

City of Santa Fe, New Mexico

Attachment B

Applicant Submittals

9. Water Irrigation Demand Budget

TIERRA CONTENTA PHASE 3A STREETScape | Landscape Water Budget Calculations

YEAR 1 (establishment period)

10.November.2025

Landscape Water Demand Calculations	Units	Quantity	Demand (gallons)	Reduction Factor	Weekly Demand (gallons)
Native Grass reseeding (non-irrigated)	SF	1,045,800	-	100%	0
Native Grass seeding (for establishment only)	SF	27,100	16,379	130%	21,292
Trees (evergreen + small trees)	EA	182	2,912	100%	2,912
Trees (shade)	EA	474	11,376	100%	11,376
Shrubs	EA	552	2,208	100%	2,208
Yucca / Cacti	EA	351	176	100%	176
Perennials / Ornamental Grasses	EA	575	1,150	100%	1,150

YEAR 1 - water budget

	January *	February *	March	April	May	June	July	August	September	October	Novemeber	December *	Total
	0%	0%	15%	38%	65%	100%	90%	85%	62%	35%	20%	0%	
	0.0	0.0	0	0	0	0	0	0	0	0	0	0.0	0
	0.0	0.0	13,733	34,791	59,512	91,556	82,401	77,823	56,765	32,045	18,311	0.0	466,936
	0.0	0.0	1,878	4,758	8,139	12,522	11,269	10,643	7,763	4,383	2,504	0.0	63,860
	0.0	0.0	7,338	18,588	31,796	48,917	44,025	41,579	30,328	17,121	9,783	0.0	249,476
	0.0	0.0	1,424	3,608	6,171	9,494	8,545	8,070	5,887	3,323	1,899	0.0	48,421
	0.0	0.0	113	287	491	755	679	641	468	264	151	0.0	3,849
	0.0	0.0	742	1,879	3,214	4,945	4,451	4,203	3,066	1,731	989	0.0	25,220
Monthly demand	0	0	25,228	63,912	109,323	168,189	151,370	142,960	104,277	58,866	33,638	0	
Year 1 - Demand													857,762 gal./yr 2.63 ac-ft/yr

YEAR 2 + 3

Landscape Water Demand Calculations	Units	Quantity	Demand (gallons)	Reduction Factor	Weekly Demand (gallons)
Native Grass reseeding (non-irrigated)	SF	1,045,800	-	70%	0
Native Grass seeding (for establishment only)	SF	27,100	16,379	25%	4,095
Trees (evergreen + small trees)	EA	182	2,912	90%	2,621
Trees (shade)	EA	474	11,376	90%	10,238
Shrubs	EA	552	2,208	80%	1,766
Yucca / Cacti	EA	351	176	25%	44
Perennials / Ornamental Grasses	EA	575	1,150	80%	920

YEAR 2 and 3 - water budget

	January	February	March	April	May	June	July	August	September	October	Novemeber	December	Total
	0%	0%	15%	38%	65%	100%	90%	85%	62%	35%	20%	0%	
	0.0	0.0	0	0	0	0	0	0	0	0	0	0.0	0
	0.0	0.0	2,641	6,691	11,445	17,607	15,846	14,966	10,916	6,162	3,521	0.0	89,795
	0.0	0.0	1690.4	4,282	7,325	11,269	10,142	9,579	6,987	3,944	2,254	0.0	57,474
	0.0	0.0	6603.8	16,730	28,616	44,025	39,623	37,421	27,296	15,409	8,805	0.0	224,528
	0.0	0.0	1,139	2,886	4,937	7,596	6,836	6,456	4,709	2,658	1,519	0.0	38,737
	0.0	0.0	28	72	123	189	170	160	117	66	38	0.0	962
	0.0	0.0	593	1,503	2,571	3,956	3,560	3,363	2,453	1,385	791	0.0	20,176
Monthly demand	0	0	12,696	32,164	55,017	84,642	76,178	71,945	52,478	29,625	16,928	0	
Year 2 / 3 - Demand													431,673 gal./yr 1.32 ac-ft/yr

YEAR 4 and beyond

Landscape Water Demand Calculations	Units	Quantity	Demand (gallons)	Reduction Factor	Weekly Demand (gallons)
Native Grass reseeding (non-irrigated)	SF	1,045,800	-	0%	0
Native Grass seeding (for establishment only)	SF	27,100	16,379	0%	0
Trees (evergreen + small trees)	EA	182	2,912	90%	2,621
Trees (shade)	EA	474	11,376	90%	10,238
Shrubs	EA	552	2,208	75%	1,656
Yucca / Cacti	EA	351	692	0%	0
Perennials / Ornamental Grasses	EA	575	1,150	50%	575
				weekly	15,090

YEAR 4 and beyond - water budget

	January	February	March	April	May	June	July	August	September	October	Novemeber	December	Total
	0%	0%	15%	38%	65%	100%	90%	85%	62%	35%	20%	0%	
	0.0	0.0	0	0	0	0	0	0	0	0	0	0.0	0
	0.0	0.0	0	0	0	0	0	0	0	0	0	0.0	0
	0.0	0.0	1,690	4,282	7,325	11,269	10,142	9,579	6,987	3,944	2,254	0.0	57,474
	0.0	0.0	6603.8	16,730	28,616	44,025	39,623	37,421	27,296	15,409	8,805	0.0	224,528
	0.0	0.0	1068.1	2,706	4,629	7,121	6,409	6,053	4,415	2,492	1,424	0.0	36,316
	0.0	0.0	0	0	0	0	0	0	0	0	0	0.0	0
	0.0	0.0	371	940	1,607	2,473	2,225	2,102	1,533	865	495	0.0	12,610
Monthly demand	0	0	9,733	24,657	42,177	64,888	58,399	55,155	40,230	22,711	12,978	0	
Year 4 - Demand													330,928 gal./yr 1.02 ac-ft/yr

Notes:

* Recommend providing a minimum of one watering for each plant type for these winter months when irrigation system is winterized if there is low / no precipitation

1. Native grass reseeding of areas disturbed by construction is dryland reseeding and will not receive temporary or permanent irrigation.
2. Native grass reseeding with irrigation (for establishment) is solely within the 40' wide trail easement.

Planting Water Demand Assumptions

Yuccas / Cacti	0.50 1 - 1 gal / hr emitters per plant run 30 min. 1 times / week = .5 gallons per week per plant
Perennials / ornamental grasses	2.00 1 - 1 gal / hr emitters per pern. run 30 min. 4 times / week = 2 gallons per week per plant
Native shrub	4.00 2 - 1 gal / hr emitters per shrub run 1 hour twice a week = 4 gallons per week per plant
Trees (evergreen + small native trees)	16.00 gallons per week: 8 -1gal / hr emitters per tree run 1 hour twice a week per plant
Trees (shade trees)	24.00 gallons per week: 12 -1gal / hr emitters per tree run 1 hour twice a week per plant
Native Seeded Area	0.60 gallons per week per square foot: 20" / 32 week growing season / sf = .625" / week (1.25"-1.50" / sf / week to establish)

Reduction Factor

Reduction factor assumes a reduction in water use for drought tolerant plants once they have been established.

Monthly Water Allotment

Percent water allocated to plants based on climate and average needs.

DEVELOPMENT WATER BUDGET - IRRIGATION		
YEAR 1 - 3 AVERAGE	1.76	AFY
9.8% CONTINGENCY	0.17	AFY
TOTAL WATER DEMAND OFFSET	1.93	AFY