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## Georgia Municipal Cemetery Association

### An Interview with Robert W. Perry of TOPOGRAPHIX

*We are talking with Robert Perry of TOPOGRAPHIX this quarter and just want to ask Robert if he would update us on the services he can offer to cemeteries. Robert what exactly does TOPOGRAPHIX cover in there lines of services to Cemeteries?*

We provided cemeteries with three specific services that include: computerized redrafting of old cemetery maps, on-site survey mapping for cemeteries that do not have maps and ground penetrating radar (GPR) for locating and mapping unmarked burials. In December 2009 I added a 4th service called TIMS which is an acronym for "TOPOGRAPHIX Interment Management System". TIMS is an easy to use computer database application designed to provide cemeteries with a low cost way of managing cemetery records and interment information

How I came to offer these specific services was a result of a three month market study I did back in 2004 that included some 8000 cemeteries to find out what mapping services were needed and I learned that 70% of the cemeteries who responded to my direct mail inquire requested the services I now offer. Since most of the cemeteries I work with have low budgets and little operating capital, the traditional mapping applications as AutoCAD and GIS (Geographical Information Service) was not an option due to the high cost of the software and the time needed to learn the application. In addition, the high cost of leasing so called "cemetery management software" was not an option either because for as long as you are using their proprietary application you will be paying for those privileges.

My company goal is to get cemetery customers up and running so they are totally self-sufficient and based on real data collect from thousands of cemeteries, what was needed is a low cost way of computerizing and updating cemetery maps and records and that is what we now offer.

*Everyone seems to be interested in Ground Penetrating Radar right now. We see it portrayed on a few detective shows. Please tell us what is true and what is false. What exactly can G.P.R. do and not so for the Cemetery?*

Well, the equipment you sometimes see on TV is real but what you see as the Ground Penetrating Radar image that flashes across the TV screen showing an outline or profile of a body is Hollywood's interpretation. In reality what ground penetrating radar does is transmits very high rates of radar energy (pulses) in to the ground looking at soil disturbances. As the radar pulses travel through the ground the energy bounces off buried matter and is detected by a receiving antenna. The ability to see a target (hyperbolas) on the computer screen depends

on the dielectric values of the target's material and the material that the radar is traveling through prior to hitting the target. Finding a target like a wooden or steel casket is not a great issue because there will always be visible contrast between soil conditions and target material. What is tricky is recognizing the types of soil disturbances associated with very old burials where there is no casket or the casket has collapsed or completely disintegrated.

To date, we have located well over 2500 unmarked burials to include locating two possible mass burial sites. A GPR specialist can easily locate an unmarked casket, vault or pipe line system underground but it is the very old unmarked burials that I specialize in.

*What does it take for a Cemetery to come up with an accurate set of maps? How much information has to be supplied by the Cemetery and how much can be obtained from aerial photos and satellite telemetry?*

To come up with an accurate set of maps a number of factors need to be look at. First, we need to find out if the cemetery has maps and if those maps have been produced by a professional such as a surveyor. If the cemetery does have accurately maps and the changes in the cemetery topography is minimal then computerized redrafting of the cemetery maps can be performed very easily and fairly inexpensively based on the number of maps and detail of each map.

Of the 128 cemetery mapping projects I have managed since 2003, less than 30 cemeteries had professionally surveyed and drafted maps to work with. Most only had simple hand sketched diagrams, lot cards or ledger books. This is why it's hard to price a cemetery mapping project without knowing or seeing what the cemetery has for maps and records to work with.

Even some professionally drafted maps can be quite outdated due to the fact that over the year's cemetery maps become inaccurate depictions of the true cemetery layout. Thus, an on-site survey of the maps is recommended to evaluate those changes and produce detailed drawings that are true depictions of the cemetery property.

We start our on-site survey with a walkthrough of the cemetery property using GPS navigation and checking measurements of walkways, tree lines, roadways, building, gates and other identifying features to include the location of park benches, water lines, drainage systems and fencing that will be used as visual landmarks on your maps.

Once the survey is completed, we take all pertinent information and create a plan view (overview) map of your cemetery. This is followed by a series of detailed maps, which break down your cemetery section by section to include the addition of lot numbers, grave numbers and the names of lot owners/interments if required.

We use a number of different methods that aid us in obtaining map accuracy, including combining GPS navigation with satellite imaging and laser distance measuring to determine the length, width and areas of burial parcels and other features.

I see you are from Hudson, NH. How often do get to Georgia to work on various projects?

The main office for TOPOGRAPHIX is located in Hudson, NH. I also an associate office location in Woodbury, GA run by Mr. Len Strozier who has work with me on most of the Georgia projects. Len is trained in both cemetery mapping and GPR services.

*Do you find the vast difference in Georgia soils a deterrent to using G.P.R.?*

I work in a lot of soil conditions throughout the US but compared to New England with the sand, gravel, granite and sandstone conditions, Georgia soil with its sand/clay and rich agricultural land makes for ideal GPR conditions when searching for unmarked graves. Now if you could only do something about those darn Georgia sand gnats that bite.

*Thanks Robert for you support of the Georgia Municipal Cemetery Association. You are a valued part of our membership and our efforts to preserve present and past cemetery information.*

Vince Evans  
Vice President GMCA