves the collection of raw GPS data and post processing the raw data. This survey project covers a very huge land mass area containing large amounts of survey data. The job . . . is enormous . . . requiring millions of measurements to be post processed to create a land base map, utilizing sophisticated post processing software to complete statistical math calculations to determine final point positions. [DRG] did survey a land mass. Testimony provided, suggest [sic] that [CEC] and DRG were not concerned about ownership or jurisdiction, however; this GPS survey is concerned with the electrical facilities within the confines of lands for which [CEC] has either a right-of-way interest to lands owned by others or facilities within lands owned by [CEC]. GPS measurements and calculations take into consideration the curvature of the [E]arth. All geo-

---

<sup>10</sup> In concluding DRG violated the Law, the Board referenced Sections 2(d) (“Practice of Land Surveying” defined), (j)(ii) (“Engineering Land Surveys” defined), 3(a) (Practice of engineering, land surveying or geology without a license and registration prohibited), and 6 (Practice of engineering, land surveying and geology by firms and corporations), *as amended*, 63 P.S. §§ 149(d), (j)(ii), 150(a) and 153.

<sup>11</sup> Geodetic surveys are “surveys of land masses, with or without regard for ownership of jurisdiction, and take into consideration the curvature of the [E]arth. Such surveys are conducted mainly by means of the Global Positioning System, and are apt to employ the Pennsylvania State Plane Coordinate or Latitude/Longitude Systems.” Board’s decision at 19 [quoting the *Manual of Practice for Professional Land Surveyors in the Commonwealth of PA (Manual of Practice)*, adopted by the Pennsylvania Society of Land Surveyors on July 10, 1998, Section 9.1(a)(2)], R.R. at 540a. According to the *Manual of Practice*, geodetic surveying “is used in land surveying either to make ties to geodetic monuments or to establish control points for large projects.” *Id.*, commentary to Section 9.1(a)(1)(B), R.R. at 621a.

referenced point grid systems are referenced to distances north and south of the equator [latitude of zero degrees] and also distances east or west of Greenwich, England [the mean meridian; longitude of zero degrees]. Latitudes and Longitudes are lines of arc which follow the curvature of the [E]arth. [DRG] did use GPS survey equipment and [it] did utilize the Pennsylvania State Plane Coordinate System. According to testimony given by Mr. Renning[, Vice President and General Manager] of DRG, they relied on the HARN [High Accuracy Reference Network] . . . . [DRG] did perform every aspect of the definition of a Geodetic Survey with GPS survey equipment from the HARN monuments and relying on and perpetuating the published data of those monuments along 3,200 miles of facility and survey lengths taking into consideration the curvature of the [E]arth with their measurements to acquire their GPS data to establish [its] land base mapping project for [CEC] and now having the public be the ultimate user of the data collected and post processed.

Board's decision at 19-20.

Prior to turning to the arguments raised on appeal, it is helpful to reference the relevant statutory provisions. Section 2 of the Law (Definitions) provides in relevant part:

**(a)(1) “Practice of Engineering”** shall mean the *application of the mathematical and physical sciences for the design of public or private buildings, structures, machines, equipment, processes, works or engineering systems, and the consultation, investigation, evaluation, engineering surveys, construction management, planning and inspection in connection therewith, the performance of the foregoing acts and services being prohibited to persons who are not licensed under this act as professional engineers unless exempt under other provisions of this act.*

(2) The term “**Practice of Engineering**” shall also mean and include related acts and services that may be performed by other qualified persons, including but not limited to, municipal planning, incidental landscape architecture, teaching, construction, maintenance and research but licensure under this act to engage in or perform any such related acts and services shall not be required.

.....  
(4) The “**Practice of Engineering**” shall not preclude the practice of the sciences which shall include but not be limited to: soil sciences, geology, physics and chemistry.

.....  
(d) “**Practice of Land Surveying**” means the practice of that *branch of the profession of engineering which involves the location, relocation, establishment, reestablishment or retracement of any property line or boundary of any parcel of land or any road right-of-way, easement or alignment*; the use of principles of land surveying, determination of the position of any monument or reference point *which marks a property line boundary, or corner setting*, resetting or replacing any such monument or individual point including the writing of deed descriptions; procuring or offering to procure land surveying work for himself or others; managing or conducting as managers, proprietors or agent any place of business from which land surveying work is solicited, performed, or practiced; the performance of the foregoing acts and services being prohibited to persons who are not granted certificates of registration under this act a professional land surveyor unless exempt under other provisions of this act.

(e) “**Professional Engineer**” means an individual licensed and registered under the laws of this Commonwealth to engage in the practice of engineering. *A professional engineer may not practice land surveying unless licensed and registered as a professional land surveyor as defined and set forth in this act; however, a professional engineer may perform engineering land surveys.*

**(f) “Professional Land Surveyor”** means an individual licensed and registered under the laws of this Commonwealth to engage in the practice of land surveying. *A professional land surveyor may perform engineering land surveys but may not practice any other branch of engineering.*

.....  
**(j) “Engineering Land Surveys”** means surveys for: (i) the development of any tract of land including the incidental design of related improvements, such as line and grade extension of roads, sewers and grading but not requiring independent engineering judgment: Provided, however, That tract perimeter surveys shall be the function of the Professional Land Surveyor; (ii) *the determination of the configuration or contour of the [E]arth’s surface, or the position of fixed objects thereon or related thereto by means of measuring lines and angles and applying the principles of mathematics, photogrammetry or other measurement methods;* (iii) *geodetic survey, underground survey and hydrographic survey;* (iv) storm water management surveys and sedimentation and erosion control surveys; (v) the determination of the quantities of materials; (vi) tests for water percolation in soils; and (vii) the preparation of plans and specifications and estimates of proposed work and attendant costs as described in this subsection.

63 P.S. § 149 (emphasis supplied). The Law proscribes the practice of engineering and land surveying without registration and licensure. Section 3 of Law states:

(a) In order to safeguard life, health or property and to promote the general welfare, it is unlawful for any person to practice or to offer to practice engineering in this Commonwealth, unless he is licensed and registered under the laws of this Commonwealth as a professional engineer, for any person to practice or to offer to practice land surveying, unless he is licensed and registered under the laws of this Commonwealth as a professional land surveyor or for any person to practice or to offer to practice geology unless he is licensed and registered



under the laws of this Commonwealth as a professional geologist. Individuals licensed as professional engineers, professional land surveyors or registered landscape architects may perform geological work which is incidental to their engineering, surveying or landscape architecture without being licensed as professional a geologist.

(b) A person shall be construed to practice or offer to practice engineering, land surveying or geology who practices any branch of the profession of engineering, land surveying or geology; or who, by verbal claim, sign, advertisement, letterhead, card, or in any other way represents himself to be an engineer, land surveyor or geologist, or through the use of some other title implies that he is an engineer, land surveyor or geologist or that he is registered under this act; or who holds himself out as able to perform, or who does perform any engineering, land surveying or geological service or work or any other service designated by the practitioner or recognized as engineering, land surveying or geology.

63 P.S. § 150.

On appeal,<sup>12</sup> DRG argues that the Board's conclusion that it performed an engineering land survey and, therefore, engaged in the unlicensed practice of land surveying is contrary to the clear language of the Law, the statute's legislative purpose and intent and leads to an absurd result. In support, DRG essentially argues that finding the geographic location of physical assets with GPS technology and then identifying the nature of the assets (i.e., a field inventory) in order to create a digital database or map of the assets does not constitute the practice of land surveying, which, as defined, solely concerns the location or establishment of property or boundary lines. DRG maintains that the contract with

---

<sup>12</sup> The Pennsylvania Society of Land Surveyors has filed a brief as *amicus curiae*.

CEC did not require: the determination or identification of property or boundary lines or the location of other interests in land,<sup>13</sup> the determination of the location of monuments or reference points in connection with establishing or locating boundary lines, or writing deed descriptions, all activities statutorily ascribed to the professional land surveyor and requiring licensure under the Law. *See* Section 2(d) of the Law. Accordingly, DRG maintains that since the field inventory of CEC’s assets did not relate to nor involve the location or establishment of a property or boundary line, it did not perform a land survey under the Law.

Similarly, looking to the statutory definition of the practice of engineering and the industry understanding of the purpose of land surveys and engineering land surveys, DRG argues that the Board erred in concluding that it performed an engineering land survey. Specifically, DRG notes that as defined, the practice of engineering involves the *design* of structures, equipment, works and

---

<sup>13</sup> The Board found that DRG used “PennDOT maps and data and other such resources, including the historical data base of [CEC], to locate rights-of-ways and [assets] within the rights-of-way all on the surface of the [E]arth.” Board’s decision, F.F. No. 11 (citing paragraph 16 of the Order to Show Cause). DRG has preserved a record challenge to the finding that it located CEC’s rights-of-way. The Board does not address the argument in its brief, focusing instead, on whether its determination that DRG practiced land surveying “through the use of GPS and equipment and finding or locating fixed points identifying telephone poles and other assets on the surface of the [E]arth for its client,” is a reasonable construction of the Law. Brief of Respondent, Summary of Argument, at 7. *See also* Respondent’s Brief at 12 (stating: “The finding or locating fixed points on the surface of the [E]arth is, *inter alia*, a primary function of the practice of land surveying.” [citing Section 2(j)(ii)]; and at 13 (stating: “In determining the position of fixed objects on the [E]arth’s surface, [DRG] via GPS measured lines and angles and applied mathematics in performing an engineering land survey as defined in [Section 2(j)(ii)].”). Recognizing that the record is quite voluminous and that the Board has not defended its finding, we note that a cursory review of the record supports DRG’s contention that the objected to finding is not supported by substantial evidence of record. To the contrary, witnesses for both CEC and DRG testified that locating property lines was not part of the job. *See generally* N.T. of Fred Terwilliger, R.R. at 408a; N.T. of Brent Repenning, DRG Vice President and General Manager, R.R. at 951a.

systems and the various *related responsibilities and tasks necessary to such design*. (Emphasis added to highlight focus of argument). See Section 2(a)(1). In addition, the industry view, which is reflected in the *Manual of Practice for Professional Land Surveyors in the Commonwealth of Pennsylvania (Manual of Practice)*, mirrors the statutory characterization of the practice, demonstrating that land surveying establishes boundaries and provides descriptions of land, and engineering land surveys encompass “all the engineering entailed in the *development of land*; topographic surveying, complete engineering design (street and utility extensions, storm water management facilities, soil tests, and sedimentation and erosion control plans), construction stake-out and as-built plans. . . .” *Manual of Practice*, Commentary to Section 1, R.R. at 600a. Therefore, DRG maintains that the engineering land surveys regulated or encompassed under the Law are those that are performed in connection with or related to building construction and land development. According to DRG, it is undisputed that the field inventory at issue was not performed in connection with building construction or land development and, therefore, cannot constitute an engineering land survey under the Law.<sup>14</sup> We agree.

Because the issue before this Court presents a question of statutory construction, it raises a pure question of law subject to our plenary review. *Holland v. Marcy*, 883 A.2d 449, 455 (Pa. 2005). When called upon to interpret statutory language or a statutory scheme, our goal is to ascertain legislative intent. *Id.* In determining legislative intent, the principles of statutory construction require that

---

<sup>14</sup> DRG also argues that the Board erred in finding that it performed a “geodetic survey” because that charge was not encompassed in the Commonwealth’s Notice and Order to Show Cause.

sections of a statute be read together and construed with reference to the entire statute in order to give effect to all related provisions. *Id.* See also *Fletcher v. Pa. Prop. & Cas. Ins. Guar. Ass'n*, 985 A.2d 678, 684 (Pa. 2009); Sections 1921 and 1922 of the Statutory Construction Act of 1972, 1 Pa. C.S. §§ 1921, 1922. In addition, “[w]hen the words of a statute are clear and free from all ambiguity, the letter of it is not to be disregarded under the pretext of pursuing its spirit.” *Holland*, 883 A.2d at 455 [quoting 1 Pa. C.S. § 1921(b)]. Generally, the Court will only consider legislative history and other indicia of legislative intent when the statutory language is unclear and ambiguous. *Id.* [citing 1 Pa. C.S. § 1921(c)]. Finally, we must avoid a construction that would lead to an absurd result. *Id.* at 456 [citing 1 Pa. C.S. § 1922(1)].

In order to determine whether DRG’s field inventory, which involved locating fixed assets with the use of various tools, including GPS, constitutes “the determination of the configuration or contour of the [E]arth’s surface, or the position of fixed objects thereon or related thereto by means of measuring lines and angles and applying the principles of mathematics, photogrammetry or other measurement methods” *under the Law*, we must construe the overall statutory scheme rather than simply focusing on the referenced, isolated language in a vacuum; otherwise, our construction will fail to give effect to the clear language of the Law, its purpose and intent, and will lead to an absurd result. The Law regulates the professions of engineering, land surveying and geology by, *inter alia*, defining the nature of the practice in the Commonwealth, establishing educational, work experience and examination requirements for licensure, mandating continuing education coursework and professional practice standards. This oversight and regulation is designed to “safeguard life, health or property and to

promote the general welfare.” Section 3(a) of the Law. The scope of professionals falling under Board regulation is expressly limited by the Law’s definitions of the relevant practice areas. Thus, as noted above, the “practice of engineering” is limited to the *application of the mathematical and physical sciences for the design of projects involving buildings, structures, machines, equipment and engineering systems and the consultation, investigation, evaluation, engineering surveys, construction management and inspection services performed in connection therewith.* See Section 2(a)(1). Notably, within the context of the practice of engineering, “inspection,” is defined as “the acts and services performed . . . . during the construction, development, production or functioning of the things designed . . . .” Section 2(b) of the Law (emphasis added).<sup>15</sup>

While “engineering surveys” are not defined, nor referenced in any other provision of the Law, we construe that broad designation to include “engineering land surveys,” which are expressly defined and regulated under the Law. A professional engineer may not practice land surveying unless specifically licensed as a professional land surveyor but may perform engineering land surveys as a licensed professional engineer. Section 2(e). Thus, the function and focus of licensed professional engineers is design – design of buildings, structures, roads, machines and equipment – and the related steps and processes necessary to such projects. See also *Rosen v. Bur. of Prof’l & Occupational Affairs, State Architects Licensure Bd.*, 763 A.2d 962 (Pa. Cmwlth. 2000) (discussing, *inter alia*, the practice of engineering). Obviously, some, but not all, design projects will entail

---

<sup>15</sup> The “practice of engineering” also includes “*related acts and services*” that may be performed by other qualified persons, such as municipal planning, incidental landscape architecture and construction, but licensure is not required to provide such related services. Section 2(a)(1)(2) (emphasis added).

an engineering land survey, which could include determination of the configuration or contour of the Earth's surface, or the position of fixed objects.

Land surveying is defined as a “branch” of engineering, which involves the location and establishment of property lines or the boundary of any parcel of land, or any road right-of-way, easement or alignment, the determination of the position of monuments and reference points that mark a property line boundary or corner setting, resetting or replacing any monument or individual point, and writing deed descriptions.<sup>16</sup> As a branch<sup>17</sup> of the profession of engineering, the practice of land surveying cannot be viewed as an entirely separate field.<sup>18</sup> Pursuant to the Law, the skills and training of a professional land surveyor enable that professional to perform an engineering land survey.<sup>19</sup> *See* Section 2(f).

As the statutory scheme makes clear, licensure under the Law permits the professional to perform a particular type of service requiring a specific skillset. Determining whether certain acts constitute an engineering land survey for purposes of the Law requires both ascertainment of whether the specific act constitutes one of the enumerated types of engineering land surveys and whether the action is performed in the context of or in connection with an engineering design project. Considering both are required by the plain language of the Law, an

---

<sup>16</sup> The practice of land surveying is also defined to include the very vague and ambiguous “use of principles of land surveying.” *See* Section 2(d).

<sup>17</sup> *See generally* [www.dictionary.com/browse/branch](http://www.dictionary.com/browse/branch) (defining “branch” as, *inter alia*, “any member or part of a body or system; a section or subdivision: *the various branches of learning*”).

<sup>18</sup> Indeed, a common pathway to licensure as a professional engineer or land surveyor is a four-year engineering degree (civil engineering required for a land surveying license).

<sup>19</sup> While beyond the expertise of the Court, an engineering land survey may, in some instances, actually duplicate the functions of a land survey, such as determining the position of a monument.

engineering land survey is performed “in connection [with]” the engineering design project. *See* Section 2(a)(1). Further, considering both factors gives effect to the entire regulatory scheme and avoids an absurd result.

Otherwise, as argued before the Board, the use of GPS by a taxi driver to locate the address of a particular building would constitute an engineering land survey. In reaching this conclusion, we note that while the tools used to perform a service can be relevant in determining or identifying the nature of the service performed, the tool cannot be the determinative factor; technology, its availability and adaptability to other jobs contexts, will always change. As one authority, Phillip Davis, Director of the National Geospatial Technology Center, has noted:

[The use of geospatial technology] is well-known in the military and in homeland security, but its influence is pervasive everywhere, even in areas with a lower public profile, such as land use, flood plain mapping and environmental protection.

“You have people who work in surveying, who map out where a shopping center or street is going to be, and those involved in your local country property appraisals. . . . It’s also used in law enforcement to locate crimes and for fire response and in disaster management – before, during and after. It is used to locate water resources, or in public health to track the spread of disease. It’s used by the guys who drive around for Google Earth. It’s very high impact.”

<http://www.usnews.com/science/articles/2011/05/11/geospatial-technology-as-a-core-tool> (last visited April 4, 2016).

Applying the above analysis, we conclude that the Board erred in concluding that DRG engaged in the practice of land surveying by performing an engineering land survey. DRG’s field inventory was not performed in connection

with the design of any of the items listed in Section 2(a)(1), nor performed in connection with a land survey as defined in Section 2(d). Rather, DRG was simply locating, inventorying and documenting CEC's equipment. We also conclude that DRG did not violate the Law by offering to perform a service requiring licensure under the Law.

Our conclusion today is also consistent with prior decisions of this court. Although not directly on point, in *Garcia v. Bureau of Professional & Occupational Affairs*, 804 A.2d 732 (Pa. Cmwlth. 2002), we concluded that an unlicensed contractor did not violate the Law by using the title "project engineer." In doing so, we noted in relevant part:

[The] mere use of the word "engineer" in a title does not constitute a per se violation of the Law. To the contrary, we must determine whether Garcia's use of the project engineer title actually constitutes an unauthorized offer to engage in the practice of engineering; to that end, *we must consider what type of services Garcia actually meant to offer.* ... Here, the record established that Garcia only offered to provide construction management services; indeed, [Garcia's employer] does *not* provide engineering services.

*Id.* at 724 (citation omitted; first emphasis added, second emphasis in original). *See also Sanville v. Commonwealth, Bureau of Prof'l & Occupational Affairs*, 752 A.2d 942 (Pa. Cmwlth. 2000) (concluding solicitation letter that noted unlicensed contractor's experience in the design business and involvement with engineering and installation estimates was not an offer to engage in the practice of engineering). Thus, in order to determine whether an authorized offer of services under the Law occurred in the aforesaid two cases, we examined whether engineering services were offered or intended to be offered. Applying that same



approach here, it is clear that DRG did not offer, intend to offer, nor engage in the practice of engineering or the practice of land surveying.<sup>20</sup> Accordingly, the order of the Board must be reversed.

---

**BONNIE BRIGANCE LEADBETTER,**  
Judge

---

<sup>20</sup> Because we discern no ambiguity in the language of the Law, there is no need to consider or defer to the expertise of the agency charged with its enforcement. However, if an ambiguity is present, an agency’s interpretation is entitled to deference unless “[the] agency’s interpretation . . . is erroneous or frustrates legislative intent.” *Packer v. Bureau of Prof’l & Occupational Affairs, Dep’t of State, State Bd. of Nursing*, 99 A.3d 965, 969 (Pa. Cmwlth. 2014), *appeal denied*, 109 A.3d 680 (Pa. 2015) (internal quotations omitted).

**IN THE COMMONWEALTH COURT OF PENNSYLVANIA**

Southeastern Reprographics, Inc.,	:	
Now Known as The Davey Resource	:	
Group,	:	
	:	
Petitioner	:	
	:	
v.	:	No. 2235 C.D. 2014
	:	
	:	
Bureau of Professional and	:	
Occupational Affairs, The State	:	
Registration Board for Professional	:	
Engineers, Land Surveyors and	:	
Geologists,	:	
	:	
Respondent	:	

**ORDER**

AND NOW, this 24th day of May, 2016, the order of The State Registration Board for Professional Engineers, Land Surveyors and Geologists, in the above-captioned matter is hereby REVERSED.

---

**BONNIE BRIGANCE LEADBETTER,**  
Judge



onto it the statutory definition and concepts of the “practice of engineering.” (*See* Maj. slip op. at 13-14.)

In 2006, Central Electric Cooperative, Inc. (CEC), a rural electric distribution cooperative, contracted with Southeastern Reprographics, Inc., now known as The Davey Resource Group (DRG), to “go out in the field” and locate electric equipment that CEC owned, including transmission poles, distribution poles, security and street light poles, pad-mounted equipment, regulators and meters. As the Majority notes, this was a tremendous task in terms of both physical locale (100 square miles of land area) and the amount of equipment to be located (100,000 different location points). Using maps, mapping grade GPS/GIS technology, and mathematical calculations, DRG’s field staff geographically located CEC’s assets/equipment to sub-meter accuracy and transposed them onto a base map. On its website, DRG represented that it has provided mapping and field inventory services to utility companies on a national basis for over twenty years and that it can locate assets/equipment within a minimal margin of error. *Id.* at 2-3.

Section 2 of the Law contains the relevant statutory terms. 63 P.S. §149. In pertinent part, the Law states that the “*Practice of Engineering*” includes “*the application of the mathematical and physical sciences for the design of public or private buildings, structures, machines, equipment, processes, works or engineering systems*” and references “*engineering surveys.*” 63 P.S. §149(a)(1). On the other hand, the Law describes the “Practice of Land Surveying,” 63 P.S. §149(4)(d), and provides that “*Engineering Land Surveys*” include “the determination of the configuration or contour of the earth’s surface, or *the position of fixed objects thereon or related thereto by means of measuring lines and angles*

*and applying the principles of mathematics, photogrammetry or other measurement methods . . . .*” 63 P.S. §149(j)(ii) (emphasis supplied).

Crediting expert testimony, the State Registration Board for Professional Engineers, Land Surveyors and Geologists (Board) concluded that DRG offered to perform and performed engineering land surveys under section 2(j)(ii) without proper licensure in violation of the Law. (Board’s decision at 14-21.) I can discern no abuse of discretion or error of law in the Board’s determination. To me, it is readily apparent that DRG’s surveys located “fixed objects” and used principles of mathematics “or other measurement methods” to locate CEC’s assets/equipment. 63 P.S. §149(j)(ii).

Notably, the Board is one of technical expertise and this Court should be wary to upset its legal determination especially where, as here, the Board’s findings of fact are supported by substantial evidence and those findings fit squarely within the pertinent statutory language. *See Borough of Pottstown v. Pennsylvania Municipal Retirement Board*, 712 A.2d 741, 744 (Pa. 1998). In this vein, I note that the Law is remedial legislation designed “to safeguard life, health or property and to promote the general welfare,” section 3(a) of the Law, 63 P.S. §150, and, therefore, must be liberally construed to achieve this object by requiring licensure. *See O’Rourke v. Commonwealth*, 778 A.2d 1194, 1203 (Pa. 2001). As the Board stated in its decision, “[w]hoever is not qualified to practice surveying endangers the public by practicing land surveying.” (Board’s decision at 22-23.) In this case, CEC shared DRG’s maps with PA One Call and the EMS services for 6 or 7 different counties, *id.* at 21, and one can only imagine the potential danger of not properly locating electrical infrastructure such as transformers and distribution poles.

I believe that the flaw in the Majority’s approach is that it overly focuses on the “practice of engineering” and its embodiment of the concept of a “design project” to conclude that an “engineering land survey” must be “performed in the context of or in connection with *an engineering design project.*” (Maj. slip op. at 14) (emphasis supplied). Indeed, an “engineering survey” for purposes of section 2(a)(1) of the Law is completely divorced, and contains drastically different language, from an “engineering land survey” under section 2(j) of the Law – the latter of which has nothing to do with an engineering design project and instead focuses solely on locating fixed objects on the earth’s surface. *See* 63 P.S. §149(a)(1) (Practice of Engineering),<sup>2</sup> *and compare with* 63 P.S. §149(j)(ii) (Engineering Land Surveys).<sup>3</sup> Essentially, the Majority’s interpretation has the effect of rewriting the Law or at least impermissibly intermingling two distinct subsections within the Law. The Majority’s interpretation also fails to recognize that, by definition, a professional land surveyor is not an engineer and cannot engage in the practice of engineering as that term is used in section 2(a)(1) of the Law. *See* 63 P.S. §149(f). Consequently, there is no legal or interpretative basis for the Majority to import section 2(a)(1) of the Law into section 2(j)(ii) of the Law.

---

<sup>2</sup> “[T]he application of the mathematical and physical sciences for the *design* of public or private buildings, structures, machines, equipment, processes, works or engineering systems, *and the* consultation, investigation, evaluation, *engineering surveys*, construction management, planning and inspection *in connection therewith . . .*” 63 P.S. §149(a)(1) (emphasis supplied).

<sup>3</sup> “[T]he determination of the configuration or contour of the earth’s surface, or the position of fixed objects thereon or related thereto by means of measuring lines and angles and applying the principles of mathematics, photogrammetry or other measurement methods . . . .” 63 P.S. §149(j)(ii).

Finally, I do not share the Majority's concern that the Board's decision would lead to an absurd result in that "the use of GPS by a taxi driver to locate the address of a particular building would constitute an engineering land survey." (Maj. slip op. at 15.) In such a circumstance, the taxi driver is not creating a "survey" as that term is commonly understood and is not confirming or representing to others that a particular address is located on a certain latitudinal and longitudinal plane.

For these reasons, I would affirm the Board's order concluding that DRG offered to perform and performed professional services without proper licensure under the Law. Hence, I respectfully dissent.

---

PATRICIA A. McCULLOUGH, Judge