



PROFESSIONAL SERVICES AGREEMENT

This Professional Services Agreement ("Agreement") is made by and between The Schneider Corporation ("Professional"), an Indiana Corporation, and Vigo County, Indiana ("Client"), on May 12, 2004.

PROFESSIONAL

CLIENT

The Schneider Corporation
Historic Fort Harrison
8901 Otis Avenue
Indianapolis, Indiana 46216
317-826-7100

Vigo County Commissioners
121 Oak Street
Terre Haute, IN 47807
(812) 642-3367

Project Name: GIS Development & Implementation

Common Location: Terre Haute, IN

Sec/Twp/Rg: NA

County: Vigo

Client intends to contract for **GIS Professional Services ("Project")**:

AGREEMENT

For and in consideration of the mutual promises contained in this Agreement, Professional and Client agree as follows:

1. **Scope of Services.** Professional shall provide Client with services in connection with the Project as described in Scope of Services (Attachment A). Professional shall use the standard of care typically exercised in conducting professional practices outlined in the Scope of Services.
2. **Schedule of Services.** Professional shall start and complete work as set forth in the Scope of Services. Professional shall conduct the work in an expeditious manner subject to limitations such as weather, information acquisition, communications and other factors outside of Professional's control. Both parties recognize that the schedule of services is subject to factors that may be unknown at the time of this Agreement. If modifications, changes or adjustments of these terms and conditions become necessary, such modifications shall be made in accordance with paragraph No. 8 below.
3. **Authorizations to Proceed.** Unless specifically provided otherwise in the Scope of Services, Client shall give Professional authorizations to proceed for each phase of the Basic Services and for each Additional Service prior to Professional commencing work. Authorizations may be in writing, or may be verbal, with subsequent confirmation in writing.
4. **Client's Responsibilities:** Client shall do the following in a timely manner so as not to delay the services of Professional: (1) Designate in writing a person to act as Client's representative with respect to the services to be rendered under this Agreement. Such person shall have complete authority to transmit instructions and receive information with respect to Professional's services for the Project. Professional may rely fully on information and instructions provided by Client's representative. Hereinafter, all references in this Agreement to "Client" mean Client or Client's Representative. (2) Provide all criteria and full information as to Client's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility and expandability, and any budgetary limitations, and furnish copies of all data needed to create the Project. (3) Assist Professional by placing at Professional's disposal all available information pertinent to the Project including previous reports and any other data relative to design or construction of the Project; all of which the Professional may use and rely upon in performing the services under this Agreement. (4) Give prompt written notice to Professional whenever Client observes or otherwise becomes aware of any development that affects the scope or timing of Professional's services, or any defect or nonconformance in the work of any contractor.
5. **Payment for Services.** Client shall compensate Professional for services rendered according to Schedule of Fees (Attachment B). These rates are agreed to in anticipation of the orderly and continuous progress of the Project through completion, and are subject to escalation in accordance with Schedule of Fees.

6. **Payment Terms.** Client agrees to pay all fees within 60 days of the date of the invoice. Client agrees to pay for any costs of collection including, but not limited to lien costs, court costs or attorney's fees involved in or arising out of collecting any unpaid or past due balances.
7. **Invoicing.** Detailed billings will be provided on a monthly basis.
 - A. **Fixed Fee** - The invoices will be based on Professional's estimate of the proportion of time spent on each phase of the project at the time of billing relative to the total fee for those phases, plus actual reimbursable expenses.
 - B. **Time and Materials** - The invoices will be based on the applicable billing rate for actual hours expended during the billing period, plus reimbursable expenses as outlined in the Schedule of Fees.
8. **Modifications and Adjustments.** If specific periods of time for rendering services set forth in the Scope of Services are exceeded through no fault of Professional, or if Client has requested significant modifications or changes in the general scope, extent or character of the Project, all rates, measures and amounts of compensation, as well as the time of performance, shall be equitably adjusted. The Scope of Services related to the Project may be revised, or modified to include supplementary service for any reason, upon agreement of Professional and Client. Client may modify the scope, extent or character of the Project, necessitating modifications to the Scope of Services or Fee Schedules. In each case, the Scope of Services will be modified in a manner mutually acceptable to the Professional and the Client, and the Fee Schedule will be equitably adjusted to accommodate the changes. Any change to the Scope of Services or the Fee Schedule will be documented in a Contract Change Order, in the form attached hereto that will become a part of this Agreement. Should the Professional and Client be unable to agree on modifications to the Scope of Services and/or Fee Schedule, Professional shall have the right to terminate this Agreement as outlined in Paragraph No. 9.
9. **Term and Termination.** Professional's obligation to render services under this Agreement will extend for a period which may reasonably be required for the services to be provided, including extra work and required extensions. If Client fails to give prompt authorization to proceed with any phase of services after completion of the immediately preceding phase, or if Professional's services are delayed or suspended by Client for more than three months for reasons beyond Professional's control, Professional may, after giving thirty days written notice to Client, suspend or terminate services under this Agreement. If payment is not received within 45 days of the date of invoice, Professional reserves the right, after giving seven days notice to Client, to suspend services to the Client or to terminate this Agreement. Professional shall not be liable to Client or any third parties for any damages caused by the suspension or termination of work for non-payment. Should the Professional and Client be unable to agree on modifications to the Scope of Services and/or Fee Schedule as outlined in Paragraph No. 8, Professional shall have the right to terminate this Agreement upon thirty days written notice to Client. Client may terminate this Agreement for any reason or without cause upon thirty days written notice to Professional. If any work covered by this Agreement is suspended, terminated or abandoned, the Client shall compensate the Professional for services rendered to the date of written notification of such suspension, termination or abandonment.
10. **Limitation of Liability and Responsibilities.** The Client shall hold harmless and indemnify Professional from all loss, damage, costs and expenses which Professional may suffer or sustain which results from acts or omission or any contractor, subcontractor, supplier, or any of their agents, employees or any other persons (except Professional's own employees and agents) at the site or otherwise furnishing or performing any of the contractor's work. Nothing contained in this paragraph, however, shall be construed to release Professional from liability for failure to properly perform duties and responsibilities assumed by Professional under this Agreement.

- 11. Computer Files.** This paragraph sets forth the terms and conditions relating to the provision by Professional of any and all electronic media or computer readable information, including software, databases, and information compilations, and the raw data contained therein (hereafter "Computer Files") in connection with the above referenced Project. Geographic Data Layers converted from Client source documents are considered the property of the Client.
- A. Client acknowledges that the Computer Files are protected by trade secret, copyright, and other proprietary rights, and title and ownership of these rights and in the Computer Files remain in Professional. Professional licenses Client to use the Computer Files in the manner set forth for such Computer Files in the Scope of Services, but Professional reserves all rights not expressly granted. The Computer Files may not be used for purposes beyond those set forth in the Scope of Services, and Professional reserves the right to revoke the license if, in good faith, Professional deems that such use has or will occur. In the event Professional revokes the license, Professional will exercise good faith to negotiate a supplemental license provided Professional is satisfied that no originally prohibited use will occur.
 - B. To the extent the Computer Files include any trade secret or other confidential information of Client, Professional agrees to keep such information confidential. Professional is otherwise free to use the Computer Files and other related materials in other projects for Client or for third parties unless a restriction is set forth in the Scope of Services.
 - C. The Computer Files shall be used only by Client or those third parties expressly contemplated in the Scope of Services (Attachment A) and the license granted hereunder does not include the right to sublicense.
 - D. Except to the extent required by the use(s) expressly set forth in the contract, Client may not: alter, modify or adapt the Computer Files or any part thereof; translate, reverse engineer, de-compile, disassemble, or create derivative works of the Computer Files or any part thereof; or remove or modify any proprietary markings, certifications or restrictive legends physically or electronically placed on the Computer Files.
 - E. Professional warrants to Client that any provided Computer Files will substantially conform to any specification(s) in the Scope of Services (Attachment A) for one (1) year, but does not warrant that the use of any provided software will be uninterrupted or error free. Client's exclusive remedy for breach of this warranty will be to receive replacement of non-conforming Computer Files with conforming Computer Files. If Professional does not provide conforming Computer Files within 60 days after receiving written notice, Client shall be entitled to a refund of the fees paid to Professional in connection with this Agreement.
 - F. Professional shall have no liability or responsibility for problems with the Computer Files (specific to computer software developed by Professional) caused by misuse, improper installation, alteration or modification by Client, or for problems arising out of the malfunction of Client's equipment or other software not supplied by Professional. Client acknowledges that the Computer Files may include features limiting their operability beyond the scope of the license, and Professional shall be entitled to use self-help, including electronic means, to prevent use of the Computer Files beyond their licensed scope. Client acknowledges that, regardless of whether the Computer Files may be useful by Professional in performing other projects or services for Client or that such other potential uses are referenced in the Scope of Services, the right and ability to use the Computer Files in connection with additional projects or services for Client shall reside solely with Professional.
 - G. TO THE FULLEST EXTENT ALLOWED BY LAW, AND EXCEPT FOR THE WARRANTIES EXPRESSLY STATED HEREIN, THE COMPUTER FILES ARE PROVIDED "AS IS", AND PROFESSIONAL DISCLAIMS ALL OTHER WARRANTIES, TERMS OR CONDITIONS, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES, TERMS OR CONDITIONS REGARDING MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, AND SATISFACTORY QUALITY.
 - H. PROFESSIONAL SHALL NOT BE LIABLE TO CLIENT FOR ANY INCIDENTAL, SPECIAL, INDIRECT, CONSEQUENTIAL OR PUNITIVE DAMAGES OF ANY CHARACTER, INCLUDING WITHOUT LIMITATION, DAMAGES FOR: LOSS OF BUSINESS OR GOOD WILL, WORK STOPPAGE, LOSS OF INFORMATION OR DATA, LOSS OF REVENUE OR PROFIT, COMPUTER FAILURE, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE INSTALLATION, MAINTENANCE, USE, PERFORMANCE OR FAILURE OF THE COMPUTER FILES, REGARDLESS OF THE LEGAL THEORY ASSERTED, WHETHER

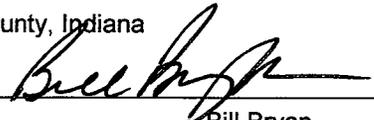
BASED ON BREACH OF CONTRACT, BREACH OF WARRANTY, TORT (INCLUDING NEGLIGENCE), PRODUCT LIABILITY, OR OTHERWISE, AND EVEN IF PROFESSIONAL HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES AND EVEN IF A REMEDY SET FORTH HEREIN IS FOUND TO HAVE FAILED OF ITS ESSENTIAL PURPOSE. PROFESSIONAL'S LIABILITY TO CLIENT, REGARDLESS OF THE LEGAL THEORY OF ANY CLAIM, SHALL NOT EXCEED THE FEES PAID TO PROFESSIONAL IN CONNECTION WITH THE CONTRACT.

12. **Assignment.** Neither Professional nor Client shall assign, sublet or transfer any rights under or interest in this Agreement without prior written consent of the other party. Any assignments shall be of all rights, obligations, interest and responsibilities hereunder. Nothing in this paragraph shall prevent Professional from employing independent professional associates and consultants to assist in the performance of the services hereunder.
13. **Rights and Benefits.** Nothing under this Agreement shall be construed to give any rights or benefits in this Agreement to anyone other than Client and Professional, and all duties and responsibilities pursuant to this Agreement will be for the sole and exclusive benefit of Client and Professional and not for the benefit of any other party. All reports, drawings, and any other documents, data or information prepared by Professional in conjunction with the services provided for under this Agreement shall remain the sole property of Professional.
14. **Successors.** This Agreement is binding on the partners, successors, executors, administrators and assigns of both parties.
15. **Applicable Law.** The terms and conditions of this Agreement are subject to the laws of the State of Indiana.
16. **Non-Appropriation.** The funds to pay for this project are subject to appropriation by the Vigo County Council and subject to review by the State Board of Accounts. In the event of failure to appropriate such funds, the contract shall become null and void, with payment made only for goods received and services provided prior to such written notice of failure provided to the Professional by the Client..

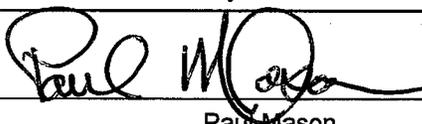
This Agreement, consisting of sixteen pages together with the Attachments identified above, constitute the entire Agreement between Client and Professional and supersede all prior written or oral understandings related thereto. IN WITNESS WHEREOF, the parties hereto have executed this Agreement, or caused this Agreement to be executed by their duly authorized official or agent.

CLIENT

Vigo County, Indiana

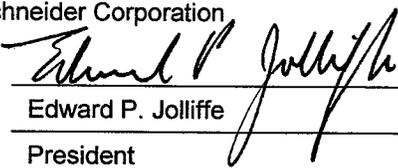
By: 
Print: Bill Bryan
Title: County Commissioner
Date: May 12th 2004

By: 
Print: Judy Anderson
Title: County Commissioner
Date: May 12th 2004

By: 
Print: Paul Mason
Title: County Commissioner
Date: May 12th 2004

PROFESSIONAL

The Schneider Corporation

By: 
Print: Edward P. Jolliffe
Title: President
Date: 5-13-04

**ATTACHMENT A
SCOPE OF SERVICES**

Name of Project: GIS Development & Implementation

Professional shall provide Client with professional and related services in connection with the Project as described below.

The intent of services provided under this contract is to assist Client with the development and implementation of the Client's GIS. This may include data conversion, technical support, programming, or consulting.

Deliverables

Professional will provide the following products and services toward the development and implementation of a Geographic Information System (GIS) for Vigo County, Indiana, with the eventual inclusion and integration of Vigo County, IN. Unless otherwise noted, all data layers will be digital, georeferenced to the State Plane NAD 83 coordinate system, units feet; and seamless within and between data layers for the entire project (subject to the availability and quality of the data sources provided to Professional by local project officials). Professional will use the digital and paper map and database sources identified below and provided by the local project officials at the time the project is started. Vector data layers will be delivered in Environmental Systems Research Institute, Inc. (ESRI) compatible format. In the following descriptions of data layers, 'attribute' refers to populating a map layer database with a map feature name or identification number. 'Label' and 'annotation' refers to creating and placing text description in the map view to provide visual information about map features; though some labeling may duplicate attribution, label text is not stored in the map layer database.

The project includes development and implementation of products and services that will service multiple jurisdictions. Appropriate agreements will need to be entered into between the jurisdictions to enable the GIS approach.

PHASE I – CADASTRAL DEVELOPMENT

Base Map Data Layers

1. United State Public Land Survey (USPLS)

- a. United State Public Land Survey (USPLS) section and survey polygon data layers, for up to 410 sections, covering the entire County.
- b. *These will be created using the Client's existing digital (or photo identifiable paper) section corner monument data provided to Professional at the beginning of the project. In absence of any section corner monument data, photo interpretation will be used, along with the principles of the original PLS.*
- c. The section polygon data layer will be attributed with section number.
- d. The quarter section data layer will be attributed with the section and quarter section attribute.
- e. The quarter-quarter section data layer will be attributed with the section and quarter-quarter section attribute.
- f. The survey township polygon data layer will be attributed with tier and range.

2. Political township polygon data layer

- a. County political township polygon data layer developed, for up to twelve political townships, covering Vigo County.
- b. These will be created from the digital USPLS data and existing county maps provided to Professional at the beginning of the project.
- c. County political township polygon data layer will be attributed with political township name, as identified on existing county maps provided to Professional at the beginning of the project.

3. Rights-of-Way polygon data layer

- a. Rights-of-Way polygon data layer developed from existing Client detailed rights-of-way documents, provided to Professional at the beginning of the project; and uniform width rights-of-way centered on road centerlines or USPLS section lines. Uniform width rights-of-way measurements (66 feet or otherwise) will be determined and identified by the Client for

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Professional prior to the beginning of the project. No attribution or labeling will be completed for the rights-of-way polygon data layer.

- b. *These will only be created inside the political townships listed above and created directly from the road centerlines file provided by the Client for Professional prior to the beginning of the project or the spatially adjusted location.*

4. Cadastral data layers

- a. Lot polygon data layer
 - i. Lot polygon data layer from existing tax maps, plats, surveys, and digital tax/real estate/CAMA records identified by the Client and provided to Professional at the beginning of the project.
 - ii. Lots will be attributed with Lot Number, as identified on existing tax maps, if available.
 - iii. Lots will be labeled using auto-labeling routines in the GIS software, which allow for multi-scale viewing and no label maintenance requirements. The labels will consist of the lot number (if available), as identified in the attribute database. Because of space constraints, some labels may not fit completely within their feature boundaries
 - iv. Lots will be manually labeled with lot dimensions, as identified on the existing tax maps. Lot dimensions will be static labels that will require maintenance, and will be placed at a fixed scale.
- b. Parcel polygon data layer
 - i. Parcel polygon data layer, for up to 31,500 point and polygon parcels, from existing tax maps, plats, surveys, and digital tax/real estate/CAMA records identified by the Client and provided to Professional at the beginning of the project. Parcels in excess of 31,500 will be billed at \$14.00 per parcel.
 - ii. Parcels will be attributed with Parcel Number, as identified on existing tax maps or tax/real estate/CAMA databases.
 - iii. Parcels will be labeled using auto-labeling routines in the GIS software, which allow for multi-scale viewing and no label maintenance requirements. The labels will consist of the parcel number, as identified in the attribute database. Because of space constraints, some labels may not fit completely within their feature boundaries
 - iv. Parcels will be manually labeled with parcel dimensions, as identified on the existing tax maps. Parcel dimensions will be static labels that will require maintenance, and will be placed at a fixed scale.
- c. Parcel point data layer (used for non-area parcel features)
 - i. Parcel point data layer, for up to 31,500 point and polygon parcels, from existing tax maps, plats, surveys, and digital tax/real estate/CAMA records identified by the Client and provided to Professional at the beginning of the project. Points are used to represent features in the parcel database that have a limited area description or are not correctly represented as polygons, such as buildings on leased land, mobile homes, billboards, and equipment.
 - ii. Parcel points will be attributed with Parcel Number, as identified on existing tax maps or tax/real estate/CAMA databases.
 - iii. Parcel points will be labeled using auto-labeling routines in the GIS software, which allow for multi-scale viewing and no label maintenance requirements. The labels will consist of the parcel number, as identified in the attribute database. Because of space constraints, some labels may not fit completely within their feature boundaries
- d. Block polygon data layer
 - i. Block polygon data layer, from existing tax maps, plats, surveys, and digital tax/real estate/CAMA records identified by the Client and provided to Professional at the beginning of the project.
 - ii. Blocks will be attributed with Block Number (if available), as identified on existing tax maps or tax/real estate/CAMA databases.

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- iii. Blocks will be labeled using auto-labeling routines in the GIS software, which allow for multi-scale viewing and no label maintenance requirements. The labels will consist of the block number (if available), as identified in the attribute database. Because of space constraints, some labels may not fit completely within their feature boundaries
- iv. Blocks will be manually labeled with block dimensions, as identified on the existing tax maps. Block dimensions will be static labels that will require maintenance, and will be placed at a fixed scale.
- e. Subdivision polygon data layer
 - i. Subdivision polygon data layer, from existing tax maps, plats, surveys, and digital tax/real estate/CAMA records identified by the Client and provided to Professional at the beginning of the project.
 - ii. Subdivisions will be attributed with Subdivision Name, as identified on existing tax maps or tax/real estate/CAMA databases.
 - iii. Subdivisions will be labeled using auto-labeling routines in the GIS software, which allow for multi-scale viewing and no label maintenance requirements. The labels will consist of the subdivision name, as identified in the attribute database. Because of space constraints, some labels may not fit completely within their feature boundaries
 - iv. Subdivisions will be manually labeled with subdivision dimensions, as identified on the existing tax maps. Subdivision dimensions will be static labels that will require maintenance, and will be placed at a fixed scale.
- 5. Land Use polygon data layer for assessment purposes**
 - a. Land Use polygon data layer developed from photo interpretation and records supplied to Professional at the beginning of the project.
 - b. Land Use polygons will be attributed with Land Use code, as identified by the county.
- 6. Zoning polygon data layer**
 - a. Zoning polygon data layer developed from existing zoning map provided to Professional at the beginning of the project.
 - b. The zoning data layer will be attributed with zoning code, as identified on the source maps provided.
- 7. Flood zone polygon data layer**
 - a. Flood zone polygon data layer, converted from FIRM maps provided to Professional at the beginning of the project. If needed, Professional may acquire the most up to date FIRM maps from FEMA.
 - b. Flood zone polygon features will be attributed with source used.
- 8. Soils polygon data layer**
 - a. Soils polygon data layer from NRCS digital sources will be incorporated and modified into the GIS.
- 9. Bridge data layer**
 - a. Bridge data layer developed from existing database or map records provided to Professional at the beginning of the project.
 - b. The bridge data layer will be attributed with bridge ID number, as identified in the database provided, to enable a link to the bridge data collected by the County.
- 10. Road Centerline line data layer enhancement/development [Option - \$14,700 (included in total costs)]**
 - i. *This task would not proceed without authorization from the Client.*
 - ii. *Professional assumes that the current road centerline data the Client has is accurately placed and populated correctly.*
 - iii. *This task is added if the road centerlines have to be modified or the attributes enhanced.*
 - iv. Road centerline line data layer for up to 600 linear miles of roads, aligned to the approximate visible center of the roadbed as apparent on digital orthophotography and the most up to date county road map provided to Professional at the beginning of the project. Roads in excess of 600 linear miles will be billed at \$14.00 per mile.

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- v. Roads will be created as segments, with nodes at each intersection to allow for eventual address range assignment.
- vi. Roads will be attributed with road name, type, prefix, and suffix; as identified on the most up to date county road map provided to Professional at the beginning of the project.
- vii. Roads will be attributed with address ranges, as defined by the source map(s) provided to Professional by the Client at the beginning of the project. This normally includes RightFrom, RightTo, LeftFrom, LeftTo, and some definition of zone. NOTE: No field verification will be completed for this task.
- viii. Roads will be labeled using auto-labeling routines in the GIS software, which allow for multi-scale viewing and no label maintenance requirements. The labels will consist of the street name, as identified in the attribute database.
- ix. Professional will compare the final road centerline line data layer attribute table with the Master Street Address Guide (MSAG), provided to Professional at the beginning of the project, and developed a consistency report for the Client's review. Any changes that are the result of discrepancies between the data sources provided by the Client will be the Client's responsibility to correct.

Existing Digital Data Incorporation

1. Road Centerlines line data layer

- a. The centerline data provided to Professional by the Client and is assumed to not be constructed with regards to directionality.
- b. *The centerline file is assumed to be in an ESRI format.*
- c. *Professional assumes the file will contain the road name and be address ranged appropriately to a 98% or higher accuracy rate. No attribute modifications to the data are included in this contract.*
- d. *The files are assumed to be in NAD83, State Plan coordinate system, with the units of feet.*
- e. If any of the above criteria is not meet Professional may have to spatially adjust the centerlines and / or modify the attribution to the correct values at an additional cost. This may be reimbursable through the wireless board.

Software

(All copies will be current shipping versions, for the Windows NT SP6a, 2000 or XP Professional operating system)

- a. Three copies of Professional's remote access software
- b. One copy of ArcSDE Server, single server license (provided through cooperative agreement with ERSI St. Louis). This application would be supported from the County's current Relational Database Management System (RDBMS) (SQL Server, Oracle). The RDBMS is not included in the pricing.
- c. Three copies of ArcEditor GIS 8.x, floating seat license.
- d. One copy advanced parcel maintenance customizations to aid in the maintenance of digital cadastral data.
- e. One copy of Professional's AG Overlay 8.x, single seat license
- f. One copy of Professional's Ditch Overlay 8.x, single seat license
- g. Other than the data editor, most users will find the functionality of an integrated ArcIMS web site will serve their needs and lowers the per seat costs for software licensing. There is no maximum limit on the number of users under this implementation.

Training

- a. One, 2 day "Introduction to ArcSDE" class for up to 5 people at Professional's office at Historic Fort Harrison.

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- b. One, 2 day "Introduction to ArcGIS I" class for up to 12 people at Professional's office at Historic Fort Harrison.
- c. One, 2 day on site customized training sessions for up to 12 people each.

Project Services

1. **Project and system design** including:
 - a. Development of a database design schema
 - b. Development of a procedures manual
 - c. Project file setup
 - d. On site setup and installation
2. **Project management**
 - a. The setup and configuration of a Project desktop web site, which enables Client access to up to date project records, improved communication tools, and ongoing project status reports.
 - b. Daily project administration, with an established Client reporting schedule.
3. **Quality Assurance management**, including customization of procedures to best fit the Client's needs, tax roll reconciliation, and process review.
4. **Development of an ArcIMS web site** for public and/or password protected access. This web site will initially include the data prepared in this phase, but will eventually incorporate additional data layers as they become available. Professional will host this web site through the end of this phase of the project at no charge; or through the end of all phases that are initially authorized at the same time.
5. **Development of an interactive connection, using the parcel identification number, between the GIS parcel data layer and the CAMA database files** to produce point and click access of the CAMA data within the GIS environment. Professional will host password protected web services to allow Client staff access to the parcel reports, starting from the time a successful link to parcel tax administration software is established until the last day of the month in which all of the GIS data are installed on site. Certain hardware and software configurations may affect update frequency, and may require additional third party software (not included in the project cost). The update feature requires a dedicated internet access with a minimum speed of 128K.
6. **Consulting**
 - a. Assistance with communication with other organizations, including:
 - i. Drafting of data requests from other organizations.
 - ii. Drafting of job descriptions for GIS related positions for the Client.
 - iii. Communication of project and product standards with other organizations on the Client's behalf.
 - iv. Provide hardware specifications and recommendations.
7. **Metadata** files for each layer create or converted by Professional for this project.
8. **Schedule**
 - a. The overall project will be approximately **twelve (12) months** in length after the project kick-off meeting.
 - i. The pilot area is anticipated to be completed by **December 31, 2004**.

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Phase II: Digital Orthophotography

Project Management

Professional will manage the digital orthophotography and planimetric conversion project for the Client. This phase includes the following tasks:

- Assuming the role of technical point of contact.
- Receive, review, and help with acceptance of all products under contract.
 - Client will be expected to participate in making all significant decisions regarding this phase.
- Quality control of deliverable products. Professional will sample all tiles to insure that image quality issues are within contract.

The following specific items will be addressed.

Flight Mission

Professional will coordinate with the Client to assure that flight parameters are adhered to, including film type, camera type, photo scale, direction of flight, flight line design, and weather conditions.

Image Quality:

- Review all contact prints to identify obvious errors. Match prints with flight line drawing.
- Foreign particles (dirt / scratches) - Foreign particles will occur but the photos need to be checked to see if they are within tolerance. Scratches would be a result of improper handling of the film and/or negatives and these may need to be rejected.
- Endlap, overlap, sidelap – Check that appropriate laps exist on the contact prints.
- Shadows (clouds) – Checking for clouds in the photography. Also checking adjacent photos to ensure they were flown at the same time of day by comparing shadows.
- Labeling – Check that prints have the appropriate labels and fiducial markings.
- Warp / Distortion – Looking for smeared or stretched areas.
- Naturally occurring anomalies (spectral reflectance) – Ensuring that areas such as ponds are adjusted for sunlight reflecting from the surface.
- Contrast/brightness - Check the ortho against the contact print to verify that a limited amount of analog dodging was performed. Dodging is the manipulation of the intensity of part of a photograph by selective shading or masking.
- Tone or color differences - Check the tones of the mosaic like images to look for inadvertent tonal changes.
- Missing data (gaps) - This is a result of operator error and is not acceptable. They appear as black or white areas.
- Displacement of vertical structures – Check buildings at orthophoto edge lines.
- Image mosaicing strategy - Check to see the quality of the orthophoto edge lines. Were the brightness values of the adjoining cells adjusted to match? Is there a hard line? Do the tones match across the lines?

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Planimetric Features:

Professional will accept delivery of the planimetric features covering Vigo County, Indiana on CD-ROM in Windows format. The files will be delivered in ArcGIS.

- Consistency in data content and adherence to database schema centerlines, alleys, hydrography (creeks, ditches, lakes, ponds), and railroad centerlines.
- Continuity of data collection effort to support generation of GIS datasets. Linear datasets will be checked for correct segmentation, connectivity, and line quality. Polygonal datasets will be built to check polygon closure.
- Adherence of data sets to the following Quality Control elements: Edge matching, Common Boundaries, Point Duplication, Connectivity, Line Quality, Segmentation, Polygon Closure, Line Criteria, and Topology.
- Professional will verify that the contour information adheres to the contract specifications on issues such as but not limited to the tree canopy and ground cover (all points used for photo control should be completely visible); continuity of planimetric features; adequate density of spot elevations; proper delineation of depression areas; and the location, size and placement of contour elevations.
- Professional will develop an automated routine to compare sampled GPS collected check points (containing X, Y, and Z coordinates) to the contour data layer.
- Professional will prepare a statistical analysis of the conformity of a number of points throughout the County to 'National Map Accuracy Standards.' These points will be collected by Professional and will be generated utilizing GPS surveying methods. The points collected will contain X, Y, and Z coordinates and is intended to verify the accuracy and quality of the contour information and its conformity to the contract specifications. Professional will review the statistical analysis with the Client and make recommended changes to the contour provider or request additional coordinates from the field.

Errors or anomalies on photos and in planimetric features and contours will be marked in an ArcGIS project file that contains the photo index. These marks will contain descriptions of the identified problems. This project file will be submitted to the Client for discussion to determine the extent of correction needed. Professional will then manage the revision process which will include reviewing products that are edited until they are acceptable.

Color Digital Orthophotography and LiDAR data Collection

Specifications:

New color photography shall be taken this spring, while deciduous trees are barren, snow, dust or fog does not cover the ground; when streams are within their normal banks and on a clear day free of clouds and haze. The sun angle is not less than 30 degrees above the horizon.

Each negative shall have 8 fiducial marks, date, time of day, and exposure number. Photos shall have at least a 60% endlap and 30% sidelap.

Color Airborne GPS Aerial Photography countywide covering 410 square miles. Urban area covering 110 square miles with a rural area of 300 square miles. Limited planimetrics will include road centerlines, alleys, hydrography (creeks, ditches, lakes, ponds), and railroad centerlines.

LiDAR acquisition for 410 square mile area suitable for 2' contour generation. Contours would require additional ground control for the digital orthophoto production and limited planimetrics. 2' contours would then be produced for the countywide area (410 square miles).

ATTACHMENT A SCOPE OF SERVICES

Name of Project: GIS Development & Implementation

Products:

Aerial Photography:

- 1"=800' negative scale (suitable for 1"=100' scale mapping) countywide.
- Ground control location map (ArcGIS).
- Flightline and photo center map (ArcGIS).

Scanning, Triangulation and Orthophoto production:

- Orthophotos (TIFF and TFW) of 0.5 foot pixels countywide.
- 2 sets of orthos on CD-ROMs
- 1 MrSID of the entire County

Planimetrics: (ArcMap)

- Road centerlines
- Alleys
- Hydrography (creeks, ditches, lakes, ponds)
- Railroad centerlines

Contours: (ArcMap)

- *2 foot contours (LIDAR), including 10' index lines, and depressed lines.
- Spot elevations

Ground Control:

Targets will be photo identifiable points located to support the aerial mission. Some of these targets can be used as part of the aerial control network and others for future QA/QC. Coordinates shall be Indiana State Plane feet (Horizontal NAD83 and Vertical NAVD88).

Scanning:

Scanning may be from negatives or diapositives, at a resolution to provide the pixel detail requested (no half-stepping). Triangulation shall be sufficient to produce the orthophoto and planimetric deliverables specified. Orthos shall be tone balanced, feathered and edge matched. Bridges and overpasses shall not be warped or smeared.

Deliverables:

- 1) Flight plan map (on a quadrangle or similar basemap).
- 2) Ground control map (ArcGIS).
- 3) Digital map (ArcGIS) of flightlines and photo centers.
- 4) Photo negatives (stored until requested by the Client).
- 5) DEM / DTM. (breaklines)
- 6) TIFF orthophotos (2 sets on CD-ROM) with a final mosaic of the entire county that is uniform in contrast and shade.
- 7) One MrSID file countywide.
- 8) Planimetric features (ArcGIS)
- 9) Contours (ArcGIS)

**ATTACHMENT A
SCOPE OF SERVICES**

Name of Project: GIS Development & Implementation

Deliverables are subject to the following restrictions, cautions and disclaimers:

- a. Map features in a Geographic Information System (GIS), including but not limited to public land reference system corners and markers, ownership boundaries, road centerlines and rights-of-way, utility lines and controls, engineering structures, natural resources, and other jurisdictional boundaries are representations of original data sources for purposes of data access and analysis.
- b. Digital data in a GIS do not replace or modify site surveys, deeds and other conveyances, original and as built engineering plans, and other original drawings and/or legal documents that establish land ownership, land use, or on-site structure location.
- c. Unless specifically specified in the scope, No field surveys or records research are undertaken to discover what variations, if any, derived land reference system boundaries deviate from monumented corners of record. Because Professional has no legal authority to determine or assign land title, any derived land reference system boundaries should not be construed as legal documents or evidences of land subdivision.
- d. Professional will collaborate with local project officials to procure relevant maps, database files, and other documents needed to deliver the proposed products and services, but will not perform research to locate archived records unless specified as a delivered product or service in Scope of Work.
- e. Apparent errors and omissions in data coverages that preclude performance by Professional of the products or services specified in Scope of Work will be reported to the appropriate local project individuals; these reports should not be construed as necessarily being comprehensive or exhaustive. Professional will apply procedures to minimize data errors and discrepancies during the data creation and conversion processes; however final data verification will be the responsibility of CLIENT.

Client shall provide to Professional the following:

To ensure that the products and services are provided in an accurate, timely, and comprehensive manner, the Client is expected to provide to the Professional at no cost:

- Originals or high quality copies of available maps, documents, and database files as needed by the Professional in order to prepare the digital data sets or other services specified.
- Staff time as necessary to locate, collect, and organize source documents; review digital data products for accuracy and completeness; and respond to the Professional's requests for data and system information.
- Office space, equipment, and supplies as necessary to locate, collect, and organize source documents; review digital data products for accuracy and completeness; conduct interviews and project meetings; and respond to the Professional's requests for data and system information.
- Any other materials or services judged by mutual agreement to be appropriate for the GIS project.

**ATTACHMENT B
FEE SCHEDULE
Name of Project: GIS Development & Implementation**

Client shall compensate Professional for services rendered in accordance with the following:

Fixed Fee - Client shall receive monthly invoices reflecting the prior month's services, based upon a percentage of completion of the project. Percentage of completion will be estimated by Professional, and regularly communicated with the Client.

- Phase I – Cadastral Development: \$547,589.00
- Phase II - Digital Orthophotography: \$344,089.00

Other Fixed Fee phases of this project may be developed during the course of this agreement. Once the estimates are accepted, an Authorization to Proceed will have to be signed and submitted before work will begin.

Hourly Services - Client shall receive monthly invoices reflecting the prior month's Hourly services.

Hourly Fee Schedule

JOB TITLE	REGULAR HOURLY RATE
GIS DIRECTOR	\$126.00
GIS SENIOR PROJECT MANAGER	\$150.00
GIS PROJECT, PRODUCTION MANAGER	\$125.00
GIS SENIOR PROGRAMMER	\$175.00
GIS PROGRAMMER	\$125.00
GIS SENIOR SPECIALIST	\$175.00
GIS SPECIALIST	\$125.00
GIS SENIOR TECHNICIAN	\$70.00
GIS TECHNICIAN	\$60.00
ADMINISTRATION	\$50.00

Hourly Services Expenses:

Travel time for onsite visits will billed at \$45.00 per hour.

Mileage will be billed at 38 cents per mile.

Certified mailings or Shipping	at cost
Other out-of-pocket expenses	cost plus 10%

All hourly services phase fees remaining under this contract are subject to an increase at the discretion of Professional. The Client will be notified in writing of any changes in fees prior to the fees going into effect.

AUTHORIZATION TO PROCEED
Name of Project: GIS Development & Implementation

In accordance with Paragraph 3 of the Professional Services Agreement between Vigo County, Indiana ("CLIENT") and Professional ("Professional"), dated **May 12, 2004**, Professional is hereby authorized to proceed on the following phases of the project:

- Phase I – Cadastral Development: \$547,589.00
- Phase II - Digital Orthophotography: \$344,089.00
- Hourly services (provided on demand and invoiced monthly according to Attachment B).

Subject to funding approval by the Vigo County, Indiana County Council as defined in section 16 of the contract.

CLIENT

Vigo County, Indiana

By:



Print:

Bill Bryan

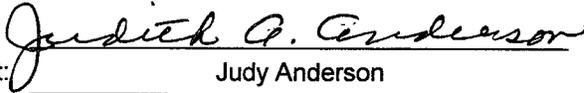
Title:

County Commissioner

Date:

May 12th 2004

By:



Print:

Judy Anderson

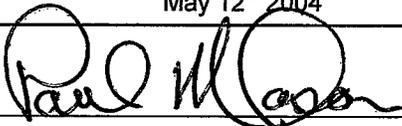
Title:

County Commissioner

Date:

May 12th 2004

By:



Print:

Paul Mason

Title:

County Commissioner

Date:

May 12th 2004

DESIGNATION OF CLIENT'S REPRESENTATIVE
Name of Project: GIS Development & Implementation

In accordance with Paragraph 4(1) of the Professional Services Agreement between Vigo County, Indiana ("CLIENT") and The Schneider Corporation ("Professional"), dated **May 12, 2004**, Client hereby designates Deborah J Lewis to act as Client's representative with respect to the services to be rendered under this Agreement. This designee shall have complete authority to transmit instructions and receive information with respect to Professional's services for the Project unless or except as outlined below.

No Exceptions

Exceptions (list below)

CLIENT

Vigo County, Indiana

By:



Print:

Bill Bryan

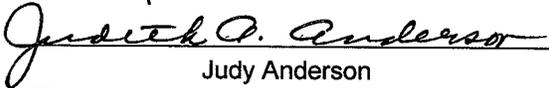
Title:

Vigo County Commissioner

Date:

May 12th 2004

By:



Print:

Judy Anderson

Title:

Vigo County Commissioner

Date:

May 12th 2004

By:



Print:

Paul Mason

Title:

Vigo County Commissioner

Date:

May 12th 2004