

AGENDA
**Capital Improvements Advisory
Committee Meeting**
108 W. Broadway St., Prosper, Texas
Town of Prosper Municipal Chambers
Tuesday, September 20, 2016, 6:00 p.m.

1. Call to Order / Roll Call.
2. Consider and act upon minutes from the March 1, 2016 Capital Improvement Advisory Committee meeting.
3. Discuss matters related to impact fees, including, but not limited to, the Town's impact fee ordinance; the impact fee update process; water, wastewater, and roadway capital improvements; historical and projected population; the future land use plan; development agreements; and economic development incentives or tools.
4. Consider and act upon a recommendation to the Town Council on the proposed amendments to the land use assumptions, capital improvements plan, and the amount of impact fees for water, wastewater, and roadway.
5. Possibly direct Town Staff to schedule topic(s) for discussion at a future meeting.
6. Adjourn.

Note: The order in which items are heard on the agenda is subject to change.

CERTIFICATION

I, the undersigned authority, do hereby certify that this Notice of Meeting was posted on the inside window at the Town Hall of the Town of Prosper, Texas, a place convenient and readily accessible to the general public at all times, and said Notice was posted on September 16, 2016, at 5:00 p.m. and remained so posted at least 72 hours before said meeting was convened.

Robyn Battle, Town Secretary

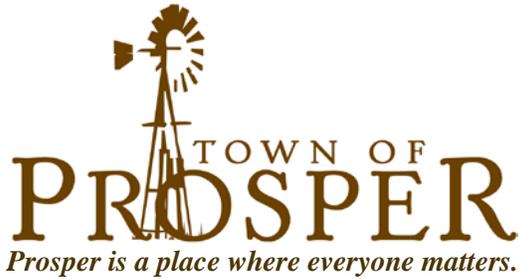
Date Notice Removed

Pursuant to Section 551.071 of the Texas Government Code, the Capital Improvements Advisory Committee reserves the right to consult in closed session with its attorney and to receive legal advice regarding any item listed on this agenda.

NOTICE

Pursuant to Town of Prosper Ordinance No. 13-63, all speakers other than Town of Prosper staff are limited to three (3) minutes per person, per item, which may be extended for an additional two (2) minutes with approval of a majority vote of the Capital Improvements Advisory Committee.

NOTICE OF ASSISTANCE AT PUBLIC MEETINGS: The Prosper Capital Improvements Advisory Committee meetings are wheelchair accessible. For special services or assistance, please contact the Town Secretary's Office at (972) 569-1011 at least 48 hours prior to the meeting time.



MINUTES
Capital Improvements Advisory
Committee Meeting
108 W. Broadway St., Prosper, Texas
Town of Prosper Municipal Chambers
Tuesday, March 1, 2016, 6:00 p.m.

1. Call to Order / Roll Call

The meeting was called to order at 6:00 p.m.

Committee members present: Craig Andres, Brandon Daniel, David Snyder, John Alzner, John Hema, Tripp Davenport, Chad Robertson, and Drake Dunn

Staff present: Hulon Webb, Executive Director of Development and Community Services; John Webb, Director of Development Services; Alex Glushko, Senior Planner; Jonathan Hubbard, Planner; and Pamela Clark, Planning Technician.

2. Consider and act upon the appointment of a Chair, Vice Chair, and Secretary of the Capital Improvements Advisory Committee.

Motion by Snyder, seconded by Robertson, to appoint John Alzner as Chair. Motion approved 8-0.

Motioned by Snyder, seconded by Andres, to appoint John Hema as Vice Chair. Motion approved 8-0.

Motioned by Daniel, seconded by Andres, to appoint David Snyder as Secretary. Motion approved 8-0.

3. Discuss matters related to impact fees, including, but not limited to, the Town's impact fee ordinance, the impact fee update process, capital improvements, historical and projected population, non-residential acreage, and the future land use plan.

Eddie Haas (Freese & Nichols, Impact Fee Update Consultant): Provided a presentation regarding the basis of impact fees, the role of the Capital Improvements Advisory Committee, the impact fee update process, and the role of land use assumptions.

Glushko: Described the analysis conducted by staff to project the growth rate of residential population and non-residential acreage over a 5-year period, 10-year period, and at build out.

Committee: Inquired about funding of and Town participation in capital projects, the projected growth rate compared to the 2011 impact fee update land use assumptions, and the implications of the build out population estimate.

4. Review and possibly act upon the proposed land use assumptions.

Motioned by Snyder, seconded by Hema, to approve the land use assumptions growth rate as presented. Motion approved 8-0.

5. Review and discuss the impact fee update schedule.

Haas: Presented an outline for event and proposed future meetings.

6. Possibly direct Town Staff to schedule topic(s) for discussion at a future meeting.

No items were discussed

7. Adjourn

Motioned by Snyder, seconded by Hema, to adjourn. Motion approved 8-0 at 7:06 p.m.

Pamela Clark, Planning Technician

David Snyder, Secretary



PLANNING

To: Capital Improvements Advisory Committee

From: Alex Glushko, AICP, Senior Planner

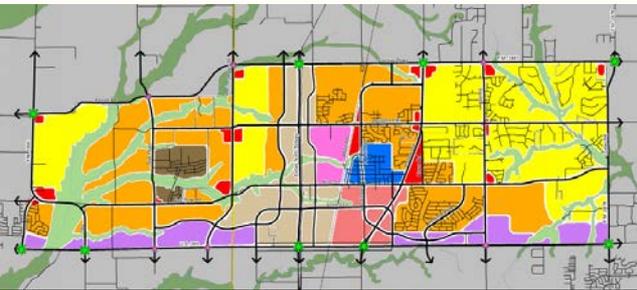
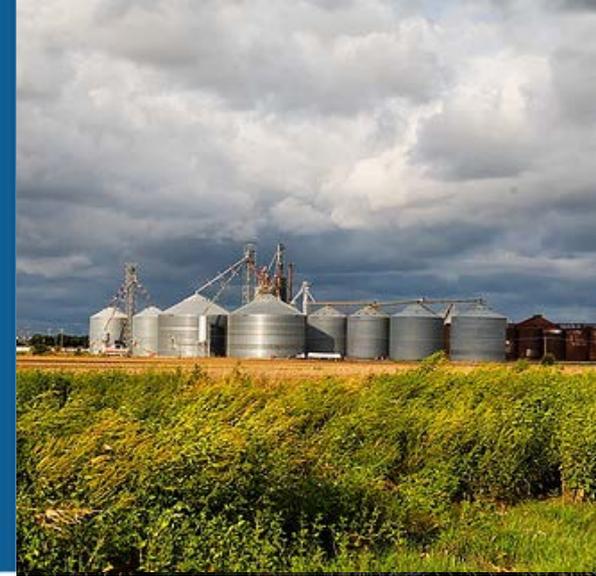
Through: Hulon T. Webb, Jr, P.E., Executive Director of Development and Community Services
John Webb, AICP, Director of Development Services

Re: Capital Improvements Advisory Committee - September 20, 2016

This is the second of three meetings, with the third meeting tentatively scheduled for October 4th, 2016. The primary purpose of this meeting is to receive information regarding the following:

1. The water, wastewater, and roadway capital improvement plans;
2. Comparable impact fee related information from other North Texas municipalities; and
3. An update related to the overall Impact Fee update project schedule.

Please find attached a copy of the consultant's presentation for this meeting. We realize there is a substantial amount of information, so please do not hesitate in contacting us with any questions prior to the meeting. Any responses provided to a member will also be shared with the entire Committee.



Capital Improvements Advisory Committee (CIAC) Meeting No.2

IMPACT FEE CAPITAL IMPROVEMENT PLANS

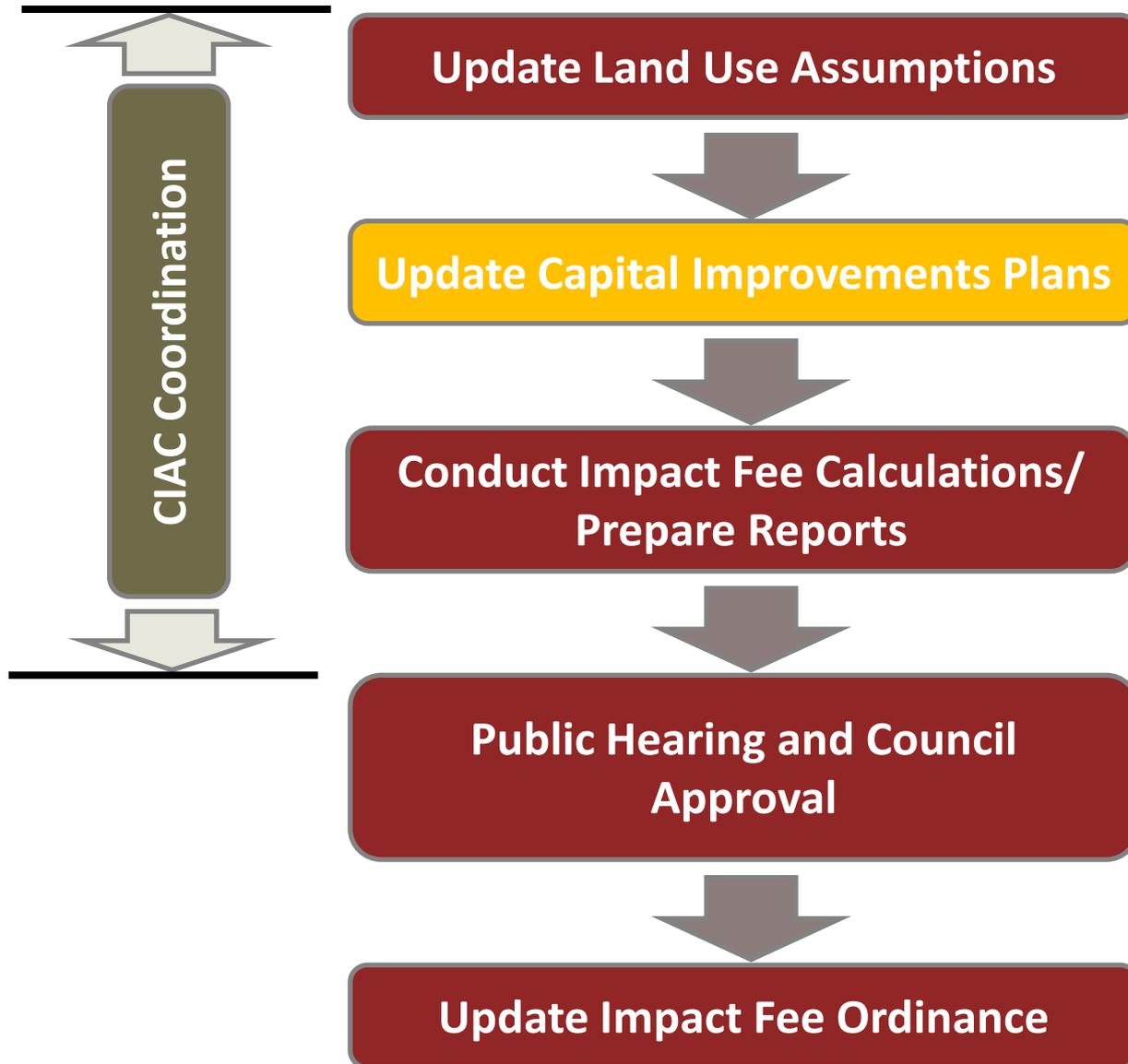
September 20, 2016



- **Water, Wastewater and Roadway Capital Improvements Plans**
- Comparison with other cities
- Project Schedule



Impact Fee Process



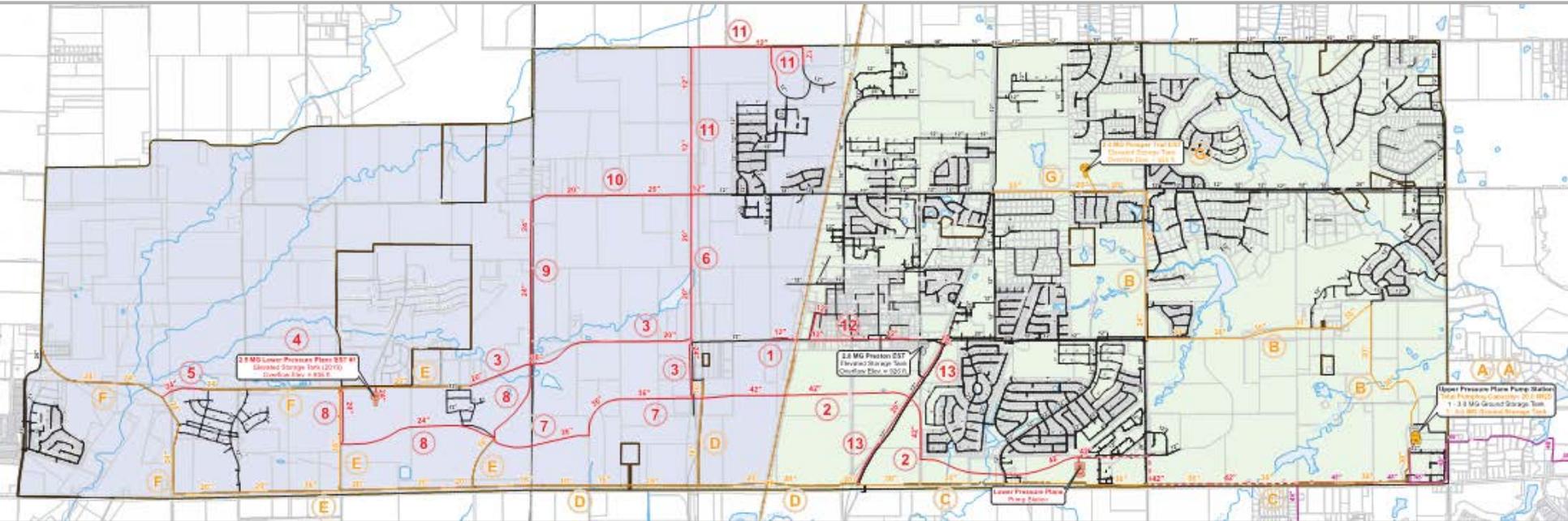
Water Demand Projections



- Includes residential and non-residential growth
- Established per capita usage rate per person and non-residential acre based on a review of historical data

Year	Population	Average Day Demand (MGD)	Maximum Day Demand (MGD)	Peak Hour Demand (MGD)
2016	17,800	3.61	10.34	20.18
2021	27,888	5.76	16.39	31.91
2026	40,976	8.48	24.13	46.95

Water Impact Fee Capital Improvements Plan



Lower Pressure Plane Pump Station Improvements

- 2** New 10.0 MGD Pump Station and 6.0 MG Ground Storage Tank (2019)
- 7** Expand Pump Station to 25.0 MGD (2024)

<u>Proposed Impact Fee Eligible Improvements</u>		<u>Existing Impact Fee Eligible Projects</u>			
	Proposed Pressure Reducing Valve		Pump Station		Road
	Proposed Pump Station		Ground Storage Tank		Railroad
	Proposed Ground Storage Tank		Elevated Storage Tank		Stream
	Proposed Elevated Storage Tanks		Water Line		Lake
	Proposed Water Line	<u>Existing Water System</u>			Parcel
	Proposed Supply Line		Existing Pressure Reducing Valve		Town Limit
<u>NTMWD Water System</u>			Existing Pump Station		ETJ Boundary
	Water Line		Existing Ground Storage Tank		County Boundary
			Existing Elevated Storage Tank		Lower Pressure Plane
			8" and Smaller Water Line		Upper Pressure Plane
			10" and Larger Water Line		FREEZE NICHOLS

Water Impact Fee Capital Improvements Plan



Project Number	Project Name	CIP Cost
2016 - 2021		
1	West First Street PRV & 12-inch Parallel Pipe	\$ 494,200
2	LPP 10.0 MGD Pump Station, 6.0 MG GST, & 42-inch Transmission Line	\$ 26,138,600
3	West First Street 20-inch Water Line, Dallas Parkway 24-inch Parallel	\$ 3,334,500
4	LPP 2.5 MG EST & 24-inch Water Line	\$ 6,397,000
5	Fishtrap Road 24-inch Water Line	\$ 532,300
6	Dallas Parkway 20-inch & West Prosper Trail 12-inch Water Lines	\$ 1,619,300
2016-2021 Total		\$ 38,515,900
2022 - 2026		
7	LPP Pump Station Expansion & 36-inch Transmission Mains	\$ 6,096,400
8	24-inch Transmission Main	\$ 3,758,400
9	Legacy Drive 24-inch Water Line	\$ 2,136,600
10	West Prosper Trail 20-inch Water Line	\$ 1,682,700
11	Dallas Parkway / Frontier Parkway 12-inch Water Line	\$ 2,556,900
12	First Street 12-inch Water Line	\$ 1,605,300
13	Preston Road 20-inch Water Line	\$ 2,328,400
2022-2026 Total		\$ 20,164,700

Wastewater Flow Projections



- Includes residential and non-residential growth
- Established per capita usage rate per person and non-residential acre based on a review of historical data and flow monitoring conducted as part of this study

Year	Wastewater Service Population	Average Day Flow (MGD)	Peak Wet Weather Flow (MGD)
2016	15,485	1.74	6.94
2021	25,517	2.89	11.55
2026	38,514	4.35	17.41

Wastewater Impact Fee Capital Improvements Plan



LEGEND

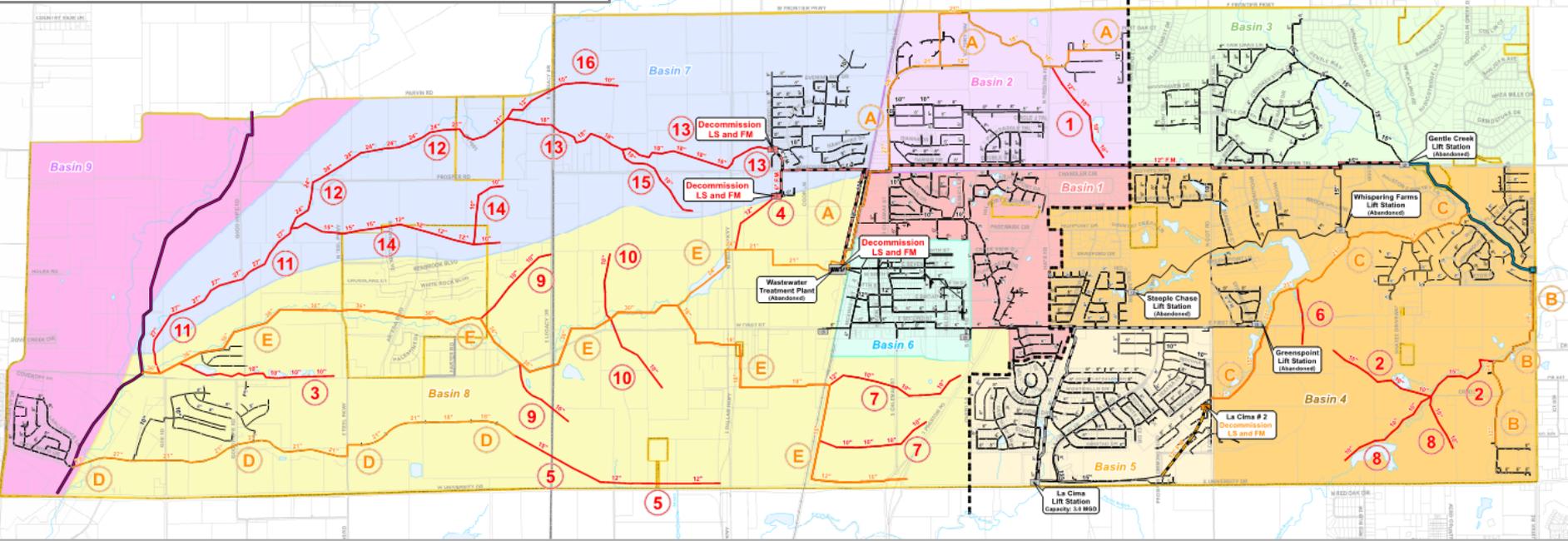
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|--------------------------------|--|-----------------|
| Manhole | Decommission Existing Lift Station | Road |
| Lift Station | Proposed Decommissioned Lift Station | Railroad |
| Wastewater Treatment Plant | Existing Impact Fee Eligible Wastewater Line | Stream |
| NTMWD Meter | Proposed Impact Fee Eligible Gravity Line | Lake |
| 8" and Smaller Wastewater Line | Decommission Existing Force Main | Parcel |
| 10" and Larger Wastewater Line | Proposed Decommissioned Force Main | Town Limit |
| 8" and Smaller Force Main | UTRWD Wastewater Line | ETJ Boundary |
| 10" and Larger Force Main | NTMWD Wastewater Line | County Boundary |

SUB-BASINS

- | | |
|---------|---------|
| Basin 1 | Basin 6 |
| Basin 2 | Basin 7 |
| Basin 3 | Basin 8 |
| Basin 4 | Basin 9 |
| Basin 5 | |



Flow to UTRWD ← → Flow to NTMWD (Wilson Creek)



Wastewater Impact Fee Capital Improvements Plan

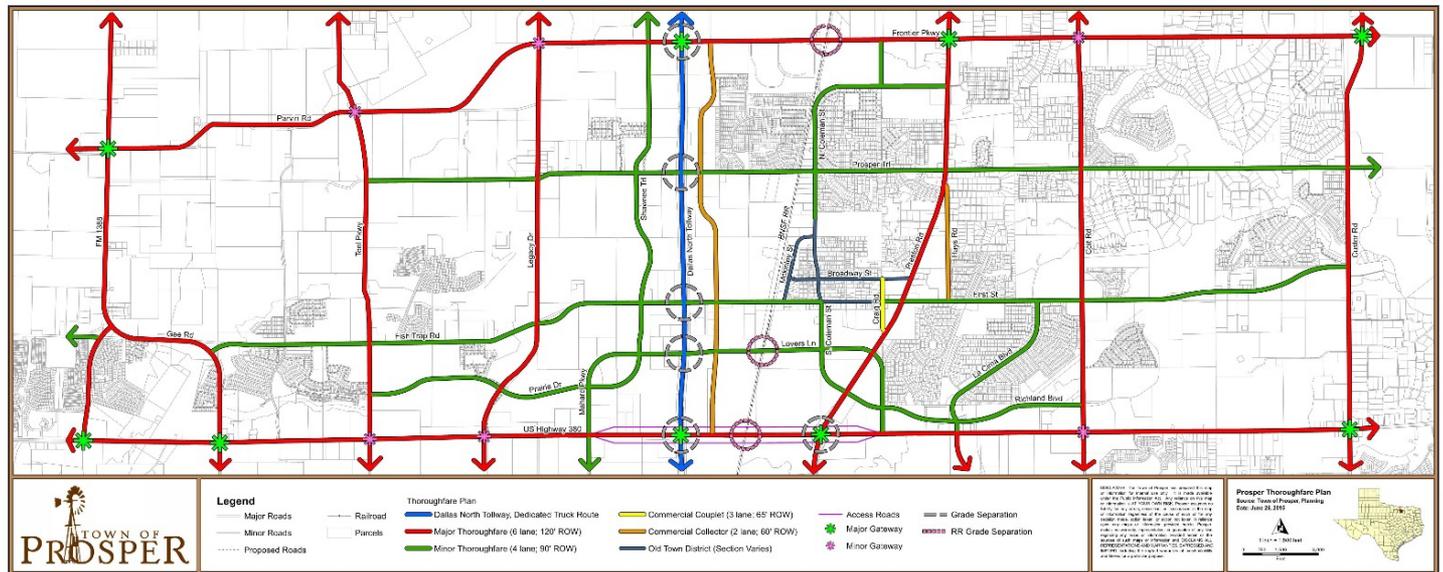


Project Number	Project Name	Cost
2016 - 2021		
1	New 10/12-inch Trunk Line Prosper Trail to Coleman Street	\$ 718,300
2	North Rutherford Branch Creek 10/15-inch Interceptor	\$ 1,572,100
3	Fishtrap Road 10-inch Interceptor	\$ 962,400
4	Prestonwood 12-inch Interceptor & Lift Station Decommission	\$ 870,100
5	University Drive 12/15-inch Interceptor	\$ 1,778,400
6	First Street 10-inch Interceptor to Existing 21" Interceptor	\$ 356,400
7	Future Town Center 10-inch Interceptors	\$ 1,491,200
8	South Rutherford Branch Creek 10-inch Interceptors	\$ 1,012,100
2016-2021 Total		\$ 8,761,000
2022-2026		
9	Legacy Drive 10-inch Trunk Lines	\$ 1,026,200
10	New 10-inch Trunk Lines to Under-Design 36" Interceptor	\$ 898,500
11	Doe Branch Creek 27-inch Interceptor	\$ 3,644,200
12	Doe Branch Creek 21/24-inch Interceptor	\$ 3,979,600
13	Lakes of Prosper 18-inch Interceptor & Lift Station Decommissioning	\$ 3,358,700
14	Prosper Road 10/12/15-inch Interceptor & 10" Trunk Line	\$ 2,189,800
15	Prosper Trail 10-inch Interceptor	\$ 585,400
16	Legacy Drive 10-inch Interceptor	\$ 718,900
2022-2026 Total		\$ 16,401,300

Roadway Impact Fee Capital Improvements Plan (IFCIP)



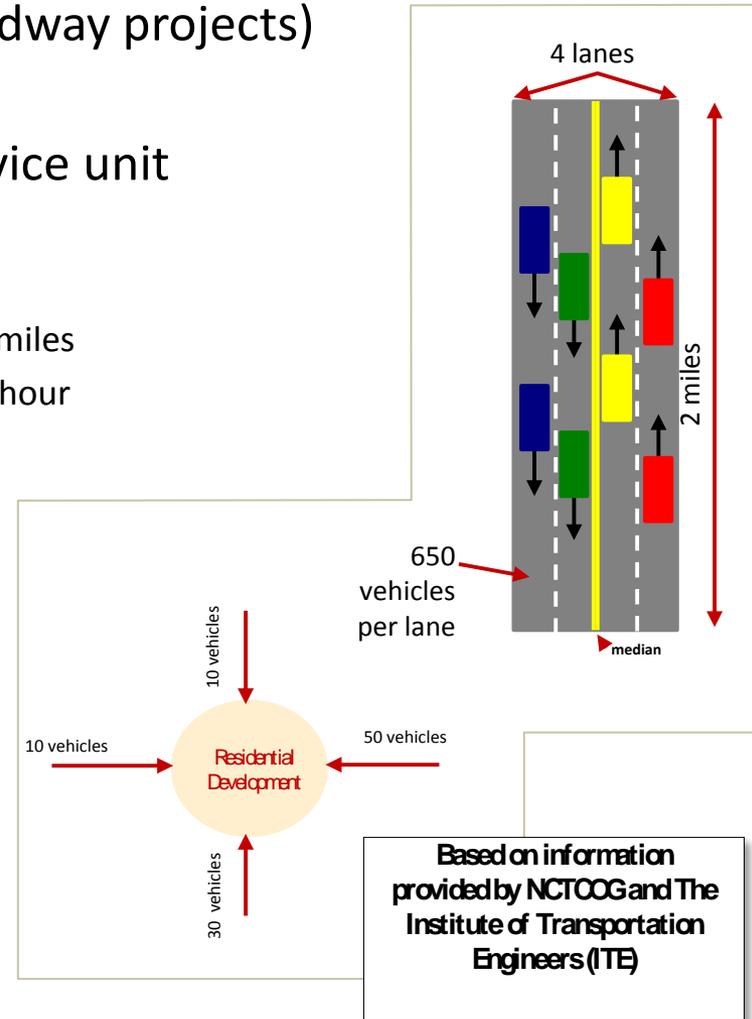
- Impact Fee CIP different from a traditional CIP
 - Based on official plans of Town
 - 2012 Thoroughfare Plan
 - May include completed projects with excess capacity, projects under construction, and future projects
- Roadways:
 - Arterial or Collectors on Thoroughfare Plan
 - State facilities eligible (Town's portion of cost for: construction, ROW, engineering, debt service)
 - Recoupment projects eligible



Roadway Service Units: Vehicle-Mile



- Establishes a relationship between supply (roadway projects) and demand
- Vehicle-Mile during PM peak hour used as service unit
 - Supply = Vehicle Capacity x Length
 - Roadway Projects
 - Supply = 650 vehicles/hour/lane x 4 lanes x 2 miles
 - Supply = 5,200 vehicle-miles supplied in peak hour
 - New Development
 - Example: 100 unit residential development
 - Demand = 100 vehicles x 3 miles
 - Demand = 300 vehicle-miles in the peak hour
 - Demand = Trips Activity x Trip Length
 - Roadway Projects: Existing Utilization
 - Demand = 793 vehicles x 1.12 miles
 - Demand = 888 vehicle-miles in peak hour
 - New Development
 - Example: 100 unit residential development
 - Demand = 100 vehicles x 3 miles
 - Demand = 300 vehicle-miles in the peak hour
- Current demands determined from traffic counts collected at various locations throughout the city by City Staff



Roadway Impact Fee

Projected 10-Year Demand



- Calculated using 10-year population and employment growth in LUA
- Land Use Equivalency Table
 - Based on trip rate and trip length data (vehicles-miles)
- Growth determines CIP needs

Residential Growth



Employment Growth



Roadway Impact Fee Projected 10-Year Demand



Vehicle-Mile Trip Generation by Service Area, Prosper Impact Fee

Based on February 25, 2016 Land Use Assumptions by City of Prosper

Estimated Residential Growth Vehicle-Mile Trip Generation

Service Area	Added Population	Added Dwelling Units	Vehicle-Miles per DU	Total Vehicle-Miles
1	15,086	4,795	6.00	28,770
2	8,090	2,573	6.00	15,438

SU Equivalency	
Residential DU	6.00
Basic Employ SF	4.86
Service Employ SF	8.14
Retail Employ SF	7.87

Note: Updated Trip Rates

Estimated Basic Employment Growth Vehicle-Mile Generation

Service Area	Total Square Feet
1	300,000
2	0

Estimated Service Employment

Service Area	Total Square Feet
1	733,000
2	1,617,000

Estimated Retail Employment

Service Area	Total Square Feet	Per 1000/SF	Vehicle-Miles
1	1,783,000	7.87	14,032
2	2,797,000	7.87	22,012

Service Area	Residential Growth (veh-mi)	Basic Emp. Growth (veh-mi)	Service Emp. Growth (veh-mi)	Retail Emp. Growth (veh-mi)	Total Growth (veh-mi)
1	28,770	1,458	5,967	14,032	50,227
2	15,438	0	13,162	22,012	50,613
Total	44,208	1,458	19,129	36,045	100,840

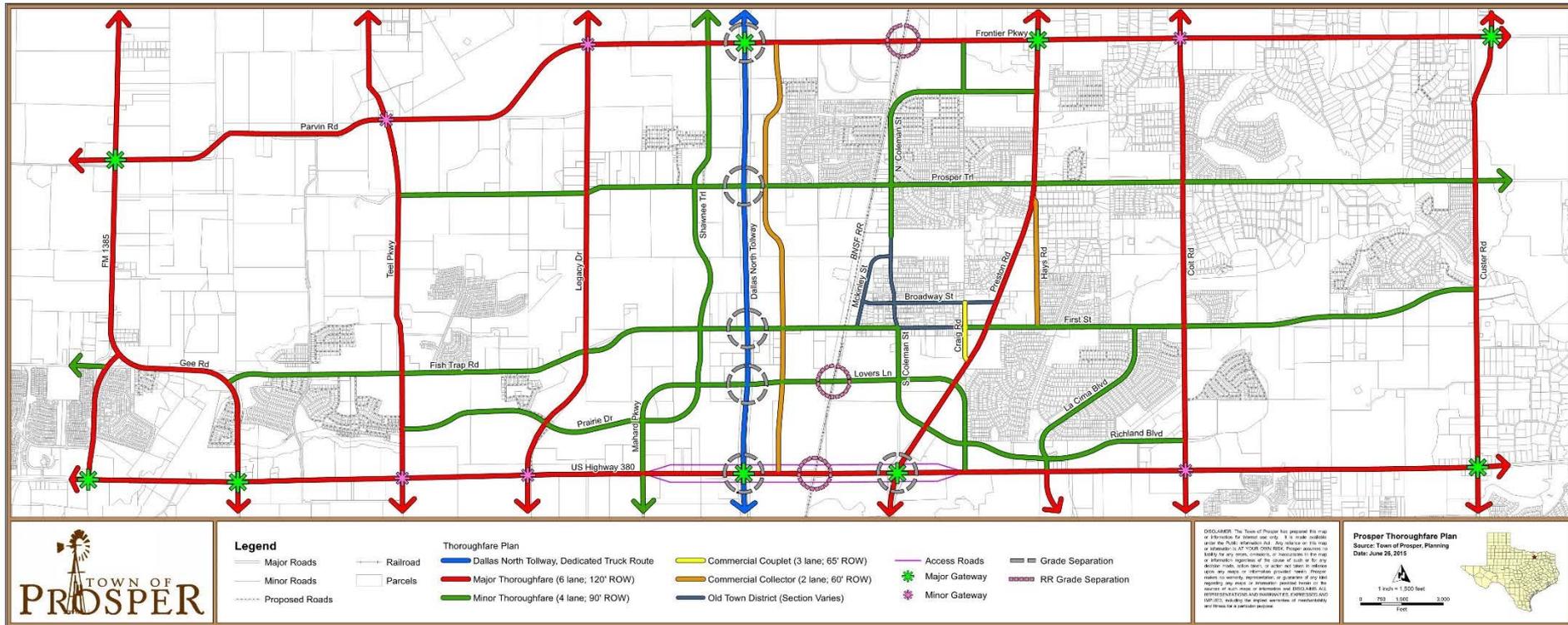
Vehicle-mile Generation Summary

Service Area	Residential Growth Vehicle-Miles	Basic Growth Vehicle-Miles	Service Growth Vehicle-Miles	Retail Growth Vehicle-Miles	Total Growth Vehicle-Miles	2011 Growth Vehicle-Miles
1	28,770	1,458	5,967	14,032	50,227	35,143
2	15,438	0	13,162	22,012	50,613	43,610
Totals	44,208	1,458	19,129	36,045	100,840	78,753

Eligible Projects



- Arterial or Collector class facility on Thoroughfare Plan



Roadway Impact Fee IFCIP Project Selection



- Full Thoroughfare Plan for IFCIP
 - Retention of pervious impact fee strategy
 - Provides most flexibility for rapid growth throughout the Town
- IFCIP updated for recent changes to Thoroughfare Plan
- IFCIP updated for completed projects

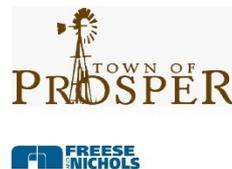
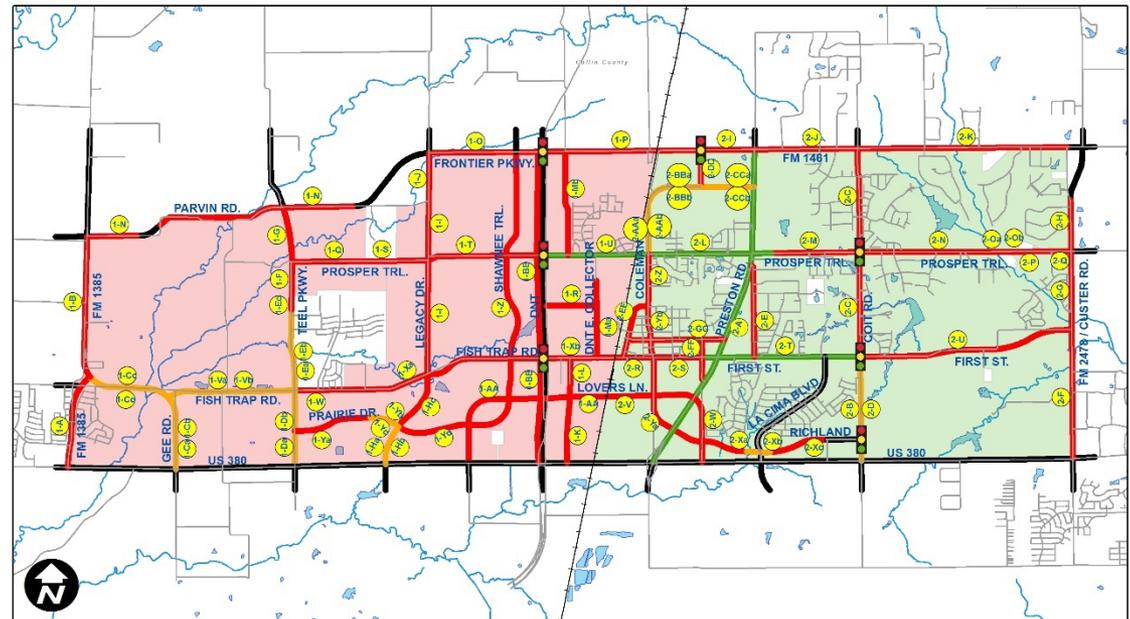


Figure 4-1
Town of Prosper
Roadway Impact Fee
Capital Improvements Plan

Legend	
Eligible Projects	Railroad
Completed Projects	Local Roads
Partially Completed Projects	Roadway Service Areas
Non Eligible Projects	Service Area 1
Intersection Improvements	Service Area 2

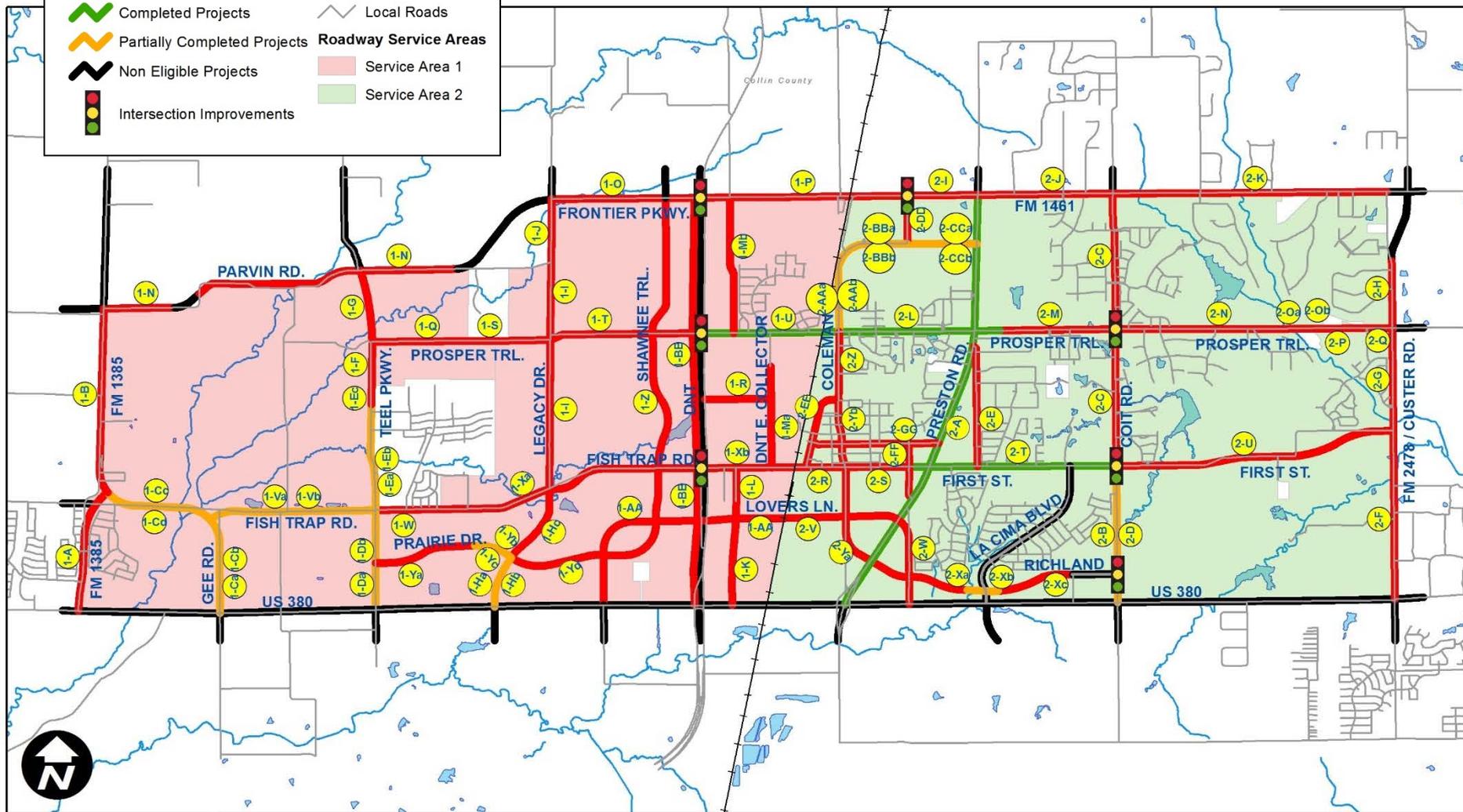
Roadway Impact Fee

Proposed Roadway IFCIP



Legend

-  Eligible Projects
 -  Completed Projects
 -  Partially Completed Projects
 -  Non Eligible Projects
 -  Intersection Improvements
 -  Railroad
 -  Local Roads
- Roadway Service Areas**
-  Service Area 1
 -  Service Area 2

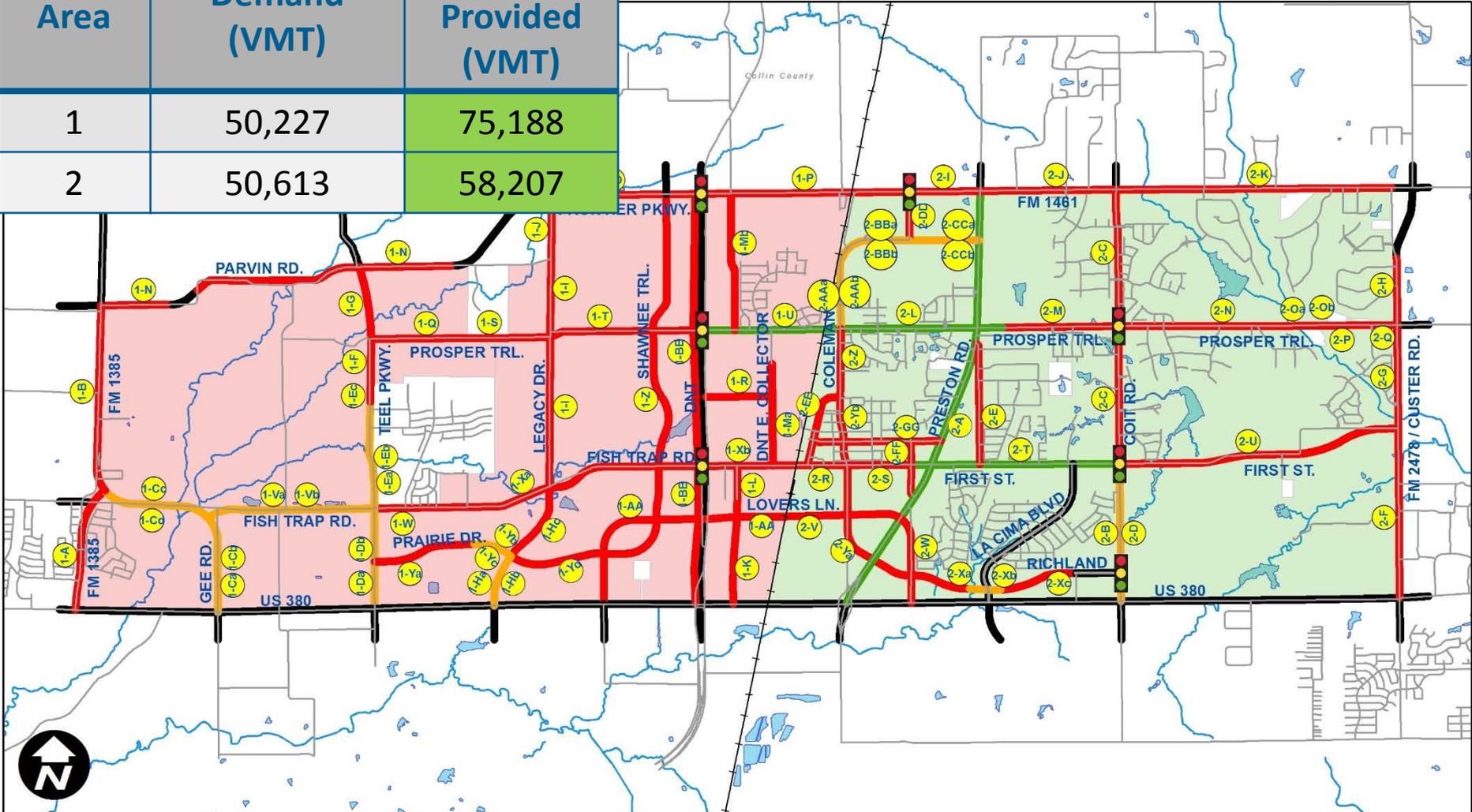


Roadway Impact Fee

Proposed Roadway IFCIP



Service Area	10-Year Demand (VMT)	Net Capacity Provided (VMT)
1	50,227	75,188
2	50,613	58,207



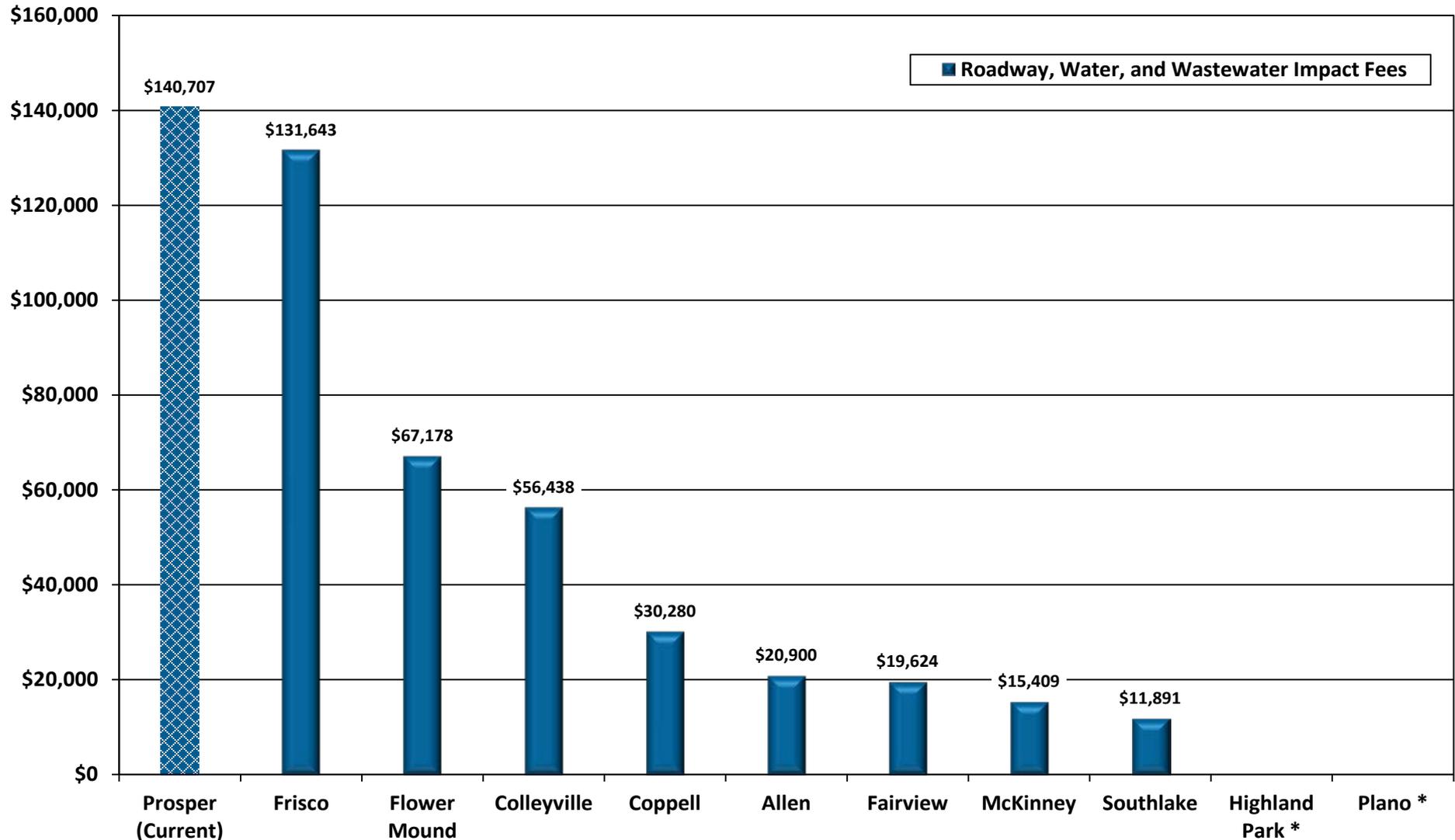
Agenda



- Water, Wastewater and Roadway Capital Improvements Plans
- **Comparison with other cities**
- Project Schedule

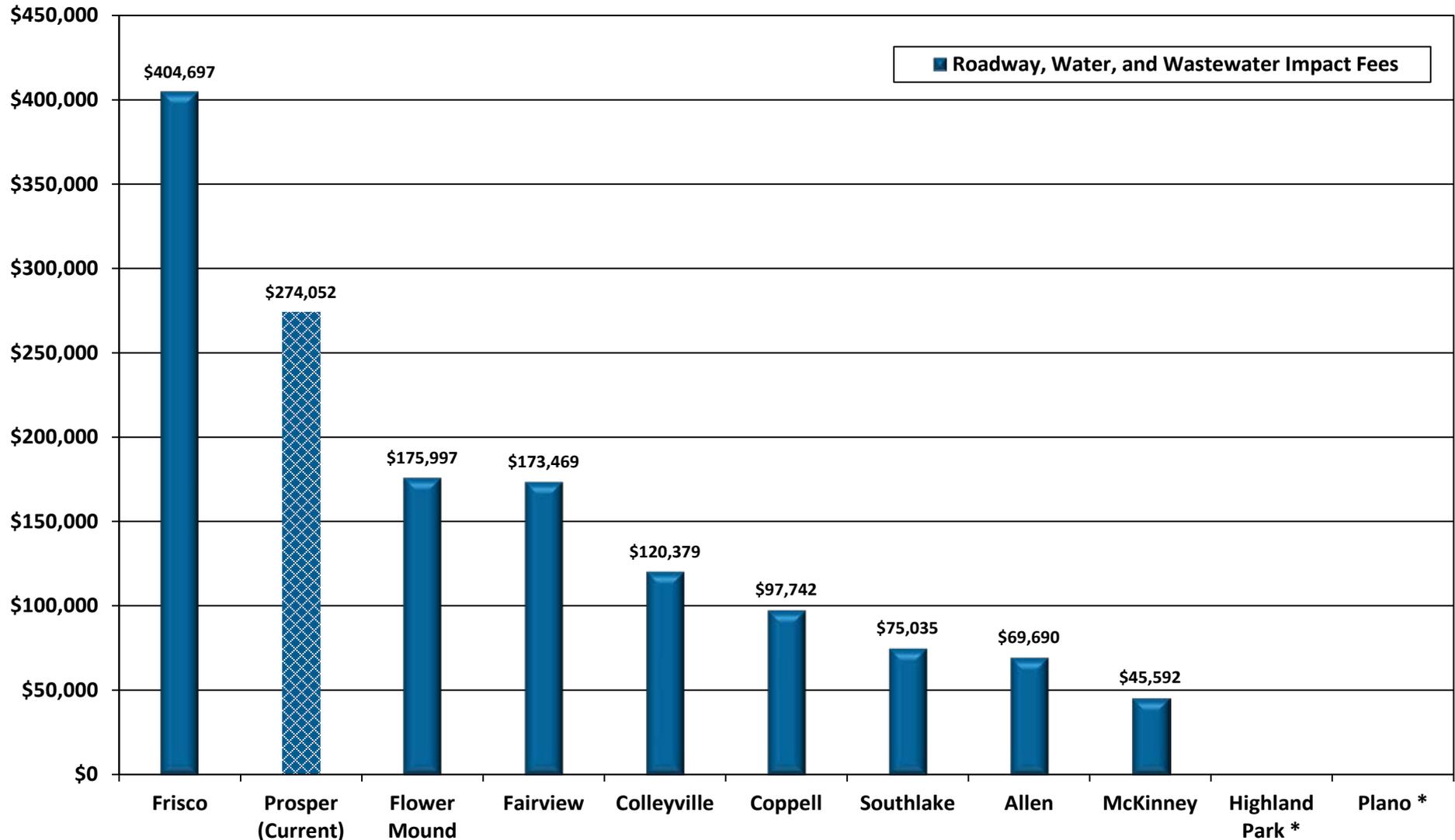


Restaurant w/Drive-thru



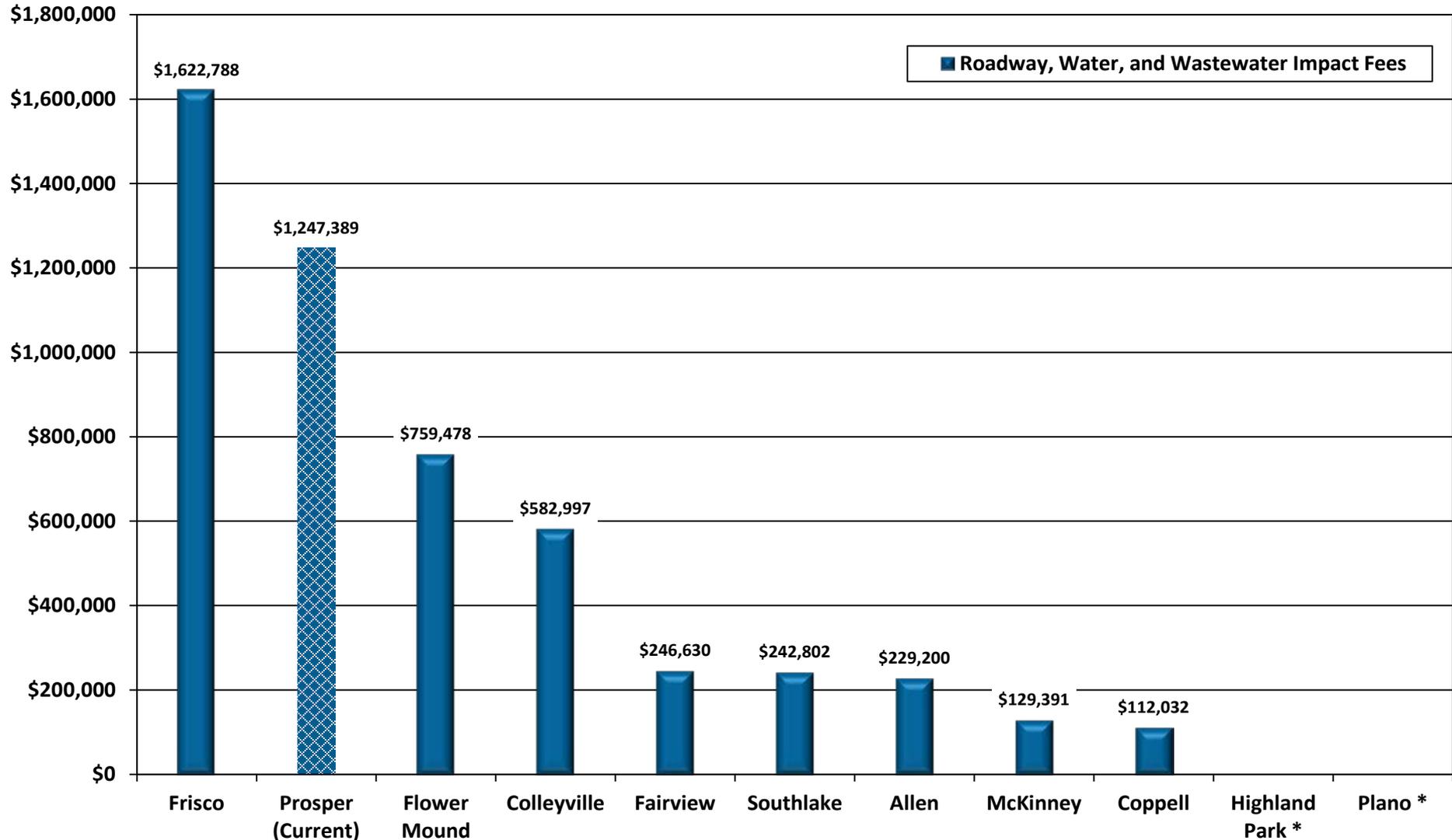
*Does not charge impact fees.

Medical Office Building



*Does not charge impact fees.

Big Box Grocery Store



*Does not charge impact fees.

Agenda



- Water, Wastewater and Roadway Capital Improvements Plans
- Comparison with other cities
- **Project Schedule**



Impact Fee Schedule



Description	Date	Action By
CIAC Meeting #1- Land Use Assumptions	3/1/2016	Town Staff, CIAC, FNI
Town Council Peaking Factor Analysis Presentation	9/13/2016	Town Staff, FNI
CIAC Meeting #2- Impact Fee CIPs	9/20/2016	Town Staff, CIAC, FNI
Submit Draft Impact Fee Report to Town for review	9/21/2016	FNI
Conference Call with Town Staff to discuss Draft Report	9/26/2016	Town Staff, FNI
Town Council to set date for Public Hearing (to be held on 11/8/2016)	9/27/2016	Council
CIAC Meeting #3 – Impact Fee Calculations	10/4/2016	Town Staff, CIAC, FNI
Impact Fee Report available to Public	10/5/2016	FNI
Advertise in newspaper for Public Hearing	10/5/2016	Town Staff
Town Staff to submit Council agenda item for Public hearing	10/14/2016	Town Staff
CIAC written comments due to Council	11/1/2016	CIAC
Public Hearing	11/8/2016	Town Staff, Council, FNI
Council Adoption of Impact Fees (must keep public hearing open in order to adopt within 30 days of public hearing)	12/13/2016	Town Staff, Council

Conduct Impact Fee Analysis



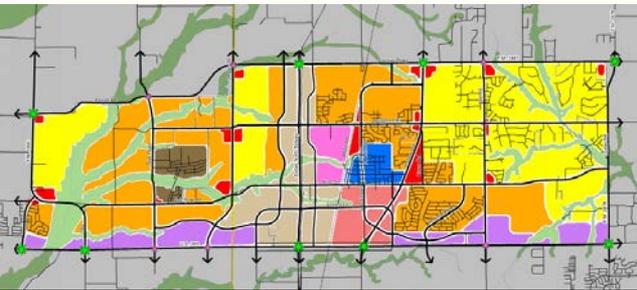
- IFCIP Projects:
 - Complete Projects
 - Projects under construction with excess capacity
 - Projects to meet growth needs
- Calculate cost of impact fee CIP
- Land use assumptions to determine growth in new service units
- Maximum allowable impact fee calculated by dividing eligible CIP/growth in service units

$$\text{Impact Fee Per Service Unit} = \frac{\text{Eligible CIP Cost} - \text{Credit}}{\text{New Service Units}}$$

- Credit of 50% for the portion of ad-valorem taxes generated by CIP improvements
- Fee collected can be less than maximum; by service area



**FREESE
AND
NICHOLS**



TOWN OF
PROSPER

**Roadway, Water, and Wastewater
Impact Fee Study Update**