



October 3, 2016

Mr. Richard W. Stolleis, P.E.  
County Engineer  
Fort Bend County, Texas  
301 Jackson St., Suite 401  
Richmond, Texas 77469

Re: Sendero Tract (aka Talavera) – Curve Radius Variance

Dear Mr. Stolleis,

On behalf of Meritage Homes of Texas, we, BGE|Kerry R. Gilbert & Associates, respectfully submit a variance request for a collector street to have centerline curve radiuses less than the minimum 850' required by the Fort Bend County Regulations of Subdivisions, Section 5.3(B)(4).

The subject site is the Sendero Tract, aka Talavera, a single-family development of approximately  $\pm 252$  acres, located south of FM 1093 on Bellaire Blvd between FM 723 and Rancho Bello Parkway. The community proposes 750-800 single-family homes, a private recreation center, and several amenity lakes. Per the Fort Bend County Major Thoroughfare Plan, a proposed future collector street crosses the property east-to-west, connecting existing Mirandola Lane on the east with existing Canyon Fields Drive on the west. The overall design of the Sendero Tract incorporates this proposed collector street into a system of collector streets that also connects south to Bellaire Blvd and feeds into the individual sections of the community.

We hereby request approval for seven (7) reduced curve radiuses, as shown on the attached exhibit, for the collector street connection between Mirandola Lane and Canyon Fields Drive. The radiuses in question range from  $\pm 500'$  to  $\pm 700'$ . Each of these curves complies with the AASHTO standards for horizontal curves with design speeds up to 35-45 miles per hour. (See attached AASHTO Table 3-13b.) Since this collector street travels through a residential neighborhood, lower speeds are desirable, and the curvilinear street pattern will encourage through-traffic to drive more carefully. This will make a safer streetscape for pedestrians travelling along the collector street, especially children travelling either to the recreation center within the Sendero Tract or to the adjacent Hubenak Elementary School located on the east side of Rancho Bello Parkway.

Moving west to east, the first reduced radius is a 500' curve proposed at the extension of Canyon Fields Drive from FM 723, where the collector street is a boulevard with split paving sections to match existing Canyon Fields Drive across the street. The second and third reduced radiuses are part of the reverse curve that brings Canyon Fields Drive south along the pipeline easement towards the recreation center. The fourth reduced radius is a 550' curve in Mirandola Lane/ Morningview Bend Lane, which forms the boundary of the recreation center; Canyon Fields Drive makes a T-intersection into this curve. The tighter curve radius and the T-intersection will encourage traffic to slow down where pedestrians will access the recreation center. The fifth, sixth, and seventh reduced curve radiuses are along Mirandola Lane, forming a reverse curve of 550', 700', and 600' radiuses respectively, in order to follow the adjacent detention lake and then bring the collector street back down against the pipeline easement to connect to Rancho Bello Parkway.

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This request does not require any deviations from the infrastructure design standards regarding public water or sewer service, storm drainage, street paving and geometry, or required ADA sidewalks; therefore, this request is not detrimental to the public safety or welfare, or injurious to other property in the area.

In summary, we respectfully request a variance from the minimum curve radius for designated collector streets required by the Fort Bend County Regulations of Subdivisions, Section 5.3(B)(4), from the required eight hundred fifty feet (850') to 500', 550', 600', and 700' in seven (7) locations along the collector street that connects Canyon Fields Drive to Mirandola Lane in the Sendero Tract.

Please contact me if you have any questions or comments.

Sincerely,

A handwritten signature in blue ink that reads "Jennifer Curtis". The signature is written in a cursive style and is positioned above a horizontal line.

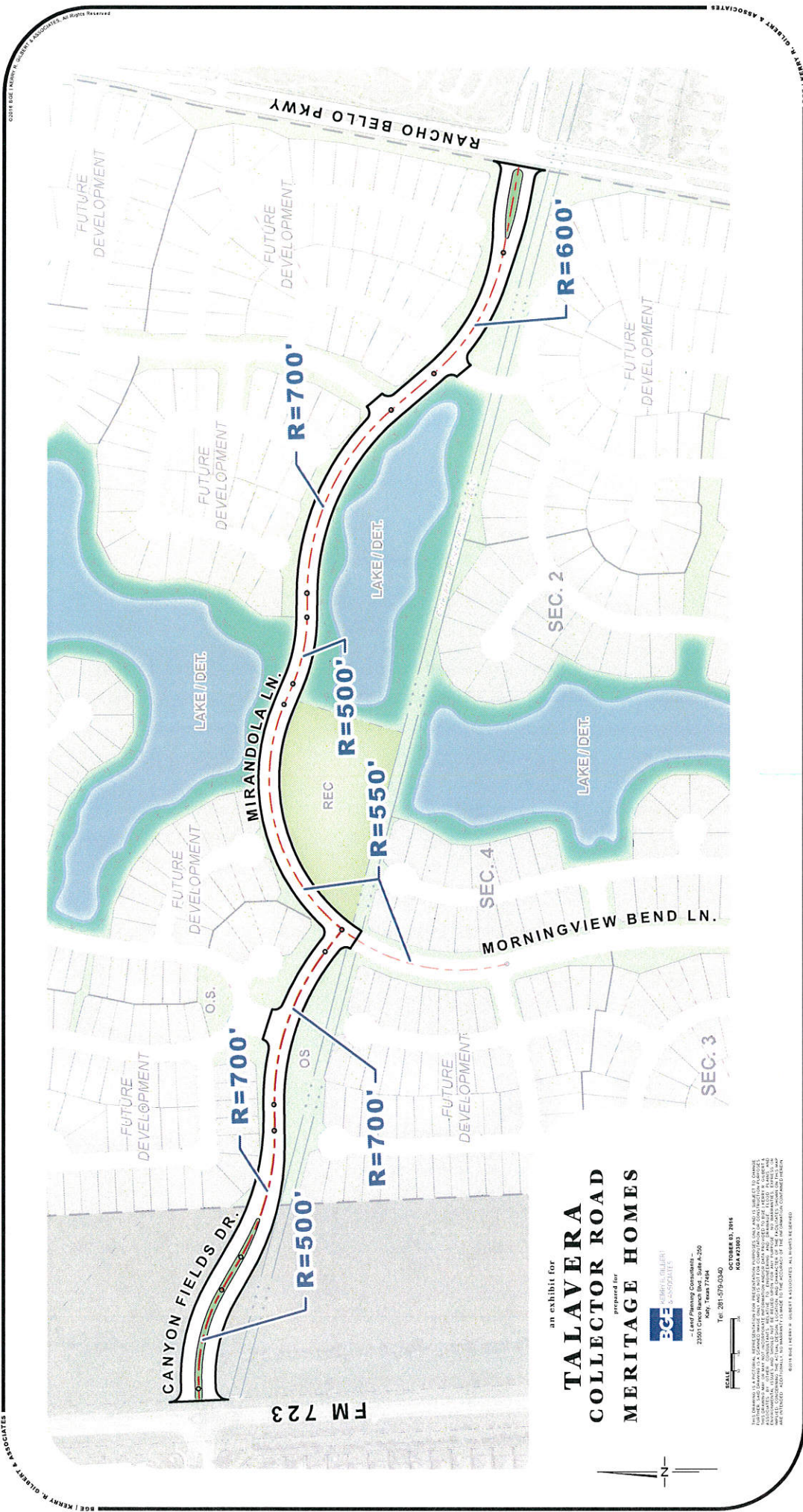
Jennifer Curtis  
(Attachment: AASHTO (2011) – Table 3-13b)  
(Attachment: an exhibit for "Talavera Collector Road" – October 3, 2016)

Table 3-13b. Minimum Radii and Superelevation for Low-Speed Urban Streets

U.S. Customary							
e (%)	$V_d = 15$ mph	$V_d = 20$ mph	$V_d = 25$ mph	$V_d = 30$ mph	$V_d = 35$ mph	$V_d = 40$ mph	$V_d = 45$ mph
	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)
-6.0	58	127	245	429	681	1067	1500
-5.0	56	121	231	400	628	970	1350
-4.0	54	116	219	375	583	889	1227
-3.0	52	111	208	353	544	821	1125
-2.8	51	110	206	349	537	808	1107
-2.6	51	109	204	345	530	796	1089
-2.4	51	108	202	341	524	784	1071
-2.2	50	108	200	337	517	773	1055
-2.0	50	107	198	333	510	762	1039
-1.5	49	105	194	324	495	736	1000
0	47	99	181	300	454	667	900
1.5	45	94	170	279	419	610	818
2.0	44	92	167	273	408	593	794
2.2	44	91	165	270	404	586	785
2.4	44	91	164	268	400	580	776
2.6	43	90	163	265	396	573	767
2.8	43	89	161	263	393	567	758
3.0	43	89	160	261	389	561	750
3.2	43	88	159	259	385	556	742
3.4	42	88	158	256	382	550	734
3.6	42	87	157	254	378	544	726
3.8	42	87	155	252	375	539	718
4.0	42	86	154	250	371	533	711
4.2	41	85	153	248	368	528	703
4.4	41	85	152	246	365	523	696
4.6	41	84	151	244	361	518	689
4.8	41	84	150	242	358	513	682
5.0	41	83	149	240	355	508	675
5.2	40	83	148	238	352	503	668
5.4	40	82	147	236	349	498	662
5.6	40	82	146	234	346	494	655
5.8	40	81	145	233	343	489	649
6.0	39	81	144	231	340	485	643
6.2	39	80	143	229	337	480	637
6.4	39	80	142	227	335	476	631
6.6	39	79	141	226	332	472	625
6.8	39	79	140	224	329	468	619
7.0	38	78	139	222	327	464	614
7.2	38	78	138	221	324	460	608
7.4	38	78	137	219	322	456	603
7.6	38	77	136	217	319	452	597
7.8	38	77	135	216	317	448	592
8.0	38	76	134	214	314	444	587
8.2	37	76	134	213	312	441	582
8.4	37	75	133	211	309	437	577
8.6	37	75	132	210	307	434	572
8.8	37	74	131	208	305	430	567
9.0	37	74	130	207	302	427	563
9.2	36	74	129	205	300	423	558
9.4	36	73	129	204	298	420	553
9.6	36	73	128	203	296	417	549
9.8	36	72	127	201	294	413	544
10.0	36	72	126	200	292	410	540
10.2	36	72	126	199	290	407	536
10.4	35	71	125	197	288	404	531
10.6	35	71	124	196	286	401	527
10.8	35	71	123	195	284	398	523
11.0	35	70	123	194	282	395	519
11.2	35	70	122	192	280	392	515
11.4	35	69	121	191	278	389	511
11.6	34	69	120	190	276	386	508
11.8	34	69	120	189	274	384	504
12.0	34	68	119	188	272	381	500

## Notes:

1. Computed using Superelevation Distribution Method 2.
2. Superelevation may be optional on low-speed urban streets.
3. Negative superelevation values beyond -2.0 percent should be used for unpaved surfaces such as gravel, crushed stone, and earth. However, a normal cross slope of -2.5 percent may be used on paved surfaces in areas with intense rainfall.



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FM 723

an exhibit for  
**TALAVERA**  
**COLLECTOR ROAD**  
 prepared for  
**MERITAGE HOMES**

**BCE** BOE | KERRY | GIBNEY & ASSOCIATES  
 Land Planning Consultants  
 3300 US 90, Suite 100  
 Katy, Texas 77454  
 Tel: 281-575-0340  
 OCTOBER 03, 2016  
 RGA #23593



THIS DOCUMENT IS PREPARED BY BOE | KERRY | GIBNEY & ASSOCIATES (BKG) FOR MERITAGE HOMES (MH). BKG HAS CONDUCTED VISUAL VERIFICATION OF THE INFORMATION PROVIDED BY MH AND HAS FOUND IT TO BE REASONABLY ACCURATE. BKG HAS CONDUCTED VISUAL VERIFICATION OF THE INFORMATION PROVIDED BY MH AND HAS FOUND IT TO BE REASONABLY ACCURATE. BKG HAS CONDUCTED VISUAL VERIFICATION OF THE INFORMATION PROVIDED BY MH AND HAS FOUND IT TO BE REASONABLY ACCURATE. BKG HAS CONDUCTED VISUAL VERIFICATION OF THE INFORMATION PROVIDED BY MH AND HAS FOUND IT TO BE REASONABLY ACCURATE.

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