

SPECS FOR G.I.S. DATA PROVIDED TO ONE-CALL

DIGITAL MAPPING FILES (very efficient/extremely accurate):



1. G.I.S. dataset formats that we can accept:

FORMAT	FILE EXT(S)	FORMAT	FILE EXT(S)
AutoCAD	(* .dwg, * .dxf)	MapGuide	(* .sdl, * .sdf)
ESRI Arc/Info - Export	(* .e00)	*MapInfo	(* .tab, * .dat, * .map, * .id)
ESRI Arc/Info - Generate	(* .gen)	MapInfo Interchange	(* .mid, * .mif)
ESRI Arc/Info - Shape	(* .shp, * .shx, * .dbf, * .prj)	PenMetrics GRD	(* .grd)
Facet XDR	(* .xdr)	PHOCUS Phodat	(* .pdt)
Geographic Data Management System	(* .gdms)	Spatial Archive Interchange	(* .saf, * .zip)
Google Earth/Plus/Pro	(* .kml, * .kmz)	Spatial Data Transfer	(* .ddf)
IDRISI Vector Format	(* .vct, * .vdc, * .vlx, * .mdb, * .adc)	USGS Digital Line Graph	(* .dlg)
Integrgraph/Microstation	(* .dgn, * .fcl, * .pos)	USGS TIGER Line	(* .rtl, * .bw1)
Leica Geosystems	(* .idx)	Whitestar Geographix	(* .cdf)

2. Coordinate Systems/Datum/Projections that we can accept (all files must be in a recognized coordinate system)

PROJECTIONS / DATUM
Universal Transverse Mercator (UTM) (NAD27, NAD83, WGS84) <i>(Must provide the UTM Zone & Units with your data)</i>
U.S. State Planes (NAD27, NAD83) <i>(Must provide the Zone and Units with your data)</i>
Latitude/Longitude (NAD27, NAD83, *WGS84 (aka LL84))
<i>(*NOTE: All Google Earth files utilize LL84 - WGS84)</i>

- Many other coordinate systems/datum/projections can be accepted as well. Please call for more information.

***Preferred Format & Datum**

***IMPORTANT:** When sending your coverage(s), you must specify the following:

- 1) Coordinate System/Datum or Projection your coverage is in?** *(Including whether it's feet, meters, or lat/long - you need not provide this info if your coverage is in MapInfo format, Google Earth format, or you provide the .prj file from an ESRI Shape file)*
- 2) Buffer/Corridor size?** *(distance you want on each side of your arcs/lines/polygons, or the radius around points. With object oriented database G.I.S. systems like ESRI Arc/Info & MapInfo, you may specify the buffer size by adding a float field/column to the coverage and typing the buffer width (must be in feet) you want for each object. Do not specify a buffer width for generalized areas such as polygons. The typical minimum buffer size for <Digital Coverages: No less than 20 feet / Paper Maps: No less than 133 feet>*
- 3) The station code that your coverage corresponds to?**
- 4) What you want done with the coverage?** Am I replacing your entire coverage with this one or just certain parts? If certain parts, then explain in detail.

If any of the above formats are provided to us, we will attempt to translate them into a MapInfo format. However, we cannot guarantee that they can be translated.

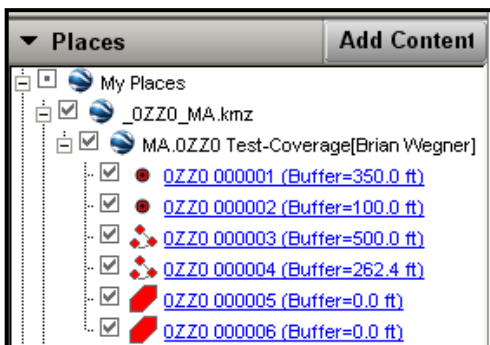
We cannot accept data that has streets, towns, municipal boundaries, or text that is embedded unless it is a part of your underground plant. **ONLY PROVIDE US WITH ARCS, LINES/POLYLINES, POINTS AND POLYGONS THAT REPRESENT WHERE YOU WANT TO BE NOTIFIED.** Coverages should be cleaned of Multi-Polygons before being submitted. We cannot guarantee them to work correctly with the system. Each station code should be in one file & on one layer ONLY.

WEB COVERAGE UPDATE (efficient/very accurate):

Available on the Internet at the One-Call Center's website:

- This method allows members that do not have a G.I.S. system to draw their coverages accurately with the free utility, Google Earth, and submit updates via email or through the website. It can also be used to make minor adjustments or verify the accuracy of coverages.
- This method does require a bit of reading on how to use it. You can find tutorials & read instructions on how to use Google Earth by searching the internet with keywords: [google earth user guide](#) A more specific video tutorial on how to create a coverage in Google Earth is available at the One-Call Center website. You will need to call the One-Call Center to set up an online account to access online coverages for verification.
- You can draw Lines/Polylines (aka Paths), Points (aka Placemarks), & Polygons that depict your coverage area. Be sure to tag your object names with the following information in the 'Places' panel to the left of the map. It needs to be in this format (see example below):
Station Code + <sp> + Unique Object Number + <sp> + (Buffer= + your buffer width in feet + <sp> + ft)
- You can select an object by left-clicking an object in the 'Places' panel and then right-clicking 'Properties,' or by right-clicking an object on the map. This will intern allow you to:
 - Delete an object: select an object in the 'Places' panel and then right-click 'Delete', or right-click select an object on the map and click 'Delete.'
- You can also edit existing objects by selecting it as outlined above. Then click and drag the 'Properties' dialog box out of the way so you can see the whole map. Now you can perform multiple operations:
 - Move a node/vertex: select the node/vertex you wish to move, then left-click and hold while moving it to the desired location.
 - Delete a node/vertex: select the node/vertex you wish to delete, then right-click on it to delete.
 - Add a node/vertex: select the node/vertex near the location you wish to add, then left-click to add. If you make a mistake, then right-click to delete it.
- Be aware that placing objects into multiple folders/subfolders can make translations unpredictable.

Here is an example of a coverage being drawn & tagged with in Google Earth:

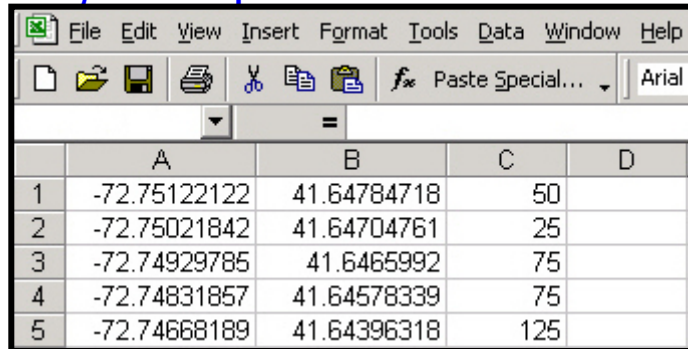


GPS COORDINATES (semi-efficient/extremely accurate):

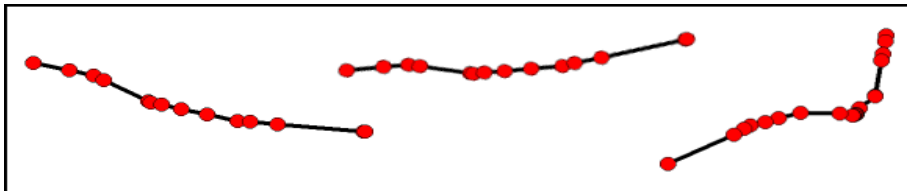
GPS Coordinates can be supplied to us if it meets the following criteria:

- Coordinates must be placed either in an Excel Spreadsheet or be delimited ASCII. Some other electronic databases formats are acceptable. Call for more details.
- Coordinates must be supplied in decimal degrees to at least the thousandths place. *<Degrees/Minutes/Seconds will not be accepted.> You must specify projection/datum your coordinates are in as well as if it is in U.S. feet or meters.*
- Longitude (or East/West coordinate) must be under column A, Latitude (or North/South coordinate) must be under column B, and the Buffer width (*specified in feet*) for each side of a line, or for points, the radius from the center, must be under column C. **These columns must be formatted as ‘General’ before you enter them into the spreadsheet.**
- For linear objects, the coordinate pairs need to be in consecutive order as if we were going to connect the dots.
- No directionals should be used, i.e. 86.542 W, 40.891 N. They should be in this format: **-86.542, 40.891** *<or for State Plane, UTM etc.> 588334.34, 176895.96* *Note that the longitudes in the western hemisphere, and latitudes in the southern hemisphere, are denoted with negatives.

Example: Set of points with different buffer widths



	A	B	C	D
1	-72.75122122	41.64784718	50	
2	-72.75021842	41.64704761	25	
3	-72.74929785	41.6465992	75	
4	-72.74831857	41.64578339	75	
5	-72.74668189	41.64396318	125	



***IMPORTANT: When sending your coverage(s), you must specify the following:**

- 1) **Projection or Datum your coverage is in?** (Including whether it's feet, meters, or lat/long)
- 2) **Buffer/Corridor size?** (distance you want on each side of your lines/polygons or the radius around points. Do not specify a buffer width for generalized areas such as polygons. *The typical minimum buffer size for Digital Coverages: no less than 20 feet*)
- 3) **The station code that your coverage corresponds to?**
- 4) **What you want done with the coverage?** Am I replacing your entire coverage with this one or just certain parts? If certain parts, then explain in detail.

No column headings should be used. No data other than Longitude, Latitude, & Buffer Width should be included in the spreadsheet itself. PLEASE SPECIFY WHETHER YOUR COVERAGE IS A POINT, LINEAR, OR POLYGONAL COVERAGE IN THE FILENAME OF THE SHEET.

ONLY PROVIDE US WITH LINES/POLYLINES, POINTS AND POLYGONS THAT REPRESENT WHERE YOU WANT TO BE NOTIFIED.

***Point Coverages:** points can all be in the same spreadsheet and order does not matter.

***Line/Polygon Coverages:** points should be ordered consecutively so as to 'connect the dots.' Separate spreadsheets are needed for a coverage that is not contiguous/continuous like the example above.

PAPER MAPS (inefficient/least accurate/to be phased out):

1. For use by Utilities with minimal underground plant:

Intended only for utilities covering small areas with a very limited number of lines/polygons/points.

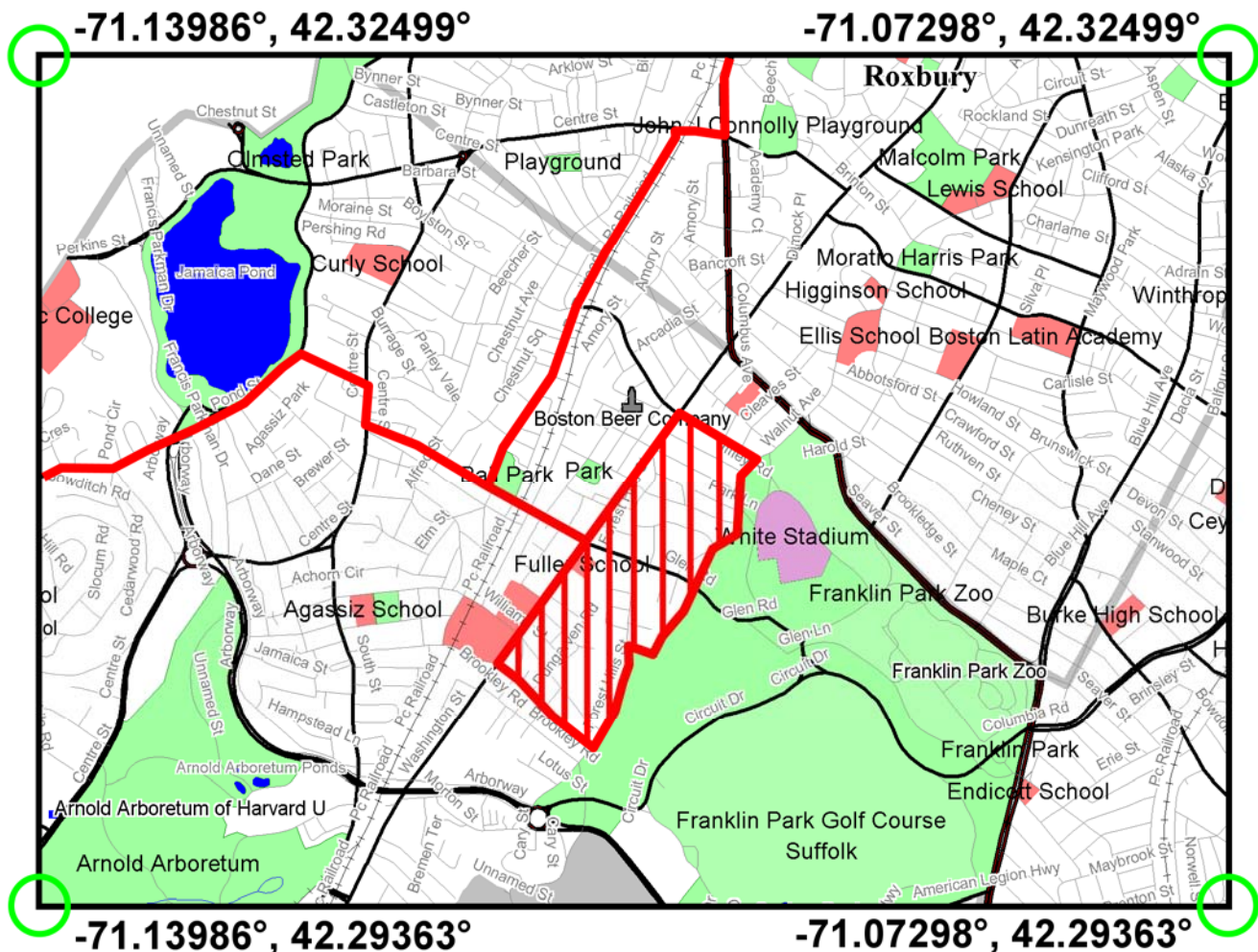
2. Maps which we have printed for you to mark on:

All of our maps have 4 sets of real-world coordinates which act as control points so that we can depict your underground plant as accurately as possible. ***If you provide a point or linear (line) coverage, you must specify the buffer width you wish to have, and it must be at least 133 feet on each side of the line. We will then add a buffer on top of it for any error introduced in the drawing process.*** If you choose to do this, we will provide you with a guidelines sheet which will help you to mark these maps.

2. Maps which you have provided to us describing where your underground plant is located:

Must have a set of coordinates in all four corners of the map. These coordinates must be in decimal degrees and accurate to at least one-thousandth of a degree. We will also need to have the county/region name and the name of your utility printed on these maps. ***You must specify projection/datum your control points are in as well as if it is in U.S. feet or meters. If you provide point or linear (line) coverage, you must specify the buffer width you wish to have, and it must be at least 133 feet on each side of the line. We will then add a buffer on top of it for any error introduced on in the drawing process.***

Here is an example:



PUBLIC LAND SURVEY Information (PLSS is n/a in all states)(not yet available)
(very efficient/generalized boundaries):

1. Text with the location of your underground plant using PLSS (Public Land Survey Sections) Township & Range Section Information:

The text should be in this format:



Twp + Twp Direction + Rng + Rng Direction + 's' + Section + ':' + <Tab> + QtrSections
(2 s 123 w s 10 : sw)

You must follow these conventions for this to work:

- No zeroes should be placed in front of single digit numbers. Examples: 2S123WS10 should be used instead of 02S123WS10, 24N12ES5 should be used instead of 24N12ES05.
- Use 1 Tab between the colon and the quartersections.
- Notice that if you want the entire section notified that you must put in all four quarter sections: ne,nw,se,sw.
- Township direction, Range Direction, "s", and quarter sections must all be in lower case letters.

***IMPORTANT:** You must split up this information by county and save it to it's own *.txt file. If your coverage is in 6 counties, you will have 6 files with the PLS data separated by county. If you have a file for station code 'GX' in Default format in Barnstable County, Massachusetts, for example, then the file should be saved as Default_GX_MABARN.txt.

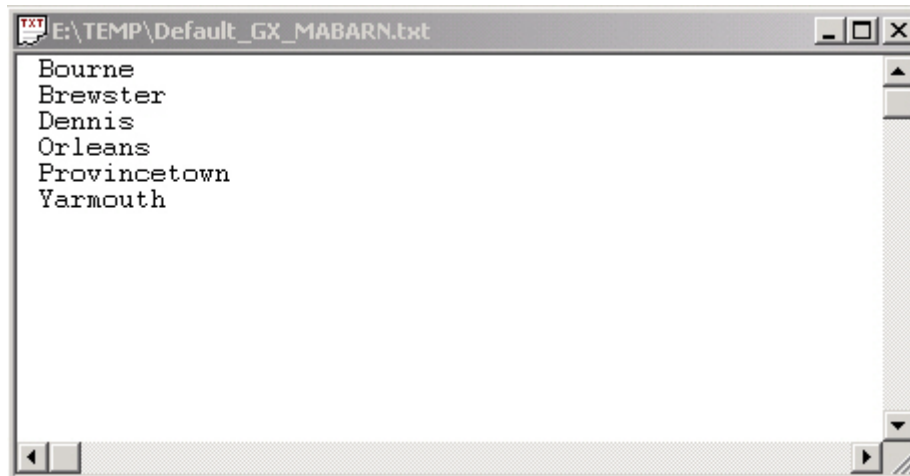
EX: PLSS + _ + Station Code ID + _ + State Abbreviation + County Abbreviation + .txt

DEFAULT TOWN/COUNTY Information (not yet available)

(very efficient/generalized boundaries):

1. Text with the location of your underground plant using Defaults which cover all of the area within the boundaries of a particular municipality or county:

The text should be in this format for individual municipalities you want to be notified in:



The text should be in this format if you want to be notified in every town within a particular county:



You must follow these conventions for this to work:

- The municipality **MUST** be spelled correctly.
- If you want every municipality in a county to be notified then you only need to type the word **ALL**.

***IMPORTANT: You must split up this information by county and save it to it's own *.txt file. If you have defaults in 6 counties, you will have 6 files with the name of the municipalities in it separated by county. If you have a file for station code 'GX' in Default format in Barnstable County, Massachusetts, for example, then the file should be saved as Default_GX_MABARN.txt.**

EX: Default + _ + Station Code ID + _ + State Abbreviation + County Abbreviation + .txt