



sanborn
geospatial



3D Cities™

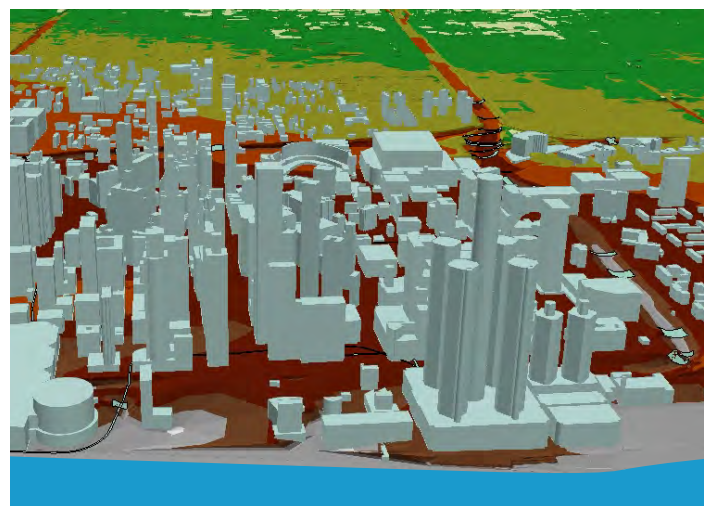
Off-The-Shelf 3D Metro Areas

Sanborn 3D Cities Products are an essential ingredient to virtual city implementations. Combining a strong visual appearance with a standards-compliant relational objects database, 3D Cities offers building and geospatial feature accuracy. The Sanborn product consists of off-the-shelf metro areas consisting of ortho imagery, buildings, elevation models and geospatial datasets covering the largest central business districts for over 60 of the major cities in the Americas and Europe. Committed to the improvement of city visualization and analysis, additional cities will become available from around the globe.

Sanborn 3D Cities can provide valuable geospatial and visualization data for users and organization involved with:

- State and major urban Fusion Centers
- Local, State and Federal Operations Ctrs.
- Homeland Security and National Defense
- Local law Enforcement
- Architectural / Engineering / Construction
- Real-Estate and Land Development
- Navigation Applications
- Urban and Transportation Planning
- Security Planning and Training
- Public and private utility providers
- Gaming and internet companies

3D Cities Products provide a variety of information that can be used in production environments for GIS or CAD software. In some cases the product has both current and archived historical components. The product contains imagery which has been orthorectified for use in applications of both visualization and as an accurate dataset for spatial analysis.



Top: Sanborn 3D Cities sample showing 3D buildings classified by occupancy attributes, placed over a draped ortho image.

Bottom: Sample showing a similar area with 3D buildings placed over a bare earth DEM.

3D Cities, continued



3D Cities				Year Acquired			Area - km²	Area - miles²	# of Bldgs.	3D Cities				Year Acquired			Area - km²	Area - miles²	# of Bldgs.	3D Cities				Year Acquired			Area - km²	Area - miles²	# of Bldgs.	
Akron	OH	USA	2013	1.90	0.73	536	Kearney	NJ	USA	2002	7.11	2.75	325	Sacramento	CA	USA	2004	7.95	3.07	3,047										
Albany	NY	USA	2013	2.28	0.88	807	Knoxville	TN	USA	2013	2.16	0.83	490	Saint Louis	MO	USA	2002	12.66	4.89	2,164										
Arlington	VA	USA	2002	6.04	2.33	3,591	Las Vegas	NV	USA	2010	16.57	6.40	2,842	Saint Paul	MN	USA	2002	2.93	1.13	491										
Atlanta	GA	USA	2013	8.77	3.39	4,933	Liberty Island	NY	USA	2002	6.40	2.47	32	Saint Petersburg	FL	USA	2002	6.48	2.50	1,717										
Austin	TX	USA	2007	11.76	4.54	4,482	Little Rock	AR	USA	2013	4.40	1.70	1267	Salt Lake City	UT	USA	2013	4.61	1.78	938										
Baltimore	MD	USA	2002	6.27	2.42	2,562	Long Beach	NY	USA	2008	8.09	3.12	4,012	San Antonio	TX	USA	2007	11.92	4.60	6,992										
Birmingham	AL	USA	2013	3.40	1.31	843	Los Angeles	CA	USA	2008	27.06	10.45	26,903	San Diego	CA	USA	2002	5.32	2.05	1,308										
Boston	MA	USA	2013	7.45	2.88	7,275	Louisville	KY	USA	2007	11.99	4.63	4,763	San Francisco	CA	USA	2008	15.03	5.80	9,223										
Bridgeport	CT	USA	2007	4.86	1.88	1,922	Manhattan	NY	USA	2008	26.08	10.07	69,211	San Jose	CA	USA	2007	14.06	5.43	6,141										
Bronx	NY	USA	2013	6.19	2.39	5,250	Memphis	TN	USA	2004	9.52	3.68	2,519	Seattle	WA	USA	2013	9.09	3.51	2,439										
Brooklyn	NY	USA	2008	5.81	2.24	4,322	Miami	FL	USA	2013	9.95	3.84	7,175	Springfield	MA	USA	2013	0.58	0.22	161										
Buffalo	NY	USA	2004	8.96	3.46	5,482	Mile High Stadium	CO	USA	2004	7.55	2.92	2,460	Tacoma	WA	USA	2013	0.85	0.33	240										
Century City (LA Co.)	CA	USA	2013	0.12	0.05	28	Milwaukee	WI	USA	2007	16.62	6.42	5,993	Tampa	FL	USA	2002	2.13	0.82	256										
Charlotte	NC	USA	2007	8.35	3.22	1,709	Minneapolis	MN	USA	2002	5.23	2.02	864	Trenton	NJ	USA	2013	1.64	0.63	648										
Chicago	IL	USA	2008	39.31	15.18	19,018	Nashville	TN	USA	2007	6.19	2.39	1,066	Tulsa	OK	USA	2013	1.44	0.56	304										
Cincinnati	OH	USA	2004	9.74	3.76	1,882	New Bedford	CT	USA	2013	0.30	0.12	119	UCLA	CA	USA	2013	0.17	0.07	207										
Cleveland	OH	USA	2004	9.96	3.85	1,334	New Haven	CT	USA	2013	1.65	0.64	759	USS Arizona	HI	USA	2004	13.36	5.16	243										
Columbus	OH	USA	2007	20.50	7.92	9,603	New Orleans	LA	USA	2004	7.89	3.05	4,412	Virginia Beach	VA	USA	2013	0.83	0.32	384										
Dallas	TX	USA	2002	9.88	3.81	2,108	Newark	NJ	USA	2002	9.32	3.60	7,045	Washington, D.C.	DC	USA	2008	19.33	7.46	6,689										
Dayton	OH	USA	2013	1.38	0.53	386	Niagara Falls	NY	USA	2004	20.95	8.09	3,954	Waterbury	CT	USA	2013	0.60	0.23	266										
Denver	CO	USA	2002	5.63	2.17	1,774	Norfolk	VA	USA	2007	3.56	1.37	775	West Palm Beach	FL	USA	2013	2.48	0.96	695										
Detroit	MI	USA	2008	7.39	2.85	1,423	Oakland	CA	USA	2013	1.68	0.65	1316	Wilmington	DE	USA	2013	0.62	0.24	241										
Everett (Boston)	MA	USA	2004	7.54	2.91	1,058	Ogden	UT	USA	2013	0.64	0.25	232																	
Fort Lauderdale	FL	USA	2002	9.14	3.53	5,249	O'Hare Airport	IL	USA	2002	26.47	10.22	436	Berlin	Germany	2007	14.20	5.48	4,709											
Fort Worth	TX	USA	2013	0.87	0.33	194	Oklahoma City	OK	USA	2013	1.81	0.70	389	Buenos Aires	Argentina	2008	18.21	7.03	32,950											
Fresno	CA	USA	2013	2.02	0.78	645	Omaha	NE	USA	2013	4.19	1.62	923	Caracas	Venezuela	2009	25.02	9.66	57,861											
Geo. Washington Br.	NY	USA	2004	5.98	2.31	599	Orlando	FL	USA	2007	11.89	4.59	5,301	Comuna Santiago	Chile	2008	25.51	9.85	54,419											
Glendale	CA	USA	2013	0.64	0.25	386	Pasadena	CA	USA	2013	2.38	0.92	2,343	Dubai	UAE	2006	941.40	363.48	201,060											
Golden Gate Bridge	CA	USA	2004	5.04	1.95	175	Pawtucket	RI	USA	2013	0.75	0.29	369	Guadalajara	Mexico	2010	10.71	4.14	32,130											
Grand Rapids	MI	USA	2013	4.63	1.79	875	Pentagon City	VA	USA	2002	4.29	1.66	1,230	Mexico City	Mexico	2008	31.66	12.22	47,278											
Hartford	CT	USA	2007	11.90	4.59	2,136	Philadelphia	PA	USA	2010	14.12	5.45	16,109	Monterrey	Mexico	2010	16.16	6.24	19,580											
Honolulu	HI	USA	2004	9.81	3.79	3,538	Phoenix	AZ	USA	2010	8.67	3.35	6,692	Montreal	QC	Canada	2010	14.20	5.48	11,250										
Houston	TX	USA	2010	8.44	3.26	1,872	Pittsburgh	PA	USA	2004	9.48	3.66	3,852	Paris	France	2007	14.23	5.49	14,590											
Huey Long Bridge	LA	USA	2004	10.41	4.02	1,673	Port of Miami	FL	USA	2004	16.43	6.34	88	Rio De Janeiro	Brazil	2008	24.44	9.44	31,882											
Indianapolis	IN	USA	2007	11.31	4.37	3,325	Portland	OR	USA	2002	3.45	1.33	991	Sao Paulo	Brazil	2008	24.32	9.39	39,137											
Irvine	CA	USA	2013	6.63	2.56	1,686	Providence	RI	USA	2007	10.29	3.97	7,349	Toronto	ON	Canada	2010	14.35	5.54	9,164										
Jacksonville	FL	USA	2013	4.20	1.62	865	Raleigh	NC	USA	2013	2.25	0.87	638	Vancouver	BC	Canada	2009	8.94	3.45	2,265										
Jersey City	NJ	USA	2002	8.94	3.45	5,193	Richmond	VA	USA	2007	10.05	3.88	7,770																	
Kansas City	MO	USA	2004	9.42	3.64	1,544	Rochester	NY	USA	2013	1.62	0.63	394																	

Specifications

Imagery

- Imagery is RGB, positional accuracy no less than +/- 2' RMS
- Available for GIS and CAD software formats
- Digital Elevation Model provided

3D Buildings

- Buildings-positional accuracies of building models +/- 30cm
- Buildings developed illustrating external architectural structure
- Full topology-completely built and tested features dataset without gaps, dangles, overlaps, etc.
- Addresses (when available). In many cases all relevant address within each single structure are provided
- Optimized geometry for maximum efficiency and data storage capacity

Additional Attributes (when available)

- Surface elevation models and grids
- Transportation features and planimetric feature layers (streets, parks, etc)
- Building Photos and alternate address locations

Additional Available Customized Services

- Buildings may be textured using a variety of techniques to create generalized to highly realistic exterior facades
- Enhanced modeling provides buildings with generalized architectural structure detail:
 - 5 progressively realistic building types. Available as LOD0 through LOD5
 - Buildings are compliant per OGC CityGML standards.
- Full urban models complete with terrain, structures, imagery, and textured building models are available

Conditions and Deliverables

- Pricing catalog is subject to change and product is warranted for 90 days as defined in the EULA
- Several formats deliverable for use in GIS and CAD software
- Product deliverable via FTP or hard drive media
- Most orders can be shipped within 48 hours from date of purchase (depending on the size of the order). Tax, shipping and handling fees apply.

How to order

To order Sanborn 3D Cities products, or for information about cities not listed, cities to be updated, or for specific details and pricing, contact Sanborn customer service at 1-866-SANBORN or email info@sanborn.com.

About Sanborn

Sanborn is a 21st century industry leader in geospatial solutions and technology, offering superior services, program management, and customer support.

For our clients we provide a national presence, extensive resources, quick responses, and exceptional value. For over a century, we have been a leader in the rapidly growing geospatial industry, with successful projects delivered worldwide. For more information, visit us online at www.sanborn.com, or call **1-866-726-2676** to speak with a representative.