



Professional Services Agreement

This Professional Services Agreement (this "Agreement") is made and entered into by and between Tyler Technologies, Inc., a Delaware corporation ("Tyler"), and Montague County, TX (the "Client") as of the last date written below (the "Effective Date").

Background

WHEREAS, Client is a current customer of Tyler and a user of Tyler's proprietary software; and

WHEREAS, Client desires to engage Tyler to provide certain professional services related thereto, all on the terms and conditions set forth in this Agreement.

NOW, THEREFORE, in consideration of the mutual promises contained herein, along with other good and valuable consideration, the receipt and sufficiency of which all parties mutually acknowledge, Tyler and the Client agree as follows:

- A. Tyler shall furnish the services described in this Agreement, and Client shall pay the prices set forth in this Agreement.
- B. This Agreement consists of this cover and signature page and the following attachments and exhibits attached hereto and to be attached throughout the Term of this Agreement, all of which are incorporated by reference herein: (1) Schedule 1; and (2) Terms and Conditions.

Schedule 1

DESCRIPTION OF SERVICES	HOURS	RATE/HR.	T&M AMOUNT
Consulting/Configuration/Training	25	\$185	\$3,950
No travel expenses, as all work will be completed remotely			
Client Name: TX Montague County District Clerk			
Project Description: Update G/L Account Descriptions (CSST-2056)			
<i>The Level of Effort (LoE) provided above is a good faith estimate of the hours Tyler requires to deliver the requested services project and is valid for 30 days. Once the PSA is approved, Tyler will proceed with a detailed scope using the first few hours of the approved estimate. If the final agreed-upon scope exceeds the initial good faith estimate, the customer may be required to approve another PSA for additional hours.</i>			
			TOTAL CONTRACT AMOUNT
			\$3,950

IN WITNESS WHEREOF, this Agreement has been executed by a duly authorized officer of each Party hereto.

TYLER TECHNOLOGIES, INC.

CLIENT

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

**Professional Services Agreement
Terms and Conditions**

1. Services. Tyler shall perform the services set forth in Schedule 1.

2. Compensation. Tyler shall perform its services hereunder on a time and materials basis at the rates specified in Schedule 1. In addition, the Client shall reimburse Tyler for travel, lodging, and food expenses reasonably incurred by Tyler in performing its services hereunder as set forth in Schedule 1. Tyler shall invoice the Client on a monthly basis, which invoice shall be due and payable within thirty (30) days. Tyler prefers to receive payments electronically. Tyler's electronic payment information is as follows:

Bank: Wells Fargo Bank, N.A.
420 Montgomery
San Francisco, CA 94104
ABA: 121000248
Account: 4124302472
Beneficiary: Tyler Technologies Inc. – Operating

3. Term and Termination. This Agreement shall commence as of the Effective Date and shall continue until terminated or all work is complete (the "Term"). The Client may terminate this Agreement at any time by delivering a written notice of its intent to terminate to Tyler; provided, however, that the Client must pay Tyler for all costs and expenses incurred under this Agreement prior to the date of termination. Tyler may terminate this Agreement if the Client fails to pay any invoice when due or if the Client breaches any of its other obligations hereunder. Upon termination for any reason, each party shall immediately return all documentation, confidential information, and other information disclosed or otherwise delivered to the other party prior to such termination.

4. Confidentiality. Both parties recognize that their respective employees and agents, in the course of performance of this Agreement, may be exposed to confidential information and that disclosure of such information could violate rights to private individuals and entities, including the parties. Confidential information is nonpublic information that a reasonable person would believe to be confidential and includes, without limitation, personal identifying information (e.g., social security numbers) and trade secrets, each as defined by applicable state law. Each party agrees that it will not disclose any confidential information of the other party and further agrees to take all reasonable and appropriate action to prevent such disclosure by its employees or agents. The confidentiality covenants contained herein will survive the termination or cancellation of this Agreement. This obligation of confidentiality will not apply to information that:

- (a) is in the public domain, either at the time of disclosure or afterwards, except by breach of this Agreement by a party or its employees or agents; or
- (b) a party can establish by reasonable proof was in that party's possession at the time of initial disclosure; or
- (c) a party receives from a third party who has a right to disclose it to the receiving party; or
- (d) is the subject of a legitimate disclosure request under the open records laws or similar applicable public disclosure laws governing this Agreement, or a subpoena; provided, however, that in the event you receive an open records or other similar applicable request, you will give us prompt notice and otherwise perform the functions required by applicable law.

5. Warranty. Tyler warrants that it shall perform services in a professional, workmanlike manner, consistent with industry standards. In the event Tyler provides services that do not conform to this warranty, Tyler will re-perform the services at no additional cost to Client.

6. Limitation of Liability.

THE LIABILITY OF TYLER FOR DAMAGES ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT, WHETHER BASED ON A THEORY OF CONTRACT OR TORT, INCLUDING NEGLIGENCE AND STRICT LIABILITY, SHALL BE LIMITED TO TOTAL FEES PAID TO TYLER UNDER THIS AGREEMENT.

IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES OF ANY KIND, INCLUDING, WITHOUT LIMITATION, LOST REVENUES OR PROFITS, OR LOSS OF BUSINESS OR LOSS OF DATA ARISING OUT OF THIS AGREEMENT, IRRESPECTIVE OF WHETHER THE PARTIES HAVE ADVANCE NOTICE OF THE POSSIBILITY OF SUCH DAMAGE.

THE FOREGOING LIMITATIONS OF LIABILITY SET FORTH IN THIS SECTION 6 SHALL NOT APPLY WITH RESPECT TO: (A) DAMAGES OCCASIONED BY THE FRAUD, GROSS NEGLIGENCE, OR WILLFUL MISCONDUCT OF EITHER PARTY; (B) DAMAGES OCCASIONED BY VIOLATION OF LAW.

7. Force Majeure. Neither party shall be liable for delays in performing its obligations under this Agreement to the extent that the delay is caused by Force Majeure. "Force Majeure" is defined as an event beyond the reasonable control of a party, including governmental action, war, riot or civil commotion, fire, natural disaster, labor disputes, restraints affecting shipping or credit, delay of carriers, inadequate supply of suitable materials or any other cause which could not with reasonable diligence be foreseen, controlled or prevented by the party.

8. Insurance. Upon written request, Tyler shall provide Client with certificates of insurance evidencing the following insurance coverage:
a) Commercial general liability of at least \$1,000,000;
b) Automobile liability of at least \$1,000,000;
c) Professional liability of at least \$1,000,000; and
d) Workers compensation complying with statutory requirements.

9. Miscellaneous.

(a) Tax Exempt Status. Client is a governmental tax-exempt entity and shall not be responsible for any taxes for any services provided for herein, whether federal or state. The fees paid to Tyler pursuant to this Agreement are inclusive of any applicable sales, use, personal property, or other taxes attributable to periods on or after the Effective Date of this Agreement.

(b) Assignment. Neither Tyler nor the Client shall, sell, transfer, assign, or otherwise dispose of any rights or obligations created by this Agreement without the written consent of the other party.

(c) Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

(d) Entire Agreement. This Agreement and the Schedules hereto constitute the entire understanding and contract between the Parties and supersedes any and all prior or contemporaneous oral or written representations or communications with respect to the subject matter hereof. The Exhibits to this Agreement are incorporated by reference herein.

(e) Amendment. This Agreement shall not be modified, amended, or in any way altered except by an instrument in writing signed by the properly delegated authority of each party. All amendments or modifications of this Agreement shall be binding upon the parties despite any lack of consideration.

(f) Relationship of Parties. The parties intend that the relationship between the parties created pursuant to or arising from this Agreement is that of an independent contractor only. Neither party shall be considered an agent, representative, or employee of the other party for any purpose.

(g) Governing Law. Any dispute arising out of or relating to this Agreement or the breach thereof shall be governed by the laws of the State of Texas, without regard to or application of choice of law rules or principles.

(h) No Third Party Beneficiaries. Nothing in this Agreement is intended to benefit, create any rights in, or otherwise vest any rights upon any third party.

(i) Equitable Relief. Each party covenants, represents, and warrants that any violation of this Agreement by such party with respect to its respective obligations set forth in Section 4 shall cause irreparable injury to the other party and shall entitle the other party to extraordinary and equitable relief by a Court of competent jurisdiction, including, without limitation, temporary restraining orders and preliminary and permanent injunctions, without the necessity of posting bond or security.

(j) Survival. The provisions of Sections 4 through 9 shall survive the expiration or termination of this Agreement.



AMENDMENT

This amendment ("Amendment") is effective as of the date of signature of the last party to sign as indicated below ("Amendment Effective Date"), by and between Tyler Technologies, Inc. with offices at 5101 Tennyson Parkway, Plano, Texas 75024 ("Tyler") and the 97th Judicial District – Montague County, TX, with offices at P.O. Box 167, Montague, TX 76251 ("Client").

WHEREAS, Tyler and the Client are parties to an agreement dated June 10, 2022 ("Agreement"); and

WHEREAS, Tyler and Client desire to amend the terms of the Agreement as provided herein.

NOW THEREFORE, in consideration of the mutual promises hereinafter contained, Tyler and the Client agree as follows:

1. The items set forth in the sales quotation attached as Exhibit 1 to this Amendment are hereby added to the Agreement as of the first day of the first month following the Amendment Effective Date and, notwithstanding anything to the contrary in Exhibit 1, ending coterminous with the SaaS Term as defined in the Agreement. Payment of fees and costs for such items shall conform to the following terms:
 - a. The annual SaaS fees payable under the Agreement shall be increased in the amount set forth in Exhibit 1 for the Tyler Software added herein. The annual SaaS fees for Years 1 through 5 are set forth in Exhibit 1. The first year's annual SaaS Fees shall be invoiced on the first day of the first month following the Amendment Effective Date, prorated for the time period commencing on such date and ending concurrently with the Client's annual SaaS Term under the Agreement. Subsequent SaaS Fees shall be invoiced in accordance with the terms of the Agreement.
2. Services identified at Exhibit 1 and added to the Agreement pursuant to this Amendment, along with applicable expenses, shall be invoiced as provided and/or incurred.
3. This Amendment shall be governed by and construed in accordance with the terms and conditions of the Agreement. Except as expressly indicated in this Amendment, all other terms and conditions of the Agreement shall remain in full force and effect.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, duly authorized representatives of the parties hereto have executed this Amendment as of the dates set forth below.

Tyler Technologies, Inc.

97th Judicial District – Montague County, TX

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

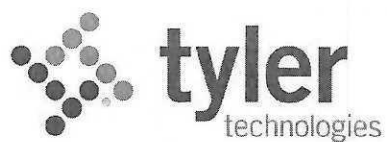


Exhibit 1
Amendment Investment Summary

The following Amendment Investment Summary details the software and services to be delivered by us to you under this Amendment. This Amendment Investment Summary is effective as of the Amendment Effective Date. Capitalized terms not otherwise defined will have the meaning assigned to such terms in the Agreement.

In the event a comment in the following sales quotation conflicts with a provision of this Amendment, the provision in this Amendment shall control.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK



Quoted By: Amiee Dismukes
 Quote Expiration: 1/13/25
 Quote Name:

Sales Quotation For:
 Montague County
 PO Box 186
 Montague TX 76251-0186
 Phone: +1 (940) 894-2461

Software and Annual Fees

	Year 1	Year 2	Year 3	Year 4	Year 5
Recurring Annual Fees	\$ 17,391.00	\$ 18,261.00	\$ 19,174.00	\$ 20,133.00	\$ 21,140.00
Fixed Annual Fees	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
One-Time Software Cost	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Client Discount	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Total	\$ 17,391.00	\$ 18,261.00	\$ 19,174.00	\$ 20,133.00	\$ 21,140.00

Total contract Value: \$ 96,099.00

Annual / SaaS

Description	Annual
Justice Partner Platform	
Electronic Discovery	

\$ 17,391

TOTAL

CONFIDENTIAL

Services

Description	Total	Maintenance
Project Management	\$ 3,120	\$ 0
<i>Project Services Sub-Total:</i>		
Current & Future State Analysis	\$ 3,120	\$ 0
Go-Live Assistance	\$ 740	\$ 0
Setup, Configuration & Consulting	\$ 1,480	\$ 0
<i>Implementation Services Sub-Total:</i>		
	\$ 11,655	\$ 0
	\$ 13,875	\$ 0
TOTAL	\$ 16,995	\$ 0

Summary

	One Time Fees	Recurring Fees
Total Tyler Software	\$ 0	\$ 0
Total Annual	\$ 0	\$ 17,391
Total Tyler Services	\$ 16,995	\$ 0
Total Third-Party Hardware, Software, Services	\$ 0	\$ 0
Summary Total	\$ 16,995	\$ 17,391
Contract Total	\$ 113,094	

Detailed Breakdown of Services (Included in Summary Total)

Description	Total	Annual Maintenance
<i>Enterprise Justice</i>		
Project Management -Enterprise Justice	\$ 3,120	\$ 0
Setup, Configuration & Consulting -Enterprise Justice	\$ 11,655	\$ 0
Go-Live Assistance -Enterprise Justice	\$ 1,480	\$ 0
Current & Future State Analysis -Enterprise Justice	\$ 740	\$ 0
<i>Enterprise Justice Total</i>		
TOTAL	\$ 16,995	\$ 0

Comments

Electronic Discovery for the use of the 97th Judicial District, including Montague, Archer and Clay Counties.

SUBDIVISION APPLICATION CHECKLIST

The following tasks must be completed by the developer prior to filing any application for subdivision approval:

- Meet with the Precinct Commissioner and Development Officer at least 15 days prior to the date of filing the application of the subdivision property, to visually inspect the property, review the developer's intentions, establish any special requirements for the plat application, and to discuss the application process.
- Confirm whether the planned subdivision will be classified as First or Second Tier.
- Check the proposed subdivision name for conflicts or similarly named subdivision that is not a subsequent phase of an existing subdivision.

The following items must be included in any plat application for approval of a First Tier subdivision:

- A plat of the proposed subdivision in compliance with these regulations.
- A written, affirmative acknowledgement of the requirements in Section 1.2.
- Five (5) copies of the plat; 1 Mylar and 4 regular paper copies.
- A digital map or a certificate regarding the availability of a digital map.
- A certificate from the Upper Trinity Groundwater Conservation District that the proposed subdivision will have adequate water availability.
- A survey of the proposed subdivision in compliance with these regulations.
- A certificate from the surveyor who prepared the plat and survey in substantially the form as Appendix E.
- A description by the developer of the manner and means of providing drinking water, sewerage, roads, electricity, and drainage structures.
- All engineering specifications, drawings, and plans for infrastructure to be constructed comprising a plat application in compliance with these regulations.
- A certificate from each engineer confirming compliance of their specifications, plans, and drawings, in substantially the form as Appendix F.

✓

A certificate from NORTEX confirming the road names or numbers reserved for roads laid out in the subdivision. *Email certification of review from Jones.*

✓

Tax certificates confirming that no property taxes are due and unpaid for the subdivision.

N/A

A certificate from the developer confirming that approval of the plat application and filing of the plat does not mean that the County will be responsible for maintenance of subdivision roads and streets. *all lots face county roads.*

✓

If water, sewerage, and electricity are to be provided by a public utility, the developer must submit an executed public utility certificate in substantially the form as Appendix D. *Wise Electric*

✓

If water is to be provided by private well, a Disclosure Statement shall be provided to the buyer prior to closing disclosing the nature of provision of water, together with certification of water availability and quality.

✓

If OSSF is included in the plat application, a certificate from the Montague County OSSF Inspector or Development Officer stating that the subdivision plans comply with all applicable TCEQ rules, including housing density requirements or lot frontage, street width and all-weather capacity to handle emergency vehicles.

N/A

If fire hydrants or filler plugs are included in a plat application, a certificate from the public utility serving the subdivision to confirm sufficient water capacity is available to operate the fire hydrants or filler plugs.

✓✓

All fees due to the County for the filing of an application must be paid to the County Clerk contemporaneously with the submission of the application.

The following items must be included in any application for approval of a Second Tier subdivision:


Section N/A

A plat of the subdivision showing the area/acreage of each lot or tract. Lots must have a minimum of sixty (60') feet of frontage to the adjoining street.

Certificates from the developer confirming the following:

- _____ Availability of water and sewage service.
- _____ Compliance with set-back lines.
- _____ Disclosure and Dedication of all necessary utility easements.

_____ Confirming the installation of culverts in compliance with the County ordinance on culverts.

 If OSSF is proposed for the Second Tier subdivision, a certificate from the Montague County OSSF Inspector or Development Officer stating that the subdivision plans comply with all applicable TCEQ rules, including housing density requirements, street width and all-weather capacity to handle emergency vehicles.

A survey that shows sufficient topographic information adequate to demonstrate that the proposed subdivision will adequately drain and that any proposed development will not alter the natural flow of water to adjoining properties.

All fees due to the County for the filing of an application must be paid to the County Clerk contemporaneously with the submission of the application.

After an application is approved, the developer must:

_____ File a plat of the proposed subdivision in compliance with these regulations.

N/A

Meet with the Precinct Commissioner to review all materials used in constructing roads in the subdivision.

_____ Ensure that the work described in the plat application is completed in a good and workmanlike manner, in accordance with these regulations, the plat application, and any conditions of the order approving the application.

N/A

Advise the Precinct Commissioner of the status of construction prior to expiration of any construction deadline.

✓

All fees due to the County for an approved application must be paid to the County Clerk no later than ten (10) days after the approval of the application.

N/A

Submit proof of any required financial security to the Precinct Commissioner no later than thirty (30) days after the approval of the application.



BIGGS & MATHEWS INC.

Consulting Engineers

August 16, 2024

Charley Lanier
Montague County Development Officer
11339 Highway 59 N
P.O. Box 416
Montague County, Texas 76251

RE: Review & Comments – First Tier Subdivision
Final Plat – Denver Road Estates
79.18 Acres – Lots 1 Thru 20
Montague County, Texas

Dear Mr. Lanier:

We have reviewed the above referenced submitted plat to determine its conformance with the latest Montague County Subdivision Regulations, Approved & Accepted by Montague County Commissioners Court on May 28, 2024.

Based on our review, please see the following information and our response to the submission.

GENERAL SITE INFORMATION:

*Owner/Developer: Top Notch Homes, LLC
Final Plat – 79.18 Acres - Lots 1-20 Denver Road Estates
Site Location: Adjacent to Denver Rd. and Huddleston Rd.*

REVIEWED SUBMITTED DOCUMENTS:

*Final Plat – Lots 1-20 Denver Road Estates
Drainage Area Map & Calculations
Site Soils Evaluation Report
Tax Certificates
Certification of Groundwater Availability (TCEQ TAC 230)
Water Quality Test Reports
TDLR Well Reports
UTGCD Electric Logs*

CONFORMANCE WITH TIER 1 PLAT REQUIREMENTS:

- 1) *Name & mailing address of the developer ✓*
- 2) *Name of subdivision ✓*
- 3) *North directional indication arrow ✓*
- 4) *Location map showing the subdivision in relation to major roads, town cities, and Topographic features – Show Elevations of Contours ✓*
- 5) *Description of boundary by metes & bounds ✓*
- 6) *Total area/acreage within subdivision ✓*
- 7) *Total number of lots ✓*
- 8) *Area/acreage of roads – Length of roads & street right-of-way widths ✓*
- 9) *Area /acreage of each lot ✓*
- 10) *Bearing and distance for each lot boundary line with minimum frontage of 60' to adjoining street – Lots 19 & 20 show less than 60' frontage.*
- 11) *Areas dedicated for public use ✓*
- 12) *ROW or easements, including alley, drainage easements, and utility easements ✓*
- 13) *Proposed land use of all lots being subdivided – Single family or residential, multi-family residential, agricultural, commercial, public use dedication ✓*
- 14) ** All 100-year floodplains – Floodplain Map Not Provided*
- 15) *Road names or numbers for all roads or streets ✓*
- 16) *Lot and block numbers arranged in a systematic order ✓*

Note: Items shown in "red" should be addressed to the satisfaction of the Montague County prior to approval of the plat

PLAT SURVEY REQUIREMENTS:

The plat and survey must be prepared from an actual on the ground survey under the direct supervision of a registered professional land surveyor and their certificate to that effect must appear on the plat and survey. The land surveying form's name and license number, address, and phone number must be listed on the plat and survey.

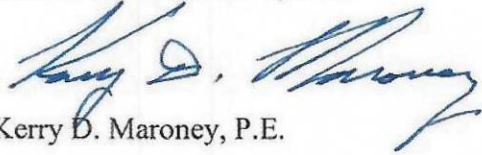
- 1) *Real property index information (instrument number or volume and page) and names of all current owners of contiguous property to the subdivision. ✓*
- 2) *Location of existing permanent, man-made structures within the subdivision, including Houses, barns, fences, walls, ponds.. etc. ✓*
- 3) *Major topographic features on or adjacent to the property, elevation contours (no greater than 5' intervals in floodplain and no greater than 20' intervals in other areas. (Show Elevations of Contours) ✓*
- 4) *Location of all visible water wells, oil wells, and natural gas wells. ✓*

Note: See Attached Appendix A – Subdivision Application Checklist

This concludes our review, and if you have any questions concerning our review, please contact me.

Sincerely,

BIGGS & MATHEWS, INC.

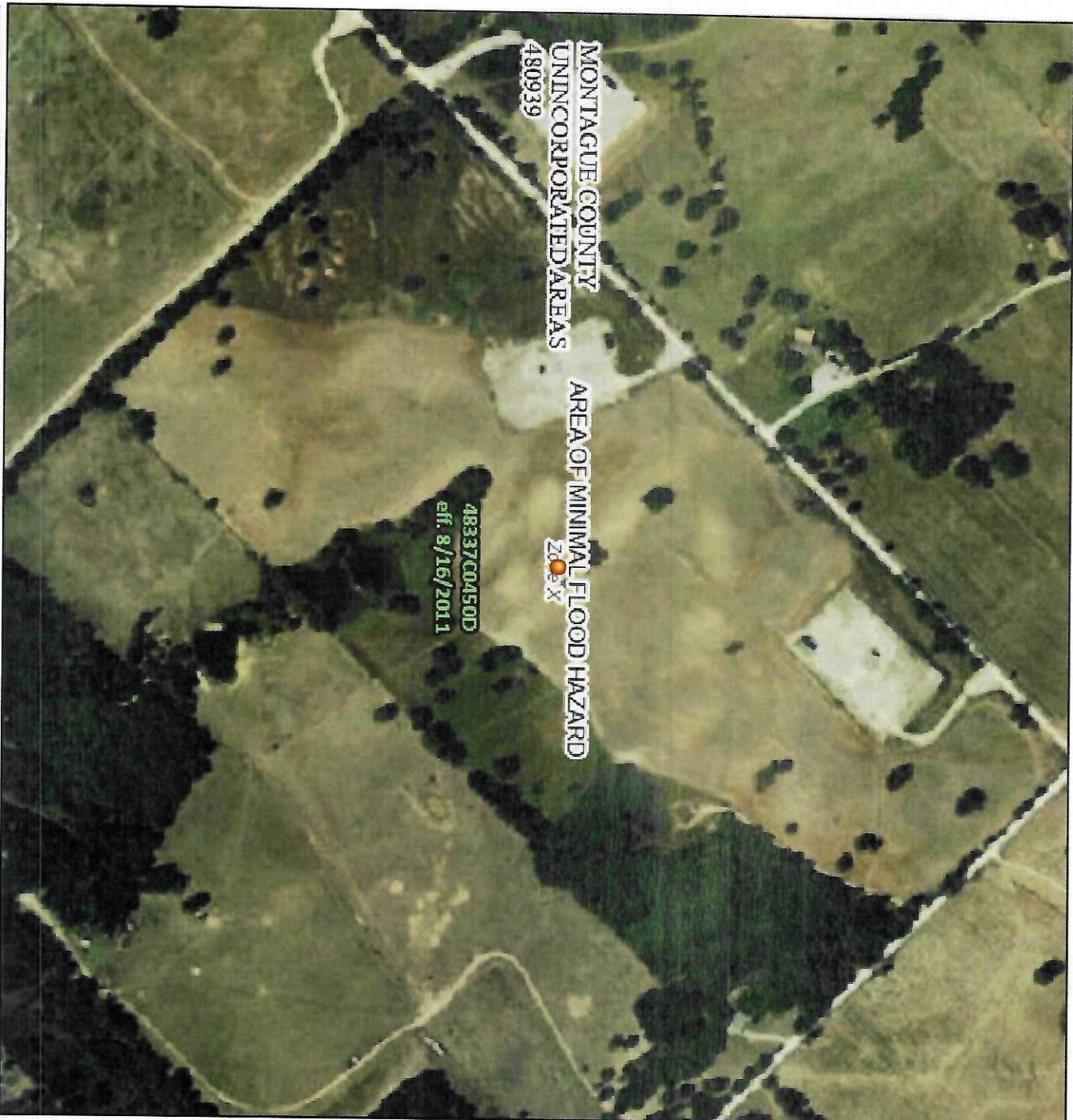
A handwritten signature in blue ink, appearing to read "Kerry D. Maroney". The signature is fluid and cursive, with a large initial "K" and "M".

Kerry D. Maroney, P.E.

National Flood Hazard Layer FIRMette



97°43'47"W 33°30'43"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AP
- Regulatory Floodway

0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X

OTHER AREAS OF FLOOD HAZARD

- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee, See Notes, Zone X
- Area with Flood Risk due to Levee Zone D

OTHER AREAS

- NO SCREEN
- Area of Minimal Flood Hazard Zone X
- Effective LOMRS
- Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES

- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 30 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS

- Digital Data Available
- No Digital Data Available
- Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/14/2024 at 2:43 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmapped areas cannot be used for regulatory purposes.



P. O. BOX 1749
1859 W. HWY 199
SPRINGTOWN, TX 76082

WWW.UPPERTRINITYGCD.COM

December 3rd, 2024

via email: co.judge@co.montague.tx.us

Kevin Benton – Montague County Judge
Montague County Commissioners Court
11339 TX-59
Montague, TX 76251

RE: Groundwater Availability Certification Report – Denver Road Estates

Judge Benton and Members of the Court,

Montague County (the “County”), as authorized by Section 232.0032 of the Texas Local Government Code, requires applicants seeking to plat certain tracts of land for which groundwater under that land is intended to be the source of supply to provide a statement prepared by a geoscientist licensed to practice in Texas or an engineer licensed to practice in Texas certifying that adequate groundwater is available for the subdivision in accordance and in compliance with the rules of the Texas Commission on Environmental Quality (TCEQ) set forth in Title 30, Texas Administrative Code, Chapter 230 (the “Groundwater Availability Certification” or “GAC”).

In order to ensure compliance with the law and to facilitate cooperation between the County and the Upper Trinity Groundwater Conservation District (“the District”) in instances where a GAC is required for a proposed subdivision of a tract of land and to ensure that, prior to receiving an approved plat from the County, such an applicant certifies adequate groundwater availability, the County and the District have entered into an interlocal agreement whereby the District reviews the GAC of the applicant and provides a report of its review to the County with certain recommendations. As set forth in the interlocal agreement, this report sets forth the opinions and recommendations of the District through its General Manager and staff to the County for the County’s consideration in making a decision on the plat application.

This transmittal letter includes summaries of both the results submitted as part of the Plat Applicant’s certification as well as the District’s recommendations related to the Groundwater Certification Statement related to the proposed Denver Road Subdivision. Please note that the District’s recommendations are non-binding suggestions and are meant to supplement the information provided to aid the County’s decision-making process.

Additionally, all District recommendations are based on the best available science and other relevant data available to the District.

(817) 523-5200 PHONE

(817) 523-7687 FAX



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SPRINGTOWN, TX 76082

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Summary of the Certification Statement:

The plat applicant's pump test data and subsequent calculations produced the following projections for the upper portion of the Antlers Formation of the Trinity Aquifer, which is proposed to serve the projected community:

- The applicant projected the following impacts at the test well, completed to 180 feet below surface (this analysis assumes no other pumping wells).
 - 10-year estimated drawdown of 0.075 feet.
 - Static water level after 10 years –63.745 feet below ground surface
 - 30-year estimated drawdown of 0.078 feet.
 - Static water level after 30 years – 63.748 feet below ground surface
- Modeling conducted by the District produced an anticipated drawdown of 0.138 ft. at the test well site over 10 years and 0.14 ft. over 30 years (assuming no additional wells).
 - Although the applicant's engineer and District staff utilized the same gallons per day (195.78) to estimate impact, the results are slightly different because the District utilizes modeling software (described in section 4.0 in the report), whereas the applicant utilized the simplified Cooper-Jacobs drawdown approximation.
- The modeled 10-year cone of depression for the test well was 6 ft.
- The modeled 30-year cone of depression for the test well was 11 ft.
- The plat applicant calculated a well efficiency of 51%.
 - The accepted established threshold for well efficiency is approximately 65-70%.
 - This value is impacted by the applicant's projected water demand, aquifer parameters, and well construction.
 - The applicant's use of the projected yearly pumping rate, rather than the instantaneous pumping rate of the test in conjunction with an erroneous data interpretation implementing seconds, rather than minutes, likely contributed to the aquifer parameters produced from Aqtesolv. These aquifer parameters were then utilized to calculate well efficiency, where the applicant's engineer then entered an incorrect well radius, again adversely impacting the projections. *Additional care should be taken by the applicant's engineer when producing final aquifer parameters for the purposes of modeling.*
- The applicant did complete the entire water quality portion of the test.
 - The results that were collected all occurred within the threshold of primary water standards established by the EPA and regulated by the TCEQ.
- The applicant provided most of the required maps, graphs, data, formulas, and variables for assessing the potential of well interference on the property and how it would impact anticipated drawdown levels at 10 years and 30 years.
 - Below are some concerns identified by District Staff
 - The applicant's engineer's well efficiency is lower than what district staff has calculated, this is likely due to the engineer's use of a well radius



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SPRINGTOWN, TX 76082

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greater than what was identified on the driller's well report, for that well. Additionally, because it appears the engineer did not utilize the correct discharge rates within their simulation, it is difficult for staff to compare modified efficiency values, however staff confirms that when well efficiency increases, drawdown decreases.

- In four of the twenty modeled pumping wells, the discharge rate was modified from 26.17 cubic feet per day to a volume of 828 cubic feet per day. Additionally, the applicant's start time of pumping for one well began at one day while the other 19 wells began at zero.
- The applicant's engineer utilized an incorrect well diameter of one foot in the online calculator to verify drawdown for the purposes of calculating efficiency. District staff is unsure why the applicant's engineer used a radius greater than what is identified on the driller's well report when calculating well efficiency, used varying pumping rates, and pumping start times for the modeled wells in the projection.
- The applicant also slightly modified their Transmissivity value for the FWDSOLV projections, as 759.9 sqft/day is identified on their 230 form, and 758.9 sqft/day appears to be used on their projections page.
- The preliminary plat provided by the applicant did not identify any existing water wells within the proposed subdivision.
 - If any water wells exist within the proposed subdivision, those should be included on the final plat.
- The applicant indicated that the well was developed by being "air drilled and pumped several hours until clear".
 - No evidence was provided to the District regarding the requirements of 230.8(c)(4)(B).
- The Certification Statement recommends a minimum spacing of 150 ft. between water wells.
- The Certification Statement recommends a produced well yield rate of 8 GPM, which is supported by submitted documentation on anticipated drawdown values at higher volumes.

District Recommendations:

The water wells used in the study were completed to a depth approximately 180 feet below surface, into the Antlers portion of the Trinity group of aquifers.

The District is charged with managing the groundwater resources, within its boundaries, in order to achieve the adopted Desired Future Conditions (DFCs) for each of the formations within the Trinity group of Aquifers. A desired future condition is a quantitative description of the desired condition of the groundwater resources in a management area at one or more specified future



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times and can be different for different aquifers, subdivisions of aquifers, or geographic areas. Additionally, the DFCs must be physically possible.

The adopted DFC for the outcrop of the Antlers aquifer in Montague County is no more than 40 feet of water level decline by 2080. According to the 2023 annual report, the trend from the 20 monitoring wells in the outcrop of the Antlers aquifer in Montague County for the 1-year water level change indicates 1.3 feet of decline from 2022. Over a 5-year time period, the trend indicates 0.1 feet of water level decline. From 2010 through 2023, there is approximately 3.1 ft. of water level increase in the Antlers. However, the trend over the 10+ year period, should be taken with a grain of salt, as it is likely increasing due to the recovery at the end of the Barnett Shale boom, where a significant increase in groundwater production occurred and water levels were at all-time lows in many areas.

The following recommendations are based on utilizing the upper portion of the Antlers Sandstone as the source of water for the proposed subdivision.

Based on the data provided in the Certification Statement, other relevant data, and modeled simulation results, the District recommends a minimum spacing requirement of 150 ft. between water wells, however landowners should consider greater spacing between water wells. This is based on results from the actual aquifer test performed for the project. During that test, the applicant drilled two new wells on the property, located approximately 300 feet from the pumping well; during the test it was clearly demonstrated that the extent of pumping impact was seen in the observation well (see results discussed earlier in the report). During the 24-hour pump test, water levels in the observation well fell 2.77 feet, however fluctuations of level readings higher than the initial value were observed, calling into question the accuracy and precision of the dataset.

It is worth noting that the state approved Groundwater Availability Model (GAM) shows the Antlers portion of the aquifer extending to a depth of approximately 209 feet below ground surface within the proposed subdivision. Should the need for additional water arise, future homeowners may or may not encounter water bearing formations below the Trinity into the Cross Timbers minor aquifer. However, without additional testing, the quality and quantity of water, in the deeper portion of the aquifer, beneath the proposed subdivision remains unknown.

In agreement with the recommendation on the Certification Statement, and in order to minimize the immediate impact of any new well, the District concurs with the applicant and recommends a maximum production capacity of 8 gallons per minute for each well within the proposed subdivision. It is unclear if this could be enforced, either legally or logistically, but it might be worth considering a requirement to place a statement on the face of the plat identifying this recommendation. Realistically, all wells drilled in the proposed subdivision will likely be completed in such a way that they produce the maximum flow rate possible, generally up to 17.36 GPM. Statement about gas pipelines across the property for future well spacing?



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The impacts of the proposed pumping are not only dependent upon the flow rate of the water wells but also the projected water demands of the landowners. The District highly encourages landowners to utilize conservation methods to minimize the pumping impacts within the subdivision as outlined in section 5.4 of the report.

Ultimately, it is our determination that the Certification Statement provided by the plat applicant generally conforms with the requirements set forth in Title 30, Texas Administrative Code, Chapter 230. In addition, it is also our opinion that the findings presented in the Certification Statement are within reason and any shortcomings have been identified in the accompanying report.

Accompanying this letter please find UTGCD Report 24-011 which provides further information and details related to this project. Please feel free to contact me at doug@uppertrinitygcd.com or (817) 523-5200 with any questions.

Thank you,

Doug Shaw
General Manager