

# PROVEST & Associates



# **Tooele County, UT**

Parcel Fabric Migration - Enterprise Deployment

Submitted by:

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## **Project Description**

Tooele County wishes to migrate their current parcel geodatabase to the latest ArcGIS Pro parcel fabric platform to take advantage of the latest technology and benefits such as efficient editing and automated parcel history preservation.



## **Project Details**

Project communication, known project challenges and recommendations are detailed in the following sections.

#### Communication

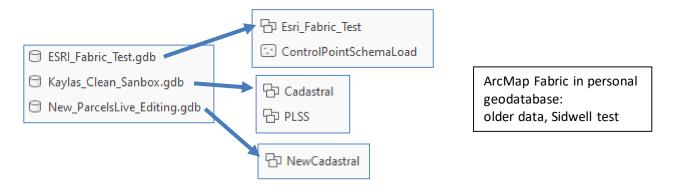
- 1. Kick-off call
  - a. Introductions
  - b. Review project contract and scope of work
  - c. Review source data
- 2. Data matrix consultation call
  - a. 6-8 hours
  - b. Discuss matrix and clarifying questions
- 3. Migration Logistics
  - a. Ensure final sign-off on matrix
  - b. Discuss schedule for data migration
- Deployment assistance
- 5. Training
  - a. Discuss training schedule
  - b. Discuss training environment





#### **Data Sources**

The migration requires the most current set of County data. The County previously provided data for review from which a Parcel Fabric migration can be completed. These sources need to be reviewed and discussed prior to commencing the project to ensure the best sources for each type of data is used.



Data previously received is shown above. Not every feature class shown is a likely candidate for a parcel fabric, but those listed below would be migrated into the ArcGIS Pro parcel fabric.

- PLSS features (from Kayla's Clean Sandbox : PLSS)
  - Tooele County Section Point (only a few)
  - o PLSS Point
  - o PLSS Township Poly
  - o PLSS Section Poly
  - PLSS Quarter Section Poly
  - PLSS Quarter-Quarter Section Poly
- PLSS features (from ESRI Fabric Test
  - o Control: Active from the County; others from GCDB or State
- Parcel features (combination of sources)
  - o Parcels: from ESRI Fabric Test (DorAnn's work)
  - Linework for Parcels and Cadastral features from Live Editing geodatabase)

Data received was in a State Plane coordinate system which is recognized by Esri software so migration will not require any projection or transformation. Current coordinate system is **NAD 1983 State Plane Utah Central FIPS 4302 (US Feet).** 

Additional features will be discussed for their optimal use and final location, such as annotation and cartographic elements.

#### Data Consultation

Every parcel fabric project begins with a consultation and thorough analysis of the County's current data for the creation of a Data Matrix document from which the final schema can be created. County staff and Pro-West will discuss the current state of the data and what is needed. This will ensure that the County and Pro-West have documented all current and final data schema needs thus avoiding disruption during the data migration process.





Sample Data Matrix

The matrix is a document in which all current data will be noted, details defined, and process needs described. For a parcel fabric migration, there are County business needs to consider, default schema attributes in the new parcel fabric to bear in mind, as well as possible enhancements that could make parcel management more efficient.

The matrix document serves as a historical account of the data that was migrated, where it migrated to and how it was accomplished.

Upon final agreement of the schema for the final parcel fabric, Pro-West will then develop a geodatabase in which the Parcel Fabric data will be migrated.

#### Recommended Enhancements to the Parcel Fabric

It is common that small changes to the existing geodatabase are necessary to ensure the new ArcGIS Pro Parcel Fabric fulfills all the needs of the editors and end users. Enhancements to the standard structure would serve the purpose of accommodating the County's business processes and maximizing editing efficiency.

These enhancements can include:

- Attribute field changes the most common enhancement during a data migration is the deletion of excess fields in the current data and the addition of new fields the County requires.
- Domain additions all currently used domains will migrate with the rest of the parcel data. However, there are opportunities for the addition of new domains in the ArcGIS Pro schema.
- Annotation changes the ArcMap annotation will be migrated to ArcGIS Pro annotation. As ArcGIS Pro annotation, it is no longer visible or editable in the ArcMap environment.
- Attribute Rule additions there are often attributes that can be auto-populated or autocalculated by the addition of an attribute rule to the schema.



## Plan for Incorporating Boundary Changes

The County will stop parcel editing from the time the data is sent to Pro-West until the time the data is returned to the County. Any updates that come in during that time will need to be held until the training, during which they can be used for both training and real-time updates.

## **Project Methodology**

## Parcel Fabric Migration

The Parcel Fabric migration is a multi-step process including data review, loading the data into the Parcel Fabric schema developed in previous steps, and post-processing steps to ensure the final geodatabase is optimized for editing and production.

#### Parcel Fabric Features to Migrate

Pro-West plans to migrate the following features to the parcel fabric in the ArcGIS Pro platform assuming the following statements are true . . .

- 1. The data already exists at the County (Pro-West will not be developing data).
- 2. The data is all in the same coordinate system as listed previously (only 1 coordinate system can be had in the parcel fabric).
  - PLSS features (from Kayla's Clean Sandbox : PLSS)
    - Tooele County Section Point (only a few)
    - PLSS Point
    - PLSS Township Poly
    - PLSS Section Poly
    - PLSS Quarter Section Poly
    - PLSS Quarter-Quarter Section Poly
  - PLSS features (from ESRI Fabric Test
    - o Control: Active from the County; others from GCDB or State
  - Parcel features (combination of sources)
    - o Parcels: from ESRI Fabric Test (DorAnn's work)
    - Linework for Parcels and Cadastral features from Live Editing geodatabase)

## Loading Data to the ArcGIS Pro Platform

#### Parcel Fabric Data

Parcel data to be migrated into the parcel fabric will be used to assist in the creation of the schema for the new geodatabase. The attribute fields with their details will all be migrated to the schema to assure all the incoming data will recognize the attribute fields immediately. Additionally, the same thing will be done with the County created domains so that they are applied immediately upon data migration.

The migration will use geoprocessing steps to append the data from the County's data to the new ArcGIS Pro platform. Several steps ensure that the data is migrated, the topology is enabled, Editor Tracking is enabled and that fabric topology in engaged.



Once the data completes the initial geoprocessing steps, Pro-West will then apply any additional steps that have been discussed with the County, such as attribute field deletion, applying new domains, or any other options. Several post-processing and quality control tools are also used to evaluate and report the success of the migration.

#### **Annotation**

All annotation will be migrated separately from the parcel fabric data as it takes a different geoprocessing path. Stand-alone annotation will be migrated and placed in the same dataset in which the parcel fabric resides. No feature-linked annotation will be created, nor related.

Any annotation that is being migrated as a part of the ArcGIS Pro process will have to be converted to ArcGIS Pro Annotation. As such, the annotation will not be able to be viewed via ArcGIS <u>ArcMap</u> Desktop application. Any map services that use annotation must be converted to use Pro.

#### Data Review

There are no additional data requirements needed prior to the migration. To be clear, this means data will be migrated exactly as it is — no data cleanup is required prior to migration. Thus, any misalignments or errors will be migrated into the parcel fabric. There are tools in the Parcel Fabric in ArcGIS Pro to assist with data cleanup once migrated and maintenance is in ArcGIS Pro.

#### Post-Migration Data Review

Pro-West proposes conducting the following tasks *after* the data has been migrated to the ArcGIS Pro Parcel Fabric. The following tasks will be discussed in detail with the County.

Task	Notes
Topology	Utilizing the default topology rules set forth by Esri for an ArcGIS Pro parcel
checks	fabric, Pro-West will run the Validate Topology tool on the countywide set of
	data and report the findings to the County.
	Pro-West will work with the County during training to highlight
	why these errors were found
	what can be done to resolve them
	NOTE: Pro-West will not be responsible for resolving topology errors found.
Attribute	ArcGIS Pro Parcel Fabric can accept missing attribute information, but mis-
review	formatted information may not migrate properly. Pro-West will advise the
	County regarding features that would be affected so County staff can work to
	correct those items before and after the migration.
	NOTE: Pro-West will not be responsible for resolving mis-formatted data.

## **Quality Control**

Quality control is essential to Pro-West's procedures to ensure data integrity and to limit data entry errors. Some of the procedures to be utilized include the following:

 Geodatabase features such as domains are used to control how data entry may occur utilizing "drop-down" lists that create a controlled environment for data entry, thus eliminating



typographical errors and inconsistency. The Parcel Fabric utilizes domains in its features to add additional information and clarity to the data therein.

- Geodatabase topology will also be utilized as a quality assessment tool in the Parcel Fabric since it
  validates spatial rules set forth between and among certain classes of features.
- In addition, Pro-West incorporates additional assessment measures to ensure a quality final product. These tools involve automated and manual analysis, both tabular and visual.
- Finally, the Parcel Fabric in ArcGIS Pro involves newer quality assurance standards and technology such as Attribute and Parcel Rules.
  - o Quality Ribbon tools to check for gaps, overlaps, and short segments.

The final geodatabase will be subject to review by County staff to verify that the data was migrated successfully. The geodatabase will be supplied to the County via a file geodatabase for review.

#### Deployment

Once the data has been migrated and initially reviewed by County staff as a file geodatabase, the County can deploy the data into the Enterprise environment. Pro-West will be available for assistance, if needed.

As has been discussed with the County in previous communication:

- 1. The County will be using an enterprise deployment option which means . . .
  - The data will reside in an enterprise geodatabase
  - The geodatabase WILL need a published feature service from which to edit
- 2. The following minimum hardware & software requirements must be in place prior to project delivery:
  - ArcGIS Server and Portal installed and configured
    - Licensed at 10.9.1 or higher
    - Portal needs to be federated with ArcGIS Server
  - Enterprise Geodatabase needs to be 10.9.1 or in sync with the Server and desktop software
  - SQL Server 2016 or higher
  - SQL Server account with access to the enterprise geodatabase
  - List of all portal accounts that need to have fabric editing ability
    - Each of your editors needs to be assigned a creator user type within the portal software
  - Parcel Fabric add on user type needs to be assigned to each portal account that requires
    parcel fabric editing ability
  - ArcGIS Pro software must be installed
    - Standard or Advanced licensing
    - Version 2.9.x or higher (specific versions to be reviewed and determined)

NOTE: Enterprise and ArcGIS Pro sync up at specific versions. Please keep these versions in mind.



ArcGIS Enterprise release	ArcGIS Pro releases	Parcel fabric version
10.7.1	2.4 (deprecated)	1 (deprecated)
10.8	2.5	2
10.8.1	2.6	3
10.9	2.7, 2.8	4
10.9.1	2.9, 3.0, 3.1	5
11.0	3.0, 3.1	5
11.1	3.1	5

#### P Note:

The required ArcGIS Pro release, the parcel fabric version, and the ArcGIS Enterprise release numbers must match the numbers in the table above.



#### Nightly Publishing Script

To enable data in the parcel fabric to be used in other applications (ArcMap) or environments, the parcel features need to be published from the parcel fabric into simple feature classes.

Pro-West has developed an ETL tool that is a Python publication script and defines which features to publish from the parcel fabric and where to put them. This script automates the publishing of the most current data from the parcel fabric to other feature classes that can then be accessed by desktop and web applications without accessing the same data that is being edited.

The automated export will be performed nightly, exporting parcel data from the Parcel Fabric. The nightly process will be triggered from the Windows Scheduled Tasks control panel and will provide basic logging and email notification of the script's actions and ultimate success or failure status.

#### What is needed

- Supply list of all feature classes to be published and provide location to be published to (including names
  of feature classes)
  - Provide Pro-West an Enterprise/SDE connection file(s) (if different enterprise geodatabases between the source feature classes and the target feature classes)
    - User needs to be able to add features to the target feature class
- Provide Pro-West the SMTP Address used at the city (used for the automated email notification portion).
- Provide Pro-West a list of users that need to receive the email on whether the task succeeded or failed.
- Provide Pro-West access to a machine that has either ArcGIS Server or ArcGIS Pro.
- Provide Pro-West a time that the task should run on a nightly basis.

#### Deliverables

Pro-West will setup and Install the Parcel Fabric Publishing script on the server.

Pro-West will host a call to walk through the configuration and troubleshooting.

#### **Remote Connection**

Pro-West uses **Beyond Trust** to facilitate remote connections.

- Team members connect to a session with a custom session key and portable installer and maintain temporary access needed for the duration of the project (minutes to days).
- When the project is complete, or the connection is no longer needed, Pro-West team members close the tool and it removes itself from the system the session key is then no longer valid and if additional work is needed, team members will be provided a new key for a new connection.

Optionally, Pro-West can maintain access after the initial project is complete, with authorization from the client.

If the Client has other protocols for remote access, it will be discussed during the consultation meeting.



## **Editing and Maintenance Training**

Pro-West uses a two-step approach to training to give editors custom training from the ground up.

#### Esri Training

First, Pro-West recommends introductory Esri training. This includes the **Parcels and Land Records Management Learning Plan** including the Esri online, 3-day, instructor-led course "Working with Parcel Data in ArcGIS Pro" which uses the latest software version to introduce the parcel fabric to the editors. Here, students learn the basics about the concept of the fabric, the structure of the fabric, and perform some basic edits.

- Parcels and Land Records Management learning plan:
   <a href="https://www.esri.com/training/catalog/5f4e6d60de1e8d4c9244692f/parcels-and-land-records-management-essential-skills/">https://www.esri.com/training/catalog/5f4e6d60de1e8d4c9244692f/parcels-and-land-records-management-essential-skills/</a>
- Specific Course link: <a href="https://www.esri.com/training/catalog/5e5f25188cb2d966e64e3d5d/working-with-parcel-data-in-arcgis-pro/">https://www.esri.com/training/catalog/5e5f25188cb2d966e64e3d5d/working-with-parcel-data-in-arcgis-pro/</a>
- The cost for this Esri training is **NOT included in the price below**.

If County staff require skills for introductory courses regarding ArcGIS Pro itself, please refer to these additional Esri learning plans. The cost for most of these courses is free. Where there is cost, be aware that the cost for any Esri training is NOT included in the price below.

- Pro Fundamentals: <a href="https://www.esri.com/training/catalog/5b733d0c8659c25ea7013df9/arcgis-pro-fundamentals/">https://www.esri.com/training/catalog/5b733d0c8659c25ea7013df9/arcgis-pro-fundamentals/</a>
- Migrate to ArcGIS Pro: https://www.esri.com/training/catalog/5b296eb4e620ca23e65420dc/migrate-to-arcgis-pro/

#### **Custom Pro-West Training**

Secondly, Pro-West provides custom training. During this hands-on training, Pro-West works with the County staff to perform actual edits with the County's newly migrated data. The custom course is to ensure that business needs are met and that the editing staff understand the details and nuances to match these needs. Pro-West runs sessions that include topic discussion, demonstration, and exercises for the editors.

Pro-West will provide a variety of editing procedures and exercises to follow such as:

- What to do when the data isn't perfect
- How to complete edits that don't fit a typical workflow model
- Pitfalls to avoid when editing

A manual is provided to each student during the Pro-West training. Exercises and training topics include:

- Overall understanding of the County's geodatabase structure and schema
- New Parcel Creation
- Parcel Splits and Combines
- Boundary Line Adjustments
- New Subdivision (including Condominiums)
- Creation and Maintenance of Encumbrances
- Parcel Fabric quality maintenance and checks to perform
- Consistency checks and Least Square Adjustments



All trainees will also be provided with Pro-West's own series of "How-To" videos including short videos for some of the common tasks editors face.

All training comes with **8 hours of technical support**, which can be used any time within a year of completing the Pro-West training.

#### Pre-Training Meeting

Pro-West will host a Pre-Training Meeting in which all aspects of trainee technology will be reviewed so we know the training environment is ready to go for all trainees and the Pro-West trainer. Items to be reviewed include the following:

- Microsoft Teams is running for all trainees (with remote training option)
- Enterprise version verification
- Enterprise geodatabase version verification
- Parcel Fabric version verification
- Trainee ArcGIS Pro version verification
- Parcel Fabric service is available and editable for each trainee
- Parcel Fabric User Type Add-on is assigned to each trainee
- Trainees can add service to a project, create a version, and make an edit (ensures all permissions are set)

If the items above are not correct or are not running properly, training may need to be rescheduled to a time after a follow up meeting can verify changes have been made and all services and permissions are running properly.

#### Training Platform Options

Training can be administered in one of two options:

- in-person on-site
- <u>remotely via web meetings</u> Pro-West works to ensure remote/online sessions are very interactive and include "seeing" each other via screen-sharing to ensure a productive experience.

For those who choose the online training option, the trainees will also be provided with session recordings for future reference.



## Typical Training Schedule

Day	Topics Covered
Day 1	Parcel Fabric Structure & Schema
	Review Data Matrix
	Editing Environment Settings
Day 2	Editing Environment Settings
	Editing Tool review
	Hands-On Exercises
	o Split and Merge Parcels
	o New Subdivision
Day 3	Con't Hands-On Exercises
	o Importing CAD or other linework
	o Many more!
Day 4	Quality Control
	Consistency Check & Least Square Adjustments
	Recommendations moving forward

The project is considered complete after training.



## **Project Assumptions**

#### Overall Project

- 1. The County will provide Pro-West with source data, documentation, and remote access to database systems (as necessary). This includes:
  - a. All related GIS data
  - b. Server access with permission to edit, store and create scheduled tasks
  - c. Pro-West uses **Beyond Trust** for remote connections and will discuss this during project kick off to determine the best path for remote connections.
- 2. Pro-West will conduct all data migration tasks at Pro-West offices and will deliver the data to the County as a file geodatabase.
- 3. County is responsible for updating any and all applications, templates, or solutions with the migrated data sources as needed.
  - a. Pro-West will not update (or develop) any Data Driven Pages map creation process, map templates, online solutions, or other application files or projects.

## Migration & Deployment Assumptions

- 1. Pro-West will receive from the County all necessary data.
  - a. All data will be in one coordinate system. Pro-West will not be conducting any coordinate system or datum projections.
  - b. Pro-West will not generate data nor attributes unless specifically noted above.
- 2. Topology resolution is NOT a Pro-West task in ArcGIS Pro.
- 3. The County will be using an enterprise deployment option.
- 4. County will have all infrastructure prepared prior to project delivery.

#### **Training Assumptions**

- 1. Training will be provided for County employees who have the skills to use ArcGIS Pro for general editing purposes such as creating a project, database navigation, connecting a database, and setting map options for labels and symbology.
- 2. County recognizes that Pro-West recommends the Esri introductory training course for working with parcel fabric in ArcGIS Pro and that the trainees have the basic knowledge of what a parcel fabric is prior to the custom training course.
- 3. The County will provide:
  - a. Computers/laptops and peripherals for each student
  - b. Internet access to connect with the Pro-West trainer
    - i. A test invitation will be set up prior to the first day of training to ensure everyone is able to connect via Microsoft Teams
  - c. Software (installed and tested by the County prior to training)
    - i. ArcGIS Pro Standard or Advanced licensing
    - ii. Version should be 2.9.x or most current See Deployment for further details
    - iii. Tested on each computer to ensure capabilities to open and edit
      - 1. Editing access to the geodatabase located on the County server along with permissions set for each student (if a single deployment, then a copy of the file geodatabase should be given to each trainee)
    - iv. Each student should test accessing the database prior to training to ensure capabilities exist



## **Project Management**

## **Project Team**

Pro-West Project Manager: Jennifer Ward

Phone: 320-207-6860

Email: <a href="mailto:jward@prowestgis.com">jward@prowestgis.com</a>

Client Project Manager: TBD

Project Schedule: Specific timeline will be discussed upon contract signing.

## Delivery

Documentation to be delivered to the County:

1. Data Matrix document

a. Including parcel fabric enhancements

The data will be delivered to the County in the following manner:

- 1. File geodatabase containing a dataset in which is the migrated parcel fabric
  - a. Including parcel fabric enhancements as documented in the Data Matrix

Services to be delivered to the County:

- 1. Deployment assistance, if needed, to bring the file geodatabase deliverable into the County's enterprise system.
- 2. Nightly parcel fabric publishing script set up
- 3. Technical Support: 8 hours of technical support is included with the project to be used within a year of the completed training.

## Project Risks & Mitigation

- 1. Enterprise geodatabase needs to be upgraded.
  - a. Mitigation: thoroughly discuss Enterprise and ArcGIS Pro versions during project kick off to determine what version of ArcGIS Pro has the functionality needed to support County workflows. Should it be determined that an Enterprise upgrade is needed to support Fabric migration, Pro-West assumes the County will complete the upgrade and use their Block Support Hours with Pro-West for support during that transition (~2-3 hours of Pro-West time).
- 2. Pre-Fabric Training checklist is not completed prior to Pro-West training.
  - a. Mitigation: Pro-West will provide a training checklist for the County during project kick off. Timeline of the checklist will be determined as the project continues. If the checklist items are not completed by the County based on the agreed upon timeframe, Pro-West will reschedule the training.
- 3. Additional client staff sit in during Pro-West parcel fabric training.
  - a. Mitigation: Client shall notify Pro-West 2 weeks prior to training if additional staff will be attending the training. Additional staff are more than welcome to attend, however, the focus of the training will be for those maintaining the parcels and the instructor will focus on their needs first, as well as getting through the standard training content. If there is time remaining, Pro-West can address questions from other staff attending.



- 4. Stakeholders are not identified at the beginning of the project.
  - a. Mitigation: Client and Pro-West will identify stakeholders at the project kick off. If changes in stakeholders occur, they will be communicated to the stakeholders immediately to eliminate and/or minimize timeline and budget changes.
- 5. Stakeholders change throughout the project.
  - a. Mitigation: Maintain the same project stakeholders throughout the project. If stakeholders do change, it is the client's responsibility to communicate the purpose of the project to the new stakeholder or for Pro-West to communicate changes to the client. If the project changes due to a change in stakeholders, additional charges may apply and the timeline may be affected.
- 6. Changes to parcel schema needs or workflows occur after the project has begun.
  - a. Mitigation: the client stakeholders and Pro-West will define data schema and workflows during the data assessment phase and changes will be agreed upon by both parties prior to migration beginning. Changes to schema/workflow needs that occur after migration has started, may result in additional costs or changes to the timeline.
- 7. Feedback. Various tasks will be completed throughout the project. It is the responsibility of project stakeholders to ensure that feedback is provided per the timelines agreed upon.
  - a. Mitigation: communicate feedback/task delays to project stakeholders immediately. Project budget and/or timelines may be affected by delays.

#### Estimated Schedule

Pro-West and the County will work out the specific dates of the schedule during the kick-off meeting to ensure both parties have ample time to complete the work required. Below is an estimated schedule of the parcel fabric migration milestones to be used during that kick-off call for planning purposes.

Milestone	Tasks	Timeframe
Project Kick-Off	Identify all team staff involved	1 day
	Identify data sources needed	
	County to send data for review	
Data	Pro-West identify potential issues	3 weeks
Consultation	Pro-West identify enhancement recommendations	
	Pro-West review data and Create Data Matrix document	
Data Migration	Create ArcGIS Pro data schema	3 weeks
	Migrate data to the Parcel Fabric	
	Migrate Non-Parcel Fabric data	
Quality Control	Topology review	1 week
& Review	Attribute review	
	Quality control	
Delivery &	Pro-West delivers final data to County	1 week
Deployment	Pro-West assists to deploy the data at the County	
	including publishing web service for editing	
Training	County take recommended Esri training – 3-day course	2 weeks
	Custom training with Pro-West – 3-day course	



#### Cost

#### Option 1: Custom Training Conducted **Onsite**

Task	Cost
Parcel Migration	\$13,500
Onsite Custom Parcel Fabric Training in ArcGIS Pro (4 days)	\$11,020
Total	\$24,520

#### Option 2: Custom Training Conducted Online

Task	Cost
Parcel Migration	\$13,500
Virtual Online Custom Parcel Fabric Training in ArcGIS Pro (4 days)	\$6,320
Total	\$19,820

If the scope, objectives, or timeline change significantly before the project is completed, we will discuss any necessary modifications to our agreed-upon fee or to the scope, objectives, or timeline of the project.

#### Please note:

- Client will be invoiced monthly based on % complete.
- Payment is due within 45 days of an invoice date. If payments are not received within 45 days of the invoice date, a late fee of 1.5% of the invoice amount will be charged for each 45-day cycle that the payment is late.
- 3% convenience fee will be added for payment by credit card

## **Project Completion:**

The project will be completed when the Parcel fabric is deployed in the Enterprise and training has been completed.

Upon project close, the parcels will be managed and maintained by the County.

## Post Project Support

Pro-West understands that support requests and/or general support inquiries will occur after the project is completed. We welcome those inquiries and look forward to supporting you in the future! Below are common inquiries related to general support requests.

- 1. If there are issues with the deliverables or if clarification is needed regarding the deliverables, contact the Pro-West Project Manager listed in this scope.
- 2. If the Pro-West Project Manager is contacted, after the project is completed, you <u>may be invoiced</u> for that call or email. The Project Manager will discuss invoicing needs during the call. If you contact anyone other than the Pro-West Project Manager, after the project is completed, <u>an invoice</u> will be sent based on current hourly rates.
- 3. If the Project Manager is contacted after the project is completed, they are not available to respond, and the need is urgent (ie: the Project Manager is on vacation or is attending a workshop); contact



Pro-West's main office number for assistance: 320-207-6868 or follow directions listed on the Project Managers out of office reply (if email is used).

- a. There may be an invoice sent for the support request based on current hourly rates if Technical staff are contacted directly. The Pro-West Project Manager will follow up when they are available to discuss invoicing.
- 4. Pro-West asks that both the Pro-West Project Manager and the Technical person be copied on emails to ensure prompt service and clarification on needs and any additional fees. If at any time there is a question about an invoice or support need, contact the Pro-West Project Manager.
- 5. If there are general questions about any topic related to GIS and/or Pro-West Services, contact the Pro-West Project Manager listed in this scope. You <u>may be invoiced</u> for that call or email. The Project Manager will discuss invoicing needs on the call.

## **Project Signatures**

To proceed with the services described in this estimate, please sign and date below and return to the Pro-West Project Manager listed above.

Date: 07/21/23

**CLIENT** 

**Pro-West & Associates** 

Tumb ton

Date: 07/21/23

Acceptance Signature:

Signature:

Jerry M Houghton, Recorder/Surveyor

Estimate valid for 90 days