

MAPPING SERVICES IN FAIRFAX COUNTY, VIRGINIA

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Trying to maintain a series of 446 Property Maps for Fairfax County is no small chore. About 9,000 new parcels of land are added to the tax rolls each year. Most of the additions come from formal dedicated subdivision. The subdivision may consist of as few as two lots or as many as two thousand lots. Many of the lots are just simple divisions of land put record. Then again there is the planned development community such as Reston which encompassed 7,400 acres and was designed to house 75,000 residence and to support its own population through industry, employing Reston residents in research, development and governmental installation within the various industrial complexes.

Whether it is the recorded subdivision or a simple lot division the change has to get to the map. Most subdivisions are straight forward drafting changes as the bounds are in fair order on the Property Identification Map. This is because there has usually been significant activity in the area. The survey for the land title transfer and rezoning action are compared to the Property Identification Map long before the subdivision goes to record. Any change in bounds are researched and corrected as they are found.

Often a parcel of land is divided without the benefit of a survey. Descriptions such as the East half, all that portion north of the creek, one acre wide etc., don't help in the least to update the map and correct errors that have been carried for years. Fortunately most deeds now are prepared from rather good surveys and present no problem in transferring them to the map.

Property Identification Map numbers are shown on the deeds now recorded in Fairfax County. This aids greatly in location of the land parcel on the map particularly when rather sketchy descriptions are used. This is a direct result of the action taken by the Fairfax County Board of Supervisors to have the number shown on deeds of record.

The Property Maps are continually in a stage of update. Revisions for the maps are abstracted from the deeds recorded in the Clerks Office. A special section is set up in the Assessors Office which reads each deed put to record, about seven hundred pages a day, and makes appropriate transfers as needed. Transactions which require property map revisions are identified and as the Assessment Office provides the information to the Mapping section on a Land Record Card, it is researched, if necessary, and drawn on the work sheet set of maps. The new parcel is identified with a unique map number and the Land Record Card is returned to the Assessors Office where it is entered into the Master Land Data Bank.

The final drafting on the mylar original map might not be done immediately. The revision of the originals is usually done in sequence twice a year or so. This is done to eliminate excessive handling of the originals and it also helps to be certain that no minor corrections are overlooked.

Subdivisions usually get on the maps sooner. They are laid out on the work sheet first and then drafted onto the original. In an effort to reduce manhours required for the drafting of subdivisions only the exterior of the area subdivided is platted to scale. This plat is then compared to the Property Map. If the limits on the Property Map agree with the subdivision limits then a photographically reduce to scale copy of the subdivision is traced directly onto the mylar.

If errors are detected they are resolved prior to putting the subdivision on the map from the time that the subdivision is put to record and it appears on the final map. This process is stepped up to provide for the demand that is made for the revised map by the Real Estate Appraisers.

The preparation of the Zoning Maps for Fairfax County is probably the most important project of the Mapping Section after the production of the Property Identification Map.

An average of one hundred and seventy rezoning cases are considered by the Board of Supervisors each year. Using the Property Identification Map as a base an overlay is prepared to reflect the status of any zoning case from the time that it is filed until it is final by the Board of Supervisors. The average rezoning case takes about eighteen months to complete. The complete annotation of all zoning cases since 1941 are reflected on the overlays. This is done to allow the staff and other interested persons a ready means of running a zoning history on any given parcel of land.

The Zoning Overlay worksheets are updated on a weekly basis after each Board meeting. There in excess of thirty zoning categories for Fairfax and they are continually being added to.

The Zoning Maps are designed for Ozalid printing for maximum convenience. To provide a better presentation of land use density a projectable color transparency is also provided. The standard land use colors are used as much as possible. The projection transparency is maintained at a scale of 1"=1000'. All of the transparencies are trimmed at the neat line to allow them to be mosaicked for projection of areas which span more than one map.

The Property Identification Map and the Zoning Map series are published each year in book form at a reduced scale of 1"=500'. These complete sets are of a convenient scale for desk top or automobile use. These reduced scale maps are also used for developing a base map to add specific information for a particular project.

The Property Identification Map is the source data for the preparation of the County Street Map at 1"=2000'. Once a year all of the Property Maps are printed for the purpose of picking up new streets. The new streets are marked over with a magic marker to make them readily identifiable. The full scale map is then reduced to 1"=2000' through the use of a digitizer and plotting board. The neat line of the map is plotted and all new streets are plotted. Often one or two of the major roads are plotted to assure better control of the new streets on the overall county street map at 1"=2000'.

These reductions are controlled to proper location by aligning them with existing street patterns. In areas of all new development the index grid is used for control. This grid was prepared with the use of a Computer Plotter to gain as much accuracy as possible. This grid is established on a geodetic projection and each intersection represents a base map sheet corner.

The new streets are scribed on the original scribe coat street map base. The street names are then transferred to the street name overlay and positioned for best readability.

The street map base is divided into four quads at the scale of 1"=2000'. The full county map would be seven and a half feet square. By dividing it into the quads it is made easier to work with. The old street base map was scribed on a 1"=4000' base and it was found to be much too tedious to work with.

The complete process for the preparation of the street map is done in-house. When the package goes out to the printers it is camera ready. Most of the maps printed in color are done using flat inks. Some of the maps, the County Wide Land Use Map for example, have so many zones that process colors are used.

For most map production the 1"-2000' scale base is mosaicked and reduced to 1"-4000'. Overlays for information data are overprinted on the base map. The annual map printing for the County of Fairfax is about twelve different maps with a total of 7000 maps more or less. Not all maps are printed every year.

Some are only printed as the stocks run out, such as the Watershed Map or the Planning District Map. Other are printed every year to reflect the most recent change. These are the maps which show Park Lands, School Locations, Police Patrol Areas and the like.

Special purpose maps are made on request and are individually prepared on preprinted base maps. If there is a need for quick turn around maps an overlay is made on clear film and registered to a clear film map base. This combination can then be made into a sepia for additional Diazo printing or photographed for offset printing.

Should the request for a color map be placed on the Mapping Section and sufficient time is not available to prepare the proper art work for printing the color separation plates are prepared with a camera from hand colored maps. The printing of the maps is then accomplished with process inks. It is not a very high quality production but it does put a product on the street fast.

To facilitate the delineation of data for the 1"-2000' base a mosaic of the property map has been prepared. This is done every two or three years as needed for current information. It is a very simple process. The 1"-200' scale Property Identification Maps are photographically reduced to 1"-2000'; reverse reading, positive image. These reductions are trimmed at the neat line and mosaicked together. An index grid is used to control the mosaic which is put together on a clear Mylar base. The images are held in place with double sided clear tape. We have also used rubber cement with good success. The advantage of the double sided tape is that if the image has to be shifted it can be done with little trouble.

As I said in the begining maintaining the maps for Fairfax County is not a small chore. The demand for services must be met with adequate funding and personnel. The Mapping and Graphics support personnel number twenty-three positions and in excess of \$380,000 per annum funding. There is plenty of room for improvement and I welcome comments on our Mapping Services in Fairfax County, Virginia.