

**APPLIED SCIENCE TECHNOLOGISTS AND TECHNICIANS
OF BRITISH COLUMBIA
(ASTTBC)**

**UNDERGROUND UTILITY LOCATOR
CERTIFICATION BOARD POLICY
(UULCB)**

MAY 21, 2015

PREFACE

This policy was approved by the ASTTBC Council on May 21, 2015 and is issued to the Underground Utility Locators Certification Board (UULCB) to serve as the policy, procedures and criteria for setting certification standards and processing applications for certification and registration.

This revision of the UULCB policy supersedes all previous revisions approved by ASTTBC Council.

DISCLAIMER

ASTTBC Directors, employees and the duly appointed members of the Underground Utility Locators Certification Board (UULCB) are responsible for administering the policy and procedures. Granting of ASTTBC certification and registration to an individual or program infers that the individual or program has satisfied the requirements and minimum standards described in this policy.

ASTTBC does not accept liability for any errors or omissions that may arise as a result of the services or work performed by an individual certified and registered with ASTTBC or for the consequences of any actions taken by members and registrants and no legal proceeding for damages may be commenced or maintained against the Directors, employees, officers or volunteers of the association because of anything done or omitted in the performance or intended performance of any duty under the ASTT Act, or in the exercise or intended exercise of any power under that Act.

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1. PURPOSE AND COMPOSITION

1.1 Purpose

- 1.1.1 Established by Council of ASTTBC for the purpose to oversee the process for setting competency standards, assessing applicants and certifying individuals as a Registered Utility Locator Technician.

1.2 Composition

- 1.2.1 The UULCB shall consist of a Chairperson, a Vice Chairperson and a minimum of three (3) individuals appointed annually by ASTTBC Council.
- 1.2.2 UULCB members will have qualifications and experience commensurate with their appointment.
- 1.2.3 ASTTBC Guidelines for the Term of Office of Board Members applies to the UULCB.
- 1.2.4 The Registrar of ASTTBC or his/her designate will act as Secretary to the UULCB.

1.3 Responsibilities

- 1.3.1 Subject to the approval of the ASTTBC Council, the UULCB will establish and implement policies and procedures relating to:
 - a. Certification requirements and standards
 - b. Applicant assessment for certification
 - c. Training program accreditation
- 1.3.2 The UULCB will review its policies and methods annually and as necessary recommend changes to ASTTBC Council.
- 1.3.3 The UULCB will appoint File Reviewers to assess whether applicants satisfy the requirements for certification.
- 1.3.4 The decision of the UULCB will be final, subject to the appeal provisions in section 14.0 of this policy.
- 1.3.5 The applicant will be informed by the Registrar in writing of decisions made by the UULCB regarding her or his application.

1.4 Meetings and Quorum

- 1.4.1 The UULCB will meet at such times and at such places as may be deemed necessary to fulfill the obligations of the UULCB.
- 1.4.2 UULCB decisions will require a simple majority. Three (3) UULCB members present will constitute a quorum.
- 1.4.3 File Reviewers, who are required to attend a meeting of the UULCB will do so in a non-voting capacity.

- 1.4.4 Guests may attend the UULCB meetings only at the invitation of the Chair. Guests may only remain for those matters that they are required to address by the UULCB.
- 1.4.5 Attendance may be in person at the location of the meeting or by teleconference or other electronic communication.
- 1.4.6 The names of any Board members who excuse themselves from discussion or leave prior to adjournment of the meeting will be recorded in the minutes.

1.5 Expenses

Properly authorized travel, subsistence and meeting expenses for members of the UULCB will be reimbursed by the ASTTBC in accordance with current ASTTBC practices.

2. DEFINITION OF UNDERGROUND UTILITY LOCATING

The practice of utility locating is the process of verifying the location of public and private utility mains and other services located underground based on established record drawings. These mains may include lines for telephones, electricity distribution, oil and gas pipelines, cable, fiber optics, traffic lights, streetlights, storm drains, water mains, and waste water pipes. Practitioners employ codes, regulations, standards and techniques that apply to the work site in order to best ensure the health, safety and wellbeing of all workers, the public, the adjacent properties, the utilities and the environment.

3. CERTIFICATION CATEGORIES AND DESCRIPTION OF PRACTICE

3.1 Categories of Registration

There are three (3) categories of registration:

- a. Utility Locator Trainee
- b. Registered Utility Locator – RULT
- c. Registered Utility Locator – RULT (Retired)

3.2 Underground Utility Locator Trainee

Members in this category are registered with ASTTBC as a trainee. A “trainee” designation is a temporary classification during which the registrant is refining his or her competency and capability. A member with the classification of “trainee” may perform the functions of an Underground Utility Locator under the supervision of an authorized person. This authorized person is a current individual registered with ASTTBC as a Registered Utility Locator (RULT). The authorized person is fully responsible for the quality of the trainee’s work. Trainees are responsible for completing the required training for the category in which they are working. A trainee will be able to apply to become a fully certified Underground Utility Locator Technician (ULT) as soon as the minimum experience and education requirements are met.

3.3 Registered Underground Utility Locator (RULT)

A Registered Underground Utility Locator Technician (RULT) is a person who understands and applies all the principals of utility location including the process verifying, identifying and labeling public and private utility mains and other services located primarily underground. These utility mains locates will verify existing record drawings or official as-built drawings provided by the municipality, property owner, or those obtained through the BC One Call system. Further that the individual can competently report both written and graphically details of utility locations to related parties. Practitioners will employ codes, regulations, standards and techniques that apply to the work site in order to best ensure the health, safety and wellbeing of all workers, the public, the adjacent properties, the utilities and the environment. This practitioner has met all education and experience requirements for certification as a Registered Underground Utility Locator Technician (RULT), works in accordance with accepted standards of practice, and adheres to the ASTT Act, Regulations and Code of Ethics.

The minimum certification requirements to qualify are:

- a. Canadian citizen or permanent resident
- b. Be of good moral character
- c. Be in good physical and mental health
- d. Has completed a Grade 10 secondary school education or equivalent
- e. Has English language competency to read, write, understand and speak coherently on work-related topics.
- f. Meets the minimum competency requirements as obtained by a combination of completing a recognized training program and work experience. Or a combination of some formal training with a demonstrated and verified ability to meet the full competencies identified in Appendix 1.
- g. Has a minimum of 2-years work experience as an underground utility locator including a minimum of 20 utility location projects. Of these projects, the majority must be complex in nature. Complex projects are those described to incorporate all of the general competencies identified in Appendix 1. In all cases, the applicant will provide suitable and acceptable technical references that will adequately attest to the applicant's abilities to meet those competencies.
- h. Has completed the ASTTBC application requirements.
- i. Agrees to abide by the ASTTBC Code of Ethics and mandatory continuing professional development policies.
- j. Has been endorsed by the Underground Utility Locators Certification Board (UULCB) as having met the above stated conditions of certification.

3.4 Registered Underground Utility Locator (RULT) - Retired

A 'Retired' Member or Registrant is defined as a current Member or Registrant in good standing with ASTTBC, who has reached the age of 55 or older, and has decided to become non-practicing or provide limited works and services per Council approved policy for 'Retired' status. The Member or Registrant must commit in writing not to engage in engineering or applied science technology or a scope of practice beyond the practice limits established by ASTTBC Council policy.

A 'Retired' Member or Registrant is permitted to volunteer, without remuneration, as a mentor or trainer in the field of engineering and applied science technology or carrying out no more than 100 hours of work per year for compensation. In all activities the 'Retired' Member must abide by the ASTT Act & Regulations and ASTTBC Council policies (including Code of Ethics and Continuing Professional Development requirements) regarding practice guidelines, standards and processes.

'Retired' members and Registrants are required to inform potential clients or employers of their practice limitations.

4.0 SUBSTANTIALLY EQUIVALENT QUALIFICATIONS

At the discretion of the UULCB, utility location designations or certifications awarded by other Provincial associations, affiliated organizations, other recognized training or work experience in a province or jurisdiction other than British Columbia may be assessed as being substantially equivalent to some or all of the competencies and work experience requirements specified in the ASTTBC UULCB Policy.

5.0 CONTINUING PROFESSIONAL DEVELOPMENT (CPD)

5.1 Mandatory CPD

5.1.1 Adherence to the ASTTBC Continuing Professional Development (CPD) Policy is considered mandatory for all Underground Utility Locator Registrants.

5.2 Reclassification Audit

5.2.1 Registrants applying for reclassification may be subject to an audit of their annual CPD.

5.3 Practice Review Board (PRB)

5.3.1 The PRB shall be responsible for ensuring that registrants are compliant with the CPD policy. The PRB shall recommend corrective or other action as deemed appropriate by the PRB to ensure compliance to the CPD policy.

6.0 CONTINUING PROFESSIONAL DEVELOPMENT (CPD)

6.1 Accepted Types of Locator Work Experience

The work of locating includes but is not limited to the process of verifying the location of public and private utility mains located underground. These utility mains located by the practitioner will serve to verify existing record drawings or official as-built drawings provided by the municipality, property owner, or those obtained through the BC One Call system. These mains may include lines for telephones, electricity distribution, oil and gas pipelines, cable, fibre optics, traffic lights, streetlights, storm drains, water mains, and waste water pipes.

Locators will use appropriate documentation including plans, drawings, and record drawings provided by utilities, municipalities, BC One Call or other sources of official record drawings for verification purposes.

6.2 Computing Work Experience

6.2.1 One year of relevant underground utility locating work experience is equal to 2,000 hours.

6.3 Time Limit

6.3.1 Relevant locating experience must have been completed within five (5) years of the date when the application for initial certification or for reclassification was received by ASTTBC.

6.4 References Required

- a. Applicants should provide names, addresses and contact information of four persons in a position to assess the technical abilities, judgment, work accuracy, character, and professionalism of the applicant.
- b. One of the four references should, when and where possible be the applicant's present supervisor.
- c. The references should have adequate knowledge of the applicant in order to provide credible information including confirmation of the dates of employment and the duties performed by the applicant.
- d. If an applicant is working independently or in an environment where references are not readily available, the UULCB may consider alternate sources as references. The applicant may provide the name and contact information for clients or others who can verify the work performed by the applicant.
- e. ASTTBC will contact references requesting them to complete a reference questionnaire or form.
- f. References forms and letters submitted to ASTTBC will be retained on the applicant's file.
- g. If a request to view the file is received, the reference forms and letters are not included in the documents provided to the applicant.
- h. The reference documents will be accessible by the UULCB, File Reviewer and ASTTBC Registrations staff.
- i. Three satisfactory references are required for the UULCB to grant certification to the applicant.

7.0 CERTIFICATES, IDENTIFICATION CARDS, STAMPS AND SEALS

7.1 Training Providers Certificate of Course Completion

7.1.1 ASTTBC accredited training providers will issue an official certificate upon successful completion of any approved training course or program.

7.1.2 Certificates of course completions are to be included in the individual's application where relevant.

7.2 Certificate of Registration and Identification Cards

7.2.1 Upon approval of the UULCB, a certificate of registration to the successful registrant.

7.2.2 An identification card will be issued by ASTTBC to a fully certified member (RULT).

- 7.2.3 The certificate and identification card will show the legal name of the registered member, the category of certification awarded and the ASTTBC registration number.
- 7.2.4 The identification card will contain the same information and a photograph of the registrant.

7.3 Stamp and Seal

Use of the seal is protected under the Regulations of the Applied Science Technologists and Technicians Act. The rubber stamp or metallic seal can be used only by certified members in good standing. The right to use the seal is a privilege granted by ASTTBC under the Act. The privilege can be removed if not used in an ethical or professional manner. A stamp and seal may only be affixed to a document prepared by a certified member or prepared under a certified member's direct supervision. Use of the stamp or seal is strictly limited to documents describing work or containing information that is within the scope of practice defined by the member's academic qualifications. The onus is always on the member to ensure that his/her application of the seal is done in a legal, ethical and professional manner. It is the responsibility of the member to be aware of any legal or employer limitations or requirements on the use of seal. A member using the stamp and seal is bound by the code of ethics at all times.

8.0 APPLICATIONS IN ABEYANCE

Applicant files will be put into abeyance if the applicant has failed to meet application file completion requirements within a period of six months. The Registrar will notify affected applicants of the status of their file and permit a request for file reactivation, provided that the applicant satisfies the Registrar that the outstanding application requirements will be fulfilled within a period of six months. Failure to notify the Registrar for an extension request, or to meet the six-month requirement, will result in the application file being put into permanent abeyance. Files put into permanent abeyance will require an applicant to re-submit a new application should they wish to apply at a future time.

9.0 CANCELLATION OF CERTIFICATION

9.1 Practice Review Board (PRB)

- 9.1.1 PRB may initiate the process to cancel the certification if the certification was made in error, under false pretenses or if the applicant becomes ineligible for certification.

9.2 Approval of Certification

- 9.2.1 The UULCB must approve the certification of an applicant unless there is insufficient documentation to substantiate the certification requirements have been successfully achieved.
- 9.2.2 In the event of a refusal the matter must be put in writing and referred to the Registrar.

10.0 RECOGNITION OF OTHER UNDERGROUND UTILITY LOCATOR CERTIFICATION

The UULCB may recommend award of certification to applicants holding training credentials issued by training providers other than those accredited by ASTTBC, if the applicant is able to prove the competencies set out in Appendix 1 and meet all other criteria specified in this policy.

An applicant requesting recognition of other credentials considered by the UULCB as not substantially equivalent to the ASTTBC standard will be advised of what is required to achieve ASTTBC standards.

11.0 RECLASSIFICATION

11.1 Reclassification Requirements

11.1.1 Individuals registered as Underground Utility Locator Trainees are required to apply for reclassification within five (5) years of becoming registered with ASTTBC.

11.1.2 A Registrant may apply for reclassification when they have achieved the competencies and work experience as described in this policy.

12.0 TERMS OF CERTIFICATION

12.1 Reclassification Requirements

Registration is granted on the understanding that a Registered Underground Utility Locator Technician (RULT) continues to practice in the field and is able to competently perform works at the level of certification granted.

12.2 Annual Registration Fees

12.2.1 Certification is renewed annually upon payment of annual registration fees.

12.2.2 Certification renewal may be withheld or denied if the Registrant has not complied with the requirements of the ASTTBC CPD policy.

13.0 PROFESSIONAL LIABILITY INSURANCE (E&O)

It is highly recommended and strongly encouraged that Underground Utility Locator registrants obtain professional liability insurance.

14.0 APPEAL PROCESS

The Process for an Appeal is:

- a. Within 30 days of notification of classification an applicant may request a second review of the file by an alternate File Reviewer.
- b. An applicant whose application for certification and registration has been refused by the UULCB may, within 30 days of receiving a notice of final refusal, request the Council to review the application by serving on the Registrar a written request for a review by the Council. The applicant must explain the reasons why his/her application for certification and registration should be approved.
- c. Where an applicant or registrant has applied to Council for leave to appeal a decision of the UULCB and the Council may, in its sole discretion, decide either to deny leave to appeal or, alternatively, to grant leave to appeal in which latter case it shall hear such appeal at a time of its choosing. In either case, the applicant or registrant shall be advised forthwith by the Registrar of Council's decision concerning leave.
- d. An appeal, including an application for leave to appeal, shall be commenced by a written notice of appeal that shall describe the decision appealed from and state the specific reasons for appeal and shall be served upon the Registrar not more than thirty (30) days after the date that the decision of the UULCB was communicated to the investigated person.
- e. In a timely manner the Council, on receiving a written notice of an appeal from the Registrar, shall have served on the applicant or registrant a notice of its willingness or not to hearing of an appeal, (stating the date, time and place on and at which council will seek to hear the appeal).
- f. Any member of Council who has participated in any way in the decisions of the UULCB, which gave rise to the decision being appealed, shall not participate in any deliberations or in any appeal before Council.
- g. In a timely manner, Council on receiving a written notice of an appeal may do any or all of the following:
 1. decide if an appeal is warranted and grant or deny leave to appeal
 2. as it sees fit make any adjournment of the proceedings
 3. refer the matter to an Appeals Committee for further consideration and a timely report, to be convened and conducted at the discretion of the Registrar
 4. receive further evidence in any manner it deems fits from and of the parties involved in the decision appeal
 5. quash, verify or confirm the decision of the UULCB or substitute or make a decision of its own
 6. An investigated person may appeal, on any questions of law, fact or both, from a decision or direction of the Council to the court at any time within thirty days from the date of the Council decision or direction.

15.0 REINSTATEMENT OF REGISTRATION

Previous registrants applying to reinstate must;

- a. Complete a reinstatement application form.
- b. Provide copies or electronic image of two pieces of legal identification such as Canadian Passport, Canadian Birth Certificate, Driver's License, Citizenship Card or other Canadian or Provincial Government official photo identification.
- c. Successfully complete a Professional Practice and Ethics Exam.
- d. Complete the Canadian Technology Human Resources Board (CTHRB) Professionalism in Practice Module.
- e. Sign ASTTBC's Privacy Policy declaration.
- f. Supply a resume that includes details of continuing education and additional work history acquired since original registration granted.
- g. Provide two (2) technical references at the discretion of the UULCB.
- h. Because archived files are eventually purged, an applicant may be required to supply additional information to ensure the application is complete and current before being considered for reinstatement.
- i. There is no time limitation in which an application for reinstatement must be made.
- j. Submit with the Application the current 'Reinstatement Fee'.
- k. Pro-rated dues for the current year will be due and payable upon acceptance for reinstatement. There is no requirement to pay dues from the last year in which the applicant was registered.
- l. The Registrar or Manager of Finance may waive or vary any or all of the foregoing requirement for fees.
- m. All Applications for Reinstatement will be considered by the UULCB.

16.0 RESIGNATION

A registrant may cancel his or her registration at any time by submitting to the Registrar a written request to cancel registration. The Registrar will send a letter to the individual confirming that his or her registration has been cancelled and their name removed from the Register. The certificate and ID card of the cancelled registrant are no longer valid and should be returned to the Registrar. The UULCB will be notified of the resignations at the next regularly scheduled UULCB meeting.

17.0 STORAGE OF FILES

The Registrar will maintain the complete file of all Registrants who were struck, resigned or deceased.

Five years following being struck, resigned or deceased the Registrar will remove and destroy the file by shredding all information from the file except for the following:

- a. Original application forms
- b. Registrar's letters of acceptance
- c. Registrar's letters with respect to cancellation of registration
- d. Any other significant correspondence

The Registrar will then place these files into long-term storage.

18.0 FREEDOM OF INFORMATION AND PRIVACY

- a. Information provided by applicants is treated as confidential. Print or electronic documents are securely filed in accordance with BC Freedom of Information and Protection of Private Information (FOIPPI) Regulation. Access to the information provided is limited to ASTTBC registration staff, UULCB members and designated File Reviewers. In exceptional circumstances, the file may be disclosed, on a confidential basis, to external audit teams.
- b. An applicant, or registrant, may apply to the Registrar for an appointment to view their file (excluding references) during regular office hours. If refused, they have the right of appeal, within 30 days, to the ASTTBC Council.
- c. ASTTBC Council authorizes the release of files for review by the applicant or registrant during working hours. If the Registrar has cause to refuse, the matter shall be referred to Council.

19.0 UNDERGROUND UTILITY LOCATOR PROGRAM BULLETINS

Information bulletins that have direct impact on the ULT Courses should be reviewed by the UULCB prior to distribution. Advertising and promotional materials referencing ASTTBC approval of a training program must be in keeping with the ASTTBC policies and guidelines for such statements.

20.0 ASTTBC BOARD MEMBER CONFIDENTIALITY POLICY AGREEMENT

Under privacy legislation information accessible to the UULCB may include restricted, confidential or highly sensitive content. Therefore, conditions of being a member of the UULCB are:

“All records, files, publications, minutes, documents, passwords, intellectual material and information created or used during the term on the UULCB, shall remain the property of ASTTBC. All computer software, forms, graphics or designs used or developed in conducting the affairs of ASTTBC shall remain the property of ASTTBC. The UULCB member hereby acknowledges all such records will be held in strict confidence. In the event of termination, all such records or property outlined above will be delivered to the UULCB Chairman, or designated representative.”

Discussions pertaining to UULCB activities and decisions are confidential and may never be disclosed to a third party other than to Officers and designated staff of ASTTBC, or if required under applicable legislation.

UULCB members are required to read and adhere to the Practice Review Board Policy on Bias.

Print Name: _____
Signature: _____
Date: _____

21.0 RECORDING THE NAMES OF BOARD MEMBERS DURING MEETINGS

To ensure that an adequate number of members are present to maintain a quorum throughout a meeting, the names of Board members that leave prior to adjournment shall be recorded. Similarly, if a Board member joins or returns to the meeting the time shall be recorded in the Minutes.

APPENDIX 1: Occupational Competencies for the Registered Underground Utility Locator Technician (RULT)

This document specifies the occupational competencies required of Registered Underground Utility Locator Technicians as a condition of registration by the Applied Science and Technicians and Technologists of BC. Applicants are expected to attain each of the occupational competencies by:

- On the job experience
- Formal training courses
- Self-directed study, research
- Other continuing professional development activities (CPD)

Applicants are expected to achieve all of the occupational competencies, and demonstrate at least 80% of the competency indicators.

EXPLANATORY NOTES:

The **Occupational Analysis Summary Table** lists Occupational Competencies in the first two columns at left. These competencies identify the essential skills needed by Registered Underground Utility Locator Technicians.

The third column lists the Indicators, describing the enabling knowledge and skills that the Registered Underground Utility Locator Technician requires in order to achieve the occupational competencies.

A numerical taxonomy is listed in the right hand column, ranking the required competency from level 1 (simple recall of facts) to 6 (complex judgements). The ranking is intended to provide guidance for assessment of competencies, and is based on the following outline:

Level	Description
1. Knowledge	The recognition and recall of factual information providing the foundation of thought processes.
2. Comprehension	Interpreting or understanding the meaning or use of factual information.
3. Application	Selecting relevant information to be applied when completing a duty or task.
4. Analysis	Analytical ability to interpret and apply information when considering a duty or tasks.
5. Synthesis	Combining or consolidating multiple sources of information to form a new opinion, action or result.
6. Evaluation	Making judgments to determine if an object or an action conforms to specifications or to acceptable performance standards.

¹ Taxonomy of Educational Objectives: The Classification of Educational Goals (Bloom et al 1956)

Appendix 1: Underground Utility Locator Areas of Competency and Learning Outcomes

No.	Occupational Competencies	Indicators	Level
1.0	Apply fundamental occupational skills		
1.1	Maintain a professional work ethic	<ul style="list-style-type: none"> • Assess, apply ASTTBC Code of Ethics and Practice Guidelines • Apply general principles of professionalism, diligence • Advocate and support industry best practices, promote regulatory compliance 	6
1.2	Apply effective communication skills	<ul style="list-style-type: none"> • Attain verbal and written English literacy suited for a Canadian technical workplace. • Use communication skills to define expectations and agreements with clients and owner education. • Convey limitations of the locating processes and equipment, accuracy. 	3
1.3	Perform basic measurements	<ul style="list-style-type: none"> • Apply metric and imperial systems of measurement, including conversions. • Select and use measuring tools to establish measurements on the horizontal plane, including the following: <ul style="list-style-type: none"> ○ Tape measures. ○ Distance wheel. ○ EDM. ○ Compass. • Use reference points to establish measurements and locations on the horizontal plane. • Establish suitable reference points to allow others to interpret/use the information reported by locator. • Apply adequate dimensioning to support sketch and written report. • Use basic GPS equipment to identify and report geographic coordinates. • Interpret/report geographic coordinates (i.e. latitude, longitude) using GIS/GPS data logging equipment. • Identify geodetic system/elevations. 	4
1.4	Use drawings	<ul style="list-style-type: none"> • Interpret scale drawings including plan, section, elevation, profile views. • Create plan view drawings by hand, to scale, with regard to basic drafting conventions (see section 6.2). • Use common terminology, abbreviations and symbols used for civil drawings examples include: bench marks (B/M) reference points (R/P), catch basin (C/B), property line (P/L), monuments (Mon), sanitary (san). 	3
1.5	Differentiate civil infrastructure, utilities	<ul style="list-style-type: none"> • Types (e.g. Water, sanitary and storm sewers, gas, etc.) • Purposes • Configurations • Materials 	4
1.6	Describe uses and limitations of locating technologies	<ul style="list-style-type: none"> • Electromagnetic: <ul style="list-style-type: none"> ○ Active - direct connection, clamping or inductive methods. ○ Passive. • Ground penetrating radar. • Physical exposure (daylighting/hand exposure, hydro-vacing). • Pipe inspection camera systems. 	2

Appendix 1: Underground Utility Locator Areas of Competency and Learning Outcomes

1.7	Distinguish utility marking conventions	<ul style="list-style-type: none"> • APWA uniform color code. • Symbols and abbreviations for civil drawings and specifications. • Marking methods incl. Paint, flags, stakes, chalk, offsets. 	2
1.8	Employ basic computer skills	<ul style="list-style-type: none"> • Internet search. • Email. • Basic word processing. • Scanning documents. • Basic digital file management. • Data backup. 	3
2.0	Work Safely		
2.1	Outline applicable OH&S regulations	<ul style="list-style-type: none"> • Outline portions of the following OH&S regulations that have common applicability to location work per industry norms: <ul style="list-style-type: none"> ○ Part 4 General Conditions. ○ Part 8 Personal Protective Clothing and Equipment. ○ Part 9 Confined Spaces. ○ Part 18 Traffic Control. ○ Part 19 Electrical Safety. ○ Part 20 Construction, Excavation and Demolition. 	1
2.2	Select and use Personal Protection Equipment (PPE)	<p>Identify the purposes, proper use and adjustment, inspection and maintenance procedures for the types of PPE commonly used in the excavating and general construction industries, including (but not limited to) the following:</p> <ul style="list-style-type: none"> • Hi Vis apparel. • Safety headgear. • Eye protection. 	3
2.3	Evaluate risks associated with construction sites	<ul style="list-style-type: none"> • Conduct daily safety meetings. • Apply employer specific safety policies and procedures. • Identify, mitigate site specific risks such as: <ul style="list-style-type: none"> ○ Working around heavy equipment, traffic. ○ Recognize excavation stability. ○ Electrical safety. ○ Gas safety. ○ Risks to the public (need for signage, barriers). ○ Others. 	6
3.0	Evaluate background information		

Appendix 1: Underground Utility Locator Areas of Competency and Learning Outcomes

3.1	Use BC One Call resources	<ul style="list-style-type: none"> • Identify services provided by BC One Call • Explain criticality of using BC One Call - reduces potential liability, due diligence, supports 'locate before dig' strategy which is a regulatory requirement • Identify limitations of BC One Call service <ul style="list-style-type: none"> ○ Some utility owners are non-members, no information ○ Potential inaccuracies in information ○ BC One Call is not a locating service ○ Facility owner failure to respond • Identify time requirements for service request • Identify and provide information required for service request 	3
3.2	Use GIS resources	<ul style="list-style-type: none"> • Identify sources and retrieve documents from: <ul style="list-style-type: none"> ○ BC land title and survey authority. ○ Regional district and municipal sources. ○ Other sources. 	3
3.3	Evaluate historical, current and proposed usage of site	<ul style="list-style-type: none"> • Determine potential utilities that exist • Determine proposed earthworks, 'dig' zones • Determine suitable marking methods • Determine suitable scope of report and sketches • Communicate with the ground disturber to establish proposed earthworks, 'dig' zone • Communicate with clients, property owners, other stakeholders 	6
4.0	Develop work plan		
4.1	Identify expectations for scope of work	<ul style="list-style-type: none"> • Define expectations and agreements with clients: <ul style="list-style-type: none"> ○ Establish required scope of location work, deliverables. ○ Define limitations of proposed locating services. • Identify client needs. <ul style="list-style-type: none"> ○ Determine proposed earthworks, including relevant depths. ○ Identify other activities proposed by the client that prompted location work. 	3
4.1	Conduct site assessment 'walk around'	<ul style="list-style-type: none"> • Perform a mental checklist of potential utilities. • Include a risk assessment (safety). • Identify other activities on site. • Identify easements. • Identify surrounding infrastructure, tie-ins to municipal works. • Review proposed works with ground disturber/earthworks contractor(s). 	3
4.2	Discriminate visible utility features	<ul style="list-style-type: none"> • Evaluate above ground features such as: <ul style="list-style-type: none"> ○ Manholes ○ Poles ○ Valve boxes 	4

Appendix 1: Underground Utility Locator Areas of Competency and Learning Outcomes

		<ul style="list-style-type: none"> ○ Hydrants ○ Flow metres ○ Vent pipes ○ Pedestals ○ Markers 	
4.3	Identify discrepancies between drawings and site features	<ul style="list-style-type: none"> • Compare visible clues to record drawings. • Analyze the utilities that serve the site and structures, compare to record drawings. • Compare records of dimensioned locations to visible features. 	3
4.4	Evaluate priority and sequence of locates	<ul style="list-style-type: none"> • Isolate and mark the easily identifiable lines first. • Establish sequence - typically electromagnetic first, then ground penetrating radar and/or pipe camera. 	4
4.5	Select locate methods	<ul style="list-style-type: none"> • Distinguish limitations, advantages, disadvantages of various locating equipment. • Select location technology based on utility type, materials and other factors. • Consider required degree of accuracy (criticality). 	1
5.0	Perform locates		
5.1	Coordinate with other activities on site	<ul style="list-style-type: none"> • Communicate and cooperate with the site's safety programs, staff. • Be aware of project scheduling. • Identify locating priorities of clients. 	3
5.2	Operate locating equipment	<ul style="list-style-type: none"> • Set up. • Care and maintenance. • Calibration. • Troubleshooting. • Proper procedures. 	3
5.3	Conclude utility locations	<ul style="list-style-type: none"> • Analyze findings to reach conclusions. • Determine any limitations or potential inaccuracies, tolerances. • Assess potential distorted signals, interference. 	3
5.4	Mark utility locations	<ul style="list-style-type: none"> • Ensure marking preservation, durability of marking based on weather, potential ground disturbance, etc. • Choose direct marking or offset references. • Use consistent conventions for: <ul style="list-style-type: none"> ○ Off set marking. ○ Lateral connections. ○ Changes in direction. ○ Termination points. ○ Multiple facility marking, corridor marking. ○ Facility identifier abbreviations. ○ Use American Public Works Association (APWA) uniform marking code. 	3
6.0	Create documentation		
6.1	Produce field notes and sketches	<ul style="list-style-type: none"> • Include date, time, location, weather, and persons in attendance. 	2

Appendix 1: Underground Utility Locator Areas of Competency and Learning Outcomes

		<ul style="list-style-type: none"> • Ensure sufficient clarity to allow another competent person to understand. • Include adequate detail to support sketch and written report. 	
6.2	Create scale sketches	<ul style="list-style-type: none"> • Select simple hand drawn sketch or more formal scale drawing (dependent on client expectations) • Select content - sketch/drawing should include: <ul style="list-style-type: none"> ○ Date, drawn by, site location, title/description of purpose. ○ North orientation. ○ Reference points. ○ Adequate dimensioning and detail. • Locators must be able to create sketches by hand, to scale, with regard to basic drafting conventions, with adequate dimensioning and clarity to communicate locations per industry expectations. 	5
6.3	Prepare a photographic record	<ul style="list-style-type: none"> • Demonstrate basic photographic skills. • Select number of photos and orientation to record the following: <ul style="list-style-type: none"> ○ Key stages of the work. ○ Obstacles, obstructions. • Provide evidence of diligent scope of work. 	2
6.4	Create written report	<ul style="list-style-type: none"> • Select either checklist forms or formal written report depending on client expectations. • Checklist/report should include: <ul style="list-style-type: none"> ○ Date, person conducting locates and report, site location. ○ Report the rationale for the work plan. ○ Sufficient information to justify conclusions/to identify locations. ○ Description of the work done including: <ul style="list-style-type: none"> ▪ Methods of locating and marking. ▪ Utilities located. ▪ Methods of marking. • Include photographic record; select number of photos and orientation to confirm scope of work and/or to depict any limitations (i.e. obstacles, limited access) 	5

APPENDIX 2: Approved Training Programs and Providers for the Underground Utility Locator Certification

Training Programs

The following educational course / program is recognized by ASTTBC to meet the requirements of this policy:

1. BC Common Ground Alliance (BCCGA) Utility Locator Specialist Training Program 2nd Edition, 2011 03 31

Training Providers

The following training providers are recognized by ASTTBC to provide the formal education course/program which meet the requirements of this policy:

1. BC Municipal Safety Association (BCMSA)