APPENDICES

Appendix A - URBEMIS Air Quality Information

5/14/2008 8:00:27 AM

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name:

Project Name: Mt Eden Phase II

Project Location: Alameda County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	0.98	0.14	1.43	0.00	0.18	0.17	186.58

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	0.89	1.28	10.64	0.01	1.39	0.27	764.87

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	1.87	1.42	12.07	0.01	1.57	0.44	951.45

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.01	0.12	0.05	0.00	0.00	0.00	157.64
Hearth	0.31	0.02	1.15	0.00	0.18	0.17	28.59
Landscape	0.04	0.00	0.23	0.00	0.00	0.00	0.35
Consumer Products	0.48						
Architectural Coatings	0.14						
TOTALS (tons/year, unmitigated)	0.98	0.14	1.43	0.00	0.18	0.17	186.58

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	0.89	1.28	10.64	0.01	1.39	0.27	764.87
TOTALS (tons/year, unmitigated)	0.89	1.28	10.64	0.01	1.39	0.27	764.87

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2009 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	18.00	9.57	dwelling units	54.00	516.78	4,418.31
					516.78	4,418.31

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.4	1.7	97.9	0.4
Light Truck < 3750 lbs	12.4	2.4	95.2	2.4
Light Truck 3751-5750 lbs	19.7	1.0	98.5	0.5
Med Truck 5751-8500 lbs	6.3	0.0	98.4	1.6
Lite-Heavy Truck 8501-10,000 lbs	0.8	0.0	75.0	25.0
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	1.3	0.0	15.4	84.6
Heavy-Heavy Truck 33,001-60,000 lbs	0.8	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.9	72.4	27.6	0.0
School Bus	0.0	0.0	0.0	0.0
Motor Home	0.6	0.0	83.3	16.7

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name:

Project Name: Mt Eden Phase II

Project Location: Alameda County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	3.91	0.70	2.80	0.00	0.01	0.01	867.63

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	4.76	6.09	57.03	0.04	7.63	1.48	4,379.90

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	8.67	6.79	59.83	0.04	7.64	1.49	5,247.53

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.05	0.68	0.29	0.00	0.00	0.00	863.78
Hearth - No Summer Emissions							
Landscape	0.45	0.02	2.51	0.00	0.01	0.01	3.85
Consumer Products	2.64						
Architectural Coatings	0.77						
TOTALS (lbs/day, unmitigated)	3.91	0.70	2.80	0.00	0.01	0.01	867.63

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	4.76	6.09	57.03	0.04	7.63	1.48	4,379.90
TOTALS (lbs/day, unmitigated)	4.76	6.09	57.03	0.04	7.63	1.48	4,379.90

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2009 Temperature (F): 85 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	18.00	9.57	dwelling units	54.00	516.78	4,418.31
					516.78	4,418.31

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.4	1.7	97.9	0.4
Light Truck < 3750 lbs	12.4	2.4	95.2	2.4
Light Truck 3751-5750 lbs	19.7	1.0	98.5	0.5
Med Truck 5751-8500 lbs	6.3	0.0	98.4	1.6
Lite-Heavy Truck 8501-10,000 lbs	0.8	0.0	75.0	25.0
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	1.3	0.0	15.4	84.6
Heavy-Heavy Truck 33,001-60,000 lbs	0.8	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.9	72.4	27.6	0.0
School Bus	0.0	0.0	0.0	0.0
Motor Home	0.6	0.0	83.3	16.7

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name:

Project Name: Mt Eden Phase II

Project Location: Alameda County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	11.11	1.42	28.35	0.08	4.43	4.26	1,871.69

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	5.18	8.93	60.91	0.04	7.63	1.48	3,813.38

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	16.29	10.35	89.26	0.12	12.06	5.74	5,685.07

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.05	0.68	0.29	0.00	0.00	0.00	863.78
Hearth	7.65	0.74	28.06	0.08	4.43	4.26	1,007.91
Landscaping - No Winter Emissions							
Consumer Products	2.64						
Architectural Coatings	0.77						
TOTALS (lbs/day, unmitigated)	11.11	1.42	28.35	0.08	4.43	4.26	1,871.69

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	5.18	8.93	60.91	0.04	7.63	1.48	3,813.38
TOTALS (lbs/day, unmitigated)	5.18	8.93	60.91	0.04	7.63	1.48	3,813.38

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2009 Temperature (F): 40 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
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Lite-Heavy Truck 8501-10,000 lbs	0.8	0.0	75.0	25.0
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	1.3	0.0	15.4	84.6
Heavy-Heavy Truck 33,001-60,000 lbs	0.8	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.9	72.4	27.6	0.0
School Bus	0.0	0.0	0.0	0.0
Motor Home	0.6	0.0	83.3	16.7

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

APPENDIX B - BIOLOGICAL RESOURCES

TABLE B-1 - SPECIAL-STATUS PLANT SPECIES POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name Common Name	Status			Habitat Description[4]	Considered in Impact Analysis	Rationale
	Federal[1]	State[2]	CNPS[3]			
Plants						
Amsinckia lunaris Bent-flowered fiddleneck	~	~	1B	Annual herb in the *Boraginaceae* family. Found in coastal bluff scrub, cismontane woodland, Valley and foothill grassland. Blooms: March - June Elevation: 3 - 500 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA.
Anomobryum julaceum Slender silver-moss	~	~	2	Moss in the *Bryaceae* family. Found in broad-leafed upland forest, lower montane coniferous forest, North Coast coniferous forest, damp rock and soil on outcrops, usually on roadcuts. Infrequent in California but abundant in much of its range. Elevation: 100 – 1,000 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA. The PSA is outside the known range for this species.
Arctostaphylos auriculata Mt. Diablo manzanita	~	~	1B	Perennial evergreen shrub in the *Ericaceae* family. Found in chaparral (sandstone), cismontane woodland. Known from fewer than twenty occurrences. Blooms: January – March Elevation: 135 – 650 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA. The PSA is outside the known range for this species.
Arctostaphylos manzanita ssp. laevigata	~	~	1B	Perennial evergreen shrub. *Ericaceae* family. Found in chaparral (rocky). Blooms: January – March (April)	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles

Scientific Name **Common Name**	**Status**			**Habitat Description[4]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]	CNPS[3]			
Contra Costa manzanita				Elevation: 500 – 1,100 meters		of the PSA. The PSA is outside the known range for this species.
Arctostaphylos pallida Pallid manzanita	FT	SE	1B	Perennial evergreen shrub in the *Ericaceae* family. Found in broad-leafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub, siliceous shale, sandy or gravelly. Known from thirteen occurrences in the Contra Costa Hills of the Diablo Range. Blooms: December - March Elevation: 185 - 465 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA. The PSA is outside the known range for this species.
Astragalus tener var. tener Alkali milk-vetch	~	~	1B	Annual herb. Found in playas, Valley and foothill grassland (adobe clay), and vernal pools (alkaline). Blooms: March - June Elevation: 1 - 60 meters	No	Although there are two previously recorded occurrences within one miles of the PSA, and one additional occurrence within five miles of the PSA, suitable habitat is not present within the PSA. The PSA is highly urbanized and only ruderal habitat remains.
Atriplex joaquiniana San Joaquin spearscale	~	~	1B	Annual herb. Found in chenopod scrub, meadows and seeps, playas, Valley and foothill grassland in alkaline soils. Blooms: April – October Elevation: 1 – 835 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA.
Balsamorhiza macrolepis var. macrolepis	~	~	1B	Perennial herb in the *Asteraceae* family. Found in chaparral, cismontane woodland, Valley and foothill	No	Suitable habitat is not present within the PSA. There are three previously recorded

Scientific Name **Common Name**	**Status**			**Habitat Description[4]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]	CNPS[3]			
Big-scale balsamroot				grassland, sometimes in serpentinite. Blooms: March - June Elevation: 90 – 1,400 meters		occurrences within five miles of the PSA.
California macrophylla Round-leaved filaree	~	~	1B	Annual herb. Found in cismontane woodland, Valley and foothill grassland in clay soils. Blooms: March - May Elevation: 15 – 1,200 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA. The PSA is outside the known range for this species.
Calochortus pulchellus Mt. Diablo fairy-lantern	~	~	1B	Perennial bulbiferous herb in the *Liliaceae* family. Found in chaparral, cismontane woodland, riparian woodland, Valley and foothill grassland. Blooms: April - June Elevation: 30 - 840 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA. The PSA is outside the known range for this species.
Campanula exigua Chaparral harebell	~	~	1B	Annual herb in the *Campanulaceae* family. Found in chaparral (rocky, usually serpentinite). Blooms: May - June Elevation: 275 – 1,250 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA. The PSA is outside the known range for this species.
Centromadia parryi ssp. congdonii Congdon's tarplant	~	~	1B	Annual herb in the *Asteraceae*. Found in Valley and foothill grassland(alkaline). Blooms: May – October (November) Elevation: 1 – 230 meters	No	Although there is one previously recorded occurrence within one mile of the PSA, and two additional occurrences within five miles of the PSA, suitable habitat is not present within the PSA. The PSA is highly urbanized and

Scientific Name **Common Name**	**Status**			**Habitat Description[4]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]	CNPS[3]			
						only ruderal habitat remains.
Chorizanthe robusta var. robusta Robust spineflower	FE	~	1B	Annual herb in the *Polygonaceae* family. Found in chaparral (maritime), cismontane woodland (openings), coastal dunes, coastal scrub in sandy or gravelly soils. Most populations extirpated, and now known from only six occurrences. Blooms: April - September Elevation: 3 - 300 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA.
Clarkia franciscana Presidio clarkia	FE	SE	1B; SLC	Annual herb in the *Onagraceae* family. Found in coastal scrub, Valley and foothill grassland (serpentinite). Known from fewer than five occurrences. Blooms: May – July Elevation: 25 – 335 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA. The PSA is outside the known range for this species.
Cordylanthus maritimus ssp. palustris Point Reyes bird's-beak	~	~	1B	Hemi-parasitic annual herb in the *Scrophulariaceae* family. Found in marshes and swamps (coastal salt). Once rather common in proper habitat; now greatly reduced by development. Blooms: June – October Elevation: 0 – 10 meters.	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA.
Dirca occidentalis Western leatherwood	~	~	1B	Perennial deciduous shrub in the *Thymelaeaceae* family. Found in broad-leafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, North coast coniferous forest, riparian forest,	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA. The PSA is outside the known range for this

Scientific Name **Common Name**	**Status**			**Habitat Description[4]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]	CNPS[3]			
				riparian woodland in mesic soils. Populations declining; not reproducing well. Blooms: January – March (April) Elevation: 50 – 395 meters		species.
Eriogonum luteolum var. caninum Tiburon buckwheat	~	~	1B	Annual herb in the *Polygonaceae* family. Found in chaparral, cismontane woodland, coastal prairie, Valley and foothill grassland in serpentinite, sandy to gravelly soils. Blooms: (May) June – September Elevation: 0 – 700 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA.
Eriogonum truncatum Mt. Diablo buckwheat	~	~	1B	Annual herb in the *Polygonaceae* Found in chaparral, coastal scrub, Valley and foothill grassland in sandy soils. Rediscovered in May 2005 by Michael Park in Mount Diablo State Park; now known from one extant occurrence for which quad location needs confirmation. Blooms: April – September (November - December) Elevation: 3 – 350 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA.
Fritillaria liliacea Fragrant fritillary	~	~	1B	Perennial bulbiferous herb in the *Liliaceae* family. Found in cismontane woodland, coastal prairie, coastal scrub, Valley and foothill grassland, often in serpentinite. Blooms: February – April Elevation: 3 – 410 meters	No	Suitable habitat is not present within the PSA. There are two previously recorded occurrences within five miles of the PSA.

Scientific Name **Common Name**	**Status**			**Habitat Description[4]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]	CNPS[3]			
Helianthella castanea Diablo helianthella	~	~	1B	Perennial herb in the *Asteraceae* family. Found in broad-leafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, Valley and foothill grassland. Blooms: March – June Elevation: 60 – 1,300 meters	No	Although there is one previously recorded occurrence within five miles of the PSA, suitable habitat is not present within the PSA. The PSA is highly urbanized and only ruderal habitat remains. The PSA is outside the known range for this species.
Hesperolinon breweri Brewer's western flax	~	~	1B	Annual herb in the *Linaceae* family. Found in chaparral, cismontane woodland, Valley and foothill grassland, usually in serpentinite soils. Blooms: May – July Elevation: 30 – 900 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA. The PSA is outside the known range for this species.
Hoita strobilina Loma Prieta hoita	~	~	1B	Perennial herb in the *Fabaceae* family. Found in chaparral, cismontane woodland, riparian woodland, usually in serpentinite, mesic soils. Blooms: May – July (August - October) Elevation: 30 – 860 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA. The PSA is outside the known range for this species.
Holocarpha macradenia Santa Cruz tarplant	FT	SE	1B	Annual herb in the *Asteraceae* family. Found in coastal prairie, coastal scrub, Valley and foothill grassland, often clay, sandy. Known from fewer than fifteen occurrences. All extant occurrences in Continental California are introduced; nearly half have failed. Last remaining natural population in the S.F. Bay Area extirpated by development in 1993.	No	Although there is one previously recorded occurrence within five miles of the PSA, suitable habitat is not present within the PSA. The PSA is highly urbanized and only ruderal habitat remains.

Scientific Name **Common Name**	**Status**			**Habitat Description[4]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]	CNPS[3]			
				Blooms: June – October Elevation: 10 – 220 meters		
Horkelia cuneata ssp. sericea Kellogg's horkelia	~	~	1B	Perennial herb in the *Rosaceae* family. Found in closed-cone coniferous forest, chaparral (maritime), coastal dunes, coastal scrub in sandy or gravelly, openings. Occurrence from the Crocker Hills probably last remaining location in S.F. Bay. Remaining plants less distinct from *H. c. ssp. cuneata* than those formerly occurring near San Francisco. Blooms: April – September Elevation: 10 – 200 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA.
Juglans hindsii Northern California black walnut	~	~	1B	Predominantly along rivers and streams, occasionally in somewhat drier slopes, valleys, and canyons; on rocky in gravelly, well-drained soil. Found within foothill woodland and yellow pine forest communities; forming riparian forest / woodland communities where present along streams. Only two of the three native stands of black walnut are still extant in California. It is widely naturalized in central and northern California. It is declining due to lack of reproduction. Elevation: 0 - 300 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA.
Lasthenia conjugens Contra Costa	FE	~	1B	Annual herb in the *Asteraceae* family. Found in cismontane woodland, playas (alkaline), Valley and foothill grassland, vernal pools (mesic). Many historical	No	Although there is one previously recorded occurrence within one mile of the PSA, suitable habitat is not

Scientific Name **Common Name**	**Status**			**Habitat Description[4]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]	CNPS[3]			
goldfields				occurrences extirpated by development and agriculture. Blooms: March - June Elevation: 0 – 470 meters		present within the PSA. The PSA is highly urbanized and only ruderal habitat remains.
Malacothamnus hallii Hall's bush-mallow	~	~	1B	Perennial evergreen shrub in the *Malvaceae* family. Found in chaparral and coastal scrub. Blooms: May – September (October) Elevation: 10 – 760 meters	No	Although there are no previously recorded occurrences within five miles of the PSA, suitable habitat is not present within the PSA. The PSA is highly urbanized and only ruderal habitat remains.
Meconella oregano Oregon meconella	~	~	1B	Annual herb in the *Papaveraceae* family. Found in coastal prairie and coastal scrub. Known in California only from five occurrences. Blooms: March - April Elevation: 250 – 620 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA. The PSA is outside the known range for this species.
Monardella villosa ssp. globosa Robust monardella	~	~	1B	Perennial rhizomatous herb in the *Lamiaceae* family. Found in broad-leafed upland forest (openings), chaparral (openings), cismontane woodland, coastal scrub, Valley and foothill grassland. Many occurrences not recently seen. Blooms: June – July (August) Elevation: 100 – 915 meters	No	Although there is one previously recorded occurrence within five miles of the PSA, suitable habitat is not present within the PSA. The PSA is highly urbanized and only ruderal habitat remains. The PSA is outside the known range for this species.
Navarretia myersii ssp. myersii Pincushion navarretia	~	~	1B	Annual herb in the *Polemoniaceae* family. Found in vernal pools, often acidic. Known from fewer than twenty occurrences.	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA. The PSA is outside

Scientific Name **Common Name**	**Status**			**Habitat Description[4]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]	CNPS[3]			
				Blooms: May Elevation: 20 – 330 meters		the known range for this species.
Phacelia phacelioides Mt. Diablo phacelia	~	~	1B	Annual herb in the *Hydrophyllaceae* family. Found in chaparral, cismontane woodland in rocky soils. Known from fewer than twenty occurrences. Many occurrences historical. Blooms: April – May Elevation: 500 – 1,370 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA. The PSA is outside the known range for this species.
Plagiobothrys diffusus San Francisco popcorn-flower	~	SE	1B	Annual herb in the *Boraginaceae* family. Found in coastal prairie, Valley and foothill grassland. Known from fewer than ten occurrences. Blooms: March – June Elevation: 60 – 360 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA. The PSA is outside the known range for this species.
Plagiobothrys glaber Hairless popcorn-flower	~	~	1A	Annual herb in the *Boraginaceae* family. Found in meadows and seeps (alkaline), marshes and swamps (coastal salt). Last confirmed siting in 1954. All collections since 1930's located in the Hollister area. Blooms: March – May Elevation: 15 – 180 meters	No	Although there is one previously recorded occurrence within one mile of the PSA, and one additional occurrence within five miles of the PSA, suitable habitat is not present within the PSA. The PSA is highly urbanized and only ruderal habitat remains. The PSA is outside the known range for this species.
Polemonium carneum Oregon polemonium	~	~	2.2			

Scientific Name **Common Name**	**Status**			**Habitat Description[4]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]	CNPS[3]			
Potamogeton filiformis Slender-leaved pondweed	~	~	2	A perennial aquatic rhizomatous herb in the *Potamogetonaceae* family. Found in marshes and swamps (assorted shallow freshwater). To be expected in the San Joaquin Valley, San Francisco Bay area, and the central high Sierra Nevada. Blooms: May – July Elevation: 300 – 2,150 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA. The PSA is outside the known range for this species.
Sanicula maritima Adobe sanicle	~	Rare	1B	Perennial herb in the *Apiaceae* family. Found in chaparral, coastal prairie, meadows and seeps, Valley and foothill grassland in clay or serpentinite soils. Known from fewer than ten occurrences. Blooms: February – May Elevation: 30 – 240 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA. The PSA is outside the known range for this species.
Sanicula saxatilis Rock sanicle	~	Rare	1B	Perennial herb in the *Apiaceae* family. Found in broad-leafed upland forest, chaparral, Valley and foothill grassland in rocky soils. Known from fewer than fifteen occurrences. Blooms: April – May Elevation: 620 – 1,175 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA. The PSA is outside the known range for this species.
Streptanthus albidus ssp. peramoenus Most beautiful jewel-flower	~	~	1B; SLC	Annual herb in the *Brassicaceae* family. Found in chaparral, cismontane woodland, Valley and foothill grassland in serpentinite soils. Blooms: (March) April – September (October)	No	Suitable habitat is not present within the PSA. There is one previously recorded occurrence within five miles of the PSA. The PSA is outside the known range for this species.

Scientific Name **Common Name**	**Status**			**Habitat Description[4]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]	CNPS[3]			
				Elevation: 94 – 1,000 meters		
Streptanthus hispidus Mt. Diablo jewel-flower	~	~	1B	Annual herb in the *Brassicaceae* family. Found in chaparral, Valley and foothill grassland in rocky soils. Known from fewer than fifteen occurrences in the Mt. Diablo area. Blooms: March – June Elevation: 365 – 1,200 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA. The PSA is outside the known range for this species.
Suaeda californica California seablite	FE	~	1B	Perennial evergreen shrub in the *Chenopodiaceae* family. Found in marshes and swamps (coastal salt). Formerly known from San Francisco Bay area, where extirpated by development; now extant only in Morro Bay and near Cayucos Pt. Blooms: July – October Elevation: 0 – 15 meters	No	Suitable habitat is not present within the PSA. There is one previously recorded occurrence within five miles of the PSA.
Trifolium depauperatum var. hydrophilum Saline clover	~	~	1B	Annual herb in the *Fabaceae* family. Found in marshes and swamps, Valley and foothill grassland (mesic, alkaline), and vernal pools. Many sites likely extirpated. Blooms: April – June Elevation: 0 – 300 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA.
Triquetrella californica Coastal triquetrella	~	~	1B	Moss in the *Pottiaceae* family. Found in coastal bluff scrub, and coastal scrub in soil. Known in California from fewer than ten small coastal occurrences. Elevation: 10 – 100 meters	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA.
Viburnum ellipticum	~	~	2	Perennial deciduous shrub in the	No	Suitable habitat is not present

Scientific Name Common Name	Status			Habitat Description[4]	Considered in Impact Analysis	Rationale
	Federal[1]	State[2]	CNPS[3]			
Oval-leaved viburnum				*Caprifoliaceae* family. Found in chaparral, cismontane woodland, and lower montane coniferous forest. Blooms: May – June Elevation: 215 – 1,400 meters		within the PSA. There are no previously recorded occurrences within five miles of the PSA. The PSA is outside the known range for this species.

CODE DESIGNATIONS

Federal status[1]: January 2007 USFWS Listing	State status[2]: January 2007 USFWS and CDFG Listing	CNPS[3]: January 2007 CNPS Listing
FE = Listed as endangered under the Endangered Species Act	**SE** = Listed as endangered under the California Endangered Species Act	**1A** = Plants species that presumed extinct in California.
FT = Listed as threatened under the Endangered Species Act	**ST** = Listed as threatened under the California Endangered Species Act	**1B** = Plant species that are rare, threatened, or endangered in California and elsewhere.
	Rare = Species identified as rare by CDFG	**List 2** = Plant species that are rare, threatened, or endangered in California, but more common elsewhere.
Other		
SLC = Species of Local or Regional Concern or conservation significance (USFWS 1998)		
Habitat description[4]: Habitat description adapted from CNDDB (CDFG 2008) and CNPS online inventory (CNPS 2008)		

TABLE B-2 - SPECIAL-STATUS WILDLIFE SPECIES POTENTIALLY OCCURRING IN THE PROJECT STUDY AREA

Scientific Name Common Name	Status		Habitat Description[3]	Considered in Impact Analysis	Rationale
	Federal[1]	State[2]			
Invertebrates					
Branchinecta conservatio Conservancy fairy shrimp	FE	~	Inhabits rather large, cool-water vernal pools with moderately turbid water. They have been collected from early November to early April. Currently, the USFWS is aware of eight populations of Conservancy fairy shrimp, which include (from north to south): (1) Vina Plains, Butte and Tehama counties; (2) Sacramento National Wildlife Refuge, Glenn County; (3) Yolo Bypass Wildlife Area, Yolo County; (4) Jepson Prairie, Solano County; (5) Mapes Ranch, Stanislaus County; (6) University of California, Merced, Merced County; (7) Grasslands Ecological Area, Merced County and (8) Los Padres National Forest, Ventura County.	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA.
Branchinecta longiantenna Longhorn fairy shrimp	FE	~	A freshwater fairy shrimp. It inhabits the ephemeral water of swales and vernal pools. It has been found in grass-bottomed pools in unplowed grasslands as well as clear-water pools in sandstone depressions. Known to occur in clear, moderately deep, small to medium size pool depressions in bedrock outcrops; moderately deep, medium to large sized turbid alkali pools in the Kesterson National Wildlife Refuge in western Merced County.	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA.

Scientific Name **Common Name**	**Status**		**Habitat Description[3]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]			
Branchinecta lynchi Vernal pool fairy shrimp	FT	~	Occupies a variety of different vernal pool habitats, from small, clear, sandstone rock pools to large, turbid, alkaline, grassland valley floor pools. Although the species has been collected from large vernal pools, including one exceeding 25 acres, it tends to occur in smaller pools. It is most frequently found in pools measuring less than 0.05 acre most commonly in grass or mud bottomed swales, or basalt flow depression pools in unplowed grasslands. Vernal pool fairy shrimp have been collected from early December to early May.	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA.
Callophrys [Incisalia] mossii bayensis San Bruno elfin butterfly	FE	~	This species inhabits rocky outcrops and cliffs in coastal scrub on the San Francisco peninsula. Its patchy distribution reflects that of its host plant, stonecrop (*Sedum spathulifolium*). San Bruno Mountain, in San Mateo County; also, Milagra Ridge, Montara Mountain, Whiting Ridge.	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA.
Desmocerus californicus dimorphus Valley elderberry longhorn beetle (VELB)	FT	~	Associated exclusively with elderberry shrubs (*Sambucus sp.*) in Central Valley and foothills during its entire life cycle; larvae bore into elderberry stems and feed upon the pith during their 2-year life cycle.	No	No elderberry shrubs were observed from public access roads. Although elderberry shrubs may be located on a parcel within the PSA, it is highly unlikely that this species would occur in this urbanized landscape far from riparian habitat.

Scientific Name **Common Name**	**Status**		**Habitat Description[3]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]			
Euphydryas editha bayensis Bay checkerspot butterfly	FT	SLC	This subspecies is restricted to serpentine outcrops with thin soils that support dry native grasslands with an abundance of both larval foodplants which are plantain (*Plantago erecta)* and owl's clover (*Orthocarpus densiflorus)*. General region is mainly chaparral but this subspecies does not occupy such habitats. Both permanent sites are over 800 acres and topographically diverse. Populations can build up in other nearby areas but often die out in drought years. Larval foodplant varies seasonally and both plantain and owl's clover are usually required to complete development. Restricted to serpentine outcrops near San Francisco Bay.	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA.
Hydroporus leechi Leech's skyline diving beetle	~	CSC	Previously considered limited to the San Francisco Bay Area. Now believed to be distributed widely throughout the western United States. Only four known occurrences from freshwater ponds.	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA.
Incisalia mossii bayensis San Bruno elfin butterfly	FE	~	The San Bruno elfin butterfly inhabits rocky outcrops and cliffs in coastal scrub on the San Francisco peninsula. Its patchy distribution reflects that of its host plant, stonecrop (*Sedum spathulifolium*). San Bruno Mountain, in San Mateo County; also, Milagra Ridge, Montara Mountain, Whiting Ridge.	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA.
Lepidurus packardi	FE	~	Inhabits vernal pools containing clear	No	Suitable habitat is not

Scientific Name Common Name	Status		Habitat Description[3]	Considered in Impact Analysis	Rationale
	Federal[1]	State[2]			
Vernal pool tadpole shrimp			to highly turbid water, ranging in size from 54 square feet in the former Mather Air Force Base area of Sacramento County, to the 89-acre Olcott Lake at Jepson Prairie. Tadpole shrimp climb objects and plow along or within bottom sediments feeding on organic debris and living organisms, such as fairy shrimp and other invertebrates. Superficially resembles the ricefield tadpole shrimp (*Triops longicaudatus*).		present within the PSA. There are no previously recorded occurrences within five miles of the PSA.
Microcina leei Lee's micro-blind harvestman	~	SLC	Endemic to the Bay Area. It has been found at one site in the Berkeley hills and another in Oakland. They need microhabitats that provide high humidity, total darkness, and warmth, usually the underside of rocks. They appear when the rainy season begins and disappear when the ground beneath their rocks dries out.	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA.
Microcina lumi Lum's micro-blind harvestman	~	SLC	Harvestmen don't produce silk or spin webs. They eat plant matter and carrion as well as living prey. They need microhabitats that provide high humidity, total darkness, and warmth; this usually means the underside of rocks. Blind harvestmen as a group are, except for one species, found only in California. And the genus *Microcina*, the microblinds, occur only in the Bay Area, with a scattered distribution. This species are only known to occur in	No	Although, there are two previously recorded occurrences within five miles of the PSA suitable habitat is not present within the PSA.

Scientific Name **Common Name**	**Status**		**Habitat Description[3]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]			
			Alameda County.		
Speyeria callippe callippe Callippe silverspot butterfly	FE	~	Restricted to northern coastal scrub of the San Francisco peninsula. Host plant is *Viola pedunculata*. Most adults found on east-facing slopes; males congregate on hilltops in search of females.	No	Suitable habitat is not present within the PSA. There are no previously recorded occurrences within five miles of the PSA.
Fish					
Acipenser medirostris Green sturgeon	FT	~	The green sturgeon is a widely distributed, ocean-oriented sturgeon found in nearshore marine waters from Baja Mexico to Canada. Green sturgeon are anadromous, spawning in the Sacramento, Klamath and Rogue rivers in the spring. Individuals spawn every few years beginning about age 15. Green sturgeon congregate in these and other estuaries during the summer, where they appear to neither breed nor feed. Neither the purpose of these aggregations nor the portion of the population participating in them is known.	No	No waterways are located within the PSA. Suitable habitat is not present within the PSA.
Eucyclogobius newberryi Tidewater goby	FE	~	Historically widespread in brackish coastal lagoons and coastal creeks in California from the mouth of the Smith River, Del Norte County, south to Agua Hedionda Lagoon, San Diego County. Naturally absent (due to lack of suitable habitat) between Humboldt Bay and Ten Mile River, between Point Arena and Salmon Creek, and between Monterey Bay and Arroyo del Oso.	No	No waterways are located within the PSA. Suitable habitat is not present within the PSA.

Scientific Name Common Name	Status		Habitat Description[3]	Considered in Impact Analysis	Rationale
	Federal[1]	State[2]			
Hypomesus transpacificus Delta smelt	FT	ST	Located exclusively in the Sacramento-San Joaquin Delta. They have been found as far upstream as the mouth of the American River on the Sacramento River and Mossdale on the San Joaquin River. They extend downstream as far as San Pablo Bay. Delta smelt are found in brackish water. They usually inhabit salinity ranges of less than 2 parts per thousand (ppt) and are rarely found at salinities greater than 14ppt.	No	No waterways are located within the PSA. Suitable habitat is not present within the PSA.
Oncorhynchus kisutch Coho salmon central California coast	FE	~	Anadromous fish. Naturally occurring in the Pacific Ocean and tributary drainages from the Anadyr River south to northern Japan and from Point Hope, Alaska, south to California (California: Klamath, Trinity, Mad, Noyo, and Eel rivers, with smaller populations south to the San Lorenzo River in Santa Cruz County) and infrequently as far south as Chamalu Bay, Baja California; most abundant between Oregon and southeastern Alaska, rare south of central California.	No	No waterways are located within the PSA. Suitable habitat is not present within the PSA.
Oncorhynchus mykiss Steelhead Central Valley ESU	FT	~	Sacramento and San Joaquin rivers and their tributaries. Spawns in the Sacramento and San Joaquin rivers and their tributaries; now extirpated from most of historical range; the majority of native, natural production occurs in upper Sacramento River tributaries below Red Bluff Diversion Dam, but these populations are nearly	No	No waterways are located within the PSA. Suitable habitat is not present within the PSA.

Scientific Name Common Name	Status		Habitat Description[3]	Considered in Impact Analysis	Rationale
	Federal[1]	State[2]			
			extirpated; the American, Feather, and Yuba (and possibly the upper Sacramento and Mokelumne) rivers also have naturally spawning populations, but these have had substantial hatchery influence and their ancestry is not clearly known; in the San Joaquin River system, current range apparently includes only small populations in the Stanislaus, Tuolumne, and Merced rivers (tributaries) and the mainstem San Joaquin River to its confluence with the Merced River (NMFS 1996). This ESU does not include steelhead from San FRancisco and San Pablo bays and their tributaries (NMFS 1998).		
Oncorhynchus mykiss irideus Steelhead central California coast ESU	FT	~	Both anadromous and non-anadromous forms exist. Anadromous forms migrate between freshwater breeding and marine non-breeding habitats; California breeders migrate to non-breeding habitats as far away as Alaska.	No	Although there is one previously recorded occurrence within five miles of the PSA, no waterways are located within the PSA. Suitable habitat is not present within the PSA.
Oncorhynchus tshawytscha Chinook salmon Central Valley spring-run ESU	FT	ST	Existing populations spawn in the Sacramento River and its tributaries in California. Historically, this ESU was the dominant run in the Sacramento and San Joaquin river basins, but native populations in the San Joaquin River apparently all have been extirpated.	No	No waterways are located within the PSA. Suitable habitat is not present within the PSA.
Oncorhynchus	FE	SE	Spawns primarily in the mainstem of the	No	No waterways are

Scientific Name **Common Name**	**Status**		**Habitat Description[3]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]			
tshawytscha Chinook salmon Sacramento River winter-run ESU			Sacramento River immediately downstream of Keswick Dam and below the historic spawning grounds downstream from Shasta Reservoir; most suitable spawning areas are between the Red Bluff Diversion Dam and Keswick Dam. Migrates through the Sacramento River, Delta, and San Pablo and San Francisco bays to nonbreeding habitat in the Pacific Ocean. Some juveniles rear non-natally for brief periods in lower reaches of tributaries.		located within the PSA. Suitable habitat is not present within the PSA.
Amphibians					
Ambystoma californiense California tiger salamander	FT	CSC	Typically found in annual grasslands of lower hills and valleys; breeds in temporary and permanent ponds and in streams; uses rodent burrows and other subterranean retreats in surrounding uplands for shelter; appears to be absent in waters containing predatory game fish. The California tiger salamander spends most of its lifecycle estivating underground in adjacent valley oak woodland or grassland habitat, primarily in abandoned rodent burrows. Research has shown that dispersing juveniles can roam up to two miles from their breeding ponds and that a minimum of several hundred acres of uplands habitat is needed surrounding a breeding pond in order for the	No	There are no previously recorded occurrences within five miles of the PSA. Suitable habitat is not present within the PSA.

Scientific Name **Common Name**	**Status**		**Habitat Description[3]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]			
			species to survive over the long term.		
Rana aurora draytonii California red-legged frog	FT	CSC	Lowlands and foothill streams, pool, and marshes in or near permanent or late season sources of deep water with dense, shrubby, riparian, or emergent vegetation (e.g. ponds, perennial drainages, well-developed riparian) below 3,936 ft. in elevation. Breeds late December to early April.	No	There are three previously recorded occurrences within five miles of the PSA. Suitable habitat is not present within the PSA. The PSA is highly urbanized and only ruderal habitat remains.
Rana boylii Foothill yellow-legged frog	~	CSC	Partly shaded, shallow streams and riffles with a rocky substrate in various habitats, with adjacent sunny banks or open woodlands. Breeding season begins mid-March to May.	No	There are no previously recorded occurrences within five miles of the PSA. Suitable habitat is not present within the PSA.
Taricha torosa torosa Coast Range newt	~	CSC	Coast Range newts frequent terrestrial habitats, but breed in ponds, reservoirs, and slow-moving streams. Lack of data on the movement ecology of this species prevents a complete characterization of the microhabitats used.	No	There are no previously recorded occurrences within five miles of the PSA. Suitable habitat is not present within the PSA.
Reptiles					
Actinemys marmorata Western pond turtle	~	CSC	Permanent or nearly permanent water in various habitats (e.g. ponds, streams, perennial drainages). Requires basking sites particularly in areas vegetated with riparian habitats. The western pond turtle includes two subspecies, the northwestern pond turtle (*A. m. marmorata)* and the southwestern pond turtle (*A. m. pallida*). The two subspecies range is interconnected	No	There are no previously recorded occurrences within five miles of the PSA. Suitable habitat is not present within the PSA.

Scientific Name **Common Name**	**Status**		**Habitat Description[3]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]			
			within and around the San Francisco Bay Area.		
Masticophis lateralis euryxanthus Alameda whipsnake	FT	ST	A slim-bodied snake. This species inhabits chaparral foothills, shrublands with scattered grassy patches, rocky canyons and watercourses, and adjacent habitats. Underground or under cover when inactive. Lays eggs probably most often in abandoned rodent burrows, perhaps also in other protected sites underground or under imbedded objects. Small range in hills in the eastern San Francisco Bay area, California.	No	There are no previously recorded occurrences within five miles of the PSA. Suitable habitat is not present within the PSA.
Birds					
CHARADRIIFORMES (shorebirds, gulls)					
Charadrius alexandrinus nivosus Western snowy plover	FT; MNBMC	CSC	Sandy beaches, salt pond levees; needs sandy, gravelly, or friable soils for nesting.	No	Although there is one previously recorded occurrence within one mile of the PSA, and one additional occurrence within five miles of the PSA, suitable habitat is not present within the PSA. The PSA is highly urbanized and only ruderal habitat remains.
Rynchops niger Black skimmer	MNBMC	CSC	The black skimmer breeds in loose groups on sandbanks and sandy beaches in the Americas. It breeds in North and South America. Northern populations winter in the warmer	No	Although there is one previously recorded occurrence within five miles of the PSA, suitable habitat is not present

Scientific Name **Common Name**	**Status**		**Habitat Description[3]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]			
			waters of the Caribbean and the tropical and subtropical Pacific coasts, but the South American races make only shorter movements in response to annual floods which extend their feeding areas in the river shallows.		within the PSA. The PSA is highly urbanized and only ruderal habitat remains.
Sternula antillarum browni California least tern	FE; MNBMC	SE	Summer/nesting in Bay Area; isolated colony in San Francisco Bay on sandy beaches bordering shallow water in estuaries; bulk of distribution in southern California coast.	No	Although there are four previously recorded occurrences within five miles of the PSA, suitable habitat is not present within the PSA. The PSA is highly urbanized and only ruderal habitat remains.
FALCONIFORMES (hawks, falcons)					
Accipiter cooperi Cooper's hawk	MNBMC	WL	Nests in densely-canopied trees from foothill oak woodlands up to ponderosa pine forests. Nesting usually occurs in a deciduous tree near open water or riparian vegetation. Breeds March to August.	No	There is one previously recorded occurrence within five miles of the PSA. Although this species may occasionally forage within the open space areas within the PSA, it is highly unlikely. The PSA is highly urbanized.
Accipiter striatus Sharp-shinned hawk	MNBMC	WL	A robin- to pigeon-sized woodland hawk. Forest and open woodland, coniferous, mixed, or deciduous, primarily in coniferous in more northern and mountainous portion of range. Young, dense, mixed or coniferous woodlands are preferred for nesting. Migrates through various habitats, mainly along ridges, lakeshores, and	No	There is one previously recorded occurrence within five miles of the PSA. Although this species may occasionally forage within the open space areas within the PSA, it is highly unlikely. The PSA is highly urbanized.

Scientific Name **Common Name**	**Status**		**Habitat Description[3]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]			
			coastlines. Nests usually in tree crotch or on branch next to trunk, most often 3-18 m up, hidden by thick foliage, usually in conifer in north. May build new nest, reuse old one, or modify old bird or squirrel nest. Nests generally seem to be in a stand of dense conifers near a forest opening, though this may reflect observer bias.		
Aquila chrysaetos Golden eagle	MNBMC	WL; CFP	A large raptor. Found generally in open country including prairies, arctic and alpine tundra, open wooded country, and barren areas, especially in hilly or mountainous regions. Nests on rock ledge of cliff or in large tree (e.g., oak or eucalyptus in California). Pair may have several alternate nests. Egg dates: peak late February-March, California to Texas (but earlier nesting may yield young ready to fly as early as March 1 in Texas);	No	There is one previously recorded occurrence within five miles of the PSA. Although this species may occasionally forage within the open space areas within the PSA, it is highly unlikely. The PSA is highly urbanized.
Circus cyaneus Northern harrier	MNBMC	CSC	Meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands. Nests on ground, usually at marsh edge. Mostly nests in emergent wetland or along rivers or lakes, but may nest in grasslands, grain fields, or on sagebrush flats several miles from water. Breeds April to September.	No	There are three previously recorded occurrences within five miles of the PSA. Although this species may occasionally forage within the open space areas within the PSA, it is highly unlikely. The PSA is highly urbanized.
Elanus leucurus White-tailed kite	~	CFP	Nests in shrubs (in Delta) and trees adjacent to grasslands oak woodland, edges of riparian habitats. Roosts	No	There are two previously recorded occurrences within five miles of the

Scientific Name **Common Name**	**Status**		**Habitat Description[3]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]			
			communally, resident year-round, and breeds February-October.		PSA. Although this species may occasionally forage within the open space areas within the PSA, it is highly unlikely. The PSA is highly urbanized.
Falco mexicanus Prairie falcon	MNBMC	WL	Prairie Falcons are sandy-colored falcons with distinctive white eyebrows and dark wing-pit patches. Prairie falcons inhabit hills, canyons, and mountains of arid grasslands and shrub-steppes of southwestern Canada, western United States, Baja California, and northern Mexico. They nest primarily on cliffs overlooking large open areas, using a ledge, cavity, crevice, or an abandoned nest of eagles, hawks, or ravens.	No	There are no previously recorded occurrences within five miles of the PSA. Although this species may occasionally forage within the open space areas within the PSA, it is highly unlikely. The PSA is highly urbanized.
GRUIFORMES (rails, cranes)					
Laterallus jamaicensis California black rail	~	ST; CFP	Wetlands, marshes, thickets with recent sightings in near oak foothill woodlands in eastern Yuba County. Nests with eggs have been documented from March to June.	No	Although there are two previously recorded occurrences within five miles of the PSA , suitable habitat is not present within the PSA.
Rallus longirostris obsoletus California clapper rail	FE; MNBMC	SE	Salt water and brackish marshes traversed by tidal sloughs in the vicinity of the San Francisco Bay. Typically associated with abundant growths of pickleweed (*Salicornia* spp.) and cordgrass (*Spartina* spp.).	No	Although, there are five previously recorded occurrences within five miles of the PSA, suitable habitat is not present within the PSA.
PASSERIFORMES (perching birds)					

Scientific Name **Common Name**	**Status**		**Habitat Description[3]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]			
Agelaius tricolor Tri-colored blackbird	~	CSC	Breeds in freshwater wetlands, with tall dense vegetation including tule, cattail, blackberry and rose. Forages in grasslands and croplands. Resident year-round. Breeds April to July.	No	Although there is one previously recorded occurrence within five miles of the PSA, suitable habitat is not present within the PSA.
Dendroica petechia brewsteri Yellow warbler	MNBMC	CSC	Riparian plant associations. Prefers willows, cottonwoods, aspens, sycamores, and alders for nesting and foraging. Also nests in montane shrubbery in open conifer forests. Breeds mid-April to early August.	No	Although there is one previously recorded occurrence within five miles of the PSA, suitable habitat is not present within the PSA.
Eremophila alpestris actia California horned lark	MNBMC	WL	A widespread occupant of open habitats across North America, Horned Larks prefer areas with sparse vegetation and exposed soil. In western North America, this species is associated with desert brushlands, grasslands, and similar open habitats, as well as alpine meadows. Throughout their range, horned larks avoid all habitats dominated by dense vegetation and become scarce and locally distributed in heavily forested areas.	No	There are no previously recorded occurrences within five miles of the PSA. Suitable habitat is not present within the PSA.
Geothlypis trichas sinuosa Saltmarsh common yellowthroat	MNBMC	CSC	Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging and tall grasses, tule patches and willows for nesting.	No	Although there are six previously recorded occurrences within five miles of the PSA, suitable habitat is not present within the PSA.
Lanius ludovicianus	MNBMC	CSC	A common resident and winter visitor in lowlands and foothills throughout	No	There are no previously recorded occurrences

Scientific Name **Common Name**	**Status**		**Habitat Description[3]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]			
Loggerhead shrike			California. Open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. Open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats. Egg-laying occurs from March to May.		within five miles of the PSA. Suitable habitat is not present within the PSA.
Melospiza melodia pusillula Alameda song sparrow	MNBMC	CSC	Resident of salt marshes bordering south arm of San Francisco Bay. Inhabits pickleweed (*Salicornia* spp.) marshes and nests low in Grindelia bushes (high enough to escape high tides) and in pickleweed.	No	Although there are six previously recorded occurrences within five miles of the PSA, suitable habitat is not present within the PSA.
Riparia riparia Bank swallow	MNBMC	ST	Primarily riparian and other lowland habitats in California. In summer, restricted to riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils for nesting holes. Breeds early May to July.	No	Although there is one previously recorded occurrence within five miles of the PSA, suitable habitat is not present within the PSA.
PELECANIFORMES (pelicans, cormorants)					
Pelacanus occidentalis californicus California brown pelican	FE; MNBMC	~	(Nesting colony) Colonial nester on coastal islands just outside the surf line; nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators.	No	There are no previously recorded occurrences within five miles of the PSA. Suitable habitat is not present within the PSA.
Phalacrocorax auritus Double-crested	MNBMC	WL	Brackish and freshwater habitats on lakes, rivers, swamps, bays and coasts.	No	Although there is one previously recorded

Scientific Name Common Name	Status		Habitat Description[3]	Considered in Impact Analysis	Rationale
	Federal[1]	State[2]			
cormorant			They require water for feeding and nearby perches, such as rocks, sandbars, pilings, wires, trees, or docks for resting on and drying out. This species resides from southwestern Alaska and the interior of North America to the Gulf of St. Lawrence and southern Newfoundland, south to the southern United States and the Bahamas. Winters from the southern parts of its summer range south to Florida and the Gulf of Mexico.		occurrence within five miles of the PSA, suitable habitat is not present within the PSA.
SCOLOPACIDAE (godwits, curlews)					
Numenius americanus Long-billed curlew	MNBMC	WL	Their breeding habitat is grasslands in west-central North America. Nests are located on the ground in open prairie. These birds forage in fields, picking up food by sight, also by probing. They mainly eat insects, but also eat crustaceans in coastal areas.	No	There are no previously recorded occurrences within five miles of the PSA. Suitable habitat is not present within the PSA.
STRIGIFORMES (owls)					
Asio flammeus Short-eared owl	MNBMC	CSC	Broad expanses of open land with low vegetation for nesting and foraging are required. In general, suitable habitat types include any area that has low vegetation with some dry upland for nesting, and that supports a suitable prey base may be considered potential breeding habitat. Nests on ground generally in a slight depression often beside or beneath a bush or clump of grass. Many nests are near water but are generally on dry sites.	No	There are no previously recorded occurrences within five miles of the PSA. Suitable habitat is not present within the PSA.

Scientific Name **Common Name**	**Status**		**Habitat Description[3]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]			
Athene cunicularia hypugea Western burrowing owl	~	CSC	Open grasslands and shrublands up to 5,300 ft with low perches and small mammal burrows. Resident year-round. Breeds March-August.	No	There are two previously recorded occurrences within five miles of the PSA. Suitable habitat is not present within the PSA. The PSA is highly urbanized and it is unlikely that this species would tolerate the constant disturbance.
Mammals					
Antrozous pallidus Pallid bat	~	CSC	Pallid bats roost in rock crevices, tree hollows, mines, caves, and a variety of anthropogenic structures, including vacant and occupied buildings and buildings, mines, and natural caves are utilized as roosts. Occurrence is primarily in arid habitats. Colonies are usually small and may contain 12-100 bats.	**Yes**	There is one previously recorded occurrence within one mile of the PSA, and one additional occurrence within five miles of the PSA. This species may occur within buildings or other structures within the PSA.
Eumops perotis californicus Western mastiff bat	~	CSC	A large bat. Found mostly in the southern half of California, but ranges north to Butte County. It prefers open, arid areas with high cliffs, but can also be found in bare rock, cliff, desert, herbaceous grassland, savanna, shrubland, chaparral, suburban, orchard, and conifer, hardwood and mixed woodlands. It roosts in small colonies and can also be found in caves and buildings. This bat catches strong flying insects such as dragonflies, moths, and beetles.	**Yes**	There is one previously recorded occurrence within five miles of the PSA. This species may occur within buildings or other structures within the PSA.
Neotoma fuscipes	~	CSC	Found in hardwood forests and brushlands. This species consumes	No	Suitable habitat is not present within the PSA.

Scientific Name **Common Name**	**Status**		**Habitat Description[3]**	**Considered in Impact Analysis**	**Rationale**
	Federal[1]	State[2]			
annectens San Francisco dusty-footed woodrat			many sorts of leaves, flowers, nuts, and berries. It prefers are the leaves and berries of coffeeberry (*Rhamnus californica*), poison oak (*Toxicodendron diversilobum*), blackberry, and roses.		There are no previously recorded occurrences within five miles of the PSA.
Reithrodontomys raviventris Salt-marsh harvest mouse	FE	CE; CFP	A small, dark brown, terrestrial mouse with a long tail. Confined to the salt marshes around the San Francisco Bay and the Napa, Petaluma, Suisun marshes. It is commonly associated with dense growth of pickleweed (*Salicornia spp.*). The mouse needs access to refuge/cover on high ground, especially during highest tides in winter. This species presumably feeds on seeds of grasses and forbs as well as insects.	No	Although there are 14 previously recorded occurrences within five miles of the PSA, suitable habitat is not present within the PSA.
Scapanus latimanus parvus Alameda island mole	~	CSC	This species favors light, sandy soils but is absent from heavily cultivated areas. It is especially numerous on floodplains with high soil moisture and a strong growth of forbs and soil invertebrates. This mole feeds on soil invertebrates, especially earthworms and underground parts of plants.	No	There are no previously recorded occurrences within five miles of the PSA. Suitable habitat is not present within the PSA.
Sorex vagrans halicoetes Salt-marsh wandering shrew	~	CSC	Usually occurs in grassy meadows and other moist open areas. Its known range includes Alameda, Contra Costa, San Mateo and Santa Clara counties. This shrew is an opportunistic feeder, taking small arthropods, earthworms and slugs.	No	There is one previously recorded occurrence within one mile of the PSA, and one additional occurrence within five miles of the PSA. Suitable habitat is not present within the PSA.

Scientific Name Common Name	Status		Habitat Description[3]	Considered in Impact Analysis	Rationale
	Federal[1]	State[2]			
Taxidea taxus American badger	~	CSC	Stout-bodied, primarily solitary species that hunts for ground squirrels and other small mammal prey in open grassland, cropland, deserts, savanna, and shrubland communities. Badgers have large home ranges and spend inactive periods in underground burrows. Badgers typically mate in mid- to late summer and give birth between March and April.	No	There are no previously recorded occurrences within five miles of the PSA. Suitable habitat is not present within the PSA.
Vulpes macrotis mutica San Joaquin kit fox	FE	ST	Alkali sink, valley grassland, foothill woodland. Hunts in areas with low sparse vegetation that allows good visibility and mobility. Multiple underground dens are used throughout the year. Den usually has multiple entrances. Sometimes uses pipes or culverts as den sites. Mates in winter; 4-7 young are born in February or March.	No	There are no previously recorded occurrences within five miles of the PSA. Suitable habitat is not present within the PSA.

CODE DESIGNATIONS

Federal status[1]: January 2007 USFWS Listing	State status[2]: January 2007 USFWS and CDFG Listing
ESU = Evolutionary Significant Unit is a distinctive population.	**SE** = Listed as endangered under the California Endangered Species Act
FE = Listed as endangered under the Endangered Species Act	**ST** = Listed as threatened under the California Endangered Species Act
FT = Listed as threatened under the Endangered Species Act	**CSC** = Species of Concern as identified by the CDFG
FC = Candidate for listing (threatened or endangered) under Endangered Species Act	**CFP** = Listed as fully protected under CDFG code
FD = Delisted in accordance with the Endangered Species Act	**WL =** CDFG Watch List
FPD = Federally Proposed to be Delisted	**Other**
MNBMC = Migratory Nongame Bird of Management Concern, protected under the Migratory Bird Treaty Act	**SLC** = Species of Local or Regional Concern or conservation significance (USFWS 1998)
Habitat description[3]: Habitat description information adapted from CNDDB and www.natureserve.org	

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United States Department of the Interior

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FISH AND WILDLIFE SERVICE

Fish & Wildlife Service logo

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825

July 16, 2009

Document Number: 090716111802

Angela Calderaro
PMC
2729 Prospect Park Drive
Suite 220
Rancho Cordova, CA 95670

Subject: Species List for Mt. Eden Phase II Annexation, City of Hayward

Dear: Interested party

We are sending this official species list in response to your July 16, 2009 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be October 14, 2009.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found at www.fws.gov/sacramento/es/branches.htm.

Endangered Species Division

Take Pride in America

These buttons will not appear on your list.

Revise Selection

Print this page

Make Official Letter

U.S. Fish & Wildlife Service

Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 090716111802

Database Last Updated: January 29, 2009

Quad Lists

Listed Species

Invertebrates

- Branchinecta conservatio
  - Conservancy fairy shrimp (E)
- Branchinecta longiantenna
  - longhorn fairy shrimp (E)
- Branchinecta lynchi
  - vernal pool fairy shrimp (T)
- Desmocerus californicus dimorphus
  - valley elderberry longhorn beetle (T)
- Euphydryas editha bayensis
  - bay checkerspot butterfly (T)
- Incisalia mossii bayensis
  - San Bruno elfin butterfly (E)
- Lepidurus packardi
  - Critical habitat, vernal pool tadpole shrimp (X)
  - vernal pool tadpole shrimp (E)
- Speyeria callippe callippe

- callippe silverspot butterfly (E)

Fish

- Acipenser medirostris
  - green sturgeon (T) (NMFS)
- Eucyclogobius newberryi
  - tidewater goby (E)
- Hypomesus transpacificus
  - Critical habitat, delta smelt (X)
  - delta smelt (T)
- Oncorhynchus kisutch
  - coho salmon - central CA coast (E) (NMFS)
- Oncorhynchus mykiss
  - Central California Coastal steelhead (T) (NMFS)
  - Central Valley steelhead (T) (NMFS)
  - Critical habitat, Central California coastal steelhead (X) (NMFS)
- Oncorhynchus tshawytscha
  - Central Valley spring-run chinook salmon (T) (NMFS)
  - winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

- Ambystoma californiense
  - California tiger salamander, central population (T)
  - Critical habitat, CA tiger salamander, central population (X)
- Rana aurora draytonii
  - California red-legged frog (T)

Reptiles

- Masticophis lateralis euryxanthus
  - Alameda whipsnake [=striped racer] (T)
  - Critical habitat, Alameda whipsnake (X)

Birds

- Charadrius alexandrinus nivosus
  - western snowy plover (T)
- Pelecanus occidentalis californicus
  - California brown pelican (E)
- Rallus longirostris obsoletus
  - California clapper rail (E)
- Sternula antillarum (=Sterna, =albifrons) browni

- California least tern (E)

Mammals

- Reithrodontomys raviventris
  - salt marsh harvest mouse (E)
- Vulpes macrotis mutica
  - San Joaquin kit fox (E)

Plants

- Arctostaphylos pallida
  - pallid manzanita (=Alameda or Oakland Hills manzanita) (T)
- Clarkia franciscana
  - Presidio clarkia (E)
- Lasthenia conjugens
  - Contra Costa goldfields (E)
  - Critical habitat, Contra Costa goldfields (X)

Proposed Species

Amphibians

- Rana aurora draytonii
  - Critical habitat, California red-legged frog (PX)

Quads Containing Listed, Proposed or Candidate Species:

DUBLIN (446B)

NILES (446C)

HAYWARD (447A)

SAN LEANDRO (447B)

REDWOOD POINT (447C)

NEWARK (447D)

DIABLO (464C)

OAKLAND EAST (465C)

LAS TRAMPAS RIDGE (465D)

County Lists

No county species lists requested.

Key:

- (E) Endangered - Listed as being in danger of extinction.
- (T) Threatened - Listed as likely to become endangered within the foreseeable future.
- (P) Proposed - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.
- Critical Habitat - Area essential to the conservation of a species.
- (PX) Proposed Critical Habitat - The species is already listed. Critical habitat is being proposed for it.
- (C) Candidate - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) Critical Habitat designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, or may be affected by projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list.
See our Protocol and Recovery Permits pages.

For plant surveys, we recommend using the Guidelines for Conducting and Reporting Botanical Inventories. The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

> Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.
- During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.
- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.
- Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our Map Room page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information

for land management planning and conservation efforts. More info

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be October 14, 2009.

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Scientific Name - Landscape
Mt. Eden Phase II, City of Hayward

	Scientific Name	Common Name	Element Code	Federal Status	State Status	Global Rank	State Rank	CNPS	CDFG
1	Accipiter cooperii	Cooper's hawk	ABNKC12040			G5	S3		
2	Accipiter striatus	sharp-shinned hawk	ABNKC12020			G5	S3		
3	Actinemys marmorata	western pond turtle	ARAAD02030			G3G4	S3		SC
4	Agelaius tricolor	tricolored blackbird	ABPBXB0020			G2G3	S2		SC
5	Ambystoma californiense	California tiger salamander	AAAAA01180	Threatened	unknown code...	G2G3	S2S3		SC
6	Amsinckia lunaris	bent-flowered fiddleneck	PDBOR01070			G2	S2.2	1B.2	
7	Anomobryum julaceum	slender silver moss	NBMUS80010			G4G5	S1.3	2.2	
8	Antrozous pallidus	pallid bat	AMACC10010			G5	S3		SC
9	Aquila chrysaetos	golden eagle	ABNKC22010			G5	S3		
10	Arctostaphylos auriculata	Mt. Diablo manzanita	PDERI04040			G2	S2.2	1B.3	
11	Arctostaphylos manzanita ssp. laevigata	Contra Costa manzanita	PDERI04273			G5T2	S2	1B.2	
12	Arctostaphylos pallida	pallid manzanita	PDERI04110	Threatened	Endangered	G1	S1.2	1B.1	
13	Ardea herodias	great blue heron	ABNGA04010			G5	S4		
14	Asio flammeus	short-eared owl	ABNSB13040			G5	S3		SC
15	Astragalus tener var. tener	alkali milk-vetch	PDFAB0F8R1			G1T1	S1.1	1B.2	
16	Athene cunicularia	burrowing owl	ABNSB10010			G4	S2		SC
17	Atriplex joaquiniana	San Joaquin spearscale	PDCHE041F3			G2	S2	1B.2	
18	Balsamorhiza macrolepis var. macrolepis	big-scale balsamroot	PDAST11061			G3G4T2	S2.2	1B.2	
19	California macrophylla	round-leaved filaree	PDGER01070			G3	S3.1	1B.1	
20	Callophrys mossii bayensis	San Bruno elfin butterfly	IILEPE2202	Endangered		G4T1	S1		
21	Calochortus pulchellus	Mt. Diablo fairy-lantern	PMLIL0D160			G2	S2.1	1B.2	
22	Campanula exigua	chaparral harebell	PDCAM020A0			G2	S2.2	1B.2	
23	Centromadia parryi ssp. congdonii	Congdon's tarplant	PDAST4R0P1			G4T3	S3.2	1B.2	
24	Charadrius alexandrinus nivosus	western snowy plover	ABNNB03031	Threatened		G4T3	S2		SC
25	Chorizanthe robusta var. robusta	robust spineflower	PDPGN040Q2	Endangered		G2T1	S1.1	1B.1	
26	Circus cyaneus	northern harrier	ABNKC11010			G5	S3		SC
27	Clarkia concinna ssp. automixa	Santa Clara red ribbons	PDONA050A1			G5?T3	S3.3	4.3	
28	Clarkia franciscana	Presidio clarkia	PDONA050H0	Endangered	Endangered	G1	S1.1	1B.1	
29	Cordylanthus maritimus ssp. palustris	Point Reyes bird's-beak	PDSCR0J0C3			G4?T2	S2.2	1B.2	
30	Danaus plexippus	monarch butterfly	IILEPP2010			G5	S3		
31	Dendroica petechia brewsteri	yellow warbler	ABPBX03018			G5T3?	S2		SC
32	Dipodomys heermanni berkeleyensis	Berkeley kangaroo rat	AMAFD03061			G3G4T1	S1		

	Scientific Name	Common Name	Element Code	Federal Status	State Status	Global Rank	State Rank	CNPS	CDFG
33	Dipodomys venustus venustus	Santa Cruz kangaroo rat	AMAFD03042			G4T1	S1		
34	Dirca occidentalis	western leatherwood	PDTHY03010			G2G3	S2S3	1B.2	
35	Efferia antiochi	Antioch efferian robberfly	IIDIP07010			G1G3	S1S3		
36	Elanus leucurus	white-tailed kite	ABNKC06010			G5	S3		
37	Eremophila alpestris actia	California horned lark	ABPAT02011			G5T3Q	S3		
38	Eriogonum luteolum var. caninum	Tiburon buckwheat	PDPGN083S1			G5T3	S3.2	1B.2	
39	Eriogonum truncatum	Mt. Diablo buckwheat	PDPGN085Z0			G1	S1.1	1B.1	
40	Eucyclogobius newberryi	tidewater goby	AFCQN04010	Endangered		G3	S2S3		SC
41	Eumops perotis californicus	western mastiff bat	AMACD02011			G5T4	S3?		SC
42	Euphydryas editha bayensis	Bay checkerspot butterfly	IILEPK4055	Threatened		G5T1	S1		
43	Falco mexicanus	prairie falcon	ABNKD06090			G5	S3		
44	Fritillaria liliacea	fragrant fritillary	PMLIL0V0C0			G2	S2.2	1B.2	
45	Geothlypis trichas sinuosa	saltmarsh common yellowthroat	ABPBX1201A			G5T2	S2		SC
46	Helianthella castanea	Diablo helianthella	PDAST4M020			G3	S3.2	1B.2	
47	Helminthoglypta nickliniana bridgesi	Bridges' coast range shoulderband	IMGASC2362			G2T1	S1		
48	Hesperolinon breweri	Brewer's western flax	PDLIN01030			G2	S2.2	1B.2	
49	Hoita strobilina	Loma Prieta hoita	PDFAB5Z030			G2	S2.1	1B.1	
50	Holocarpha macradenia	Santa Cruz tarplant	PDAST4X020	Threatened	Endangered	G1	S1.1	1B.1	
51	Horkelia cuneata ssp. sericea	Kellogg's horkelia	PDROS0W043			G4T1	S1.1	1B.1	
52	Juglans hindsii	Northern California black walnut	PDJUG02040			G1	S1.1	1B.1	
53	Lasionycteris noctivagans	silver-haired bat	AMACC02010			G5	S3S4		
54	Lasiurus cinereus	hoary bat	AMACC05030			G5	S4?		
55	Lasthenia conjugens	Contra Costa goldfields	PDAST5L040	Endangered		G1	S1.1	1B.1	
56	Laterallus jamaicensis coturniculus	California black rail	ABNME03041		Threatened	G4T1	S1		
57	Linderiella occidentalis	California linderiella	ICBRA06010			G3	S2S3		
58	Malacothamnus hallii	Hall's bush-mallow	PDMAL0Q0F0			G1Q	S1.2	1B.2	
59	Masticophis lateralis euryxanthus	Alameda whipsnake	ARADB21031	Threatened	Threatened	G4T2	S2		
60	Meconella oregana	Oregon meconella	PDPAP0G030			G2G3	S1.1	1B.1	
61	Melospiza melodia pusillula	Alameda song sparrow	ABPBXA301S			G5T2?	S2?		SC
62	Microcina leei	Lee's micro-blind harvestman	ILARA47040			G1	S1		
63	Microcina lumi	Lum's micro-blind harvestman	ILARA47050			G1	S1		
64	Monardella villosa ssp. globosa	robust monardella	PDLAM180P7			G5T2	S2.2	1B.2	
65	Myotis yumanensis	Yuma myotis	AMACC01020			G5	S4?		

	Scientific Name	Common Name	Element Code	Federal Status	State Status	Global Rank	State Rank	CNPS	CDFG
66	Neotoma fuscipes annectens	San Francisco dusky-footed woodrat	AMAFF08082			G5T2T3	S2S3		SC
67	Northern Coastal Salt Marsh	Northern Coastal Salt Marsh	CTT52110CA			G3	S3.2		
68	Northern Maritime Chaparral	Northern Maritime Chaparral	CTT37C10CA			G1	S1.2		
69	Nycticorax nycticorax	black-crowned night heron	ABNGA11010			G5	S3		
70	Oncorhynchus mykiss irideus	steelhead - central California coast ESU	AFCHA0209G	Threatened		G5T2Q	S2		
71	Phacelia phacelioides	Mt. Diablo phacelia	PDHYD0C3Q0			G1	S1.2	1B.2	
72	Phalacrocorax auritus	double-crested cormorant	ABNFD01020			G5	S3		
73	Plagiobothrys diffusus	San Francisco popcorn-flower	PDBOR0V080		Endangered	G1Q	S1.1	1B.1	
74	Plagiobothrys glaber	hairless popcorn-flower	PDBOR0V0B0			GH	SH	1A	
75	Polemonium carneum	Oregon polemonium	PDPLM0E050			G4	S1	2.2	
76	Potamogeton filiformis	slender-leaved pondweed	PMPOT03090			G5	S1S2	2.2	
77	Rallus longirostris obsoletus	California clapper rail	ABNME05016	Endangered	Endangered	G5T1	S1		
78	Rana boylii	foothill yellow-legged frog	AAABH01050			G3	S2S3		SC
79	Rana draytonii	California red-legged frog	AAABH01022	Threatened		G4T2T3	S2S3		SC
80	Reithrodontomys raviventris	salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S1S2		
81	Riparia riparia	bank swallow	ABPAU08010		Threatened	G5	S2S3		
82	Rynchops niger	black skimmer	ABNNM14010			G5	S1S3		SC
83	Sanicula maritima	adobe sanicle	PDAPI1Z0D0		Rare	G2	S2.2	1B.1	
84	Scapanus latimanus parvus	Alameda Island mole	AMABB02031			G5T1Q	S1		SC
85	Serpentine Bunchgrass	Serpentine Bunchgrass	CTT42130CA			G2	S2.2		
86	Sorex vagrans halicoetes	salt-marsh wandering shrew	AMABA01071			G5T1	S1		SC
87	Sternula antillarum browni	California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2S3		
88	Streptanthus albidus ssp. peramoenus	most beautiful jewel-flower	PDBRA2G012			G2T2	S2.2	1B.2	
89	Streptanthus hispidus	Mt. Diablo jewel-flower	PDBRA2G0M0			G1	S1.2	1B.3	
90	Suaeda californica	California seablite	PDCHE0P020	Endangered		G1	S1.1	1B.1	
91	Taxidea taxus	American badger	AMAJF04010			G5	S4		SC
92	Trifolium depauperatum var. hydrophilum	saline clover	PDFAB400R5			G5T2?	S2.2?	1B.2	
93	Triquetrella californica	coastal triquetrella	NBMUS7S010			G1	S1.2	1B.2	
94	Tryonia imitator	mimic tryonia (=California brackishwater snail)	IMGASJ7040			G2G3	S2S3		
95	Valley Needlegrass Grassland	Valley Needlegrass Grassland	CTT42110CA			G1	S3.1		
96	Viburnum ellipticum	oval-leaved viburnum	PDCPR07080			G5	S2.3	2.3	
97	Vulpes macrotis mutica	San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2T3	S2S3		

Inventory of Rare and Endangered Plants

v7-09c 7-14-09

Status: search results - Thu, Jul. 16, 2009 10:15 c

{QUADS_123} =~ m/447A|465C|465D|446B|446C|464C|447B|447(Search

Tip: Having trouble with a multi-word search? Try a single word, e.g. `ginger` or `cobra`.
[all tips and help.][search history]

Your Quad Selection: Hayward (447A) 3712261, Oakland East (465C) 3712272, Las Trampas Ridge (465D) 3712271, Dublin (446B) 3712168, Niles (446C) 3712158, Diablo (464C) 3712178, San Leandro (447B) 3712262, Redwood Point (447C) 3712252, Newark (447D) 3712251

Hits 1 to 45 of 45

Requests that specify topo quads will return only Lists 1-3.

To save selected records for later study, click the ADD button.

ADD checked items to Plant Press | check all | check none

Selections will appear in a new window.

open	save	hits	scientific	common	family	CNPS
		1	**Amsinckia lunaris**	bent-flowered fiddleneck	Boraginaceae	List 1B.2
		1	**Anomobryum julaceum**	slender silver moss	Bryaceae	List 2.2
		1	**Arctostaphylos auriculata**	Mt. Diablo manzanita	Ericaceae	List 1B.3
		1	**Arctostaphylos manzanita ssp. laevigata**	Contra Costa manzanita	Ericaceae	List 1B.2
		1	**Arctostaphylos pallida**	pallid manzanita	Ericaceae	List 1B.1
		1	**Astragalus tener var. tener**	alkali milk-vetch	Fabaceae	List 1B.2
		1	**Atriplex joaquiniana**	San Joaquin spearscale	Chenopodiaceae	List 1B.2
		1	**Balsamorhiza macrolepis var. macrolepis**	big-scale balsamroot	Asteraceae	List 1B.2
		1	**California macrophylla**	round-leaved filaree	Geraniaceae	List 1B.1
		1	**Calochortus pulchellus**	Mt. Diablo fairy-lantern	Liliaceae	List 1B.2
		1	**Campanula exigua**	chaparral harebell	Campanulaceae	List 1B.2
		1	**Centromadia parryi ssp. congdonii**	Congdon's tarplant	Asteraceae	List 1B.2
		1	**Chorizanthe robusta var. robusta**	robust spineflower	Polygonaceae	List 1B.1
		1	**Clarkia franciscana**	Presidio clarkia	Onagraceae	List

						1B.1
		1	**Cordylanthus maritimus ssp. palustris**	Point Reyes bird's-beak	Scrophulariaceae	List 1B.2
		1	**Dirca occidentalis**	western leatherwood	Thymelaeaceae	List 1B.2
		1	**Eriogonum luteolum var. caninum**	Tiburon buckwheat	Polygonaceae	List 1B.2
		1	**Eriogonum truncatum**	Mt. Diablo buckwheat	Polygonaceae	List 1B.1
		1	**Fritillaria liliacea**	fragrant fritillary	Liliaceae	List 1B.2
		1	**Helianthella castanea**	Diablo helianthella	Asteraceae	List 1B.2
		1	**Hesperolinon breweri**	Brewer's western flax	Linaceae	List 1B.2
		1	**Hoita strobilina**	Loma Prieta hoita	Fabaceae	List 1B.1
		1	**Holocarpha macradenia**	Santa Cruz tarplant	Asteraceae	List 1B.1
		1	**Horkelia cuneata ssp. sericea**	Kellogg's horkelia	Rosaceae	List 1B.1
		1	**Juglans hindsii**	Northern California black walnut	Juglandaceae	List 1B.1
		1	**Lasthenia conjugens**	Contra Costa goldfields	Asteraceae	List 1B.1
		1	**Malacothamnus hallii**	Hall's bush-mallow	Malvaceae	List 1B.2
		1	**Meconella oregana**	Oregon meconella	Papaveraceae	List 1B.1
		1	**Micropus amphibolus**	Mt. Diablo cottonweed	Asteraceae	List 3.2
		1	**Monardella antonina ssp. antonina**	San Antonio Hills monardella	Lamiaceae	List 3
		1	**Monardella villosa ssp. globosa**	robust monardella	Lamiaceae	List 1B.2
		1	**Navarretia myersii ssp. myersii**	pincushion navarretia	Polemoniaceae	List 1B.1
		1	**Phacelia phacelioides**	Mt. Diablo phacelia	Hydrophyllaceae	List 1B.2
		1	**Plagiobothrys diffusus**	San Francisco popcorn-flower	Boraginaceae	List 1B.1
		1	**Plagiobothrys glaber**	hairless popcorn-flower	Boraginaceae	List 1A
		1	**Polemonium carneum**	Oregon polemonium	Polemoniaceae	List 2.2
		1	**Potamogeton filiformis**	slender-leaved pondweed	Potamogetonaceae	List 2.2
		1	**Sanicula maritima**	adobe sanicle	Apiaceae	List 1B.1

		1	**Sanicula saxatilis**	rock sanicle	Apiaceae	List 1B.2
		1	**Streptanthus albidus ssp. peramoenus**	most beautiful jewel-flower	Brassicaceae	List 1B.2
		1	**Streptanthus hispidus**	Mt. Diablo jewel-flower	Brassicaceae	List 1B.3
		1	**Suaeda californica**	California seablite	Chenopodiaceae	List 1B.1
		1	**Trifolium depauperatum var. hydrophilum**	saline clover	Fabaceae	List 1B.2
		1	**Triquetrella californica**	coastal triquetrella	Pottiaceae	List 1B.2
		1	**Viburnum ellipticum**	oval-leaved viburnum	Caprifoliaceae	List 2.3

To save selected records for later study, click the ADD button.

ADD checked items to Plant Press | check all | check none

Selections will appear in a new window.

No more hits.

APPENDIX C - HISTORIC RESOURCES

May 16, 2008

Erik Pearson, AICP, Senior Planner
City of Hayward
777 B Street
Hayward, CA 94541

RE: HISTORIC RESOURCES REPORT- MT. EDEN PHASE II REORGANIZATION

Dear Mr. Pearson:

PMC has completed an historic resource evaluation of properties located within two unincorporated "islands" completely surrounded by the City of Hayward that are proposed for annexation into the City. The purpose of this evaluation was to identify potential historic resources within the project area, evaluate their historic significance, and identify any potential impacts that the project may have on historic resources in accordance with the California Environmental Quality Act (CEQA). At the request of the City, this report also includes recommendations and financial incentive opportunities for the rehabilitation and continued maintenance of historic resources.

PMC prepared an assessment of the proposed project (hereinafter "the project") utilizing standards established by the Secretary of the Interior. The conclusions in this report are based on fieldwork and archival research performed between January 2007 and April 2008 by Christine Hopper, M.A. of PMC, with the assistance of John Nadolski, M.A. and Tina Pitsenberger, B.A. of PMC. Ms. Hopper and Mr. Nadolski meet the Secretary of the Interior's Standards and Guidelines for Professional Qualifications in architectural history and history, respectively.

Scope of Work and Historic Investigations

The scope of work for the project stated that the Hermann Mohr Estate would be evaluated for historic significance. PMC addressed the historic significance of the Mohr-Fry Estate, located at 24985 Hesperian Boulevard and the Hermann Mohr Estate, located at 2595 Depot Road and conducted field and background research to identify previously documented historic and architectural resources in the vicinity of the project area.

PMC's current investigations included: a records search completed by the Northwest Information Center, Sonoma State University, Rohnert Park on January 17, 2008; a sacred lands search conducted by the Native American Heritage Commission (NAHC) on December 4, 2007; consultation with the Native American community; consultation with other interested parties (e.g.,

and field surveys conducted on February 25 and March 25, 2008. In addition, PMC coordinated efforts with the findings of the Draft Intensive Survey of Fifty Properties in Unincorporated Alameda County conducted by Carey & Co., Inc. of San Francisco in March of 2008.

Evaluation of Significance

Carey &Co., Inc. conducted intensive surveys of both the Mohr-Fry and Hermann Mohr and prepared Department of Parks and Recreation forms (DPR 523(a) & (b)). The DPRs (Appendix A & B) provided a historical evaluation of both properties and determination of significance the Mohr-Fry Estate based on the Secretary of the Interior's Standards for Evaluation. It was determined that the Mohr-Fry Estate appears eligible for both the National Register of Historic Places (NRHP) and the California Register of Historic Resources (CRHR). PMC agrees with the findings of eligibility for this property.

The Hermann Mohr Estate was determined by the Office of Historic Preservation to be ineligible for NRHP in 1992 by consensus through the Section 106 process. An evaluation of CRHR eligibility or local listing was not determined at that time. The DPR prepared by Carey & Co., Inc. suggests that the property is locally significant for its relationship to early subdivisions, and as an example of late Queen Anne architecture. However, the property was evaluated for local significance based on the County of Alameda standards for local significance, and not the more stringent standards set forth by the City of Hayward for listing as a historic resource.

According to CEQA, a property that is listed on a local inventory is considered a historic resource and is subsequently subject to CEQA review. The Hermann Mohr Estate, as evidenced in the DPR, has been extensively physically altered and is many of its character defining features are either missing or have been enclosed with newer materials. Based on existing conditions, PMC concurs that the property would not be eligible for individual listing on the CRHR because the historic integrity of the property has been compromised.

The concept of integrity is essential to identifying the important physical characteristics of historical resources and hence, in evaluating adverse changes to them. Integrity is defined as "the authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance." The seven aspects of integrity are defined by the *National Register Bulletin: How to Apply the National Register Criteria for Evaluation* as follows:

> *Location* is the place where the historic property was constructed.
>
> *Design* is the combination of elements that create the form, plans, space, structure and style of the property.
>
> *Setting* addresses the physical environment of the historic property inclusive of the landscape and spatial relationships of the building(s).
>
> *Materials* refer to the physical elements that were combined or deposited during a particular period of time and in a particular pattern of configuration to form the historic property.
>
> *Workmanship* is the physical evidence of the crafts of a particular culture or people during any given period in history.

Feeling is the property's expression of the aesthetic or historic sense of a particular period of time.

Association is the direct link between an important historic event or person and a historic property.

The Hermann Mohr Estate, in its current condition, maintains only integrity of location. Integrity of setting, feeling and association has been compromised with the significant alteration of the grounds and neighborhood surrounding the property. Integrity of materials, workmanship, and design has been compromised in the removal or covering up of character defining features that originally conveyed the Queen Anne style.

The existing condition of the property does not necessarily preclude it from listing as a local resource, as the property has the potential to reclaim much of its integrity through restoration. Therefore, for the purposes of CEQA, because a preponderance of evidence has not been discovered that would eliminate local eligibility, the property is considered a historic resource.

Project Impacts

The proposed project does any include any physical changes to the annexation area, including the sites on which the Hermann Mohr and Mohr-Fry Estates exist. In addition, the zoning for the two sites is proposed to remain as is, which will not impact the intensity or type of development that could potentially impact the integrity of the properties.

The City of Hayward's historic preservation program appears to have more stringent and defined criteria for inclusion in its local register than the County of Alameda. The City also maintains a comprehensive program for the protection of the City's historic resources.

Therefore, for the purposes of CEQA, the project will not have an impact on historic resources.

Recommendations

The Mt. Eden Neighborhood Plan, adopted in 1990, includes direction to designate the Hermann Mohr and Mohr-Fry Estates as local historic resources. PMC recommends that the City proceed with listing to add an additional layer of protection to both properties.

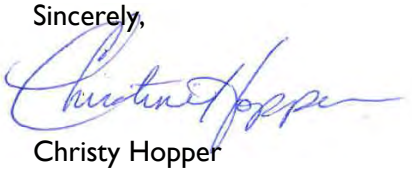
The City of Hayward and the property owners of the subject properties have indicated concern as to the cost of maintenance and restoration. PMC suggests that the City explore the following incentives for historic preservation:

- Offer Mill's Act contracts for reduction in property taxes in exchange for restoration and maintenance of historic properties;
- Explore becoming a Certified Local Government, which would open the City up to State grants for historic preservation;
- Educate owners of historic properties on Federal Tax Credits; and

- Explore Façade Improvement Programs.

Thank you for the opportunity to provide this historic resource evaluation for the Mt. Eden Annexation project area. Please let me know if you have any questions.

Sincerely,



Christy Hopper
Historic Preservation Specialist

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code
Other Listings
Review Code **Reviewer** **Date**

 *__Resource Name or #:__ 24985 Hesperian Boulevard

P1. Other Identifier:
***P2. Location:** ☐ **Not for Publication** ☑ **Unrestricted** ***a. County:** Alameda
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad:** Hayward **Date:** **T** ; **R** ; **¼ of** **¼ of Sec** ; M.D. **B.M.**
c. Address: 24985 Hesperian Boulevard City: Hayward Zip: 94545
d. UTM: Zone: 10 ; mE/ mN (G.P.S.)
e. Other Locational Data: Elevation:

Assessor Parcel Number: 441-0020-007-01

***P3a. Description:**

Situated on flat land in the middle of an urban landscape, the Cornelius Mohr house and farm includes a residence, a large carriage house, a caretaker's cottage, a tank house, and other outbuildings, including a blacksmith shop, a bunk house, two garages, and a small shed. The parcel also contains grass, plants, trees, and agricultural fields. The following descriptions are based on photographs taken by Christy Hopper of PMC, a consultant to the City of Hayward, during a site visit conducted on March 25, 2008. Carey & Co. was unable to gain site access during the course of its survey. In addition to the buildings described below, a one-story, Ranch-style house with a gable roof and rectangular plan as well as at least five other outbuildings or sheds appear to be located on the same parcel north of the carriage house. They appear to have been constructed more recently, well after the site's period of significance. (See continuation sheet.)

***P3b. Resource Attributes:** HP2, Single-family property; HP33, Farm/Ranch

***P4. Resources Present:** ☐Building ☐Structure ☐Object ☑Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing

P5b. Description of Photo: Main façade of the residence (east elevation), March 25, 2008.

***P6. Date Constructed/Age and Sources:**
☑Historic ☐Prehistoric ☐Both
1876; pamphlet files, Hayward Area Historical Society

***P7. Owner and Address:**
Marian C. Zimmerman
P.O. Box 97
Hayward, CA 94557

***P8. Recorded by:**
Carey & Co., Inc.
460 Bush Street
San Francisco, CA 94108

***P9. Date Recorded:**
April 2008

***P10. Survey Type:** Intensive

***P11. Report Citation:** Carey & Co. "Intensive Survey of Fifty Properties in Unincorporated Alameda County." March 2008.

***Attachments:** ☐NONE ☐Location Map ☐Sketch Map ☑Continuation Sheet ☑Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI#**

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 **of** 9 ***NRHP Status Code** 3S

***Resource Name or #** 24985 Hesperian Boulevard

B1. Historic Name: Cornelius Mohr house and farm
B2. Common Name:
B3. Original Use: Farmhouse and farm B4. Present Use: Single-family home and farm
***B5. Architectural Style:** Italianate
***B6. Construction History:** Constructed ca. 1876

***B7. Moved?** ☑No ☐Yes ☐Unknown **Date:** **Original Location:**
***B8. Related Features:**

B9a. Architect: Unknown b. Builder: Unknown
***B10. Significance: Theme:** Early Settlement, Agriculture **Area:** Mt. Eden, Hayward
Period of Significance: 1876-1894 **Property Type:** Single-family property **Applicable Criteria:** A, B, C

Cornelius Mohr (1822-1880), a native of Ellerhop, Schleswig-Holstein, Germany, began his working life on a whaling ship that cast anchor in San Francisco in 1852. Like many of his shipmates, Mohr decided not to continue on to Alaska and Siberian waters. Unlike the rest of his shipmates, however, Mohr chose not to mine for gold. He spent some time working as a carpenter in San Francisco, then sailed around the bay on a freight sloop before joining a grain threshing team on the farm of Joel Russell in Mt. Eden. Mohr's was a fortuitous decision, for the onslaught of people into the state exposed a dire need for agricultural products, especially wheat.

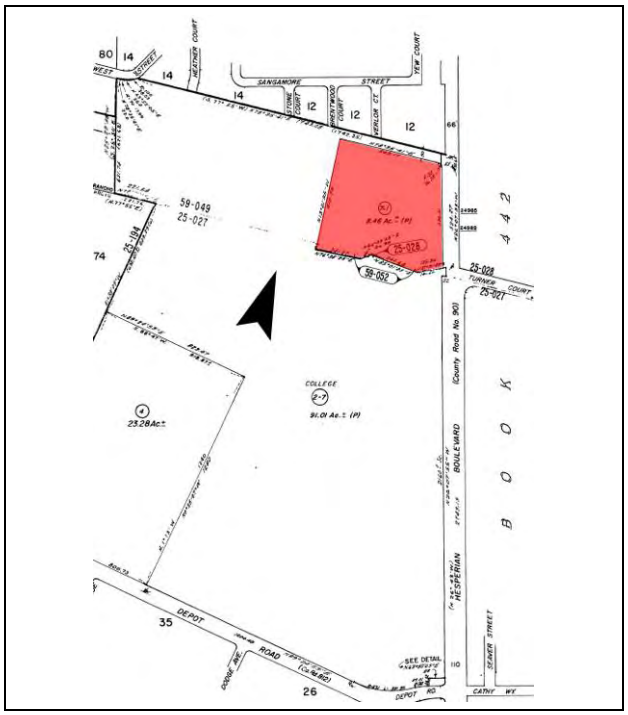
By 1856, Mohr had saved enough income to purchase 200 acres from his boss. He successfully cultivated wheat and barley, and raised horses and cattle, allowing him to purchase more land and build a fortune. According to a family history, "the land he bought… was on both sides of Hesperian Boulevard, starting at a point of intersection of Turner Court and Hesperian, going east along Turner Court to Calaroga, and following Calaroga south and east across Jackson… to Skokie, then south to Sleepy Hollow and west to Clawiter Road." In addition, he owned land along Niles Road, the present-day Hayward Golf Course, and 600 acres in Pleasanton. (See continuation sheet.)

B11. Additional Resource Attributes:

***B12. References:**

See continuation sheet.

B13. Remarks:



Continuation of P3a. Description:

Residence
The residence is a two-story Italianate structure that faces east and roughly follows a rectangular plan. It has a hipped roof and features horizontal wood cladding. Heavy decorative wood brackets support the eave overhang. A one-story enclosed porch spans the west elevation and wraps slightly around the corners. Primary windows are wood-sash, one-over-one, double-hung. The façade's windows have rounded corners on the first story and segmental arches on the second story. The three-bay façade has full-height canted bay windows, with engaged colonette mullions, in the outer two bays. The bay windows also feature projecting cornices with a modillion course at the first story and a dentil course at the second story. The central bay contains a slightly recessed front entry porch with wood Corinthian columns. The porch also features a plain frieze, modillion course, and projecting cornice. A wood balconet with a stencil cut balustrade and two urns sits above the porch. A window with a thick surround and pediment looks out onto this balcony. A small arched window located under a small gable peak with cornice returns completes the façade.

Carriage House
The carriage house is a massive, rectangular-in-plan structure with a front-gabled roof clad in asphalt shingles. Wood horizontal wood siding clads the building, and wood-sash, six-over-six, double-hung windows are located throughout. Bracketed flat hoods cap the windows and entrances on the façade. A square cupola with a hipped roof, slightly flared eaves, and vents on all four sides projects from the center of the structure. A witch's cap, a widow's walk, and a flag pole tops the cupola. The carriage house also features a wide eave overhang with brackets, cornice returns, and a round louvered gable vent. The symmetrical façade features two sets of doors located centrally and a similar door, but narrower, at each corner. The north and south elevations contain four bays, with two vertically ranked windows in each bay. These windows feature a wide wood trim and small brackets underneath.

Caretaker's Cottage
The caretaker's cottage faces west and consists of a wood-frame, one-and-one-half story structure with a rectangular plan. Wood horizontal boards clad the building, and wood shingles clad the front-gabled roof. The building features a raking cornice and cornice returns in the front gable and wood-sash, four-over-four, double-hung windows throughout. The windows have a wide wood trim and lamb's tongue detailing. A full-width porch with a shed roof and wood railing spans the façade. Wood square posts with chamfered corners support the porch.

Blacksmith Shop
The blacksmith shop is a small, wood-frame rectangular-in-plan building that faces north. Wood vertical boards clad the one-story structure, and wood shingles clad the gabled roof. The eaves overhang slightly. The façade features an entrance with a small concrete stoop and a wood-sash, six-over-six, double-hung window. A similar window with lamb's tongue detailing sits on the south elevation. A solitary wood-sash, six-lite awning window adorns the west elevation, while a similar awning window and additional double-hung window adorns the east elevation.

Bunk House
The bunk house consists of a small, wood-frame, one-story building with a rectangular plan and front-gable roof clad in wood shingles. Wood horizontal boards clad the structure. The building also features a raking cornice with returns in the gables and corner boards. A solitary entrance with a wood paneled door, wood trim, two-lite transom window, and a decorative crown sits on the façade. Small wood steps lead to the entrance. A wood-sash, four-over-four, double-hung window with lamb's tongue detailing adorns the south elevation.

Garage
A garage that, according to Christy Hopper, appears to have been constructed much later (c. 1960s), sits between the bunk house and an additional garage and consists of a one-story, wood-frame structure with a rectangular plan. Wood shingles clad the front-gable roof, and wood horizontal boards clad the building. Additionally, it features a wide eave overhang and corner boards. Two garage openings appear to be located on the façade.

*Recorded by: Carey & Co., Inc. *Date: April 2008 ☑ Continuation ☐ Update

Continuation of P3a. Description:

Garage
A wood-frame, one-story garage with a rectangular plan sits west of the house and appears to be much older than the former garage. Wood shingles clad the front-gable roof, and wood horizontal boards clad the structure. The building features a wide eave overhang and wood-sash, four-over-four windows set in a wood trim throughout. An entrance with sliding wood doors provides access to the building on its east and west elevations.

Shed
A small shed sits northwest of the house near the tank house. The rectangular-in-plan structure has a wood shingle-clad, front-gable roof, horizontal wood board cladding, a wide eave overhang, and corner boards. An entrance set in a wide wood trim with cut corners adorns the façade.

Tank House
A three-story tank house with a square plan and wood horizontal cladding stands northwest of the house. The structure tapers inward slightly as it rises toward a square platform with a wood balustrade atop the roof. A round water tank with an octagonal roof tops the structure. The east and north elevations feature three windows vertically ranked, although the east elevation most likely has an entrance at the first story. The windows are wood-sash, six-over-six, double-hung with a wood trim and slightly projecting cornice.

Continuation of B10. Significance:

Around 1876, Cornelius Mohr set about improving the land. Among the structures that date to this period is the main residence, a two-story Italianate mansion. It had twenty-five rooms, including multiple parlors, a sitting room, a dining room, kitchen, basement, fourteen bedrooms (seven on the second floor for the Mohr family and seven on the third floor for a working family), and one bathroom. The caretaker's cottage and carriage house date to 1876 as well. The carriage house is the wood-frame structure measuring 65 by 70 feet, large enough to house all the produce harvested at the farm and thirty-two horses. It also has a large hayloft and storage spaces for harnesses, carriages, and farm machinery. A larger barn that could hold up to 10,000 wire bales of hay once stood behind this structure. Other structures at the site include two wells, a tank house, a blacksmith shop, two garages, and a shed.

Though not interested in holding political office, Cornelius Mohr invested in his local community. He served as a trustee for the Mt. Eden Grammar School District and donated the land for Mr. Eden Community Church.

Cornelius Mohr married Cecelia Toaspern, also from Schleswig-Holstein, Germany, in 1857. They had seven children – six sons and one daughter – but by the time Cecelia Mohr died in 1894, and when the Mohr estate was settled a year later, only three sons and the daughter survived. The daughter died a year later, leaving Cornelius Mohr's vast acreage to the three boys. Henry Paul Mohr, the eldest son, inherited land in Amador Valley, and amassed a fortune in his own right. Herman Mohr, the sixth child, inherited 280 acres of the land in Mount Eden. He built a house at 2595 Depot Road, which still stands, but farming did not interest him. Instead, he subdivided his land and sold it, building a fortune that allowed him to travel widely and pursue an eclectic range of intellectual interests.

William, the youngest son, inherited the farm house and buildings, along with 280 acres, at 24985 Hesperian Boulevard. He farmed the land and, in the wake of the collapsing California wheat industry during the late nineteenth century, studied how to improve grain and grass seeds. Flowers fascinated William Mohr too. His father had planted an avenue of palms, as well as locusts, walnut trees, two kinds of redwoods, and a wisteria plant that came to be one of the largest in the San Francisco Bay Area. For his part, William studied bulb flowers; he spent ten years raising daffodils, tulips, and irises, winning national awards for his hybrids of the latter. William Mohr remained at the original family mansion with his wife and daughter until 1923, when a train collided with a car he was riding in, killing him, his wife, and three other people. Henry Mohr managed the farm for the next twelve years. Under his tenure, the farm raised more lucrative crops, like tomatoes and sugar beets for the Hunt-Wesson cannery in Hayward and Holly Sugar Co. in Union City. In 1935 Marian Mohr, William's surviving

State of California — The Resources Agency	Primary #
DEPARTMENT OF PARKS AND RECREATION	HRI#
CONTINUATION SHEET	Trinomial

***Recorded by:** Carey & Co., Inc. ***Date:** April 2008 ☑ Continuation ☐ Update

Continuation of B10. Significance:

daughter, married Jeryl Fry, a third-generation Californian. The newlyweds moved to the home of Marian's childhood, where she resided until her death in September of 2007.

While several of the structures at the Mohr-Fry estate have undergone virtually no alterations, save an enclosed porch on the main residence, new paint, and plumbing and electrical upgrades, the 600-700 acres of farmland have been reduced to just 9 acres. As noted, Herman Mohr inherited half of it, which he subdivided and sold. By the 1960s, the post-World War II population boom created demand for a new junior college in the Hayward area. In 1961 a new junior college district formed and acquired through eminent domain proceedings 271 acres of the Mohr estate. Chabot College now stands on that land.

This site appears eligible for the California Register of Historical Resources and the National Register of Historical Places under Criteria A/1, B/2, and C/3. It stands out as the only surviving farmstead from the nineteenth century in this otherwise heavily developed area, and reminds one of the agricultural landscape that dominated Hayward until World War II. Cornelius Mohr, the original owner, was one of Mount Eden's earliest settlers, most prosperous farmers, and largest landowners. Finally, as a group, the buildings present a nearly unadulterated portrait of nineteenth-century farm architecture. The site's period of significance dates to 1876 to 1894, beginning with the initial construction of the main residence, carriage house, and other buildings by Cornelius Mohr and ending with the death of his wife Cecelia and the division of the property among the remaining Mohr children. All of the buildings at the site appear to be contributing except for the garage that appears to have been constructed sometime in the 1960s and the cluster of buildings north of the carriage house, which were also constructed outside the site's period of significance..

Continuation of B12. References:

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State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI#
Trinomial

Page 6 **of** 9 ***Resource Name or #** 24985 Hesperian Boulevard

***Recorded by:** Carey & Co., Inc. ***Date:** April 2008 ☑ Continuation ☐ Update

Additional Photographs:

East elevation of the carriage house
(Christy Hopper, PMC; March 25, 2008)

Façade and south elevation of the caretaker's cottage
(Christy Hopper, PMC; March 25, 2008)

State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI#**
CONTINUATION SHEET **Trinomial**

 ***Resource Name or #** 24985 Hesperian Boulevard

***Recorded by:** Carey & Co., Inc. ***Date:** April 2008 ☑ Continuation ☐ Update

North elevation of the blacksmith shop
(Christy Hopper, PMC; March 25, 2008)

Façade of the bunk house with the caretaker's house in the background
(Christy Hopper, PMC; March 25, 2008)

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION **CONTINUATION SHEET**	Primary # HRI# Trinomial

Page 8 **of** 9 ***Resource Name or #** 24985 Hesperian Boulevard

***Recorded by:** Carey & Co., Inc. ***Date:** April 2008 ☑ Continuation ☐ Update

West and south elevations of the garage not original to the site
(Christy Hopper, PMC; March 25, 2008)

West elevation of the garage
(Christy Hopper, PMC; March 25, 2008)

State of California — The Resources Agency	Primary #
DEPARTMENT OF PARKS AND RECREATION	HRI#
CONTINUATION SHEET	Trinomial

Page 9 **of** 9 ***Resource Name or #** 24985 Hesperian Boulevard

***Recorded by:** Carey & Co., Inc. ***Date:** April 2008 ☑ Continuation ☐ Update

West and north elevations of the tank house
(Christy Hopper, PMC; March 25, 2008)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code
Other Listings
Review Code **Reviewer** **Date**

Page 1 **of** 12 ***Resource Name or #:** 2595 Depot Road

P1. Other Identifier:
***P2. Location:** ☐ **Not for Publication** ☑ **Unrestricted**
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
***a. County:** Alameda
***b. USGS 7.5' Quad:** Hayward **Date:** **T** ; **R** ; **¼ of** **¼ of Sec** ; M.D. **B.M.**
c. Address: 2595 Depot Road City: Hayward Zip: 94545
d. UTM: Zone: 10 ; mE/ mN (G.P.S.)
e. Other Locational Data: Elevation:

Assessor Parcel Number: 441-0068-040-04

***P3a. Description:**

This two-story Queen Anne residence stands on a flat parcel, amid tress, grass, and other plantings. It has a complex plan and multiple gable and hipped roof with asphalt shingles. Stucco clads the exterior walls. Most windows are missing, but primary extant windows are one-over-one wood with lamb's tongues. A full-length rounded turret with four hipped dormers dominates the southeast elevation. The dormers feature wood shingle cladding, and the turret features a plain frieze and a projecting cornice with dentil course at the first floor. A single story, 1.5 room-deep, gabled and pedimented ell with high-waisted windows projects from the south elevation, and an ADA ramp provides access to the enclosed entrance at the east elevation.

This house has undergone many alterations. Stucco covers the original, predominantly horizontal, wood cladding. The port cochere at the south elevation and entrance porch on the east elevation have been enclosed, with an ADA ramp leading to the latter. The southern elevation to the west of the former port cochere appears to have been altered or added on to and

***P3b. Resource Attributes:** HP2, Single-family residence; HP 41, Hospital
***P4. Resources Present:** ☑Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing

P5b. Description of Photo: View of the southeast elevation; October 31, 2007

***P6. Date Constructed/Age and Sources:**
☑Historic ☐Prehistoric ☐Both
1900, Hayward *Twice-Weekly Review*, 1908.

***P7. Owner and Address:**
Horizon Services
P. O. Box 4217
Hayward, CA 94540

***P8. Recorded by:**
Carey & Co., Inc.
460 Bush Street
San Francisco, CA 94108

***P9. Date Recorded:**
February 2008

***P10. Survey Type:** Intensive

***P11. Report Citation:** Carey & Co. "Intensive Survey of Fifty Properties in Unincorporated Alameda County." March 2008.

***Attachments:** ☐NONE ☐Location Map ☐Sketch Map ☑Continuation Sheet ☑Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☑Photograph Record ☐ Other (List):

State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI#**

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 **of** 12 ***NRHP Status Code** 5S1

***Resource Name or #** 2595 Depot Road

B1. Historic Name: Sea Breeze
B2. Common Name:
B3. Original Use: Residence B4. Present Use: Vacant
***B5. Architectural Style:** Queen Anne
***B6. Construction History:** Constructed in 1900. Additions and alterations ca. 1930s, 1960s.

***B7. Moved?** ☑No ☐Yes ☐Unknown **Date:** **Original Location:**
***B8. Related Features:** This property also retains the original tank house and a small, one-story single gable structure that was a janitor's shed.

B9a. Architect: Thomas D. Newsome b. Builder: Unknown
***B10. Significance: Theme:** Residential Development **Area:** Hayward
Period of Significance: 1900 **Property Type:** Nursing Home **Applicable Criteria:** A, C

Hermann Jasper Mohr was born near Hayward in 1869 to Cornelius Mohr, a farmer and one of the wealthiest landowners in Alameda County. Upon inherenting their father's estate, two of the three Mohr boys continued in the agricultural tradition, but Hermann Mohr subdivided his 280-acre portion of the estate into "Mohrland" and reaped significant profits. He was able essentially to retire by the age of thirty and indulge in a variety of intellectual pursuits and travel. He also served as a director of San Lorenzo Savings Bank, was one of the organizers and stock holders of Eden Creamery, and participated in civic booster activities, particularly in the promotion of road improvements in and around Hayward and Mt. Eden. In 1898 Mohr married Miss Louise Behrens of San Francisco, who had been a teacher for ten years and who remained active in charitable causes after marriage.

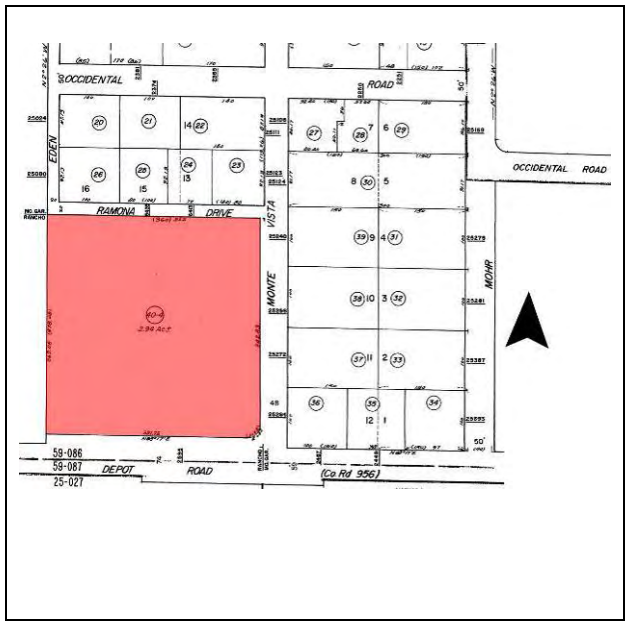
The Mohrs commissioned architect Thomas Dean Newsom, of Oakland, to design the Queen Anne style house at 2595 Depot Road in 1900. Newsom was a well-known architect who designed mostly domestic structures, and small business complexes. A cement driveway, ten feet in width, originally led to a porte cochère supported by massive Ionic pillars on the south side of the house, and a broad veranda partially enclosed the main porch on the east side. Cement walks and

B11. Additional Resource Attributes:

***B12. References:**

See continuation sheet.

B13. Remarks:



***B14. Evaluator:** Carey & Co., Inc.

***Date of Evaluation:** February 2008.

Continuation of P3a. Description:

features multi-lite, fixed wood windows. Apart from a dentil course beneath the cornice of the turret, the house no longer retains any of the original applied decoration. Ghosting of the decorations appear on the turreted tower. Few of the original wood frame double sash windows remain; most window openings feature boards or nothing at all.

Continuation of B10. Significance:

blooming evergreen shrubs decorated the gardens, and the fourteen-room house was lighted with gas, heated with hot air, and equipped with electric bells. At the time, admirers called it it a "modern country home." The Mohrs named their home "Sea Breeze" for its close proximity to the San Francisco Bay.

Despite building a home fit for public gatherings, the Mohrs appear to have spent little time there. They rented the property to others and spent time traveling extensively and educating themselves in an eclectic range of topics. At one point they studied law together at Columbia University in New York. Upon returning to California, Hermann and Louise Mohr led reclusive lives in their grand home.

In 1926 Hermann Mohr partnered with George A. Posey, noted engineer and subdivision expert, to transform the H. J. Mohr Estate into Mohrland Gardens and South Mohrland, for Mohr saw a need for small ranches outside of Oakland. They subdivided the estate into twenty-six parcels in 1926 and dedicated Mohr Road (now Depot Road) and Occidental Road as public highways. Within months realtors were selling complete homes and sites and within eight years twenty homes mostly in an English style dotted the landscape. Realtors praised them as "ideal for chickens, flowers," suitable for all suburban dwellers, and complete with modern conveniences, including gas, electricity, phone, and garage. In 1939, after all of the land had been subdivided and H. J. Mohr had died, Sea Breeze and the three acres on which it stands was sold as well.

Realtors presented Sea Breeze as "Ideal for Sanatorium or Rest Home," and from the late 1930s till about 1980 the house has functioned in this capacity. It was known as the Jackson Nursing Home until 1964 when Adela and Darwin Stahl bought the property and opened the Dar-Dell Convalescent Sanitarium. They remodeled the building extensively to accommodate sixty mentally ill patients and to meet safety requirements. In 1970 the Stahls built a second facility on the premises. Gloria and Louis Bond subsequently acquired the hospital, which closed down ca. 1980. Horizon Service, Inc., now owns the buildings; the newer is known as Cronin House and offers treatment for substance abuse. The original house stands empty and has fallen into a state of disrepair.

The residence is locally significant for its relationship to early subdivisions, and as an example of late Queen Anne architecture. By subdividing his land, Hermann Mohr established himself as an early developer of Mt. Eden and foreshadowed the shift away from an agricultural economy, which dominated the Hayward area until World War II. Although the house pales in comparison to its early days, it is rare, if not unique, in the Hayward area. In terms of setting, scale, roofline, full-length turret, and window openings – including the dormers in the turret and the eybrow window of the main façade – the house retains some of its historical character. The tank house and janitor's shed add to the historic feeling of the site. And while the porte cochere and entrance porch are now enclosed, they retain their scale as well.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
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Page 4 **of** 12 ***Resource Name or #** 2595 Depot Road

***Recorded by:** Carey & Co., Inc. ***Date:** February 2008 ☑ Continuation ☐ Update

Herman Mohr House, southeast elevation, ca. 1908. From "A Modern County Home in a Modern Garden of Eden." Hayward *Twice-a-Week Review,* 1908, p. 2.

State of California — The Resources Agency
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Page 5 **of** 12 ***Resource Name or #** 2595 Depot Road

***Recorded by:** Carey & Co., Inc. ***Date:** February 2008 ☑ Continuation ☐ Update

Herman Mohr House, southeast elevation. Carey & Co. Inc., October 31, 2007.

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***Recorded by:** Carey & Co., Inc. ***Date:** February 2008 ☑ Continuation ☐ Update

North elevation. Photo by Carey & Co. Inc., October 31, 2007.

State of California — The Resources Agency
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Page 7 **of** 12 ***Resource Name or #** 2595 Depot Road

***Recorded by:** Carey & Co., Inc. ***Date:** February 2008 ☑ Continuation ☐ Update

West elevation. Photo by Carey & Co. Inc., October 31, 2007.

State of California — The Resources Agency
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Page 8 **of** 12 ***Resource Name or #** 2595 Depot Road

***Recorded by:** Carey & Co., Inc. ***Date:** February 2008 ☑ Continuation ☐ Update

East elevation. Photo by Carey & Co. Inc., October 31, 2007.

State of California — The Resources Agency
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HRI#
Trinomial

Page 9 **of** 12 ***Resource Name or #** 2595 Depot Road

***Recorded by:** Carey & Co., Inc. ***Date:** February 2008 ☑ Continuation ☐ Update

Detail from north elevation showing original horizontal wood cladding and covered window. Photo by Carey & Co. Inc., October 31, 2007.

State of California — The Resources Agency
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HRI#
Trinomial

Page 10 **of** 12 ***Resource Name or #** 2595 Depot Road

***Recorded by:** Carey & Co., Inc. ***Date:** February 2008 ☑ Continuation ☐ Update

Water tower, Herman Mohr house. Photo by Carey & Co. Inc., October 31, 2007.

State of California — The Resources Agency
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Page 11 **of** 12 ***Resource Name or #** 2595 Depot Road

***Recorded by:** Carey & Co., Inc. ***Date:** February 2008 ☑ Continuation ☐ Update

Janitor's shed, Herman Mohr house. Photo by Carey & Co. Inc., October 31, 2007.

State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI#**
CONTINUATION SHEET **Trinomial**

Page 12 **of** 12 ***Resource Name or #** 2595 Depot Road

***Recorded by:** Carey & Co., Inc. ***Date:** February 2008 ☑ Continuation ☐ Update

Continuation of B12. References:

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APPENDIX D - TRANSPORTATION

MT. EDEN ANNEXATION - PHASE II TRANSPORTATION ANALYSIS

Report

Prepared For:

City of Hayward

and

PMC

DMJM HARRIS | AECOM

July 2009

Mt. Eden Annexation – Phase II
Transportation Analysis

Report

July 2009

Submitted to:

City of Hayward

and

PMC

Prepared By:

DMJM HARRIS | AECOM

2101 Webster Street, Suite 1900
Oakland, CA 94612

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APPENDIX

1.0 INTRODUCTION

This analysis has been performed to assess the potential transportation impacts of potential development on two unincorporated islands in the westerly portion of the City of Hayward's Sphere of Influence. This future development is herein referred to as the Project (Mt. Eden Phase II Annexation).

1.1 PROJECT LOCATION

The Project sites are located in the westerly portion of the City of Hayward, south of West Street and north of Depot Road, generally along Mohr Drive, as shown in **Figure 1**. The project area is immediately surrounded by residential, educational, regional retail, agricultural, cemetery, and light industrial land uses. Existing land uses for the two islands are as follows:

- The West-Mohr island includes predominantly single-family dwellings, with a portion of the Chabot College campus and the Mohr-Fry Estate, a private estate that was built originally in 1876.
- The Mohr-Depot island includes predominantly single-family dwellings, with a rehabilitation facility (Horizon Services) located on the Hermann-Mohr property.

1.2 PROJECT DESCRIPTION

The Project involves annexing two remaining unincorporated "islands" in the Mt. Eden area of the City, which are surrounded by incorporated areas of Hayward. Three other islands were annexed into Hayward in March 2007 (Mt. Eden Annexation Phase I). For this study's purposes, the two islands currently under consideration for annexation are termed as Annexation area 1 and Annexation area 2, as shown on **Figure 1**.

The Project sites lie within Alameda County's Eden Area Redevelopment Project area. The proposed Project involves the following potential development in Annexation areas 1 and 2 in the next 20 years:

- 54 single-family dwelling units;
- 20,000 additional square feet of institutional uses at the Hermann-Mohr property on Depot Road; and
- 4,200 additional square feet of industrial uses at 2661 Depot Road.

No development is assumed on the Mohr Fry Estate since the City proposes preserve this as a historic resource.

1.3 STUDY SCOPE AND APPROACH

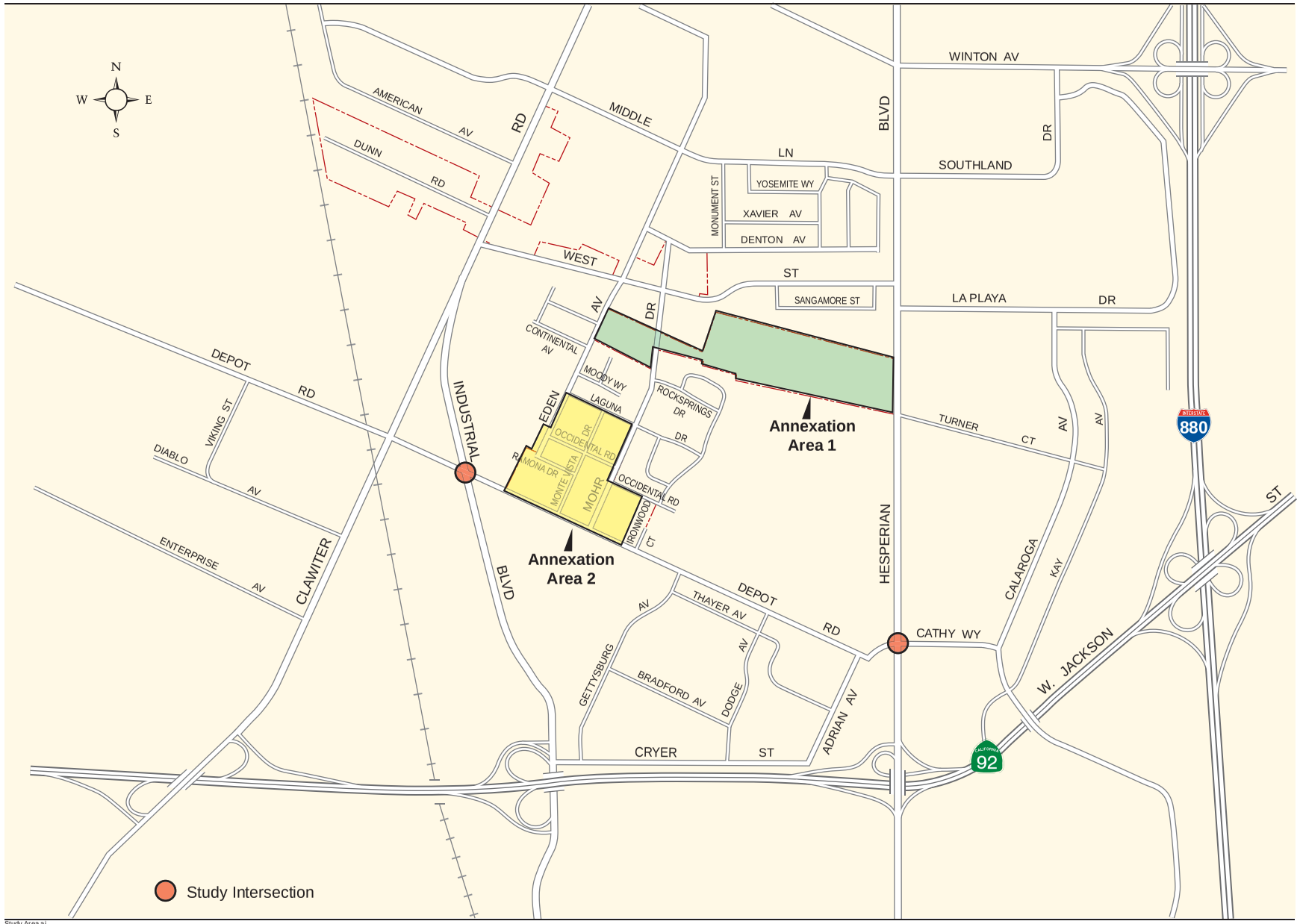
The following three scenarios were evaluated to identify the potential transportation impacts of the proposed project:

- Existing Conditions;
- Existing plus Project Conditions (Phase II); and
- Baseline (Existing plus Phase I) plus Project Conditions (Phase II).

Intersection Level of Service (LOS) conditions were analyzed at the following two study intersections in the vicinity of the project site for the weekday AM (7:00 AM to 9:00 AM) and PM peak periods (4:00 PM to 6:00 PM):

1. Industrial Boulevard / Depot Road; and
2. Hesperian Boulevard / Depot Road.

In conjunction with City staff, these intersections were identified as including all locations wherein the Project could result in a significant adverse impact. The locations of the study intersections are shown on **Figure 1**.



Study Area.ai

HAYWARD MT. EDEN PHASE II ANNEXATION TRAFFIC IMPACT ANALYSIS

Figure 1

PROJECT LOCATION AND STUDY INTERSECTIONS

2.0 EXISTING CONDITIONS

This section provides a description of the existing transportation facilities in the vicinity of the proposed Project. Included in this section are descriptions of the existing roadway and transit networks, and documentation of the existing traffic, transit, parking, pedestrian, and bicycle conditions.

2.1 ROADWAY NETWORK

This section includes a description of the existing roadway setting.

REGIONAL ACCESS

Interstate 880 (I-880) is a regional freeway extending between San Jose to the south and I-80 in Emeryville to the north. Four lanes are generally provided in each direction on this freeway near the Project sites, with auxiliary lanes available at some locations. Access to I-880 from the Project sites is provided via an interchange at West Winton Avenue located north of the Project sites.

State Route 92 (SR-92) is a regional freeway and state highway located south of the Project sites, extending between I-880 in Hayward and Half Moon Bay to the west. Three to four lanes are generally provided in each direction on this freeway near the Project sites. Access to SR-92 from the Project sites is provided via interchanges at Hesperian Boulevard and Industrial Boulevard.

LOCAL ACCESS

Hesperian Boulevard is a north-south, six-lane arterial that runs between Bayfair Shopping Center in San Leandro to Union City, where it becomes Union City Boulevard. It is fronted by primarily commercial uses and provides access to the Hayward Executive Airport, Chabot College, and Highway 92.

Industrial Boulevard is a north-south, four-lane arterial that runs from Clawiter Road to I-880, where it turns into Industrial Parkway. It provides access to both Route-92 and I-880.

Depot Road is an east-west, four-lane road that runs from Clawiter Road to I-880, where it turns into Industrial Parkway. It provides access to both Route-92 and I-880 for Project trips.

2.2 INTERSECTION OPERATING CONDITIONS

Existing intersection operating conditions were evaluated for the weekday AM (7:00 AM to 9:00 AM) and PM (4:00 PM to 6:00 PM) peak periods. Intersection turning movement counts were conducted at both the study intersections on Wednesday, February 27, 2008. Roadway geometry and weekday AM and PM peak hour turning movement volumes are presented in the **Appendix**.

The operating characteristics of intersections are described by the concept of Level of Service. LOS is a qualitative description of the performance of an intersection based on

the average delay per vehicle. Intersection levels of service range from LOS A, which indicates free flow or excellent conditions with short delays, to LOS F, which indicates congested or overloaded conditions with extremely long delays. LOS D or better is used as the criteria for satisfactory operation at analysis intersections based on the City's established significance criteria. Per the City of Hayward's requirements, the signalized intersections were evaluated using the Transportation Research Board's *1994 Highway Capacity Manual* (HCM) methodology. **Table 1** presents operational characteristics associated with each level of service category and stopped delay thresholds for signalized intersections.

Table 1 Intersection Level of Service Definitions

Level of Service	Description	Stopped Delay
A	Free flow with no delays. Users are virtually unaffected by others in the traffic stream.	≤ 5
B	Stable traffic. Traffic flows smoothly with few delays.	>5 to ≤15
C	Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays.	>15 to ≤25
D	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours.	>25 to ≤40
E	Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing.	>40 to ≤60
F	Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing.	> 60

Source: Transportation Research Board, *Highway Capacity Manual*, National Research Council, 1994
Notes:
Delay in seconds per vehicle

Traffic analysis was performed using the TRAFFIX Version 7.9 software to determine intersection levels of service at the study intersections. **Table 2** presents the results of the intersection LOS analysis for the existing weekday AM and PM peak hour conditions (**Appendix** contains the LOS calculation sheets). Currently, all study intersections operate under acceptable conditions (LOS C or better) during the weekday AM and PM peak hours.

Table 2 Intersection Level of Service – Existing Conditions

Intersection		Traffic Control	AM Peak Hour		PM Peak Hour	
			LOS	Delay	LOS	Delay
1	Industrial Boulevard / Depot Road	Signalized	C	20.3	C	17.4
2	Hesperian Boulevard / Depot Road	Signalized	C	23.7	B	14.9

Source: DMJM Harris – July 2009
Notes:
Delay in seconds per vehicle

2.3 TRANSIT NETWORK

AC Transit operates following routes in the vicinity of the proposed Project sites.

Route 83 operates between the Hayward and the South Hayward BART stations. In the vicinity of the Project sites, this line runs along Winton Avenue, Clawiter Road, Eden Landing Road, Investment Boulevard, Corporate Boulevard, Arden Road, Industrial Boulevard and Tennyson Road. Route 83 operates with 30-minute headways in the peak hours and 60-minute headways in the off-peak hours.

Route 86 also operates between the Hayward and the South Hayward BART stations. In the vicinity of the Project sites, this line runs along West Winton Avenue, Cabot Boulevard, Depot Road, Industrial Boulevard and West Tennyson Road. Route 83 operates with 30-minute headways in the peak hours and 60-minute headways in the off-peak hours.

Route 92 operates between Kaiser Hospital and Hayward BART station. In the vicinity of the Project sites, this line runs along Winton Avenue and Hesperian Boulevard. Route 92 operates with 15-minute headways throughout the day.

Route 97 operates between the Union City and Bayfair BART stations. In the vicinity of the Project sites, this line runs along Hesperian Boulevard. Route 97 operates with 15-minute headways throughout the day.

Line M has been combined with the discontinued Line MA. This new route operates in both directions between the Castro Valley BART station and Union City BART station via the San Mateo and Dumbarton bridges. Seventeen morning trips and 19 evening trips on weekdays with 30-60 minute headways serve employment centers in Foster City, San Mateo, Redwood Shores, Redwood City, and Melno Park. Weekend service now operates only between Castro Valley BART and Hillsdale Mall. In the vicinity of the Project sites, this line runs along Winton Avenue and Hesperian Boulevard.

Line S operates between Eden Shore, Hayward and the Transbay Terminal in San Francisco via Hesperian Boulevard.

2.4 PEDESTRIAN AND BICYCLE CONDITIONS

Sidewalks currently exist along the majority of the roadways in the vicinity of the Project sites. However, sidewalks were missing along many of the property frontages within the areas. As the areas are annexed into the City of Hayward and potentially redeveloped, it is anticipated that sidewalks would be added in accordance with City standards.

Class III bike facilities currently exist on Middle Lane, Clawiter Road and Depot Road. Class III bicycle facilities are signed routes only, where bicyclists share travel lanes with vehicles.

2.5 PARKING CONDITIONS

In the vicinity of the Project sites, on-street parking is generally permitted in the residential areas and is prohibited in the industrial areas.

3.0 PROJECT TRAVEL DEMAND

Travel demand refers to the new vehicle traffic that would be generated by a proposed project. This section provides an estimate of the travel demand that would be generated by residential land use developments in Annexation areas 1 and 2. In order to provide for a conservative estimate of project impacts, all traffic generated by the proposed Project is assumed to be new, and no credit is taken for potential removal of existing trip generators.

3.1 TRIP GENERATION

Project trip generation was based on rates presented in Institute of Transportation Engineer's (ITE) *Trip Generation Manual*, *7th Edition*. The "Single Family Dwelling" land use (ITE Land Use Code 210), "General Light Industrial" land use (ITE Land Use Code 110) and "Nursing Home" land use (ITE Land Use Code 620) average trip rates were used to determine trip generation for the proposed Project sites. **Table 3** presents the results of Project trip generation analysis.

Table 3 Vehicle-Trip Generation

Trip Generation Rates	ITE Land Use Code	Daily Trip Rate	AM Peak Hour			PM Peak Hour		
			Peak Hour Rate	% In	% Out	Peak Hour Rate	% In	% Out
Residential Uses	210	9.57	0.75	25%	75%	1.01	63%	37%
Industrial Uses	110	6.97	0.92	88%	12%	0.98	12%	88%
Rehabilitation Facility(1)	620	6.10	0.38	60%	40%	0.42	47%	53%
Project Description	**Project Size**	**Daily Trips**	**Peak Hour Trips**	**In**	**Out**	**Peak Hour Trips**	**In**	**Out**
Annexation Area 1								
Residential Uses	27 D.U.	258	20	5	15	27	17	10
Annexation Area 2								
Residential Uses	27 D.U.	258	20	5	15	27	17	10
Industrial Uses	4,200 S.F.	30	4	3	1	4	1	3
Rehabilitation Facility(1)	20,000 S.F.	122	8	5	3	8	5	3
Total Vehicle Trips		**668**	**52**	**18**	**34**	**66**	**40**	**26**

Source: DMJM Harris – July 2009

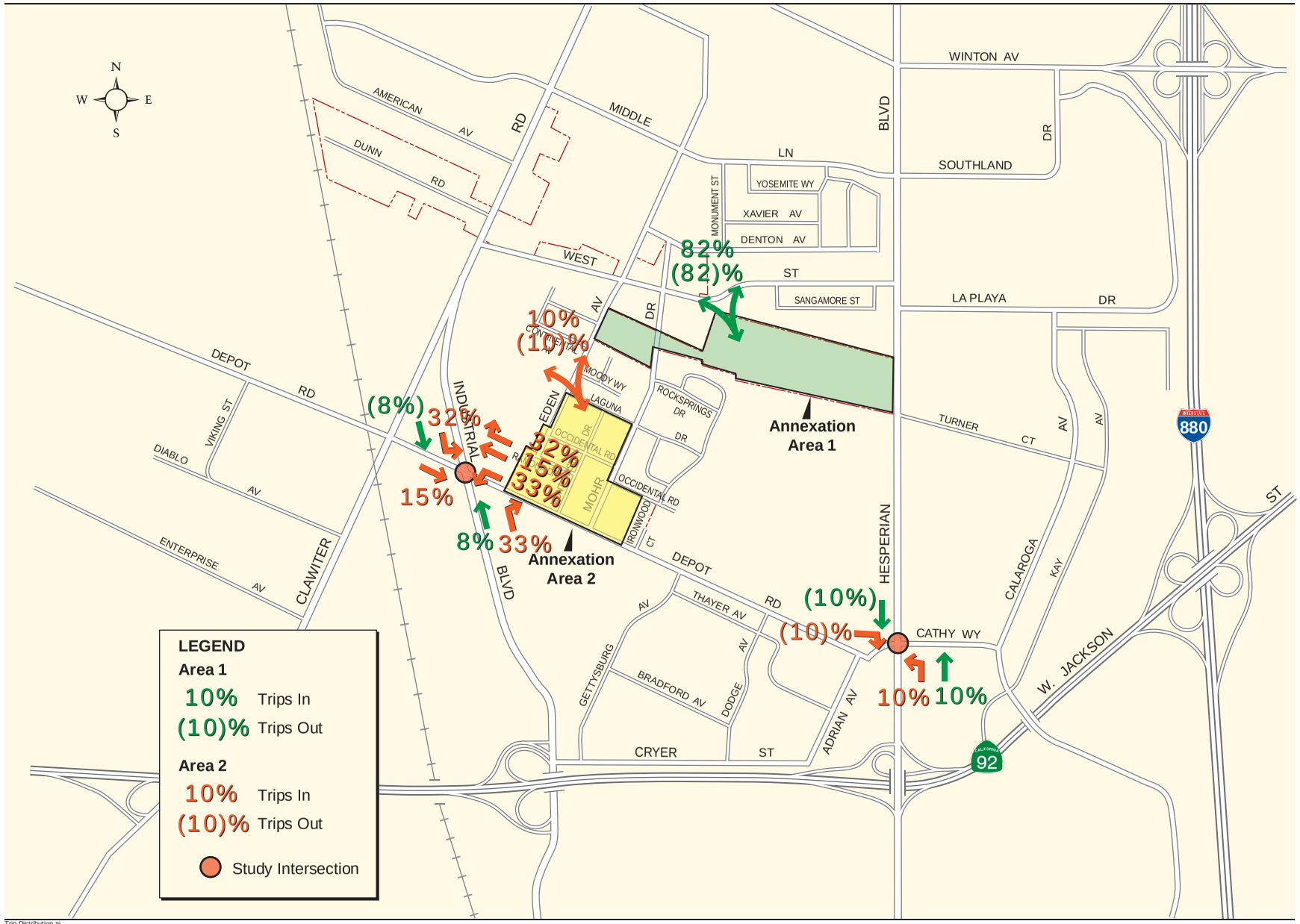
Notes:

(1) Trip Rates for Nursing Home (ITE Land Use Code 620) were used in the absence of more site-specific information for the rehabilitation facility uses. In addition, inbound/outbound split information for the AM peak hour was obtained from San Diego Traffic Generators (SANDAG) in the absence of information for Nursing Home uses in the ITE *Trip Generation Manual*, *7th Edition*.

Overall, the combined uses on the Project site would generate 668 gross daily trips, with 52 occurring in the AM peak hour and 66 occurring in the PM peak hour.

3.2 TRIP DISTRIBUTION

The distribution of new Project trips was based on observations of existing traffic patterns, information from the Alameda County Congestion Management Agency's (ACCMA) travel demand model and the distribution developed for the Phase I transportation study. **Figure 2** presents the Project trip distribution for Annexation Areas 1 and 2.



Trip Distribution.ai

HAYWARD MT. EDEN PHASE II ANNEXATION TRAFFIC IMPACT ANALYSIS

Figure 2

PROJECT TRIP DISTRIBUTION

4.0 IMPACT ANALYSIS

This section presents the assessment of potential traffic, transit, pedestrian, bicycle, and parking impacts due to the proposed Project.

4.1 SIGNIFICANCE CRITERIA

As defined by the City's General Plan Circulation Element, the minimum acceptable threshold for signalized intersection traffic operations is level of service D; however, LOS E may be acceptable at locations where the high fiscal and social costs of implementing improvements to achieve LOS D may be prohibitive. In addition, the City utilizes a significance threshold of five seconds of added delay for peak hour at intersections operating at LOS F.

4.2 EXISTING PLUS PROJECT CONDITIONS

The Project (Phase II) trip assignment at the study intersections for the weekday AM and PM peak hours is presented in the **Appendix**. Intersection level of service analysis has been performed for Existing plus Project conditions. (the **Appendix** contains the detailed LOS calculation sheets). **Table 4** presents a comparison of the Existing and Existing plus Project (Phase II) intersection operating conditions, for the weekday AM and PM peak hour conditions.

As illustrated in the table, both study intersections are expected to operate at acceptable levels (LOS C or better) during the weekday AM and PM peak hours during these scenarios. The proposed Project would result in minor increases in vehicular delay.

Table 4 Intersection Level of Service – Existing plus Project Conditions

Intersection		Peak Hour	Existing Conditions		Existing plus Project (Phase II) Conditions	
			LOS	Delay	LOS	Delay
1	Industrial Boulevard / Depot Road	AM	C	20.3	C	20.6
		PM	C	17.4	C	17.5
2	Hesperian Boulevard / Depot Road	AM	C	23.7	C	23.8
		PM	B	14.9	B	15.0

Source: DMJM Harris – July 2009
Notes:
Delay in seconds per vehicle.

4.3 BASELINE PROJECT CONDITIONS

Phase I of the Mt. Eden reorganization was approved by the Alameda County Local Agency Formation Commission (LAFCo) on March 5, 2007. As indicated in Section 1.2, Phase I of the Mt. Eden study included the annexation of three other unincorporated area "islands". The new traffic volumes that would be generated by the Phase I were added to the existing volumes to establish the baseline conditions for this report. Phase I volumes for the weekday AM and PM peak hours at the study intersections are presented in the **Appendix**.

Intersection operating conditions were then analyzed for the Baseline plus Project traffic conditions (**Appendix** contains the LOS calculation sheets). **Table 5** presents a comparison of the Existing plus Project and Baseline plus Project intersection operating conditions for the weekday AM and PM peak hours.

Table 5 Intersection Level of Service – Baseline plus Project Conditions

Intersection		Peak Hour	Existing plus Project (Phase II) Conditions		Baseline (Existing plus Phase I) plus Project (Phase II) Conditions	
			LOS	Delay	LOS	Delay
1	Industrial Boulevard / Depot Road	AM	C	20.6	C	21.2
		PM	C	17.5	C	17.6
2	Hesperian Boulevard / Depot Road	AM	C	23.8	C	24.4
		PM	B	15.0	C	15.2

Source: DMJM Harris – July 2009
Notes:
Delay in seconds per vehicle.

As seen from **Table 5**, both the study intersections would continue to operate at acceptable conditions (LOS C or better) under the Baseline plus Project scenario.

4.4 TRANSIT IMPACTS

Based on information from the latest United States Census Journey to Work data, a relatively low percentage of area trips occur by transit. Given the low levels of project trip generation and multiple bus lines serving the area, significant adverse impacts to area transit providers are not anticipated.

4.5 PEDESTRIAN AND BICYCLE IMPACTS

With the incorporation of the Mt. Eden annexation areas into the incorporated regions of the City of Hayward, it is anticipated that sidewalks would be added in accordance with city standards as areas redevelop.

4.6 PARKING IMPACTS

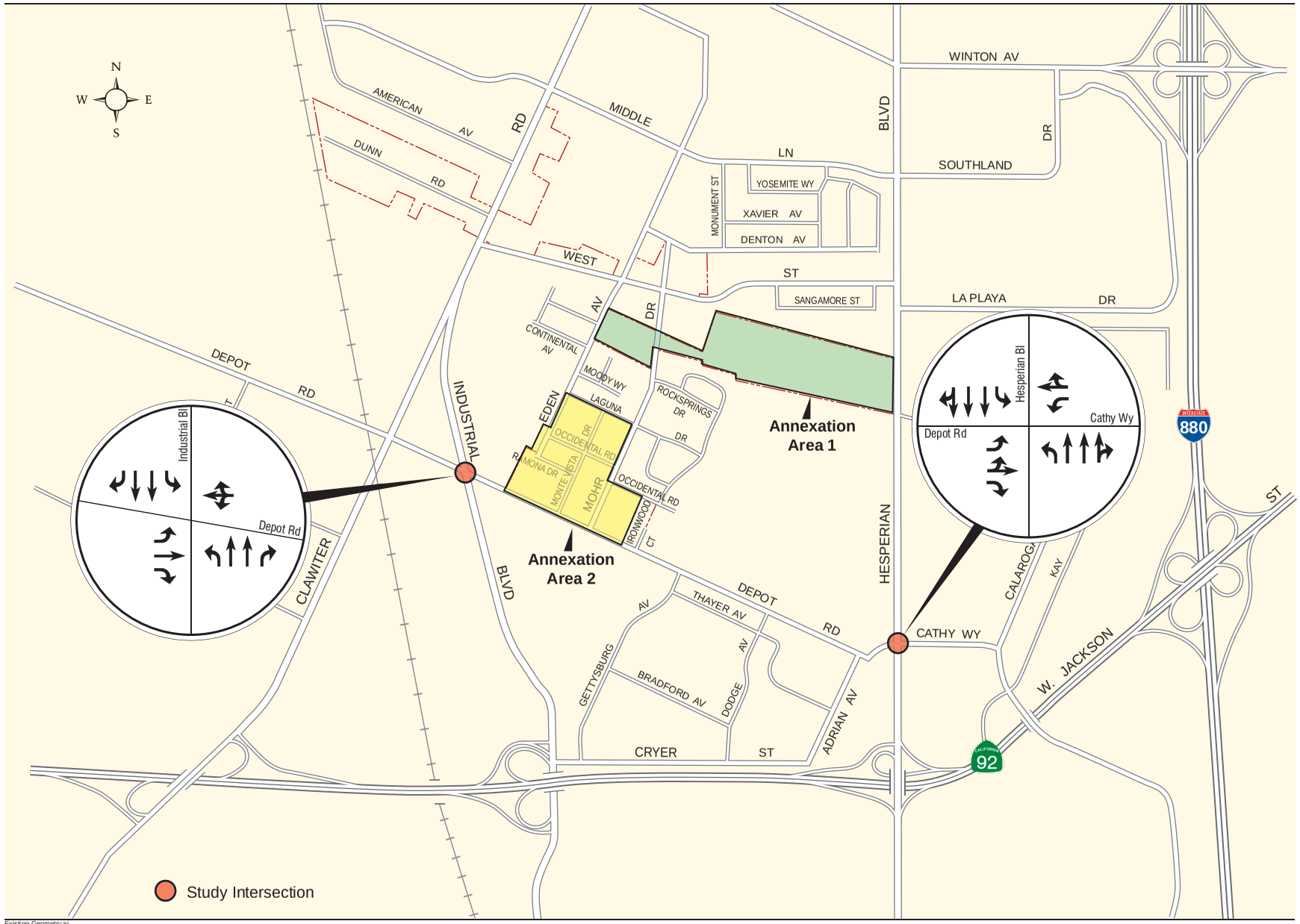
With the incorporation of the Mt. Eden annexation areas into the incorporated regions of the City of Hayward, it is anticipated that sufficient parking for the new development would be provided in accordance with city standards as areas redevelop.

Mt. Eden Annexation – Phase II

Transportation Analysis

Appendix

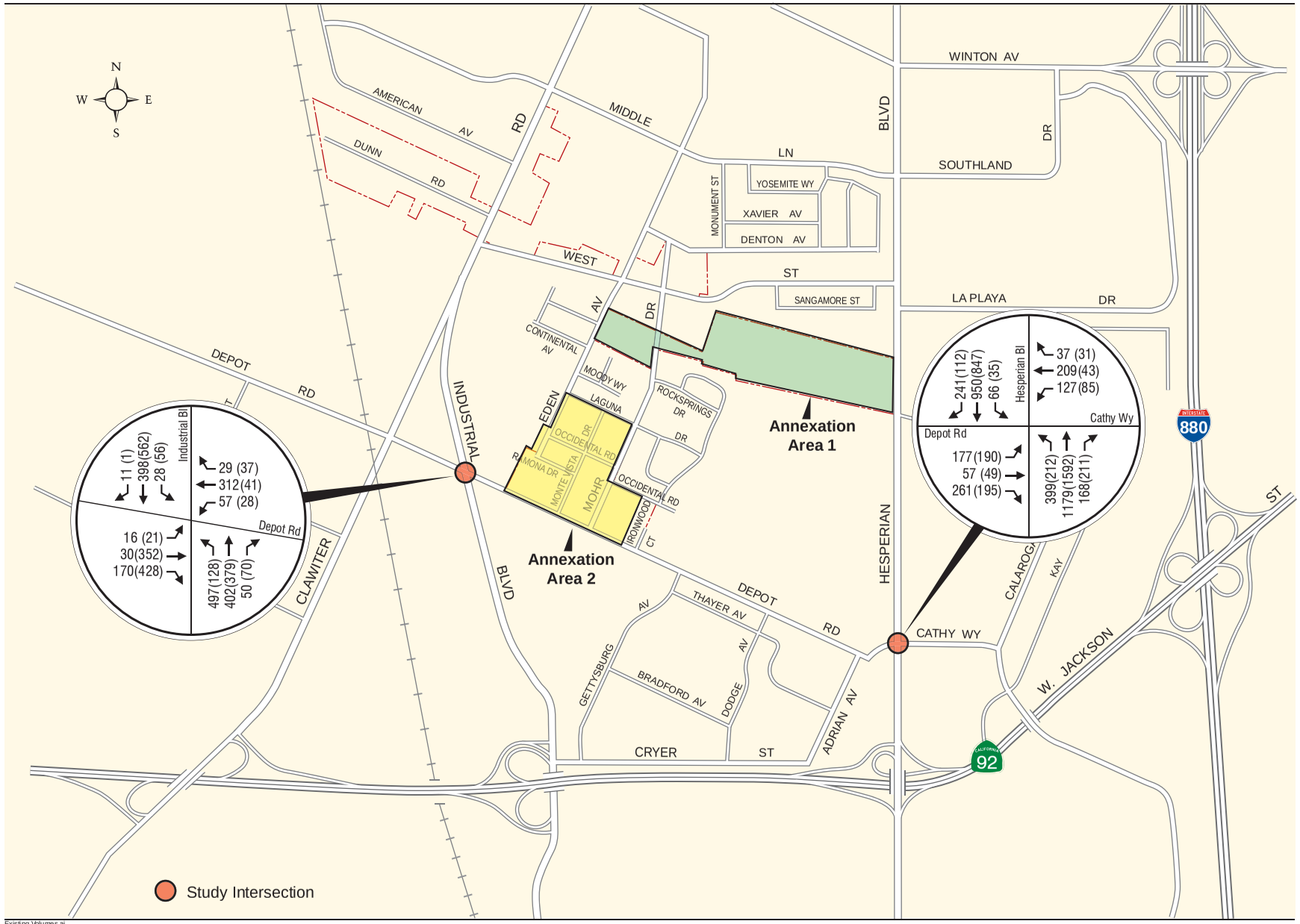
Roadway Geometry



Existing Geometry.ai

EXISTING INTERSECTION GEOMETRY

Turning Movement Volumes

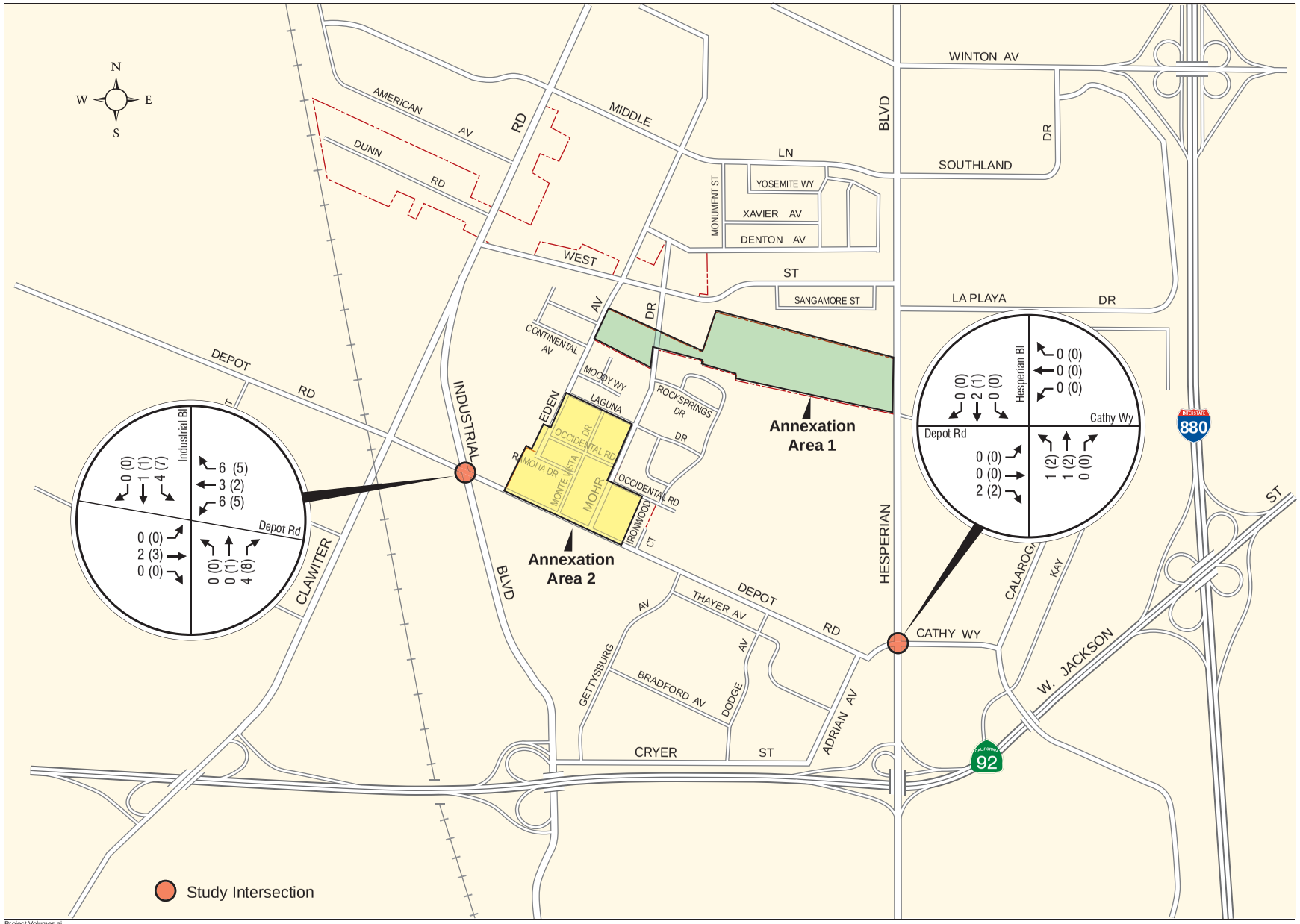


Existing Volumes.ai

HAYWARD MT. EDEN PHASE II ANNEXATION TRAFFIC IMPACT ANALYSIS

EXISTING TRAFFIC VOLUMES

AM (PM) Peak Hour

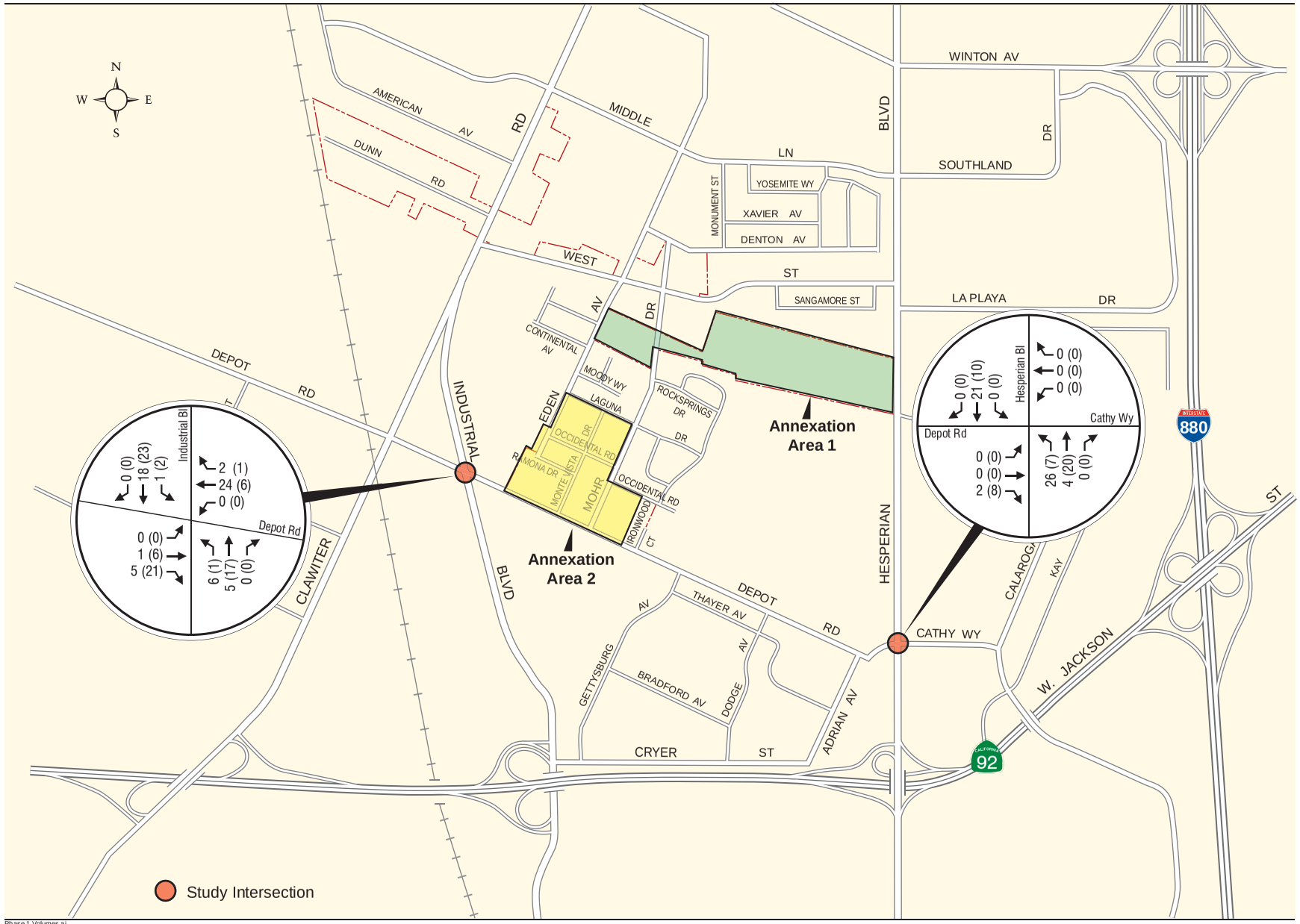


Project Volumes.ai

HAYWARD MT. EDEN PHASE II ANNEXATION TRAFFIC IMPACT ANALYSIS

PROJECT TRAFFIC VOLUMES

AM (PM) Peak Hour



Phase 1 Volumes.ai

PHASE 1 TRAFFIC VOLUMES

AM (PM) Peak Hour

Intersection Level of Service Calculation Worksheets

Mt. Eden Annexation
Transportation Impact Analysis
Existing AM Peak Hour

Level Of Service Computation Report
1994 HCM Operations Method (Base Volume Alternative)

Intersection #1 Industrial Blvd / Depot Rd

Cycle (sec):	115	Critical Vol./Cap.(X):	0.682
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	20.3
Optimal Cycle:	34	Level Of Service:	C

Street Name:	Industrial Blvd						Depot Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 0	1	0 0	1! 0	0
Volume Module:AM												
Base Vol:	497	402	50	28	398	11	16	30	170	57	312	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	497	402	50	28	398	11	16	30	170	57	312	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	523	423	53	29	419	12	17	32	179	60	328	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	523	423	53	29	419	12	17	32	179	60	328	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	523	444	53	29	440	12	17	32	179	60	328	31
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.63	1.00	0.85	0.87	0.87	0.87
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	0.14	0.79	0.07
Final Sat.:	1805	3800	1615	1805	3800	1615	1197	1900	1615	237	1299	121
Capacity Analysis Module:												
Vol/Sat:	0.29	0.12	0.03	0.02	0.12	0.01	0.01	0.02	0.11	0.25	0.25	0.25
Crit Moves:	****				****						****	
Green/Cycle:	0.42	0.46	0.46	0.14	0.17	0.17	0.37	0.37	0.37	0.37	0.37	0.37
Volume/Cap:	0.68	0.26	0.07	0.12	0.68	0.04	0.04	0.04	0.30	0.68	0.68	0.68
Delay/Veh:	19.0	12.4	11.3	28.2	31.0	25.8	14.9	15.0	16.6	21.9	21.9	21.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.0	12.4	11.3	28.2	31.0	25.8	14.9	15.0	16.6	21.9	21.9	21.9
DesignQueue:	21	8	2	2	12	1	1	1	7	18	18	18

Note: Queue reported is the number of cars per lane.

Mt. Eden Annexation
Transportation Impact Analysis
Existing AM Peak Hour

Level Of Service Computation Report
1994 HCM Operations Method (Base Volume Alternative)

Intersection #2 Hesperian Blvd / Depot Rd

Cycle (sec):	116	Critical Vol./Cap.(X):	0.820
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	23.7
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Hesperian Blvd						Depot Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	5	10	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 1	0	1 0	2 1	0	1 1	0 0	1	1 0	0 1	0
Volume Module:AM												
Base Vol:	399	1179	168	66	950	241	177	57	261	127	209	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	399	1179	168	66	950	241	177	57	261	127	209	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	420	1241	177	69	1000	254	186	60	275	134	220	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	420	1241	177	69	1000	254	186	60	275	134	220	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.10	1.10	1.00	1.10	1.10	1.05	1.05	1.00	1.00	1.00	1.00
FinalVolume:	420	1365	195	69	1100	279	196	63	275	134	220	39
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.98	0.98	0.95	0.97	0.97	0.96	0.96	0.85	0.95	0.98	0.98
Lanes:	1.00	2.63	0.37	1.00	2.39	0.61	1.51	0.49	1.00	1.00	0.85	0.15
Final Sat.:	1805	4889	697	1805	4410	1119	2759	889	1615	1805	1582	280
Capacity Analysis Module:												
Vol/Sat:	0.23	0.28	0.28	0.04	0.25	0.25	0.07	0.07	0.17	0.07	0.14	0.14
Crit Moves:	****				****				****			****
Green/Cycle:	0.28	0.52	0.52	0.07	0.30	0.30	0.21	0.21	0.21	0.17	0.17	0.17
Volume/Cap:	0.82	0.54	0.54	0.54	0.82	0.82	0.34	0.34	0.82	0.44	0.82	0.82
Delay/Veh:	32.1	12.3	12.3	37.0	26.5	26.5	25.4	25.4	38.5	28.6	40.7	40.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.1	12.3	12.3	37.0	26.5	26.5	25.4	25.4	38.5	28.6	40.7	40.7
DesignQueue:	21	17	17	4	22	22	7	7	15	7	14	14

Note: Queue reported is the number of cars per lane.

Mt. Eden Annexation
Phase II Transportation Analysis
Existing PM Peak Hour

Level Of Service Computation Report
1994 HCM Operations Method (Base Volume Alternative)

Intersection #1 Industrial Blvd / Depot Rd

Cycle (sec): 115 Critical Vol./Cap.(X): 0.536
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 17.4
Optimal Cycle: 24 Level Of Service: C

Street Name:	Industrial Blvd						Depot Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0 2	0 1	1	0 2	0 1	1	0 1	0 1	0	0 1!	0 0
Volume Module:PM												
Base Vol:	128	379	70	56	562	12	21	352	428	28	41	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	128	379	70	56	562	12	21	352	428	28	41	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	135	399	74	59	592	13	22	371	451	29	43	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	399	74	59	592	13	22	371	451	29	43	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	135	419	74	59	621	13	22	371	451	29	43	39
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.83	1.00	0.85	0.62	0.62	0.62
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	0.26	0.39	0.35
Final Sat.:	1805	3800	1615	1805	3800	1615	1577	1900	1615	311	456	412
Capacity Analysis Module:												
Vol/Sat:	0.07	0.11	0.05	0.03	0.16	0.01	0.01	0.20	0.28	0.09	0.09	0.09
Crit Moves:	****				****				****			
Green/Cycle:	0.14	0.34	0.34	0.10	0.31	0.31	0.52	0.52	0.52	0.52	0.52	0.52
Volume/Cap:	0.54	0.32	0.13	0.32	0.54	0.03	0.03	0.37	0.54	0.18	0.18	0.18
Delay/Veh:	31.5	18.1	16.8	31.4	21.8	18.1	8.7	10.7	12.4	9.4	9.4	9.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.5	18.1	16.8	31.4	21.8	18.1	8.7	10.7	12.4	9.4	9.4	9.4
DesignQueue:	8	9	3	3	14	1	1	12	15	3	3	3

Note: Queue reported is the number of cars per lane.

Mt. Eden Annexation
Phase II Transportation Analysis
Existing PM Peak Hour

Level Of Service Computation Report
1994 HCM Operations Method (Base Volume Alternative)

Intersection #2 Hesperian Blvd / Depot Rd

Cycle (sec): 116 Critical Vol./Cap.(X): 0.591
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 14.9
Optimal Cycle: 27 Level Of Service: B

Street Name:	Hesperian Blvd						Depot Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0 2	1 0	1	0 2	1 0	1	1 0	0 1	1	0 0	1 0
Volume Module:PM												
Base Vol:	212	1592	211	35	847	112	190	49	195	85	43	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	212	1592	211	35	847	112	190	49	195	85	43	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	223	1676	222	37	892	118	200	52	205	89	45	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	223	1676	222	37	892	118	200	52	205	89	45	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.10	1.10	1.00	1.10	1.10	1.05	1.05	1.00	1.00	1.00	1.00
FinalVolume:	223	1843	244	37	981	130	210	54	205	89	45	33
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.98	0.98	0.95	0.98	0.98	0.96	0.96	0.85	0.95	0.94	0.94
Lanes:	1.00	2.65	0.35	1.00	2.65	0.35	1.59	0.41	1.00	1.00	0.58	0.42
Final Sat.:	1805	4932	654	1805	4934	652	2900	748	1615	1805	1038	748
Capacity Analysis Module:												
Vol/Sat:	0.12	0.37	0.37	0.02	0.20	0.20	0.07	0.07	0.13	0.05	0.04	0.04
Crit Moves:		****		****					****	****		
Green/Cycle:	0.26	0.63	0.63	0.03	0.41	0.41	0.21	0.21	0.21	0.08	0.08	0.08
Volume/Cap:	0.48	0.59	0.59	0.59	0.48	0.48	0.34	0.34	0.59	0.59	0.52	0.52
Delay/Veh:	24.3	8.3	8.3	45.1	16.4	16.4	25.0	25.0	28.4	37.3	35.4	35.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.3	8.3	8.3	45.1	16.4	16.4	25.0	25.0	28.4	37.3	35.4	35.4
DesignQueue:	11	18	18	2	15	15	7	7	11	5	5	5

Note: Queue reported is the number of cars per lane.

Mt. Eden Annexation
Phase II Transportation Analysis
Existing plus Project AM Peak Hour

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #1 Industrial Blvd / Depot Rd

Cycle (sec):	115	Critical Vol./Cap.(X):	0.695
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	20.6
Optimal Cycle:	35	Level Of Service:	C

Street Name:	Industrial Blvd						Depot Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 0	1	0 0	1! 0	0
Volume Module:AM												
Base Vol:	497	402	50	28	398	11	16	30	170	57	312	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	497	402	50	28	398	11	16	30	170	57	312	29
Added Vol:	0	0	4	4	1	0	0	2	0	6	3	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	497	402	54	32	399	11	16	32	170	63	315	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	523	423	57	34	420	12	17	34	179	66	332	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	523	423	57	34	420	12	17	34	179	66	332	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	523	444	57	34	441	12	17	34	179	66	332	37
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.62	1.00	0.85	0.86	0.86	0.86
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	0.15	0.77	0.08
Final Sat.:	1805	3800	1615	1805	3800	1615	1178	1900	1615	250	1251	139
Capacity Analysis Module:												
Vol/Sat:	0.29	0.12	0.04	0.02	0.12	0.01	0.01	0.02	0.11	0.27	0.27	0.27
Crit Moves:	****				****						****	
Green/Cycle:	0.42	0.45	0.45	0.13	0.17	0.17	0.38	0.38	0.38	0.38	0.38	0.38
Volume/Cap:	0.70	0.26	0.08	0.14	0.70	0.04	0.04	0.05	0.29	0.70	0.70	0.70
Delay/Veh:	19.7	12.7	11.6	28.4	31.5	26.0	14.4	14.5	16.1	21.7	21.7	21.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.7	12.7	11.6	28.4	31.5	26.0	14.4	14.5	16.1	21.7	21.7	21.7
DesignQueue:	21	8	2	2	12	1	1	1	7	18	18	18

Note: Queue reported is the number of cars per lane.

Mt. Eden Annexation
Phase II Transportation Analysis
Existing plus Project AM Peak Hour

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #2 Hesperian Blvd / Depot Rd

Cycle (sec):	116	Critical Vol./Cap.(X):	0.822
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	23.8
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Hesperian Blvd						Depot Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	5	10	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 1	0	1 0	2 1	0	1 1	0 0	1	1 0	0 1	0
Volume Module:AM												
Base Vol:	399	1179	168	66	950	241	177	57	261	127	209	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	399	1179	168	66	950	241	177	57	261	127	209	37
Added Vol:	1	1	0	0	2	0	0	0	2	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	400	1180	168	66	952	241	177	57	263	127	209	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	421	1242	177	69	1002	254	186	60	277	134	220	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	421	1242	177	69	1002	254	186	60	277	134	220	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.10	1.10	1.00	1.10	1.10	1.05	1.05	1.00	1.00	1.00	1.00
FinalVolume:	421	1366	195	69	1102	279	196	63	277	134	220	39
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.98	0.98	0.95	0.97	0.97	0.96	0.96	0.85	0.95	0.98	0.98
Lanes:	1.00	2.63	0.37	1.00	2.39	0.61	1.51	0.49	1.00	1.00	0.85	0.15
Final Sat.:	1805	4890	696	1805	4412	1117	2759	889	1615	1805	1582	280
Capacity Analysis Module:												
Vol/Sat:	0.23	0.28	0.28	0.04	0.25	0.25	0.07	0.07	0.17	0.07	0.14	0.14
Crit Moves:	****				****				****			****
Green/Cycle:	0.28	0.52	0.52	0.07	0.30	0.30	0.21	0.21	0.21	0.17	0.17	0.17
Volume/Cap:	0.82	0.54	0.54	0.54	0.82	0.82	0.34	0.34	0.82	0.44	0.82	0.82
Delay/Veh:	32.3	12.3	12.3	37.1	26.6	26.6	25.4	25.4	38.6	28.6	40.9	40.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.3	12.3	12.3	37.1	26.6	26.6	25.4	25.4	38.6	28.6	40.9	40.9
DesignQueue:	21	17	17	4	22	22	7	7	15	7	14	14

Note: Queue reported is the number of cars per lane.

Mt. Eden Annexation
Phase II Transportation Analysis
Existing plus Project PM Peak Hour

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #1 Industrial Blvd / Depot Rd

Cycle (sec): 115 Critical Vol./Cap.(X): 0.536
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 17.5
Optimal Cycle: 24 Level Of Service: C

Street Name:	Industrial Blvd						Depot Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0 2	0 1	1	0 2	0 1	1	0 1	0 1	0	0 1!	0 0
Volume Module:PM												
Base Vol:	128	379	70	56	562	12	21	352	428	28	41	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	128	379	70	56	562	12	21	352	428	28	41	37
Added Vol:	0	1	8	7	1	0	0	3	0	5	2	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	128	380	78	63	563	12	21	355	428	33	43	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	135	400	82	66	593	13	22	374	451	35	45	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	400	82	66	593	13	22	374	451	35	45	44
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	135	420	82	66	622	13	22	374	451	35	45	44
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.82	1.00	0.85	0.60	0.60	0.60
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	0.28	0.36	0.36
Final Sat.:	1805	3800	1615	1805	3800	1615	1558	1900	1615	316	412	402
Capacity Analysis Module:												
Vol/Sat:	0.07	0.11	0.05	0.04	0.16	0.01	0.01	0.20	0.28	0.11	0.11	0.11
Crit Moves:	****				****				****			
Green/Cycle:	0.14	0.33	0.33	0.11	0.31	0.31	0.52	0.52	0.52	0.52	0.52	0.52
Volume/Cap:	0.54	0.33	0.15	0.33	0.54	0.03	0.03	0.38	0.54	0.21	0.21	0.21
Delay/Veh:	31.5	18.6	17.4	30.8	21.8	18.1	8.7	10.8	12.4	9.6	9.6	9.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.5	18.6	17.4	30.8	21.8	18.1	8.7	10.8	12.4	9.6	9.6	9.6
DesignQueue:	8	9	4	4	14	1	1	12	15	4	4	4

Note: Queue reported is the number of cars per lane.

Mt. Eden Annexation
Phase II Transportation Analysis
Existing plus Project PM Peak Hour

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #2 Hesperian Blvd / Depot Rd

Cycle (sec): 116 Critical Vol./Cap.(X): 0.593
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.0
Optimal Cycle: 27 Level Of Service: B

Street Name:	Hesperian Blvd						Depot Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0 2	1 0	1	0 2	1 0	1	1 0	0 1	1	0 0	1 0
Volume Module:PM												
Base Vol:	212	1592	211	35	847	112	190	49	195	85	43	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	212	1592	211	35	847	112	190	49	195	85	43	31
Added Vol:	2	2	0	0	1	0	0	0	2	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	214	1594	211	35	848	112	190	49	197	85	43	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	225	1678	222	37	893	118	200	52	207	89	45	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	225	1678	222	37	893	118	200	52	207	89	45	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.10	1.10	1.00	1.10	1.10	1.05	1.05	1.00	1.00	1.00	1.00
FinalVolume:	225	1846	244	37	982	130	210	54	207	89	45	33
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.98	0.98	0.95	0.98	0.98	0.96	0.96	0.85	0.95	0.94	0.94
Lanes:	1.00	2.65	0.35	1.00	2.65	0.35	1.59	0.41	1.00	1.00	0.58	0.42
Final Sat.:	1805	4933	653	1805	4934	652	2900	748	1615	1805	1038	748
Capacity Analysis Module:												
Vol/Sat:	0.12	0.37	0.37	0.02	0.20	0.20	0.07	0.07	0.13	0.05	0.04	0.04
Crit Moves:		****		****					****	****		
Green/Cycle:	0.26	0.63	0.63	0.03	0.41	0.41	0.22	0.22	0.22	0.08	0.08	0.08
Volume/Cap:	0.49	0.59	0.59	0.49	0.49	0.49	0.33	0.33	0.59	0.59	0.52	0.52
Delay/Veh:	24.3	8.4	8.4	45.2	16.5	16.5	24.9	24.9	28.3	37.4	35.5	35.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.3	8.4	8.4	45.2	16.5	16.5	24.9	24.9	28.3	37.4	35.5	35.5
DesignQueue:	11	18	18	2	15	15	7	7	11	5	5	5

Note: Queue reported is the number of cars per lane.

Mt. Eden Annexation
Phase II Transportation Analysis
Existing + Phase I + Project AM Peak Hour

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #1 Industrial Blvd / Depot Rd

Cycle (sec): 115 Critical Vol./Cap.(X): 0.721
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 21.2
Optimal Cycle: 38 Level Of Service: C

Street Name:	Industrial Blvd						Depot Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 0	1	0 0	1! 0	0
Volume Module:AM												
Base Vol:	497	402	50	28	398	11	16	30	170	57	312	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	497	402	50	28	398	11	16	30	170	57	312	29
Added Vol:	0	0	4	4	1	0	0	2	0	6	3	6
Phase I:	6	5	0	1	18	0	0	1	5	0	24	2
Initial Fut:	503	407	54	33	417	11	16	33	175	63	339	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	529	428	57	35	439	12	17	35	184	66	357	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	529	428	57	35	439	12	17	35	184	66	357	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	529	450	57	35	461	12	17	35	184	66	357	39
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.61	1.00	0.85	0.86	0.86	0.86
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	0.14	0.78	0.08
Final Sat.:	1805	3800	1615	1805	3800	1615	1159	1900	1615	235	1267	138
Capacity Analysis Module:												
Vol/Sat:	0.29	0.12	0.04	0.02	0.12	0.01	0.01	0.02	0.11	0.28	0.28	0.28
Crit Moves:	****				****						****	
Green/Cycle:	0.41	0.44	0.44	0.13	0.17	0.17	0.39	0.39	0.39	0.39	0.39	0.39
Volume/Cap:	0.72	0.27	0.08	0.15	0.72	0.04	0.04	0.05	0.29	0.72	0.72	0.72
Delay/Veh:	20.9	13.0	11.9	28.7	32.0	25.9	14.0	14.1	15.7	22.0	22.0	22.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.9	13.0	11.9	28.7	32.0	25.9	14.0	14.1	15.7	22.0	22.0	22.0
DesignQueue:	22	8	2	2	13	1	1	1	7	19	19	19

Note: Queue reported is the number of cars per lane.

Mt. Eden Annexation
Phase II Transportation Analysis
Existing + Phase I + Project AM Peak Hour

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #2 Hesperian Blvd / Depot Rd

Cycle (sec): 116 Critical Vol./Cap.(X): 0.844
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 24.4
Optimal Cycle: 63 Level Of Service: C

Street Name:	Hesperian Blvd						Depot Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	5	10	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 1	0	1 0	2 1	0	1 1	0 0	1	1 0	0 1	0
Volume Module:AM												
Base Vol:	399	1179	168	66	950	241	177	57	261	127	209	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	399	1179	168	66	950	241	177	57	261	127	209	37
Added Vol:	1	1	0	0	2	0	0	0	2	0	0	0
Phase 1:	26	4	0	0	21	0	0	0	2	0	0	0
Initial Fut:	426	1184	168	66	973	241	177	57	265	127	209	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	448	1246	177	69	1024	254	186	60	279	134	220	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	448	1246	177	69	1024	254	186	60	279	134	220	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.10	1.10	1.00	1.10	1.10	1.05	1.05	1.00	1.00	1.00	1.00
FinalVolume:	448	1371	195	69	1127	279	196	63	279	134	220	39
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.98	0.98	0.95	0.97	0.97	0.96	0.96	0.85	0.95	0.98	0.98
Lanes:	1.00	2.63	0.37	1.00	2.40	0.60	1.51	0.49	1.00	1.00	0.85	0.15
Final Sat.:	1805	4892	694	1805	4431	1098	2759	889	1615	1805	1582	280
Capacity Analysis Module:												
Vol/Sat:	0.25	0.28	0.28	0.04	0.25	0.25	0.07	0.07	0.17	0.07	0.14	0.14
Crit Moves:	****				****				****			****
Green/Cycle:	0.29	0.52	0.52	0.07	0.30	0.30	0.20	0.20	0.20	0.16	0.16	0.16
Volume/Cap:	0.84	0.53	0.53	0.53	0.84	0.84	0.35	0.35	0.84	0.45	0.84	0.84
Delay/Veh:	33.0	12.0	12.0	36.8	27.5	27.5	25.6	25.6	40.8	29.0	43.3	43.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	33.0	12.0	12.0	36.8	27.5	27.5	25.6	25.6	40.8	29.0	43.3	43.3
DesignQueue:	22	17	17	4	23	23	7	7	15	7	14	14

Note: Queue reported is the number of cars per lane.

Mt. Eden Annexation
Phase II Transportation Analysis
Existing + Phase I + Project PM Peak Hour

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #1 Industrial Blvd / Depot Rd

Cycle (sec): 115 Critical Vol./Cap.(X): 0.558
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 17.6
Optimal Cycle: 25 Level Of Service: C

Street Name:	Industrial Blvd						Depot Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0 2	0 1	1	0 2	0 1	1	0 1	0 1	0	0 1!	0 0
Volume Module:PM												
Base Vol:	128	379	70	56	562	12	21	352	428	28	41	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	128	379	70	56	562	12	21	352	428	28	41	37
Added Vol:	0	1	8	7	1	0	0	3	0	5	2	5
Phase 1:	1	17	0	2	23	0	0	6	21	0	6	1
Initial Fut:	129	397	78	65	586	12	21	361	449	33	49	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	136	418	82	68	617	13	22	380	473	35	52	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	136	418	82	68	617	13	22	380	473	35	52	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	136	439	82	68	648	13	22	380	473	35	52	45
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.81	1.00	0.85	0.60	0.60	0.60
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	0.26	0.40	0.34
Final Sat.:	1805	3800	1615	1805	3800	1615	1539	1900	1615	303	449	394
Capacity Analysis Module:												
Vol/Sat:	0.08	0.12	0.05	0.04	0.17	0.01	0.01	0.20	0.29	0.11	0.11	0.11
Crit Moves:	****				****				****			
Green/Cycle:	0.13	0.33	0.33	0.11	0.31	0.31	0.52	0.52	0.52	0.52	0.52	0.52
Volume/Cap:	0.56	0.35	0.15	0.35	0.56	0.03	0.03	0.38	0.56	0.22	0.22	0.22
Delay/Veh:	32.2	18.8	17.5	31.1	22.1	18.1	8.5	10.6	12.5	9.5	9.5	9.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.2	18.8	17.5	31.1	22.1	18.1	8.5	10.6	12.5	9.5	9.5	9.5
DesignQueue:	8	10	4	4	15	1	1	12	15	4	4	4

Note: Queue reported is the number of cars per lane.

Mt. Eden Annexation
Phase II Transportation Analysis
Existing + Phase I + Project PM Peak Hour

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #2 Hesperian Blvd / Depot Rd

Cycle (sec): 116 Critical Vol./Cap.(X): 0.603
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.2
Optimal Cycle: 28 Level Of Service: C

Street Name:	Hesperian Blvd						Depot Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0 2	1 0	1	0 2	1 0	1	1 0	0 1	1	0 0	1 0
Volume Module:PM												
Base Vol:	212	1592	211	35	847	112	190	49	195	85	43	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	212	1592	211	35	847	112	190	49	195	85	43	31
Added Vol:	2	2	0	0	1	0	0	0	2	0	0	0
Phase 1:	7	20	0	0	10	0	0	0	8	0	0	0
Initial Fut:	221	1614	211	35	858	112	190	49	205	85	43	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	233	1699	222	37	903	118	200	52	216	89	45	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	233	1699	222	37	903	118	200	52	216	89	45	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.10	1.10	1.00	1.10	1.10	1.05	1.05	1.00	1.00	1.00	1.00
FinalVolume:	233	1869	244	37	993	130	210	54	216	89	45	33
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.98	0.98	0.95	0.98	0.98	0.96	0.96	0.85	0.95	0.94	0.94
Lanes:	1.00	2.65	0.35	1.00	2.65	0.35	1.59	0.41	1.00	1.00	0.58	0.42
Final Sat.:	1805	4940	646	1805	4941	645	2900	748	1615	1805	1038	748
Capacity Analysis Module:												
Vol/Sat:	0.13	0.38	0.38	0.02	0.20	0.20	0.07	0.07	0.13	0.05	0.04	0.04
Crit Moves:		****		****					****	****		
Green/Cycle:	0.26	0.63	0.63	0.03	0.40	0.40	0.22	0.22	0.22	0.08	0.08	0.08
Volume/Cap:	0.50	0.60	0.60	0.60	0.50	0.50	0.33	0.33	0.60	0.60	0.53	0.53
Delay/Veh:	24.4	8.6	8.6	46.0	16.9	16.9	24.6	24.6	28.2	37.9	35.8	35.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.4	8.6	8.6	46.0	16.9	16.9	24.6	24.6	28.2	37.9	35.8	35.8
DesignQueue:	11	19	19	2	15	15	7	7	11	5	5	5

Note: Queue reported is the number of cars per lane.