



**Recommended Marking Guidelines
For Underground Utilities**

**Adopted by APWA Board of Directors
September 12, 2001**

Recommended Marking Guidelines For Underground Utilities

The APWA Marking Recommendations Committee

The APWA Marking Recommendations Committee was organized and operated under guidelines similar to those used by the Common Ground: Best Practices committees.

- Anyone on the committee could propose or recommend existing marking practices.
- Only those practices receiving a consensus of all committee members were included in the final recommendations.
- The committee felt that the original name for the committee: “APWA Marking Standards Committee” be changed to the “APWA Marking Recommendations Committee”, this change was agreed to by all committee members. Henceforth, all proposals from the committee will be referred to as *recommendations* versus *standards*.

1. **“Utility lines will be indicated by markings using current APWA color codes. Markings should be 18”-24” in length and 2” in width.”**
2. **“The owner of a facility should be indicated by initials or by name in letters 6” high at the beginning and end of the locate. On long locates the facility owner should be indicated every 100’.”**
3. **“When known, the total number of lines within the ground will be indicated.”** The number of lines indicated should be based on the physical lines “that you could place your hands on”. Multiple cables twisted together to form a single facility, as in the case of electric lines, would be considered one cable for locate purposes.
4. **“If a facility is known to be present but the total number of lines for a facility cannot be determined a corridor marker may be used. The corridor marker should indicate the approximate width of the facility.”** A marking resembling the letter “H” lying on its side will indicate the corridor marker.
5. **“When known, the size of the line being located will be indicated. Line size will indicate the outside diameter of the pipe or structure. The oversized utility marking should indicate the approximate size of pipe or structure.”** A mark resembling the letter “H” lying on its side, bisected by line extending along its length will indicate the oversized utility marking. The committee discussions centered on indicating sizes of single physical structures such as gas lines, sewer lines, water lines, and storm drains.

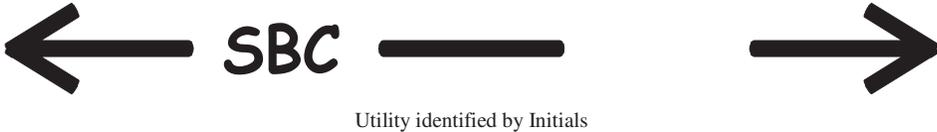
6. **“Duct structures, whether a single duct or multiple ducts, will be indicated by duct symbol indicating the approximate width of the duct structure.”** The duct marker will be indicated by a marking resembling a diamond bracketed by two parallel lines. The committee did not state whether indicating size should extend to indicating size of duct structures (telecommunications, electric) or indicating pair count for telephone lines.
7. **“When known, the pressure of a gas facility will be indicated.”** Gas pressure will be indicated as either low pressure, intermediate high pressure or high pressure. The committee did not determine whether gas pressure would be indicated in instances of high pressure only or for all pressures. The committee did not determine whether the type of pipe should be indicated (plastic, steel, cast iron, etc.).
8. **“When known, termination points, dead ends and stub outs should be indicated.”** The committee reviewed NULCA’s recommendation, which resembles the letter “T” with drop downs.
9. **“When there is a strong likelihood that marks may be destroyed offsets should be used.”** Offsets are indicated on a permanent surface and are placed parallel to the running line of the facility. The offset should indicate the distance from the offset to the facility and should identify the facility owner and if necessary size of the facility.

The following issues were discussed but either a consensus could not be reached or further discussion was considered necessary:

1. How does a locator indicate that access could not be gained to a yard or location and the locate request could not be completed. This is usually due to locked fences, dogs or other physical obstructions. The committee felt that a marking standard for this issue would not be developed. Suggestions that would be acceptable included the use of door hangers (indicating that the locator needed access to the property) and/or telephone calls to the requestor.
2. How and when do we indicate the presence of buried, abandoned facilities? Excavators felt that the utilities should indicate ALL facilities in the ground regardless of status. Utility records often do not indicate the presence of abandoned facilities. Access may not be available to abandoned facilities or those facilities may not be capable of being located. An additional issue is whether the abandoned facility should be identified as abandoned.
3. How to indicate the presence of electronic markers (EM’s).
4. How to indicate the presence of buried splices, valves and manholes.

The following are samples on how the above suggestions would look:

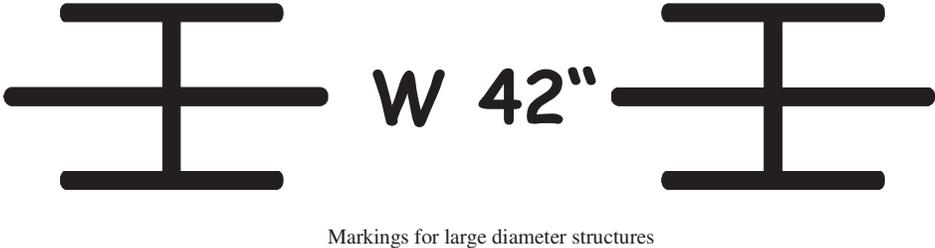
Line Markings



Corridor Markings



Oversized Utility Markings



Conduit Markings



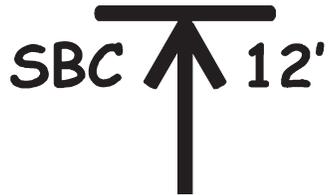
Marking Gas Lines – High Pressure



Marking Termination Point, Dead End, Stub Outs



Marking Offsets



Indicate – Facility owner, direction to utility and distance to facility

No Conflict (No utilities within the requested area)

NO/MCI

NO/EPG

Proposed Markings – Consensus not reached by committee

Electronic Marker

EM

Marking Buried Splices, Valves, Manholes

