

COST ANALYSIS FOR FIELD AT LOKER (rectangular 190x330 ft)		Turf	GROWTH RATE		1.025																
			DISCOUNT RATE		1.050																
LOKER SYNTHETIC TURF	TOTALS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15	YEAR 16	YEAR 17	YEAR 18	YEAR 19	YEAR 20
Initial Cost to Install Turf at Loker in 2019	2,567,235	2,567,235																			
Lighting Installation (users pay electricity)	499,500	499,500																			
~10 yr Replace Carpet				-	-	-	-	-	-	-	1,170,061	-	-	-	-	-	-	-	-	-	1,638,616
PV Rehab	1,335,893										718,316										617,577
Operating Expenses (Toilets, Parking, Trash/Recycle)	72,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000		4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	
DPW/MOU Monthly Maintenance	18,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000		1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
Annual Professional Maintenance	122,400	6,800	6,800	6,800	6,800	6,800	6,800	6,800	6,800	6,800	-	6,800	6,800	6,800	6,800	6,800	6,800	6,800	6,800	6,800	-
PV Maintenance Totals	172,564	11,800	11,519	11,245	10,977	10,716	10,461	10,211	9,968	9,731	-	9,273	9,052	8,837	8,626	8,421	8,221	8,025	7,834	7,647	-
SUM PV Turf	4,575,193																				
LOKER GRASS FIELD	TOTALS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15	YEAR 16	YEAR 17	YEAR 18	YEAR 19	YEAR 20
Initial Cost to Install Grass at Loker in 2019	1,500,000	1,500,000																			
Lighting (none, leads to overuse on grass)	-																				
~9 year Grass Rehab										295,981									369,639		
PV Extra Main	344,384									190,792									153,593		
Operating Expenses (Toilets, Parking, Trash/Recycle)	72,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000		4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000		4,000	4,000
Irrigation	80,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000		4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	
Annual Maintenance Costs (mow, aerate, fertilizer, labor, paint)	360,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
PV Maintenance Totals	414,004	28,000	27,333	26,683	26,047	25,427	24,822	24,231	23,654	3,299	22,541	22,004	21,480	20,969	20,470	19,982	19,506	19,042	2,656	18,146	17,714
SUM PV Grass	2,258,389																				
COST RATIO		2.02587	grass fields = cost of 1 turf field				implies that the cost of				2.000	turf fields = the cost of				4.052	grass fields				
USAGE RATIO	FIELD DEFICIT	4,100	hours of demand that need a field				implies the need for				2.050	turf fields		OR	7.523 grass fields						
deficit or excess hours of demand that need a field in Wayland	4,100	total hours (annually) *based on actual 2017 field permits issued by Wayland Recreation for grass rectangular fields outside of the school day hours																			
hours/year 1 grass field can take (average)	545	hours on average (anually per field) * based on recommendations by Weston & Sampson and Gale Associates																			
hours/year 1 turf field can take (average)	2,000	hours on average (anually per turf) *based on actual 2017 field permits issued by Wayland Recreation for WHS Stadium Turf outside of school day hours																			
COST/USAGE CONCLUSIONS																					
20 year cost to meet the field need in Wayland with TURF	9,379,145	= cost of turf x # turf fields needed				\$				468,957.24		annually									
20 year cost to meet the field need in Wayland with GRASS	16,989,712	= cost of grass x # of grass fields needed				\$				849,485.58		annually									