

Kumar Gali

From: Kumar Gali
Sent: Monday, March 9, 2020 4:53 PM
To: E Haas; glennportman@tx.rr.com; Bretsue_blankenship@aol.com; Sue Blankenship; Douglas Robinson (Douglas.Robinson@as.willscot.com); edmaurer2@yahoo.com; Freddie Guerra; jwwesq@aol.com; SuzannDoug@cs.com; Robinson, Douglas O.
Cc: Matt Steer; Mary Paron-Boswell; Kent Collins; Kami McGee
Subject: CIAC Meeting -1 Follow up Memorandum
Attachments: Cover Memo - 2018-28 Impact Fee CIAC 3-19-20.pdf

Good Afternoon CIAC Members,

Attached please find the memorandum in response to the inquiries from CIAC meeting #1 held on February 20th, 2020. Let us know if you need any additional information from the staff.

Staff and consultants will also present on the attached supplemental information in March 19th, 2020 meeting.

Thank you for all your help.
Kumar



Kumar Gali, P.E., CFM, D.WRE

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MEMORANDUM

To: Capital Improvements Advisory Committee (CIAC)

From: Kumar Gali, P.E., Assistant Director of Public Works-Engineering
Kent Collins, P.E., Director of Public Works

Date: March 9th, 2020

Reference: Responses to Inquiries from CIAC Meeting #1 on February 20th, 2020

This memorandum is in response to the questions from CIAC meeting #1 on February 20th, 2020. The consultants have put together the attached memorandum providing responses to the questions for your review. Please let us know if you have any additional questions or need additional information before the March 19th meeting.

Staff and consultants will be present at the March 19th meeting to make a presentation and answer any additional questions.

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MEMORANDUM

To: Mr. Kumar Gali, P.E., CFM, D.WRE
Assistant Director of Public Works - Engineering
City of Coppel

From: Derek B. Chaney, P.E., R.P.L.S. 

Date: March 4, 2020

Subject: Water, Wastewater & Roadway Impact Fee Update
Response to Inquiries from Capital Advisory Committee Meeting #1

In connection with the City of Coppel's Water, Wastewater & Roadway Impact Fee Update, the initial presentation of the Land Use Assumptions, Capital Improvement Plan (CIP) and Impact Fee's was presented by City Staff to the appointed Capital Improvements Advisory Committee (CIAC) on Thursday, February 20, 2020.

In combination with Kelly Parma, with Lee Engineering, we supported the City Staff in providing an on-the-spot responses during the CIAC Meeting where appropriate. However, some of the inquiries made by the CIAC required addition time and resources to formulate a response. Our responses are summarized herein.

CIAC Inquiry No. 1: Provide additional information to support assumption of 3 miles for trip length for the Roadway Impact Fee.

Response: The trip length was set at a maximum of three (3) miles for any land use, as this trip length was assumed to be the maximum average distance a trip would travel on roadways within the service area in the City of Coppel.

Additional response below provided by Kelly Parma, Lee Engineering.

The trip lengths used in the study were obtained from the *FHWA 2017 National Household Travel Survey (NHTS)*. The following is a description of the survey that is provided in the publication:

The 2017 NHTS is the most recent national inventory of daily travel, and the authoritative source on the travel behavior of the American public. The NPTS/NHTS data series is the only source of national travel behavior data that tracks trends in personal and household travel. The survey gathers trip-related data, such as mode of transportation, duration, distance, and purpose of trip, and links the travel-related information to demographic, geographic, and economic data for analysis purposes.

The 2017 NHTS is a nationally representative survey of travel behavior conducted from April 2016 through April 2017. The 2017 survey is the latest in the series and updates information gathered in the NPTS conducted in 1969, 1977, 1983, 1990, and 1995, and the NHTS conducted in 2001 and 2009. The 2017 NHTS includes samples added by 13 state and local planning agencies from around the country, plus the core national sample.

In addition, the method of obtaining trip length used a Google API (application programming interfaces) shortest path route between a geocoded origin and destination whereas previous NHTS' used the respondent's estimate of trip length for each trip. These changes may have impacted the number of reported trips, including incidental trips, and the estimate of trip lengths, which in turn impact vehicle miles of travel (VMT) and person miles of travel (PMT) estimates. The change in methods may have measurable impacts on many of the survey estimates, and unknown impacts that not yet identified.

Table 6b. Trends in the Average Trip Length by Selected Trip Purposes

Trip Purpose:	Average Vehicle Trip Length (miles)				
	All Purposes	To / From Work	Shopping	Other Family / Personal Errands	Social / Recreation
1969	8.9	9.4	4.4	6.5	13.1
1977	8.4	9.0	5.0	6.7	10.3
1983	7.9	8.6	5.3	6.7	10.6
1990	8.9	11.0	5.1	7.4	11.8
1995	9.1	11.8	5.6	6.9	11.2
2001	9.9	12.1	6.7	7.5	11.9
2009	9.7	12.2	6.4	7.1	11.2
2009 MOE	0.2	0.3	0.2	0.2	0.6
2017 Original	9.6	12.0	7.0	6.9	10.6
2017 Orig. MOE	0.4	0.4	0.8	0.4	0.4
2017 Adjusted	10.5	12.8	7.9	7.7	11.8
2017 Adj. MOE	0.4	0.4	0.8	0.4	0.4

CIAC Inquiry No. 2: Provide explanation of methodology used in determining utilized capacity for the Roadway Impact Fee.

Response: (provided by Kelly Parma, Lee Engineering)

In the methodology used, it is assumed that the Thoroughfare Plan and Land Use Plan were developed to ultimately work together and complement each other.

- The supply provided by roadways in the Thoroughfare Plan will meet the demand of the trips generated under the Land Use Plan at the level of service desired by the community.
- Therefore, the ultimate capacity of the Thoroughfare Plan = the ultimate demand generated by the Land Use Plan.

Three (3) values of vehicle demand are calculated, based on the Land Use Assumptions:

- 1) Existing vehicle demand
- 2) Vehicle demand within the next 10-year period
- 3) Any remaining vehicle demand after the 10-year period

This demand is/will be served by the capacity of the existing roadways and the CIP projects as summarized below.

- Future roadway does not currently exist
When constructed, existing vehicle demand (diverted from other roadways) will use the new roadway. Capacity of the new roadway will also accommodate the vehicle demand within the next 10 years and any vehicle demand remaining after the 10-year period.
- Existing roadway is improved (incrementally widened or constructed to ultimate condition)
The existing roadway is served by the existing vehicle demand and may/may not have capacity available for the vehicle demand in the next 10 years and/or any vehicle demand remaining to achieve ultimate vehicle demand.

The improved configuration of the roadway (with added capacity) will serve the existing vehicle demand, vehicle demand in the next 10 years and any vehicle demand remaining to achieve ultimate vehicle demand.

- Existing roadway represents the ultimate configuration
The current configuration of the roadway (ultimate capacity) serves the ultimate vehicle demand, so the roadway's capacity serves existing vehicle demand, vehicle demand in the next 10 years and any vehicle demand remaining to achieve the ultimate vehicle demand.

As described in the three (3) scenarios above, the proportion of the ultimate capacity served by the three (3) types of demand are calculated based on the proportion of the demand to the ultimate demand (Table 19).

Table 19 - Summary of Vehicle-Mileage Distribution by Development Period
City of Coppell 2018 Roadway Impact Fee Study

Service Area	Existing		2018 - 2028		Year 2028 - Ultimate		Ultimate Vehicle-Miles
	Vehicle-Miles 2018	Portion of Ultimate Vehicle-Miles	Vehicle-Miles Added 2018-2028	Portion of Ultimate Vehicle-Miles	Vehicle-Miles Added 2028 - Ultimate	Portion of Ultimate Vehicle-Miles	
1	143,942	0.9545	6,865	0.0455	0	0.0000	150,807
Total	143,942		6,865		0		150,807

Going back to the initial premise that the ultimate capacity of the Thoroughfare Plan is the same as the ultimate demand generated by the Land Use Plan, the portion of the capacity provided by the CIP projects attributable to new development is based on the proportion of the vehicle demand over the next 10 year period (4.55%) to the ultimate demand/capacity of the roadway system.

CIAC Inquiry No. 3: Revise the benchmark chart comparing the City of Coppell's calculated maximum assessable impact fees to other nearby communities to include amounts for Water, Wastewater and Roadway. Verify the impact fee amounts shown for the nearby communities are the established assessment amounts, and not maximum calculated assessable amounts.

Response: The benchmark comparison chart has been revised to address the CIAC comments and attached as "Exhibit A".

CIAC Inquiry No. 4: Justify the total population growth rate of approximately 3 percent as applied for the 10-year period between 2018 and 2028.

Response: The 2018 population was established based on the population of 41,100 according to figures posted on the City's website. The Coppell 2030 Comprehensive Plan established a buildout population of 42,636 for 2030. An average annual growth rate in the range of 0.3% was estimated based on a linear interpolation between the 2018 and 2030 population values and used to arrive at an estimated 2028 population of 42,380.

Reviewing historical population trends, the City has experienced an estimated annual population growth rate in the range of 0.8% between the 2010 US Census population of 38,659 and the 2018 population of 41,100. For comparison to more recent trends, the City website now shows a population of 41,290 for 2019, representing an annual growth rate in the range of 0.5% between the years of 2018 and 2019. These trends indicate a slowing of growth as is typically for a community approaching its buildout population.

CIAC Inquiry No. 5: Provide additional information to explain methodology for converting land use data to service units (vehicle-miles) for the Roadway Impact Fee.

Response: (provided by Kelly Parma, Lee Engineering)

For conversion of the land use components (acres) to service units, a floor to area ratio (FAR) of 0.20 was assumed for the Office, Retail, Institutional and Industrial land uses. Therefore, the values presented in Table 19 were obtained as follows:

Acres (Table 16) x FAR x (43,560 ft²/acre) x Service Unit (Table 18)

Using the Retail land use as an example:

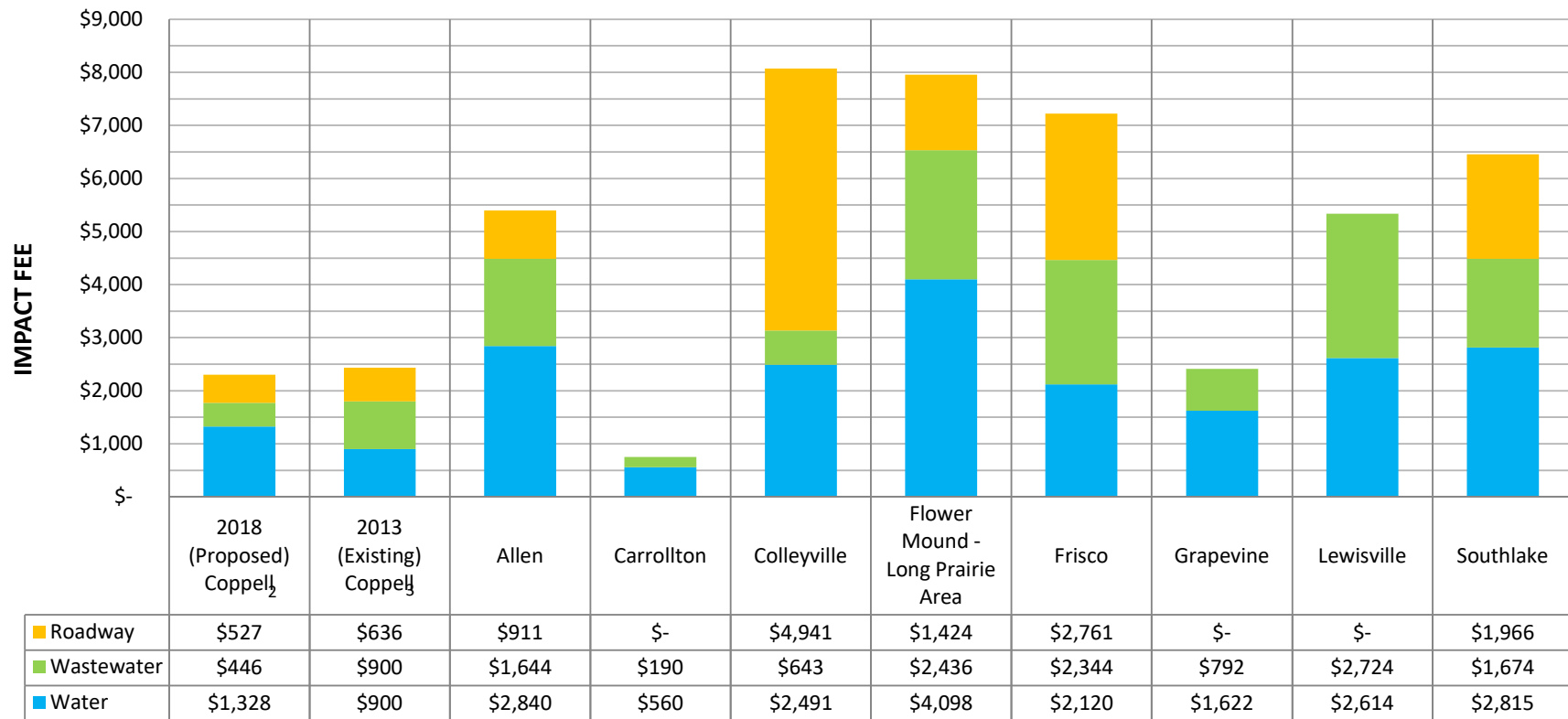
Year	Acres	FAR	Square Feet	Service Unit ¹	Development Unit	Veh-Miles
2018	336.31	0.20	2,929,932.72	11.43	1,000 ft ²	33,489.13
2028	406.83	0.20	3,544,302.96	11.43	1,000 ft ²	40,511.38
2030	406.83	0.20	3,544,302.96	11.43	1,000 ft ²	40,511.38

¹Vehicle-miles/development unit

Attachments: Exhibit A – Benchmark Comparison of Impact Fees

cc: Kent Collins, P.E. – City of Coppell
Mike Garza, P.E. – City of Coppell
Kelly Parma, P.E. – Lee Engineering, L.L.C.

SINGLE FAMILY DWELLING UNIT₁ IMPACT FEE BENCHMARK COMPARISONS W/NEIGHBORING COMMUNITIES



Notes:

1. Single Family Unit based on meter size of 3/4"-5/8" for water and wastewater and the cost per service unit for trip characteristics of single family dwelling unit for roadways.
2. 2018 (Proposed) Coppell Impact Fee amounts shown are based on allowable maximum amount calculated.
3. 2013 (Existing) Coppell Impact Fee amounts shown are based on adopted assessment amounts.
4. All other impact fee amounts shown are based on adopted assessment rates.