## City of O'Fallon Digital File Submittal Standard

(revised 11-2007)

The City of O'Fallon has implemented geographical information systems (GIS) technologies to store, manage, and maintain spatially-related (geographic) data. As a result, all developers and engineers shall submit digital plans in accordance with the timeline and datum standards outlined in the City's Subdivision Code and Development Manual. Digital files submitted shall meet the following standards:

- o A completed original CAD drawing in .dwg format named using the development name (i.e. Hwy69\_phase\_5.dwg). This file shall include all layers and graphic elements included in the submitted paper document (geography, text, legend, scale, labels, etc.). This file will include features classified in the standard layers defined in the CAD Specifications Table. If the drawing contains layers that are not included in the following table, then a list of these layers shall also be submitted as an ASCII text file labeled: 'project\_phasesXX\_xlyrspec.txt').
- o A metadata text file containing information listed in the Cad Specification Table. This file includes submittal information as well as technical parameters that may be necessary to review if problems in data conversion occur. The ASCII text file will be named using the following convention: (project\_phasesXX\_meta.txt).
- o An ASCII text file containing elevation points. When submitting plans that include surveyed ground surfaces, a separate ASCII text file containing all elevation points shall be delivered. This file shall be named using the following convention: (project\_phasesXX\_elev.txt).
- o Submissions will utilize the North American Datum of 1983 horizontal control and be measured in US Survey Foot. Vertical control will reference the North American Vertical Datum of 1988 (NAVD88) and shall include measures using the US Survey Foot. Control of plan features may be tied to the system using traditional surveying or GPS methods. The method employed to gain geodetic control shall be identified in the submitted metadata file.
- Drawing features shall include layer names as indicated in the following table.
  Features other than those thematically defined by the individual layer name/description shall not be included in that layer. Systems using numbered levels, such as Microstation, include a conversion table in the .dwg file creation process that can be used to specify named layers.
- o No annotation shall be included in any feature layer and no feature shall be included in any annotation layer. Annotation for each layer shall be placed in annotation layers as specified in the Cad specifications table.
- o No polylines or annotation shall be stored in blocks. Explode all blocks that do exist. (Block references migrate to GIS as a single point at the block's insertion point).
- o All points shall be stored as "POINT" or "BLOCK REFERENCE" (can't be softdesk point or aecc\_point or any other feature type).

- o Closure is critical in converting CAD elements to GIS features. If appropriate (i.e. parcel boundaries, subdivision boundary, buildings), all polygonal features shall be 'snapped' closed.
- o Submitted .dwg files shall contain only complete parcel polygon features. All partial polygons (parcel boundaries) shown for reference in drawings are not to be included in the PARCEL1 layer (The following table). Such features can be included in an unnamed layer in the submitted .dwg file.

o All elevation points shall be delivered in a single comma-delimited ASCII text file. Each line of the file shall contain values for a single point as follows:

Easting, Northing, Elevation 2012374.63, 853633.30343, 447.52 2012371.81, 853642.06532, 447.49 2012370.56, 853651.25382, 447.62 2012369.81, 853660.04853, 448.02

o Additional layers (not identified in the following table) may utilize any open layer beyond the 82 reserved layers. As outlined above, a list of these layers shall also be submitted (ASCII text file labeled: 'project\_phasesXX\_xlyrspec.txt').

## **CAD Specifications Table:**

Layer		Feature	
Number	Layer Name	Туре	Layer Description
1	FIREHYD	Point	Existing Fire hydrant
2	FIREHYD-PROP	Point	Proposed Fire hydrant
3	GCP	Point	Ground control points (existing, surveyed, or GPSed)
4	POLE	Point	Existing Lamp poles, power poles, traffic light poles, etc.
5	POLE-PROP	Point	Proposed Lamp poles, power poles, traffic light poles, etc.
6	SDNODE	Point	Existing Storm drain structure (manhole, junction box, etc.)
7	SDNODE-PROP	Point	Proposed Storm drain structure (manhole, junction box, etc.)
8	SSNODE	Point	Existing Sanitary sewer manholes, pumps, junctions, etc.
9	SSNODE-PROP	Point	Proposed Sanitary sewer manholes, pumps, junctions, etc.
10	WATRNODE	Point	Existing Water access/junction box, valves, tees, etc.
11		Point	Proposed Water access/junction box, valves,
12	SIGNS	Point	Existing Street Signs (Stop Yield Etc.)
13	SIGNS-PROP	Point	Proposed Street Signs (Stop, Yield, Etc.)
14	BLDG	Polvline	Existing Building/structure outline or footprint
15	BLDG-PROP	Polyline	Proposed Building/structure outline or footprint

16	BUFF	Polyline	Existing Buffers (riparian, vegetation, etc.)
17	BUFF-PROP	Polyline	Proposed Buffers (riparian, vegetation, etc.)
18	CARPRK	Polyline	Existing Parking lots
19	CARPRK-PROP	Polyline	Proposed Parking lots
20	CATVFIBR	Polvline	Existing Cable TV and/or fiber datacom lines
			Proposed Cable TV and/or fiber datacom
21	CATVFIBR-PROP	Polvline	lines
			Existing Street/road centerlines (payed and
22	CENTRI IN	Polvline	unpaved)
	0		Proposed Street/road centerlines (paved and
23	CENTRI IN-PROP	Polyline	unpaved)
	O E I I I I E I I I I I I I I I I I I I		Existing Public areas such as street
24	COMAREA	Polyline	islands/community entrances
			Proposed Public areas such as street
25	COMAREA-PROP	Polyline	islands/community entrances
26	CTOUR	Polyline	Un-broken contour lines (* design/as-built)
20	CURB	Polyline	Existing Curb/gutter
28	CURB-PROP	Polyline	Proposed Curb/gutter
20	FASM	Polyline	Existing Easement
30		Polyline	Proposed Easement
31		Polyline	Existing Building setback
32	EASBI D-PROP	Polyline	Proposed Building setback
33	FLECTR	Polyline	Existing Electrical lines
34		Polyline	Proposed Electrical lines
35		Polyline	Existing Flood plain
36		Polyline	Proposed Flood plain
37	FW/	Polyline	Existing Flood way
38		Polyline	Proposed Flood way
30	GAS	Polyline	Existing Gas nine
40		Polyline	Proposed Gas pipe
40		Polyline	Existing Linear hydrography, creeks/streams
<del>_</del>			Proposed Linear hydrography, creeks/streams
42		Polyline	creeks/streams
42		Polyline	Existing Polygonal hydrography Jakes/ponds
	IIIDOL		Proposed Polygonal hydrography
44		Polyline	lakes/ponds
45	PARCEI	Polyline	Existing Parcel/lot boundaries
46	PARCEL-PROP	Polyline	Proposed Parcel/lot boundaries
47	PAVEDGE	Polyline	Existing Edge of pavement
48	PAVEDGE-PROP	Polyline	Proposed Edge of pavement
49	RAII	Polyline	Railroads
50		Polyline	Proposed Railroads
			Existing Rights of way delineating
51	ROW	Polyline	private/public land boundary
			Proposed Rights of way delineating
52	ROW-PROP	Polyline	private/public land boundary
53	SDUNK	Polvline	Existing Storm drain culvert ditch nine etc
			Proposed Storm drain culvert ditch pipe
54	SDLINK-PROP	Polvline	etc.
55	SIDEWI K	Polvline	Existing Sidewalks (including ramps if any)
		- Orynnio	-meany elactrane (melading fumpo, if any)

			Proposed Sidewalks (including ramps, if
56	SIDEWLK-PROP	Polyline	any)
57	SSLINK	Polyline	Existing Sanitary sewer pipe
58	SSLINK-PROP	Polyline	Proposed Sanitary sewer pipe
59	SUBDIV	Polyline	Existing Subdivision boundaries
60	SUBDIV-PROP	Polyline	Proposed Subdivision boundaries
61	TELCO	Polyline	Existing Phone lines
62	TELCO-PROP	Polyline	Proposed Phone lines
			Existing Utilities, wildlife, transp, storm
63	UTIL	Polyline	drainage/detention, etc.
			Proposed Utilities, wildlife, transp, storm
64	UTIL-PROP	Polyline	drainage/detention, etc.
65	WATRLINK	Polyline	Existing Water pipe
66	WATRLINK-PROP	Polyline	Proposed Water pipe
67	WETLAND	Polyline	Existing Wetlands
68	WETLAND-PROP	Polyline	Proposed Wetlands
69	CTOUR-TEXT	Text	Elevation of individual contours
			Type of easement (utility, transp., wildlife,
70	EASM-TEXT	Text	storm, etc.)
71	HYD-TEXT	Text	Hydrographic feature name
			Bearings, distances, acreage, and x/y of
72	PARCELDIM-TEXT	Text	POB
73	PARCELNUM-TEXT	Text	Existing parcel lot number
	PARCELPROPNUM-		
74	TEXT	Text	Proposed parcel lot number
75	PARCELADD-TEXT	Text	Parcel Additional Detail-Text
76	PAV-TEXT	Text	Pavement type
77	RAIL-TEXT	Text	Railroad name
78	RDNAME-TEXT	Text	Street/road name
			Road number (Federal, State, City
79	RDNAME2-TEXT	Text	highways, etc.)
			Annotation describing storm drainage (SD)
80	SDTEXT	Text	features
			Annotation describing sanitary sewer (SS)
81	SSTEXT	Text	features
82	SUBDIV-TEXT	Text	Subdivision Name - TEXT
			Annotation describing water service (WTR)-
83	WATR-TEXT	Text	TEXT