



Guardrail End Treatment

Data Collection 2015

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Purpose:

Obtain the total number, type, and location of the guardrail end treatments on TxDOT roadways across the State of Texas. These will support spatial and analytical statistics regarding the current status of maintenance and design efforts for guardrail safety.

Objective:

Utilize Sharepoint, ArcGIS Online Rest Services, and a custom web application to create a geospatially accurate guardrail end treatment inventory with mapping grade accuracy. The generated inventory will serve maintenance efforts and inventory cataloging into the future.

Start Date: May 19th

End Date: June 30th

Statewide Type Summary

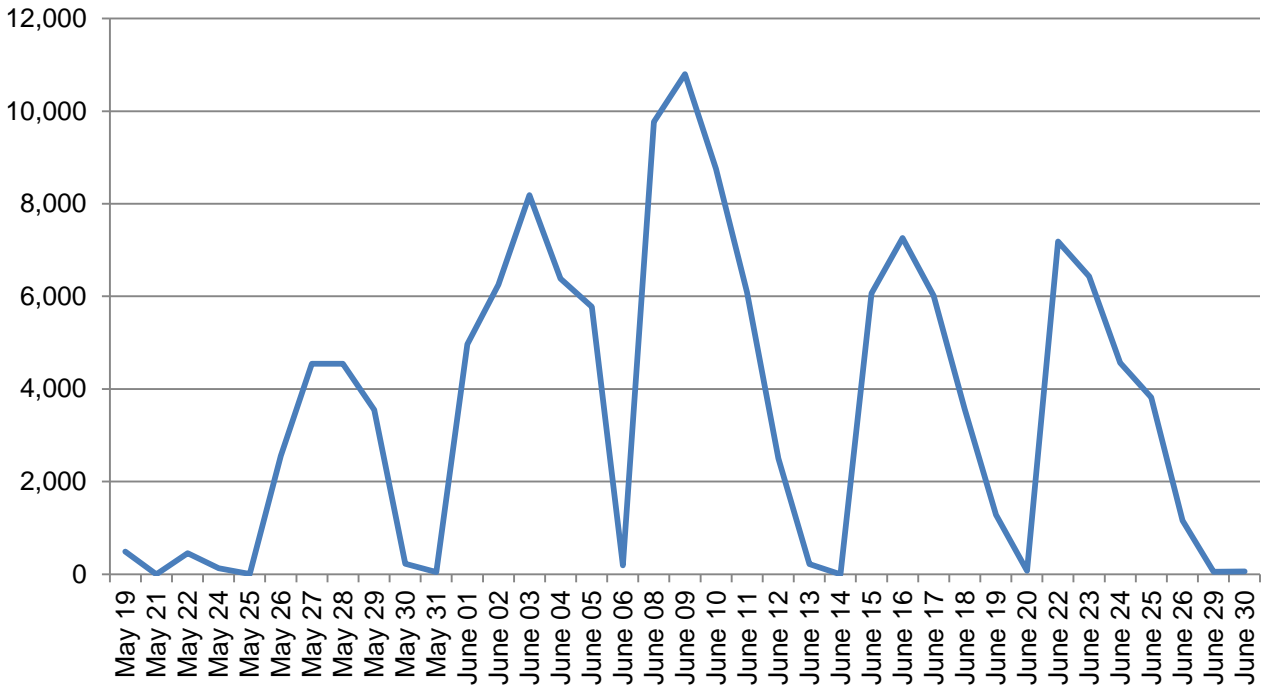
ETPLUS	43,615
ET2000	12,722
OTHER	7,415
SKT350	18,517
SOFTSTOP	362
TURNDOWN	50,507
XLITE	854
TOTAL	133,992

General Statistics:

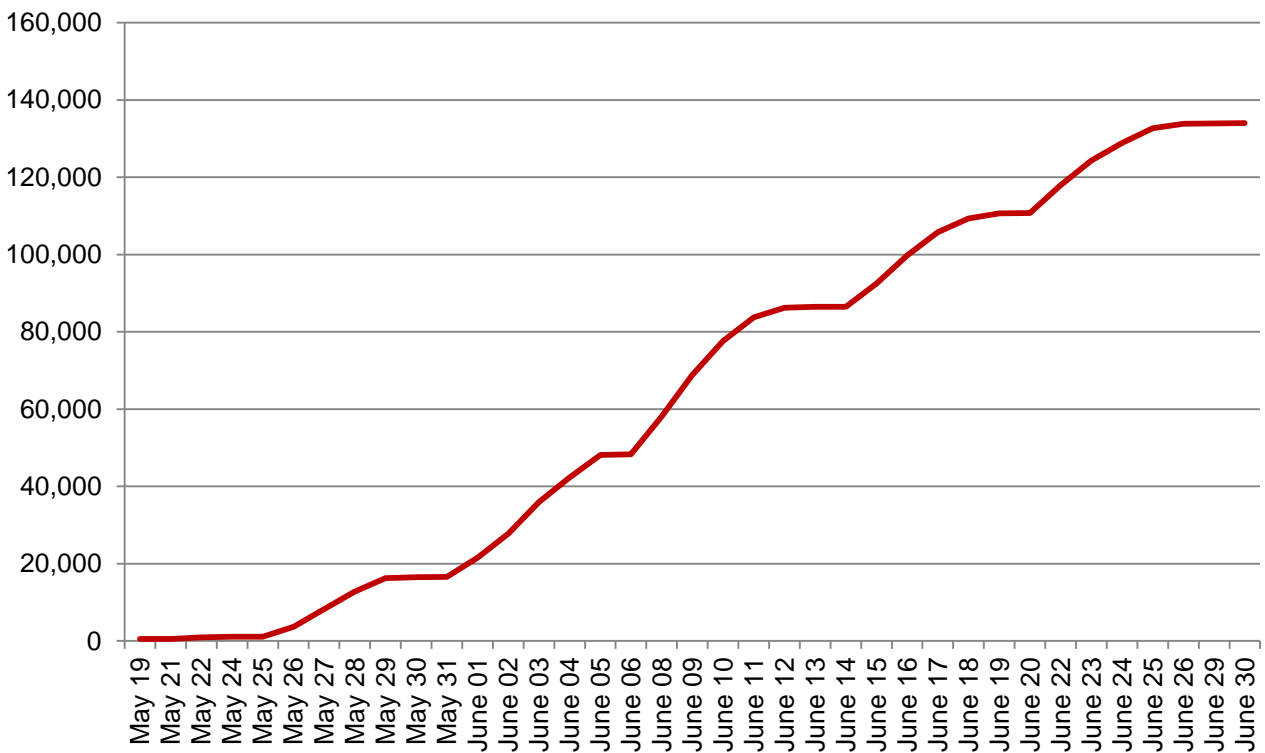
- Project duration: 30 working days
- Average Collection Speed: 35mph
- Average Accuracy Rating: 26ft
- Most common Device: iPhone
- Most GET points collected in a day: 10,801 (June 9th)

Device	# GETs Collected
Android	13,557
iPad	18,155
iPhone	102,280

Daily Collected Guardrail End Treatments



Total Collected Guardrail End Treatments



Issues & Concerns:

- 3 Counties have no GET points: Yoakum, Cochran, Waller
- Yoakum and Cochran are justifiable considering their geographic location and the context of the surrounding counties. A confirmation of their participation may be necessary (Figure 1)

Figure 1

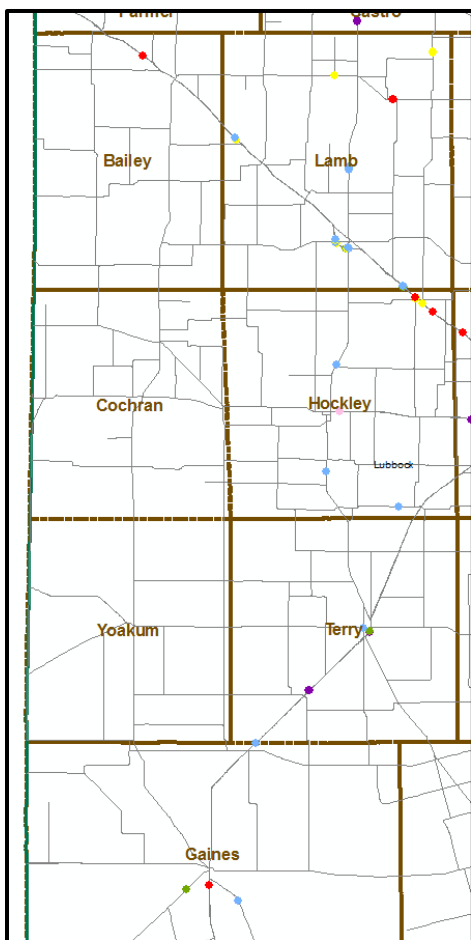
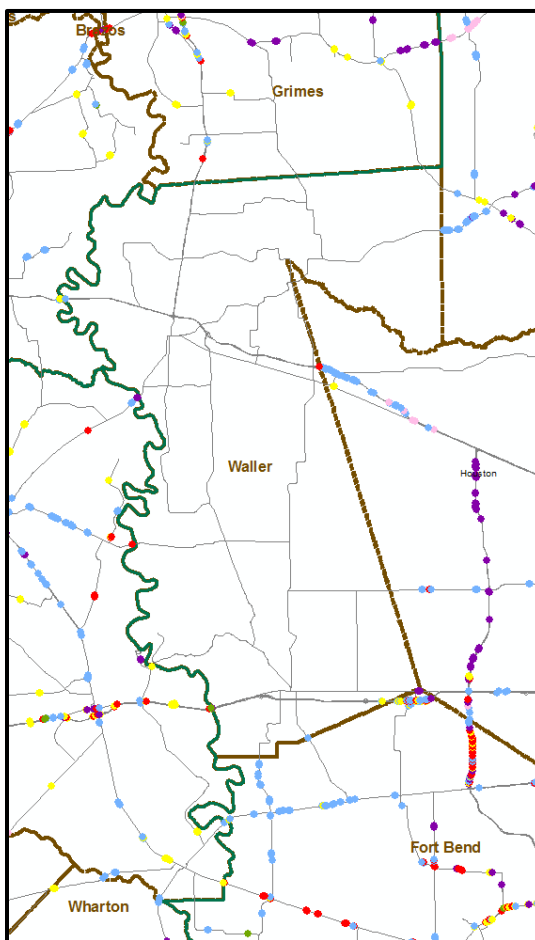


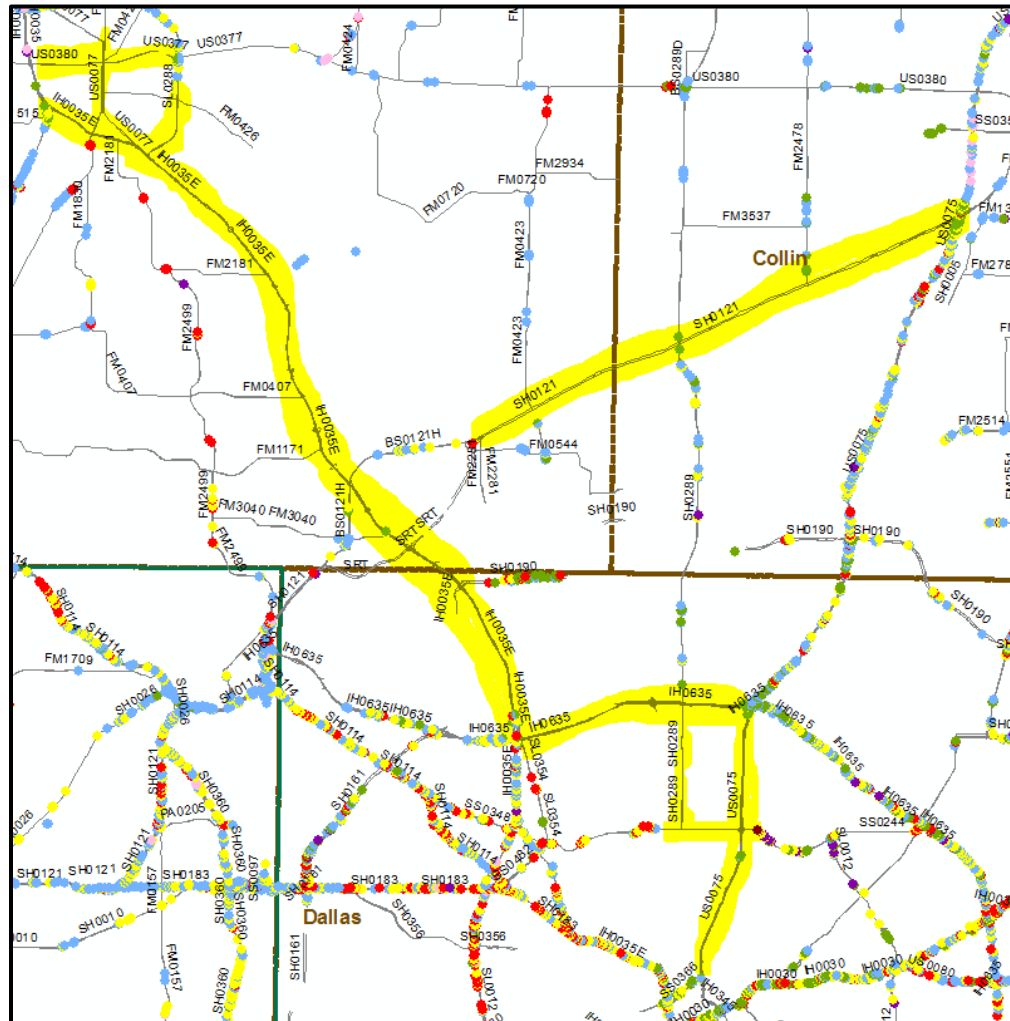
Figure 2



- It appears Waller County was not collected during the project considering their geographic location and the context of the surrounding counties (Figure 2)
- The north Dallas region appears to have multiple sections on major routes with no GET points collected in the triangle between Denton, Dallas, and McKinney. Although some of these sections may accurately have no GETs, most have been

confirmed with Google Street View to have GETs present. These routes will need confirmation of their completion and collection of points where GETs exist (On-System frontage roads for toll roads must be collected as well). (Figure 3)

Figure 3



- The northern Starr and Hidalgo County region appears to have routes with no GET points or an excessive amount of 'missing' points reported. Large numbers of GET points were deleted from the dataset during the QC process from this region due to inaccuracies. The smart device used was attributing incorrect latitude and longitude information with an Accuracy rating beyond the threshold. The device was also duplicating most of the inaccurate points. These routes will need confirmation of their completion and re-collection of points with an alternative smart device. Special attention must be spent on this region during future QC tasks. (Figure 4)

District Type Totals Summary

District	ETPLUS	ET2000	OTHER	SKT350	SOFTSTOP	TURNDOWN	XLITE	TOTAL
Abilene	521	260	344	1,355	2	2,578	4	5,064
Amarillo	681	660	44	273	3	1,623	12	3,296
Atlanta	1,933	254	179	761	1	1,349	2	4,479
Austin	3,630	355	1,182	2,947	8	4,154	45	12,321
Beaumont	1,437	477	136	362	0	1,178	6	3,596
Brownwood	577	86	44	574	1	1,677	12	2,971
Bryan	1,688	504	94	484	0	1,985	57	4,812
Childress	531	203	386	267	0	659	0	2,046
Corpus Christi	1,469	397	333	730	3	1,551	2	4,485
Dallas	5,409	1,792	888	349	22	3,846	151	12,457
El Paso	1,022	300	454	886	239	1,650	26	4,577
Fort Worth	3,198	654	242	280	11	4,225	154	8,764
Houston	4,051	1,194	322	848	2	2,525	52	8,994
Laredo	783	389	77	1,118	2	1,204	1	3,574
Lubbock	320	590	151	538	0	723	30	2,352
Lufkin	2,331	75	118	346	36	982	57	3,945
Odessa	164	354	272	559	1	1,397	6	2,753
Paris	1,851	645	398	738	5	2,285	47	5,969
Pharr	1,063	435	79	405	2	774	9	2,767
San Angelo	922	278	57	693	2	1,999	14	3,965
San Antonio	2,948	1,157	428	1,905	3	6,119	17	12,577
Tyler	1,966	307	248	285	5	1,742	13	4,566
Waco	2,789	569	481	633	8	1,062	42	5,584
Wichita Falls	880	155	207	608	1	1,514	69	3,434
Yoakum	1,451	632	251	573	5	1,706	26	4,644
Statewide	43,615	12,722	7,415	18,517	362	50,507	854	133,992

Guardrail End Treatments

2015 Collection Project

