

SPECIFICATIONS FOR Digital Submission of Utility Composites Form



The use of utility network mapping has become invaluable. Utility network mapping manages a complex system of water, wastewater, stormwater, and recycled water assets. Knowing the asset locations, the condition, and their relationship to one another is fundamental to managing them. It allows for modeling and analysis. The City of Roseville requires the submittal of electronic utility composites through our [Design and Construction Standards, Section 2 General Requirements, 2-5, Submission of Development Plans paragraph J](#).

Submission and Media Format Requirements Check List

Digital utility composite submissions must include the following:

- Base layer, reference layers, and utility system layers
- Spatially referenced to coordinate system NAD83 State Plane California Zone II US Feet
- Drawing units in feet, rotation set to north, and under 100 layers
- Saved in AutoCAD 2018.dwg file format
- Layers appropriately separated/combined to allow for isolation
- Layer naming convention similar to the layer requirements checklist
- Layers for proposed and existing improvements with different colors
- Single AutoCAD composite per submittal
- No external references, attachments, or third party layers
- Composite must be consistent with improvement alignments, redline updates, and plan set submittal review corrections
- Composite must be named with the improvement plan name, City wide job number (CWJ#), engineering number (EN#), and date i.e.: GREENMEADOWS_VIL1_CW-140999_EN-14-0999.DWG
- Composite will be uploaded electronically to Online Permitting Services (OPS) Portal

Please refer to the AutoCAD utility composite examples. We saved these examples as PDFs for viewing purposes, but you should submit composites in .dwg file format.

Submission and Media Format Requirements Check List

Base layer and utility system layers checklist:

Base Layers:

- Street right of ways
- Proposed easement boundaries
- Parcels lines/lot lines
- Street right of way centerlines
- Street names
- Lot numbers
- Building footprints

Solid Waste Layer

- Commercial Enclosures

Wastewater Layers

- Wastewater mains
- Wastewater manholes
- Wastewater laterals
- Wastewater lateral cleanouts
- Wastewater flow/main size indicators
- Wastewater flushing branches
- Wastewater force mains
- Lift stations, ARV's, blow-offs, corrosion protection equipment: bond junctions & test locations
- Text describing wastewater components

Water Layers

- Water mains
- Water valves
- Fire hydrants
- Blow offs
- Reducers
- Main size indicators
- Water services
- Meter boxes
- Backflow devices
- Air release valves
- Corrosion protection equipment bond junctions & test locations
- Water main inspection plates
- Water quality sampling stations
- Text describing water components

Recycled Water Layers

- Recycled water mains
- Recycled water valves
- Blow offs
- Reducers
- Hydrants
- Main size indicators
- Recycled water services
- Meter boxes
- Air release valves
- Corrosion protection equipment: bond junctions & test locations
- Recycled water main inspection plates
- Text describing recycled water components

Stormwater Layers

- Stormwater mains
- Stormwater laterals
- Stormwater manholes
- Stormwater flow/main size indicators
- Stormwater outlets
- Stormwater inlets
- Stormwater swales & channels
- Stormwater outfalls
- Low impact development features shown as enclosed polygons: vegetated swale, infiltration trench, infiltration basin, porous pavement, etc.
- Treatment Units: bio-retention filter, hydrodynamic separators, filtration device, sand oil separators, etc.
- Text describing stormwater components

Irrigated Landscape Layers:

- Turf area, shown as enclosed polygons
- Non-Turf Area, shown as enclosed polygons

Reference Layers:

- North Arrow
- Existing utilities for water, wastewater recycled water and stormwater for clarification of proposed tie-ins, etc.
- Parcel base map

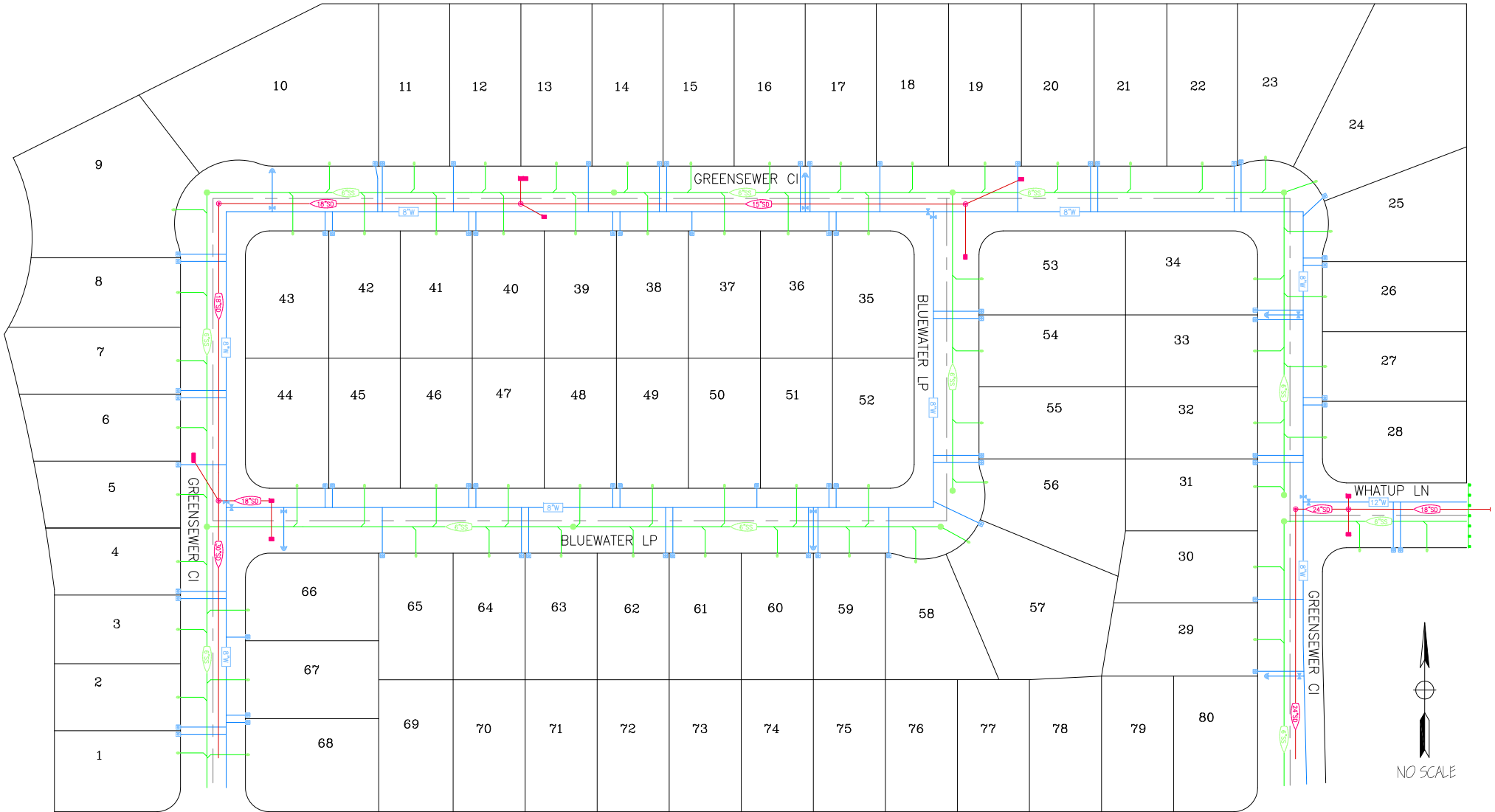
How to spatially reference the project composite to the City's parcel base. The parcel base is available to download as an ESRI shapefile at www.roseville.ca.us/gisportal then by clicking on GIS Open Data Portal / Parcel Publishing / Parcel Polygon / Download Shapefile. Convert the shapefile coordinate system from World Geodetic System (WGS) to NAD83 State Plane California Zone II US Feet.

The following instructions may be used in AutoCAD Map, Land Development Desktop, or Civil 3D Open to spatial reference the parcel base to the composite.

1. Click Insert tab / Import panel / Map Import.
2. In the Import Location dialog box, under Files Of Type, select shp. Select the unzipped Parcel_Polygon file to import. Click OK.
3. In the Import dialog box, under Current Drawing Coordinate System, select the button to assign a system.
4. In the Assign Global Coordinate System dialog box, under Current Drawing, type CA83-IIF into the Code box and select OK.
5. In the Import Dialog Box, under Driver Options, do nothing.
6. In the Import Dialog Box, under Spatial Filter, select: None.
7. In the Import Dialog Box, check the box to Import Polygons As Closed Polylines.
8. Click OK to begin the import process.
9. Double click your mouse roller to zoom to full extent.
10. Move the submittal composite drawing into the parcel base map.

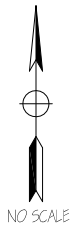
UTILITY COMPOSITE EXAMPLE I

(SINGLE FAMILY SUBDIVISION)



UTILITY COMPOSITE EXAMPLE 2

(COMMERCIAL PROJECT)

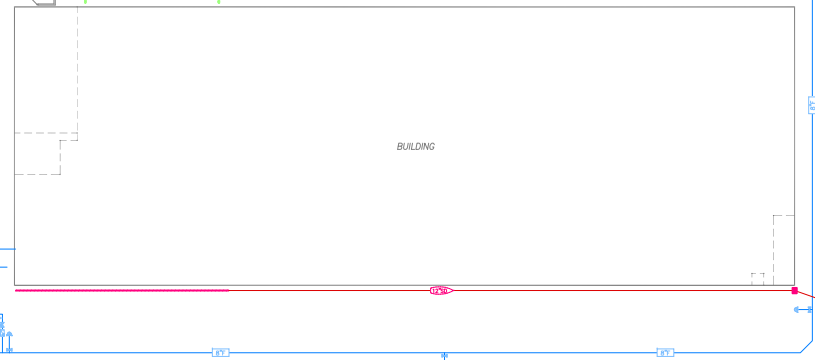


COMMUNITY BL

FUTURE RD

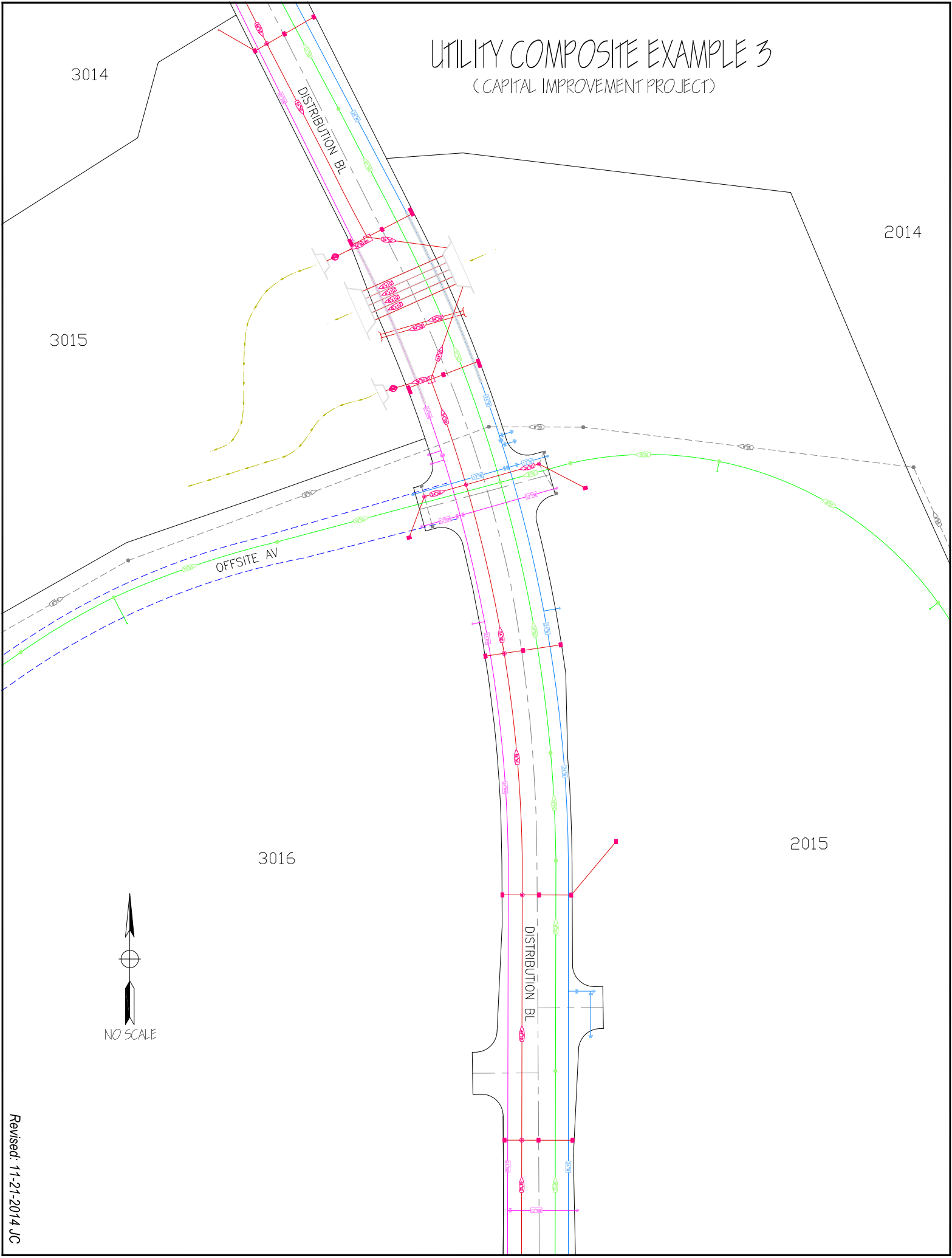
PRIVATE RD

CULTURE AV



UTILITY COMPOSITE EXAMPLE 3

(CAPITAL IMPROVEMENT PROJECT)



3014

3015

2014

3016

2015

