

APPENDIX A

24-Hour Driveway Count Data

Volumes for: Tuesday, March 06, 2007

City: Oxnard

Location: Total Project Site Data

AM Period	IN		OUT		PM Period	IN		OUT			
00:00	2		3		12:00	19		19			
00:15	1		0		12:15	18		19			
00:30	0		0		12:30	21		17			
00:45	0	3	1	4	7	12:45	11	69	13	68	137
01:00	0		0		13:00	15		18			
01:15	0		0		13:15	17		12			
01:30	0		2		13:30	21		18			
01:45	0	0	0	2	2	13:45	10	63	13	61	124
02:00	0		0		14:00	19		18			
02:15	0		0		14:15	26		22			
02:30	0		0		14:30	12		20			
02:45	0	0	0	0	14:45	13	70	14	74	144	
03:00	1		0		15:00	8		14			
03:15	0		1		15:15	20		22			
03:30	1		0		15:30	13		13			
03:45	0	2	0	1	3	15:45	12	53	15	64	117
04:00	2		0		16:00	18		20			
04:15	0		0		16:15	22		8			
04:30	0		0		16:30	16		20			
04:45	2	4	1	1	5	16:45	24	80	25	73	153
05:00	2		1		17:00	18		12			
05:15	2		2		17:15	14		20			
05:30	5		6		17:30	14		19			
05:45	10	19	5	14	33	17:45	17	63	20	71	134
06:00	2		6		18:00	19		7			
06:15	12		4		18:15	17		21			
06:30	12		15		18:30	10		10			
06:45	9	35	5	30	65	18:45	18	64	17	55	119
07:00	15		11		19:00	21		19			
07:15	13		9		19:15	6		9			
07:30	18		17		19:30	6		3			
07:45	13	59	14	51	110	19:45	9	42	12	43	85
08:00	8		14		20:00	7		12			
08:15	18		17		20:15	14		14			
08:30	11		10		20:30	7		13			
08:45	18	55	16	57	112	20:45	6	34	7	46	80
09:00	21		23		21:00	5		2			
09:15	25		20		21:15	12		12			
09:30	17		20		21:30	7		8			
09:45	15	78	16	79	157	21:45	5	29	7	29	58
10:00	19		20		22:00	5		8			
10:15	13		23		22:15	3		7			
10:30	21		19		22:30	2		4			
10:45	22	75	19	81	156	22:45	0	10	1	20	30
11:00	15		25		23:00	3		5			
11:15	19		17		23:15	1		2			
11:30	21		16		23:30	0		0			
11:45	16	71	6	64	135	23:45	0	4	0	7	11
Total Vol.	401		384	785		581		611	1192		
						Daily Totals					
						NB	SB	IN	OUT	Combined	
								982	995	1977	

Volumes for: Tuesday, March 06, 2007

City: Oxnard

Project #: 07-2077-001

Location: Driveway #1 @ NE corner of Victoria/W Hemlock intersection

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			0	0	12:00			2	4			
00:15			1	0	12:15			1	4			
00:30			0	0	12:30			3	1			
00:45			0	1	0	1	0	6	2	11	17	
01:00			0	0	13:00			2	3			
01:15			0	0	13:15			0	2			
01:30			0	0	13:30			0	2			
01:45			0	0	0	0	1	3	1	8	11	
02:00			0	0	14:00			2	3			
02:15			0	0	14:15			3	4			
02:30			0	0	14:30			0	4			
02:45			0	0	0	0	3	8	2	13	21	
03:00			0	0	15:00			1	2			
03:15			0	1	15:15			1	5			
03:30			0	0	15:30			1	2			
03:45			0	0	0	1	1	4	3	12	16	
04:00			0	0	16:00			0	4			
04:15			0	0	16:15			3	1			
04:30			0	0	16:30			1	3			
04:45			0	0	0	0	2	6	0	8	14	
05:00			0	1	17:00			0	3			
05:15			0	0	17:15			0	3			
05:30			0	0	17:30			0	4			
05:45			0	0	0	1	2	1	3	13	14	
06:00			0	1	18:00			2	1			
06:15			1	0	18:15			1	3			
06:30			0	0	18:30			0	0			
06:45			0	1	0	1	2	4	2	6	10	
07:00			0	1	19:00			1	3			
07:15			0	0	19:15			0	3			
07:30			0	0	19:30			0	0			
07:45			0	0	0	1	2	2	2	8	10	
08:00			0	1	20:00			0	1			
08:15			0	4	20:15			0	2			
08:30			2	1	20:30			0	0			
08:45			1	3	0	2	0	0	2	5	5	
09:00			1	4	21:00			0	0			
09:15			2	1	21:15			1	1			
09:30			2	1	21:30			0	1			
09:45			0	5	0	2	8	13	0	1	3	4
10:00			3	3	22:00			0	1			
10:15			1	3	22:15			0	1			
10:30			2	2	22:30			0	0			
10:45			0	6	0	3	11	17	0	0	2	2
11:00			3	4	23:00			1	1			
11:15			1	3	23:15			0	0			
11:30			1	2	23:30			0	0			
11:45			0	5	0	1	10	15	0	1	0	2
Total Vol.			21	43	64			36	90	126		

Daily Totals				
NB	SB	EB	WB	Combined
		57	133	190

Volumes for: Tuesday, March 06, 2007

City: Oxnard

Project #: 07-2077-002

Location: Driveway #2 @ NE corner of Victoria/W Hemlock intersection

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB						
00:00			1	2	12:00			0	5						
00:15			0	0	12:15			1	2						
00:30			0	0	12:30			1	1						
00:45			0	1	0	2	3	0	2	0	8	10			
01:00			0	0	13:00			0	0						
01:15			0	0	13:15			0	3						
01:30			0	2	13:30			0	2						
01:45			0	0	0	2	2	0	0	3	8	8			
02:00			0	0	14:00			1	4						
02:15			0	0	14:15			1	4						
02:30			0	0	14:30			3	1						
02:45			0	0	0	0	0	0	5	0	9	14			
03:00			0	0	15:00			0	0						
03:15			0	0	15:15			1	2						
03:30			0	0	15:30			0	4						
03:45			0	0	0	0	0	0	1	6	12	13			
04:00			0	0	16:00			1	4						
04:15			0	0	16:15			1	0						
04:30			0	0	16:30			0	4						
04:45			0	0	0	0	0	2	4	10	18	22			
05:00			0	0	17:00			1	4						
05:15			0	1	17:15			2	4						
05:30			1	4	17:30			1	2						
05:45			1	2	2	7	9	0	4	3	13	17			
06:00			1	4	18:00			0	1						
06:15			0	4	18:15			0	0						
06:30			0	9	18:30			0	0						
06:45			2	3	2	19	22	0	0	0	1	1			
07:00			2	6	19:00			0	1						
07:15			1	4	19:15			0	0						
07:30			0	4	19:30			0	0						
07:45			2	5	3	17	22	0	0	1	2	2			
08:00			2	4	20:00			0	4						
08:15			2	4	20:15			0	3						
08:30			0	4	20:30			0	2						
08:45			4	8	4	16	24	1	1	0	9	10			
09:00			0	6	21:00			0	2						
09:15			4	8	21:15			0	3						
09:30			2	5	21:30			1	0						
09:45			0	6	5	24	30	2	3	0	5	8			
10:00			1	4	22:00			0	0						
10:15			0	4	22:15			2	0						
10:30			0	3	22:30			0	0						
10:45			4	5	5	16	21	0	2	0	0	2			
11:00			2	10	23:00			1	0						
11:15			0	1	23:15			1	2						
11:30			0	1	23:30			0	0						
11:45			0	2	0	12	14	0	2	0	2	4			
Total Vol.			32	115	147			24	87	111					
											Daily Totals				
											NB	SB	EB	WB	Combined
													56	202	258

Volumes for: Tuesday, March 06, 2007

City: Oxnard

Project #: 07-2077-003

Location: Driveway #3 @ NE corner of Victoria/W Hemlock intersection

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			0	0	12:00			7	2			
00:15			0	0	12:15			4	0			
00:30			0	0	12:30			6	0			
00:45			0	0	12:45			1	18	0	2	20
01:00			0	0	13:00			6	1			
01:15			0	0	13:15			6	2			
01:30			0	0	13:30			9	2			
01:45			0	0	13:45			0	21	0	5	26
02:00			0	0	14:00			7	0			
02:15			0	0	14:15			6	0			
02:30			0	0	14:30			1	0			
02:45			0	0	14:45			2	16	0	0	16
03:00			0	0	15:00			0	1			
03:15			0	0	15:15			3	1			
03:30			0	0	15:30			4	0			
03:45			0	0	15:45			0	7	0	2	9
04:00			2	0	16:00			6	1			
04:15			0	0	16:15			4	0			
04:30			0	0	16:30			4	2			
04:45			0	2	16:45			6	20	1	4	24
05:00			0	0	17:00			2	0			
05:15			2	0	17:15			6	0			
05:30			2	0	17:30			4	1			
05:45			2	6	17:45			0	12	1	2	14
06:00			0	0	18:00			0	0			
06:15			8	0	18:15			2	0			
06:30			6	1	18:30			0	0			
06:45			3	17	18:45			7	9	1	1	10
07:00			2	1	19:00			1	0			
07:15			4	0	19:15			2	0			
07:30			9	3	19:30			0	0			
07:45			2	17	19:45			3	6	0	0	6
08:00			2	1	20:00			2	1			
08:15			3	0	20:15			7	1			
08:30			3	0	20:30			1	1			
08:45			6	14	20:45			1	11	0	3	14
09:00			4	0	21:00			4	0			
09:15			7	1	21:15			3	0			
09:30			4	3	21:30			1	0			
09:45			4	19	21:45			0	8	0	0	8
10:00			4	0	22:00			0	1			
10:15			4	1	22:15			0	0			
10:30			4	1	22:30			0	0			
10:45			8	20	22:45			0	0	0	1	1
11:00			2	1	23:00			0	0			
11:15			3	0	23:15			0	0			
11:30			7	1	23:30			0	0			
11:45			3	15	23:45			0	0	0	0	
Total Vol.			110	22	132			128	20	148		
								Daily Totals				
								NB	SB	EB	WB	Combined
										238	42	280

Volumes for: Tuesday, March 06, 2007

City: Oxnard

Project #: 07-2077-004

Location: Driveway #4 off alley e/o Victoria

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
00:00	0	0			12:00	0	0			
00:15	0	0			12:15	0	1			
00:30	0	0			12:30	0	1			
00:45	0	0	0		12:45	0	0	2	2	
01:00	0	0			13:00	1	0			
01:15	0	0			13:15	0	0			
01:30	0	0			13:30	0	0			
01:45	0	0	0		13:45	0	1	0	1	
02:00	0	0			14:00	1	2			
02:15	0	0			14:15	1	0			
02:30	0	0			14:30	3	0			
02:45	0	0	0		14:45	0	5	0	2	
03:00	0	0			15:00	0	0			
03:15	0	0			15:15	1	0			
03:30	0	0			15:30	0	0			
03:45	0	0	0		15:45	0	1	0	1	
04:00	0	0			16:00	0	0			
04:15	0	0			16:15	0	0			
04:30	0	0			16:30	1	1			
04:45	0	0	0		16:45	0	1	0	1	
05:00	0	1			17:00	1	0			
05:15	0	0			17:15	0	0			
05:30	0	0			17:30	2	1			
05:45	0	0	1	2	17:45	3	6	5	6	
06:00	0	0			18:00	1	4			
06:15	0	0			18:15	0	1			
06:30	0	0			18:30	1	2			
06:45	0	0	0	0	18:45	1	3	0	7	
07:00	1	0			19:00	1	1			
07:15	1	2			19:15	0	0			
07:30	0	0			19:30	0	0			
07:45	0	2	0	2	19:45	0	1	0	1	
08:00	0	0			20:00	0	0			
08:15	2	0			20:15	2	1			
08:30	0	0			20:30	1	0			
08:45	0	2	1	1	20:45	3	6	1	2	
09:00	1	1			21:00	0	0			
09:15	3	0			21:15	4	4			
09:30	1	0			21:30	2	2			
09:45	0	5	0	1	21:45	0	6	0	6	
10:00	1	0			22:00	4	0			
10:15	0	0			22:15	3	0			
10:30	0	3			22:30	0	0			
10:45	0	1	0	3	22:45	0	7	0	0	
11:00	2	2			23:00	0	0			
11:15	0	0			23:15	0	0			
11:30	1	1			23:30	0	0			
11:45	0	3	2	5	23:45	0	0	0	0	
Total Vol.	13	14			27					64
						Daily Totals				
						NB	SB	EB	WB	Combined
						50	41			91

Volumes for: Tuesday, March 06, 2007

City: Oxnard

Project #: 07-2077-005

Location: Driveway #5 off alley w/o alley

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
00:00	0	0			12:00	0	0			
00:15	0	0			12:15	0	0			
00:30	0	0			12:30	0	0			
00:45	0	0	0		12:45	0	0	0		
01:00	0	0			13:00	0	0			
01:15	0	0			13:15	1	2			
01:30	0	0			13:30	0	0			
01:45	0	0	0		13:45	0	1	0	2	
02:00	0	0			14:00	0	0			
02:15	0	0			14:15	0	0			
02:30	0	0			14:30	2	0			
02:45	0	0	0		14:45	0	2	0	0	
03:00	0	0			15:00	0	0			
03:15	0	0			15:15	0	0			
03:30	0	0			15:30	0	0			
03:45	0	0	0		15:45	0	0	0		
04:00	0	0			16:00	0	0			
04:15	0	0			16:15	0	0			
04:30	0	0			16:30	0	0			
04:45	0	0	0		16:45	0	0	0		
05:00	0	0			17:00	1	0			
05:15	0	0			17:15	0	0			
05:30	0	0			17:30	1	0			
05:45	0	0	1	1	17:45	0	2	0	0	
06:00	0	0			18:00	0	2			
06:15	0	0			18:15	0	0			
06:30	0	0			18:30	0	0			
06:45	0	0	0		18:45	0	0	0	2	
07:00	0	2			19:00	0	0			
07:15	1	0			19:15	0	0			
07:30	1	0			19:30	0	0			
07:45	0	2	0	2	19:45	0	0	0	0	
08:00	0	0			20:00	0	0			
08:15	0	0			20:15	0	0			
08:30	0	0			20:30	0	0			
08:45	0	0	1	1	20:45	0	0	2	2	
09:00	0	0			21:00	0	0			
09:15	0	0			21:15	0	0			
09:30	0	0			21:30	0	0			
09:45	1	1	1	1	21:45	0	0	0	0	
10:00	0	0			22:00	0	0			
10:15	0	0			22:15	0	0			
10:30	1	1			22:30	0	0			
10:45	2	3	0	1	22:45	0	0	0	0	
11:00	2	0			23:00	0	0			
11:15	0	0			23:15	0	0			
11:30	0	0			23:30	0	0			
11:45	0	2	0	0	23:45	0	0	0	0	
Total Vol.	8	6		14		5	6		11	
								Daily Totals		
						NB	SB	EB	WB	Combined
						13	12			25

Volumes for: Tuesday, March 06, 2007

City: Oxnard

Project #: 07-2077-006

Location: Driveway #6 at corner of alley & w. Hemlock

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
00:00			0	0	12:00			0	0	
00:15			0	0	12:15			0	0	
00:30			0	0	12:30			0	0	
00:45			0	0	12:45			0	0	
01:00			0	0	13:00			0	0	
01:15			0	0	13:15			0	0	
01:30			0	0	13:30			0	2	
01:45			0	0	13:45			0	0	
02:00			0	0	14:00			0	0	
02:15			0	0	14:15			0	0	
02:30			0	0	14:30			0	0	
02:45			0	0	14:45			0	0	
03:00			0	0	15:00			0	0	
03:15			0	0	15:15			0	1	
03:30			0	0	15:30			0	0	
03:45			0	0	15:45			0	0	
04:00			0	0	16:00			0	0	
04:15			0	0	16:15			0	0	
04:30			0	0	16:30			0	0	
04:45			0	0	16:45			1	1	
05:00			0	0	17:00			0	0	
05:15			0	0	17:15			1	0	
05:30			0	0	17:30			0	0	
05:45			0	0	17:45			0	1	
06:00			1	0	18:00			0	0	
06:15			0	0	18:15			0	0	
06:30			0	0	18:30			1	0	
06:45			0	1	18:45			0	1	
07:00			0	0	19:00			0	0	
07:15			0	0	19:15			0	0	
07:30			0	0	19:30			0	0	
07:45			0	0	19:45			0	0	
08:00			3	0	20:00			0	0	
08:15			2	0	20:15			0	0	
08:30			0	0	20:30			0	0	
08:45			1	6	20:45			0	0	
09:00			2	1	21:00			0	0	
09:15			2	0	21:15			0	0	
09:30			0	0	21:30			0	0	
09:45			0	4	21:45			1	1	
10:00			0	0	22:00			0	1	
10:15			2	1	22:15			0	0	
10:30			2	1	22:30			0	0	
10:45			0	4	22:45			1	1	
11:00			2	0	23:00			1	0	
11:15			0	1	23:15			0	0	
11:30			2	0	23:30			0	0	
11:45			0	4	23:45			0	1	
Total Vol.			19	8	27			6	6	12

Daily Totals				
NB	SB	EB	WB	Combined
		25	14	39

Volumes for: Tuesday, March 06, 2007

City: Oxnard

Project #: 07-2077-08

Location: Driveway # 8 off of W. Hemlock just e/o Victoria

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
00:00	1	1			12:00	8	7			
00:15	0	0			12:15	4	12			
00:30	0	0			12:30	5	7			
00:45	0	1	1	2	12:45	3	20	7	33	
01:00	0	0			13:00	6	9		53	
01:15	0	0			13:15	4	3			
01:30	0	0			13:30	6	9			
01:45	0	0	0	0	13:45	5	21	4	25	
02:00	0	0			14:00	4	9		46	
02:15	0	0			14:15	8	8			
02:30	0	0			14:30	4	6			
02:45	0	0	0	0	14:45	3	19	5	28	
03:00	0	0			15:00	2	8		47	
03:15	0	0			15:15	9	9			
03:30	0	0			15:30	4	4			
03:45	0	0	0	0	15:45	6	21	2	23	
04:00	0	0			16:00	4	7		44	
04:15	0	0			16:15	8	6			
04:30	0	0			16:30	7	5			
04:45	2	2	1	1	16:45	8	27	9	27	
05:00	0	0			17:00	5	3		54	
05:15	0	0			17:15	4	11			
05:30	2	2			17:30	2	5			
05:45	4	6	2	4	17:45	5	16	9	28	
06:00	1	0			18:00	4	4		44	
06:15	3	0			18:15	6	11			
06:30	6	5			18:30	4	3			
06:45	4	14	3	8	18:45	2	16	12	30	
07:00	8	2			19:00	8	7		46	
07:15	5	2			19:15	2	5			
07:30	8	8			19:30	3	2			
07:45	8	29	8	20	19:45	3	16	6	20	
08:00	3	5			20:00	3	2		36	
08:15	11	5			20:15	2	2			
08:30	2	2			20:30	2	5			
08:45	4	20	5	17	20:45	0	7	1	10	
09:00	10	10			21:00	1	0		17	
09:15	4	5			21:15	3	1			
09:30	9	10			21:30	2	1			
09:45	8	31	4	29	21:45	2	8	4	6	
10:00	7	9			22:00	3	2		14	
10:15	4	9			22:15	0	2			
10:30	8	6			22:30	2	4			
10:45	4	23	5	29	22:45	0	5	0	8	
11:00	5	3			23:00	1	3		13	
11:15	10	6			23:15	0	0			
11:30	6	9			23:30	0	0			
11:45	4	25	4	22	23:45	0	1	0	3	
Total Vol.	151	132		283		177	241		418	
								Daily Totals		
						NB	SB	EB	WB	Combined
						328	373			701

Appendix B

URBEMIS Air Quality Run

URBEMIS 2002 For Windows 6.7.0

File Name: <Not Saved>
 Project Name: Tucker - Victoria and Hemlock
 Project Location: Ventura County
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
 (Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)	ROG	NOx	CO	SO2	PM10
Source	0.07	0.87	0.37	0	0.00
Natural Gas					
Hearth - No summer emissions	0.12	0.00	0.78	0.00	0.00
Landscaping	5.68	-	-	-	-
Consumer Products	1.87	-	-	-	-
Architectural Coatings		0.88	1.15	0.00	0.00
TOTALS(lbs/day, unmitigated)	7.73				

Page: 1

2:27 PM

URBEMIS 2002 For Windows 8.7.0

File Name: <Not Saved>
 Project Name: Tucker - Victoria and Hemlock
 Project Location: Ventura County
 On-Road Motor Vehicle Emissions Based on EMERG2002 version 2.2

SUMMARY REPORT
 (Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	7.73	0.68	1.15	0.00	0.00
OPERATIONAL (VEHICLE) EMISSION ESTIMATES	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	9.79	15.84	122.60	0.13	12.34
SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	17.52	16.72	123.63	0.13	12.34

UNMITIGATED OPERATIONAL EMISSIONS

	NO2	NOx	CO	SO2	PM10
Condo/townhouse general	9.79	15.84	122.68	0.13	12.34
TOTAL EMISSIONS (lbs/day)	9.79	15.84	122.68	0.13	12.34

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 75 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Condo/townhouse general	7.25	6.90 trips/dwelling unit	116.00	800.40
Sum of Total Trips				800.40
Total Vehicle Miles Traveled				8,130.94

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	56.10	2.30	97.10	0.60
Light Truck < 3,750 lbs	15.10	4.00	93.40	2.60
Light Truck 3,751- 5,750	15.50	1.90	96.80	1.30
Med Truck 5,751- 8,500	6.80	1.50	95.60	2.90
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.80	0.00	12.50	87.50
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.30	0.00	0.00	100.00
Motor Home	1.40	14.30	78.60	7.10

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.0	7.8	10.0	10.0	4.7	4.7
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	15.0	15.0
Trip Speeds (mph)	40.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	27.4	17.7	54.9			

Handwritten notes:
7th Ed 9-1-05
[unclear]

Jr

Page: 4

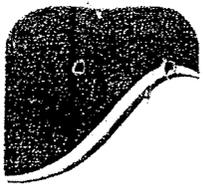
Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

Changes made to the default values for Operations

Appendix C

Tree Survey – March 31, 2007



PACIFIC HORTICULTURE

DIVISION OF DELTA-PACIFIC HORTICULTURE, INC.

LANDSCAPE AND AGRONOMY CONSULTANTS

March 31, 2007

121 three story town homes
NEC of Victoria & Hemlock

Mr. Anthony Deleau
Tucker Investment Group, Inc.
5010 N. Parkway Calabasas, Suite 105
Calabasas, California 91302

**Subject: Horticulture Tree Survey, Evaluations and Appraisals
for Proposed Residential Development at Victoria
and Hemlock Streets, City of Oxnard, California**

Dear Mr. Deleau:

This report is provided to comply with the City of Oxnard Tree Protection and Preservation Guidelines. Utilizing the existing site survey map which identified the exact tree locations, a field survey, evaluations and photographs was completed on March 30, 2007.

Sixty-one (61) trees were identified including the perimeter street trees. All of the trees were numbered on the tree trunks with aluminum tags that correspond to the enclosed field evaluations, tree location and numbering map, photographs, and discussion herein. Ninety percent (90%) of the specimens are a mixture of four palm species.

Based on conversation with Mark Schattinger and a review of the tentative proposed development plans, it appears that all of the trees are scheduled for removal. Therefore, per the conditions of the City of Oxnard, this report will provide an appraised value for each of the specimens.

Site Location

The site is bordered on the West by Victoria Avenue and on the South by Hemlock Street. To the North and East are apartment buildings. Currently, the use is a shopping center with existing buildings occupied by various merchants. A large asphalt parking lot extends from the structures to Hemlock Street. The terrain is flat. A majority of the trees are located adjacent to the buildings.

The tentative development plan identifies the site as Zone R-2-PD, General Commercial Planned Development.

Tucker Investment Group, Inc.
Horticulture Tree Report
Victoria & Hemlock Project, Oxnard
March 31, 2007

pp 2

Summary of Existing Site Trees -Table I

<u>Quantity</u>	<u>Botanical Species</u>	<u>Common Name</u>	<u>Comments</u>
17	<i>Chamaerops humilis</i>	Mediterranean Fan Palm	Most good
14	<i>Trachycarpus fortunei</i>	Windmill Palm	Fair to good
16	<i>Washingtonia robusta</i>	Mexican Fan palm	Large & Good
8	<i>Syagrus romanzoffianum</i>	Queen Palm	Most good
3	<i>Podocarpus gracilior</i>	Fern Pine	Poor to fair
3	Juniper species	Juniper	Good to poor

61 Total

Analysis of Existing Tree Conditions

Of the 17 (seventeen) *Chamaerops humilis*, 11 are excellent, 3 are fair and 3 are in poor condition. The heights range from 6' to 15' with an average height of 12'. Many exhibit multi-trunks and the photographs fairly well exhibit the tree conditions.

The fourteen (14) *Trachycarpus fortunei* range in height from 8' to 35' with an average height of 21'. Seven are rated as excellent to good, 2 are average and 5 are poor.

The sixteen (16) *Washingtonia robusta* are really spectacular with heights of up to 70'. All are in excellent condition with a majority having 3 multi-trunks. The height ranges from 9' to 70' with 14 trees in the 60 to 70 foot height range. The overall average height is 63'.

Queen palms (*Syagrus romanzoffianum*) are one of the most planted and attractive palms in the landscape. There are eight (8) species on the site, which exhibit a significant stress. The height range is 22' to 40' with an average of 32' in height. Trees numbered 44, 56 and 58 are in poor condition. The remaining five trees Would be rated as good to fair, with only four considered acceptable specimens

Tucker Investment Group, Inc.
 Horticulture Tree Report
 Victoria & Hemlock Project, Oxnard
 March 31, 2007

pp 3

Three (3) *Podocarpus gracilior* (No. 18, 19 & 20) are located adjacent to one of the site buildings. All three are 35' tall and exhibit numerous defects. The trees would be rated as overall poor.

There are three (3) Juniper species located in the parking lot area that are 25 to 30' in height. Number 25 exhibits poor health, vigor and aesthetics and would normally be a candidate for removal in any landscape.

Appraised Values – Table II

Appraised values are determined from the Council of Tree and Landscape Appraisers *Guide for Plant Appraisals*, 9th edition and the Western Chapter International Society of Arboriculture *Species Classification and Group Assignment* a regional supplement printed in 2004. These guides are the accepted professional protocol for determining tree and landscape appraisals.

These values may be utilized by the Oxnard City Planning Department to upgrade the site landscaping above that required as identified in the Landscape ordinance and/or project conditions for approval. The appraisals allow the flexibility within the guidelines to improve the site aesthetics through mitigation for any existing mature tree removals.

<u>Tree No.</u>	<u>Species</u>	<u>Height Clear Trunk</u>	<u>Species Rating %</u>	<u>Condition Rating %</u>	<u>Location Rating %</u>	<u>Appraised \$ Value</u>
1	Chamaerops humilis	30'	90	90	90	4800.00
2	Trachycarpus fortunei	12'	90	60	90	759.00
3	Trachycarpus fortunei	12'	90	60	90	759.00
4	Chamaerops humilis	36'	90	90	90	5760.00
5	Washingtonia robusta	5'	90	90	90	146.00
6	Washingtonia robusta	180'	90	90	90	5220.00
7	Washingtonia robusta	180'	90	90	90	5220.00
8	Washingtonia robusta	180'	90	90	90	5220.00
9	Washingtonia robusta	220'	90	90	90	5220.00
10	Trachycarpus fortunei	5'	90	70	90	369.00
11	Washingtonia robusta	180'	90	90	90	5200.00
12	Washingtonia robusta	180'	90	90	90	5200.00
13	Washingtonia robusta	120'	90	90	90	3480.00
14	Washingtonia robusta	100'	90	90	90	2900.00
15	Juniper species		0	0	0	0
16	Juniper species		0	0	0	0
17	Washingtonia robusta	110'	90	90	90	3190.00

Tucker Investment Group, Inc.
 Horticulture Tree Report
 Victoria & Hemlock Project, Oxnard
 March 31, 2007

pp 4

18	Podocarpus gracilior		90	45	40	2431.00
19	Podocarpus gracilior		90	45	40	2431.00
20	Podocarpus gracilior		90	45	40	1410.00
21	Juniper species		0	0	0	0
22	Chamaerops humilis	8'	90	80	90	725.00
23	Trachycarpus fortunei	15'	90	60	90	945.00
24	Trachycarpus fortunei	6'	90	80	90	505.00
25	Chamaerops humilis	7'	90	80	90	1001.00
26	Trachycarpus fortunei	25'	90	80	90	588.00
27	Chamaerops humilis	13'	90	70	90	962.00
28	Chamaerops humilis	7'	90	85	90	1060.00
29	Trachycarpus fortunei	24'	90	40	90	1011.00
30	Chamaerops humilis	8'	90	80	90	1160.00
31	Chamaerops humilis	7'	90	70	90	873.00
32	Trachycarpus fortunei	25'	90	80	90	2100.00
33	Chamaerops humilis	4'	90	90	90	640.00
34	Chamaerops humilis	4'	90	80	90	572.00
35	Chamaerops humilis	8'	90	70	90	1000.00
36	Washingtonia robusta	180'	90	80	90	4680.00
37	Washingtonia robusta	180'	90	90	90	5220.00
38	Washingtonia robusta	180'	90	90	90	5220.00
39	Chamaerops humilis	5'	90	85	90	755.00
40	Chamaerops humilis	8'	90	45	90	642.00
41	Chamaerops humilis	5'	90	90	90	800.00
42	Washington robusta	20'	90	80	90	580.00
43	Syagrus romanzaffianum	30'	90	90	90	990.00
44	Syagrus romanzaffianum	25'	90	10	90	91.00
45	Syagrus romanzaffianum	30'	90	90	90	990.00
46	Trachycarpus fortunei	17'	90	40	90	714.00
47	Chamaerops humilis	8'	90	90	90	1280.00
48	Chamaerops humilis	12'	90	90	90	1920.00
49	Chamaerops humilis	10'	90	90	90	1600.00
50	Washingtonia robusta	120'	90	90	90	2760.00
51	Trachycarpus fortunei	16'	90	90	90	1520.00
52	Trachycarpus fortunei	5'	90	90	90	475.00
53	Trachycarpus fortunei	6'	90	90	90	570.00
54	Trachycarpus fortunei	9'	90	60	90	567.00
55	Syagrus romanzaffianum	25'	90	70	90	650.00
56	Syagrus romanzaffianum	15'	90	40	90	255.00
57	Syagrus romanzaffianum	18'	90	80	90	522.00
58	Syagrus romanzaffianum	23'	90	70	90	598.00
59	Syagrus romanzaffianum	23'	90	90	90	759.00
60	Washingtonia robusta	55'	90	80	90	1265.00
61	Trachycarpus fortunei	16'	90	80	90	1520.00

Total Appraised Tree Value: \$109,499.00

Tucker Investment Group, Inc.
Horticulture Tree Report
Victoria & Hemlock Project, Oxnard
March 31, 2007

pp 5

Evaluation Methodology

A field evaluation was completed for each specimen at the site utilizing the enclosed survey matrix. The field evaluations followed the basic diagnostic and evaluation procedures established by the International Society of Arboriculture.

All specimens were visually examined for overall physical, biological and aesthetic conditions. The trunk diameters were measured at 4 ½' above existing natural grade. Heights of the trees were approximated and the canopy spreads measured in eight (8) compass directions. Each specimen is rated as to overall vigor, health, and aesthetics on a scale of 1-5, with 1 being the highest rating and 5 being the lowest rating. Recommended treatments are provided for all of the trees should they be determined for preservation. The appraised values are provide for removals.

Each tree has been numbered with an aluminum tag on the most convenient and accessible side of the tree trunk.

Should you have any questions or should you require additional information, do not hesitate in calling me direct.

Respectfully Submitted,



Donald F. Rodrigues
Horticulture Consultant
ISA Certified Arborist 272

cc: Dave Gorcey, City of Oxnard

HORTICULTURE TREE EVALUATIONS

FIELD SURVEY DATA

Inspection Note: The following information was observed on the date (s) indicated herein and should only be considered to be valid at the time of field inspection.

PACIFIC HORTICULTURE CONSULTANTS

HORTICULTURE TREE EVALUATION FIELD SURVEY

Project: VICTORIA & HEMLOCK PROPOSED RESIDENTIAL
 Location: VICTORIA & HEMLOCK, OXNARD, CA.
 Client: TUCKER INVESTMENT GROUP, INC.
 Date: 3-30-07 Contact: Anthony Delcau Telephone: (818-223-9499)

PAGE

2

of
9

SPECIMEN DATA	10		11		12		13		14		15		16		17		18	
	TREE NUMBER	10		11		12		13		14		15		16		17		18
No TRUNKS																		
TRUNK DIAMETER	84		3		3		2		3		1		1		2		1	
TREE HEIGHT	80'		10'		10'		10'		10'		21'		15'		17'		14'	
CANOPY SPREAD	71'		25'		25'		25'		25'		25'		36'		60'		35'	
LEANING	X																	
LOW BRANCHES																		
TERRAIN Flat-Slope	F		F		F		F		F		F		F		F		F	
CROWDED																		
Damaged Roots																		
Exposed Roots																		
Girdled Roots																		
Covered Soil/Debris																		
Trunk Damage																		
Buried																		
Trunk Cavity																		
Exudations																		
Disease/Insects																		
Weak Structure																		
Branch Cavities																		
Weak Crotches																		
Twig-Branch Dieback																		
Spars Foliage																		
Chlorotic																		
Wilt	X																	
Abnormal foliage																		
Deadwood																		
Insects-Mites Present			X		X		X		X		X		X		X		X	
Disease Present																		
Stress																		
Poor Form																		
Obstructions																		
POTENTIAL HAZARD																		
Dead Tree																		
VIGOR 1-5	2																	
HEALTH 1-5	2																	
AESTHETICS 1-5	3																	
REMOVE TREE																		
PRUNE																		
DEADWOOD																		
WATER-FERTILIZE																		
INSECT-DISEASE TREAT																		
REMOVE BASAL SOIL/DEBRIS																		
OTHER																		
COMMENTS:			SPECIES: TRECHYCARPUS FORTUNE		SPECIES: WASHINGTONIA ROBUSTA		SPECIES: WASHINGTONIA ROBUSTA		SPECIES: WASHINGTONIA ROBUSTA		SPECIES: JUNIPER SPECIES		SPECIES: JUNIPER SPECIES		SPECIES: WASHINGTONIA ROBUSTA		SPECIES: PODOCARPUS GRACILIOR	

Measured Canopy Spreads on Back →

HORTICULTURE TREE EVALUATION FIELD SURVEY

Project: VICTORIA & HEMLOCK PROPOSED RESIDENTIAL
 Location: VICTORIA & HEMLOCK, OXNARD, CA.
 Client: TUCKER INVESTMENT GROUP, INC.
 Date: 3-30-07 Contact: Anthony Delcau Telephone: (818-223-9499)

PAGE

3

of
7

SPECIMEN DATA		SPECIES	
TREE NUMBER	19	20	21
NO TRUNKS			
TRUNK DIAMETER	14 1/4"	10"	11 1/4"
TREE HEIGHT	35'	35'	25'
CANOPY SPREAD	20'	20'	24'
LEANING			
LOW BRANCHES			
TERRAIN Flat-Slope			
CROWDED	F	F	F
Damaged Roots	X	X	X
Exposed Roots			
Girdled Roots			
Covered Soil / Debris	X	X	X
Trunk Damage			
Buried	X	X	X
Trunk Cavity			
Exudations			
Disease/Insects			
Weak Structure			
Branch Cavities			
Weak Crotches			
Twig-Branch Dieback			
Sparse Foliage	X	X	X
Chlorotic			
Wilt			
Abnormal Foliage			
Deadwood	X	X	X
Insects/Mites Present			
Disease Present			
Stress			
Poor Form			
Obstructions			
POTENTIAL HAZARD			
Dead Tree			
VIGOR 1-5	3	3	3
HEALTH 1-5	3	3	3
AESTHETICS 1-5	3	3	3
REMOVE TREE			
PRUNE			
DEADWOOD	X	X	X
WATER-FERTILIZE			
INSECT-DISEASE TREAT			
REMOVE BASAL SOIL/DEBRIS	X	X	X
OTHER			

SPECIES: *PODOCARPUS GRACILIOR*
 SPECIES: *PODOCARPUS GRACILIOR*
 SPECIES: *JUNIPER SPECIES*
 SPECIES: *CHAMAEROPS HUMILIS*
 SPECIES: *TRACHYCARPUS FORTUNEI*
 SPECIES: *TRACHYCARPUS FORTUNEI*
 SPECIES: *CHAMAEROPS HUMILIS*
 SPECIES: *TRACHYCARPUS FORTUNEI*
 SPECIES: *CHAMAEROPS HUMILIS*
 SPECIES: *TRACHYCARPUS FORTUNEI*
 SPECIES: *CHAMAEROPS HUMILIS*

COMMENTS: Tag on fence
 COMMENTS: Tag on fence
 COMMENTS: Tag on fence
 COMMENTS: RESTRICTED TRUNK
 COMMENTS: 4-5 BASAL SHOOTS

Measured Canopy Spreads on Back →

HORTICULTURE TREE EVALUATION FIELD SURVEY

Project: VICTORIA & HEMLOCK PROPOSED RESIDENTIAL
 Location: VICTORIA & HEMLOCK, OXNARD, CA.
 Client: TUCKER INVESTMENT GROUP, INC.
 Date: 3-30-07 Contact: Anthony Delcau Telephone: (818-223-9499)

PAGE

5

of
7

SPECIMEN DATA	37		38		39		40		41		42		43		44		45		
	TREE NUMBER	37	38	39	40	41	42	43	44	45									
No TRUNKS	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
TRUNK DIAMETER	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	Varies	
TREE HEIGHT	70'	70'	70'	70'	70'	70'	70'	70'	70'	70'	70'	70'	70'	70'	70'	70'	70'	70'	
CANOPY SPREAD	25'	25'	25'	25'	25'	25'	25'	25'	25'	25'	25'	25'	25'	25'	25'	25'	25'	25'	
LEANING																			
LOW BRANCHES																			
TERRAIN Flat-Slope	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	
CROWDED																			
Damaged Roots																			
Exposed Roots																			
Girdled Roots																			
Covered Soil / Debris																			
Trunk Damage																			
Buried																			
Trunk Cavity																			
Exudations																			
Diseases/Insects																			
Weak Structure																			
Branch Cavities																			
Weak Crotches																			
Twig-Branch Dieback																			
Sparse Foliage																			
Chlorotic																			
Wilt																			
Abnormal foliage																			
Deadwood	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Insects/Moss Present																			
Disease Present																			
Stress																			
Poor Form																			
Obstructions																			
POTENTIAL HAZARD																			
Dead Tree																			
VIGOR 1-5																			
HEALTH 1-5																			
AESTHETICS 1-5																			
REMOVE TREE																			
PRUNE																			
DEADWOOD	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
WATER-FERTILIZE																			
INSECT-DISEASE TREAT																			
REMOVE BASAL SOIL/DEBRIS																			
OTHER																			
SPECIES:		Washingtonia robusta		Washingtonia robusta		Chamaerops humilis		Chamaerops humilis		Chamaerops humilis		Washingtonia robusta		SYAGRUS ROMANA		SYAGRUS ROMANA		SYAGRUS ROMANA	
COMMENTS:		Climb growing at base. dbh: 2" 13" 8"		dbh: 16" 13" 8"		dbh: 16" 13" 8"		1/4" growing on trunk		Dead Climbs growing from base		Climbs growing from base				TOP LACKS FOLIAGE			

Measured Canopy Spreads on Back →

**SITE MAP, TREE LOCATIONS AND FIELD
SPECIMEN NUMBERING SYSTEM**

PACIFIC HORTICULTURE CONSULTANTS

REPRESENTATIVE PHOTOGRAPHS

PACIFIC HORTICULTURE CONSULTANTS



Palms 1-4 View W.
Chamaerops humilis & *Trachycarpus fortunei*

FIELD PHOTO REPORT

Project: VICTORIA & HEMLOCK PROPOSED RESIDENTIAL, OXNARD, CA.

Subject: SITE TREES

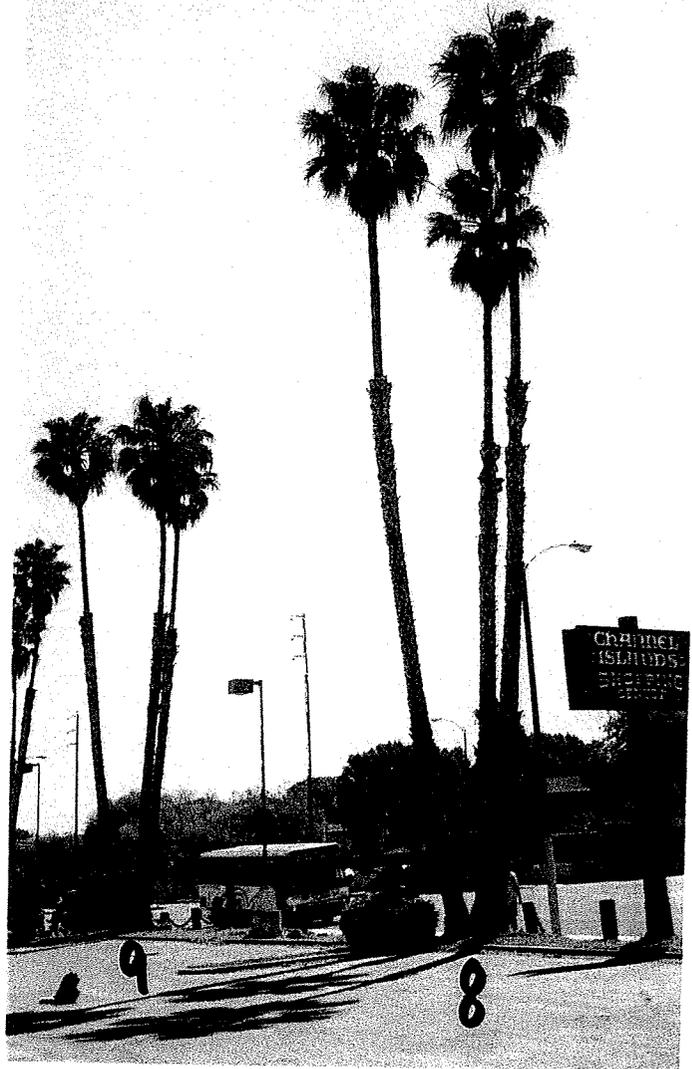
Exhibit No.: 1

Date: 3-30-07

By: D. F. Rodrigues



Washingtonia robusta palms V E.
No. 5, 6 & 7



Washingtonia robusta palms V SE
No. 8 & 9

FIELD PHOTO REPORT

Project: VICTORIA & HEMLOCK PROPOSED RESIDENTIAL, OXNARD, CA.

Subject: SITE TREES

Exhibit No.: 2

Date: 3-30-07

By: D. F. Rodrigues



Washingtonia robusta palms V E.
No. 10-13



Washingtonia robusta palms &
Juniper Species No. 14 -16 V. W

FIELD PHOTO REPORT

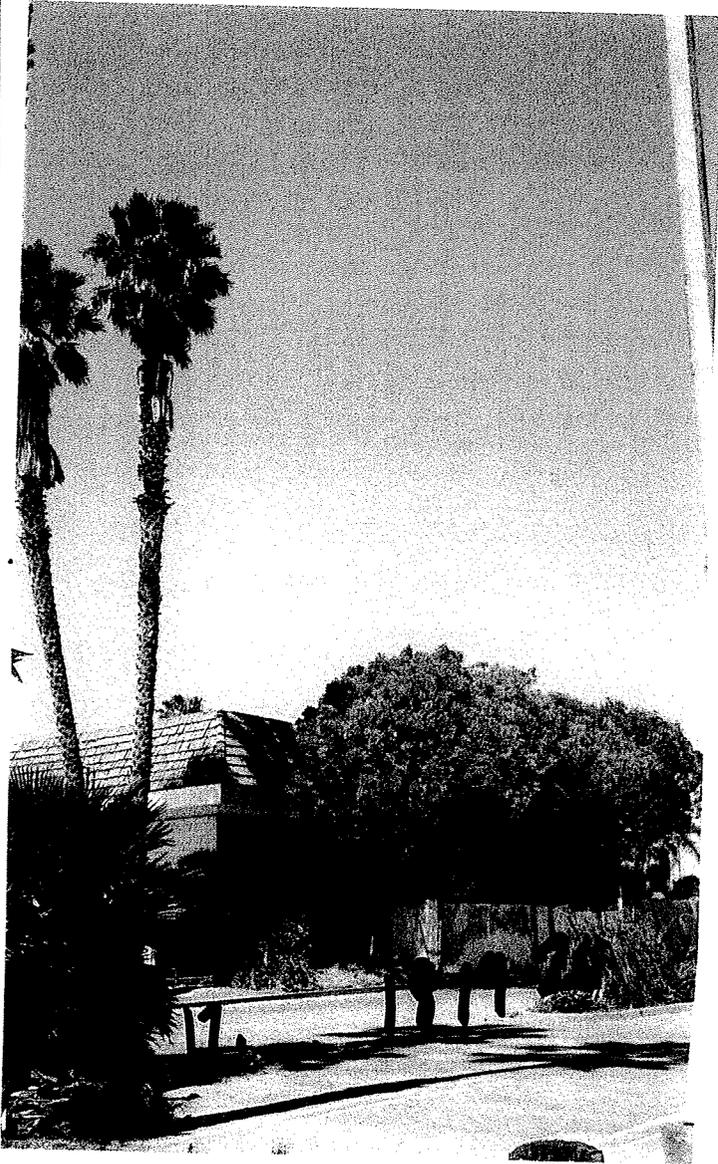
Project: VICTORIA & HEMLOCK PROPOSED RESIDENTIAL, OXNARD, CA.

Subject: SITE TREES

Exhibit No.: 3

Date: 3-30-07

By: D. F. Rodrigues



Washingtonia robusta palm No. 17
Podocarpus gracilior No. 18,19, 20 V. NW



Juniper Species No. 21 V. S

FIELD PHOTO REPORT

Project: VICTORIA & HEMLOCK PROPOSED RESIDENTIAL, OXNARD, CA.

Subject: SITE TREES

Exhibit No.: 4

Date: 3-30-07

By: D. F. Rodrigues



Chamaerops humilis & *Trachycarpus fortunei*
No. 22, 23, & 24 V. NE

Chamaerops humilis & *Trachycarpus fortunei*
No. 25 - 30 V. N

FIELD PHOTO REPORT

Project: VICTORIA & HEMLOCK PROPOSED RESIDENTIAL, OXNARD, CA.

Subject: SITE TREES

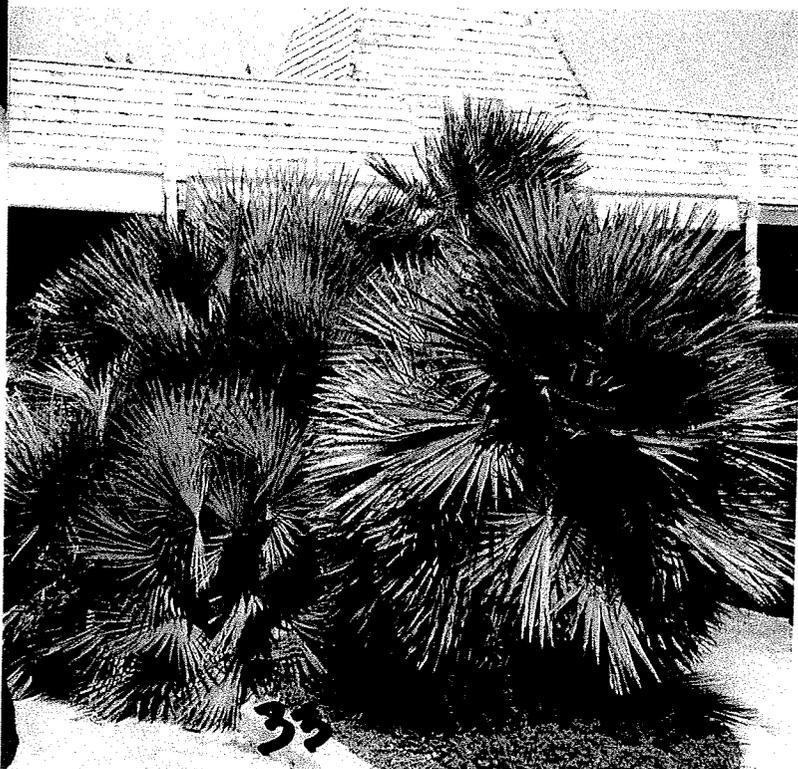
Exhibit No.: 5

Date: 3-30-07

By: D. F. Rodrigues



Chamaerops & Trachycarpus No. 31 & 32 V. N



Chamaerops No. 33 V. NE
3 Clumps

FIELD PHOTO REPORT

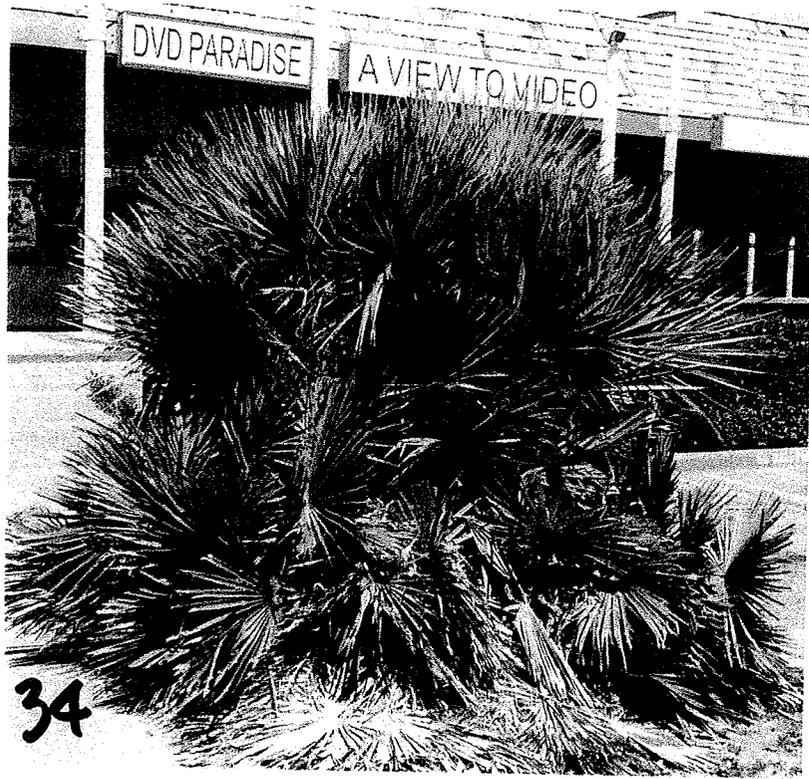
Project: VICTORIA & HEMLOCK PROPOSED RESIDENTIAL, OXNARD, CA.

Subject: SITE TREES

Exhibit No.: 6

Date: 3-30-07

By: D. F. Rodrigues



Chamaerops humilis No. 34 V. NE



Washingtonia robusta & *Chamaerops humilis*
No. 36-39 V. SW

FIELD PHOTO REPORT

Project: VICTORIA & HEMLOCK PROPOSED RESIDENTIAL, OXNARD, CA.

Subject: SITE TREES

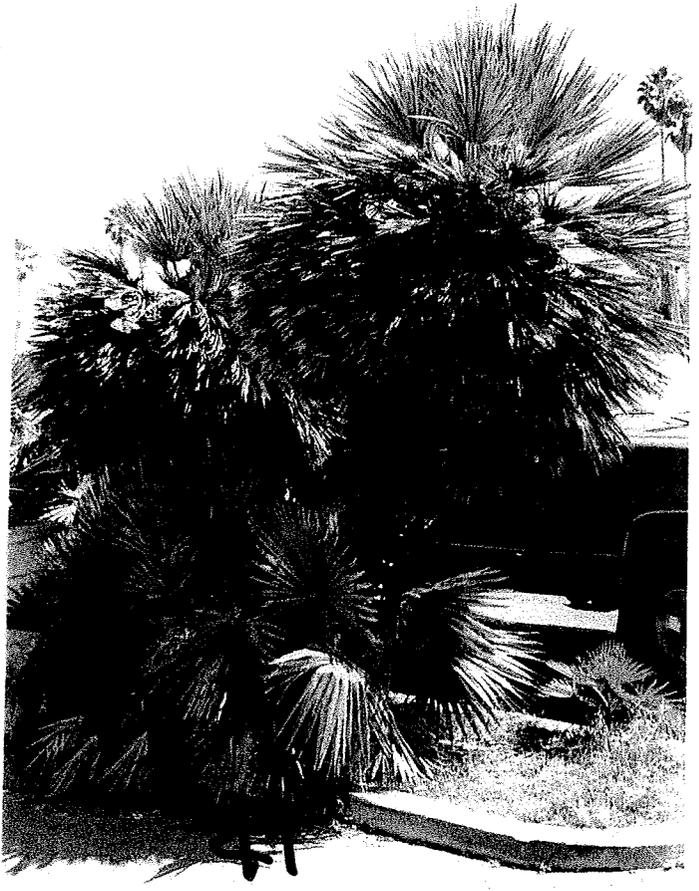
Exhibit No.: 7

Date: 3-30-07

By: D. F. Rodrigues



Chamaerops humilis No. 40
V. E



Chamaerops humilis Clump No. 41 V. SE

FIELD PHOTO REPORT

Project: VICTORIA & HEMLOCK PROPOSED RESIDENTIAL, OXNARD, CA.

Subject: SITE TREES

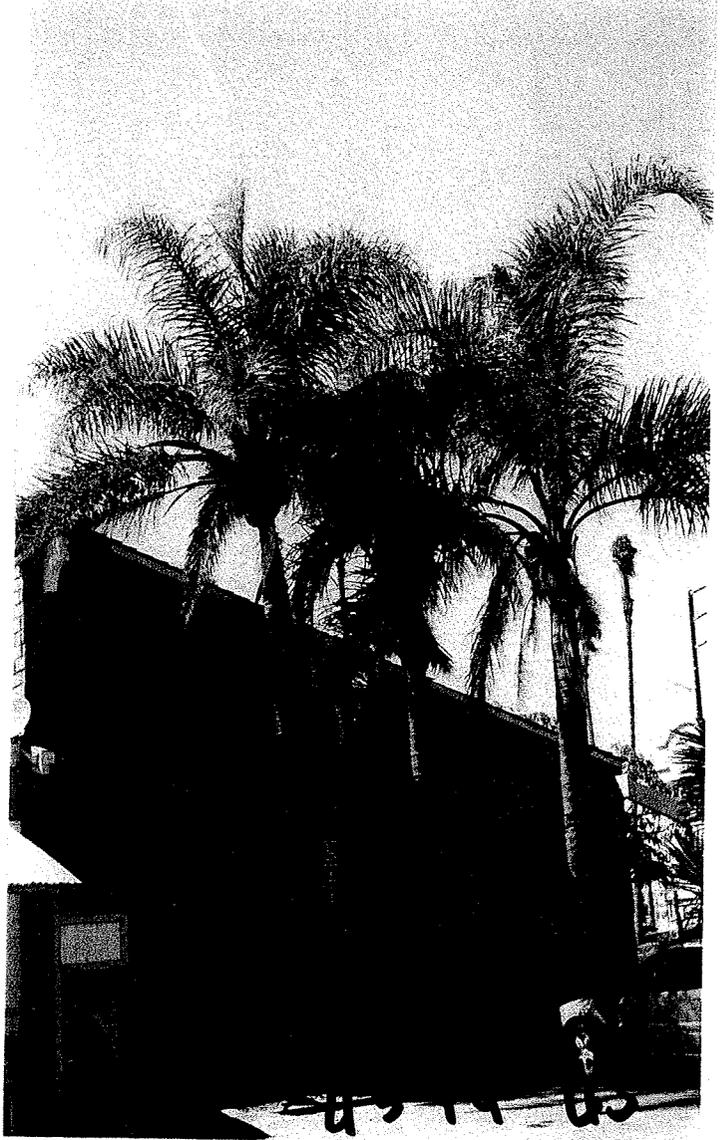
Exhibit No.: 8

Date: 3-30-07

By: D. F. Rodrigues



Washingtonia Robusta No. 42 V NW



Syagrus romanzifannium No. 43 – 45 V. W

FIELD PHOTO REPORT

Project: VICTORIA & HEMLOCK PROPOSED RESIDENTIAL, OXNARD, CA.

Subject: SITE TREES

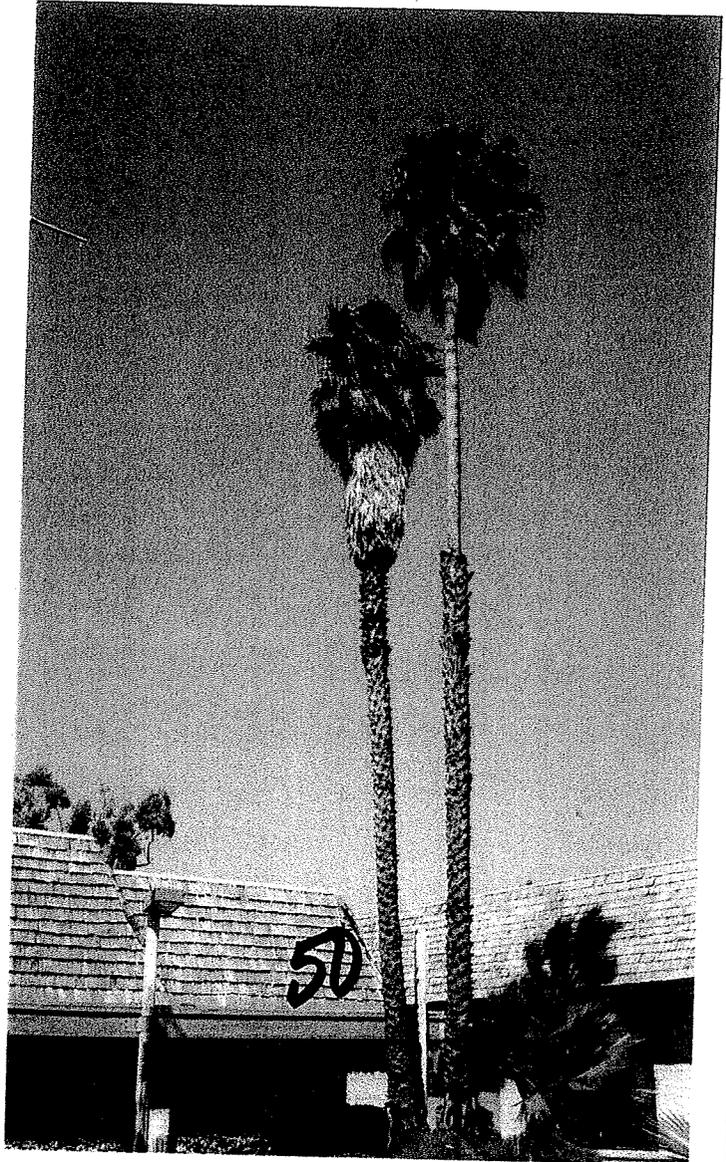
Exhibit No.: 9

Date: 3-30-07

By: D. F. Rodrigues



Windmill Palm No. 46 & Med. Fan
Palms No. 47-49 V. NW



Washingtonia robusta No. 50 V. NE

FIELD PHOTO REPORT

Project: VICTORIA & HEMLOCK PROPOSED RESIDENTIAL, OXNARD, CA.

Subject: SITE TREES

Exhibit No.: 10

Date: 3-30-07

By: D. F. Rodrigues



Windmill Palms No. 51-54 V. N



**Queen Palms No. 55 – 59 & Mexican
Fan Palm No. 60 View S**

FIELD PHOTO REPORT

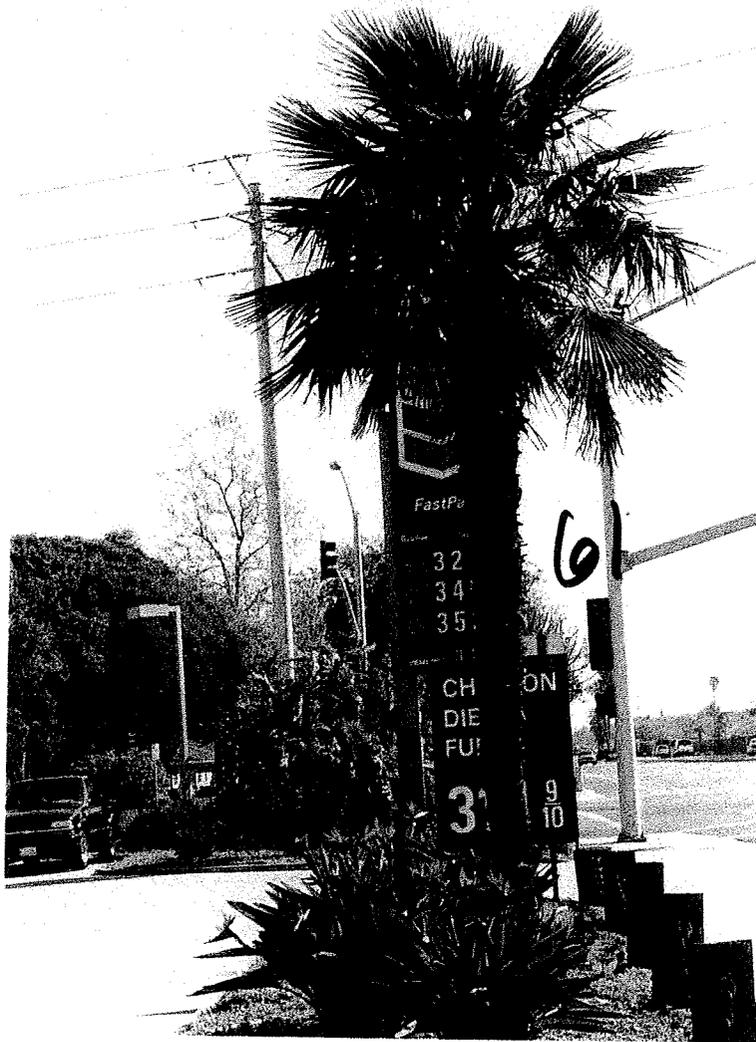
Project: VICTORIA & HEMLOCK PROPOSED RESIDENTIAL, OXNARD, CA.

Subject: SITE TREES

Exhibit No.: 11

Date: 3-30-07

By: D. F. Rodrigues



Trachycarpus fortunei No 61 View S

FIELD PHOTO REPORT

Project: VICTORIA & HEMLOCK PROPOSED RESIDENTIAL, OXNARD, CA.

Subject: SITE TREES

Exhibit No.: 12

Date: 3-30-07

By: D. F. Rodrigues

Appendix D

**Environmental Site Assessment and Proposed Mitigation Measures
Prepared by Rincon Consultants, February 27, 2007**



Rincon Consultants, Inc.

790 East Santa Clara Street
Ventura, California 93001

805 641 1000

FAX 641 1072

info@rinconconsultants.com
www.rinconconsultants.com

February 27, 2007
Project 02-13210

Kathleen Mallory
City of Oxnard
Planning Commission
305 West Third Street
Oxnard, Ca 93030

**Summary of Environmental Site Assessments and Proposed Mitigation Measures
West Hemlock Street Shopping Center
Northeast Corner of Victoria Avenue and Hemlock Street
Oxnard, California**

Dear Ms. Mallory:

This letter summarizes several environmental site assessments and includes proposed mitigation measures for the West Hemlock Street Shopping Center property located on the northeast corner of Victoria Avenue and Hemlock Street in Oxnard, California. A drycleaner facility is located in the Shopping Center on the northeastern portion of the property and an active Chevron gasoline station is located on the southwest corner of the site.

Alamar Dry Cleaner

Summary of Site Assessments and Remediation: According to the Padre Associates reports that we reviewed, several site assessments were conducted in September and December 1998 by Padre Associates in the vicinity of the drycleaner facility. 44 soil samples were collected and analyzed for volatile organic compounds (VOCs.) Based on the results of the site assessments, tetrachloroethene (PCE) and trichloroethene (TCE)-impacted soil was detected. In the past, PCE was a commonly used dry cleaning solvent. Contamination at dry cleaner sites usually occurred from spills and leaks of the solvents. TCE is a breakdown product of PCE. The soil with PCE and TCE was confined to an area located towards the eastern end of the drycleaner facility and was detected to depths of up to 14 and 15 feet below grade. Padre identified a thick clay layer starting at about 12 to 14 or 15 feet below grade that was effectively preventing any further vertical migration of the PCE and TCE.

In May and June, 1999 excavation of the site beneath the drycleaner building was conducted. An estimated 130 cubic yards of contaminated soil were removed from the site. The bottom of the excavation was 14 feet below grade. Confirmation soil samples collected from the base of the excavation indicated that remaining concentrations of PCE and TCE ranged up to



99 micrograms per kilogram ($\mu\text{g}/\text{kg}$) PCE and 189 $\mu\text{g}/\text{kg}$ TCE. The remaining PCE concentrations were below the Los Angeles Regional Water Quality Control Board (RWQCB) target cleanup level for inaccessible areas (100 $\mu\text{g}/\text{kg}$). Except for the detection of 189 $\mu\text{g}/\text{kg}$ in one of the confirmation samples, the remaining TCE concentrations were also below this target cleanup level. During excavation, dewatering was conducted at the site. A total of 8,360 gallons of groundwater was removed. A groundwater sample collected from the excavation contained 15 micrograms per liter ($\mu\text{g}/\text{l}$) PCE. The excavation was lined with filter fabric, backfilled with pea gravel up to 6 feet below grade and a one-foot thick layer of concrete was placed above the pea gravel. A vapor barrier and 2-inch diameter PVC passive vent system was installed above the concrete layer. The vent reportedly extends above the east wall of the building through the roof. Clean imported silty sand was placed above the vent system up to surface level. A concrete slab was then replaced above the backfilled excavation.

Following the excavation, four groundwater monitoring wells were installed at the site. Groundwater was encountered at about 7 feet below grade. The wells were screened from 5 to 17 feet below grade. The groundwater monitoring wells were sampled in March 2000 and March 2001. TCE was not detected in the groundwater. PCE was detected at concentrations of 2.4 and 1.6 $\mu\text{g}/\text{l}$ (in 2000 and 2001, respectively).

The RWQCB issued a no further action required letter for the dry cleaner site in July 13, 2001.

In August 2002, June 2004 and August 2005 three of the four groundwater monitoring wells (MW-1, MW-2 and MW-3) were sampled. TCE was not detected in the groundwater samples. PCE was detected in 2002 and 2004 at concentrations of 1.9 and 1.4 $\mu\text{g}/\text{l}$, respectively. PCE was not detected in the August 2005 sampling event.

Conclusions Regarding the Drycleaner Site: Following excavation of impacted soil, some levels of PCE and TCE were left in place at depths of about 14 feet below grade (within the saturated zone). The levels of PCE left in place were below the RWQCB target cleanup level of 100 $\mu\text{g}/\text{kg}$ for inaccessible areas (i.e. areas where further excavation was not feasible). Except for one concentration of 189 $\mu\text{g}/\text{kg}$, the remaining concentrations of TCE were also below the target cleanup level of 100 $\mu\text{g}/\text{kg}$ for inaccessible areas. Levels of PCE detected in groundwater beneath the site were below the maximum contaminant level (MCL) for drinking water of 5 $\mu\text{g}/\text{l}$.

Recommendations Regarding the Drycleaner Site and Proposed Mitigation Measures: When considering potential health risks of remaining contamination beneath the site, there are three exposure pathways that need to be considered: groundwater ingestion, soil ingestion and volatilization to indoor or outdoor air inhalation. Groundwater ingestion is not considered an exposure pathway of concern since the shallow perched groundwater below

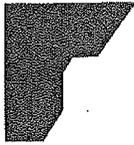


the site will not be used to supply water for the proposed development. Soil ingestion is also not considered an exposure pathway of concern since the remaining contamination is located at 14 feet below ground surface. The possibility that volatilization of the remaining PCE in soil and groundwater beneath the site to indoor or outdoor air is an exposure pathway of concern.

Following termination of the lease for the dry cleaning business and the removal of all of the dry cleaning equipment, a health risk assessment should be conducted for the drycleaner site to determine if the levels of contaminants remaining beneath the drycleaner site could adversely affect future residential occupants of the site. The health risk assessment should consider the possibility of volatilization of chemicals in soil and groundwater to indoor and outdoor air. Following the completion of the health risk assessment, if unacceptable health risks are found to be present given the proposed redevelopment plans, engineering controls could be implemented to mitigate the health risks to acceptable levels. A common and effective engineering control is to install a subslab vapor barrier beneath onsite structures that are located over contaminated soil or contaminated groundwater. The vapor barrier is designed to restrict the migration of vapors from the underlying soil and groundwater and preventing the vapors from entering into the structures. The requirement for engineering controls would be implemented only if the health risk modeling shows that the vapors pose an unacceptable health risk to occupants of the site.

Chevron Service Station

Summary of Site Assessments and Remediation: According to the documents reviewed, leaking underground storage tanks (USTs) were removed and replaced at the site in 1989. Soil samples collected from the UST pits indicated the presence of gasoline contamination (up to 250 milligrams per kilogram [mg/kg] total petroleum hydrocarbons as gasoline [TPH-g] and 8 mg/kg benzene). Reportedly, about 4,500 gallons of liquid were removed from groundwater recovery well RW-1 during the excavation of the site. In addition, pea gravel and soil removed during the tank removals was reportedly used as backfill in the former gasoline UST excavation. Prior to the tank removals, several site assessments were conducted at the site in 1982, 1987 and 1989. Following the removal of the tanks, additional site assessments were conducted in 1990 and 1991. The site assessments included the completion of soil borings, groundwater monitoring wells, vapor extraction wells and vapor monitoring points at the site. In 1996 piping and dispenser upgrades were conducted and overexcavation of about 90 cubic yards of impacted soil was removed from beneath and adjacent to the northwestern and eastern dispensers. Only minor concentrations of benzene (0.53 mg/kg) and no MTBE were detected in the confirmation soil samples collected and analyzed during the piping and dispenser upgrades. Reportedly, in 2000 three of the onsite monitoring wells were overpurged. A total of 1,073 gallons of groundwater were removed.



Groundwater monitoring was conducted at the site from 1989 to 2003. Historically contamination has been found in the vicinity of the former gasoline UST pit in samples collected from RW-1. Concentrations in this area show a decreasing trend since 2000. The other monitoring wells did not indicate persistent levels of TPH-g or benzene, toluene, ethylbenzene and total xylenes (BTEX). Analysis for MTBE was initiated during fourth quarter of 1996. Concentrations of MTBE did not exceed 14 µg/l in any of the groundwater monitoring wells. In May 2003 the final groundwater sampling event was conducted. The sample collected from RW-1 was the only sample showing concentrations of contaminants of concern above the laboratory detection limit as follows: 28 µg/l TPH-g, 28 µg/l benzene, 14 µg/l ethylbenzene, 14 µg/l xylenes, 7.7 µg/l MTBE and 35 µg/l TBA.

In a letter to the Los Angeles RWQCB from the Ventura County Environmental Health Division (VCEHD), site closure was recommended. The VCEHD conducted a health risk assessment of the site which indicated that the known contamination beneath the site should not pose a threat to human health or the environment as long as the site remains in commercial use. Based on the VCEHD recommendation, the RWQCB granted closure for the site in March 2004. Reportedly, the groundwater monitoring wells at the site have been abandoned.

In 2005 additional soil and groundwater sampling was conducted at the site by SECOR International Inc. Soil and groundwater samples were collected at depths of 5 and 10 feet below grade from 11 Geoprobe soil borings advanced at the site. TPH-g was detected in five soil samples with a maximum concentration of 3,300 mg/kg detected in a 10 foot sample collected from beneath one of the dispensers. TPH-d was detected in six soil samples with a maximum concentration of 2,500 mg/kg detected in a 10 foot sample collected from beneath one of the dispensers. TPH as motor oil (TPH-o) was detected in eight soil samples with a maximum concentration of 3,700 mg/kg detected in a 10 foot sample collected from beneath one of the hoists. Benzene and toluene were nondetect in the soil samples. Maximum concentrations of 40,000 µg/kg ethylbenzene and 32,000 µg/kg xylenes were detected in a soil sample collected at a depth of 10 feet below grade beneath one of the dispensers. TPH-g and MTBE were the only analytes detected in the grab-groundwater samples collected from the Geoprobe borings. TPH-g was detected in one sample (110 µg/l) and MTBE was detected in three samples with concentrations ranging from 7.9 to 50 µg/l.

Conclusions Regarding the Chevron Site: Hydrocarbon impacted soil and groundwater remain beneath the Chevron site. Although the VCEHD conducted a health risk assessment of the site, there are several issues regarding that study. First, it is unclear what was used to determine the concentrations of contaminants remaining in the soil and groundwater beneath the site. It appears that an average of remaining concentrations was used. In addition, higher concentrations than were originally determined to be remaining in the soil beneath the site were detected in the soil samples collected from beneath the site during the sampling conducted in 2005 (after the completion of the VCEHD health risk assessment). The



concentrations used in the VCEHD health risk model appear to be lower than actual remaining concentrations. In addition, the study was conducted for the existing commercial use of the site and did not include the potential residential use of the site.

Recommendations Regarding the Chevron Site and Proposed Mitigation Measures: Upon termination of the gasoline station's lease and removal of all of the fuel storage and dispensing equipment, an updated health risk assessment incorporating the soil data from the 2005 sampling event as well as any additional data obtained during the abandonment of the service station should be conducted. The health risk assessment should also be based on the future residential use of the site. The health risk assessment should consider the possibility of volatilization of chemicals from soil and groundwater to indoor and outdoor air. Following the completion of the health risk assessment, if unacceptable health risks are found to be present given the proposed redevelopment plans, engineering controls could be implemented to mitigate the health risks to acceptable levels. A common and effective engineering control is to install a subslab vapor barrier beneath onsite structures that are located over contaminated soil or contaminated groundwater. The vapor barrier is designed to restrict the migration of vapors from the underlying soil and groundwater and preventing the vapors from entering into the structures. The requirement for engineering controls would be implemented only if the health risk modeling shows that the vapors pose an unacceptable health risk to occupants of the site.

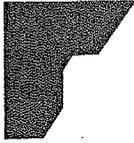
Former Outboard Boat Motor Repair Facility

Summary of Site Assessments and Remediation: A former outboard boat motor repair facility was located on the northeastern corner of the shopping center site. The repair facility reportedly used a Safety-Kleen solvent unit for parts washing. A soil gas assessment in the vicinity of the former repair facility was conducted in 2002. Soil gas samples were collected from eight soil gas probes installed to depths of about 5 feet below grade at the site. Soil gas samples were collected from the probes at total depth. The soil gas samples were analyzed for VOCs. VOCs were not detected in any of the soil gas samples analyzed.

Conclusions Regarding the Former Outboard Boat Motor Repair Facility: VOCs were not detected in any of the soil gas samples collected in the vicinity of the former outboard boat motor repair facility. Based on the soil gas assessment, it appears that operations at the former repair facility did not adversely affect the soil beneath the repair facility.

Asbestos Survey

Summary of Asbestos survey: An asbestos survey was conducted for the onsite structures in 2003. The survey was conducted by Citadel Environmental Services on behalf of Tucker Investment Group. Asbestos was reported to be present in quantities of greater than one



percent in representative bulk samples of select materials identified in onsite structures as follows:

- 1830 South Victoria Avenue (Bank Building): 12"x12" Vinyl Floor Tile (Blue), 12"x12" Vinyl Floor Tile (White) and Roofing (Assumed)
- 3701 South Victoria Avenue (Lucky's): 12"x12" Vinyl Floor Tile (Brown) and Floor Tile Mastic (Black)
- 3705 South Victoria Avenue (Liquor Store): Vinyl Sheet Flooring (Green) and Vinyl Sheet Flooring (Rust)
- 3719 South Victoria Avenue : Vinyl Sheet Flooring (Beige)
- 3721 South Victoria Avenue (Alamar Cleaners): Woven Pipe Insulation (White)
- 3723 South Victoria Avenue (Laundry): 12"x12" Vinyl Floor Tile (Brown)
- 3725 (A) South Victoria Avenue (Flower Shop): Vinyl Sheet Flooring(White Stone Pattern), 12"x12" Vinyl Floor Tile (Red Brick Pattern) and Floor Tile Mastic (Black)
- 3735 South Victoria Avenue (Marine Center): Vinyl Sheet Flooring (Beige Stone Pattern), 12"x12" Vinyl Floor Tile (White), Floor Tile Mastic (Black) and Wall Panel (Transite™) (White)
- 3743 South Victoria Avenue (Irish Sea): Floor Tile Mastic (Yellow)
- 3745 South Victoria Avenue (Porthole Hair Design II): Vinyl Sheet Flooring (Stone Pattern), 12"x12" Vinyl Floor Tile (Beige) and Floor Tile Mastic (Black)
- 3747 South Victoria Avenue (Happy 99 Plus): Sheet Flooring Mastic (Yellow/Black)
- 3749 South Victoria Avenue: 9"x9" Vinyl Floor Tile (Red), Floor Tile Mastic (Black), Vinyl Sheet Flooring(Green) and Vinyl Sheet Flooring (Beige Stone Pattern)
- 3751 South Victoria Avenue (Frame of Mind): 12"x12" Vinyl Floor Tile (Off-White)
- 3753 South Victoria Avenue (Real Estate Office): Vinyl Sheet Flooring (White Squares), 12"x12" Vinyl Floor Tile (Red) (Below Carpet), Vinyl Floor Tile (White), and Floor Tile Mastic (Black)
- 3757 South Victoria Avenue (Pharmacy): 12"x12" Vinyl Floor Tile (Blue) and 12"x12" Vinyl Floor Tile (Beige)

Trace amounts of asbestos (less than one percent) was reported to be present in select materials identified throughout the onsite structures. Asbestos was assumed to be present in the following materials: roof field membrane, roof parapet, roof mastic, HVAC duct sealant and tenant space #3711.

Citadel concluded that at the time of the survey and assessment, the asbestos containing materials (ACMs) identified were observed to be in good condition. The non-friable ACMs (e.g., vinyl flooring, sheet flooring materials, mastic, wall joint compound, cement wall board, and exterior stucco) were unlikely to pose a significant exposure hazard in their current condition. Citadel recommended that the undamaged materials be managed in place



until the point that they would become disturbed by future renovations or demolition activities. The identified ACMs should be removed prior to and/or during the course of partial or full renovation/demolition activities. Citadel indicated that in accordance with EPA's National Emissions Standards for Hazardous Air Pollutants (NESHAPs) and South Coast Air Quality Management Districts (SCAQMD) Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities), all category I/Class non-Friable ACMS that may become friable during renovation or demolition activities be removed prior to such activities. It should be noted that the proper agency for air pollution jurisdiction for this site is the Ventura County Air Pollution Control District (VCAPCD) and not the SCAQMD. The EPA Guidance document "A Guide to Normal Demolition Practices Under the Asbestos NESHAPs" should be referred to and VCAPCD should be notified prior to initiation of renovation or demolition activities. All asbestos removal should be performed by an experienced, State-licensed and Cal/OSHA registered asbestos contractor under the guidance of an independent, California Certified Asbestos Consultant. The Consultant shall be responsible for designing engineering controls used to control airborne asbestos contamination, visual inspections of engineering controls, and ambient air monitoring to determine airborne fiber levels. In addition, the Client is responsible for transmitting information concerning the location, condition, and quantity of known asbestos-containing materials to those that may come into contact with the materials, including contract employees and/or tenants.

Conclusions Regarding the Asbestos Survey: ACMs were identified in building materials located throughout the site. According to Citadel, the ACMS were observed to be in good condition and the undamaged materials could be managed in place until the point that they would become disturbed by future renovations or demolition activities. The identified ACMs should be removed prior to or during the course of demolition of the onsite structures. All asbestos removal should be performed by an experienced, State-licensed and Cal/OSHA registered asbestos contractor under the guidance of an independent, California Certified Asbestos Consultant. All pertinent permits from the City of Oxnard and VCAPCD shall be followed during demolition of the buildings.





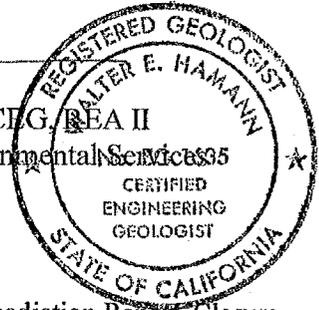
**Summary of Environmental Site Assessments and Proposed Mitigation Measures
West Hemlock Street Shopping Center, Victoria Ave. and Hemlock St., Oxnard, California**

Thank you for selecting Rincon for this project. If you have any questions or if we can be of any future assistance, please contact us.

Sincerely,
RINCON CONSULTANTS, INC.

Sarah A. Larese, REA
Associate Environmental Scientist

Walter Hamann, PG, CEG, REA II
Vice President, Environmental Services



Attachments:

- Appendix 1: Alamar Dry Cleaner - 2000 Soil and Groundwater Remediation Report, Closure Request, Cleaner Closure Letter
- Appendix 2: Chevron Station - 2005 Environmental Baseline Report, Closure Request, Closure Letter
- Appendix 3: Former Outboard Motor Repair Facility – 2002 Soil Gas Assessment
- Appendix 4: 2003 Asbestos Survey

Appendix E

Preliminary Drainage Report

RBF – July 9, 2007

PRELIMINARY DRAINAGE REPORT

FOR

**The Courtyard at Mandalay Bay
Tentative Tract No. 5580**

**1830 South Victoria Avenue
Oxnard, Ventura County, California**

Prepared for:

**Tucker Investment Group, Inc.
5010 N. Parkway Calabasas, Suite 105
Calabasas, CA 91302**

Prepared by:



4880 Santa Rosa Road, Suite 170
Camarillo, CA 93012

Contact Person:

Anna Grimes, Project Manager
Scott Uhles, Design Engineer

JN 30-100831.001

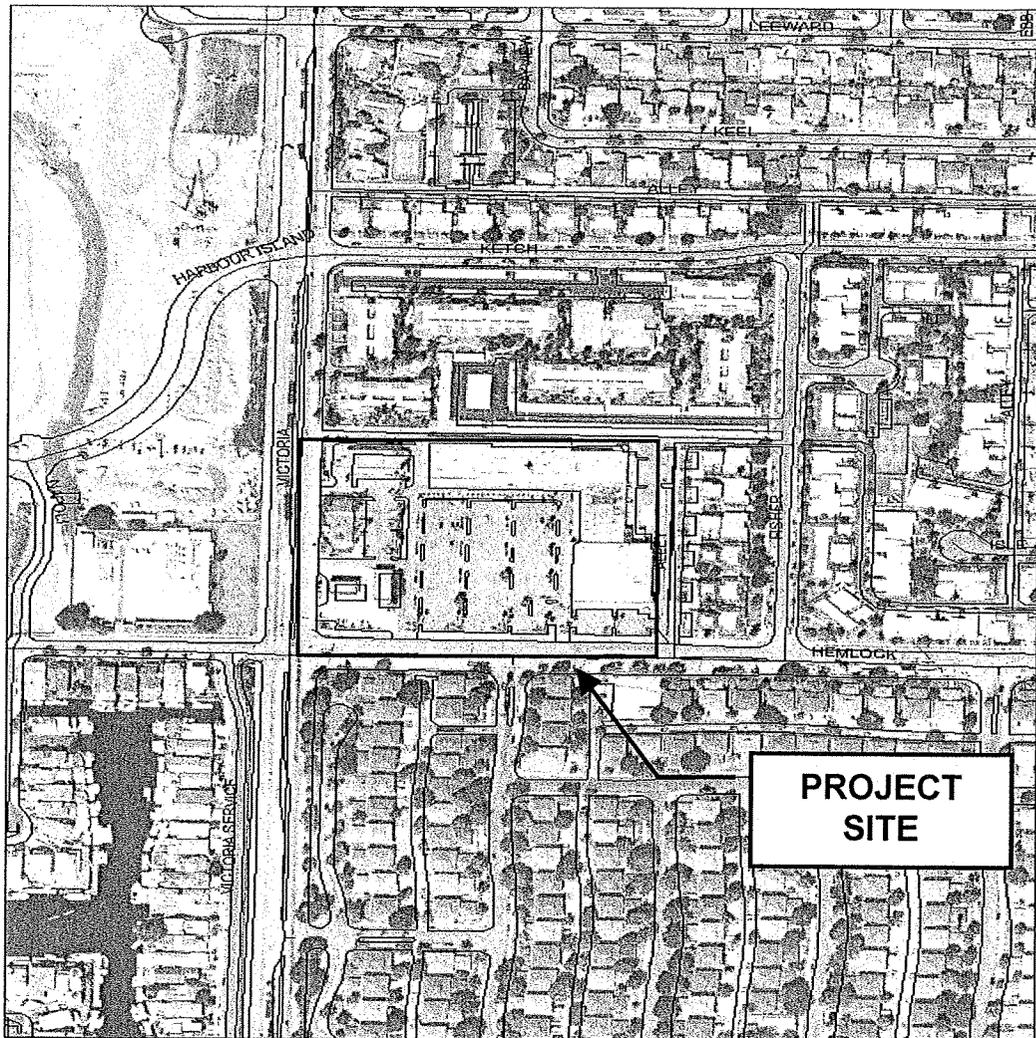
July 9, 2007

PURPOSE OF REPORT

The purpose of this preliminary report is to outline the existing drainage conditions of the site and present a description of the proposed conceptual drainage conditions and drainage impacts. Peak 10-year, 50-year and 100-year stormwater runoff flow rates were calculated. Specifically excluded from this report is an analysis of the capacity of the existing offsite downstream storm drain facilities. However, future discharge from the site will be less than the present discharge from the commercial center.

LOCATION

The project site is located at northeast corner of the intersection of South Victoria Avenue and Hemlock Street in Oxnard, California.



BACKGROUND

The project owner proposes to redevelop the subject property, which covers an area of approximately 6.7 acres, from the existing commercial facilities into multi-family condominium residential housing.

Currently the majority of the site is covered by parking lot paving which services the existing commercial buildings. There are four building structures onsite of various sizes. The site generally slopes from the northeast corner site towards the southwest to the two existing 21 foot catch basins in Victoria and Hemlock.

RBF Consulting has been retained to prepare the tentative tract map for the conceptual redevelopment of this site into residential housing. The drainage improvements included in this submittal will provide adequate drainage for the site during a 10-year storm event. The drainage will be routed to ribbon gutters within the development's interior streets and finally to onsite inlets that will capture the 10-year storm flows. The limits of the drainage study area are defined by Victoria Avenue on the west, by a private alley on the north, by Newport Weigh on the East, and by Hemlock Street on the South. The site is surrounded by single and multi residential housing and commercial development.

METHOD OF ANALYSIS

The hydrologic analysis was based on research that included on-site investigations, review of available existing and proposed conceptual grading plans, and review of aerial and field surveyed topography. Preliminary hydrology maps were prepared based on topography and project site plans in the existing and proposed conditions. See the attached Hydrology Maps.

Watershed subarea boundaries were defined based on existing drainage patterns and proposed drainage system layouts. The tributary area of each subarea was calculated to the nearest one-hundredth of an acre. Site characteristics such as soil number, rainfall zone, and land use were identified.

The peak storm water runoff flows at points of concentration for the onsite watersheds for the 10-year event were calculated using the modified rational Cooks method. A peak runoff flow to tributary area ratio was calculated and then applied to all minor subareas. See Hydrological Calculations attached in Appendix A.

Preliminary hydraulic analysis of the proposed streets was performed using the FlowMaster Program v6.1 by Haestad Methods. The program calculates the resultant spread and depth of ponding given the street and gutter geometry and design flow.

FINDINGS

Existing Conditions

The entire site drainage surface flows to an existing storm drain system, at the southwest corner of the site. The northwest portion of the site (Subarea ABCD) surface drains to Victoria Avenue and then south to an existing catch basin. The middle portion of the site (Subarea EG) surface drains to Hemlock Street and then to an existing catch basin in Hemlock. The northeast portion of the site (Subarea F) surface drains to the existing public alley and then to Hemlock Street.

Most of the site area is covered with the impermeable surfaces of asphalt pavement parking lots, concrete sidewalks, and buildings. The present land use is commercial.

The existing on site storm water runoff was calculated using the modified Cooks method. A runoff coefficient (C factor) for commercial development of 0.80 was used. These values were used to provide a peak 10-year, 50-year, and 100-yr flow rates. These rates are shown in Appendix A.

Proposed Conditions

The proposed runoff pattern from this site is similar to the existing drainage pattern. Most of the site drainage will ultimately flow to the storm drain system inlets at the corner of Victoria and Hemlock.

Most of the site drainage will drain from the residential lots to the interior street curb and gutters. The interior street curb and gutter will drain into catch basins and then conveyed to existing catch basins in Victoria and Hemlock via proposed storm drain pipe. See the attached Drainage Maps.

Treatment of the storm water will be done with three different methods; grass swale filter, porous landscape detention, and infiltration trench. The storm water treatment flow is calculated to be 10% of the Q50. All treatment design will be based on the Ventura County Technical Guidance Manual for Stormwater Quality Control. See Appendix A for Grass Swale Filter description and design standards.

The proposed on site storm water runoff was calculated using the modified Cooks method and is shown in Appendix A. A runoff coefficient for a residential development of $C = 0.70$ was used. These values were used to provide a peak 10-year, 50-year, and 100-yr flow rates. These rates are shown in Appendix A.

The onsite drainage patterns will be changed slightly by the proposed conceptual grading improvements. However, overall the site drainage discharge quantities and patterns will remain similar to the existing condition. These conclusions are quantified and summarized in the following table.

Present Condition (Existing)						Future Condition (Proposed)								
Sub Name	Land Use	Area ac	Q10 cfs	Q50 cfs	Q100 cfs	Drains towards: SE Corner	SW Corner	Sub Name	Land Use	Area ac	Q10 cfs	Q50 cfs	Q100 cfs	Drains towards: Ent. @Hemlock NW Corner
ONSITE														
ABCD	Com	1.64	4.32	7.35	8.65		YES	A	Res	2.90	4.81	8.18	9.60	YES
EG	Com	3.91	11.82	20.10	23.65		YES	B	Res	1.40	2.32	3.95	4.63	YES
F	Com	1.50	3.86	6.56	7.71	YES		C	Res	1.90	3.15	5.36	6.29	YES
								D	Res	0.30	0.50	0.85	0.99	YES
Totals		7.1	20.0	34.0	40.0			Totals		6.5	10.8	18.3	21.5	

Notes:

Runoff Rate calculated from the Oxnard Standard - Modified Cook's Method

Com = Commercial, C = 80

Res= Residential, C = 70

Preliminary Results:

Total Q10 runoff from study area is decreased in the future (proposed) condition.

Onsite runoff utilize the existing stormdrain infrastructure to convey flows.

CONCLUSIONS

As shown in the proposed conceptual grading and utility plans, storm water drainage will be routed to above ground drainage facilities and flow offsite into existing drainage facilities in Hemlock Street. The site improvements will decrease discharges and only slightly modify existing drainage patterns.

Proposed drainage control facilities will improve stormwater water quality by treating approximately 95% of the site area runoff prior to discharge from the site. The design of these permanent best management practice (BMP) facilities comply with the Ventura County SQUIMP Quality requirements.

The proposed grading provides for positive drainage from the site. Secondary overland escape is provided in the site grading plan if the primary drainage pathways are blocked or fail. See attached Grading and Drainage Plan in the Site Plan Section. Therefore, the proposed onsite structures are protected from flooding during a 100-year storm event.

Therefore, drainage from the project site will be controlled in a manner, which will allow the development to occur as intended without conflicting with any applicable State and County or City of Oxnard regulations without adversely affecting adjacent properties and/or the project itself.

REFERENCES

- Tentative Tract Map No. 5580, Dated 07/9/07
- Ventura County Watershed Protection District Hydrology Manual dated 1991.

APPENDIX A
Drainage Calculations and Attachments

MODIFIED COOKS - HYDROLOGIC CALCULATIONS

Project : The Courtyard at Mandalay Bay Job No. 30-100831 Sheet 1 of 1

Watershed : PROPOSED Designed : SU Date : 06-Jul-07

Concentration Point : SW Corner Checked : PES Date : 07/06/2007

Watershed Constants:

¹Drainage Area = 6.531 acres

Square Miles = 0.01

Length = 400 feet

Fall = 4 feet

Slope = 1.00 %

Width = $\frac{\text{Area} \times 43560}{\text{Length}}$ = 711.2 feet

$\frac{\text{Length}}{\text{Width}}$ = 0.56

²Shape Correc. Factor = 100 %

Soil Type = 3

³RI-Correc. Factor = 123 %

Computation of "C"

Type of Development	"C" Factor	Present	Future
Undeveloped	40-45		
Residential	60		70
Commercial & Industrial	70		

Computation of "C" Factor

Runoff:

$Q_{10 \text{ from curve}} = \underline{8.8} \times (L/W) \times \text{Factor} = \underline{1} \times \text{RI-Correc. Factor} = \underline{1.23}$

$Q_{10 \text{ corrected}} = \underline{10.82}$ cfs

Frequency	Q_n	Frequency Factor	$Q_{\text{corrected}}$	Q/A
20%	Q_5	65%	<u>7.04</u> cfs	<u>1.08</u> cfs/ac
10%	Q_{10}	100%	<u>10.82</u> cfs	<u>1.66</u> cfs/ac
4%	Q_{25}	135%	<u>14.61</u> cfs	<u>2.24</u> cfs/ac
2%	Q_{50}	170%	<u>18.40</u> cfs	<u>2.82</u> cfs/ac
1%	Q_{100}	200%	<u>21.65</u> cfs	<u>3.31</u> cfs/ac

¹This method shall be used only in the hydrologic design of City facilities with watershed area of not larger than 100 acres. See Plate 57

²SHAPE CORREC. FACTOR. See Plate 61

³RAINFALL INTENSITY CORREC. FACTOR. See Plate 61

MODIFIED COOKS - HYDROLOGIC CALCULATIONS

Project : The Courtyard at Mandalay Bay Job No. 30-100831 Sheet 1 of 1

Watershed : ABCD (EX) Designed : SU Date : 28-Feb-07

Concentration Point : SW Corner Checked : PES Date : 02/28/2007

Watershed Constants:

¹Drainage Area = 1.64 acres

Square Miles = 0.00

Length = 775 feet

Fall = 4 feet

Slope = 0.52 %

Width = $\frac{\text{Area} \times 43560}{\text{Length}}$ = 92.2 feet

$\frac{\text{Length}}{\text{Width}}$ = 8.41

²Shape Correc. Factor = 95 %

Soil Type = 3

³RI-Correc. Factor = 123 %

Computation of "C"

<u>Type of Development</u>	<u>"C" Factor</u>	<u>Present</u>	<u>Future</u>
Undeveloped	40-45		
Residential	60		
Commercial & Industrial	70	80	

Computation of "C" Factor

Runoff:

$Q_{10 \text{ from curve}} = \underline{3.7} \times (L / W) \times \text{Factor} = \underline{0.95} \times \text{RI-Correc. Factor} = \underline{1.23}$

$Q_{10 \text{ corrected}} = \underline{4.32}$ cfs

<u>Frequency</u>	<u>Q_n</u>	<u>Frequency Factor</u>	<u>Q_{corrected}</u>	<u>Q/A</u>
20%	Q ₅	65%	<u>2.81</u> cfs	<u>1.71</u> cfs/ac
10%	Q ₁₀	100%	<u>4.32</u> cfs	<u>2.64</u> cfs/ac
4%	Q ₂₅	135%	<u>5.84</u> cfs	<u>3.56</u> cfs/ac
2%	Q ₅₀	170%	<u>7.35</u> cfs	<u>4.48</u> cfs/ac
1%	Q ₁₀₀	200%	<u>8.65</u> cfs	<u>5.27</u> cfs/ac

¹This method shall be used only in the hydrologic design of City facilities with watershed area of not larger than 100 acres. See Plate 57

²SHAPE CORREC. FACTOR. See Plate 61

³RAINFALL INTENSITY CORREC. FACTOR. See Plate 61

MODIFIED COOKS - HYDROLOGIC CALCULATIONS

Project : The Courtyard at Mandalay Bay Job No. 30-100831 Sheet 1 of 1

Watershed : EG (EX) Designed : SU Date : 28-Feb-07

Concentration Point : SW Corner Checked : PES Date : 02/28/2007

Watershed Constants:

¹Drainage Area = 3.91 acres Square Miles = 0.01

Length = 606 feet Fall = 3.6 feet Slope = 0.59 %

Width = $\frac{\text{Area} \times 43560}{\text{Length}}$ = 281.1 feet

$\frac{\text{Length}}{\text{Width}}$ = 2.16 ²Shape Correc. Factor = 108 %

Soil Type = 3 ³RI-Correc. Factor = 123 %

Computation of "C"

Type of Development	"C" Factor	Present	Future
Undeveloped Residential	40-45		
Commercial & Industrial	60	80	

Computation of "C" Factor

Runoff:

$Q_{10 \text{ from curve}} = 8.9 \times (L/W) \times \text{Factor} = 1.08 \times \text{RI-Correc. Factor} = 1.23$

$Q_{10 \text{ corrected}} = 11.82 \text{ cfs}$

Frequency	Q_n	Frequency Factor	$Q_{\text{corrected}}$	Q/A
20%	Q_5	65%	7.68 cfs	1.97 cfs/ac
10%	Q_{10}	100%	11.82 cfs	3.02 cfs/ac
4%	Q_{25}	135%	15.96 cfs	4.08 cfs/ac
2%	Q_{50}	170%	20.10 cfs	5.14 cfs/ac
1%	Q_{100}	200%	23.65 cfs	6.05 cfs/ac

¹This method shall be used only in the hydrologic design of City facilities with watershed area of not larger than 100 acres. See Plate 57

²SHAPE CORREC. FACTOR. See Plate 61

³RAINFALL INTENSITY CORREC. FACTOR. See Plate 61

MODIFIED COOKS - HYDROLOGIC CALCULATIONS

Project : The Courtyard at Mandalay Bay Job No. 30-100831 Sheet 1 of 1
 Watershed : F (EX) Designed : SU Date : 28-Feb-07
 Concentration Point : SE Corner Checked : PES Date : 02/28/2007

Watershed Constants:

¹Drainage Area = 1.5 acres Square Miles = 0.00
 Length = 833 feet Fall = 3 feet Slope = 0.36 %
 Width = $\frac{\text{Area} \times 43560}{\text{Length}}$ = 78.4 feet
 $\frac{\text{Length}}{\text{Width}}$ = 10.62 ²Shape Correc. Factor = 95 %
 Soil Type = 3 ³RI-Correc. Factor = 123 %

Computation of "C"

Type of Development	"C" Factor	Present	Future
Undeveloped	40-45		
Residential	60		
Commercial & Industrial	70	80	

Computation of "C" Factor

Runoff:

$$Q_{10 \text{ from curve}} = \underline{3.3} \times (L/W) \times \text{Factor} = \underline{0.95} \times \text{RI-Correc. Factor} = \underline{1.23}$$

$$Q_{10 \text{ corrected}} = \underline{3.86} \text{ cfs}$$

Frequency	Q _n	Frequency Factor	Q _{corrected}	Q/A
20%	Q ₅	65%	<u>2.51</u> cfs	<u>1.67</u> cfs/ac
10%	Q ₁₀	100%	<u>3.86</u> cfs	<u>2.57</u> cfs/ac
4%	Q ₂₅	135%	<u>5.21</u> cfs	<u>3.47</u> cfs/ac
2%	Q ₅₀	170%	<u>6.56</u> cfs	<u>4.37</u> cfs/ac
1%	Q ₁₀₀	200%	<u>7.71</u> cfs	<u>5.14</u> cfs/ac

¹This method shall be used only in the hydrologic design of City facilities with watershed area of not larger than 100 acres. See Plate 57

²SHAPE CORREC. FACTOR. See Plate 61

³RAINFALL INTENSITY CORREC. FACTOR. See Plate 61

52

MODIFIED RATIONAL FORMULA - COOK'S METHOD

52-1

BACKGROUND

This method was adopted for use for the hydrologic design of City drainage facilities in the City of Oxnard on March, 1977.

The method was originally prepared for use in Ventura County. It was adapted by the County from a similar presentation for nationwide use published in the U.S. Navy Manual, "Soil Conservation - NAVDOCKS TP -Pw- 5". The presentation was originally prepared by the U.S. Soil Conservation Service.

The method takes into account the drainage area, relief and surface storage of the area, type of soil, extent of vegetal cover, shape of the watershed, rainfall intensity to be expected, and the frequency of occurrence.

The adapted method was verified by the County by comparing the computed runoffs with the available runoff data and was found to give reasonable results. The City has analytically compared this method with other known methods and found it to yield relatively reasonable answers.

52-2

REFERENCE COUNTY MAPS

The following County maps shall be used with this method :

- 1) "Hydrologic Soil-Type Map" - Ventura County Flood Control District's Hydrology Manual, August, 1966, Figures 5,6,8,7.
- 2) "Isohyetal Map - 24 Hour Rainfall with probable 50-Year Frequency", Ventura County Flood Control District, March, 1966, Dwg. No. D-3-3d.

52-3

ASSUMPTIONS

On the basis that a) the City of Oxnard area consists primarily of type B soil and flat terrain, b) the average 24-hour 50-year frequency rainfall is six (6) inches, and c) the effect of the differences in vegetal cover between various types of residential development, as well as between commercial and industrial developments, is minor, the following simplifying assumptions may be made in using this method:

- 1) Rainfall-intensity correction factor of 123% may be used throughout the City.
- 2) The types of development may be grouped into three (3) major categories with the corresponding "C" factor shown.

<u>TYPE OF DEVELOPMENT</u>	<u>"C"- FACTORS</u>
Undeveloped	40 - 45*
Residential	60
Commercial & Industrial	70
* Depends on soil-type	

52-4

LIMITATIONS

This method shall be used only in the hydrologic design of City facilities with watershed area of not larger than 100 acres. (Ventura County Flood Control District's hydrology method shall be used in all District's facilities).

REV.	APPR. BY	DATE		

 CITY OF Oxnard	GENERAL REQUIREMENTS - DRAINAGE		STANDARD PLAN
	DRAWN: SOHER	CKD. <i>Jay Patel</i>	APPR. BY <i>Benjamin Y. Wong</i>
<i>Public Works Department</i>			SHEET OF

52-5

COMPUTATION PROCEDURE

(Refer to computation form and appropriate charts & graphs)

- 1) Delineate and measure the drainage area in acres.
- 2) Measure travel length , L , in feet.
- 3) Compute average width of watershed in feet.
- 4) Compute length to width ratio and determine the shape correction factor from the given chart.
- 5) Determine soil type from hydrologic soils map, vegetal cover from field observation , relief and surface storage from topographic map and/or field observation, as required.
- 6) Compute "C" factor from given chart.
- 7) Using computed "C" factor and measured drainage area obtain the uncorrected Q_{10} from the graph.
- 8) Multiply the Q_{10} in item (7) by both the shape correction and rainfall intensity correction factor to obtain corrected Q_{10} peak runoff.
- 9) For other frequencies , multiply the corrected Q_{10} by the appropriate frequency correction factor from the chart.

REV. APPR. BY DATE

 CITY OF oxnard	GENERAL REQUIREMENTS - DRAINAGE		STANDARD PLAN
	DRAWN: SOHER	CKD. <i>Jay Patel</i>	APPR. BY <i>Benjamin Y. Wong</i>
Public Works Department			PLATE 58
			SHEET OF

53 **MODIFIED COOKS - HYDROLOGIC CALCULATIONS**

Project _____ Job No. _____ Sheet _____ Of _____

Watershed _____ Designed _____ Date _____

Concentration Point _____ Checked _____ Date _____

Watershed Constants :

Drainage Area _____ Acres

Length _____ feet Fall _____ feet Slope _____ %

Width = $\frac{\text{Area} \times 43560}{\text{Length}}$ = _____ feet

$\frac{\text{Length}}{\text{Width}}$ = _____ Shape Correc. Factor = _____

Soil Type _____ RI-Correc. Factor _____

Computation of "C"

<u>Type of Development</u>	<u>"C" Factor</u>	<u>Present</u>	<u>Future</u>
Undeveloped	40-45	_____	_____
Residential	60	_____	_____
Commercial & Industrial	70	_____	_____

Composite "C" Factor

Runoff : Q from curve = _____ $\times \frac{L}{W}$ Factor _____ \times RI-Corr. Factor _____

<u>Frequency</u>	<u>Frequency Factor</u>	<u>Q</u>
20%	65%	_____ cfs
10%	100%	_____ cfs
4%	135%	_____ cfs
2%	170%	_____ cfs
1%	200%	_____ cfs

REV. APPR. BY DATE

 CITY OF Ukiah	GENERAL REQUIREMENTS - DRAINAGE		STANDARD PLAN
	DRAWN: SOHER	CKD. <i>Jay Patel</i>	APPR. BY
	<i>Public Works Department</i>		<i>Benjamin Y. Wong</i>
			SHEET OF

54

MODIFIED RATIONAL FORMULA

" C " FACTORS*

ITEMS	RUNOFF PRODUCING CHARACTERISTICS			
RELIEF	40 Steep, slopes exceed 30%	30 Hilly, slopes 10% to 30%	20 Rolling, slopes 5% to 10%	10 Flat, slopes 0 to 5%
SURFACE STORAGE	20 Negligible, surface depressions few and shallow. Drainageways steep & small, no ponds or marshes.	15 Low, well defined system of small drainageways, no ponds or marshes.	10 Normal, considerable surface depression storage, lakes and ponds less than 2% of drainage area.	5 High, surface depression storage high, drainage system not sharply defined.
SOIL	20 Rock or thin soil mantle. Negligible infiltration capacity.	15 Clay or other soil of low infiltration capacity.	10 Normal, deep permeable soils.	5 High, sands, loamy sands & other loose open soils.
SCS CLASS	D	C	B	A
VEGETAL COVER	20 No effective soil cover, bare or very sparse cover.	15 Clean cultivated crops or poor natural cover, less than 10% of drainage area under good cover.	10 50% of drainage area in good grassland or woodland, 50% of area in clean cultivated crops.	5 About 90% of drainage area in good grassland woodland or equivalent cover.

**" C " FACTOR
(FOR CITY OF OXNARD)**

C = 40 - 45 C = 60 C = 70	FOR UNDEVELOPED FOR RESIDENTIAL FOR COMMERCIAL AND INDUSTRIAL
---------------------------------	---

NOTE:

In hydrologic Calculations, use values of "C" given in lower table.
Use of values of "C" given in upper table have to be approved by the City Engineer.

REV. APPR. BY DATE



GENERAL REQUIREMENTS - DRAINAGE

DRAWN: SOHER CKD. *Jay Patel*
Public Works Department

APPR. BY *Benjamin J. Wong*

STANDARD PLAN
PLATE 60
SHEET OF

FREQUENCY FACTORS - %

RETURN FREQUENCY	RETURN PERIOD	FACTOR
50%	2	25
20%	5	65
10%	10	100
4%	25	135
2%	50	170
1%	100	200
0.1%	1,000	400

RAINFALL INTENSITY CORRECTION FACTOR

OXNARD AREA	=	123%
-------------	---	------

SHAPE CORRECTION FACTORS - %

AREA L/W	0.01 S.M.	0.1 S.M.	1 S.M.	10 S.M.	100 S.M.	1,000 S.M.
1	115	125	132	141	154	172
1.5	112	115	119	124	131	141
2	108	110	110	113	117	122
3	100	100	100	100	100	100
4	98	95	94	91	89	86
5 or greater	95	91	88	85	82	78

1 S.M. = 1 Square Mile = 640 Acres

Just for information only

REV. APPR BY DATE



CITY OF

oxnard

GENERAL REQUIREMENTS - DRAINAGE

DRAWN: SCHER

CKD.

Jay Patel

APPR. BY

Bonjamen Y. Wong

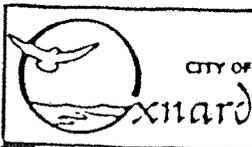
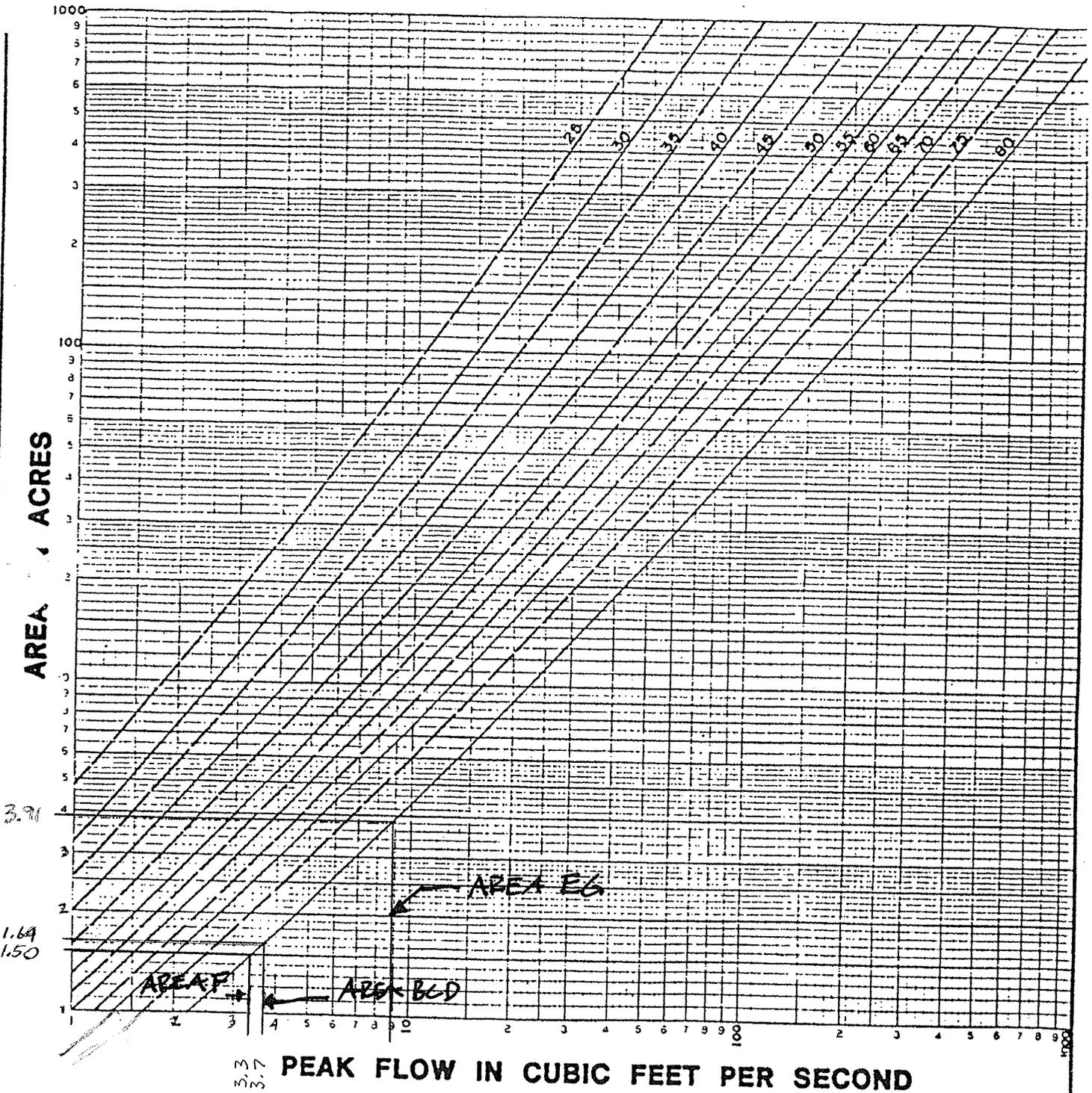
Public Works Department

STANDARD PLAN

PLATE 61

SHEET OF

PRESENT CONDITION



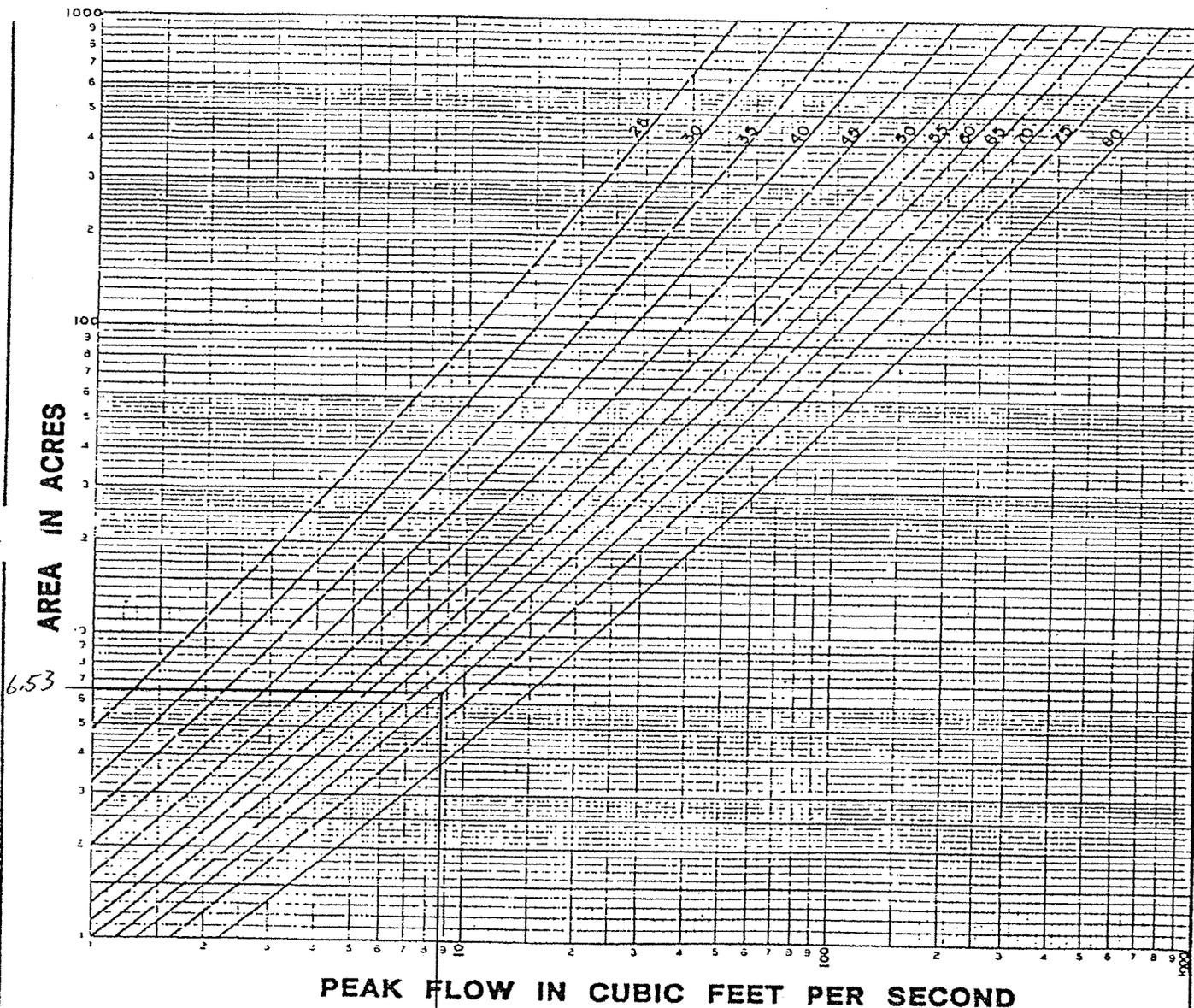
GENERAL REQUIREMENTS - DRAINAGE

DRAWN: SOHER CKD. *Jay Patel*
Public Works Department

APPR. BY
Benjamin Y. Wong

STANDARD PLAN
PLATE 62
SHEET OF

FUTURE CONDITION



PEAK FLOW IN CUBIC FEET PER SECOND

3.3 cfs



CITY OF
Oxnard

GENERAL REQUIREMENTS - DRAINAGE

DRAWN: SOHER CKD *Ray Patel*
Public Works Department

APPR. BY
Benjamin Y. Wong

STANDARD PLAN

PLATE 62

SHEET OF

Design Procedure Form for T-10: Infiltration Trench

Designer: S. Uhles
 Company: RBF Consulting
 Date: 07/05/07
 Project: Courtyard at Mandalay Bay
 Location: Area "A"

<p>1. Determine Basin Storage Volume</p> <p>a. Percent Imperviousness of Tributary Area</p> <p>b. Effective Imperviousness (Determine using Figure 3-4)</p> <p>c. Required Unit Basin Storage Volume (V_u) Use Figure 5-1 with 40 hr drawdown and I_{wq}</p> <p>d. Watershed Area Tributary to DBSF</p> <p>e. Calculate SQDV $SQDV = (V_u / 12) \times \text{Area}$</p>	<p>$I_a = \underline{70} \%$</p> <p>$I_{wq} = \underline{65} \%$</p> <p>$V_u = \underline{0.67} \text{ acre-ft}$</p> <p>Area = <u>2.8</u> acres</p> <p>$SQDV = \underline{0.156} \text{ acre-ft}$</p>
<p>2. Trench Water Depth</p> <p>a. Soil infiltration rate</p> <p>b. Safety factor (S)</p> <p>c. Drawdown time ($t = 40$ hours)</p> <p>d. Max water depth (≤ 8 ft)</p> <p>$D_m = (I \times t) / 12s$</p>	<p>$I = \underline{3.0} \text{ in/hr}$</p> <p>$s = \underline{10} \text{ ft}$</p> <p>$t = \underline{40} \text{ hrs}$</p> <p>$D_m = \underline{1} \text{ ft.}$</p>
<p>3. Trench Bottom Surface Area</p> <p>$A_s = SQDV / D_m$</p>	<p>$A_s = \underline{6,800} \text{ ft}^2$</p>

Notes:

The "I" factor and "S" factor will be
adjusted following soil investigation.

Design Procedure Form for T-8: Porous Landscape Detention Basin

Designer: S. Uhles
 Company: RBF
 Date: 6/11/07
 Project: Courtyard at Mandalay Bay
 Location: Area "B"

<p>1. Determine Basin Storage Volume</p> <p>a. Percent Imperviousness of Tributary Area</p> <p>b. Effective Imperviousness (Determine using Figure 3-4)</p> <p>c. Required Unit Basin Storage Volume (V_u) Use Figure 5-1 with 12 hr drawdown and I_{wq}</p> <p>d. Watershed Area Tributary to DBSF</p> <p>e. Calculate SQDV $SQDV = (V_u / 12) \times \text{Area}$</p>	<p>$I_a =$ <u>70</u> %</p> <p>$I_{wq} =$ <u>65</u> %</p> <p>$V_u =$ <u>0.38</u> acre-ft</p> <p>Area = <u>1.4</u> acres</p> <p>SQDV = <u>0.049</u> acre-ft</p>
<p>2. Basin Surface Area</p> <p>a. Design Volume (SQDV)</p> <p>b. Average Depth</p> <p>c. $A_s = \text{Design Volume} / \text{Average Depth}$</p>	<p>SQDV = <u>1930</u> ft³</p> <p>Average Depth = <u>0.75</u> ft</p> <p>$A_s =$ <u>2573</u> ft²</p>
<p>3. Base Course Layers (check)</p>	<p>Sandy Loam Turf <u>X</u> in. (6" min)</p> <p>Sand/peat mix _____ in. (18" min)</p> <p>Gravel _____ in. (9" min)</p>
<p>4. Subsurface Drainage (check)</p>	<p>_____ Infiltration to subgrade with permeable geotextile membrane</p> <p>_____ Underdrain with impermeable membrane</p> <p><u>X</u> Underdrain with permeable geotextile membrane</p>

Notes:

Design Procedure Form for T-2: Grass Swale Filter (GSWF)

Designer: S. Uhles
 Company: ZBF
 Date: 6/11/07
 Project: Courtyard at Manalay bay
 Location: Area "C"

1. Design Flow	$Q_{p, SQDF} =$ <u>0.5</u> cfs
2. Swale Geometry	
a. Swale Bottom Width (b)	b = <u>8</u> ft.
b. Side slope (Z)	Z = <u>4:1</u>
3. Depth of flow at SQDF (d) (2 ft max, Manning n= 0.20)	d = <u>3.2</u> inches
4. Design Slope	
a. s = 4 percent maximum	s = <u>0.5</u> %
b. No. of grade controls required	_____ (number)
5. Design flow velocity (Manning n= 0.20)	V = <u>0.2</u> ft/sec
6. Design Length	
L = (7 min) x (flow velocity, ft/sec) x 60	L = <u>89</u> feet
6. Vegetation (describe)	<u>Tall Fescue</u>
7. Outflow Collection (Check type used or describe "Other")	<input type="checkbox"/> Grated Inlet <input checked="" type="checkbox"/> Infiltration Trench <input checked="" type="checkbox"/> Underdrain Used <input type="checkbox"/> Other _____

Notes Actual length = 105', which is greater than required length of 89'.

Cross Section for Area "C" Swale

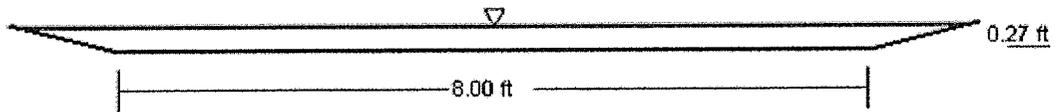
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

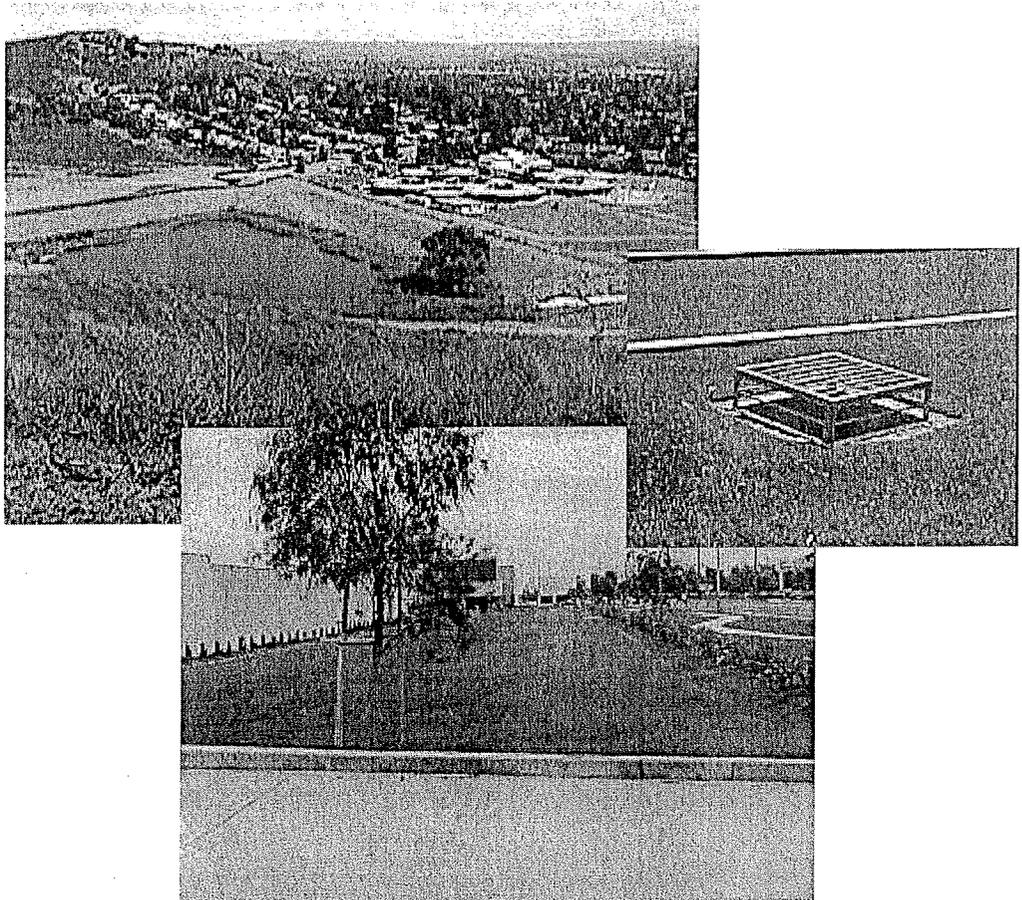
Roughness Coefficient	0.200
Channel Slope	0.00500 ft/ft
Normal Depth	0.27 ft
Left Side Slope	4.00 ft/ft (H:V)
Right Side Slope	4.00 ft/ft (H:V)
Bottom Width	8.00 ft
Discharge	0.50 ft ³ /s

Cross Section Image



V:1
H:1

Technical Guidance Manual *for* Stormwater Quality Control Measures



July 2002



Ventura Countywide
Stormwater Quality
Management Program

Grass Swale Filter (GSWF)

Description

Grass Swale Filters (GSWF) are densely vegetated (turf grass) drainageways with gentle sideslopes and gradual slopes in the direction of flow that collect and slowly convey runoff flow to downstream points of discharge. Berms or check dams may be installed perpendicular to flow to provide grade control in steeper sloped areas. Underdrains may be installed at sites with very gradual slopes to avoid standing water. A GSWF is sized to treat the SQDF from the tributary area. Grass Swale Filters are similar to Grass-lined Channels described in Fact Sheet G-5.2 in Section 3, with the only differences being design criteria for hydraulic design parameters (e.g. flow depth, friction factor, and contact time.) Grass Swale Filters require shallower flow depths and longer contact times to provide treatment. Applications of GSWFs are illustrated in Figure 5-3.

General Application

Grass Swale Filters are appropriate for use in residential, commercial, industrial and institutional settings and are typically incorporated into the landscape design of the site. They are often used in conjunction with Turf Buffers or GSTFs to provide effluent collection and conveyance as well as treatment. The contributing flow that can be accommodated by the GSWF will be limited according to the design criteria in this fact sheet. Tributary areas are typically less than 5 acres. Several Grass Swale Filters may be used on a single site, each sized according to the tributary area from which it receives flow. To limit the size of units when space is limited, runoff flow from pervious and off-site areas should not be routed to Grass Swale Filters. Irrigation and regular mowing are required to maintain the turf grass cover.

Advantages/Disadvantages

General

Like Grass Strip Filters, Grass Swale Filters are relatively easy to design, install and maintain. Vegetated areas that would normally be included in the site layout, if designed for appropriate flow patterns, may be used as Grass Swale Filters. Landscape architects can easily alter planting schemes to include appropriate turf species to meet design requirements for swales. Finally, maintaining a GSWF often requires little more than normal landscape maintenance activities such as irrigation and mowing. Compared with some other means for improving stormwater runoff quality, grass filters provide a relatively unobtrusive, attractive, long-term and inexpensive stormwater quality management technique. In addition to pollutant removal, GSWFs provide opportunity for infiltration of runoff and reduce peak flows.

Site Suitability

Grass Swale Filters are not practical for sites with slopes greater than about 4 percent. Underdrains are recommended for design slopes less than 0.5 percent when soils types C or D (see Appendix E) are present.

Section 5 - Treatment Control Measures

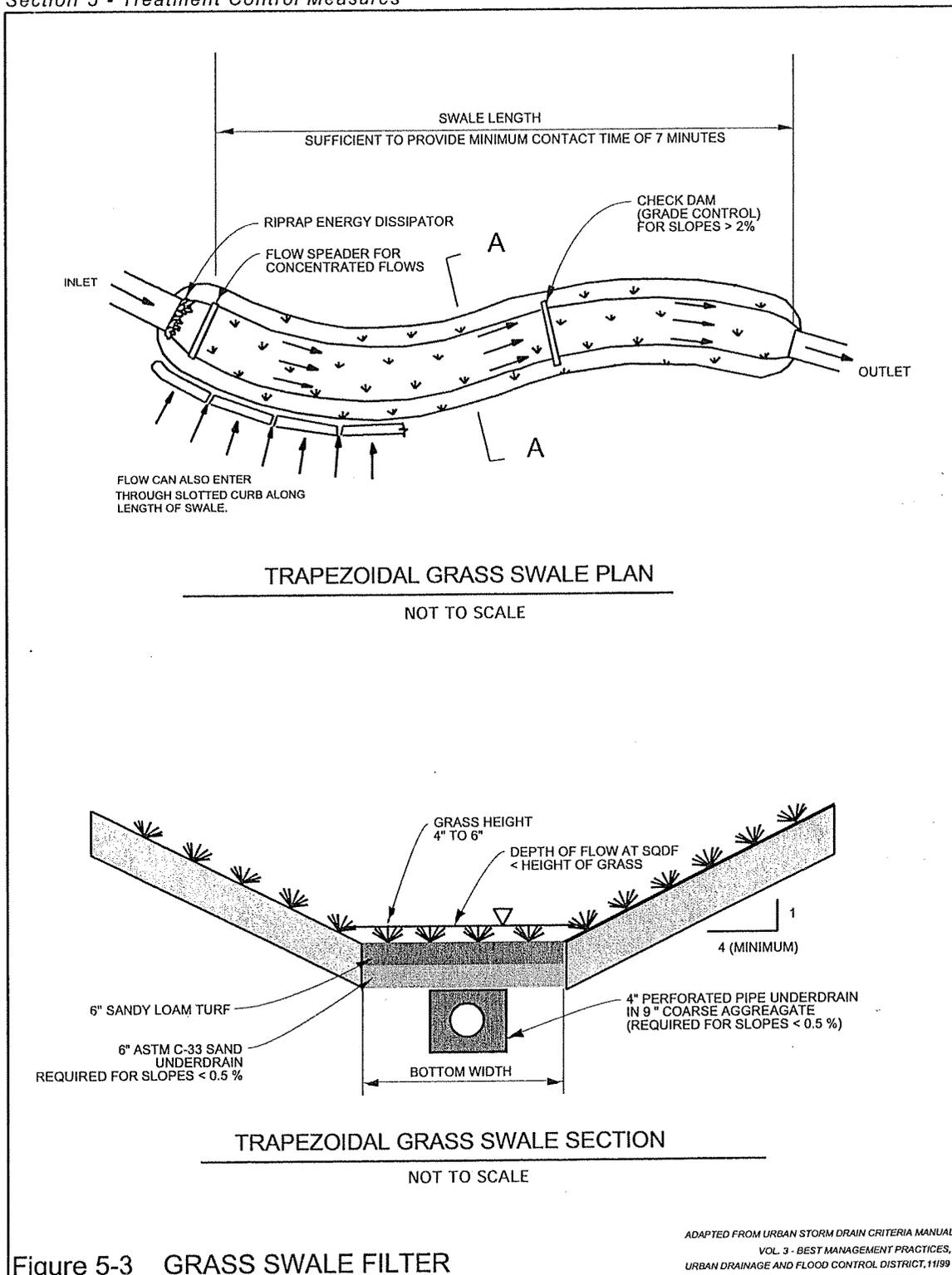


Figure 5-3 GRASS SWALE FILTER

Pollutant Removal

Relative pollutant removal effectiveness of a GSWF is presented in Table 5-1. Removal effectiveness of GSWF for sediment and particulate forms of metals, nutrients and other pollutants is considered moderate to low. Grass Swale Filters are the least effective of the approved treatment control measures. Consequently, they should generally be used in conjunction with one of the other approved treatment control measures.

Design Criteria and Procedure

Principal design criteria for GSWFs are listed in Table 5-4.

Table 5-4. Grass Swale Filter Design Criteria

Design Parameter	Unit	Design Criteria
Design Flow (SQDF)	cfs	$0.1 \times Q_{P, 50yr}$
Swale geometry	–	Trapezoidal or triangular
Maximum channel side slope	H:V	4 :1
Minimum slope in flow direction	%	0.2 (provide underdrains for slopes < 0.5)
Maximum slope in flow direction	%	2.0 (provide grade-control checks for slopes >2.0)
Maximum flow velocity	ft/sec	1.0 (based on Manning n = 0.20)
Maximum depth of flow at SQDF	inches	3 to 5 (1 inch below top of grass)
Minimum contact time	minutes	7 (provide sufficient length to yield min contact time)
Minimum length	ft	sufficient length to provide minimum contact time
Vegetation	–	Turf grass or approved equal
Grass height	Inches	4 to 6 (mow to maintain height)

Design procedure and application of design criteria are outlined in the following steps:

1. Design Flow Determine Stormwater Quality Design Flow (SQDF) for impervious area to be mitigated.
 $Q_{p, SQDF} = 0.1 \times Q_{p, 50yr}$ (see Fact Sheet, Section 5)
2. Swale Geometry Use trapezoidal or triangular cross section.
3. Maximum Side Slope Side slopes shall not be steeper than 4:1 (5:1 or flatter preferred).
4. Minimum Slope Slope of the swale in the direction of flow shall not be less than 0.2 percent. Swales with slopes less than 0.5 percent should be provided with underdrains (see Figure 5-3).
5. Maximum Slope Slope of the swale in the direction of flow shall not be greater than 2 percent. Provide grade control checks for slopes greater than 2.0 percent (see Figure 5-3).
6. Flow Velocity Maximum flow velocity at design flow should not exceed 1.0 ft/sec. based on a Mannings $n = 0.20$.
7. Flow Depth Maximum depth of flow at design flow should not exceed 3 to 5 inches based on a Mannings $n = 0.20$
8. Swale Length Provide length in the flow direction sufficient to yield a minimum contact time of 7 minutes at SQDF.
 $L = (7 \text{ min}) \times (\text{flow velocity, ft/sec}) \times 60 \text{ sec/min}$
9. Vegetation Provide irrigated perennial turf grass to yield full, dense cover. (See Appendix F for suitable grasses) Note: Some local agencies have restrictions on use of irrigated turf grass; consult with local agency regarding selection of appropriate vegetation. Mow to maintain height of 4 to 6 inches.
10. Drainage and Flood Control Provide sufficient flow depth for flood event flows to avoid flooding of critical areas or structures

Design Example

A completed design form follows as a design example. Blank design forms are provided in Appendix G.

Construction Considerations

Scheduling

Grass Swale Filters should be established and operational by October 1, unless another schedule has been justified in the Landscape Plan and approved by the local agency. To meet the October 1 deadline, the following schedule must be met:

- Seeding should be conducted during the dry season, no later than September 1 to ensure sufficient vegetation by October 1. Irrigation may be required.
- Within 30 days of seeding, or by September 30, whichever is earlier, the site shall be inspected to determine adequacy of vegetation growth, and to determine if erosion or damage has occurred. Areas of damage shall be repaired, seeded, and mulched immediately.
- If vegetation growth is insufficient, or excessive damage or erosion has occurred, the site should be further stabilized with other appropriate erosion control measures such as matting, mulching, etc. If the site can not be adequately stabilized prior to October 1, temporary measures must be installed to divert storm flows around the swale until adequate vegetation and stabilization occurs.

During Construction

All construction activity BMPs must remain in place to prevent high sediment loads into the GSWF, if active construction is being conducted upstream of the GSWF. If necessary additional BMPs must be installed.

Post Construction

After all construction activities are complete, temporary BMPs to protect the integrity of the GSWF shall be installed, if necessary, until:

- the drainage area for the GSWF is adequately stabilized,
- vegetation in the GSWF is adequately established, and
- the GSWF maintenance plan is fully implemented.

Maintenance Requirements

To provide optimum treatment, Grass Swale Filters need to be regularly maintained to ensure a dense vegetation growth, and to prevent erosion of the underlying soils.

Maintenance Agreement

Treatment controls are to be maintained by the owner/operator. Maintenance agreement between the owner/operator of the Grass Swale Filters and the local agency may be required. (See Appendix C for example maintenance agreement.)

Maintenance Plan

A post-construction Maintenance Plan shall be prepared and made available at the local agency's request. The Maintenance Plan should address at least the following items (see Appendix D for more detailed suggested Maintenance Plan content and format:

- Operation plan and schedule, including site map;
- Maintenance and cleaning activities and schedule;
- Equipment and resource requirements necessary to operate and maintain facility;
- Responsible party for operation and maintenance activities.

Maintenance Activities

At a minimum the following activities must occur to properly maintain a GSWF:

- Mow regularly to maintain vegetation height between 4 and approximately 6 inches, and to promote thick, dense vegetative growth. Clippings are to be removed immediately after mowing.
- Regularly maintain the GSWF to remove all litter, branches, rocks, or other debris. Damaged areas of the filter strip should be repaired immediately by reseeding and applying mulch.
- Remove all accumulated sediment that may obstruct flow through the GSWF. Replace the grass areas damaged in the process.
- Regularly maintain inlet flow spreader (if applicable).
- Irrigate GSWF during dry season (April through October) when necessary to maintain the vegetation.
- After installing, inspect GSWF after seeding and after major storms. Repair all damage immediately.
- Once the GSWF is established, inspect at least three times per year. Repair all damage immediately.

Porous Landscape Detention Basin

Description

A Porous Landscape Detention (PLD) basin functions similarly to Porous Pavement Detention (PPD) except vegetation is used instead of porous blocks. A PLD consists of a low-lying vegetated area underlain by a sand bed with an underdrain pipe. A shallow surcharge zone is provided above the PLD for temporary storage of the SQDV. During runoff events, runoff accumulates in the vegetated zone and gradually infiltrates into the underlying sand bed, filling the void spaces of the sand. The underdrain gradually dewateres the sand bed and discharges the runoff to downstream conveyance. Like the PPD, a PLD allows detention of the SQDV to be provided on sites with limited open area available for stormwater detention. A typical cross section of a PLD is shown in Figure 5-13.

General Application

A PLD can be located in just about any of the open areas of a site. It is ideally suited for small installations such as:

- Parking lot islands
- Street medians
- Roadside swale features
- Site entrance or buffer features

A PLD can be implemented on a larger scale, serving as an infiltration basin/sand filter for an entire site, if desired, provided the stormwater quality capture volume and average depth requirements are met.

Advantages/Disadvantages

General

PLDs provide storm water capture on a site while reducing the impact on developable land. Aside from the relatively high degree of pollutant removal provided, PLDs can reduce flooding potential by infiltrating or slowing down runoff. A PLD provides a natural moisture source for vegetation, enabling “green areas” to exist with reduced irrigation.

The primary disadvantage of a PLD is the potential for clogging if sediment loading is excessive. The cost of restorative maintenance can be high when the system seals with sediment and no longer functions as a storm water basin. A PLD should be placed away from building foundations or other areas where expansive soils are present, although underdrain and impermeable liner can ameliorate some of these concerns.

Site Suitability

If an underdrain system is incorporated into the design, PLDs are suited for almost any site regardless of soil type. An underdrain ensures the drainage of the subgrade whenever the

subsoils are not free draining. If sandy soils (type A or B) are present, the facility can be installed without an underdrain. However, sandy subsoils are not a requirement. In cases when the subsoils are not free draining, an impermeable liner should be provided to drain the water in the subgrade and to mitigate concerns about expansive soils. This BMP has a relatively flat surface area and may be more difficult to incorporate it into steeply sloping terrain.

The PLD should be located far enough from foundations in expansive soils so as to limit damage to potential structures. In addition, when a commercial or an industrial site may be handling chemicals and petroleum products that may spill to the ground, an impermeable liner with an underdrain is required to prevent groundwater and soil contamination.

Pollutant Removal

The degree of pollutant removal by a PLD should be significant and should equal or exceed the removal effectiveness provided by sand filters. In addition to removal by settling, PLDs provides filtering, adsorption, and biological uptake of constituents in stormwater. Relative pollutant removal effectiveness is indicated in Table 5-1.

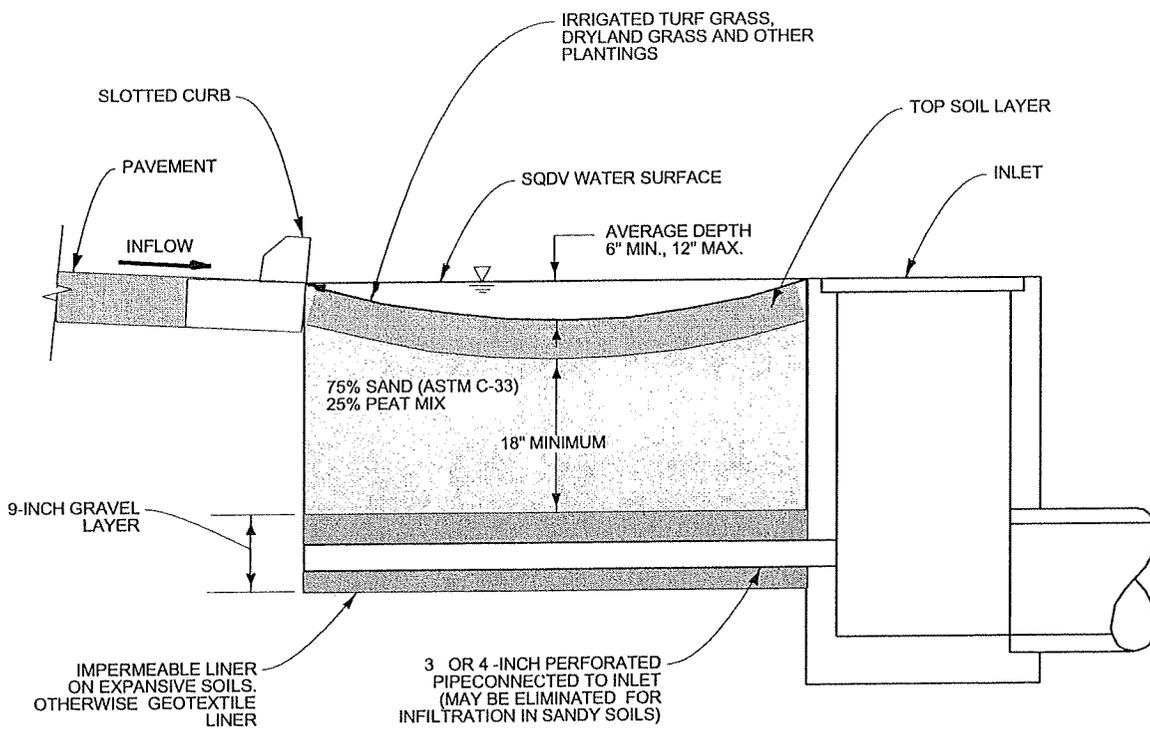
Design Criteria and Procedure

Principal design criteria for SFBs are listed in Table 5-11.

Table 5-11. Extended Detention Basin Design Criteria

Design Parameter	Unit	Design Criteria
Drawdown time for SQDV	hrs	12 hrs
SQDV	acre-ft	80% annual capture. Use Figure 5-1 @ 12-h drawdown
Average surcharge depth	in	6-12
Sand-peat layer	in	18" (minimum)– 75% ASTM C-3 Sand + 25% peat
Gravel layer	in	9" – ASSHTO #8 Coarse Aggregate
Vegetative (sandy loam turf) layer	in	6"

When implementing multiple small PLDs on a site, it is increasingly important to accurately account for each upstream drainage area tributary to each PLD site to make sure that each facility is properly sized, and that all portions of the development site are directed to a PLD.



ADAPTED FROM UDFCD, 1999

Figure 5-13. POROUS LANDSCAPE DETENTION

Design procedure and application of design criteria are outlined in the following steps:

1. Basin Storage Volume Provide a storage volume equal to 100 percent of the SQDV, based on a 12-hr drawdown time.
 - a. Determine the percent imperviousness of the tributary area (I_a).
 - b. Determine effective imperviousness (I_{wq}) by adjusting for site design source controls using Figure 3-4, as appropriate.
 - c. Determine required unit basin storage volume (V_u) using Figure 5-1 with 12-hr drawdown and I_{wq} value from step 1.b.
 - d. Calculate the SQDV in acre-ft as follows:
$$\text{SQDV} = (V_u / 12) \times \text{Area}$$
where
$$\text{Area} = \text{Watershed area tributary to PLD}$$
2. Basin Surface Area Calculate minimum required surface area as follows:
$$\text{Surface Area} = \text{SQDV} / \text{average surcharge depth}$$
3. Base Courses Provide 18-inch sand + peat layer over 9-inch gravel layer as shown in Figure 5-13. Thoroughly mix 75% sand (ASTM C-33) with 25% peat for filtration and adsorption of contaminants.
4. Subbase If expansive soils or rock are a concern or the tributary catchment has chemical or petroleum products handled or stored, install an impermeable membrane below the base course. Otherwise install a non-woven geotextile membrane to encourage filtration.
5. Surcharge Depth Maintain the average SQDV depth between 6 and 12 inches. Average depth is defined as water volume divided by the water surface area.
6. Vegetative Layer Provide a sandy loam turf layer above the sand-peat mix layer. This layer shall be no less than 6 inches thick, but a thicker layer is recommended to promote healthier vegetation.
7. Overflow Provide an overflow, possibly with an inlet to a storm sewer, set above the SQDV surcharge water level

Design Example

Design forms to document the design procedure are provided in Appendix G. A completed design form follows as a design example.

Maintenance Requirements

The following maintenance requirements apply to Porous Landscape Detention.

Maintenance Agreement

On-site treatment control measures are maintained by the owner/operator. Maintenance agreements between the owner/operator and the governing agency may be required. However, if pretreatment is recommended but not included in the design, a maintenance agreement will be required. If required, a maintenance agreement must be executed by the owner/operator before the improvement plans are approved. See Appendix C for example maintenance and access agreement.

Maintenance Plan

A post-construction Maintenance Plan shall be prepared and made available at the governing agency's request. The Maintenance Plan should address items such as:

- Operation plan and schedule, including a site map
- Maintenance and cleaning activities and schedule
- Equipment and resource requirements necessary to operate and maintain facility
- Responsible party for operation and maintenance

See Appendix D for additional Maintenance Plan requirements and suggested template.

Maintenance Activities

- Mow grass and remove weeds to limit unwanted vegetation as required. Maintain irrigated turf grass height at 2 to 4 inches and non-irrigated native grasses at 4 to 6 inches.
- Remove litter and debris from PPD area as required.
- Inspect PLD a minimum of twice a year during storm events to determine if runoff is infiltrating properly.
- If infiltration is significantly reduced, remove and replace sandy loam turf and landscaping layer. May be required every 5 to 10 years or more frequently depending on sediment loads to the PLD.

Infiltration Trench

Description

An Infiltration Trench (INT) consists of subsurface gravel and sand bed constructed in naturally pervious soils (Type A or B soils) where runoff is stored until it infiltrates into the soil profile. Upstream control measures such as Turf Buffers (see G-5.1), Grass-lined Channels (see G-5.2), Grass Strip Filters (see T-1, or Grass Swales Filters (see T-2), are typically combined with INTs to provide sediment removal upstream of the INT. The trench is designed to retain and infiltrate the SQDV over a specified period of time (40 hours). A screened overflow pipe or outlet should be provided to convey runoff in excess of the SQDV to downstream drainage. An observation well constructed of perforated PVC pipe should be provided to allow the depth of water in the trench to be monitored. Typical elements of an INT system are shown in Figure 5-15. Infiltration vaults and leach fields are variations of the infiltration trench concept in which runoff is distributed to upper zone of the subsurface gravel bed by means of perforated pipes. Illustrations of infiltration vaults and leach fields are shown in Figure 5-16 and 5-17, respectively.

General Application

Infiltration trenches are typically used to serve areas less than 10 acres and are usually combined with upstream treatment control measures to reduce sediment load to the INT. For example, INTs are commonly used in combination with Turf Buffers to treat runoff from parking lots or other paved areas as illustrated in Figure 5-15. Infiltration trenches are easily incorporated into the landscape features of development sites.

Advantages/Disadvantages

General

In addition to removing pollutants effectively, infiltration trenches, like infiltration basins, also control runoff volume, which may serve to reduce downstream bank erosion in watercourses.

The primary disadvantage of an infiltration trench, as for any infiltration device, is the potential for clogging if excessive sediment is allowed to flow into the facility. The cost of restorative maintenance can be high if soil infiltration rates are significantly reduced due sediment deposition.

Also, there is a risk of groundwater contamination in very coarse soils since coarse soils do not effectively remove dissolved pollutants. This may require groundwater monitoring. INTs cannot be put into operation until the upstream tributary area is stabilized.

Site Suitability

INBs cannot be placed on fill or unstable sites. Also, INBs should not be placed in high-risk areas such as service/gas stations, truck stops, and heavy industrial sites due to the groundwater contamination risk.

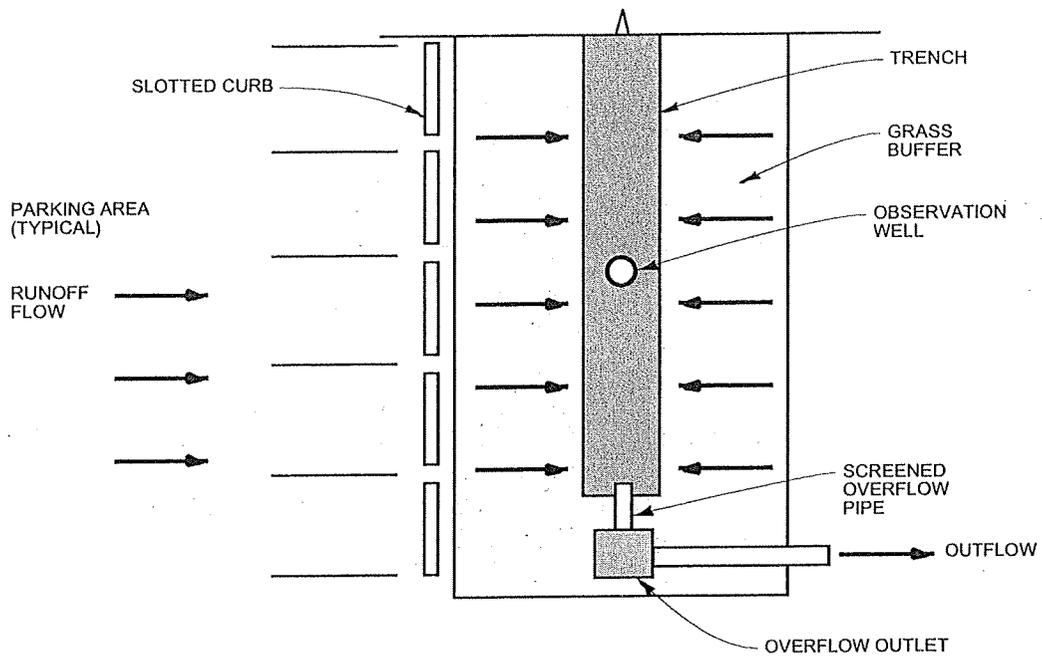
Before exploring the use of infiltration treatment control measures preliminary soil investigations, including a percolation test, shall be performed to assess whether the soils on site have an extended infiltration rate of at least 0.5 inches per hour. Separate on-site infiltration systems from the groundwater table (or bedrock) by a minimum of 5 feet vertically to provide sufficient infiltration volume within the soil. Tributary area should have a low potential for erosion. Other suitability considerations include the soil makeup (Appendix E), site topography, and the location of other facilities.

Infiltration facilities shall be sited at least 50 feet away from slopes steeper than 15 percent. Adequate spacing (100 feet or more) shall be provided between infiltration facilities and non-potable wells, tanks, drain fields and springs. For separation between infiltration BMPs and potable water supply wells, follow Department of Health Services requirements in the Guidelines for Location of Water Wells. INTs shall also be sited at least 20 feet down slope or 100 feet up slope from building foundations. A geotechnical expert shall be consulted when necessary to verify appropriate placement on site.

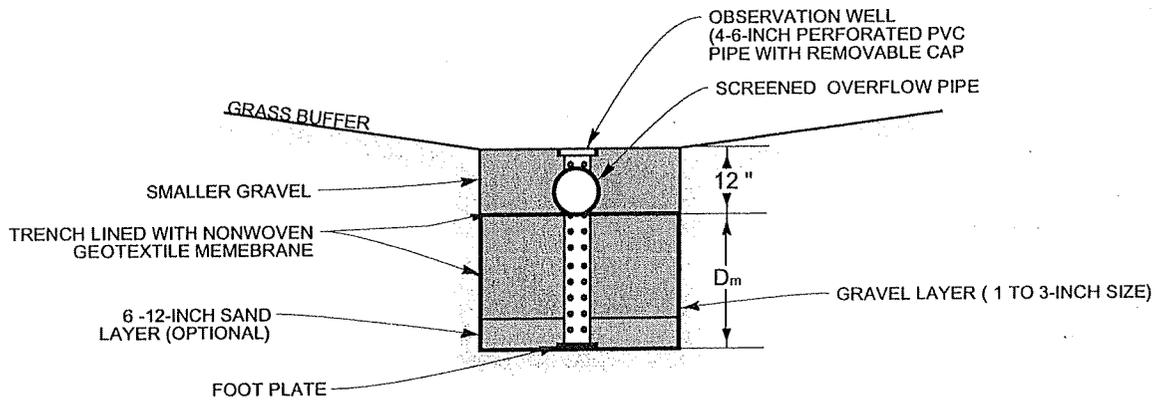
An important consideration for all infiltration facility configurations is that, during construction, great care must be taken not to reduce the infiltration capacity of the soil in the facility through compaction or by using the infiltration area as a sediment trap. Infiltration facilities shall be constructed late in the site development after soils (that might erode and clog the units) have been stabilized, or shall be protected until the site is stabilized.

Pollutant Removal

The amount of pollutant removed by INTs should be significant and should equal or exceed the removal rates provided by sand filters. In addition to settling, infiltration basins provide filtering, adsorption, and biological uptake of constituents in stormwater. Relative pollutant removal effectiveness is indicated in Table 5-1.



PLAN VIEW



SECTION VIEW

Figure 5-15. INFILTRATION TRENCH

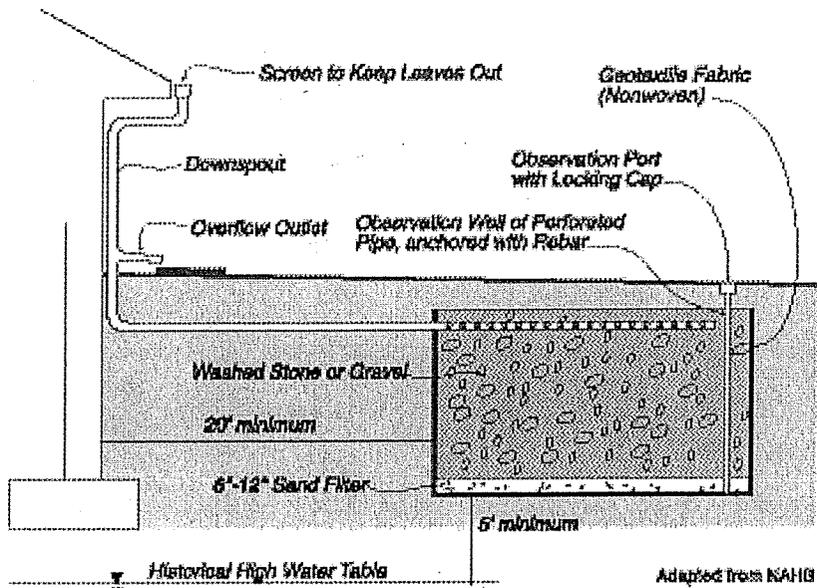


FIGURE 5-16. INFILTRATION VAULT

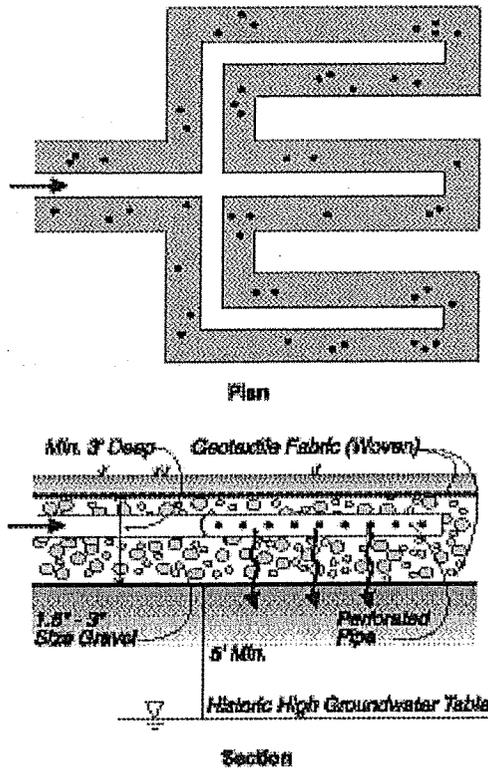


FIGURE 5--17. LEACH FIELD

Design Criteria and Procedure

Principal design criteria for INTs are listed in Table 5-13. These criteria also apply to vaults and leach fields.

Table 5-13. Infiltration Trench Design Criteria

Design Parameter	Unit	Design Criteria
Drawdown time for SQDV	hrs	40
SQDV	acre-ft	80% annual capture. Use Figure 5-1 @ 40-h drawdown
Trench bottom elevation	ft	5 feet above seasonally high groundwater table minimum.
Trench surcharge depth (D_m)	ft	$D_m = \leq 8.0$ ft
Gravel bed material	ft	Clean, washed aggregate 1 to 3 inches in diameter
Trench lining material	–	Geotextile fabric (see Table 5-7)
Setbacks	ft ft.	100 feet from wells, tanks, fields, springs 20 feet down slope or 100 feet up slope from foundations Do not locate under tree drip-lines

Design procedure and application of design criteria are outlined in the following steps:

1. Trench Storage Volume Provide a storage volume equal to 100 percent of the SQDV, based on a 40-hr drawdown time.
 - a. Determine the percent imperviousness of the tributary area (I_a).
 - b. Determine effective imperviousness (I_{wq}) by adjusting for site design source controls using Figure 3-4, as appropriate.
 - c. Determine required unit basin storage volume (V_u) using Figure 5-1 with 40-hr drawdown and I_{wq} value from step 1.b.
 - d. Calculate the SQDV in acre-ft as follows:

$$SQDV = (V_u / 12) \times \text{Area}$$

where

$$\text{Area} = \text{Watershed area tributary to INB}$$

2. Trench Water Depth Calculate the maximum allowable depth of water surcharge in the trench. Maximum depth should not exceed 8 feet.:

$$D_m = t / 12s$$

where I = site infiltration rate in (in/hr)

s = safety factor

t = minimum drawdown time = 40 hours

In the formula for maximum allowable depth, the safety factor accounts for the possibility of inaccuracy in the infiltration rate measurement. The less certain the infiltration rate the higher the safety factor shall be. Minimum safety factors shall be as follows:

- Without site-specific borings and percolation tests, use $s=10$
- With borings (but no percolation test), use $s=6$
- With percolation test (but no borings), use $s=5$
- With borings and percolation test, use $s=3$

3. Trench Surface Area Calculate the minimum surface area of the trench bottom:

$$A_m = V/D_m$$

where:

A_m = minimum area required (ft²)

V = SQDV (ft³)

D_m = maximum allowable depth (ft)

4. Observation Well Provide a vertical section of perforated PVC pipe, 4 to 6 inches in diameter, installed flush with top of trench on a foot plate and with a locking, removable cap.

5. Bypass Provide for bypass or overflow of runoff volumes in excess of the SQDV by means of a screened overflow pipe connected to downstream storm drainage or grated overflow outlet.

Design Example

Design forms to document the design procedure are provided in Appendix G. A completed design form follows as a design example.

Maintenance Requirements

The following maintenance requirements apply to Infiltration Trenches.

Maintenance Agreement

On-site treatment control measures are maintained by the owner/operator. Maintenance agreements between the owner/operator and the governing agency may be required. However, if pretreatment is recommended but not included in the design, a maintenance agreement will be required. If required, a maintenance agreement must be executed by the owner/operator before the improvement plans are approved. See Appendix C for example maintenance and access agreement.

Maintenance Plan

A post-construction Maintenance Plan shall be prepared and made available at the governing agency's request. The Maintenance Plan should address items such as:

- Operation plan and schedule, including a site map
- Maintenance and cleaning activities and schedule
- Equipment and resource requirements necessary to operate and maintain facility
- Responsible party for operation and maintenance

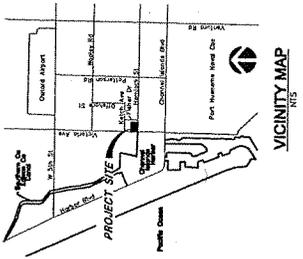
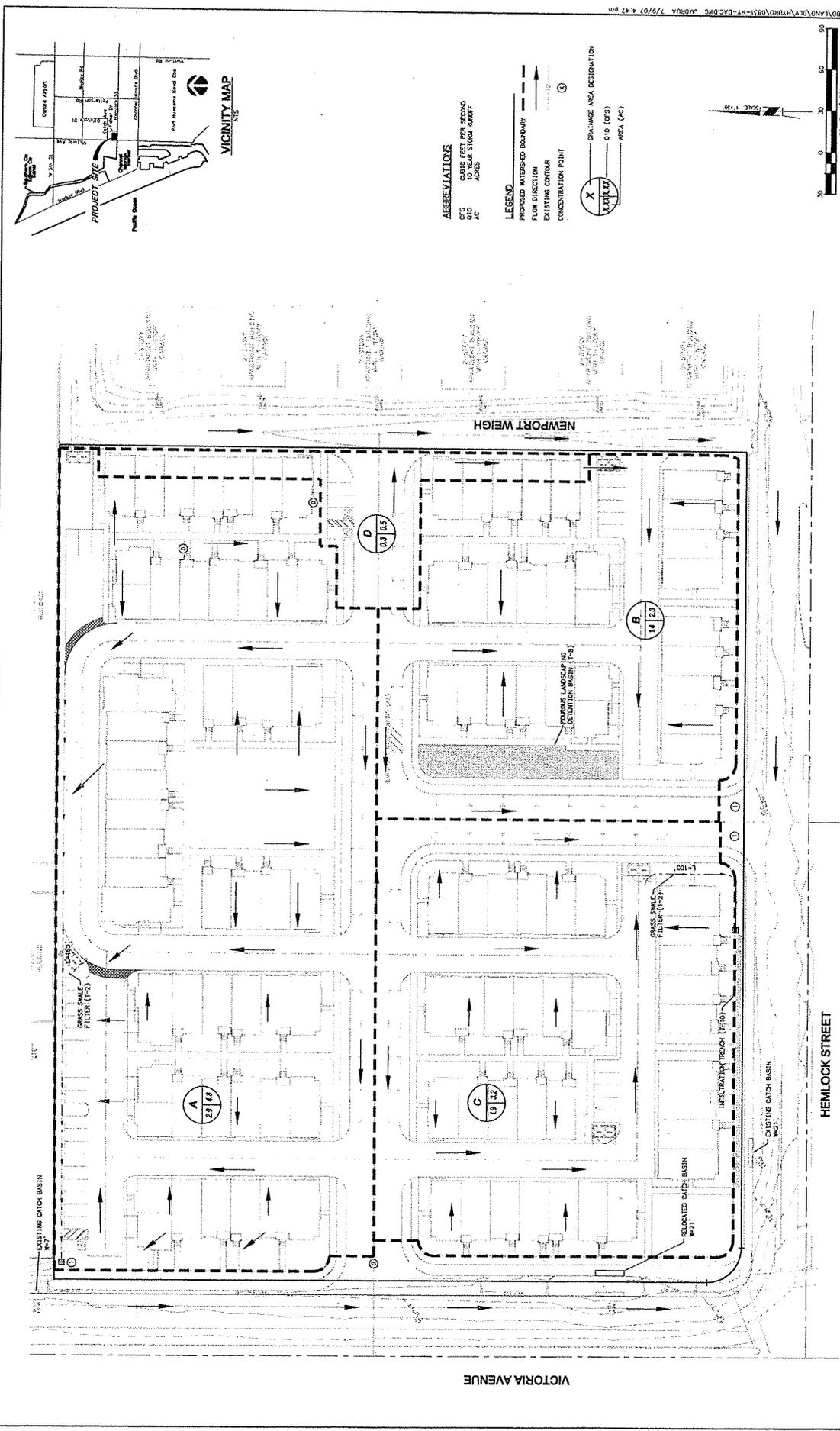
See Appendix D for additional Maintenance Plan requirements and suggested template.

Maintenance Activities

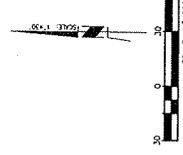
- Inspect a minimum of twice a year, before and after the rainy season, after large storms, or more frequently if needed.
- Clean when loss of infiltrative capacity is observed. If drawdown time is observed to have increased significantly over the design drawdown time, removal of sediment may be necessary. This is an expensive maintenance activity and the need for it can be minimized through prevention of upstream erosion.
- Mow, as appropriate for vegetative cover species.
- Monitor health of vegetation and replace as necessary.
- Control mosquitoes as necessary.
- Remove litter and debris from INT area as required.

EXHIBIT A
Existing Conditions – Hydrology Map

EXHIBIT B
Proposed Conditions – Hydrology Map



- ABBREVIATIONS**
 C/S CURB FEET PER SECOND
 CS CURB SURFACE ELEVATION
 AC AREA
- LEGEND**
 PROPOSED WATERED BOUNDARY
 FLOW DIRECTION
 EXISTING CURB
 CONCENTRATION POINT
- CATCH BASIN AREA DESIGNATION**
 (X) CATCH BASIN
 (O) OLD (C/S)
 (A-C) AREA (AC)



HYDROLOGY MAP - PROPOSED CONDITION
 COURTYARD AT MANDALAY BAY
 CITY OF OXNARD, COUNTY OF VENTURA

RBF CONSULTING
 PLANNING • DESIGN • CONSTRUCTION
 5010 N. Parkway, Suite 200
 Oxnard, CA 91322
 TEL: (805) 322-9499
 FAX: (805) 322-9499
 WWW.RBF.COM

PREPARED FOR:
 The City of Oxnard
 5010 N. Parkway, Suite 200
 Oxnard, CA 91322
 Office: (805) 322-9499

EXHIBIT C
Proposed Improvements – Tentative Tract Map

Appendix F

**Acoustical Analysis Report
Veneklasen Associates – March 8, 2007**

March 8, 2007

TUCKER INVESTMENT GROUP
5010 N. Parkway Calabasas, Suite 105
Calabasas, California 91302

Attention: Mr. Anthony Delcau

Subject: **Victoria / Hemlock Project – Oxnard, California**
Acoustical Analysis Report

Dear Mr. Delcau:

We visited the site of your proposed housing project in Oxnard, California and made a long-term, 24-hour noise survey. The project site is located at the northeast intersection of Victoria Avenue and West Hemlock Street. The measurement was performed at a point on the west side of the site facing Victoria Avenue and at an elevation of 15 feet where the balconies of the second floor units will be located. This location was chosen as the highest noise level will be experienced at this point. We also made short-term measurements at this location and made general observations. The levels at the ground levels were slightly lower than the levels at balcony levels. Short-term noise measurements were also performed on various locations around the site including the property line on Hemlock Street. The levels in general were lower by about 5 decibels than the levels on the west side of the property. The west property line of the site experiences higher noise levels due to higher volume of traffic on Victoria Avenue. The results of the measurements are shown in the enclosed table. The measured levels will yield a CNEL value of 69.3 (as measured at balcony elevation level), included in the data log. As stated above, the levels at ground levels are slightly lower. The noise levels are primarily controlled by the traffic on Victoria Avenue. There are no other major noise producing sources around the site.

The entry doors for units facing Victoria Avenue are planned to be located on the west side of the structures. Therefore the frontal areas of these units on Victoria Ave. may not be considered as private outdoor spaces. However the balconies facing Victoria Avenue are considered private exterior usable spaces. As stated above the noise levels in these areas will exceed the CNEL 65 criteria standard and therefore mitigation measures need to be considered.

The noise levels in these spaces may be reduced to below CNEL 65 by erecting a barrier wall of about 5 to 6 ft. height at the edge of the balconies facing Victoria Avenue. These barriers may be constructed of regular glazing or any other translucent material. Another option is to enclose these spaces completely with operable windows and render the space suitable for both indoor as well as outdoor usage. Such spaces are designated as "Morning Rooms" and serve a dual indoor/outdoor purpose. The noise levels in both schemes will be below CNEL 65.

We also estimated the interior noise levels in these units assuming conventional construction methods and materials. The estimated CNEL levels for all units; including the units which face Victoria Avenue, will be below CNEL 45. No additional mitigations are required to reduce the interior noise levels.

If you have any questions concerning this information, please do not hesitate to contact me.

Sincerely,

Veneklasen Associates, Inc.



Hooshang Khosrovani, Ph.D., P.E.
Associate Principal

G:\tucker in\Victoria-hemlock\07hk.001

Appendix G

Sanitary Sewer Study – RBF March 2007

Courtyard at Mandalay Bay SANITARY SEWER STUDY

Prepared for:

Tucker Investment Group

Prepared by:



5051 Verdugo Way
Suite 300
Camarillo, California 93012



March 2007

Courtyards at Mandalay Bay Sewer Demand Study

1.0 Introduction

The project consists of converting 6.8 acres of commercial land into 121 residential town home units called Courtyard at Mandalay Bay. The Courtyard at Mandalay Bay Sewer Study is a demand study provided at the request of the City of Oxnard Sanitation Department. The purpose of the report is to inform the City of Oxnard how much average and peak sewer flows the development will add to the existing flow.

2.0 Existing Conditions

The property is currently zoned as commercial property. Currently a commercial retail (Albertson's and smaller stores), a bar and a gas station exist on the property. The estimated at existing sewer flow from the commercial property is 10,200 gpd. This was obtained by using the City of Oxnard General Requirements for Sewer 2002 land use Plate 44 see Appendix A.

3.0 Project Description and Analysis

The proposed length of sewer for this new development consists of approximately 2320 linear feet of pipe and 17 manholes. The sewer line from the development will then connect into the 12-inch vitrified clay pipe (V.C.P), which was built in 1971 (DWG #71-99A) running west on Hemlock Street. The connection will occur between manholes AN+02 and ANB02.

The estimated wastewater flows for the development are based on proposed land uses and the City demand factors taken from the *2002 Wastewater System Master Plan* and the *City of Oxnard General Requirements for Sewer 2002*.

The average and peak sewer flows were calculated utilizing City Standard Plate 44 showing average flows for residential development. The average flows were calculated and then the peaking flow was calculated using the *City of Oxnard Public Works Department General Requirements for Sewer 2002 Plate 42* see appendix A formula:

$$\text{Peak Flow} = 2.0 \times (\text{average Flow, cfs})^{0.822}$$

Groundwater infiltration rates for the City of Oxnard were developed in the *Wastewater Collection System Master Plan* dated August 2002. The corresponding infiltration rates fro this project have been incorporated into the Estimated Wastewater Generation see Table 1.

4.0 Conclusion

The peak and average sewage flows generated from this development are 92 gpm (0.21 cfs) and 40,559 gpd (0.06 cfs), respectively. These are identified on Table 1. The development peak and average flow amounts are greater than the existing flow from the site.

APPENDIX A

TABLE 1
Courtyard at Mandalay Bay
Estimated Wastewater Generation

Description	Land Use	Dwelling Units [1] (du)	Gross Density [2] (du/ac)	Gross Acres	Demand Factor [3]	Average Flow		Peak Flow [4]		
						(gpd)	(gpm)	(cfs)	(gpm)	(cfs)
Unit Infiltration	Residential	121	17.8	6.8	307 gpd/du	37,159	26	0.06	86	0.19
						3400	1.2	0.0027	7.0	0.016
Total		121	-	6.8	-	40,559	28	0.06	92	0.21
		du	-	ac	-	gpd	gpm	cfs	gpm	cfs

Abbreviations: du = dwelling unit, gpd = gallon per day, ac = acre, gpm = gallon per minute, cfs = cubic feet per second
 Infiltration 500 gal/d in-mi based on Wastewater Collection System Master Plan August 2002

[1] Dwelling units based on data received from KTYG Group.

[2] Density factor based on data received from KTYG Group.

[3] Demand Factors based upon City of Oxnard Public Works Department General Requirements - Sewer.

[4] Peak Flow = 2.0 x (Average Flow, cfs)^{0.822}, per City of Oxnard Public Works Department General Requirements - Sewer.

[5] Existing Flow = 1500 gpd/ac x 6.8 ac = 10,200, per City of Oxnard Public Works Department General Requirements - Sewer.

SEWAGE GENERATION FACTOR AND LAND USE

BASED ON CURRENT PLANNING DESIGNATION

SYMBOL	LAND USE DESCRIPTION	ASSUMED UNIT/ AC.	FLOW RATE		
			GPM / AC.	GPD / AC.	GPD/ UNIT
R1	SINGLE FAMILY RESIDENTIAL	4.0	0.853	1,228.32	307.1
R2	DUPLEX (MULTI FAMILY RESIDENTIAL)	11.2	1.751	2,521.44	225.2
R3	GARDEN APTS. (TRI & QUADPLEX)	20.0	3.143	4,525.92	226.3
R4	HIGH RISE RESIDENTIAL	38.3	6.000	8,640.00	225.6
RPD	RESIDENTIAL PLANNED DEVELOPMENT	11.2	1.751	2,521.44	225.2
MHP	MOBIL HOME PARK	4.0	----	612.00	153.0
		ASSUMED T.S.F./AC.			GPD/ T.S.F.
C0	COMMERCIAL OFFICE	10.0	2.083	3,000.00	300.0
C1	NEIGHBORHOOD COMMERCIAL	13.6	1.042	1,500.00	110.0
C2	GENERAL COMMERCIAL	19.8	1.042	1,500.00	76.0
C3	HEAVY COMMERCIAL	10.0	4.167	6,000.00	600.0
CB	CENTRAL BUSINESS DISTRICT	10.0	3.125	4,500.00	450.0
CPD	COMMERCIAL PLANNED DEVELOPMENT	11.0	2.083	3,000.00	300.0
TP	TRAILER PARK	13.0	1.391	2,003.00	153.0
M1	LIGHT MANUFACTURING	11.75	2.244	3,232.00	275.0
M2	HEAVY MANUFACTURING	19.38	2.065	2,974.00	153.5
M3	HEAVY MANUFACTURING AND GROUP HOUSING	19.38	2.065	2,974.00	153.5
MPD	MANUFACTURING PLANNED DEVELOPMENT	19.38	2.065	2,974.00	153.5
CR	COMMUNITY RESERVE	---	0.449	646.60	----
A0	AGRICULTURAL - OIL DRILLING	---	0.449	646.60	----

REV. APPR. BY DATE

 <p>CITY OF Xnard</p>	GENERAL REQUIREMENTS - SEWER		STANDARD PLAN
	DRAWN: SOHER CKD. <i>Jay Patel</i>	APPR. BY <i>Benjamin J. Wong</i>	PLATE 44 SHEET 1 OF 1
Public Works Department			

Substandard slopes below the minimum slopes listed in table -1 may be used in order to avoid pumping only upon specific approval of the City Engineer . Such approval should be solicited well in advance of completion of design.

41

DESIGN CRITERIA

41-1

AVERAGE SEWAGE FLOW RATES

The average flow rate shall be determined by the developer's Engineer based on good engineering practice . Sewage flows shall be determined from the potential land use of the tributary area. Average sewage flow rates were developed for various land use and anticipated population density and given in term of G.P.M./Acre The currently accepted values are given in Table on Plate 44. These flow rates should be used for new development and determining effects of future land use per general plan. Acreage in table is gross acreage including roads , yards, parking , etc. For estimating the sewage flows for specific land use the flow rate value given in Table on Plate 43.

41-2

PEAK SEWAGE FLOW RATES

The rates between peak flow to average flow shall be determined by using following information

41-2.1

For average flow up to 1 C.F.S.
 $(\text{Peak flow , c.f.s.}) = 2.0 \times (\text{Average flow , c.f.s.})^{0.822}$

41-2.2

For average flow greater than 1 C.F.S.
 $\text{Peaking factor} = 2.0 \times (\text{Average flow, c.f.s.})^{-0.1}$
 The graphical representation of above equations is given on plate 45 . This should be used in designing sewer system in the City of Oxnard.

REV. APPR. BY DATE



CITY OF

Oxnard

GENERAL REQUIREMENTS - SEWER

DRAWN:

CKD. *Jay Patel*

APPR. BY

Benjamin Wong

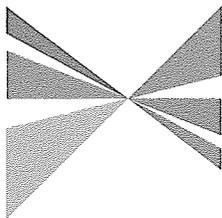
Public Works Department

STANDARD PLAN

PLATE 42

SHEET OF

ATTACHMENT E
Letters Received on IS/MND



ASSOCIATION OF GOVERNMENTS

Main Office

818 West Seventh Street
12th Floor
Los Angeles, California
90017-3435

t (213) 236-1800

f (213) 236-1825

www.scag.ca.gov

Officers: President: Gary Ovitt, San Bernardino County
First Vice President: Richard Dixon, Lake Forest
Second Vice President: Harry Baldwin, San Gabriel
Immediate Past President: Yvonne B. Burke, Los Angeles County

Imperial County: Victor Carrillo, Imperial County • Jon Toney, El Centro

Los Angeles County: Yvonne B. Burke, Los Angeles County • Zev Yaroslavsky, Los Angeles County • Richard Alarcón, Los Angeles • Jim Aldinger, Manhattan Beach • Harry Baldwin, San Gabriel • Tony Cardenas, Los Angeles • Stan Carroll, La Habra Heights • Margaret Clark, Rosemead • Gene Daniels, Paramount • Judy Dunlap, Inglewood • Rae Gabelich, Long Beach • David Gafin, Downey • Eric Garcetti, Los Angeles • Wendy Greuel, Los Angeles • Frank Gurulé, Cudahy • Janice Hahn, Los Angeles • Isadore Hall, Compton • Keith W. Hanks, Azusa • José Huizar, Los Angeles • Jim Jeffra, Lancaster • Tom LaBonge, Los Angeles • Paula Lantz, Pomona • Barbara Messina, Alhambra • Larry Nelson, Artesia • Paul Nowalka, Torrance • Pam O'Connor, Santa Monica • Bernard Parks, Los Angeles • Jan Perry, Los Angeles • Ed Reyes, Los Angeles • Bill Rosendahl, Los Angeles • Greg Smith, Los Angeles • Tom Sykes, Walnut • Mike Ten, South Pasadena • Tonia Reyes Uranga, Long Beach • Antonio Villaraigosa, Los Angeles • Dennis Washburn, Calabasas • Jack Weiss, Los Angeles • Herb J. Wesson, Jr., Los Angeles • Dennis Zine, Los Angeles

Orange County: Chris Norby, Orange County • Christine Bames, La Palma • John Beauman, Brea • Lou Bone, Tustin • Debbie Cook, Huntington Beach • Leslie Daigle, Newport Beach • Richard Dixon, Lake Forest • Troy Edgar, Los Alamitos • Paul Glaab, Laguna Niguel • Robert Hernandez, Anaheim • Sharon Quirk, Fullerton

Riverside County: Jeff Stone, Riverside County • Thomas Buckley, Lake Elsinore • Bonnie Flickinger, Moreno Valley • Ron Loveridge, Riverside • Greg Pettis, Cathedral City • Ron Roberts, Temecula

San Bernardino County: Gary Ovitt, San Bernardino County • Lawrence Dale, Barstow • Paul Eaton, Montclair • Lee Ann Garcia, Grand Terrace • Tim Jasper, Town of Apple Valley • Larry McCallon, Highland • Deborah Robertson, Rialto • Alan Wapner, Ontario

Ventura County: Linda Parks, Ventura County • Glen Becerra, Simi Valley • Carl Morehouse, San Buenaventura • Toni Young, Port Huene

Tribal Government Representative: Andrew Masiel, Sr., Pechanga Band of Luiseno Indians

Orange County Transportation Authority: Art Brown, Buena Park

Riverside County Transportation Commission: Robin Lowe, Hemet

San Bernardino Associated Governments: Paul Leon

Ventura County Transportation Commission: Keith Millhouse, Moorpark

RECEIVED

DEC 12 2007

**PLANNING DIVISION
CITY OF OXNARD**

December 7, 2007

Ms. Kathleen Mallory
Project Planner
City of Oxnard, Planning Division
305 W. Third Street
Oxnard, CA 93030

RE: SCAG Clearinghouse No. I 20070686 PZ 06-620-05; PZ 06-570-09; PZ 06-300-12; and PZ 06-500-14

Dear Ms. Mallory:

Thank you for submitting the **PZ 06-620-05; PZ 06-570-09; PZ 06-300-12; and PZ 06-500-14** for review and comment. As areawide clearinghouse for regionally significant projects, SCAG reviews the consistency of local plans, projects and programs with regional plans. This activity is based on SCAG's responsibilities as a regional planning organization pursuant to state and federal laws and regulations. Guidance provided by these reviews is intended to assist local agencies and project sponsors to take actions that contribute to the attainment of regional goals and policies.

We have reviewed the **PZ 06-620-05; PZ 06-570-09; PZ 06-300-12; and PZ 06-500-14**, and have determined that the proposed Project is not regionally significant per SCAG Intergovernmental Review (IGR) Criteria and California Environmental Quality Act (CEQA) Guidelines (Section 15206). Therefore, the proposed Project does not warrant comments at this time. Should there be a change in the scope of the proposed Project, we would appreciate the opportunity to review and comment at that time.

A description of the proposed Project was published in SCAG's **November 1-30, 2007** Intergovernmental Review Clearinghouse Report for public review and comment.

The project title and SCAG Clearinghouse number should be used in all correspondence with SCAG concerning this Project. Correspondence should be sent to the attention of the Clearinghouse Coordinator. If you have any questions, please contact me at (213) 236-1857. Thank you.

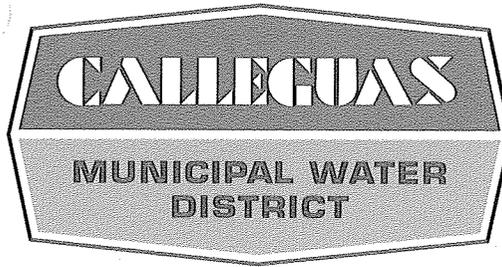
Sincerely,

**LAVERNE JONES, Planning Technician
Program Development and Evaluation Division**

Doc #142251

Ted Grandsen
President - Division 1
William R. Seaver
Vice President - Division 5
Donald G. Hauser
Secretary - Division 3
Jeffrey A. Borenstein
Treasurer - Division 2
Gail L. Pringle
Director - Division 4

Donald R. Kendall, Ph.D., P.E.
General Manager



2100 Olsen Road
Thousand Oaks
California 91360-6800

(805) 526-9323
Fax (805) 522-5730

Web site: www.calleguas.com

RECEIVED

DEC 31 2007

PLANNING DIVISION
CITY OF OXNARD

May 18, 2007

Kathleen Mallory, AICP
Planning and Environmental Services
City of Oxnard
305 West Third Street
Oxnard, CA 93030

Re: MND 07-07

Dear Ms Mallory:

Thank you for sending Calleguas Municipal Water District the Notice of Intend to Adopt a Mitigated Negative Declaration for MND 07-07. The purpose of this letter is simply to confirm that the property that is the subject of the Initial Study and MND, APN 187-0-060-105 and APN 187-0-060-195 is within the present boundaries of Calleguas and that annexation to Calleguas is therefore not a concern.

Thank you for keeping Calleguas in mind. You are always welcome to call with any questions regarding annexation at 805 579-7129.

Sincerely yours,

A handwritten signature in cursive script that reads "Cy Johnson".

Cy Johnson
Development Programs Administrator

cc: Robert Hearne

V/Hemlock

Post-it® Fax Note	7671	Date	12/4	# of pages	3
To	Anthony D	From	K. Mallow		
Co./Dept.		Co.	K. Mallow		
Phone #	Review Period	Phone #	11/9 - 11/29, 07		
Fax #	818-223-8290	Fax #			

November 18, 2007

Ms. Sus
Plannin
305 Wes
Oxnard CA 93000

Re: NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION
MND NO. 07-07

Dear Ms. Martin,

I am writing on behalf of the 53 owners of the Whalers Village I Home Owners Association. Our association has 24 units that are located adjacent to the Channel Islands Shopping Center on the east. We would like to express our support of the proposal to rezone the Channel Islands Shopping Center and gas service station from commercial to residential. Our community has had to accommodate this blight for several years and is elated at the possibility of this development. We have reviewed the subject documentation and have the following concerns:

- **SPECIAL USE PERMITS (SUP).** The SUPs listed in MND NO. 07-07 are of great concern. It appears that the investor/developer is prepared to squeeze as many units as possible in this project without regard to the quality of life for the prospective owners/tenants of this development along with the neighboring community. Overall, the developer is requesting SPUs to build on the green areas of the development. Our association objects to the approval of all, but the last SPUs listed in the MND NO. 07-07. Our reasoning is simple, besides the natural beauty of green areas, these areas in a community allow a place for children to play; places for people to relax outdoors; and place to walk pets. Obviously if this is not provided for our prospective new neighbors, it will spill over into the existing community. Also of note, with all of the new developments in this area (Seabridge Development, the Cottages, and others), we are not aware of any plans for additional parks or recreation areas.
- **FUMIGATION OF VERMIN.** MND NO. 07-07 does not address fumigation of vermin and the removal of the remains prior to demolition. We have previously expressed this concern to Tucker Investment Group and were assured that this would take place. We believe that this should be included in the documentation. The main store of the shopping center has been vacant for several years and more than likely if not infested with vermin, has several unwanted tenants that will be glad to scamper our way once the structures are demolished.

- **DUST ABATEMENT.** MND NO. 07-07 does address dust abatement, but this will not change the fact that we will be subject to additional dust and dirt. Our association had our structures painted over this past summer. We have put our painting project on hold over the past few years, waiting for something to happen with the shopping center. We had to move ahead since the painting project was overdue and we didn't see a near end in site for the shopping center. We would like the investor and/or builder to be responsible to have our structures power washed at the end of this project.

Thank you for the opportunity to express our concerns.

Sincerely,



Terri A. Stalcup

President

Whalers Village I

Home Owners Association

**JENIFFIER KERR
1911 Fisher Drive
Oxnard, CA 93035
805-985-6119**

November 13, 2007

**City of Oxnard
Planning Division
305 West Third Street
Oxnard, CA 93030**

Attn: Kathleen Mallory, Project Planner

**Re: General Plan Amendment PZ 06-620-05 et. al.
Demolition of existing development, site remediation, and future construction of
116 for sale residential condominium units located on the northeast corner of
South Victoria Avenue and Hemlock Street**

Ms. Mallory,

**I own and reside in a condo on Fisher Drive in the Whalers Village 1 Condos. These
condos are located directly behind the development sited for demolition etc. I have a
great concern regarding the demolition of the current structures. They are run
down and in the 4-1/2 years that I have resided there have never had any major care.
My concern is that before demolition there should be some type of rodent control
measures. Once those buildings are torn down it is the neighbors that are going to
have to deal with whatever infestation that those empty building contain. I know
that most of my neighbors that I have spoken to have the same concern as I do. Is
there any way that we can be assured that rodent and bug control of some type will
be done "BEFORE" the demolition takes place?**

Thank You for your concern.


Jeniffer Kerr

TO: Mrs. Susan Martin

FM: Mrs. Leri Stalcup
1911 D Fisher Drive
Oxnard CA 93035

805-385-7417

JENIFFER KERR
1911 Fisher Drive
#C
Oxnard, CA 93035
805-985-6119

FAX

To: Kathleen Mallory, Project Manager	From: Jeniffier Kerr
Fax: 805-385-7417	Pages: 2
Phone: 805-385-7858	Date: 13 November 2007
Re: Notice of Intent to adopt a mitigated negative Declaration MND NO. 07-07	cc:

Comments:

Please see attached letter.

Anthony = this is not what I have ever seen before. This is the only comment letter. I'll call you later today or tomorrow.
Kathleen

Post-it® Fax Note 7671

To	Anthony D	Date	12/4	# of pages	▶
Co./Dept.		From	K Mallory		
Phone #	Renew Denot	Co.			
Fax #	818-223-8299	Phone #	11/9 - 11/29, 07		
		Fax #			

VICTORIA AVENUE

HEMLOCK STREET

Chevron

Champs

Vacant 1830A
4,020 Sf

1830B
Scott
McInnes
480 sf

3761
West Marine
7,200 sf

3757 A
View to
Video
2,800 sf

3753
sf

3753A
BBQ
1,200
sf

3751
(Old
Frame
Shop)
1,600
sf

3749
Oxnard
Police
1,600
sf

3747
Pacific
Scuba
1,600
sf

3745
Yvonne
Sattiw
ite
675 sf

3743 Old
Irish Sea
Bar &
Grill
2,125 sf

3741
Church
of
Christ

3735
Uniquely
Thai
6,800 sf

Parking

3701 Old
Grocery Store
20,155 sf

3705 Old
Liquor
Store
3,150 sf

3711 Old
Video
Store
675 sf

3719
Vacant
686 sf

3721
Alamar
Dry
Cleaners
1,847 sf

3723
Laundrom
at
1,847 sf

3725
Channel
Island
Liquor
1,540 sf

3725A
(Old
Flower
Shop)
980 sf

ATTACHMENT F
RBF Update Letter May 7, 2008



May 7, 2008

JN 10-105626

City of Oxnard Planning Commission
CITY OF OXNARD
300 West 3rd Street
Oxnard, CA 93030

Subject: Proposed Victoria/Hemlock Condominium Project - Traffic

Dear Planning Commission:

In March 2007, RBF Consulting (RBF) analyzed the proposed Victoria/Hemlock condominium project to determine whether it would generate more trips, the same trips, or less trips than the shopping center currently occupying the project site. At the time RBF analyzed the proposed project, it consisted of 121 condominium dwelling units. The results of the analysis indicated the proposed project would generate less trips than the project site is currently generating as a shopping center.

Hence, the proposed condominium project, which would displace the existing shopping center on the project site, is expected to cause a reduction of trips in the project area.

Accordingly, the City's environmental document for the proposed project has found the traffic impacts of the proposed condominium project to be considered less than significant, and therefore, no traffic mitigation measures are required since the proposed project is forecast to reduce trips in the project area.

It should be noted the proposed project has now been reduced from 121 condominium dwelling units to 116 condominium dwelling units, which would result in even less trip generation than assumed in the analysis. Hence, the findings contained in the traffic analysis are still appropriate; the proposed condominium project is expected to cause a reduction of trips in the project area since it displaces a higher trip generating land use on the project site.

While some cumulative projects pending at the time RBF prepared the analysis in March 2007 may potentially have changed, the findings of the analysis are still appropriate since the proposed project at buildout is forecast to result in the project site generating less trips as a residential condominium project than the project site is generating today as a shopping center.

Sincerely,

A handwritten signature in black ink, appearing to read 'Bob Matson', is written over a horizontal line.

Bob Matson
Vice President
RBF Consulting

PLANNING ■ DESIGN ■ CONSTRUCTION

14725 Alton Parkway, Irvine, CA 92618-2027 ■ P.O. Box 57057, Irvine, CA 92619-7057 ■ 949.472.3505 ■ Fax 949.472.8373

Offices located throughout California, Arizona & Nevada ■ www.RBF.com

printed on recycled paper

ATTACHMENT G
Special Use Permit Resolution

RESOLUTION NO. 2008 – [PZ 06-500-14]

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF OXNARD APPROVING PLANNING AND ZONING PERMIT NO. 06-500-14 (SPECIAL USE PERMIT FOR A PLANNED RESIDENTIAL GROUP), TO ALLOW THE CONSTRUCTION OF 116 FOR SALE RESIDENTIAL CONDOMINIUM UNITS, LOCATED ON THE NORTHEAST CORNER OF SOUTH VICTORIA AVENUE AND HEMLOCK STREET (APNs 187-0-060-105 AND 187-0-060-095), SUBJECT TO CERTAIN FINDINGS AND CONDITIONS. FILED BY COURTYARD AT MANDALAY BAY, LLC., 5010 PARKWAY CALABASAS, SUITE 105, CALABASAS, CA 91302.

WHEREAS, the Planning Commission of the City of Oxnard has considered an application for Planning and Zoning Permit No. 06-500-14, filed by Courtyard at Mandalay Bay, LLC., in accordance with Section 16-530 through 16-553 of the Oxnard City Code; and

WHEREAS, in accordance with the California Environmental Quality Act, the Planning Manager provided public notice of the intent of the City to adopt a mitigated negative declaration for this project, and the Planning Commission considered the proposed mitigated negative declaration, together with any comments received during the public review process, finds on the basis of the whole record before it (including the initial study and any comments received) that with the imposition of mitigation measures as conditions of approval, there is no substantial evidence that the project will have a significant effect on the environment, further finds that the mitigated negative declaration reflects the independent judgment of the City, and adopts the mitigated negative declaration; and

WHEREAS, the documents and other materials that constitute the record of proceedings upon which the decision to adopt the mitigated negative declaration is based is located in the Planning and Environmental Services Division of the City of Oxnard, and the custodian of the record is the Planning and Environmental Services Manager; and

WHEREAS, the Planning Commission finds, after due study, deliberation and public hearing, that the following circumstances exist:

1. The proposed use is in conformance with the General Plan and other adopted policies of the City of Oxnard as amended by PZ 06-620-05.
2. The proposed use will not adversely affect or be materially detrimental to the adjacent uses, buildings or structures or to the public health, safety or general welfare.
3. The site for the proposed use is adequate in size and shape to accommodate the setbacks, parking, landscaping, and other City standards as amended by this approval.

4. The site for the proposed use will be served by streets and highways adequate in width and structure to carry the kind and quantity of traffic such use will generate.
5. The site for the proposed use will be provided with adequate sewerage, water, fire protection and storm drainage facilities.

WHEREAS, the applicant has requested a special use permit for a planned residential group for modifications to the front and rear yard setbacks; interior yard space and building separation requirements; placement of balconies and patios; parking area design; and building heights.

WHEREAS, the Planning Commission considered the request for a planned residential group and for administrative relief for such modification to the requirements of the City Code, and finds after due study, deliberation and public hearing, that the following circumstances exist and approves the modifications:

1. A substantial improvement and redevelopment of the use of the land will be thereby effected, and there will not be any detrimental effect upon the surrounding area.
2. The residential use proposed is permitted within the zone, as amended..
3. Building shall take place substantially in conformance with plot plans and elevations submitted in support of the special use permit.
4. The applicant has demonstrated that population densities proposed are in conformance with existing and proposed public facilities such as streets, sewers, water, schools and parks.

WHEREAS, the Planning Commission finds that the applicant agrees with the necessity of and accepts all elements, requirements, and conditions of this resolution as being a reasonable manner of preserving, protecting, providing for, and fostering the health, safety, and welfare of the citizenry in general and the persons who work, visit or live in this development in particular.

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission of the City of Oxnard hereby approves this permit subject to the following conditions. The decision of the Planning Commission is final unless appealed in accordance with the provisions of Section 16-545 of the Oxnard City Code.

Revised April 16, 2008

**STANDARD CONDITIONS OF APPROVAL
FOR LAND USE PERMITS**

Note: The abbreviations below identify the City department or division responsible for determining compliance with these standard conditions. The first department or division listed has responsibility for compliance at plan check, the second during inspection and

the third at final inspection, prior to issuance of a certificate of occupancy, or at a later date, as specified in the condition. If more than one department or division is listed, the first will check the plans or inspect the project before the second confirms compliance with the condition. The italicized code at the end of each condition provides internal information on the source of each condition: Some are standard permit conditions (e.g. *G-1*) while some are taken from environmental documents (e.g. *MND-S2*).

DEPARTMENTS AND DIVISIONS			
CA	City Attorney	PL	Planning Division
DS	Dev Services/Eng Dev/Inspectors	TR	Traffic Division
PD	Police Department	B	Building Plan Checker
SC	Source Control	FD	Fire Department
PK	Public Works, Landscape Design	CE	Code Compliance

GENERAL PROJECT CONDITIONS

1. This permit is granted for the property described in the application on file with the Planning Division, and may not be transferred from one property to another. (PL, *G-1*).
2. This permit is granted for the plans dated September 2007, (“the plans”) on file with the Planning Division. The project shall conform to the plans, except as otherwise specified in these conditions, or unless a minor modification to the plans is approved by the Planning and Environmental Services Manager (“Planning Manager”) or a major modification to the plans is approved by the Planning Commission. A minor modification may be granted for minimal changes or increases in the extent of use or size of structures or of the design, materials or colors of structures or masonry walls. A major modification shall be required for substantial changes or increases in such items. (PL, *G-2*)
3. This permit shall automatically become null and void 24 months from the date of its issuance, unless Developer has diligently developed the proposed project, as shown by the issuance of a grading, foundation, or building permit and the construction of substantial improvements, or the beginning of the proposed use. (PL, *G-3*)
4. All required off-site and on-site improvements for the project, including structures, paving, and landscaping, shall be completed prior to occupancy unless the Development Services Manager allows Developer to provide security or an executed agreement approved by the City Attorney to ensure completion of such improvements. (DS, *G-4*)
5. By commencing any activity related to the project or using any structure authorized by this permit, Developer accepts all of the conditions and obligations imposed by this permit and waives any challenge to the validity of the conditions and obligations stated therein. (CA, *G-5*)
6. Developer agrees, as a condition of adoption of this resolution, at Developer’s own expense, to indemnify, defend and hold harmless the City and its agents, officers and employees from and

against any claim, action or proceeding to attack, review, set aside, void or annul the approval of the resolution or any condition attached thereto or any proceedings, acts or determinations taken, done or made prior to the approval of such resolution that were part of the approval process. Developer's commencement of construction or operations pursuant to the resolution shall be deemed to be an acceptance of all conditions thereof. (CA, G-6)

7. Any covenants, conditions, and restrictions (CC&Rs) applicable to the project property shall be consistent with the terms of this permit and the City Code. If there is a conflict between the CC&Rs and the City Code or this permit, the City Code or this permit shall prevail. (CA, G-7)
8. Developer shall complete the "Notice of Land Use Restrictions and Conditions" form, using the form provided by the City, for recording with the Ventura County Recorder. Before the City issues building permits, Developer shall submit the original completed, signed and notarized document, together with the required fees to the Planning Manager. (PL, G-8)
9. Developer shall provide off-street parking for the project, including the number of spaces, stall size, paving, striping, location, and access, as required by the City Code. (PL/B, G-9)
10. Before placing or constructing any signs on the project property, Developer shall obtain a sign permit from the City. Except as provided in the sign permit, Developer may not change any signs on the project property. (PL/B, G-10)
11. Developer shall obtain a building permit for any new construction or modifications to structures, including interior modifications, authorized by this permit. (B, G-11)
12. Developer shall not permit any combustible refuse or other flammable materials to be burned on the project property. (FD, G-12)
13. Developer shall not permit any materials classified as flammable, combustible, radioactive, carcinogenic or otherwise potentially hazardous to human health to be handled, stored or used on the project property, except as provided in a permit issued by the Fire Chief. (FD, G-13)
14. If Developer, owner or tenant fails to comply with any of the conditions of this permit, the Developer, owner or tenant shall be subject to a civil fine pursuant to the City Code. (CA, G-14)
15. Prior to issuance of building permits, Developer shall correct all violations of the City Code existing on the project property. (PL, G-15).

LANDSCAPE STANDARD CONDITIONS

16. Before submitting landscape and irrigation plans, Developer shall obtain approval of the Parks and Facilities Superintendent or designee ("Superintendent") of a plan showing on the project property all existing trees and identifying the trees to be saved, transplanted or removed. (PK, PK-1)

17. Before the City issues building permits or the proposed use is initiated, Developer shall submit two copies of landscape and irrigation plans, along with the appropriate permit application and fees, to the Development Services Division and obtain approval of such plans. (PK/DS, *PK-2*)
18. Before the City issues a certificate of occupancy, Developer shall install landscape and automatic irrigation systems that have been approved by Parks and Facilities Superintendent. (PK, *PK-3*)
19. Developer shall maintain landscape planting and all irrigation systems as required by the City Code and as specified by this permit. Failure of Developer to do so will result in the revocation of this permit and initiation of legal proceedings against Developer. (PK, *PK-4*)
20. Before the City issues a certificate of occupancy, Developer shall provide a watering schedule to the building owner or manager and to the Parks and Facilities Superintendent. The irrigation system shall include automatic rain shut-off devices, or instructions on how to override the irrigation system during rainy periods. (PK, *PK-5*)
21. All trees planted or placed on the project property by Developer shall be at least 24-inch-box size. All shrubs and vines shall be at least five-gallon size, except as otherwise specified by this permit. (PK, *PK-6*)
22. Within sixty days after a house is occupied, Developer shall install front yard and street side yard landscaping for that house. Developer shall provide proof of financial responsibility approved by the City Attorney to ensure faithful performance of this condition within the specified time. (PK/ PL, *PK-10*)
23. Developer shall submit four sets of median and parkway landscape and irrigation plans with the first submittal of public improvement plans. The City shall approve median and parkway landscape and irrigation plans when the City approves public improvement plans. Before the City issues a building permit, the irrigation plans must be approved for proper meter size, backflow prevention device, and cross connection control by the Water Production Supervisor or designee. (DS/ PK, *PK-14*)
24. Before the City accepts medians and parkways from Developer, the landscaping thereon must complete a plant establishment period of 90 days or such other time as specified in this permit. (PK/DS, *PK-15*)
25. Developer agrees that the project has aesthetic impacts arising from conversion of undeveloped land to developed land, which the landscaping improvements for the project are intended to mitigate. Developer further agrees that the landscaping improvements must be maintained in order to continue to mitigate such impacts. In order to provide for such maintenance, Developer has agreed to enter into an agreement with the City to cast a ballot in favor of formation of an assessment district to fund such maintenance and in favor of assessments on

the project property. In the event that such an assessment district is not formed, Developer agrees to establish a homeowners' association for the project as directed by the City, to fund such maintenance. Before or during escrow for the sale of property within the project, Developer shall provide each buyer with a document disclosing, in large type, that the project property is subject to annual assessments for landscape maintenance, and stating the probable range of dollar amounts of such assessments for the next fiscal year. To confirm that the buyer has read the document, Developer shall require the buyer to sign the document. Developer shall retain all such documents for at least three years and shall allow the City to inspect and copy all such documents upon reasonable request. (PK, *PK-18*)

26. Developer shall provide to the Parks and Facilities Superintendent ("Superintendent") a landscape maintenance district master plan drawn at an approved scale, clearly designating areas of maintenance responsibility assumed by: (a) a landscape maintenance district; (b) a homeowners association; and/or (c) the City. After Superintendent approves such plan, Developer shall provide to Superintendent a mylar (minimum 3 mil) original drawing of the maintenance district master plan. (PK, *PK-19*)
27. Within sixty days of approval of the project, Developer shall provide the Parks and Facilities Superintendent with a complete, detailed landscape maintenance district master plan for all phases of the project and shall deposit \$13,700 to pay for staff time, attorney time and the engineer's report necessary to prepare all documents and hold hearings to form an assessment district and impose an assessment formula and assessments on property within the project to pay the costs of maintaining the landscaping in the district. (PK, *PK-20*)
28. Developer shall provide to the Parks and Facilities Superintendent a copy of the document entitled "Agreement" containing Developer's agreement to vote in favor of a landscape maintenance assessment district for the project, bearing the Ventura County Recorder's stamp, confirming that the document has been recorded in the Ventura County Recorder's Office. (PK, *PK-21*)
29. Developer shall install an irrigation system that includes a water sensor shut off device as a water conservation measure. (PK, *PK-22*)

PARKS SPECIAL CONDITIONS:

30. Developer shall pay Quimby Fees (fees for park Acquisition and Improvement) before issuance of building permits. The amount of the fee shall be determined by the Planning Division at the time of payment (B, PL-45).
31. All Street trees shall be 36" box size.
32. As a result of an Arborist's report, the appraisal value of \$109,499 in trees/plants to be removed shall augment the new tree sizes for the project and shall be in addition to meeting the City's minimum tree size of 24" box.

33. The Landscape Plans shall include a Tabulation Chart that clearly shows the trees to remain, be removed or to be transplanted; and a listing of the appraisal value of each tree to be removed. The Tabulation Chart shall demonstrate clearly demonstrate how the value of the trees removed was put back into new tree sizes for the project that is addition to meeting the City's minimum tree size of 24" box.
34. Developer shall join the existing Landscape Maintenance District and contribute its proportionate share for the maintenance of the landscape in the medians on Victoria Avenue fronting the project. Contact Joel Galaviz, Landscape Maintenance Assessment District Supervisor, at 805-385-8245.
35. Street trees for Victoria shall be Magnolia grandiflora or Metrosideros excelsus , at maximum of 40' O.C. spacing and 36" box size.
36. Street trees for Hemlock shall be Magnolia grandiflora, at maximum of 40' O.C. spacing and 36" box size.
37. The proposed landscaped medians on Hemlock, fronting the project, will require a new Landscape Maintenance Assessment District to be formed by the developer.
38. The landscape trees for the Hemlock medians will feature Syagrus romanzoffianum, 10' foot brown trunk at 30' O.C. spacing.
39. Plant 5 gallon vines on pilasters as a graffiti deterrent.
40. Do not use Jacaranda or Lagerstromia trees this close to the ocean. Substitute a different tree specie.
41. Provide a section detail of the landscape planter area between the garages; provide information on type of plant material to be planted in this area.
42. No water meter boxes or other utilities are to occur in the landscape planter areas between garages.
43. The landscape planter along the north perimeter property line shall contain a dense screen tree row as well as shrubs and or vines to cover the full height of the wall.

FIRE DEPARTMENT STANDARD CONDITIONS

44. Developer shall construct all vehicle access driveways on the project property to be at least 26 feet wide. Developer shall mark curbs adjacent to designated fire lanes in parking lots to prohibit stopping and parking in the fire lanes. Developer shall mark all designated fire lanes in accordance with the California Vehicle Code. (FD/B, F-1)

45. All roof covering materials on the project property shall be of non-combustible or fire retardant materials approved by the Fire Chief and in compliance with the City Code. (FD, *F-2*)
46. Before the City issues building permits, Developer shall obtain the Fire Chief's approval of a plan to ensure fire equipment access and the availability of water for fire combat operations to all areas of the project property. The Fire Chief shall determine whether or not the plan provides adequate fire protection. (FD/DS, *F-3*)
47. At Developer's expense, Developer shall obtain two certified fire flow tests for the project property. The first test shall be completed before City approval of building plans and the second shall be completed after construction and prior to the issuance of a certificate of occupancy. A mechanical, civil, or fire protection engineer must certify the tests. Developer shall obtain permits for the tests from the Engineering Division. Developer shall send the results of the tests to the Fire Chief and the City Engineer. (FD/DS, *F-4*)
48. All structures on the project property shall conform to the minimum standards prescribed in Title 19 of the California Code of Regulations. (FD, *F-5*)
49. The project shall meet the minimum requirements of the "Fire Protection Planning Guide" published by the Fire Department. (FD, *F-6*)
50. At all times during construction, developer shall maintain paved surfaces capable of handling loads of 46,000 pounds which will provide access for fire fighting apparatus to all parts of the project property. (FD/DS, *F-7*)
51. Developer shall identify all hydrants, standpipes and other fire protection equipment on the project property as required by the Fire Chief. (FD, *F-8*)
52. Developer shall provide central station monitoring of the fire sprinkler system and all control valves. (FD, *F-10*)
53. The turning radius of all project property driveways and turnaround areas used for emergency access shall be a minimum of 48 feet outside diameter for a semi-trailer. (FD, *F-11*)
54. Developer shall provide automatic fire sprinklers as required by the City Code and shall contact the Fire Chief to ascertain the location of all connections. (FD, *F-12*)
55. Developer shall install a carbon monoxide detector on each level of the residence in accordance with the manufacturer's specifications. The detector shall be hardwired with a battery backup. (FD, *F-17*)

FIRE DEPARTMENT SPECIAL CONDITIONS

56. Fire sprinkler coverage is required for:
 - a. Patios, overhangs or any other projections that are 48" or more from the structure.

- b. Open areas beneath stairs that serve a habitable space or when that area is accessible for storage or has mechanical equipment.
 - c. The protection of the forced air unit when located in the attic or other areas that are normally inaccessible.
57. Emergency egress/Fire Department access windows or doors that serve any room that can be utilized for sleeping, shall have access to a public right-of-way without re-entering the structure.
58. Before the City issues a certificate of occupancy, the Developer shall install a Knox Box key vault at a location on the building to be determined by the Fire Department.

POLICE DEPARTMENT SPECIAL CONDITONS

59. Monuments or marquees indicating building numbers or maps of the complex are required at main public entrances.
60. Post all vehicle entrances in compliance with California Vehicle Code §22658(a)(1). Persons in lawful possession of the property may then cause the removal of a vehicle parked on the property to the nearest public garage if parked without the owner's permission.
61. Any electronic security system must comply with Oxnard City Ordinance No. 2601 (available online at <http://oxnardpd.org/documents/alarm-ordinance-2002.pdf>) and must be properly permitted by the City of Oxnard (available online at <http://oxnardpd.org/documents/alarm-permit.pdf>).
62. If a video surveillance system is being installed at this property, please comply with "Oxnard Police Department Proposed Standards, Guidelines & Recommendations Closed-Circuit Television (CCTV) Surveillance Systems," available online at <http://www.oxnardpd.org/documents/opdcctv.pdf>.
63. Exterior lighting in common areas shall be on photocells and shall be on during all hours of darkness.
64. Metal halide lamps or those that provide quality color rendition are required.
65. Developer shall submit and the Police Chief or designee shall approve a lighting plan prior to the issuance of a building permit. The lighting plan shall include a photometric study that integrates the site's approved landscaping plan (if any). The integrated photometric/landscaping plan will indicate the specific location and canopy size of fully mature trees thereby highlighting potential landscape/lighting conflicts in the future.
66. **OUTDOOR LIGHTING CODE & GUIDELINE:**
- (a) Outdoor lighting shall comply with Title 24, Part 6, of the California Code of Regulations: California's Energy Efficiency Standards for Residential and Nonresidential Buildings.
 - (b) Unless approved as a specific exception to this guideline, all outdoor lighting shall be flat

lens, full cut-off fixtures with the light source fully shielded with the following exceptions:

1. Luminaires with a maximum output of 260 lumens per fixture, regardless of number of bulbs (equal to one 20-watt incandescent light), may be left unshielded provided the fixture has an opaque top to keep light from shining directly up.
2. Luminaires that have a maximum output of 1,000 lumens per fixture, regardless of number of bulbs (equal to one 60-watt incandescent light) may be partially shielded provided the bulb is not visible, and the fixture has an opaque top to keep light from shining directly up.

- (c) Oxnard City Code 16-320:
Lighting within physical limits of the area required to be lighted shall not exceed seven foot-candles, nor be less than one foot-candle at any point. A light source shall not shine upon, or illuminate directly any surface other than the area required to be lighted. No lighting shall be of a type or in a location that constitutes a hazard to vehicular traffic, either on private property or on abutting streets. The height of light standards shall not exceed 26 feet. To prevent damage from automobiles, standards in parking areas shall be mounted on reinforced concrete pedestals or otherwise protected.

PLANNING DIVISION STANDARD CONDITIONS

67. The final building plans submitted by Developer with the building permit application shall depict on the building elevation sheets all building materials and colors to be used in construction. (PL/B, *PL-1*)
68. Any application for a minor modification to the project shall be accompanied by four copies of plans reflecting the requested modification, together with applicable processing fees. (PL, *PL-2*)
69. Before the City issues building permits, Developer shall include a reproduction of all conditions of this permit as adopted by resolution of the Planning Commission and/or the City Council in all sets of construction documents and specifications for the project. (PL, *PL-3*)
70. Before the City issues building permits, Developer shall provide to the Planning Division Manager color photographic reductions (8 1/2" by 11") of full-size colored elevations and any other colored exhibit approved by the Planning Commission. Developer may retain the full-size colored elevations after the reductions are so provided. (PL, *PL-4*)
71. Developer acknowledges that because of population limitations placed on the City by the Air Quality Management Program, approval of this permit does not guarantee that the City will issue building permits. The City's issuance of building permits may be delayed as a result of implementation of an air quality plan. (PL, *PL-5*)
72. Developer may not modify any use approved by this permit unless the Planning Division Manager determines that Developer has provided the parking required by the City Code for the modified use. (PL, *PL-7*)

73. During the plan check review process, the Developer shall provide a lighting plan that provides design details (light standards, bollards, wall mounted packs, etc.) and illumination site information within alleyways, pathways, streetscapes, and open spaces proposed throughout the development. An electrical engineer shall prepare the site lighting plan demonstrating that adequate lighting ranges will be provided throughout the development without creating light spillover, light pollution, or conflicts with surrounding factors such as tree locations, off-site or adjacent lighting. (PL)
74. Prior to issuance of building permits, Developer shall demonstrate that light standards illustrated on conceptual lighting plan do not conflict with tree locations. Developer shall submit a plan showing both the lighting and landscape on the same sheet.
75. Project on-site lighting shall be of a type and in a location that does not constitute a hazard to vehicular traffic, either on private property or on adjoining streets. To prevent damage from vehicles, standards in parking areas shall be mounted on reinforced concrete pedestals or otherwise protected. Developer shall recess or conceal under-canopy lighting elements so as not to be directly visible from a public street. Developer shall submit a lighting plan showing standard heights and light materials for design review and approval of the Planning Division Manager. (PL/B, *PL-8*)
76. In order to minimize light and glare on the project property, all parking lot and exterior structure light fixtures shall be high cut-off type that divert lighting downward onto the property and shall not cast light on any adjacent property or roadway. (PL, *PL-9*)
77. Developer shall provide graphic site directories at principal access walkway points. (PL/B, *PL-10*)
78. Developer agrees to participate in a water conservation program that includes refitting water fixtures existing on the project property with water conserving devices within residences or businesses in the City's water service area, if such a program is in effect when building permits are issued for this project. Among the requirements of such a program might be refitting existing toilets, faucets, shower heads, landscaping irrigation or other fixtures and items that consume water within the structure. (PL, *PL-14*)
79. Because of water limitations placed upon the City by its water providers, approval of this permit does not guarantee that the City will issue building permits. Issuance of building permits may be delayed as a result of implementation of a water conservation or allocation plan. (PL, *PL-15*)
80. Prior to issuance of building permits, Developer shall pay a document imaging fee for the planning files in an amount calculated by planning staff at the time of building permit review based on fees then in effect. (PL/B, *PL-16*).
81. Developer shall install all roof and building rain gutters and downspouts to integrate as closely as possible with building design elements, including matching adjacent building colors as

- closely as possible. Developer shall submit a plan and scheme for approval by the Planning Division Manager prior to issuance of building permits. (PL, *PL-18*)
82. Developer shall provide utility meters, mailboxes and address directories, placed in decorative cabinets and clustered for efficient access for residents and service persons. Developer shall coordinate placement and design of such items accordingly, with the Planning Division Manager, the appropriate utility service provider and the United States Postal Service, prior to issuance of building permits. (PL, *PL-19*)
 83. Developer shall provide automatic garage door openers for all garages. (PL/B, *PL-20*)
 84. Railings and enclosures for patios and balconies shall provide at least 50 percent enclosure for screening and privacy. Developer shall include details of the railings and enclosures on the construction documents. (PL/B, *PL-24*)
 85. Walls separating the patio areas of different units shall be of solid construction, such as masonry, stucco, or wood over wood. Ground level patios shall be enclosed by walls not less than five feet high, except as otherwise approved by this permit. (PL/B, *PL-25*)
 86. All residential dwelling unit developments shall include architectural articulation on all four sides of each unit. Such articulation shall include, but not be limited to, window treatment; trim and a variety of finishes matching front facades; and balconies, porches, and trellises. Developer shall submit elevations depicting such articulation to the Planning Division for approval prior to issuance of building permits. (PL, *PL-28*)
 87. Prior to the close of escrow for each dwelling unit, Developer shall provide the buyer with a written guarantee that the exterior finishes of the dwelling unit will remain in good condition for at least five (5) years from the final building permit inspection and sign off. Developer shall provide a copy of the guarantee to Planning staff prior to final Planning Division inspection and sign off. (PL, *PL-29*)
 88. Light standards illuminating interior walkways shall be no more than eight feet high. Light shall not intrude into private living or patio areas. Light standards serving recreational areas held in common shall be no more than 15 feet high. Light shall be directed away from dwelling units. (B, *PL-30*)
 89. Developer shall establish a homeowners association and the association shall be responsible for the maintenance of parking, landscape, recreation and other interior areas held in common by the association and for the enforcement of Conditions Covenants & Restrictions related to property maintenance. (PL/DS, *PL-33*)
 90. Developer shall construct each dwelling unit with separate utility systems and meters. Developer shall paint utility meter panels to match structures upon which it is located. Such panels shall be located to take advantage of screening (e.g. landscaping or other building elements) from public right-of-ways, to the maximum extent feasible. (DS/B, *PL-34*)

91. Developer shall include in all deeds for the project and in the Conditions Covenants & Restrictions a prohibition against parking recreational vehicles over 20 feet long in the project. (CE/PL, *PL-35*)
92. Developer shall pay Quimby Fees (fees for park acquisition and improvement) before issuance of building permits. The amount of the fee shall be calculated by the Planning Division, and verified by the Parks Division at the time of payment. (PK/B, *PL-36*)
93. In accordance with City Council Ordinance No. 2615, or the ordinance in effect at the time building permits are issued, Developer shall pay the current **in-lieu affordable housing** fees, to be calculated at the time of building permit issuance. (PL, *PL-37*)
94. Developer shall post in the sales office of the project the latest City planning documents and maps that may affect the project and adjacent properties. At a minimum, this information shall include the 2020 Oxnard General Plan and General Plan Land Use Map showing all adjacent properties, a copy of the ordinances regulating the zone, and any specific plan that may apply to the project. Such documents may be purchased at cost from the Planning Division Manager. Developer shall require that all purchasers sign an affidavit declaring that they have familiarized themselves with the planning documents. Developer shall make such affidavits and planning information available for review upon reasonable request of the Planning Division Manager. (PL, *PL-38*)
95. Where feasible, Developer shall locate individual unit plumbing within individual unit walls, as opposed to common or shared walls, and shall paint roof vents to match the roofing material. (PL/B, *PL-40*)
96. Prior to issuance of a demolition permit for the shopping center, Developer shall submit a vermin eradication program for review and approval by the Planning Department. This plan should include measures to ensure that vermin do not negatively impact adjacent residential uses.
97. Should the existing northerly masonry wall be damaged during construction of the project, the Developer shall be responsible for repairing the wall and obtaining all necessary permits for such repair.

PLANNING DIVISION SPECIAL CONDITIONS

Air Quality:

98. The Developer shall ensure that all construction equipment is maintained and tuned to meet applicable Environmental Protection Agency (EPA) and California Air Resources Board (CARB) emission requirements. At such time as new emission control devices or operational

- modifications are found to be effective, the Developer shall immediately implement such devices or operational modifications on all construction equipment.
99. At all times during demolition and construction activities, the Developer shall minimize the area disturbed by clearing, grading, earth moving, or excavation operations to prevent excessive amounts of dust.
 100. During construction and on non-construction days (including Sundays) during periods of high wind, the Developer shall water the area to be graded or excavated prior to commencement of grading or excavation operations. Such application of water shall penetrate sufficiently to minimize fugitive dust during grading activities.
 101. During construction, the Developer shall control dust by the following activities:
 - All trucks hauling graded or excavated material offsite shall be required to cover their loads as required by California Vehicle Code §23114, with special attention to Sections 23114(b)(F), (e)(2) and (e)(4) as amended, regarding the prevention of such material spilling onto public streets and roads.
 - All graded and excavated material, exposed soils areas, and active portions of the construction site, including unpaved onsite roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, and/or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible.
 102. During construction, the Developer shall post and maintain onsite signs, in highly visible areas, restricting all vehicular traffic to 15 miles per hour or less.
 103. During periods of high winds (i.e. wind speed sufficient to cause fugitive dust to impact adjacent properties), Developer shall cease all clearing, grading, earth moving, and excavation operations to prevent fugitive dust from being a nuisance or creating a hazard, either onsite or offsite.
 104. Throughout construction, the Developer shall sweep adjacent streets and roads at least once per day, preferably at the end of the day, so that any visible soil material and debris from the construction site is removed from the adjacent roadways.
 105. Prior to grading permit approval, the Developer shall include on the grading plans a reproduction of all conditions of this permit pertaining to dust control requirements.

Cultural Resources:

106. Developer shall contract with a qualified archaeologist to conduct a Phase I cultural resources survey of the project site prior to issuance of any grading permits. The survey shall include: (1) an archaeological and historical records search through the California Historical Resources Information System at CalState Fullerton; and (2) a field inspection of the project site. Upon completion, the Phase I survey report shall be submitted to the Planning Division for compliance verification. A copy of the contract for these services shall be submitted to the Planning Division Manager for review and approval prior to initiation of the Phase I activities.

The contract shall include provisions in case any cultural resources are discovered onsite. In the event that any historic or prehistoric cultural resources are discovered, work in the vicinity of the find shall be halted immediately. The archaeologist shall evaluate the discovery and determine the necessary mitigations for successful compliance with all applicable regulations. Developer or its successor in interest shall be responsible for paying all salaries, fees and the cost of any future mitigation resulting from the survey.

107. Developer shall contract with a Native American monitor to be present during all subsurface grading, trenching or construction activities on the project site. The monitor shall provide a weekly report to the Planning Division summarizing the activities during the reporting period. A copy of the contract for these services shall be submitted to the Planning Division Manager for review and approval prior to issuance of any grading permits. The monitoring report(s) shall be provided to the Planning Division prior to approval of final building permit signature.

Hazards and Hazardous Materials:

108. Dry Cleaner Portion of the Property. Following termination of the lease for the dry cleaning business and the removal of all the dry cleaning equipment, a health risk assessment shall be conducted for the drycleaner site to determine if the levels of contaminants remaining beneath the drycleaner site could adversely affect future residential occupants of the site. The health risk assessment would consider the possibility of volatilization of chemicals in soil and groundwater to indoor and outdoor air. Following the completion of the health risk assessment, if unacceptable health risks are found to be present given the proposed development plan, engineering controls would be implemented to mitigate health risks to acceptable levels. The report and controlled shall be reviewed and approved by VCEHD or agency designated by VCEHD.
109. Service Station Portion of the Property. Upon termination of the gasoline station's lease, all fuel storage and dispensing equipment shall be removed and the site remediated to an acceptable residential standard under the standard protocols of VCEHD. This may include additional subsurface sampling to define the levels and location of residual contamination that remain after removal of onsite equipment. Following completion of the assessment phase, a remedial action phase would be conducted if needed. This may include remedial actions such as soil removal, soil vapor extraction, air sparging, or ground water pump and treatment. All remedial actions shall be performed by qualified professionals licensed to perform such activities and under the standard protocols of VCEHD. If upon completion of the remedial action phase, residual levels of contamination remain in place, an updated health risk assessment shall be prepared to demonstrate that is suitable for residential use. The health risk assessment shall consider the possibility of volatilization of chemicals from soil and groundwater to indoor and outdoor air. Following the completion of the health risk assessment, if unacceptable health risks are found to be present on this portion of the property given the proposed development plans, engineering controls will be required to be implemented to mitigate the health risks to acceptable levels. A common and effective engineering control is to install a sub slab vapor barrier beneath onsite structures that are located over contaminated soil or contaminated groundwater. It is anticipated that this

component of the project would occur as the final phase of the development and that other phases of development on other portions of the property may occur in advance of site remediation on this portion of the property. The City shall not issue the building permits for this final phase of development on this portion of the property until such time that the site has either been remediated to within acceptable residential use standards or an effective soil vapor engineering control (such as an impermeable barrier) is approved by VCEHD.

110. All category I/Class non-Friable ACMs shall be removed prior to initiation of demolition activities onsite and VCAPCD shall be notified prior to initiation of demolition activities. All asbestos removal shall be performed by an experienced, State-licensed and Cal/OSHA registered asbestos contractor under the guidance of an independent, California Certified Asbestos Consultant. The Consultant shall be responsible for designing engineering controls used to control airborne asbestos contamination, visual inspections of engineering controls, and ambient air monitoring to determine airborne fiber levels. In addition, the Developer is responsible for transmitting information concerning the location, condition, and quantity of known asbestos-containing materials to those that may come into contact with the materials, including contract employees and/or tenants.

Hydrology and Water Quality:

111. Prior to issuance of a site construction permit, the applicant shall submit a drainage report to the City for review and approval. The report shall address changes in runoff patterns produced by construction of the project. The drainage report shall be prepared and signed by a California Registered Civil Engineer.
112. The Developer shall submit a SWPPP to verify compliance with NPDES requirements prior to issuance of a building permit.
113. Prior to issuance of a grading permit, the applicant shall obtain all necessary permits in order to install an underground drainage pipe equivalent to the flow capacity of the existing drainage. The design of said improvement shall be subject to review and approval by the Development Services Department.

Noise:

114. Construction times shall be limited to 7 a.m. to 7 p.m. Monday through Saturday in accordance with City Ordinances restricting construction times at the time of construction, whichever is more restrictive.
115. All deliveries of construction material and equipment will occur on-site within the construction barricades and only during the hours of 7 am and 7 pm on Monday through Saturday. The queuing of construction vehicles outside the site before 7 am or after 7 pm will be strictly prohibited unless specifically approved by the City of Oxnard. Vehicles delivering materials and equipment to the site shall be operated in strict conformance with regulations established by the United States Department of Transportation and all State and Local requirements. The

vehicles shall all utilize mufflers and other devices to minimize noise levels. All materials and equipment will be stored on-site and within the confines of the construction barricades.

116. Truck traffic related to the construction will be limited to the routes specified by the City of Oxnard and agreed upon during the contractor's detailed noise mitigation plan. Truck traffic through residential neighborhoods shall be as limited as possible.
117. All construction related workers will be required to park on-site (i.e. behind the construction barricades or in designated off-site parking area outside of the entire residential area surrounding the site. Workers will also be required to remain in designated on-site areas during all breaks and workers will not be permitted to gather off-site during the course of proposed demolition and construction.
118. During construction activities, except as otherwise required by law, all vehicle horns shall remain silent except in the case of emergency.
119. Catering trucks providing service to construction workers at the site will be required to park within the site at all times. Catering trucks shall not be permitted to park on the street nor to sound their horns near or within the site.
120. Construction workers shall not be permitted to loiter any gate, on the jobsite or any street, whether before, during or after work hours, on weekdays or on weekends.
121. Developers shall setup staging areas on-site to minimize off-site transportation of heavy construction equipment.
122. Construction equipment shall be fitted with modern sound-reduction equipment.
123. During construction of the project, the Developer shall post a sign in a visible location facing public access ways providing the telephone number and name of the job site superintendent in order to allow adjacent residents to lodge any noise complaints.
124. During all excavation and grading on site, the project contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.

Public Services:

125. Prior to issuance of a building permit, Developer shall pay the required school impact fees in order to mitigate school impacts.
126. Prior to issuance of building permits, Developer shall pay the required Quimby impact fees in order to mitigate the effects of these additional demands.

127. Prior to issuance of a building permit, Developer shall pay the following development fees: Planned Traffic Circulation System Facilities Fees (Traffic Impact); Planned Water Facilities Fee; Planned Wastewater Facilities Fee; Planned Drainage Facilities Fee; and Growth Requirement Capital Fee.
128. Developer shall remove any and all graffiti from the project premises, including but not limited to graffiti within the building, such as in restrooms or fitting rooms, within 24 hours of its appearance. The surface of such affected areas shall be matched to blend in with the underlying colors and/or design, and shall not look like a paint patch. (PL)
129. Before the City issues building permits, Developer shall provide a Graffiti Deterrent Plan, subject to the approval the Planning Division Manager. Such plan shall include such elements as clear film on windows and/or mirrors, as well as washable paint and sealers on the building and perimeter walls. (PL)
130. An approved tentative map shall expire thirty-six (36) months after its approval, unless an extension is applied for and approved by the City Council pursuant to Section 15-46 of the City Code. (PL)
131. Developer shall develop the site with the street names, as approved by the Street Naming Committee. (PL)
132. This permit is granted subject to the City's approval of a tentative map and final map and recordation of the final map. The City shall issue building permits only after such recordation, unless otherwise approved by both the Planning Division Manager and the Development Services Manager. Before occupying any structures or initiating any use approved by this permit, Developer shall comply with all conditions of the tentative and final map. (PL/DS)
133. This permit is granted subject to the approval of a zone change for the project property. (PL)
134. This permit is granted subject to the approval of a general plan amendment for the project property. (PL)
135. General condition (for all new construction and additions, except additions to a single family residence):
 - a. Developer shall participate in the City's Art in Public Places Program by paying the Public Art fee prior to issuance of building permits, in accordance with City Council Resolution No. 13,103.
136. Throughout construction, Developer shall sweep adjacent streets and roads at least once per day, preferably at the end of the day, so that any visible soil material and debris from the construction site is removed from the adjacent roadways. (MND, C-8)
137. Prior to grading permit approval, Developer shall include on the grading plans a reproduction of all conditions of this permit pertaining to dust control requirements. (PL)

ENVIRONMENTAL RESOURCES DIVISION

138. To ensure that solid waste generated by the project is diverted from the landfill and reduced, reused or recycled, Developer shall complete and submit a “City of Oxnard C&D Environmental Resources Management & Recycling Plan” (“Plan”) to the City for review and approval. The Plan shall provide that at least 50% of the waste generated on the project be diverted from the landfill. The Plan shall include the entire project area, even if tenants are pursuing or will pursue independent programs. The Plan shall be submitted to and approved by the Environmental Resources Division prior to issuance of a building permit. The Plan shall include the following information: material type to be recycled, reused, salvaged or disposed; estimated quantities to be processed; management method used; destination of material including the hauler name and facility location. Developer shall use the Plan form.
139. Developer shall follow the approved “City of Oxnard C&D Environmental Resources Management & Recycling Plan” and provide for the collection, recycling, and/or reuse of materials (i.e., concrete, wood, metal, cardboard, green waste, etc.) and document results during construction and/or demolition of the proposed project. After completion of demolition and/or construction, Developer shall complete and submit the “City of Oxnard C&D Environmental Resources Management & Recycling Report For Work Completed” (“Work Completed Report”) and provide legible copies of weight tickets, receipts, or invoices for materials sent to disposal or reuse/recycling facilities. For other discarded or salvaged materials, Developer shall provide documentation, on the disposal facility’s letterhead, identifying where the materials were taken, type of materials, and tons or cubic yards disposed, recycled or reused, and the project generating the discarded materials. Developer shall submit and obtain approval of the Work Completed Report prior to issuance of a certificate of occupancy.
140. Developer shall arrange for materials collection during construction, demolition, and occupancy with the City's Environmental Resources Division or Developer shall arrange for self-hauling to an authorized facility.
141. Covenants, conditions and restrictions (“CC&Rs”) shall be developed for the project that require the homeowner’s association to make provisions to divert at least 50% of the material through source reduction, recycling, reuse, and/or green waste programs. Developer shall submit a “City of Oxnard C&D Environmental Resources Management & Recycling Occupancy Plan” (“Occupancy Plan”) to the City’s Environmental Resources Division. An Occupancy Plan must be submitted and approved prior to issuance of a final inspection. The CC&Rs shall require the homeowner’s association to submit to the Environmental Resources Division a “City of Oxnard C&D Environmental Resources Management & Recycling Occupancy Report” annually on the anniversary date of the certificate of the final inspection for approval.
142. Developer shall dispose of sewage and solid waste from the project by City’s wastewater and solid waste systems in a manner approved by the City Engineer.

PASSED AND ADOPTED by the Planning Commission of the City of Oxnard on this 5th day of
JUNE, 2008, by the following vote:

AYES: Commissioners

NOES: Commissioners

ABSENT: Commissioners

Michael Sanchez, Chairman

ATTEST:

Susan L. Martin, Secretary

ATTACHMENT H
Tentative Tract Map Resolution

RESOLUTION NO. 2008-[06-300-12]

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF OXNARD RECOMMENDING APPROVAL OF A TENTATIVE MAP (PLANNING AND ZONING PERMIT NO. 06-300-12), FOR THE CONSTRUCTION OF 116 FOR SALE RESIDENTIAL CONDOMINIUM UNITS, LOCATED ON THE NORTHEAST CORNER OF SOUTH VICTORIA AVENUE AND HEMLOCK STREET (APNs 187-0-060-105 AND 187-0-060-095, SUBJECT TO CERTAIN FINDINGS AND CONDITIONS. FILED BY COURTYARD AT MANDALAY BAY, LLC., 5010 PARKWAY CALABASAS, SUITE 105, CALABASAS, CA 91302.

WHEREAS, the Planning Commission of the City of Oxnard has considered the tentative tract map (Planning and Zoning Permit No.06-300-12), filed by Courtyard at Mandalay Bay, LLC., in accordance with Section 16-530 through 16-553 of the Oxnard City Code; and

WHEREAS, said tract map was referred to various public utility companies, City departments and the Development Advisory Committee for recommendations; and

WHEREAS, the Planning Commission finds the tract map conforms to the City's General Plan and elements thereof as amended by Planning and Zoning permit number PZ 06-620-05; and

WHEREAS, in accordance with the California Environmental Quality Act, the Planning and Environmental Services Manager provided public notice of the intent of the City to adopt a mitigated negative declaration for this project, and the Planning Commission has considered the proposed mitigated negative declaration before making its recommendation herein; and

WHEREAS, the Planning Commission finds that the applicant agrees with the necessity of and accepts all elements, requirements, and conditions of this resolution as being a reasonable manner of preserving, protecting, providing for, and fostering the health, safety, and welfare of the citizenry in general and the persons who work, visit or live in this subdivision in particular.

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission of the City of Oxnard hereby recommends to the City Council the approval of the tentative subdivision map, subject to the following conditions:

**STANDARD CONDITIONS OF APPROVAL
 FOR LAND USE PERMITS**

Note: The abbreviations below identify the City department or division responsible for determining compliance with these standard conditions. The first department or division listed has responsibility for compliance at plan check, the second during inspection and the third at final inspection, prior to issuance of a certificate of occupancy, or at a later date, as specified in the condition. If more than one department or division is listed, the first will check the plans or inspect the project before the second confirms compliance with the condition. The italicized code at the end of each condition provides internal information on the source of each condition: Some are standard permit conditions (e.g. *G-1*) while some are taken from environmental documents (e.g. *MND-S2*).

DEPARTMENTS AND DIVISIONS			
CA	City Attorney	PL	Planning Division
DS	Dev Services/Eng Dev/Inspectors	TR	Traffic Division
PD	Police Department	B	Building Plan Checker
SC	Source Control	FD	Fire Department
PK	Public Works, Landscape Design	CE	Code Compliance

DEVELOPMENT SERVICES DIVISION STANDARD CONDITIONS

1. Developer shall pay plan check and processing fees in effect at the time of construction plan submittal and shall pay development fees, encroachment permit fees, and other applicable fees in effect at the time the City issues building permits. (DS-1)
2. Developer's Engineer shall design parking lot structural sections based on an analysis of the soils R-value and a traffic index (T.I.) approved by the City Engineer. The minimum structural section for parking lots is two inches of asphalt on four inches of base material. Developer shall show the proposed structural section on the site improvement plans. (DS-2)
3. Developer shall have the site improvement plans prepared on standard Development Services Division mylars by a civil engineer licensed in the State of California. The plans shall incorporate recommendations from soil engineering and geology reports. Prior to issuance of a grading permit, improvement plans must be approved by the City Engineer and the original ink-on-mylar plans filed with the Development Services Division. (DS-3)
4. Developer shall submit improvement plans and drainage calculations that demonstrate that storm drainage from the project property and all upstream areas will be safely conveyed to an approved drainage facility. The design and conveyance route shall be compatible with

- the City's Master Plan of Drainage and shall be approved by the City Engineer prior to approval of improvement plans. (DS-4)
5. Developer shall protect building pads from inundation during a 100-year storm. (DS-5)
 6. Developer shall remove and replace all improvements that are damaged during construction. (DS-6)
 7. Each structure shall be served by separate sewer and water services. There shall be no interconnections between structures. (DS-7)
 8. Curb cut widths and design shall conform to City ordinances, standards, and policies in effect at the time City issues an encroachment permit. (DS-9)
 9. If the existing sewer lateral is larger than four inches in diameter, Developer's site improvement plans shall include an on-site sewer plan. (DS-10)
 10. Where a separate loop or terminal line is required for water mains, fire hydrants or fire sprinkler systems, Developer's site improvement plans shall include an on-site water plan. (DS-11)
 11. Developer shall install on-site and off-site utility services underground in accordance with City ordinances in effect at the time City issues the building permit. Services shall be installed underground to the nearest suitable riser pole as determined by the appropriate utility service provider. (DS-12)
 12. Developer shall enter into an agreement, approved as to form by the City Attorney, to install and construct all public improvements required by this permit and by the City Code and shall post security satisfactory to the Finance Director, guaranteeing the installation and construction of all required improvements within the time period specified in the agreement or any approved time extension. (DS-14)
 13. A civil engineer licensed in the State of California shall prepare the public improvement plans and documents for this project in accordance with City standards and shall submit all such plans to the City Engineer. Such plans and documents shall include, but not be limited to, grading, street, drainage, sewer, water and other appurtenant improvement plans; a master utility plan showing the layout and location of all on-site and off-site utility improvements that serve the project; construction cost estimates, soils reports, and all pertinent engineering design calculations. City will not accept an application for the final map or parcel map for the project or issue a grading, site improvement or building permit until the City Engineer has approved all improvement plans. (DS-15)
 14. Developer shall process permanent master planned improvements that are eligible for reimbursement in accordance with City policies, resolutions, and ordinances in effect at the

time of recordation of the final map or parcel map or if there is no such map, then at the time of public improvement plan approval. (DS-17)

15. Developer agrees, as a condition of approval of this resolution, to indemnify, defend and hold harmless, at Developer's expense, City and its agents, officers and employees from and against any claim, action or proceeding commenced within the time period provided for in Government Code Section 66499.37, to attack, review, set aside, void or annul the approval of this resolution or to determine the reasonableness, legality or validity of any condition attached thereto. City shall promptly notify Developer of any such claim, action or proceeding of which City receives notice, and City will cooperate fully with Developer in the defense thereof. Developer shall reimburse City for any court costs and attorney's fees that City may be required to pay as a result of any such claim, action or proceeding. City may, in its sole discretion, participate in the defense of any such claim, action or proceeding, but such participation shall not relieve Developer of the obligations of this condition. Developer's acceptance of this resolution or commencement of construction or operations under this resolution shall be deemed to be acceptance of all conditions thereof. (DS-18)
16. Developer shall provide all necessary easements for streets, highways, alleys, sidewalks, breezeways, parkways, landscaping, utilities, drainage facilities, and other improvements as required by City. If such easements cannot be obtained from the property owner by negotiation, City may acquire them at the expense of Developer by exercise of the power of eminent domain. Developer shall bear all costs of eminent domain proceedings, including appraisal, acquisition, attorney's fees, and court costs. Before City issues a site improvement permit, Developer shall dedicate all required easements to City. (DS-19)
17. Developer shall remove graffiti from the project, including graffiti on offsite public infrastructure under construction by Developer, within 24 hours of its appearance. If Developer fails to remove graffiti in accordance with this condition, the City may at the discretion of the Development Services Manager issue a stop work order until such time as the graffiti is removed. (DS-20)
18. The conditions of this resolution shall prevail over all omissions, conflicting notations, specifications, dimensions, typical sections, and the like, that may or may not be shown on the improvement plans. (DS-21)
19. Developer shall pay the cost of all inspections of on-site and off-site improvements. (DS-22)
20. Developer shall be responsible for all project-related actions of Developer's employees, contractors, subcontractors, and agents until City accepts the improvements. (DS-23)
21. Prior to beginning construction, Developer shall designate in writing an authorized agent who shall have complete authority to represent and to act for Developer. The authorized agent shall be present at the work site whenever work is in progress. Developer or the

- authorized agent shall make arrangements acceptable to City for any emergency work. When City gives orders to the authorized agent to do work required for the convenience and safety of the general public because of inclement weather or any other cause, and the orders are not immediately acted upon by the authorized agent, City may do or have such work done by others at Developer's expense. (DS-24)
22. Prior to approval of the final map or parcel map, Developer shall provide the City Engineer with written evidence from the Ventura County Clerk's Office that Developer has executed and filed with the Clerk all certificates, statements and securities required by Government Code Sections 66492 and 66493. (DS-26)
 23. "Standard Specifications for Public Works Construction," latest edition, and any modifications thereto by City, and City of Oxnard Standard Land Development Specifications and all applicable City Standard Plans, shall be the project specifications, except as noted otherwise on the approved improvement plans. City reserves the right to upgrade, add to, or revise these specifications and plans and all other City ordinances, policies, and standards. If the improvements required of this project are not completed within 12 months from the date of City's approval of the improvement plans, Developer shall comply with and conform to any and all upgraded, additional or revised specifications, plans, ordinances, policies and standards. (DS-27)
 24. Developer shall retain a Civil Engineer licensed in the State of California to ensure that the construction work conforms to the approved improvement plans and specifications and to provide certified "as-built" plans after project completion. Developer's submittal of the certified "as-built" plans is a condition of City's final acceptance of the project. (DS-29)
 25. All grading shall conform to City's grading ordinance and any recommendations of Developer's soils engineer that have been approved by the City Engineer. Developer shall conform to all applicable notes specified on the site improvement/grading plan cover sheet and grading permit. (DS-30)
 26. In order to mitigate any potential flooding or erosion affecting adjacent properties and public rights-of-way, Developer shall construct required drainage facilities concurrently with the rough grading operations, or with prior approval of the City Engineer, provide interim drainage improvements on a temporary basis. (DS-31)
 27. Storm drain, sewer and water facilities shall conform to applicable City Master Plans. Developer shall prepare plans for these facilities in accordance with City's engineering design criteria in effect at the time of improvement plan submittal. Developer shall submit plans with pertinent engineering analyses and design calculations for review and approval by the City Engineer prior to issuance of a site improvement permit. (DS-34)
 28. Each lot shall drain into a street, alley, or approved drain so that there will be no undrained depressions. (DS-35)

29. Prior to issuance of a site improvement permit, Developer shall provide to the City Engineer easements or written consents from all affected landowners for any diversion of historical flows or change in drainage conditions caused by the project, as evidence that such landowners accept any additional water flowing over their property. (DS-36)
30. Developer shall dispose of sewage and solid waste from the project by City's wastewater and solid waste systems in a manner approved by the City Engineer. (DS-38)
31. By title sheet dedication at the time of filing the subdivision map, Developer shall dedicate all water rights for the project property to City. (DS-39)
32. Developer shall install water mains, fire hydrants and water services in conformance with City Standard Plans and specifications as directed by the City Engineer. (DS-41)
33. Developer shall install adequately sized water services and meters to each lot or unit in accordance with City standards in effect at the time City issues building permits. There shall be no interconnections between structures. (DS-42)
34. Prior to issuance of building permits, Developer shall present to the City Engineer a "Proof of Payment - Authorization for Building Permits" form issued by the Calleguas Municipal Water District. (DS-44)
35. Developer shall install City approved backflow prevention devices for water connections if so ordered by the City Engineer. (DS-45)
36. Prior to designing the water system for the project, Developer shall have a certified fire flow test performed to determine existing water pressure and flow characteristics. The water system shall be designed to allow for a 10 psi drop in the static water pressure measured during the fire flow test. After construction and before City issues a certificate of occupancy, the City Engineer may require a second test. Before performing the tests, Developer shall obtain permits from the City Engineer. Developer shall have all tests certified by a mechanical, civil, or fire protection engineer and provide written results of all tests to the City Engineer. (DS-47)
37. Street and road improvements shall conform to City standards and policies. Improvements shall include upgrading of existing pavement along the project frontage to City standards by removing and replacing or overlaying, as directed by the City Engineer. (DS-51)
38. Developer shall improve all streets, alleys, sidewalks, curbs, and gutters adjacent to the project in accordance with City standards, as necessary to provide safe vertical and horizontal transitions. (DS-52)
39. Developer shall provide soils reports, "R" value tests, and compaction tests for all streets. Determination of the actual structural sections shall be based on City's design procedure, applying the appropriate traffic index specified in City standards. (DS-53)

40. Developer shall install all water, gas, sewer, storm drain, electrical, cable television, and telephone lines before any paving is placed. (DS-54)
41. Prior to release of the final map or parcel map for recordation, Developer shall provide the City Engineer with a 100-scale base map for addressing purposes. The map shall be drawn on 18-inch by 24-inch mylar and shall show the standard address map title block, north arrow, street names, tract number, phase boundary and lot numbers. The City will assign all addresses. (DS-56)
42. Prior to release of the final map or parcel map for recordation, Developer shall post a bond or other security satisfactory to the City Attorney, guaranteeing that all monuments will be set as required by the Government Code and the City Code. (DS-57)
43. Developer shall submit a landscape irrigation plan prepared by a licensed professional, showing proper water meter size, backflow prevention devices, and cross-connection control. (DS-59)
44. As part of the master utility plans, Developer shall submit a street lighting plan. On City's approval of the plan, Developer shall install streetlights in accordance with the plan. (DS-60)
45. As a part of the site improvement plans, Developer shall submit a master utility plan that shows the relative location of all public and private utilities (including gas, electric, street lights, telephone and cable television lines) in accordance with City standard plans. (DS-61)
46. Developer shall be responsible for and bear the cost of replacement of all existing survey monumentation (e.g., property corners) disturbed or destroyed during construction, and shall file appropriate records with the Ventura County Surveyor's Office. (DS-64)
47. Developer shall provide adequate vehicle sight distance as specified by CalTrans specifications at all driveways and intersections. (TR-71)
48. Prior to issuance of a building permit, all traffic signal, pavement marking and sign plans shall be prepared by a registered California traffic engineer and approved by the City Engineer prior to issuance of a grading, site improvement or a building permit. (TR-74)
49. Prior to issuance of an encroachment permit, Developer's shall obtain City's approval of a contractor qualified to install traffic signals, pavement markings and signs. (TR-76)

STORMWATER QUALITY CONDITIONS

50. Developer shall comply with all National Pollutant Discharge Elimination System (NPDES) permit Best Management Practice (BMP) requirements in effect at the time of

grading or building permit issuance. Requirements shall include, but not be limited to, compliance with the Ventura Countywide Stormwater Quality Urban Impact Mitigation Plan (SQUIMP). (DS-78)

51. Developer shall design parking lot and other drive areas to minimize degradation of stormwater quality. Using Best Management Practices (BMPs), such as oil and water separators, sand filters, landscaped areas for infiltration, basins or approved equals, Developer shall intercept and effectively prevent pollutants from discharging to the storm drain system. The stormwater quality system design shall be approved by the City Engineer prior to the issuance of a site improvement permit. (DS-81)
52. Using forms provided by the Development Services Division, Developer shall submit a stormwater quality control measures maintenance program ("the Program") for this project. If the BMPs implemented with this project include proprietary products that require regular replacement and/or cleaning, Developer shall provide proof of a contract with an entity qualified to provide such periodic maintenance. The property owner is responsible for the long-term maintenance and operation of all BMPs included in the project design. Upon request by City, property owner shall provide written proof of ongoing BMP maintenance operations. No grading or building permit shall be issued until the Development Services Manager approves the Program and Developer provides an executed copy for recordation. (DS-82)
53. Developer shall clean on-site storm drains at least twice a year; once immediately before the first of October (the beginning of the rainy season) and once in January. The City Engineer may require additional cleaning. (DS-83)
54. Developer shall maintain parking lots free of litter and debris. Developer shall sweep sidewalks, drive aisles, and parking lots regularly to prevent the accumulation of litter and debris. When swept or cleaned, debris must be trapped and collected to prevent entry into the storm drain system. Developer may not discharge any cleaning agent into the storm drain system. (DS-84)
55. Prior to issuance of a certificate of occupancy, on-site storm drain inlets shall be labeled "Don't Dump - Drains to Ocean" in accordance with City standards. Before City issues a site improvement permit, the requirement to label storm drain inlets shall be shown on the civil engineering plans. (DS-85)
56. Prior to issuance of a grading permit or commencement of any clearing, grading or excavation, Developer shall provide the City Engineer with a copy of a letter from the California State Water Resources Control Board, Storm Water Permit Unit assigning a permit identification number to the Notice of Intent (NOI) submitted by Developer in accordance with the NPDES Construction General Permit. Developer shall comply with all additional requirements of the General Permit, including preparation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP shall identify potential pollutant sources that may affect the quality of discharges to stormwater and shall include the design and

placement of recommended Best Management Practices (BMPs) to effectively prohibit pollutants from the construction site entering the storm drain system. Developer shall keep the SWPPP updated to reflect current site conditions at all times and shall keep a copy of the SWPPP and the NOI on the site and make them available for City or designated representative to review upon request. (DS-86)

DEVELOPMENT SERVICES DIVISION SPECIAL CONDITIONS

57. Prior to issuance of a site improvement permit, Developer shall provide to the Development Services Division a compact Disc (CD) containing digital copies of the final subdivision map, address map, and civil improvements drawings in DWG format. Prior to improvement bond release, Developer shall provide an updated CD containing all changes that occur during construction. (DS-101)
58. Developer shall pay to the County of Ventura a road mitigation fee in accordance with the agreement between the City and the County of Ventura. Proof of payment shall be provided to the Development Services Division prior to issuance of a building permit. (DS-105)

Storm Water Quality Conditions:

59. Developer shall design the grass swale filter in accordance with the Technical Guidance Manual for Stormwater Quality Control Measures. Design calculations shall be included in the project drainage report. (DS)
60. Developer's engineer shall provide City with written confirmation that they have reviewed the landscape construction drawings within the NPDES grass swale filter areas and that the proposed landscaping conforms to SQUIMP standards for grass swale filters. (DS)
61. Developer shall provide a 6-inch minimum vertical drop between the flow line of the concrete gutter and the flow line of the filter swale at each location where stormwater enters the filter swale from pavement. The transition between gutter flow line and filter swale flow line shall be constructed similar to a concrete ribbon gutter. (DS)
62. Developer shall install a perforated under-drain below all grass-filter swales constructed with a longitudinal slope of less than 1%. Under-drain shall connect to a point of safe discharge as approved by the Development Services Manager. (DS)
63. Developer shall design proposed Porous Landscape Detention (T-8) area and Infiltration Trenches (T-10) in accordance with the Technical Guidance Manual for Stormwater Quality Control Measures. (DS)
64. Developer shall provide an analysis by a geotechnical engineer and landscape professionals to enhance the infiltration potential of both the Porous Landscape Detention and Grass-

- Filter Swale areas of the project. Recommendations should include, but not be limited to, soil enhancement, compaction limits, and plant materials. (DS)
65. Developer shall provide pre-treatment for all Infiltration Trenches to minimize the need for maintenance and reconstruction. Infiltration trenches shall be located entirely within private property. (DS)
 66. Developer shall minimize the land area flowing to the alley labeled as Newport Weigh in order to maximize area receiving stormwater treatment. (DS)
 67. Developer shall design project fine grading to convey stormwater to the street (or alley) via surface swales. No area drains shall be used within proposed residential lots. The Development Services Manager may approve the use of area drains in unusual circumstances where specific site conditions dictate that such drains are the only appropriate solution. (DS)
 68. Developer shall provide proof that the Homeowner's Association is responsible for ongoing periodic maintenance of stormwater quality control measures constructed with this project. Developer shall include a specific line item in the Homeowner's Association budget for this maintenance. (DS)

Stormdrain Conditions:

69. The onsite stormdrain system within private streets and alleys shall be privately owned and maintained. Developer shall provide proof that maintenance responsibility for these facilities is included in the property owner's CC&Rs. (DS)
70. Developer's engineer shall provide a drainage report that includes an analysis of the hydraulic grade line within the downstream storm drain system. (DS)
71. Developer shall redesign the storm drain conveyance system within Hemlock Street to eliminate construction of an additional (third) pipe. Design shall either utilize an existing pipe or shall remove and replace an existing pipe with a larger pipe. (DS)

Wastewater Conditions:

72. The onsite sewer system within private streets and alleys shall be privately owned and maintained. Developer shall provide proof that maintenance responsibility for these facilities is included in the property owner's CC&Rs. (DS)
73. Developer shall design sewer and water systems to maintain required separation in accordance with the Department of Health and City of Oxnard standards. (DS)

Water Conditions:

74. Developer shall provide onsite fire hydrants such that all points of all structures are within two hundred (200) feet of a fire hydrant, or as otherwise approved by the Fire Department. Fire hydrant line improvements shall be designed in accordance with City standards and shown on the civil engineer's improvement plans prior to issuance of a site improvement/grading permit. (DS)
75. Developer shall find an alternative location for the fire hydrant proposed in the northeast corner of the site in front of the trash enclosure. Alternative site shall be approved by the Fire Marshall and Development Services Manager. (DS)
76. Developer shall dedicate a waterline easement to the City over all portions of the domestic water distribution system (up to and including the water meters) within private streets, alleys or other private property. (DS)
77. Developer shall provide water meters with traffic rated boxes and lids in all locations where meters have a potential for vehicular traffic as determined by the Development Services Manager. (DS)
78. Developer shall install a water meter centered on a garage parking space for each condominium unit. Alternative locations acceptable to the Development Services Manager may be approved. (DS)
79. Developer's engineer shall provide detailed water system calculations and plans for the project. The required calculations and plans are subject to the approval of the Development Services Manager prior to the issuance of a site improvement/grading permit or recordation of a final map. (DS)

Street Conditions:

80. Hemlock Street has recently been resurfaced. All street cuts or other disturbances of the street surface will require repair in accordance with City Standard Plate 602 sheet 2 of 3. (DS)
81. Developer shall construct pedestrian street crossings that are not located at typical street intersections of colored enhanced concrete. The concrete color shall contrast with the asphalt to clearly identify pedestrian areas. (DS)
82. Developer shall reconstruct the existing driveway serving the alley labeled as Newport Weigh to provide a disabled compliant path along the Hemlock Street sidewalk. (DS)
83. Developer shall remove and replace (including a new 4-foot wide concrete ribbon gutter) the entire width and length of the alley labeled as Newport Weigh after installation of new

water and sewer lines. A plan and profile of the reconstruction shall be included as a part of the site improvement/grading plans. (DS)

84. Developer shall dedicate right-of-way on the final map that extends to the back of proposed sidewalk along both Hemlock Street and Victoria Avenue. (DS)
85. Developer shall construct enhanced paving at the project entries in accordance with the project landscape plans as approved by the Planning and Environmental Services Manager. (DS)
86. Developer's engineer shall provide a sight distance evaluation for the two trash enclosures proposed near intersections. Enclosure shall be relocated to provide compliance with established engineering standards. (DS)

Traffic Conditions:

87. Developer shall construct raised median improvements on Hemlock Street as indicated on the Engineering Site Plan sheet 2 of 2. Improvements shall include raised curb, irrigation, and landscaping improvements along with associated signing and striping improvements as directed by the Traffic Division. Construction documents shall be a part of the site improvement plans. Medians shall be planted with 24-inch high plantings as measured from the top of curb. Landscape and irrigation improvements shall be coordinated with the Parks Division. (TR)

Miscellaneous Conditions:

88. Developer shall construct a concrete apron along the length of the trash enclosure opening that extends to the nearby ribbon gutter where one is proposed or 15 feet from the face of the enclosure where no ribbon gutter is proposed. (DS)
89. Developer shall construct multi-bin trash enclosures (one bin per enclosure for recycle use) with a solid non-combustible roof (8-foot minimum clearance) that prevents stormwater from entering the refuse bins. Developer shall construct all other components of the trash enclosure in accordance with the approved City Standard Plan on file with the Development Services Division. Developer shall finish the trash enclosure to match the major design elements of the main structure. The finish and roof appearance shall be indicated on the building plans and are subject to approval by the Planning Division. The location and configuration of trash enclosures shall be reviewed and approved by the Environmental Resources Division. All refuse bins on the site shall be stored in an approved trash enclosure. No objects other than refuse bins may be stored in the trash enclosure without the written permission of the Environmental Resources Division. (DS)