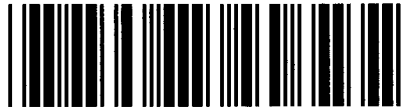


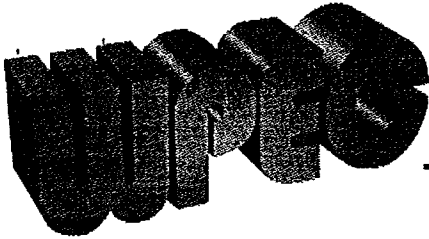
Control Number: 43975



Item Number: 7

Addendum StartPage: 0

House Bill (HB) 1600 and Senate Bill (SB) 567 83rd
Legislature, Regular Session, transferred the functions
relating to the economic regulation of water and sewer
utilities from the TCEQ to the PUC effective
September 1, 2014



WINN PROFESSIONAL ENGINEERS
AND
CONSTRUCTORS, LLC

September 15, 2009

Mr. Jo E. Ball
Trinity Rural WSC
P.O. Box 709
Trinity, Texas 75862

RE: Eagle Falls Development Study

Dear Jo:

In accordance with our recent conversations, the KYPipe model for Trinity Rural Water Supply Corporation (TRWSC) was revised to include an extended period simulation water service analysis for providing service to the proposed Eagle Falls Subdivision located on FM 356 south of Carlisle. We also performed an analysis to define improvements that are recommended for the existing system, before providing service to the development, to identify the costs associated with upgrading the system to correct current system deficiencies. The conclusions of this study will supersede the results presented previously in our report of July 29, 2009. As stated in the previous letter, we understand that 223 lots are proposed for Section 1, and 253 connections are proposed for Section 2. Our analysis considered a phased implementation, as well.

Recommended Upgrades to Existing System

Water from the new surface water treatment plant that is under construction on SH 19 will be pumped to the Pinecrest Plant. The Pinecrest Plant will pump the water to the Lake "L" Elevated Tank. Water will then flow by gravity to the Eagle Falls subdivision. The analysis indicated that improvements will be needed to the system to serve existing customers, without serving Eagle Falls. The existing 6" water line along FM 3453 will need to be upgraded to a 10" from Riverside Road to Trinity Plantation and an 8" from Trinity Plantation to the Pinecrest Plant. A 6" water line will need to be added from the Pinecrest Plant to Cumberland Gap Road. Also, a 6" water line will need to be added from Cumberland Gap Road to Thomas Road. For the purposes of this analysis, the Chita system was not connected to the system extension to serve Eagle Falls. Existing water lines in the Sebastapol and Carlisle areas were excluded from the model. The estimated cost for the improvements are included in the total costs shown in Table 1, and are not included in the incremental costs shown for Eagle Falls. A drawing of the recommended upgrades is provided as Figure 1.

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Service to Eagle Falls

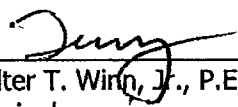
The demand from the first section of Eagle Falls was applied to the revised extended period simulation system model including the improvements described above for the existing system. The analysis indicated that the water line along FM 3453 will need to be upgraded from Trinity Plantation to the Pinecrest Plant. A new 10" line will also be needed from the Pinecrest Plant to Thomas Road, close to the Lake "L" elevated tank. We are optimistic that an agreement can be reached with Trinity River Authority (TRA) to share the Trinity County Regional Water System 10" water line along FM 356 from Lake "L" Drive to Sebastapol. Accordingly, we have assumed that this line can be used to serve Eagle Falls. Future negotiations with TRA will be needed to confirm this assumption. An 8" water line will need to be installed from Sebastapol to Eagle Falls. Installation of an elevated tank at Eagle Falls is recommended over installation of a pump station including a ground storage tank, high service pumps, and a pressure tank. The estimated capital cost for the elevated tank and pump station are essentially equal, but the operating cost of the pump station will be significantly greater than the operating cost of the elevated tank. The elevated tank, sized for the ultimate development of Eagle Falls, will have a volume of 50,000 gallons. Recommended improvements to serve the development are shown in Figure 2. Water lines within the development were sized for ultimate development (Phases 1 and 2), as shown in Figure 3.

The demands for the second section of the development were added to the demands for the first section, and applied to the revised extended period simulation model. The results indicated that the line size along FM 3453 will need to be increased to 12" from Riverside Road to the Pinecrest Plant. A new 10" line will be required from the Lake "L" Elevated Tank to FM 356. The estimated costs for the recommended improvements are shown in Table 1. The costs specifically assigned to the development are shown as "incremental for Eagle Falls." An estimated cost of \$3 per foot is included to compensate TRA for use of the existing 10" water line along FM 356. Again, negotiations with TRA will be needed to confirm this value. The estimated costs for the water lines inside the development are included in Table 1 and detailed in Table 2.

We appreciate the opportunity to perform this evaluation, and we look forward to assisting TRWSC in implementation of the recommendations. Please do not hesitate to call if you have any questions.

Sincerely yours,

Winn Professional Engineers & Constructors, LLC
Texas Registered Firm No. F-7846



Walter T. Winn, Jr., P.E.
Principal

WTW/pkw

Enclosures

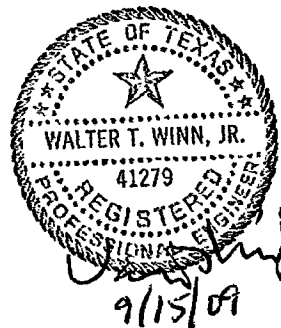
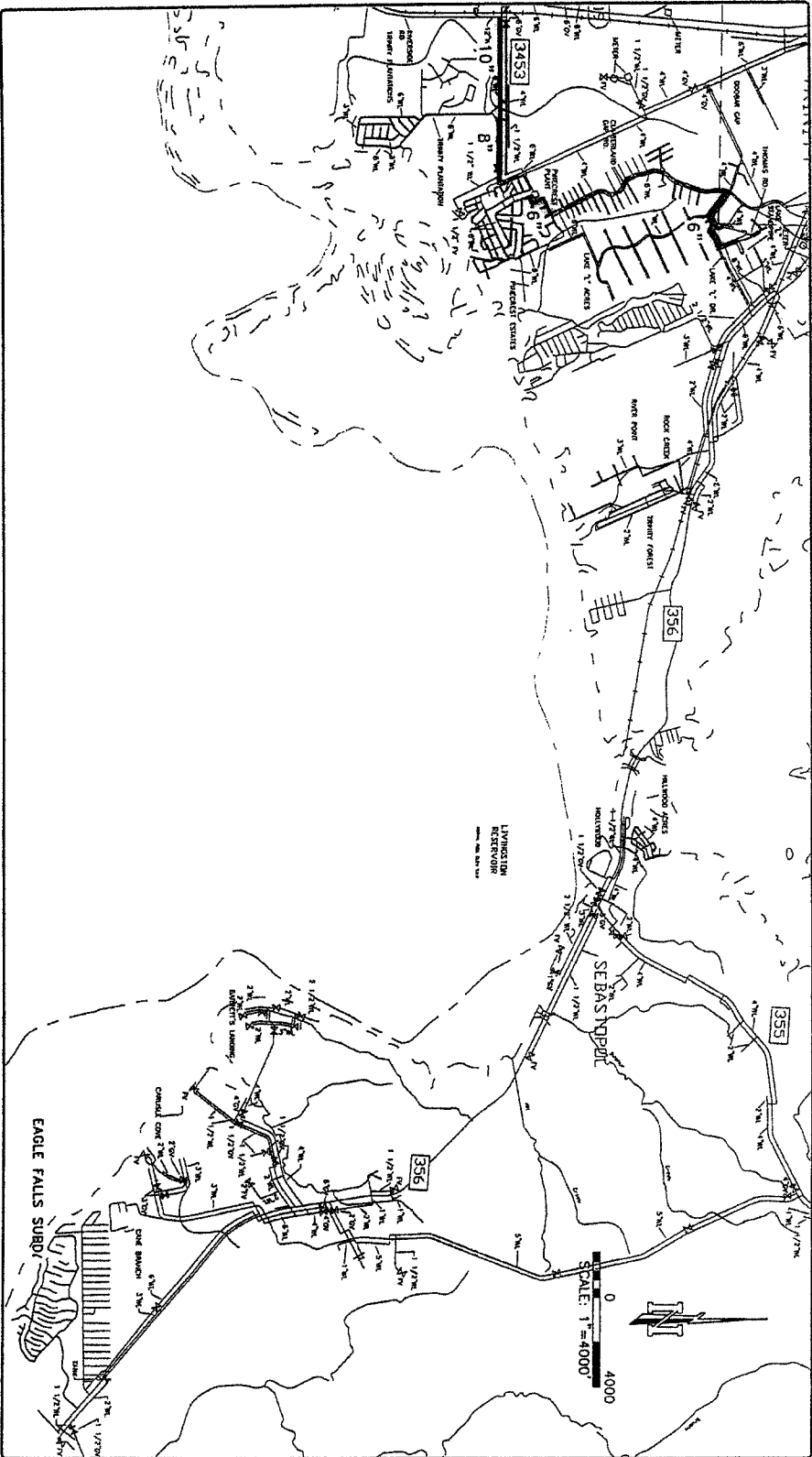


TABLE 1
TRINITY RURAL WATER SUPPLY CORPORATION
EAGLE FALLS SUBDIVISION
PRELIMINARY COST ESTIMATE


Item	Quantity	Unit	TRWSC Upgrade		Required for Eagle Falls		Estimated Cost (\$)	
			Line Size (in.)	Unit Cost (\$)	Line Size (in.)	Unit Cost (\$)	Incremental for Eagle Falls	Total
Water Line - FM 3453 Riverside Rd. to Trinity Plantation	4,700	L.F	10	25	12	30	23,500	141,000
Water Line - FM 3453 Trinity Plantation to Pinecrest Plt.	2,400	L.F	8	20	12	30	24,000	72,000
Water Line - Pinecrest Plt. To Cumberland Gap Rd.	1,800	L.F	6	15	10	25	18,000	45,000
Water Line - Cumberland Gap Rd.	12,200	L.F	NR	NR	10	25	305,000	305,000
Water Line - Lake "L" Dr. Cumberland Gap to Thomas Rd.	3,000	L.F	6	15	10	25	45,000	75,000
Water Line - Lake "L" Dr. Thomas Rd. to FM 356 (Phase 2)	3,000	L.F	NR	NR	10	25	75,000	75,000
TRA Water Line - FM 356 Lake "L" to Sebastapol	28,300	L.F	NR	NR	10	3	84,900	84,900
Water Line - FM 356 Sebastapol to Eagle Falls	37,100	L.F	NR	NR	8	20	742,000	742,000
50,000 gal. Elevated Tank	1	L.S.	NR	NR		400,000	400,000	400,000
Water Lines Inside Development (See Table 2)	1	L.S.				354,000	354,000	354,000
			Subtotal Construction				2,071,400	2,293,900
Contingency (10%)							207,100	229,400
Basic Engineering							208,000	228,000
Surveying							40,000	40,000
Project Representative							82,900	91,800
			Total				2,609,400	2,883,100

TABLE 2
EAGLE FALLS SUBDIVISION
ONSITE WATER SYSTEM
PRELIMINARY COST ESTIMATE

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost (\$)</u>	<u>Cost (\$)</u>
8" Water Line w/ Tracer Wire	3,600	L.F.	20	72,000
6" Water Line w/ Tracer Wire	18,800	L.F.	15	282,000
4" Water Line w/ Tracer Wire	1,150	L.F.	10	11,500
		Subtotal Construction		354,000
Contingency (10%)				35,400
Basic Engineering				42,400
Project Representative				14,200
Surveying				5,000
		Total Onsite		451,000



NO.	DESCRIPTION	DATE
1	REVISION	11/1/00
2		
3		
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6		
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8		
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10		



TRINITY RURAL
WATER SUPPLY
CORPORATION, LLC

1400 N. 14th St.
Tulsa, OK 74103
918.438.1100
www.trinitywater.com

DATE	BY	CHKD BY
5/15/00		
5/15/00		
5/15/00		

TRINITY RURAL
WATER SUPPLY
CORPORATION

RECOMMENDED UPGRADES
TO EXISTING SYSTEM



DATE	BY	CHKD BY
5/15/00		
5/15/00		
5/15/00		

FIGURE
1

PROJECT: 01-IMP/ADGE FALLS SUB/FIGURE 1 REV/DWG

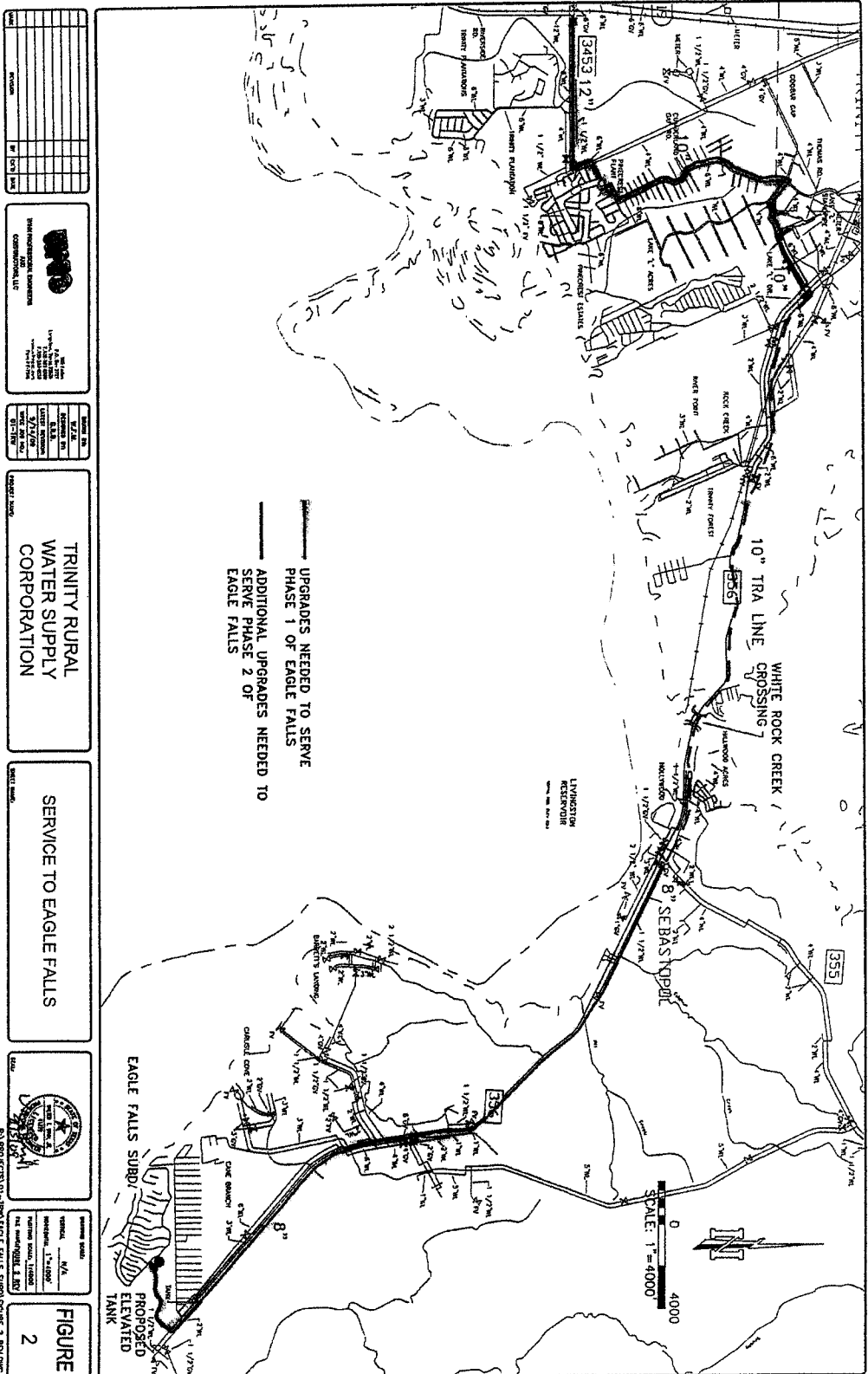


FIGURE 2

