A VISIT TO THE SANBORN LIBRARY

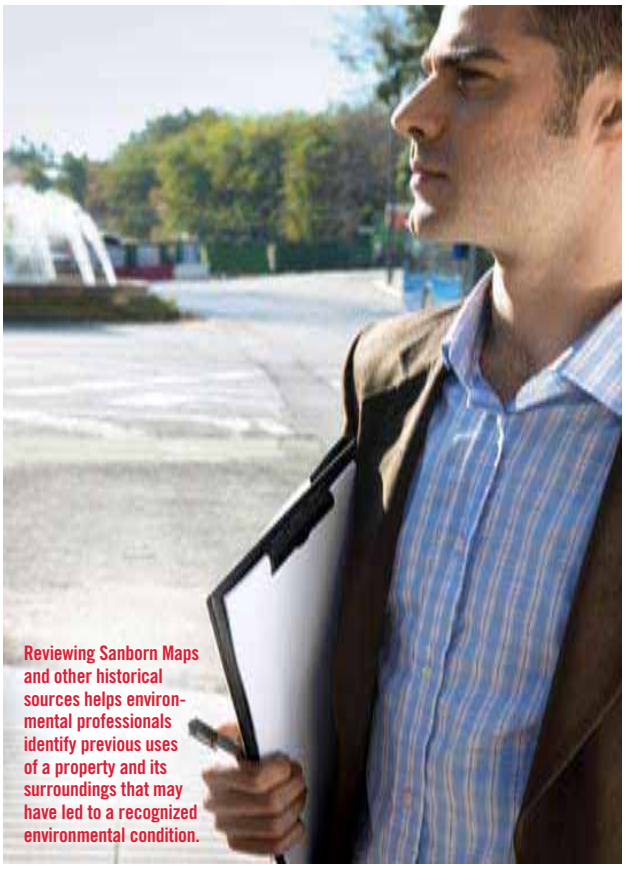
The certified EDR Sanborn Map Report uses the latest indexing and imaging technologies to rapidly search the entire Sanborn Library and produce high-resolution map images to meet the needs of today's environmental professionals. The certification number applied to each report confirms that the largest and most complete collection of Sanborn Maps has been searched. These are just the most recent improvements to enhance the usability of the Sanborn Library, a unique historical resource whose compilation began in America's rapidly growing cities and towns just after the end of the Civil War.

The Sanborn Library contains more than 1.2 million Sanborn fire insurance maps, comprising a detailed visual and textual record of the structural and industrial history of more than 12,000 American cities and towns. Notwithstanding its great historical value, however, the Sanborn Library is no musty archive of paper maps to be paged through or reels of microfilm to be unwound and searched in a time-consuming manner. Instead, the library's collection has been completely digitized and indexed by latitude and longitude. This enables environmental professionals—the most prolific users of Sanborn Maps today—to rapidly obtain the images they need to identify historical environmental conditions that potentially impact the sites they are investigating. In recent decades, Sanborn Maps have become an essential resource for conducting Phase I environmental site assessments. The same-day delivery capabilities and high-resolution images now available to users of the Sanborn Library have been developed to meet this need.

EDR has rescanned the Sanborn Library's entire collection to provide higher resolution map images and show more detail than ever before.

Of course, none of the maps in the Sanborn Library were created to chart potential environmental risks. In fact, during the era when most of these maps were made, awareness of the impact of hazardous materials on the environment and human health was practically nonexistent. Sanborn Maps were originally designed for fire insurance underwriters in the late nineteenth and early twentieth centuries, who needed to know about the uses and physical attributes of buildings in order to estimate the risk of a fire destroying an insured property. The original users of these maps, traveling to their insurance offices via horse and buggy or streetcar, would doubtless marvel if they could see the technology now being used to search the Sanborn Library and review these historic documents.

The value of Sanborn Maps to environmental experts today is founded on two circumstances. First, many of the property features that Sanborn cartographers mapped long ago because of their relevance to fire risk, such as storage facilities for fuels and chemicals, are clues that can pinpoint exact locations of possible environmental issues. Second, because Sanborn Maps indicate the historic uses of properties, environmental professionals reviewing these maps along with other historic sources can form reasonable judgments about potential environmental concerns. In both of these circumstances, environmental professionals reviewing maps from the Sanborn Library today benefit directly from the painstaking efforts



Reviewing Sanborn Maps and other historical sources helps environmental professionals identify previous uses of a property and its surroundings that may have led to a recognized environmental condition.

of hundreds of anonymous surveyors for the original Sanborn Company, who traveled the nation for several generations, carefully plotting the location, uses, and layout of millions of buildings.

Because of the extensive detail they provide, Sanborn Maps have become one of the most frequently consulted historical sources within the environmental industry. By carefully reviewing relevant Sanborn Maps, environmental professionals conducting a site assessment can track the historical presence of operations such as gas stations, auto repair shops and industrial sites that may have caused contamination, as well as the specific operational processes associated with industrial locations. For example, it is frequently possible to determine the presence of underground storage tanks—one of the most common Phase I findings that can lead to a Phase II site investigation.

The inventor and namesake of the Sanborn Map was Daniel Alfred Sanborn, a surveyor from Somerville, Mass. In 1866, Sanborn, then in his late 30s, was fortunate to be applying his considerable entrepreneurial energy at a time when the United States was just beginning a lengthy period of industrial and urban expansion. Sanborn was also fortunate because his ambition and talents found a rich outlet—in the form of commissions from the Aetna Insurance Company to make fire insurance maps of Boston and several areas of Tennessee. The demand for fire insurance maps was increasing rapidly at this time.

Throughout the nineteenth century, as the Industrial Revolution spurred rapid urban growth, fires were a constant threat to the life and property of city dwellers. Fire-fighting services were ineffective, and fire-resistant building materials were lacking. When conflagrations struck, they frequently destroyed multiple buildings, occasionally threatening entire districts or even larger areas. The most notorious incident was the Great Chicago Fire of 1871, which killed hundreds and incinerated 17,500 buildings as it destroyed a third of the city. Chicago's fire-fighters were forced to abandon their efforts to contain the flames after the city's waterworks burned.

The Sanborn Library provides environmental professionals rapid access to more than 1.2 million Sanborn Maps.

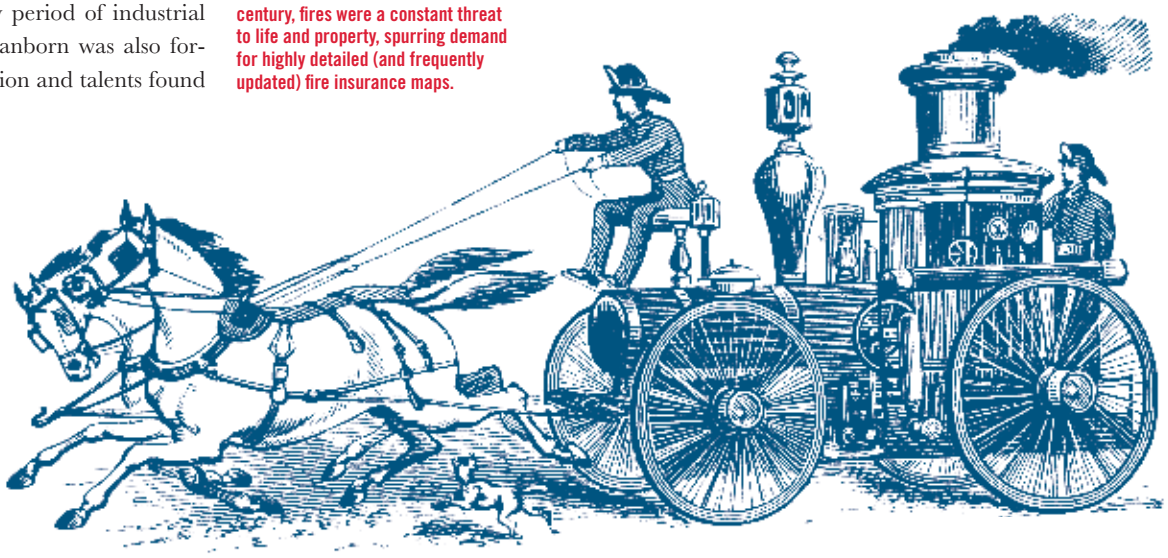
Fire insurance companies grew rapidly in this context, and so did their efforts to manage their risk of catastrophic loss by refusing to insure fire-prone structures and avoiding insuring too many properties within a single neighborhood. Insurance underwriters were too busy to personally assess every building they insured. So they started hiring surveyors like D.A. Sanborn to create fire insurance maps of cities and towns, containing every detail needed to assess each building for the risk of fire. Information found on these maps included building construction materials, building use, the location of chemical, oil and gas tanks, street widths, and much more.

In 1867, a year after his first commissions from Aetna, Sanborn founded the D.A. Sanborn National Insurance Diagram Bureau. The new firm mapped 50 towns in its first year and more than 600 within the next seven. Sanborn's highly detailed maps, drawn at a scale of 50 feet to one inch on sheets measuring 21 by 25 inches, established new industry standards for quality and consistency.

After Sanborn's death in 1883, his successors continued his strategy of business expansion fueled by scrupulously accurate cartography, using a standardized system of map symbols devised by Sanborn. Eventually renamed the Sanborn Company, the firm absorbed several competitors over the years and became the dominant provider of fire insurance maps in the United States. At its peak in the early twentieth century, the Sanborn Company had hundreds of employees at its headquarters and production facility in Pelham, N.Y., in branch offices around the nation, and in its field force of surveyors who traveled from city to city gathering the information to be plotted on the newest Sanborn Maps.

The standardized processes developed by the Sanborn Company and its nationwide coverage are important reasons why the company's maps are still recognized today as authoritative sources for understanding his-

As urbanization accelerated in the 19th century, fires were a constant threat to life and property, spurring demand for highly detailed (and frequently updated) fire insurance maps.



torical property uses. The Sanborn Company required its field surveyors and mapmakers to follow a precise system of information gathering, map making and quality control. In fact, the entire sequence of steps was documented in book form for use by the firm's employees. The result of this attention to detail on a grand scale is that a Sanborn Map of any American city or town is trustworthy evidence of the conditions that a visitor to that locality in that year would have observed.

One of the most important attributes of Sanborn Maps is the frequency with which they were updated. To serve its clientele of fire insurance underwriters, the Sanborn Company needed to continually update its maps, so that fire insurance policies could be issued on the basis of current facts. For some years and some cities, entirely new maps were issued. In other cases, pasted overlays were used to update the maps. The Sanborn Company's surveyors repeatedly mapped the same areas. In fact, during peak production times, some high-growth cities were mapped as often as every six months.

This updating process, invented to meet the needs of the American fire insurance industry between the Civil War and the Second World War, has proven vital for the environmental industry today. Users of the Sanborn Library are usually able to review multiple map editions and updates for the site they are investigating, charting the built environment at several different points in time. The result is a cartographic narrative that tracks how property uses changed over the decades for a given location.

When an environmental professional requests a certified EDR Sanborn Map Report, a series of maps from the Sanborn Library is produced, in chronological order, by following a defined sequence of production steps. The first step, after the order is received, is to check the accuracy of the site location. This is done by referring to multiple sources, including maps and instructions supplied by the client, street address, and latitude/longitude.

The next step is an electronic search of the Sanborn Library collection. The map images for the target property are compiled, starting with the most recent year for which coverage of the target property is provided, and working backward in time to the earliest map in the collection for that location. A quality control process is run to ensure that the correct maps have been produced for the correct years. The completed report is then delivered to the customer, often on the same day the order was placed. Depending on how often the Sanborn Company updated its coverage of the area, completed reports contain anywhere from one to twenty Sanborn Maps, organized by year.

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After the 1920s, the increasing prevalence of fire-resistant building materials, improved fire-fighting services, and changes in fire insurance underwriting methods began to reduce the demand for Sanborn Maps from fire insurance firms. However, the usefulness of these historic documents for other purposes was soon recognized. Environmental site investigations are by no means the only modern application that Sanborn Maps have found. City and regional planning agencies, public works and highway departments, federal agencies such as the Bureau of Census, and real estate developers are just a few of the many types of organizations and individuals that benefit from Sanborn Maps today.

Once the value of Sanborn Maps for environmental site assessments was fully understood, the challenge environmental professionals faced was gaining ready access to this resource. The Sanborn Company had originally distributed its maps for use by a small number of fire insurance underwriters for each geographic area for a limited period of time. Customers were told to

This 1929 Sanborn Map detail shows a portion of Danbury, Conn., which was once known as the "Hat City" because of its many hat factories. Environmental professionals who understand that hat makers used mercury to strip the fur from pelts and turn them into felt will be alerted, when they see a map like this one, to potential mercury contamination on the site and downstream. (Neurological damage suffered by workers who inhaled mercury fumes is the source of the phrase "mad as a hatter.")

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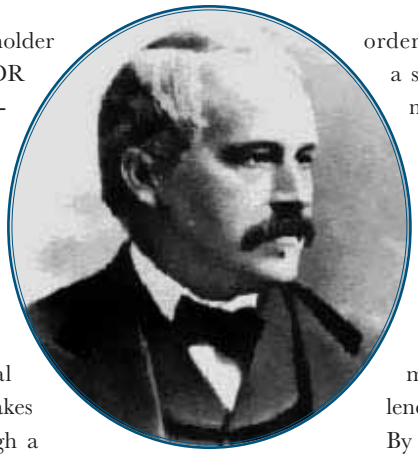
destroy their old maps when an updated version for their area was published. Although the company maintained a collection of updated maps, this collection was not accessible on an everyday basis.

Fortunately, when fire insurance maps fell into disuse, many insurance companies donated their old Sanborn Maps to local public libraries instead of destroying them. These scattered holdings gave many environmental professionals their first glimpse of the rich insight that Sanborn Maps enable into the historical uses of properties. However, map coverage provided by these assets was sporadic in terms of publication years as well as geographic areas.

The Sanborn Library evolved to remedy this problem. After Environmental Data Resources Inc. (EDR) acquired the Sanborn Company in 1996, it continued to expand the original Sanborn Library collection and make it more accessible. The Sanborn Library today encompasses the microfilmed holdings of all other major collections, including the considerable inventory of maps that had been accumulated by the Library of Congress. By combining the Sanborn Company's original archives with other collections, the Sanborn Library is able to provide environmental professionals with immediate access to the most complete collection of Sanborn Maps—containing more than 1.2 million maps.

Furthermore, because the Sanborn Library is the copyright holder for the entire collection, EDR is authorized to permit environmental professionals to reproduce Sanborn Map images in their reports. To ensure broad industry access to Sanborn Maps, EDR not only sells its Sanborn Map reports directly to environmental professionals, but it also makes the maps available through a network of resellers.



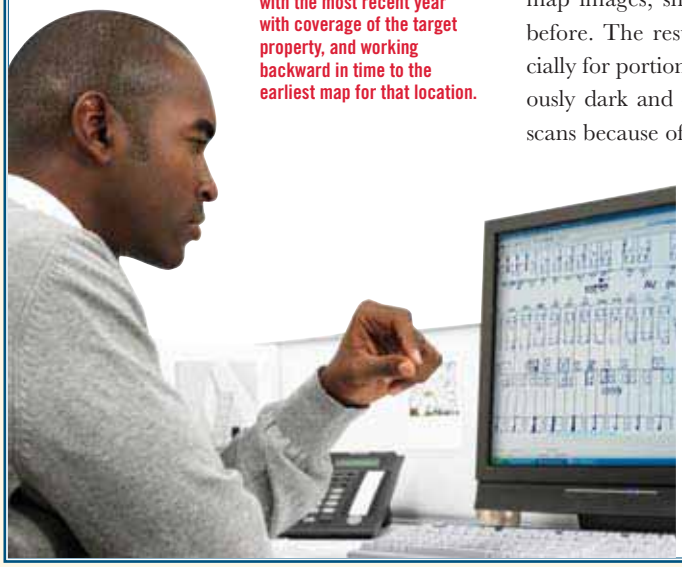
D.A. Sanborn (1827-83), the inventor and namesake of Sanborn Maps.

EDR has also made many improvements to the Sanborn Library search process. One of the most significant undertakings was indexing the collection by latitude and longitude down to the map-sheet level. The result was a major improvement to the speed and reliability of search results. EDR is now able to offer its customers same-day delivery of Sanborn Maps—a striking contrast to the time, not so long ago, when researching these maps required a time-consuming visit to a public library.

The latest enhancement to Sanborn Library search results is the Certified Sanborn Map Report, introduced by EDR in May 2007. For this improved report, EDR rescanned the library's entire collection using advanced imaging technology to provide higher-resolution map images, showing more detail than ever before. The result is easier readability, especially for portions of the maps that were previously dark and difficult to interpret in earlier scans because of the way the original Sanborn mapmakers had affixed their update slips. Each Sanborn Map search and report (whether purchased from EDR or an authorized reseller) also receives a unique certification number, confirming that the historical research of the professional who ordered the report included a search of the largest and most complete repository of Sanborn Maps.

Hundreds of times every day, the Sanborn Library is searched by environmental professionals conducting site assessments for developers, lenders and other customers. By reviewing Sanborn Maps from the library's collection, in conjunction with other historical sources, these professionals are able to make informed judgments about the potential for historical environmental conditions that might impact their target properties. Although modern technology enables the comprehensive search and rapid delivery of these maps, their great value to the environmental industry is still founded on the low-tech labors of the surveyors and mapmakers who worked for D.A. Sanborn and his successors generations ago. Indeed, the carefully designed production processes and quality control steps that go into the production of every Sanborn Map report today can be seen as latter-day extensions of the rigorous surveying and map-making methodology perfected by the Sanborn Company around the turn of the twentieth century. Then and now, users of these maps needed reliable access to accurate depictions of building features and uses. The only difference is the condition that users are seeking to recognize: flammability then, versus a variety of potential hazardous conditions today.

Sanborn's successors continued his strategy of business expansion fueled by scrupulously accurate map making.



Maps from the Sanborn Library are compiled, starting with the most recent year with coverage of the target property, and working backward in time to the earliest map for that location.

EDR® Environmental Data Resources Inc

For more information about the Certified Sanborn Map Report, contact your EDR representative at 800-352-0050.

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