Services and Service Descriptions

WGI can provide the following services under the following DIR Class Item Codes:

Class Item Codes	Item(s)
905-04	Aerial Photogrammetry Services
905-05	Aerial Photography and Videography Services, Including Drones
905-10	Aerial Surveys and Mapping Services
961-64	Satellite Global Positioning System Information Services (GPS), Including Surveying Services
920-33	Mapping and Geographical Information Systems (GIS) Services, Digitized, Cartography
920-30	Image Processing and Conversion Services

905-04 Aerial Photogrammetry Services

WGI and its subcontractors have successfully performed numerous large- and small-scale photogrammetric mapping projects in support of engineering design for Federal, State and Local agencies, including many projects for transportation engineering in the state of Texas.

WGI possesses significant experience in the collection of aerial imagery for large- and small-scale photogrammetric mapping utilizing digital cameras for use in analytical aerial triangulation and subsequent softcopy compilation and feature extraction. In addition to WGI's three survey aircraft, our teammates GeoTerra Surveying & Mapping and Dallas Aerial Surveys combine to provide a reliable and large capacity fleet for wide area mapping projects anywhere in Texas.

Photogrammetric Feature Compilation

Accurate collection of natural and manmade features from aerial imagery requires highly skilled and experienced photogrammetrists with photo interpretation skills. WGI's compilers have proven resumes that demonstrate professional excellence in feature compilation. With years of hands-on experience, each of our technicians has demonstrated his or her ability to consistently meet client specifications and defined mapping standards. Without the experience and skills of our professional staff we would not be able to consistently meet requirements and develop the reputation for client satisfaction and product excellence.

Data and Map Compilation Process

WGI's team has extensive experience compiling planimetric, topographic, DEM, and Digital Terrain Model (DTM) data from a multitude of input data sources. When possible, compilation of planimetric and topographic data is completed as a simultaneous operation. Unless otherwise directed by project specifications, planimetric natural and manmade features are compiled in 3-D or from survey data so that elements common to a DTM and the photogrammetric features file will have x, y, and z values for every vertex. This approach enhances both the accuracy and presentation of contours and breaklines derived from the DTM and ensures logical compatibility between the vector contours and the planimetry. If required by specifications, interactive placement of spot elevations is completed as a stereo compilation or survey task. Spot elevations are usually placed at the tops of terrain features, along saddles, at the bottoms of depressions, at the top of all headwalls, on open water features, and other similar locations.

WGI works with clients to ensure the targeted application of the mapping end-product can be satisfied based on scale and feature collection capabilities. This understanding is essential to the success of the compilation effort. For this reason, our project planning staff addresses these critical aspects of the project at its beginning, prior to aerial imagery collection. WGI re-visits this critical aspect of each project as an initial step in the compilation phase. These specifications are submitted to our clients for review, comment, and revision before starting compilation.

Quality Assurance of Data Compilation Activity

WGI has established multiple, in-process formal inspections and edits that are conducted throughout the data compilation production activity. The purpose of these quality checks is to validate and check that all activities are being conducted in compliance with project specifications and that the targeted horizontal and vertical accuracy standards are being met. WGI's surveyors and photogrammetrists perform in-process inspections and tests of compiled data to verify compliance with specifications in terms of element type, horizontal position, elevation, and content. Element ties to adjacent models are also checked, if applicable. All defects are noted in a Quality Control Log and immediate corrective actions are taken. We document the times and dates of these inspections along with the findings.

905-05 Aerial Photography and Videography Services, Including Drones WGI possesses significant experience in the collection of aerial imagery utilizing digital sensors for use in orthophotography, feature extraction, videography, elevation development, and a variety of other geospatial tasks. In addition to WGI's aircraft, our teammates provide our team with numerous aerial platforms including fixed wing, rotor wing, and multiple UAS platforms. These additional aircraft and sensor platforms, many based in the state of Texas, allow our team to support missions anywhere throughout the state. WGI's team can support UAS-based lidar, photogrammetry, inspection and videography hosted in web-based platforms for rapid response geospatial intelligence.

905-10 Aerial Surveys and Mapping Services

WGI has been providing mapping services throughout the United States since 2005. WGI currently has Federal IDIQ contracts for the USGS GPSC4 IDIQ Contract, a nationwide USACE St. Louis District IDIQ Contract, and a nationwide GSA Environmental Schedule. Through these contracts, WGI has significant and relevant experience performing projects throughout the United States. WGI has a proven history of successfully performing dozens of surveying, photogrammetry, GIS, and LiDAR projects for the GSA, USBR, USGS, FEMA, USACE, USFS, and other state and local agencies delivering similar products and services that would be developed under this contract.

In 2026, WGI will offer experience collecting and processing large lidar datasets directly to the standards established by the Texas Water Development Board (TWDB) as part of the Texas Geographic Information Office (TxGIO). This standard leverages many of the lidar specifications used by USGS, ASPRS and FGDC for Quality Level 2 lidar data with the exception of nominal pulse density where TWDB prefers 4pls/m2 and 0.5m pulse spacing. Adding to WGI's resume of statewide mapping program success, WGI is a significant contributor to the TxGIO elevation datahub providing topographic lidar, digital elevation models (DEMs), intensity imagery, hydrographic breaklines, and building footprints derived from lidar for a large portion of southeast Texas.

961-64 Satellite Global Positioning System Information Services (GPS), Including Surveying Services

WGI and its team partners have performed thousands of GPS surveys in support of imagery, photogrammetry, LiDAR, and UAS projects. We can choose the survey approach that best suits the project which may include static, rapid static or RTK GPS observations, or a combination thereof. We are not limited by equipment, or techniques. Our geodesists are well versed in rigorous 3D least squares adjustments so that the GPS observations fit within the confines of the control. We also understand the importance of sound survey knowledge, especially for the current airborne derived technologies.

Led by a team of experienced Texas Registered Professional Land Surveyors (RPLS) in WGI's four Texas offices, WGI provides a large team of experienced surveyors in providing control surveys and static GNSS observations for the purpose of controlling and assessing remote sensing data collected from aerial, terrestrial-mobile, UAS and static platforms.

920-33 Mapping and Geographical Information Systems (GIS) Services, Digitized, Cartography

WGI routinely provides map digitizing services to our clientele, utilizing a variety of methods. The most common method used today is heads-up digitizing from a referenced image base. This could be in the form of a digital 2D orthoimage or through 3D stereo image extraction methods. Accurate digitization of features from aerial imagery requires highly experienced photogrammetrists with photo interpretation skills. WGI's stereo compilers have proven resumes that demonstrate professional excellence in feature compilation. With years of hands-on experience, our team has demonstrated its ability to consistently meet client specifications and defined mapping standards on time.

WGI has developed a robust and highly automated process for deriving accurate 2D and 3D buildings from orthoimagery and lidar. Our large work force is focused primarily on quality control and edits of the automated workflow. We not only specialize in collection of remote sensing data, but the derivatives including hydro-flattened DEMs, DTMs, planimetric maps, canopy height models (CHMs), feature vectors and land cover/land use maps. Our teaming partner, Ecopia AI, is an industry leader in efficient and accurate extraction of land cover maps and building footprints from large format aerial imagery. WGI is an ESRI business partner and offers clients under this contract access to WGI DataView, a customized web-viewer of geospatial data and progress tracking which uses ArcGIS online.

920-30 Image Processing and Conversion Services

Almost all geospatial projects produced today require some form of image processing, manipulation, and interpretation. WGI and its team partners have extensive experience in providing image manipulation for orthophoto creations and extraction of theme data based on client demands. Each of these projects start with a unique requirement for image interpretation, whether it be as simple as extraction of interpreted planimetric data, or as unique as identifying hot spots with thermal imagery or distressed vegetation in color infrared and/or hyperspectral data.

Accurate extraction of natural and manmade features from aerial imagery requires highly skilled and experienced photogrammetrists with photo interpretation skills. WGI's compilers have proven resumes that demonstrate professional excellence in feature compilation. With years of hands-on experience, each of our technicians has demonstrated his or her ability to consistently meet client specifications and defined mapping standards. Without the experience and skills of our professional staff, we would not be able to consistently meet requirements and develop the reputation for client satisfaction and product excellence.

Section 6. How to Contact WGI

Company Contact Information

Principal in Charge
Stephen Clancy, PLS, PSM, GISP
VP, Geospatial
Stephen.Clancy@wginc.com
561.440.6317

Contract Manager
Mark Topping
Client Solutions Manager, Geospatial
Mark.Topping@wginc.com
256.616.6028