



POLICY REGARDING AS-BUILT DRAWINGS

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DEVELOPER RESPONSIBILITIES

The details of the District's As-Built Drawing policy are outlined within this document. The policy makes numerous references to a party designated as the "Developer." The term "Developer" is intended to refer to the project developer or property owner who is responsible for the construction of the project and the required water, electric and/or communication system improvements.

The Developer may utilize other parties or designated agents such as contractors, architects, surveyors or engineers to perform the duties and responsibilities outlined in this Policy. However, the failure of a third party to comply with this policy and its obligations shall not relieve the Developer of his responsibilities and shall not imply or impose any obligations upon the District.

PROJECT DOCUMENTATION DEPOSIT

At the time that the Developer signs the Development Agreement, the District shall impose a Project Documentation Deposit equal to five percent (5%) of the construction cost of water and/or electric facilities to serve the project. The minimum deposit shall be \$2000. This deposit shall be held by the District and refunded to the Developer upon successful completion of the As-Built Drawings as outlined below. The Developer shall not be due any interest on monies held by the District.

AS-BUILT DRAWING PROCEDURES

During the construction of the project, the Developer shall be responsible for maintaining a set of As-Built Drawings. The basis of the As-Built Drawings shall be the Construction Drawings as reviewed and approved by the District.

1. The Developer shall maintain one set of As-Built Drawings at the Project Site. On these, all project conditions, locations, configurations, and any other changes or deviations that may vary from the information represented on the original Construction Design Drawings shall be noted; including buried or concealed construction and utility features that are revealed during the course of construction. *Special attention shall be given to recording the horizontal and vertical location of all buried utilities that differ from the locations indicated, or which were not indicated on the Construction Design Drawings.* Drawings shall also note the location of any other buried infrastructure such as landscape irrigation, onsite drainage, lighting, hydronic heating, etc., as well as any surface building obstacles such as ponds, fences, walls, rocks, etc. As-Built drawings shall be supplemented by any detailed sketches as necessary or directed to fully indicate the facilities as actually constructed.

2. These master As-Built Drawings shall be maintained up-to-date during the progress of the Project. Red ink shall be used for alterations and notes. Notes shall identify relevant changes by number and date.
3. As-Built Drawings shall be accessible to District personnel at all times during the construction period.
4. The As-Built Drawings shall be submitted to the District upon completion of the project. Failure to submit complete As-Built Drawings may result in the partial or full forfeiture of the Project Documentation Deposit.
 - A. District staff will review for completeness, accuracy, and format, of submitted As-Built Drawings. If the As-Built Drawings are found to be acceptable, the Project Documentation Deposit will be refunded to the Developer. If the As-Built Drawings are considered unacceptable, they will be returned to the Developer for correction and resubmitted.
 - B. If the corrected As-Built Drawings have not been resubmitted to the District after 60 days, the District will correct the As-Built Drawings as necessary to conform to this Policy. All costs incurred by the District to perform such work will be deducted from the Project Documentation Deposit and the remainder will be refunded to the Developer. The District may utilize either District personnel or outside contractors to complete the As-Built Drawings. The determination of which party is to perform such work shall be at the sole discretion of the District.

In the event that the Developer fails to submit As-Built drawings within 60 days of acceptance of the facilities by the District, the District will proceed with development of the As-Built Drawings. Such failure to submit As-Built Drawings shall result in the forfeiture of the entire Project Documentation Deposit, whether or not the Deposit is sufficient to complete development of the As-Built Drawings.

AS-BUILT DRAWING FORMAT

The Developer shall submit one hard copy of the As-Built Drawings. The Developer shall also submit electronic files containing the information depicted on the As-Built Drawings.

Electronic files shall conform to the following requirements:

- A. File format shall be in one of the following formats:
 - i. AutoCAD compatible (.DWG, .DXF)
- B. Files shall be submitted on portable media such as a CD-ROM, or DVD. The media containing the files shall become the property of the District, and will not be returned to the Developer. Files may be compressed in a format that is compatible with the Zip decompression software. Developer may also upload files to the Districts FTP site. Credentials shall be provided by the District at Developer's request.
- C. The Developer shall submit all files used to produce the As-Built Drawings. Drawing files may utilize external references to reduce file size. However, all such reference files shall be included in the submittal and must conform to District layering standards.
- D. Drawing layer structure shall be as given in the Layering Convention Section. The Developer may use any combination of other layer names as desired for other elements depicted in the drawings. However, the relevant infrastructure system facilities shall appear on the designated layers. If certain facilities indicated by a given layer are not included as part of the project, the corresponding drawing layers may be purged from the drawing file.

Paper submittals shall conform to the following requirements:

- A. Drawings shall be 24" x 36" or 22" x 34" and shall be printed on bond paper
- B. All plan sheets shall be to scale and the scale shall be clearly noted on the drawings.
- C. All plan sheets shall have an arrow indicating the direction North.
- D. In cases where plan and profile sheets cannot completely depict the facilities as constructed, the Developer shall utilize details, sections, elevations or other similar drawings to illustrate the facilities as constructed. Such drawings shall be to scale and the scale shall be clearly noted on the drawings.

LAYERING CONVENTION

All digital data delivered in AutoCAD format, *must* meet the following layer convention. As-built features not adhering to these conventions will result in the immediate rejection of As-built submittals.

Land Information

R-EXIST_PARCEL

All existing parcel boundaries within the vicinity of the project under development.

R-NEW_PARCEL

All new surveyed parcel boundaries within the vicinity of the project under development. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer.

R-EXIST_RW

All existing edge of right-of-way within the vicinity of the project under development. The edge of right-of-way for both public and private roads shall be indicated.

R-NEW_RW

All new edge of right-of-way to be constructed as part of the project under development. The edge of right-of-way for both public and private roads shall be indicated. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer.

R-EXIST_EOP

All existing edge of pavement, within the vicinity of the project under development. The edge of pavement for both public, private roads, driveways, sidewalks, and concrete pads shall be indicated.

R-NEW_EOP

All new edge of pavement to be constructed as part of the project under development. The edge of pavement for both public, private roads, driveways, sidewalks, and concrete pads shall be indicated.. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer.

R-EXIST_BUILDING

All existing building footprints within the vicinity of the project under development that will remain after construction is completed.

R-NEW_BUILDING

All new buildings to be finished construction at the completion of the project development. If buildings will be built at a later date than that the project, and building location is not known, these building outlines will not be required. Any existing features from discovery that are a)

within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer.

R-EXIST_OBSTACLE

All existing surface obstacles including fence, walls, rockery, ponds, guardrails, etc. that may hamper construction, within the vicinity of the project under development. Each should be labeled with text describing what they are.

R-NEW_OBSTACLE

All new surface obstacles including fence, walls, rockery, ponds, guardrails, etc. that may hamper construction, within the vicinity of the project under development. Each should be labeled with text describing what they are. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer.

R-EXIST_TRAFFIC

All existing traffic signals, signal poles, control boxes, sensor loops and similar traffic control devices within the vicinity of the project under development. Existing Traffic information will not be available in the PUD discovery.

R-NEW_TRAFFIC

All new traffic signals, signal poles, control boxes, sensor loops and similar traffic control devices to be constructed as part of the project under development.

R-EXIST_LIGHTING

All existing street lighting, light poles, circuits (both underground and overhead), control boxes and similar lighting devices within the vicinity of the project under development.

R-NEW_LIGHTING

All new street lighting, light poles, circuits (both underground and overhead), control boxes and similar lighting to be constructed as part of the project under development. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer.

R-EXIST_TOPO

All existing topographic information including contours, and spot heights that are within the vicinity of the project under development.

R-NEW_TOPO

All new topographic information including contours, and spot heights that are within the vicinity of the project under development. Under Town specifications, new topographic information should always be surveyed for the area within the vicinity of the project under development.

R-EXIST_CONTROL

All existing survey control that are used in the survey of the project under development.

R-NEW_CONTROL

All new control points created in the development of the project.

Electric Facilities

E-NEW_PRI3PH

All new underground primary 3-phase circuits to be constructed as part of the project. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer.

E-EXIST_PRI3PH

All existing underground primary 3-phase circuits.

E-NEW_PRI1PH

All new underground primary single-phase circuits to be constructed as part of the project. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer. For 14.4 kV projects, 2 Phase Primary may reside on this layer.

E-EXIST_PRI1PH

All existing underground primary single-phase circuit. For 14.4 kV projects, 2 Phase Primary may reside on this layer.

E-NEW_SEC

All new underground secondary distribution to be constructed as part of the project. For the purposes of As-Built Drawings only, the secondary is considered all wire from the transformer to the point of termination. The depiction of secondary may be stopped where they enter a structure. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer.

E-EXIST_SEC

All existing underground secondary distribution.

E-NEW_VAULT

All new vaults, boxes, manholes and other similar underground structures. Different types of underground structures should be described by use of text or different block configurations. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer.

E-EXIST_VAULT

All existing vaults, boxes, manholes and other similar underground structures.

E-NEW_SYSTEM

All new transformers, switches, risers and similar network equipment. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer.

E-EXIST_SYSTEM

All existing transformers, switches, risers and similar structures.

Communication Facilities

C-NEW_COMM

All new underground communication conduit and cable be constructed as part of the project. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer.

C-EXIST_COMM

All existing underground communication conduit and cable.

C-NEW_VAULT

All new vaults, boxes, manholes and other similar underground structures. Different types of underground structures should be described by use of text or different block configurations. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer.

C-EXIST_VAULT

All existing vaults, boxes, manholes and other similar underground structures.

C-NEW_SYSTEM

All new taps, splitters, risers and similar network equipment. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer.

C-EXIST_SYSTEM

All new taps, splitters, risers and similar network equipment.

Water Facilities

W-NEW_PIPE

All new main line water piping to be constructed as part of the project under development. Main line piping is all piping to be dedicated to the District and maintained by the District upon successful completion of testing & acceptance of the facilities by the District. Lateral Pipes will be put on a different layer. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer.

W-EXIST_PIPE

All existing water piping within the vicinity of the project under development. Such piping may or may not be a point of connection for new piping to be constructed.

W-NEW_LATERAL

All new water laterals, service and fire hydrant, to be constructed as part of the project under development. For the purposes of As-Built Drawings only, the lateral is considered all piping from the main line pipe through the meter box to the point of termination. The depiction of laterals may be stopped where they enter a structure. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer.

W-EXIST_LATERAL

All existing water laterals, service and fire hydrant, within the vicinity of the project under development.

W-NEW_BOX

All new water meter boxes to be constructed as part of the project under development. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer.

W-EXIST_BOX

All existing water meter boxes within the vicinity of the project under development.

W-NEW_FH

All new fire hydrants to be constructed as part of the project under development. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer.

W-EXIST_FH

All existing fire hydrants within the vicinity of the project under development.

W-NEW_VALVE

All new main line water valves to be constructed as part of the project under development. Valves shall also include blow-offs, air-release valves, vacuum release valves and pressure reducing valves. Different types of valves should be described by use of text or different block configurations. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer.

W-EXIST_VALVE

All existing main line water valves within the vicinity of the project under development.

W-NEW_FITTING

All new main line fittings to be constructed as part of the project under development. Fittings shall include tees, elbows, crosses and hydrants. Different types of fittings should be described by use of text or different block configurations. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the “new” layer.

W-EXIST_FITTING

All existing main line fittings within the vicinity of the project under development.

W-NEW_OTHER

All other water system facilities not given above to be constructed as part of the project shall be located on this layer. Any existing features from discovery that are a) within confines of the project, and are b) incorrect based on new survey information will be recreated as a new feature on the "new" layer.

W-EXIST_OTHER

All other existing water system facilities not given above shall be located on this layer.

Sanitation Facilities

S-NEW_PIPE

All new sewer mains to be constructed as part of the project under development. Manholes and other appurtenances shall be depicted on separate layers as noted below.

S-EXIST_PIPE

All existing sewer mains within the vicinity of the project under development. Such mains may or may not be a point of connection for new piping to be constructed.

S-NEW_LATERAL

All new sewer laterals to be constructed as part of the project under development. The depiction of laterals may be stopped where they enter a structure.

S-EXIST_LATERAL

All existing sewer laterals within the vicinity of the project under development.

S-NEW_MH

All new sewer manholes to be constructed as part of the project under development. Other new appurtenances such as tees and wyes shall also be depicted on this layer.

S-EXIST_MH

All existing sewer manholes and appurtenances within the vicinity of the project under development.

Drainage Facilities

D-NEW_PIPE

All new storm drain piping and culverts to be constructed as part of the project under development.

D-EXIST_PIPE

All existing storm drain piping and culverts within the vicinity of the project under development. Such piping may or may not be a point of connection for new piping to be constructed.

D-NEW_APP

All new storm drain drop inlets, junction boxes, manholes, headwalls and similar appurtenances to be constructed as part of the project under development.

D-EXIST_APP

All existing storm drain drop inlets, junction boxes, manholes, headwalls and similar appurtenances within the vicinity of the project under development. Such appurtenances may or may not be a point of connection for new facilities to be constructed.

Text

The following text is required on all as-built drawings depicting the following utilities:

Land – road names, lot ID, building #,

Electric - size, material and type of all new electric system facilities including conduit, vaults, boxes, service panels and meter panels,

Communication: size, material and type of all new communication system facilities including conduit, vaults, boxes, and service panels,

Water - size, material, lining and coating of all new water system facilities,

shall be noted:

- i. On the plans.
- ii. As text, on it's corresponding CAD layer. (i.e. Pipe size and material on W-NEW_PIPE)

DATUM POLICY

Datum policy is for electronic submittals only. As-Built drawings shall be referenced to at least three points on the drawing that have noted horizontal and vertical datum information. These three points may be existing control, new control, or parcel corners. As long as the drawing has a 1:1 relationship with these three points, the remainder of the drawing can be in a project coordinate system. The District will use these three points for location and rotation of the project coordinates at a later date. Currently, the District has a network of control in the required datum, and is available upon request. Other control exists, with a NGVD 29 vertical datum, which may be used, but conversion to NGVD 88 will be required.

Horizontal Datum

The coordinate system for all as-built drawings shall be California State Plane Coordinates, NAD 83 Zone 2 in US Survey feet.

Vertical Datum

All elevations shall be referenced to the NGVD 88 datum with elevations given in US Survey feet.

Accuracy

District discovery information, with the exception of control, has an estimated accuracy of 6" to 18" for 98% of its data. Thus the district would require no greater accuracy for As-Built submittals. Control discovery information is to be survey accurate.

The District is looking for accurate enough information to a) relocated buried facilities and b) incorporate the as-built information into the District's geographic information system.

METADATA POLICY

All new land survey information (parcel meets & bounds, control, topographic information) within the submitted as-built shall be accompanied with metadata, describing the following:

Surveyor Name

Survey Company

Date Surveyed

Control Reference Used (Control ID, Type, Coordinate Datum)

Control Type (PK nail, Brass Marker, etc)

DISCOVERY

The District has compiled an extensive collection of geographic information in the Truckee, California area. This information has a high accuracy and would be extremely valuable in any discovery required by the developer before construction. In no way, however, does this information disavow the responsibilities of the developer to survey the project area, survey existing facilities the project will tap into, or have USA performed in the area.

The discovery information will be placed by the district on the "EXIST" layers described in the layer conventions, if they exist in the confines of the project area. Any existing information that survey notes to be incorrect and is within the confines of the project area is to be recreated on the "NEW" corresponding layer. All layers described in the layering convention will also be supplied in a .DWG format drawing to the developer upon request.

Current information that can be requested:

All Electric Facility Data	All Water Facility Data	PUD Broadband Facility
Parcel Boundaries	Water Boundaries	Bridges
Edge of Pavement	Right of Way	Buildings
Obstacles (Fence, Pond, etc.)	Survey Control	Topo with Metadata
Aerial Photographs	Easements	

As a note, it is still possible for any of this information to already exist within the project area, and for the PUD not have it, or know about it. In such cases, it is the responsibility of the developer to ensure that all existing information is properly recorded on displayed in the

As-built. Discovery is to only aide the developer in collecting this information quicker and cheaper.

Discovery information for Drainage and Sanitation must come from the Town and TSD respectively.

Discovery information supplied by the PUD is the sole property of the PUD and must be returned with the as-built submittal. At no time may any discovery information be given to a third party. Third parties wishing to obtain discovery information may contact the GIS Coordinator at the number below.

CONTACT INFORMATION

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