

City of Plano Street Maintenance

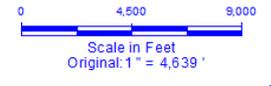


CITY OF PLANO

Major Thoroughfares

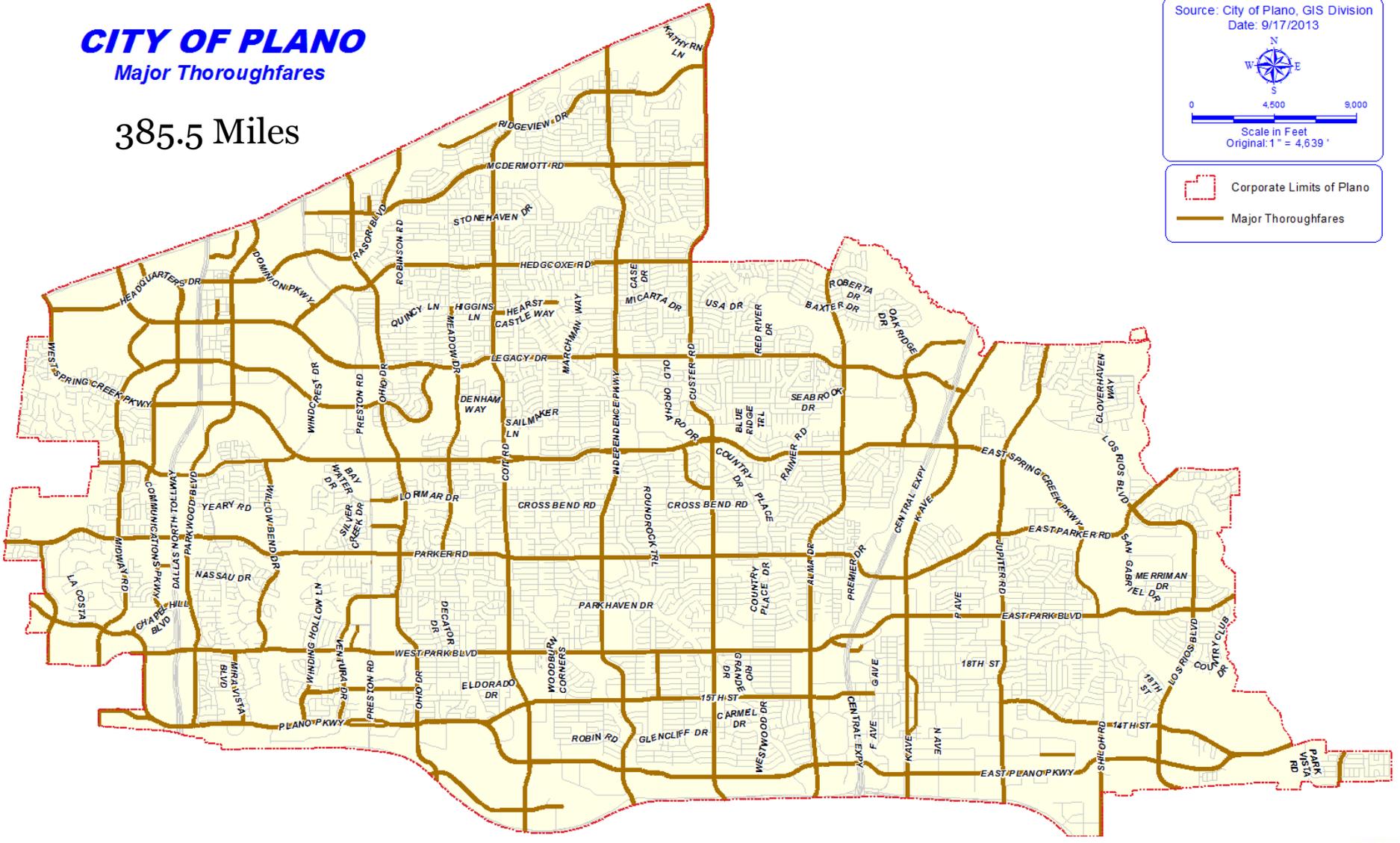
385.5 Miles

Source: City of Plano, GIS Division
Date: 9/17/2013



 Corporate Limits of Plano

 Major Thoroughfares



CITY OF PLANO

Collector Streets

125.4 Miles

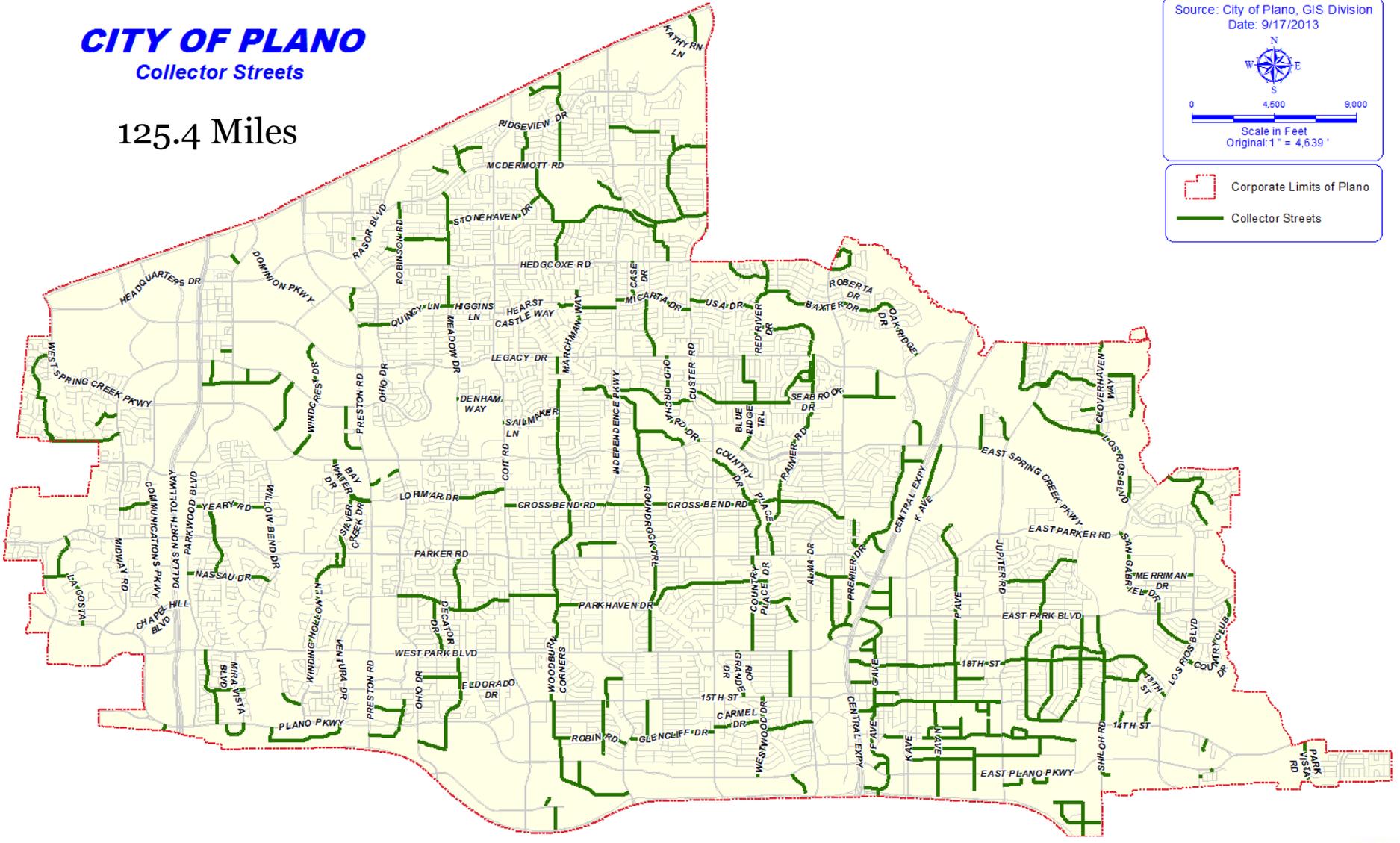
Source: City of Plano, GIS Division
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Scale in Feet
Original: 1" = 4,639'



- Corporate Limits of Plano
- Collector Streets



Street and Alley Lengths

<u>Road Type</u>	<u>Miles</u>
DNT Service Roads	12.1
6 - 12 Foot Lanes Divided	50.5
6 - 11 Foot Lanes Divided	249.2
4 - 12 Foot Lanes Divided	73.7
4 - 11 Foot Lanes Undivided	14.7
37 Foot Collector	109.7
Residential Roads	636.7
Street Total	1,146.6
Alleys	538.9
Street & Alley Total	1,685.5



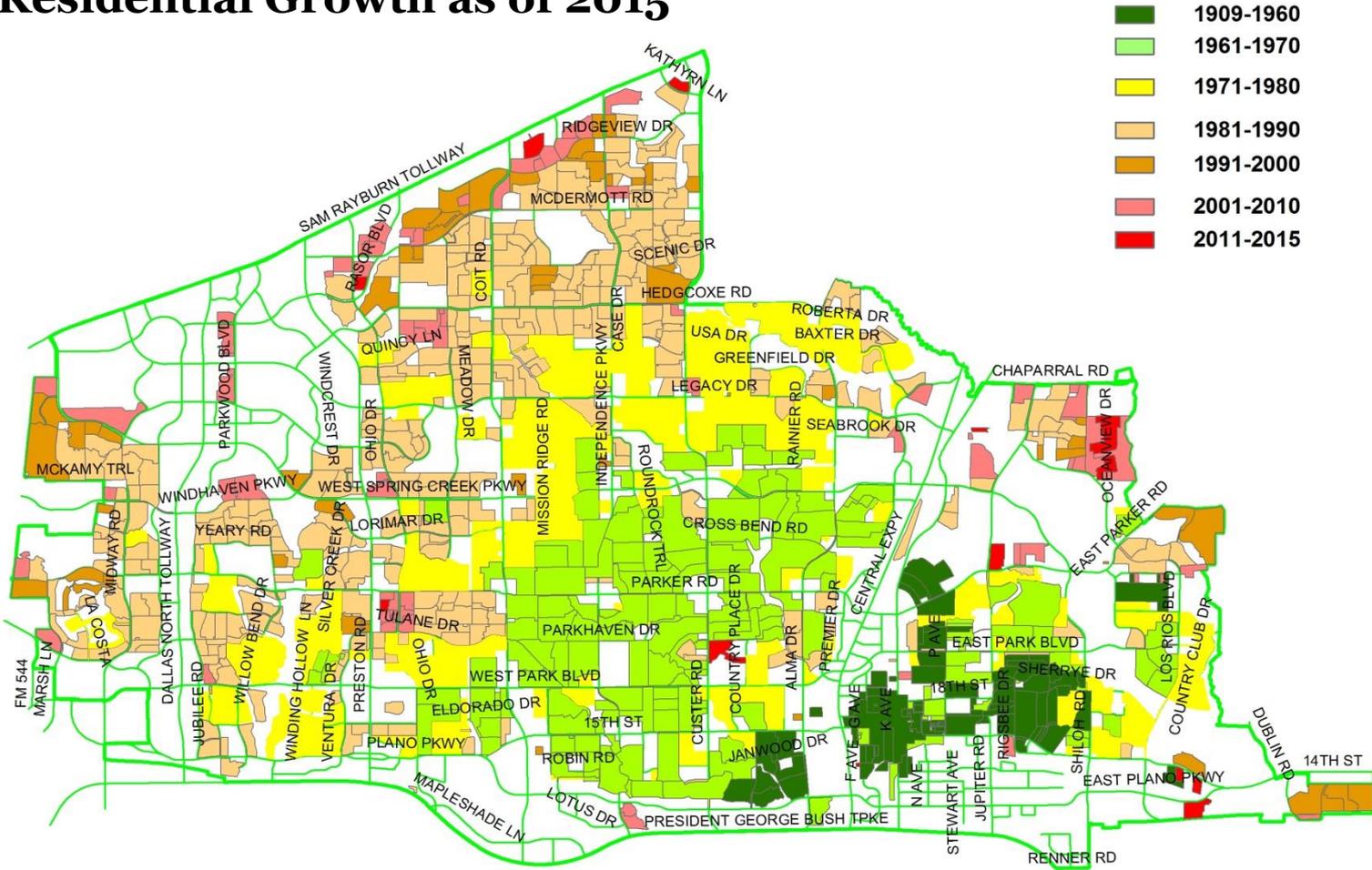
What Causes Problems?

- Plano is getting older
- More traffic
- Poor Soils – expansive clays
- Weather
- Utilities
- Trees
- Rapid Growth – Lower level of Inspection
- Poor Concrete

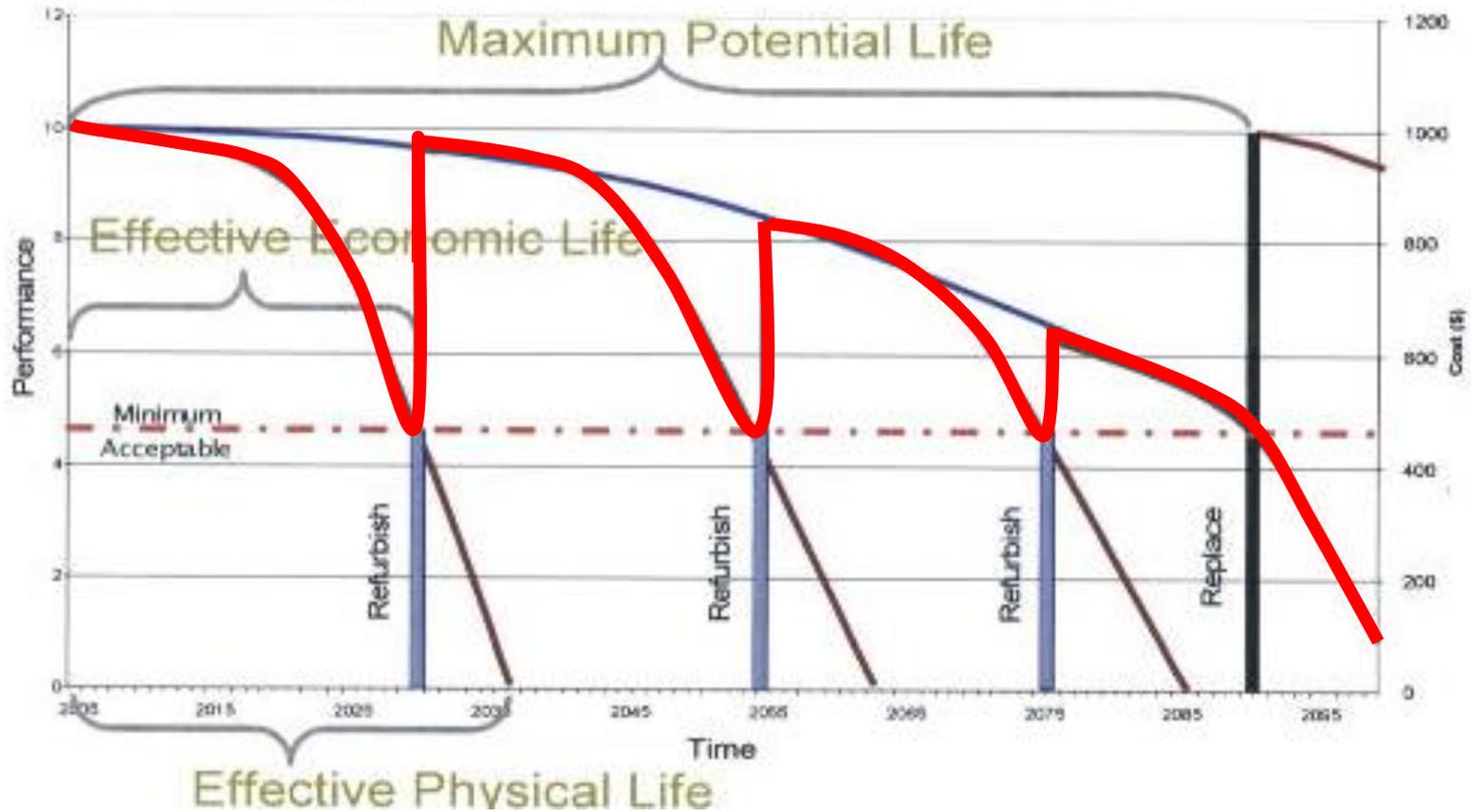


City of Plano

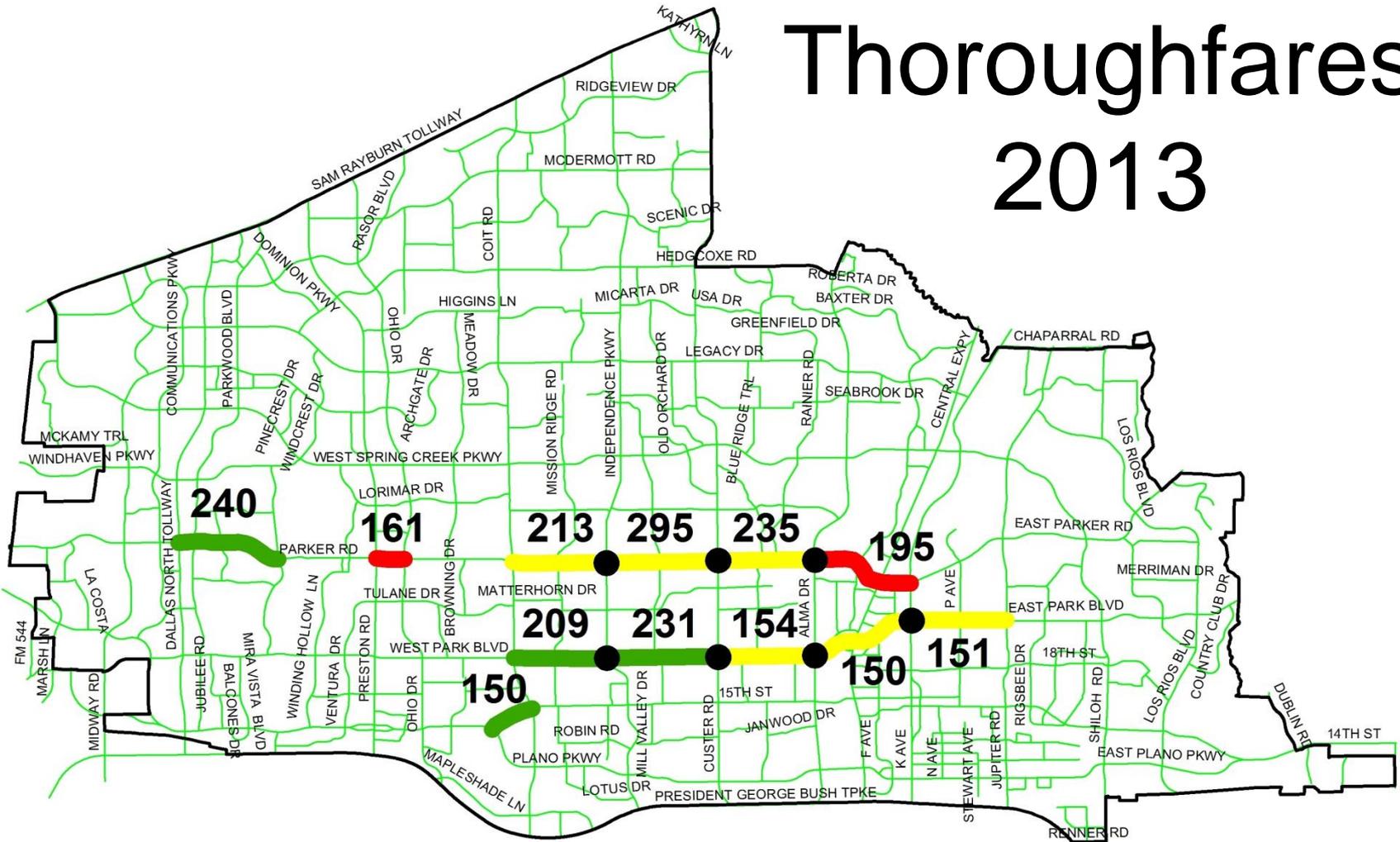
Residential Growth as of 2015



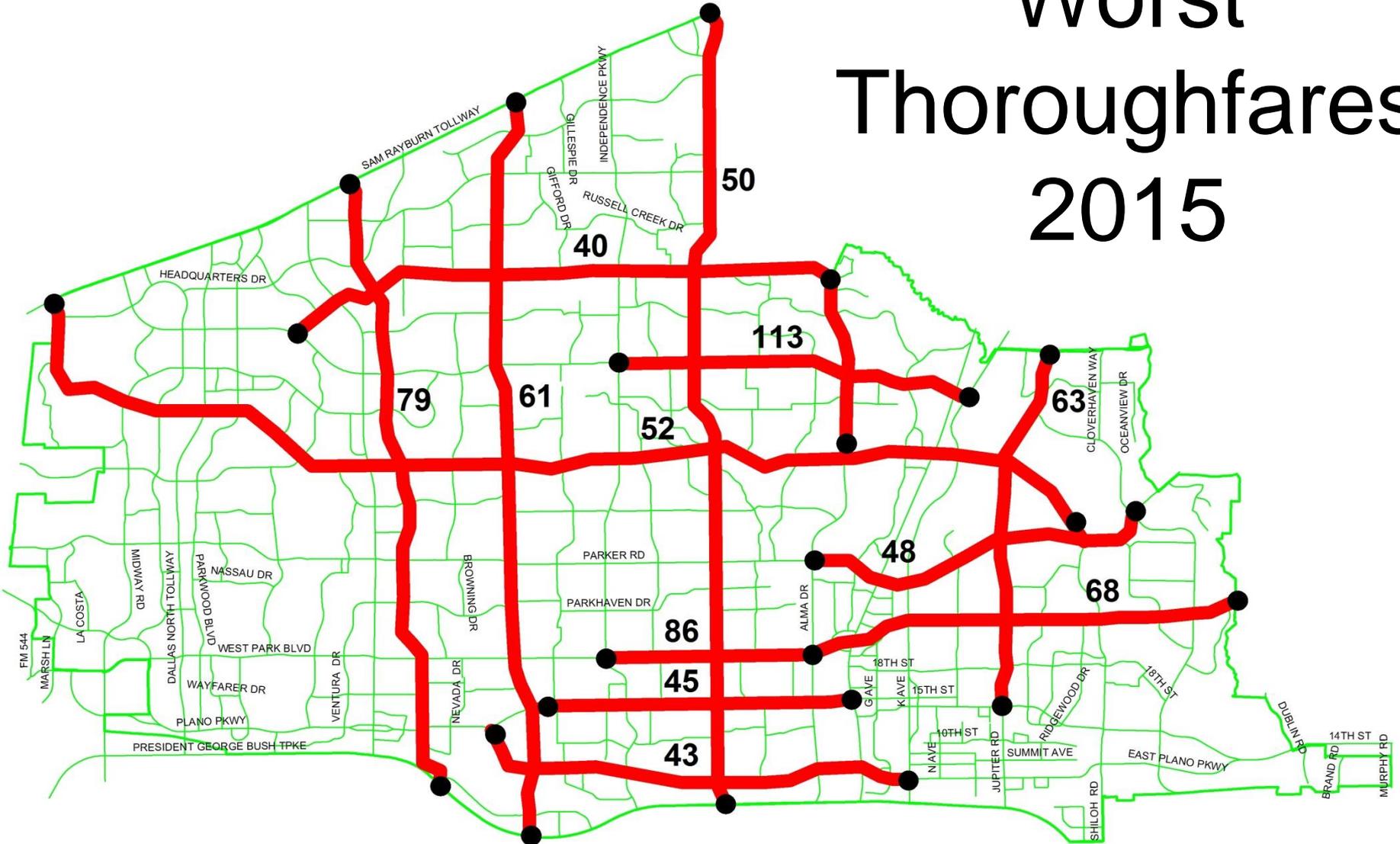
Life of an Asset



Worst Thoroughfares 2013



Worst Thoroughfares 2015



Worst Thoroughfares

	LOCATION	FROM	TO	DEFECTS PER MILE	ASPHALT PATCHES PER MILE
1	Legacy	Avenue K	Independence	113	21
2	Park	Alma	Independence	86	16
3	Ohio	PGBT	SRT	79	12
4	Park	East City Limits	Alma	68	15
5	Alma	Spring Creek Pkwy	Hedgcoxe	66	20
6	Jupiter	14th ST	Chapparal	63	16
7	Coit	PGBT	SRT	61	8
8	Spring Creek Pkwy	Parker	SRT	52	7
9	Custer	PGBT	SRT	50	9
10	Parker	Los Rios	Alma	48	7
11	15 St.	US 75	Coit	45	6
12	Plano Pkwy	Avenue K	Commerce	43	7
13	Hedgcoxe	Alma	Legacy	40	17



What funding do we use to rehab/replace streets

1. Replace Street – Bond Funds
2. Rehabilitate Street
 - a. Capital Reserve with Contractors
 - b. Operating Budget with Public Works Staff (Some CRF Funding)
 - c. Collin County Bond Funds



Capital Reserve

	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>	<u>2012-13</u>	<u>2013-14</u>	<u>2014-15</u>
Res. St & Alley Replacement	1,467,415	4,000,760	2,822,123	3,478,150	6,340,851	5,000,000
Sidewalk Repairs	215,260	58,724	122,304	189,880	2,652,114	1,200,000
Pavement Maintenance	750,646	729,589	353,185	2,217,250	3,040,024	3,500,000
Arterial Concrete Repairs	1,628,350	1,991,479	1,895,291	1,146,385	5,224,098	5,000,000
Arterial Joint Sealing Prog	1,009,028	1,979,702	1,413,184	1,606,024	3,352,294	2,000,000
Pavement Joint & Crack Seal	-	-	-	56,250	35,000	0
<u>Concrete Supply - Streets</u>	-	-	3,970	148,560	125,001	<u>200,000</u>
Annual Total	5,070,699	8,760,254	6,610,057	8,842,499	21,754,590	16,900,000



Recent Production

		City Crews			Contractors	
		<u>2011-12</u>	<u>2012-13</u>	<u>2013-14</u>	<u>2013-14</u>	<u>2013-14</u>
Streets	Sq Yds	6,573	4,436	11,437	105,243	91,702
Utility						
Cuts	Sq Yds	8,614	8,470	8,399		-
Alleys	Sq Yds	4,850	8,631	7,147	6,182	21,429
Sidewalks	Sq Yds	7,193	4,589	5,988	26,260	28,667
Curb	LF	*	4,102	6,132	46,678	50,218
Total	Sq Yds	27,230	26,126	32,970	138,315	141,799

* Not Measured



Rehabilitation Methods

- Temporary - Repair Asphalt
- Permanent Repair
 - a. Polyurethane foam
 - b. Concrete
 - c. Crack/Joint Sealing
 - d. Asphalt Overlay

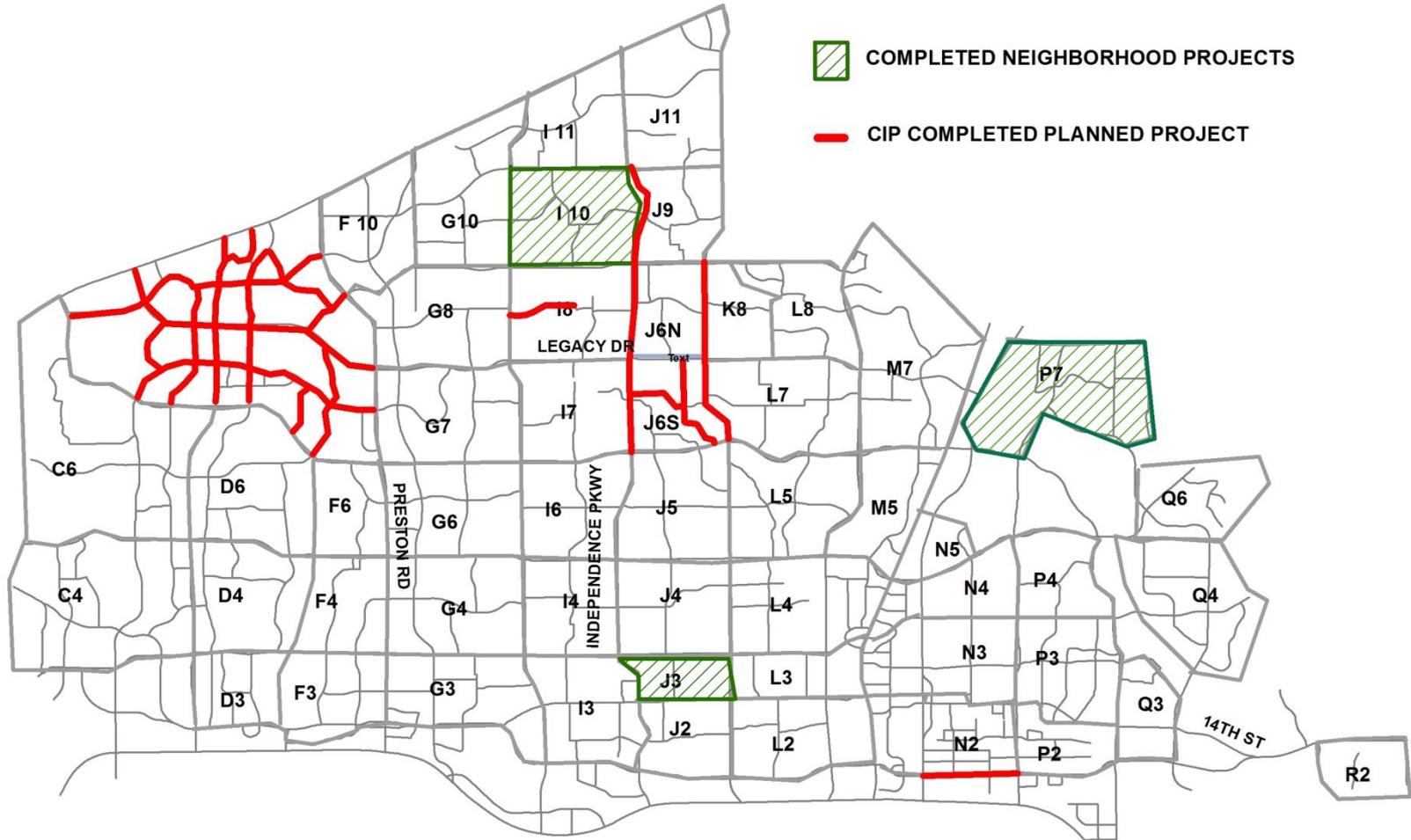


Contracting Methods

- Thoroughfare Rehab
- Neighborhood Rehab
- Undersealing Contracts
- Requirements Contracts



CITY OF PLANO PUBLIC WORKS 2014 COMPLETED ARTERIAL & RESIDENTIAL PAVEMENT WORK

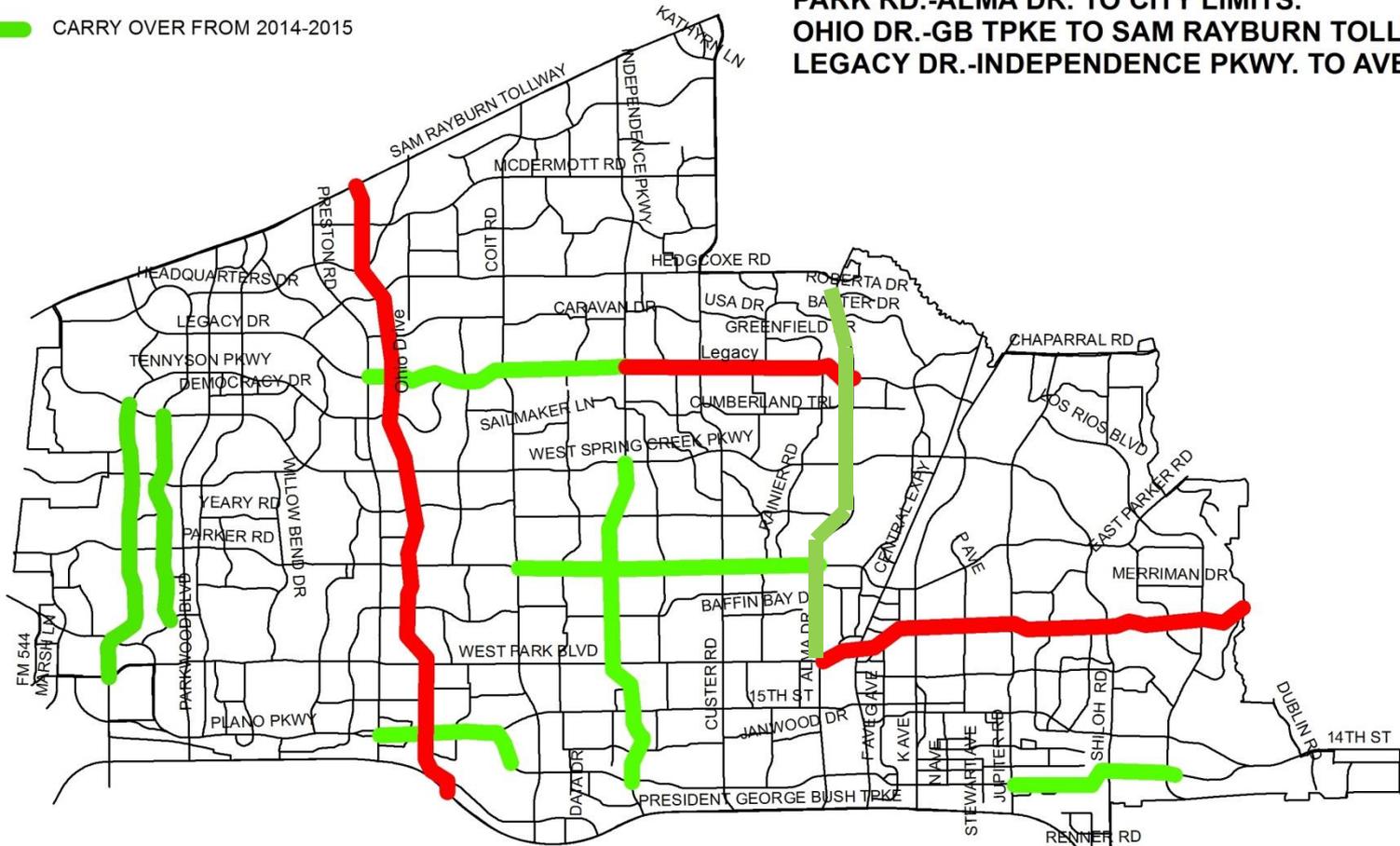


CITY OF PLANO PUBLIC WORKS

2015 - 2016 ARTERIAL CONCRETE PAVEMENT REHAB PROJECTS

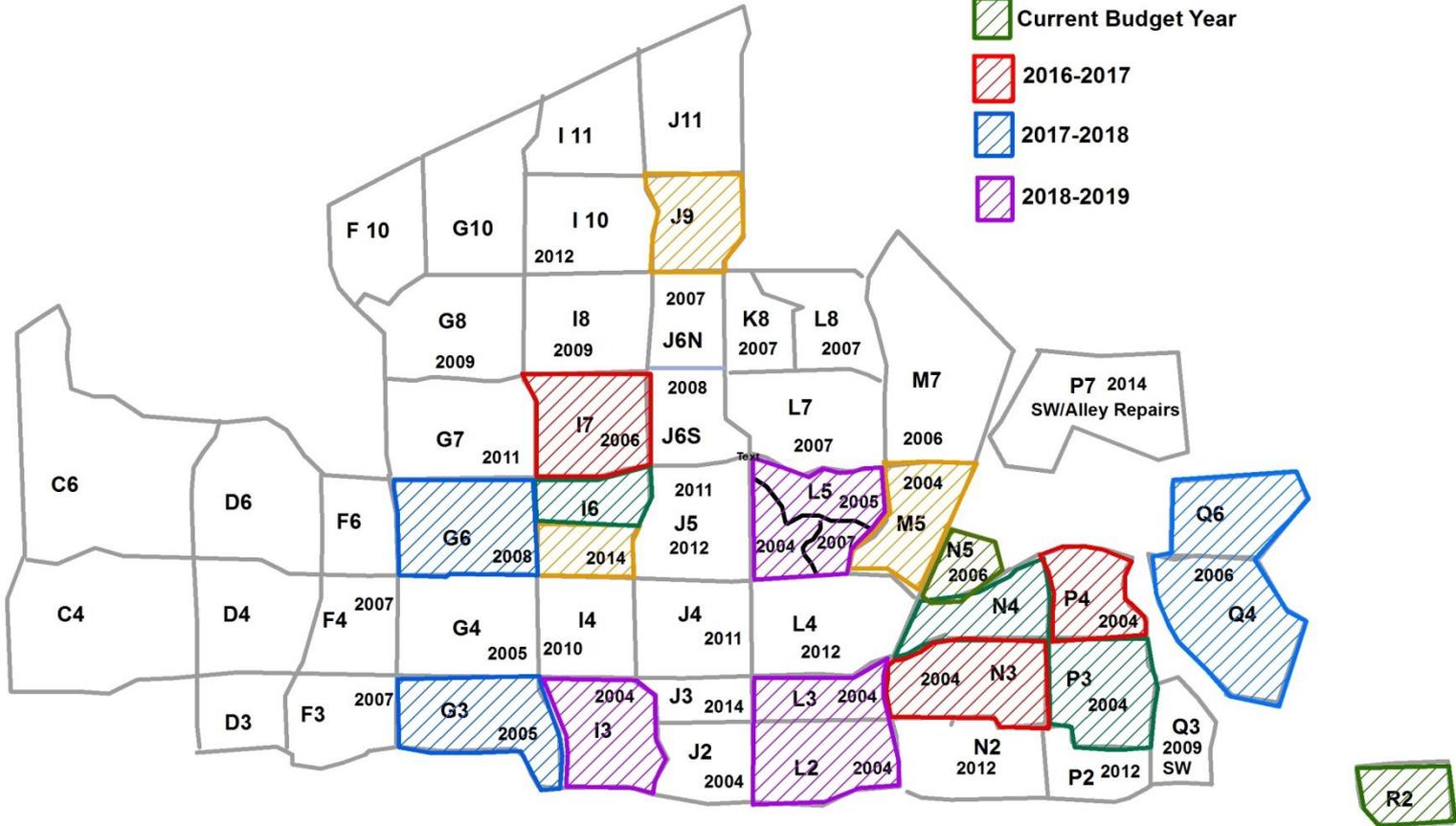
-  2015-2016 PROJECTS
-  CARRY OVER FROM 2014-2015

PARK RD.-ALMA DR. TO CITY LIMITS.
OHIO DR.-GB TPKE TO SAM RAYBURN TOLLWAY
LEGACY DR.-INDEPENDENCE PKWY. TO AVE. K



CITY OF PLANO PUBLIC WORKS CAPITAL RESERVE RESIDENTIAL STREET & ALLEY REHAB

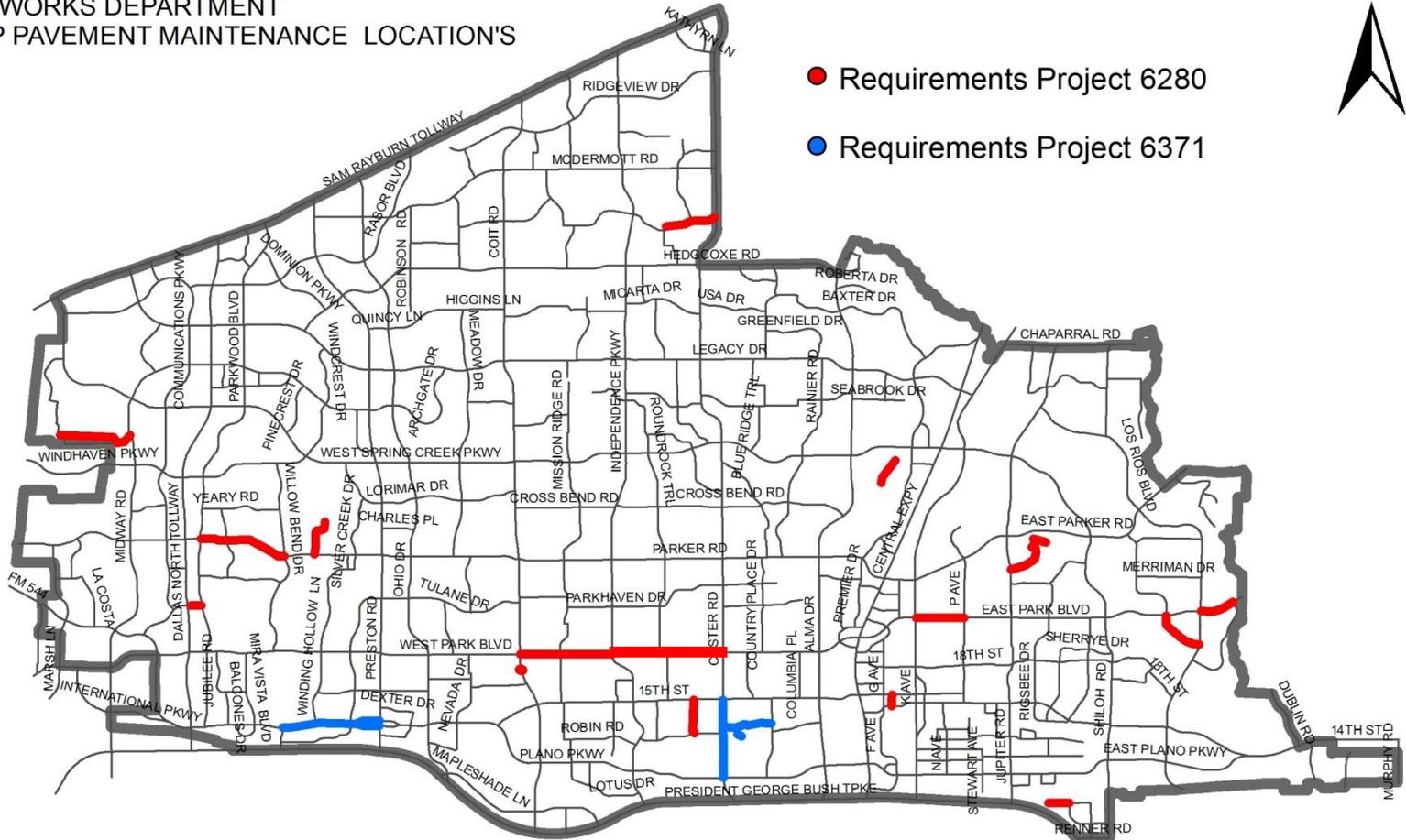
-  Carry Over Project's
-  Current Budget Year
-  2016-2017
-  2017-2018
-  2018-2019



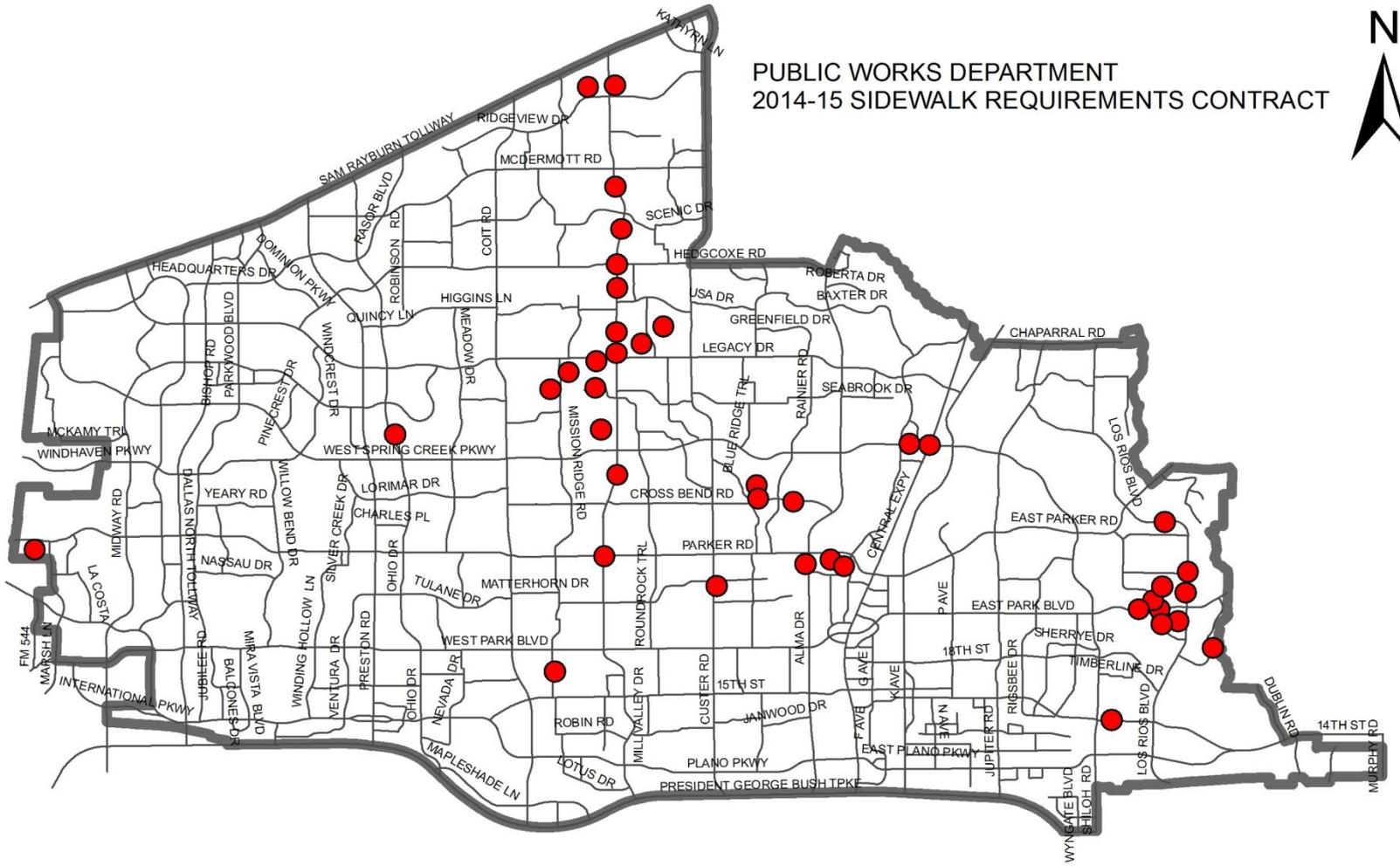
PUBLIC WORKS DEPARTMENT
2014 CIP PAVEMENT MAINTENANCE LOCATION'S



- Requirements Project 6280
- Requirements Project 6371



PUBLIC WORKS DEPARTMENT
2014-15 SIDEWALK REQUIREMENTS CONTRACT



Present Situation

1. Goal is to complete work orders with 30-45 days
2. Use more pavement maintenance projects
3. City staff doing more work than in the past, but further behind.



The Future

- New work order / asset management software – pavement assessment
- Assess pavement condition of the city, 1/3 of the city each year
- Ultra-Thin Asphalt overlay



Why Consider Asphalt

- Extend life of existing street pavement
- Minimize impact of water getting into the subgrade
- Can be constructed quickly, fast application and can be open to traffic quickly
- Reduce noise and hydroplaning over normal asphalt
- Thinner layer requiring less milling
- Can bridge small cracks



Goals

- Reduce time to get utility cuts repaired to 15 days – **Actual 18 days**
- Reduce time to get curbs repaired to 30 days – **Actual 7 days**
- Reduce time to complete all repairs



Questions

