



## City and County of San Francisco

San Francisco Public Works · Bureau of Street Use and Mapping

Office of the City and County Surveyor

49 South Van Ness, Avenue, 9<sup>th</sup> Floor · San Francisco, CA 94103

[Monument.Preservation@sfdpw.org](mailto:Monument.Preservation@sfdpw.org)



### **CCSF BSM Monument Referencing Guidelines**

Survey monuments are essential to establishing and maintaining horizontal and vertical survey control for subdivisions, tracts, boundaries, roads, streets or highways and as a result are protected under California state law under Penal Code § 605, Streets and Highways Code § 732, 732.5, 1492.5, 1810.5, as well as Business and Professions Code § 8725, 8771 and 8773.3: <http://leginfo.legislature.ca.gov/faces/codes.xhtml>

It is the responsibility of the City and County of San Francisco, Public Works, Bureau of Street Use and Mapping Survey Division (BSM) to preserve these survey monuments and to maintain their exact positions over time.

Excavation permits are to follow section 4.3 Survey Monuments PW Order 187005, permittees obligations, February 6, 2018.

Due to the potential for movement or disturbance of survey monument during construction, all monuments within 20 feet of any proposed construction must be located and referenced through a field survey and the filing of a Corner Record, figure 3, or Record of Survey prior to any construction taking place.

This is to allow for optimal means of positional verification or replacement in the event that the monument is either potentially disturbed or removed by the construction.

Referencing can be conducted by a licensed Land Surveyor or the City and County of San Francisco Bureau of Street Use and Mapping, (CCSF BSM).

### **CCSF BSM Standard Referencing Fee: \$ 3,876**

CCSF BSM monument referencing fee as of July 2020 is \$3,876 per monument and covers the field and office-related costs for the standard monument referencing process. The fee is adjusted each year to reflect changes in the relevant Consumer Price Index.

Before contacting BSM to do the monument referencing, please fill out and submit an application and required funding **at least 2 weeks prior to construction taking place** so as to accommodate the need for planning and scheduling a field crew. Monument referencing will be scheduled once both the application and funding have been received.

Note, monument referencing applications with full payment must be completed and submitted a minimum of 2 weeks prior to the start date of construction. Accounting must clear and process payment before any Monument Referencing can occur. Payment accounting often takes longer than two weeks, thus, it is advised the monument preservation process begin well in advance of the two weeks prior to construction time line.

BSM will notify the applicant when the monument referencing is complete.

Should the monument referencing and the construction schedules become overlapping, coincides, please provide construction scheduling priority areas to allow strategic coordinated monument referencing to support the construction time lines.

It is the responsibility of the applicant to inform BSM when construction is complete so that the post-construction stage of the referencing may be performed.

### **Extended Referencing where construction proceeded prior to standard monument referencing**

Where construction has proceeded prior to standard monument referencing having been performed, a comprehensive field survey and office analysis shall be required to determine if the construction activity caused any potential movement of the monument or to reestablish the monument position in the event that the monument was destroyed.

To perform this extended referencing additional fees shall be assessed and are estimated to be \$10,000 or more.

If any monuments are covered, disturbed, destroyed or removed any costs incurred to re-establish the monument will be in addition to the initial application fee and may vary due to time and methods required.

If a monument is removed, the monument well and monument cap shall be delivered to the County Surveyor's Office.

Please direct any concerns or inquiries regarding survey monument referencing or any other monument related issues to: [Monument.Preservation@sfdpw.org](mailto:Monument.Preservation@sfdpw.org).

Additional monument preservation information can be found on the California Land Surveyors Association website: <http://www.californiasurveyors.org/moncon-ls.html> and in the 2015 Subdivision Regulations, Appendix A, Sec. VI (page 41): <https://sfpublicworks.org/services/subdivisions-and-mapping>.

### **Locating City and County of San Francisco Property Boundary, Geodetic and other Monumentation**

Some monuments are located beneath the ground surface and surrounded by well casings as depicted in Figure 1.

Many monuments are located on the ground surface as depicted in Figure 2.

When a well casing and lid is needs to be reset due to construction it shall be centered with respect to the monument as depicted in Figure 1 (without disturbing the position of the monument).

**“Survey Monuments” should not be reset or relocated by the contractor unless under the direct supervision of a licensed land surveyor or CCSF BSM**

Other monuments may exist, including those set by local, state and federal agencies: e.g. CCSF

(HPN & HPND), CCSF VD-2013, CCSF Boundary Reference monuments, Cal-Trans, BART, USGS, NGS, U.S. Army, U.S. Navy and private surveyors for subdivisions, et al. These monuments must also be preserved when and where they are located.

There are monuments that are not of record, not of record means the monument does not appear on any maps or documentation that has been duly noticed by recordation with the City and County of San Francisco.

An onsite field review is required to determine if such non-record monuments exist. These non-record monuments are “old” original subdivision marks that typically do not appear on any record maps.

Within the City and County of San Francisco not of record monuments typically are “L”, “T” and “+” cuts and lead plugs with brass tacks. “L”, “T”, “+” cuts, lead plugs with brass tacks and or 1” inch disks are typically located in curbs and additionally can reside anywhere along property lines extending from street curb to the back of sidewalk.

The below link 1 is for “Monumental”, a monument data base of known monuments. It is the starting point to locate property boundary and geodetic monuments within the City and County of San Francisco. All “Monumental” monument locations shown are approximate. Positions shown are not to be used to determine location of monument in relation to construction.

Note, “Monumental” is an index of known monuments and does not contain all monuments within the City and County of San Francisco.

Link 1: <https://bsm.sfdpw.org/subdivision/monumental/Viewer.aspx>

The below two links (2 and 3) are to be used to locate additional property boundary and geodetic monuments within the City and County of San Francisco.

Link 2 is used to locate the Assessors block number.

The Assessors block number is used in link 3 to located recorded maps. The record maps are to be reviewed to locate additional property boundary monuments that have been set.

Link 2: <https://bsm.sfdpw.org/mapviewer/>

Link 3: <https://bsm.sfdpw.org/subdivision/default.aspx>

CCSF DPW BSM can support monument research and on-site field reviews. If you elect to have CCSF DPW BSM conduct research please contact [monument.preservation@sfdpw.org](mailto:monument.preservation@sfdpw.org) to request a proposal or these services.

Figure 1

Some Typical Monuments with Well Casings





Figure 2

Some Typical Surface Monuments





## Some Typical Surface Monuments Continued ~

"L" Cut	"T" Cut
	
"L" Cut in Yellow Curb Painting	"+" Cut Curb and "+" Cuts Armored Curb
	



## Some Typical Surface Monuments Continued ~

Lead Plug with Brass Tack



Nail and Brass Tag in Lead Plug



Brass Tag and Rivet



Washer and Mag Nail






Figure 3

Typical Corner Record Page 1

<h2 style="margin: 0;">CORNER RECORD</h2>		Document Number <u>22275</u>
City of <u>SAN FRANCISCO</u>		County of <u>SAN FRANCISCO</u> , California
Brief Legal Description <u>NORTHEASTERLY LINE OF ASSESSOR BLOCK 4282A, LOT 4 NORTHERLY OF FONTINELLA TER</u>		

	<p style="text-align: center; margin: 0;"><b>CORNER TYPE</b></p> <table border="0" style="width: 100%;"> <tr> <td>Government Corner</td> <td><input type="checkbox"/></td> <td>Control</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Meander</td> <td><input type="checkbox"/></td> <td>Property</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Rancho</td> <td><input type="checkbox"/></td> <td>Other</td> <td><input type="checkbox"/></td> </tr> <tr> <td colspan="4">Date of Survey <u>AUGUST 05, 2015</u></td> </tr> </table>	Government Corner	<input type="checkbox"/>	Control	<input checked="" type="checkbox"/>	Meander	<input type="checkbox"/>	Property	<input type="checkbox"/>	Rancho	<input type="checkbox"/>	Other	<input type="checkbox"/>	Date of Survey <u>AUGUST 05, 2015</u>				<p style="text-align: center; margin: 0;"><b>COORDINATES (Optional)</b></p> <p>N. _____</p> <p>E. _____</p> <p>Zone _____ NAD27 <input type="checkbox"/> NAD83 <input type="checkbox"/></p> <p>NAD83 Epoch _____</p> <p>Elev. _____</p> <p>Vert. Datum: NGVD29 <input type="checkbox"/> NAVD88 <input type="checkbox"/></p> <p>Meas. Units: Metric <input type="checkbox"/> Imperial <input type="checkbox"/></p>
Government Corner	<input type="checkbox"/>	Control	<input checked="" type="checkbox"/>															
Meander	<input type="checkbox"/>	Property	<input type="checkbox"/>															
Rancho	<input type="checkbox"/>	Other	<input type="checkbox"/>															
Date of Survey <u>AUGUST 05, 2015</u>																		

Corner—      Left as found ☒      Found and tagged ☐      Established ☐      Reestablished ☐      Rebuilt ☐

Identification and type of corner found: Evidence used to identify or procedure used to establish or reestablish the corner:  
SET REFERENCE POINTS FOR CITY SURVEY MONUMENT 22275. POINTS SET AS SHOWN ON  
PAGE 2 OF 2. PRE-CONSTRUCTION

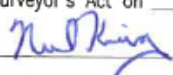
  

A description of the physical condition of the monument as found and as set or reset:  
FOUND 8" DIAMETER WELL MONUMENT IN STREET CONCRETE BLOCK WITH BRASS DISK AND  
PUNCHED IN THE MIDDLE STAMPED LS 3936. MONUMENT NAME 22275.

**SURVEYOR'S STATEMENT**


This Corner Record was prepared by me or under my direction in conformance with the Land Surveyor's Act on AUGUST 31, 2016

Signed  P.L.S. or R.C.E. No. 8098

**COUNTY SURVEYOR'S STATEMENT**

This Corner Record was received 9/10/2017



and examined and filed 10/4/2017

Signed  P.L.S. or R.C.E. No. 6914

Title CITY AND COUNTY SURVEYOR

County Surveyor's Comment REFERENCE POINTS SET BY CITY SURVEY CREWS UNDER THE DIRECTION OF THE CITY AND COUNTY SURVEYOR.

RM/AK



Typical Corner Record Page 2

