Appendix J

Alternatives

Appendix J.1

Noise

Project Alternatives Calculations

Project: 8th, Grand and Hope Project
Alternatives Analysis

Alternatives to Eliminate Significant Noise and Vibration

Approach (a) - Extended Construction Duration with Reduced Construction Equipment (50% Reduction)

	Estimated Construction Noise Levels (Demo Phase), dBA Leq					
Receptor	Project	Alt. Approach (a) - 50% Reduction	Relative to Project	Signficance Threshold	Exceed Threshold	Impact
R1	82.2	79.9	-2.3	71.5	8.4	Yes
R2	72.9	70.2	-2.7	70.8	0.0	No
R3	69.3	66.5	-2.8	71.0	0.0	No
R4	74.2	71.5	-2.7	72.4	0.0	No
R5	83.0	80.6	-2.4	72.3	8.3	Yes
R6	80.3	77.8	-2.5	75.1	2.7	Yes
R7	73.2	70.5	-2.7	76.9	0.0	No
R8	62.8	60.3	-2.5	70.2	0.0	No
R9	72.8	70.1	-2.7	72.9	0.0	No

Approach (a) - Extended Construction Duration with Reduced Construction Equipment (One Equipment)

	Estimated Construction Noise Levels (Demo Phase), dBA Leq					
Receptor	Project	Alt. Approach (a) - One Equipment	Relative to Project	Signficance Threshold	Exceed Threshold	Impact
R1	82.2	78.4	-3.8	71.5	6.9	Yes
R2	72.9	68.2	-4.7	70.8	0.0	No
R3	69.3	64.4	-4.9	71.0	0.0	No
R4	74.2	69.6	-4.6	72.4	0.0	No
R5	83.0	79.1	-3.9	72.3	6.8	Yes
R6	80.3	76.2	-4.1	75.1	1.1	Yes
R7	73.2	68.5	-4.7	76.9	0.0	No
R8	62.8	58.5	-4.3	70.2	0.0	No
R9	72.8	68.0	-4.8	72.9	0.0	No

Approach (b) - Central Location of Development

	Estimated Construction Noise Levels (Building Phase), dBA Leq					
Receptor	Project	Alt. Approach (b)	Relative to Project	Signficance Threshold	Exceed Threshold	Impact
R1	79.7	77.5	-2.3	71.5	6.0	Yes
R2	70.8	70.0	-0.8	70.8	0.0	No
R3	67.6	67.0	-0.5	71.0	0.0	No
R4	72.2	71.3	-0.9	72.4	0.0	No
R5	80.5	78.1	-2.4	72.3	5.8	Yes
R6	77.9	76.1	-1.8	75.1	1.0	Yes
R7	71.3	70.4	-0.8	76.9	0.0	No
R8	60.6	59.2	-1.4	70.2	0.0	No
R9	70.8	70.0	-0.8	72.9	0.0	No

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Demolition***
Alternative Analysis (Reduced Construction Equipment)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	85	0
Tractors/Loaders/Backhoes		84	40%		
Water Truck	1	76	40%	105	0
Tractors/Loaders/Backhoes	1	84	40%	105	0
Concrete Saw		90	20%		
Air Compressor		78	40%		
Air Compressor	1	78	40%	155	0
	4				

Receptor: ***R1***

Results:

1-hour Leq: 79.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Demolition***
Alternative Analysis (Reduced Construction Equipment)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	275	0
Tractors/Loaders/Backhoes		84	40%		
Water Truck	1	76	40%	295	0
Tractors/Loaders/Backhoes	1	84	40%	295	0
Concrete Saw		90	20%		
Air Compressor		78	40%		
Air Compressor	1	78	40%	345	0
	4				

Receptor: ***R2***

Results:

1-hour Leq: 70.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Demolition***
Alternative Analysis (Reduced Construction Equipment)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	425	0
Tractors/Loaders/Backhoes		84	40%		
Water Truck	1	76	40%	445	0
Tractors/Loaders/Backhoes	1	84	40%	445	0
Concrete Saw		90	20%		
Air Compressor		78	40%		
Air Compressor	1	78	40%	485	0
	4				

Receptor: ***R3***

Results:

1-hour Leq: 66.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Demolition***
Alternative Analysis (Reduced Construction Equipment)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	235	0
Tractors/Loaders/Backhoes		84	40%		
Water Truck	1	76	40%	255	0
Tractors/Loaders/Backhoes	1	84	40%	255	0
Concrete Saw		90	20%		
Air Compressor		78	40%		
Air Compressor	1	78	40%	295	0
	4				

Receptor: ***R4***

Results:

1-hour Leq: 71.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Demolition***
Alternative Analysis (Reduced Construction Equipment)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	78	0
Tractors/Loaders/Backhoes		84	40%		
Water Truck	1	76	40%	98	0
Tractors/Loaders/Backhoes	1	84	40%	98	0
Concrete Saw		90	20%		
Air Compressor		78	40%		
Air Compressor	1	78	40%	138	0
	4				

Receptor: ***R5***

Results:

1-hour Leq: 80.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Demolition***
Alternative Analysis (Reduced Construction Equipment)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	110	0
Tractors/Loaders/Backhoes		84	40%		
Water Truck	1	76	40%	130	0
Tractors/Loaders/Backhoes	1	84	40%	130	0
Concrete Saw		90	20%		
Air Compressor		78	40%		
Air Compressor	1	78	40%	170	0
	4				

Receptor: ***R6***

Results:

1-hour Leq: 77.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Demolition***
Alternative Analysis (Reduced Construction Equipment)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	265	0
Tractors/Loaders/Backhoes		84	40%		
Water Truck	1	76	40%	285	0
Tractors/Loaders/Backhoes	1	84	40%	285	0
Concrete Saw		90	20%		
Air Compressor		78	40%		
Air Compressor	1	78	40%	325	0
	4				

Receptor: ***R7***

Results:

1-hour Leq: 70.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Demolition***
Alternative Analysis (Reduced Construction Equipment)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	150	15
Tractors/Loaders/Backhoes		84	40%		
Water Truck	1	76	40%	170	15
Tractors/Loaders/Backhoes	1	84	40%	170	15
Concrete Saw		90	20%		
Air Compressor		78	40%		
Air Compressor	1	78	40%	210	15
	4				

Receptor: ***R8***

Results:

1-hour Leq: 60.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Demolition***
Alternative Analysis (Reduced Construction Equipment)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	280	0
Tractors/Loaders/Backhoes		84	40%		
Water Truck	1	76	40%	300	0
Tractors/Loaders/Backhoes	1	84	40%	300	0
Concrete Saw		90	20%		
Air Compressor		78	40%		
Air Compressor	1	78	40%	340	0
	4				

Receptor: ***R9***

Results:

1-hour Leq: 70.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Demolition***
Alternative Analysis (One Construction Equipment)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	85	0
Tractors/Loaders/Backhoes		84	40%		
Water Truck		76	40%		
Tractors/Loaders/Backhoes		84	40%		
Concrete Saw		90	20%		
Air Compressor		78	40%		
Air Compressor		78	40%		
	1				

Receptor: ***R1***

Results:

1-hour Leq: 78.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Demolition***
Alternative Analysis (One Construction Equipment)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	275	0
Tractors/Loaders/Backhoes		84	40%		
Water Truck		76	40%		
Tractors/Loaders/Backhoes		84	40%		
Concrete Saw		90	20%		
Air Compressor		78	40%		
Air Compressor		78	40%		
	1				

Receptor: ***R2***

Results:

1-hour Leq: 68.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Demolition***
Alternative Analysis (One Construction Equipment)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	425	0
Tractors/Loaders/Backhoes		84	40%		
Water Truck		76	40%		
Tractors/Loaders/Backhoes		84	40%		
Concrete Saw		90	20%		
Air Compressor		78	40%		
Air Compressor		78	40%		
	1				

Receptor: ***R3***

Results:

1-hour Leq: 64.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Demolition***
Alternative Analysis (One Construction Equipment)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	235	0
Tractors/Loaders/Backhoes		84	40%		
Water Truck		76	40%		
Tractors/Loaders/Backhoes		84	40%		
Concrete Saw		90	20%		
Air Compressor		78	40%		
Air Compressor		78	40%		
	1				

Receptor: ***R4***

Results:

1-hour Leq: 69.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Demolition***
Alternative Analysis (One Construction Equipment)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	78	0
Tractors/Loaders/Backhoes		84	40%		
Water Truck		76	40%		
Tractors/Loaders/Backhoes		84	40%		
Concrete Saw		90	20%		
Air Compressor		78	40%		
Air Compressor		78	40%		
	1				

Receptor: ***R5***

Results:

1-hour Leq: 79.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Demolition***
Alternative Analysis (One Construction Equipment)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	110	0
Tractors/Loaders/Backhoes		84	40%		
Water Truck		76	40%		
Tractors/Loaders/Backhoes		84	40%		
Concrete Saw		90	20%		
Air Compressor		78	40%		
Air Compressor		78	40%		
	1				

Receptor: ***R6***

Results:

1-hour Leq: 76.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Demolition***
Alternative Analysis (One Construction Equipment)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	265	0
Tractors/Loaders/Backhoes		84	40%		
Water Truck		76	40%		
Tractors/Loaders/Backhoes		84	40%		
Concrete Saw		90	20%		
Air Compressor		78	40%		
Air Compressor		78	40%		
	1				

Receptor: ***R7***

Results:

1-hour Leq: 68.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Demolition***
Alternative Analysis (One Construction Equipment)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	150	15
Tractors/Loaders/Backhoes		84	40%		
Water Truck		76	40%		
Tractors/Loaders/Backhoes		84	40%		
Concrete Saw		90	20%		
Air Compressor		78	40%		
Air Compressor		78	40%		
	1				

Receptor: ***R8***

Results:

1-hour Leq: 58.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Demolition***
Alternative Analysis (One Construction Equipment)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	280	0
Tractors/Loaders/Backhoes		84	40%		
Water Truck		76	40%		
Tractors/Loaders/Backhoes		84	40%		
Concrete Saw		90	20%		
Air Compressor		78	40%		
Air Compressor		78	40%		
	1				

Receptor: ***R9***

Results:

1-hour Leq: 68.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Building Construction***
Alternative Analysis (Central Location of Development)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Tractors/Loaders/Backhoes	1	84	40%	115	0
Rough Terrain Forklifts	1	83	40%	115	0
Air Compressor	1	78	40%	135	0
Aerial Lift	1	75	20%	135	0
Fork Lift	1	75	20%	160	0
Welders	1	74	40%	160	0
Generator Sets	1	81	50%	185	0
Cement and Mortar Mixer	1	80	50%	185	0
Signal Boards	2	73	50%	210	0
Crane (tower)	1	81	16%	210	0
Cement and Mortar Mixer	1	80	50%	235	0
Air Compressor	1	78	40%	235	0
Aerial Lift	1	75	20%	235	0
Welders	1	74	40%	235	0
Crane (mobile)	1	81	16%	235	0
	16				

Receptor: ***R1***

Results:

1-hour Leq: 77.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Building Construction***
Alternative Analysis (Central Location of Development)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Tractors/Loaders/Backhoes	1	84	40%	305	0
Rough Terrain Forklifts	1	83	40%	305	0
Air Compressor	1	78	40%	325	0
Aerial Lift	1	75	20%	325	0
Fork Lift	1	75	20%	350	0
Welders	1	74	40%	350	0
Generator Sets	1	81	50%	375	0
Cement and Mortar Mixer	1	80	50%	375	0
Signal Boards	2	73	50%	400	0
Crane (tower)	1	81	16%	400	0
Cement and Mortar Mixer	1	80	50%	425	0
Air Compressor	1	78	40%	425	0
Aerial Lift	1	75	20%	425	0
Welders	1	74	40%	425	0
Crane (mobile)	1	81	16%	425	0
	16				

Receptor: ***R2***

Results:

1-hour Leq: 70.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Building Construction***
Alternative Analysis (Central Location of Development)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Tractors/Loaders/Backhoes	1	84	40%	455	0
Rough Terrain Forklifts	1	83	40%	455	0
Air Compressor	1	78	40%	475	0
Aerial Lift	1	75	20%	475	0
Fork Lift	1	75	20%	495	0
Welders	1	74	40%	495	0
Generator Sets	1	81	50%	515	0
Cement and Mortar Mixer	1	80	50%	515	0
Signal Boards	2	73	50%	535	0
Crane (tower)	1	81	16%	535	0
Cement and Mortar Mixer	1	80	50%	555	0
Air Compressor	1	78	40%	555	0
Aerial Lift	1	75	20%	555	0
Welders	1	74	40%	555	0
Crane (mobile)	1	81	16%	555	0
	16				

Receptor: ***R3***

Results:

1-hour Leq: 67.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Building Construction***
Alternative Analysis (Central Location of Development)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Tractors/Loaders/Backhoes	1	84	40%	265	0
Rough Terrain Forklifts	1	83	40%	265	0
Air Compressor	1	78	40%	285	0
Aerial Lift	1	75	20%	285	0
Fork Lift	1	75	20%	305	0
Welders	1	74	40%	305	0
Generator Sets	1	81	50%	325	0
Cement and Mortar Mixer	1	80	50%	325	0
Signal Boards	2	73	50%	345	0
Crane (tower)	1	81	16%	345	0
Cement and Mortar Mixer	1	80	50%	365	0
Air Compressor	1	78	40%	365	0
Aerial Lift	1	75	20%	385	0
Welders	1	74	40%	385	0
Crane (mobile)	1	81	16%	385	0
	16				

Receptor: ***R4***

Results:

1-hour Leq: 71.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Building Construction***
Alternative Analysis (Central Location of Development)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Tractors/Loaders/Backhoes	1	84	40%	108	0
Rough Terrain Forklifts	1	83	40%	108	0
Air Compressor	1	78	40%	128	0
Aerial Lift	1	75	20%	128	0
Fork Lift	1	75	20%	148	0
Welders	1	74	40%	148	0
Generator Sets	1	81	50%	168	0
Cement and Mortar Mixer	1	80	50%	168	0
Signal Boards	2	73	50%	188	0
Crane (tower)	1	81	16%	188	0
Cement and Mortar Mixer	1	80	50%	208	0
Air Compressor	1	78	40%	208	0
Aerial Lift	1	75	20%	228	0
Welders	1	74	40%	228	0
Crane (mobile)	1	81	16%	228	0
	16				

Receptor: ***R5***

Results:

1-hour Leq: 78.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Building Construction***
Alternative Analysis (Central Location of Development)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Tractors/Loaders/Backhoes	1	84	40%	140	0
Rough Terrain Forklifts	1	83	40%	140	0
Air Compressor	1	78	40%	160	0
Aerial Lift	1	75	20%	160	0
Fork Lift	1	75	20%	180	0
Welders	1	74	40%	180	0
Generator Sets	1	81	50%	200	0
Cement and Mortar Mixer	1	80	50%	200	0
Signal Boards	2	73	50%	220	0
Crane (tower)	1	81	16%	220	0
Cement and Mortar Mixer	1	80	50%	240	0
Air Compressor	1	78	40%	240	0
Aerial Lift	1	75	20%	260	0
Welders	1	74	40%	260	0
Crane (mobile)	1	81	16%	260	0
	16				

Receptor: ***R6***

Results:

1-hour Leq: 76.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Building Construction***
Alternative Analysis (Central Location of Development)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Tractors/Loaders/Backhoes	1	84	40%	295	0
Rough Terrain Forklifts	1	83	40%	295	0
Air Compressor	1	78	40%	315	0
Aerial Lift	1	75	20%	315	0
Fork Lift	1	75	20%	335	0
Welders	1	74	40%	335	0
Generator Sets	1	81	50%	355	0
Cement and Mortar Mixer	1	80	50%	355	0
Signal Boards	2	73	50%	375	0
Crane (tower)	1	81	16%	375	0
Cement and Mortar Mixer	1	80	50%	395	0
Air Compressor	1	78	40%	395	0
Aerial Lift	1	75	20%	415	0
Welders	1	74	40%	415	0
Crane (mobile)	1	81	16%	415	0
	16				

Receptor: ***R7***

Results:

1-hour Leq: 70.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Building Construction***
Alternative Analysis (Central Location of Development)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Tractors/Loaders/Backhoes	1	84	40%	180	15
Rough Terrain Forklifts	1	83	40%	180	15
Air Compressor	1	78	40%	200	15
Aerial Lift	1	75	20%	200	15
Fork Lift	1	75	20%	220	15
Welders	1	74	40%	220	15
Generator Sets	1	81	50%	240	15
Cement and Mortar Mixer	1	80	50%	240	15
Signal Boards	2	73	50%	260	15
Crane (tower)	1	81	16%	260	15
Cement and Mortar Mixer	1	80	50%	280	15
Air Compressor	1	78	40%	280	15
Aerial Lift	1	75	20%	300	15
Welders	1	74	40%	300	15
Crane (mobile)	1	81	16%	300	15
	16				

Receptor: ***R8***

Results:

1-hour Leq: 59.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 8th, Grand and Hope Project

Construction Phase: ***Building Construction***
Alternative Analysis (Central Location of Development)

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Tractors/Loaders/Backhoes	1	84	40%	310	0
Rough Terrain Forklifts	1	83	40%	310	0
Air Compressor	1	78	40%	330	0
Aerial Lift	1	75	20%	330	0
Fork Lift	1	75	20%	350	0
Welders	1	74	40%	350	0
Generator Sets	1	81	50%	370	0
Cement and Mortar Mixer	1	80	50%	370	0
Signal Boards	2	73	50%	390	0
Crane (tower)	1	81	16%	390	0
Cement and Mortar Mixer	1	80	50%	410	0
Air Compressor	1	78	40%	410	0
Aerial Lift	1	75	20%	430	0
Welders	1	74	40%	430	0
Crane (mobile)	1	81	16%	430	0
	16				

Receptor: ***R9***

Results:

1-hour Leq: 70.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

8th, Grand and Hope Project

Off-Site Traffic - Alternatives Analysis

Hope Street (between 7th and 8th)

Scenario	Project	Alternative 2	Alternative 3	Alternative 4
Existing, ADT	9630			
Existing SPL, dBA CNEL	69.3			
Existing With Project, ADT	10040			
EWP SPL, dBA CNEL	69.5			
% Increased	4.3%			
Noise increase, dBA	0.2			
Project Total Trips, ADT	1500	1539	783	908
Project Trip along Roadway, ADT	410			
% to roadway	27.3%	27.3%	27.3%	27.3%
Project Alt, ADT (roadway)		421	214	248
Existing With Project Alt, ADT		10051	9844	9878
% Increased		*4.4%*	*2.2%*	*2.6%*
Noise increase, dBA		*0.2*	*0.1*	*0.1*
Increased Relative to Project		*0.0*	*-0.1*	*-0.1*

Grand Avenue (between 7th and 8th)

Scenario	Project	Alternative 2	Alternative 3	Alternative 4
Existing, ADT	13340			
Existing SPL, dBA CNEL	70.7			
Existing With Project, ADT	13860			
EWP SPL, dBA CNEL	70.9			
% Increased	3.9%			
Noise increase, dBA	0.2			
Project Total Trips, ADT	1500	1539	783	908
Project Trip along Roadway, ADT	520			
% to roadway	34.7%	34.7%	34.7%	34.7%
Project Alt, ADT (roadway)		534	271	315
Existing With Project Alt, ADT		13874	13611	13655
% Increased		*4.0%*	*2.0%*	*2.4%*
Noise increase, dBA		*0.2*	*0.1*	*0.1*
Increased Relative to Project		*0.0*	*-0.1*	*-0.1*

8th Street (between Hope St. and Grand Ave.)

Scenario	Project	Alternative 2	Alternative 3	Alternative 4
Existing, ADT	13620			
Existing SPL, dBA CNEL	70.8			
Existing With Project, ADT	14080			
EWP SPL, dBA CNEL	70.9			
% Increased	3.4%			
Noise increase, dBA	0.1			
Project Total Trips, ADT	1500	1539	783	908
Project Trip along Roadway, ADT	460			
% to roadway	30.7%	30.7%	30.7%	30.7%
Project Alt, ADT (roadway)		472	240	278
Existing With Project Alt, ADT		14092	13860	13898
% Increased		*3.5%*	*1.8%*	*2.0%*
Noise increase, dBA		*0.1*	*0.1*	*0.1*
Increased Relative to Project		*0.0*	*0.0*	*0.0*

Appendix J.2

VMT and Freeway Off-Ramp Analysis

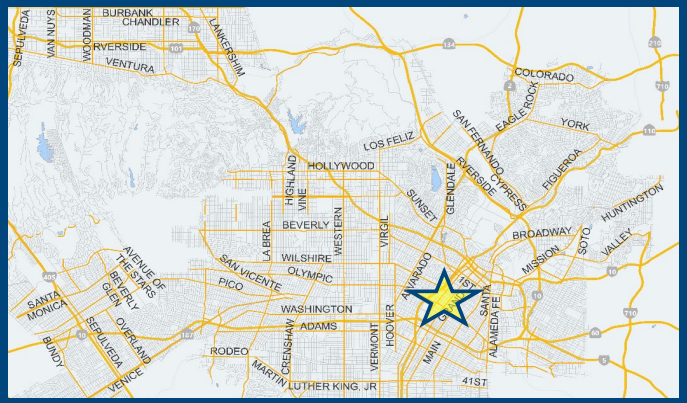
CITY OF LOS ANGELES VMT CALCULATOR Version 1.2

Project Information

Project: 8GH

Scenario: Alternative 2 Rev 4-20-21

Address: 754 S HOPE ST, 90017



Proposed Project Land Use Type	Value	Unit
Housing | Hotel	375	Rooms
Retail | High-Turnover Sit-Down Restaurant	10.499	ksf

TDM Strategies

Select each section to show individual strategies

Use ☑ to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

	Proposed Project	With Mitigation
Max Home Based TDM Achieved?	No	No
Max Work Based TDM Achieved?	No	No

A Parking

Reduce Parking Supply
☐ Proposed Prj ☐ Mitigation
- 100 city code parking provision for the project site
- 74 actual parking provision for the project site

Unbundle Parking
☐ Proposed Prj ☐ Mitigation
- 150 monthly parking cost (dollar) for the project site

Parking Cash-Out
☐ Proposed Prj ☐ Mitigation
- 50 percent of employees eligible

Price Workplace Parking
☐ Proposed Prj ☐ Mitigation
- 6.00 daily parking charge (dollar)
- 25 percent of employees subject to priced parking

Residential Area Parking Permits
☐ Proposed Prj ☐ Mitigation
- 200 cost (dollar) of annual permit

B Transit

C Education & Encouragement

D Commute Trip Reductions

E Shared Mobility

F Bicycle Infrastructure

G Neighborhood Enhancement

Analysis Results

Proposed Project	With Mitigation
1,539 Daily Vehicle Trips	**1,539** Daily Vehicle Trips
11,406 Daily VMT	**11,406** Daily VMT
0.0 Household VMT per Capita	**0.0** Household VMT per Capita
5.9 Work VMT per Employee	**5.9** Work VMT per Employee

Significant VMT Impact?

Household: No Threshold = 6.0 15% Below APC	**Household: No** Threshold = 6.0 15% Below APC
Work: No Threshold = 7.6 15% Below APC	**Work: No** Threshold = 7.6 15% Below APC

Measuring the Miles

4/20/2021

CITY OF LOS ANGELES VMT CALCULATOR Version 1.2

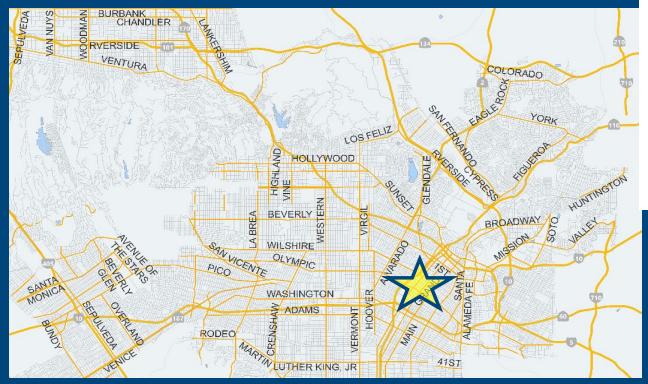
Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project: 8GH

Scenario: Alternative 2 Rev 4-20-21

Address: 754 S HOPE ST, 90017



If the project is replacing an existing number of residential units with a smaller number of residential units, is the proposed project located within one-half mile of a fixed-rail or fixed-guideway transit station?

Yes No

Existing Land Use

Land Use Type	Value	Unit
Housing | Single Family		DU

Click here to add a single custom land use type (will be included in the above list)

Proposed Project Land Use

Land Use Type	Value	Unit
Housing | Hotel	375	Rooms
Housing | Hotel	375	Rooms
Retail | High-Turnover Sit-Down Restaurant	10.499	ksf

Click here to add a single custom land use type (will be included in the above list)

Project Screening Summary

Existing Land Use	Proposed Project
0 Daily Vehicle Trips	1,539 Daily Vehicle Trips
0 Daily VMT	11,406 Daily VMT

Tier 1 Screening Criteria

Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. ☐

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips	1,539 Net Daily Trips
The net increase in daily VMT ≤ 0	11,406 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	10.499 ksf

The proposed project is required to perform VMT analysis.

Measuring the Miles

4/20/2021

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: April 20, 2021
Project Name: 8GH
Project Scenario: Alternative 2 Rev 4-20-21
Project Address: 754 S HOPE ST, 90017

Version 1.2

Project Information

Land Use Type		Value	Units
Housing	*Single Family*	*0*	*DU*
	Multi Family	*0*	*DU*
	Townhouse	*0*	*DU*
	Hotel	375	Rooms
	Motel	*0*	*Rooms*
Affordable Housing	*Family*	*0*	*DU*
	Senior	*0*	*DU*
	Special Needs	*0*	*DU*
	Permanent Supportive	*0*	*DU*
Retail	*General Retail*	*0.000*	*ksf*
	Furniture Store	*0.000*	*ksf*
	Pharmacy/Drugstore	*0.000*	*ksf*
	Supermarket	*0.000*	*ksf*
	Bank	*0.000*	*ksf*
	Health Club	*0.000*	*ksf*
	High-Turnover Sit-Down Restaurant	10.499	ksf
	Fast-Food Restaurant	*0.000*	*ksf*
	Quality Restaurant	*0.000*	*ksf*
	Auto Repair	*0.000*	*ksf*
	Home Improvement	*0.000*	*ksf*
	Free-Standing Discount	*0.000*	*ksf*
	Movie Theater	*0*	*Seats*
Office	*General Office*	*0.000*	*ksf*
	Medical Office	*0.000*	*ksf*
Industrial	*Light Industrial*	*0.000*	*ksf*
	Manufacturing	*0.000*	*ksf*
	Warehousing/Self-Storage	*0.000*	*ksf*
School	*University*	*0*	*Students*
	High School	*0*	*Students*
	Middle School	*0*	*Students*
	Elementary	*0*	*Students*
	Private School (K-12)	*0*	*Students*

Other	*0*	*Trips*

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: April 20, 2021
Project Name: 8GH
Project Scenario: Alternative 2 Rev 4-20-21
Project Address: 754 S HOPE ST, 90017

Version 1.2

Analysis Results			
Total Employees: 229			
Total Population: 0			
Proposed Project		***With Mitigation***	
1,539	**Daily Vehicle Trips**	**1,539**	**Daily Vehicle Trips**
11,406	**Daily VMT**	**11,406**	**Daily VMT**
0	**Household VMT per Capita**	**0**	**Household VMT per Capita**
5.9	**Work VMT per Employee**	**5.9**	**Work VMT per Employee**

Significant VMT Impact?			
APC: Central			
Impact Threshold: 15% Below APC Average			
Household = 6.0			
Work = 7.6			
Proposed Project		***With Mitigation***	
VMT Threshold	**Impact**	**VMT Threshold**	**Impact**
Household > 6.0	No	Household > 6.0	No
Work > 7.6	No	Work > 7.6	No

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: April 20, 2021
Project Name: 8GH
Project Scenario: Alternative 2 Rev 4-20-21
Project Address: 754 S HOPE ST, 90017

Version 1.2

TDM Strategy Inputs

Strategy Type		Description	Proposed Project	Mitigations
Parking	*Reduce parking supply*	*City code parking provision (spaces)*	*0*	*0*
		Actual parking provision (spaces)	*0*	*0*
	Unbundle parking	*Monthly cost for parking ($)*	*$0*	*$0*
	Parking cash-out	*Employees eligible (%)*	*0%*	*0%*
	Price workplace parking	*Daily parking charge ($)*	*$0.00*	*$0.00*
		Employees subject to priced parking (%)	*0%*	*0%*
	Residential area parking permits	*Cost of annual permit ($)*	*$0*	*$0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Transit	*Reduce transit headways*	*Reduction in headways (increase in frequency) (%)*	*0%*	*0%*
		Existing transit mode share (as a percent of total daily trips) (%)	*0%*	*0%*
		Lines within project site improved (<50%, >=50%)	*0*	*0*
	Implement neighborhood shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees and residents eligible (%)	*0%*	*0%*
	Transit subsidies	*Employees and residents eligible (%)*	*0%*	*0%*
		Amount of transit subsidy per passenger (daily equivalent) ($)	*$0.00*	*$0.00*
Education & Encouragement	*Voluntary travel behavior change program*	*Employees and residents participating (%)*	*0%*	*0%*
	Promotions and marketing	*Employees and residents participating (%)*	*0%*	*0%*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Commute Trip Reductions	*Required commute trip reduction program*	*Employees participating (%)*	*0%*	*0%*
	Alternative Work Schedules and Telecommute	*Employees participating (%)*	*0%*	*0%*
		Type of program	*0*	*0*
	Employer sponsored vanpool or shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees eligible (%)	*0%*	*0%*
		Employer size (small, medium, large)	*0*	*0*
	Ride-share program	*Employees eligible (%)*	*0%*	*0%*
Shared Mobility	*Car share*	*Car share project setting (Urban, Suburban, All Other)*	*0*	*0*
	Bike share	*Within 600 feet of existing bike share station - OR- implementing new bike share station (Yes/No)*	*0*	*0*
	School carpool program	*Level of implementation (Low, Medium, High)*	*0*	*0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Bicycle Infrastructure	*Implement/Improve on-street bicycle facility*	*Provide bicycle facility along site (Yes/No)*	*0*	*0*
	Include Bike parking per LAMC	*Meets City Bike Parking Code (Yes/No)*	*0*	*0*
	Include secure bike parking and showers	*Includes indoor bike parking/lockers, showers, & repair station (Yes/No)*	*0*	*0*
Neighborhood Enhancement	*Traffic calming improvements*	*Streets with traffic calming improvements (%)*	*0%*	*0%*
		Intersections with traffic calming improvements (%)	*0%*	*0%*
	Pedestrian network improvements	*Included (within project and connecting off-site/within project only)*	*0*	*0*

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: April 20, 2021
Project Name: 8GH
Project Scenario: Alternative 2 Rev 4-20-21
Project Address: 754 S HOPE ST, 90017

Version 1.2

TDM Adjustments by Trip Purpose & Strategy

Place type: Urban

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Parking	Reduce parking supply	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Parking sections 1 - 5
	Unbundle parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Residential area parking permits	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Transit	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Transit sections 1 - 3
	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education & Encouragement	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Education & Encouragement sections 1 - 2
	Promotions and marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Commute Trip Reductions	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4
	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Ride-share program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Shared Mobility	Car-share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Shared Mobility sections 1 - 3
	Bike share	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	School carpool program	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Urban

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle Infrastructure	Implement/ Improve on-street bicycle facility	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	
	Include secure bike parking and showers	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	
Neighborhood Enhancement	Traffic calming improvements	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Neighborhood Enhancement
	Pedestrian network improvements	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	

Final Combined & Maximum TDM Effect

	Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
MAX. TDM EFFECT	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*

= Minimum (X%, 1-[(1-A)*(1-B)…])

where X%=

PLACE TYPE MAX:	urban	75%
	compact infill	*40%*
	suburban center	*20%*
	suburban	*15%*

Note: (1-[(1-A)*(1-B)…]) reflects the dampened combined effectiveness of TDM Strategies (e.g., A, B,...). See the TDM Strategy Appendix (*Transportation Assessment Guidelines Attachment G)* for further discussion of dampening.

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: April 20, 2021
Project Name: 8GH
Project Scenario: Alternative 2 Rev 4-20-21
Project Address: 754 S HOPE ST, 90017

Version 1.2

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	0	0.0%	0	5.7	0	0
Home Based Other Production	0	0.0%	0	4.1	0	0
Non-Home Based Other Production	474	-25.5%	353	8.4	3,982	2,965
Home-Based Work Attraction	333	-50.5%	165	8.2	2,731	1,353
Home-Based Other Attraction	2,680	-75.1%	668	6.7	17,956	4,476
Non-Home Based Other Attraction	474	-25.5%	353	7.4	3,508	2,612

MXD Methodology with TDM Measures

	Proposed Project			*Project with Mitigation Measures*		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	0.0%	0	0	0.0%	0	0
Home Based Other Production	0.0%	0	0	0.0%	0	0
Non-Home Based Other Production	0.0%	353	2,965	0.0%	353	2,965
Home-Based Work Attraction	0.0%	165	1,353	0.0%	165	1,353
Home-Based Other Attraction	0.0%	668	4,476	0.0%	668	4,476
Non-Home Based Other Attraction	0.0%	353	2,612	0.0%	353	2,612

MXD VMT Methodology Per Capita & Per Employee

Total Population: 0
Total Employees: 229
APC: Central

	Proposed Project	*Project with Mitigation Measures*
Total Home Based Production VMT	**0**	**0**
Total Home Based Work Attraction VMT	**1,353**	**1,353**
Total Home Based VMT Per Capita	**0.0**	**0.0**
Total Work Based VMT Per Employee	**5.9**	**5.9**

CITY OF LOS ANGELES VMT CALCULATOR Version 1.2

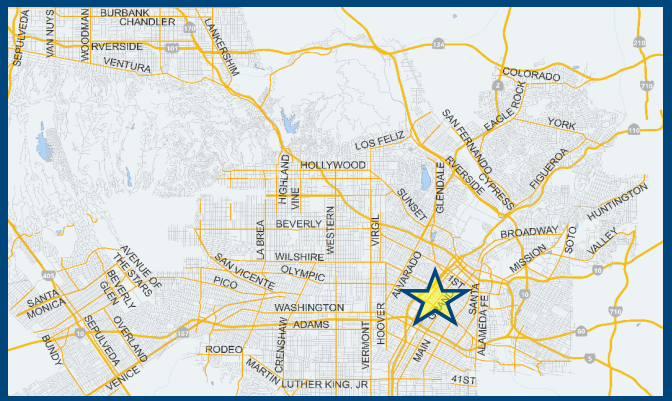
Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project: 8GH

Scenario: Alternative 3

Address: 754 S HOPE ST, 90017



If the project is replacing an existing number of residential units with a smaller number of residential units, is the proposed project located within one-half mile of a fixed-rail or fixed-guideway transit station?

○ Yes ○ No

Existing Land Use

Land Use Type	Value	Unit
Housing | Single Family		DU

☐ Click here to add a single custom land use type (will be included in the above list)

Proposed Project Land Use

Land Use Type	Value	Unit
Retail | High-Turnover Sit-Down Restaurant	7.499	ksf
Housing | Multi-Family	228	DU
Retail | High-Turnover Sit-Down Restaurant	7.499	ksf

☐ Click here to add a single custom land use type (will be included in the above list)

Project Screening Summary

Existing Land Use	Proposed Project
0 Daily Vehicle Trips	783 Daily Vehicle Trips
0 Daily VMT	4,854 Daily VMT

Tier 1 Screening Criteria

Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station.	☐

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips	783 Net Daily Trips
The net increase in daily VMT ≤ 0	4,854 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	7.499 ksf

The proposed project is required to perform VMT analysis.

Measuring the Miles

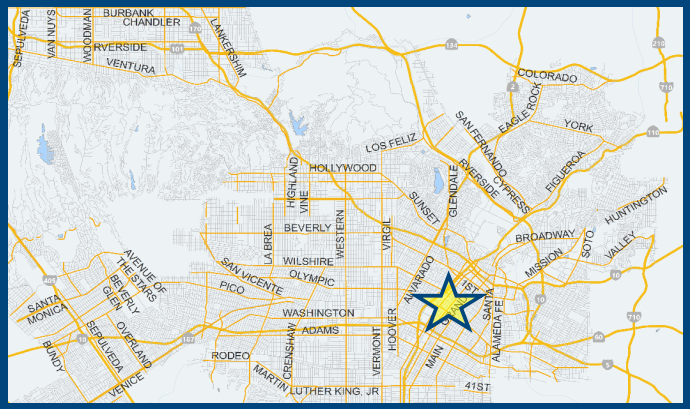
CITY OF LOS ANGELES VMT CALCULATOR Version 1.2

Project Information

Project: 8GH

Scenario: Alternative 3

Address: 754 S HOPE ST, 90017



Proposed Project Land Use Type	Value	Unit
Housing | Multi-Family	228	DU
Retail | High-Turnover Sit-Down Restaurant	7.499	ksf

TDM Strategies

Select each section to show individual strategies

Use ☑ to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

	Proposed Project	With Mitigation
Max Home Based TDM Achieved?	**No**	**No**
Max Work Based TDM Achieved?	**No**	**No**

A Parking

Reduce Parking Supply
☐ Proposed Prj ☐ Mitigation
- 100 city code parking provision for the project site
- 74 actual parking provision for the project site

Unbundle Parking
☐ Proposed Prj ☐ Mitigation
- 150 monthly parking cost (dollar) for the project site

Parking Cash-Out
☐ Proposed Prj ☐ Mitigation
- 50 percent of employees eligible

Price Workplace Parking
☐ Proposed Prj ☐ Mitigation
- 6.00 daily parking charge (dollar)
- 25 percent of employees subject to priced parking

Residential Area Parking Permits
☐ Proposed Prj ☐ Mitigation
- 200 cost (dollar) of annual permit

B Transit

C Education & Encouragement

D Commute Trip Reductions

E Shared Mobility

F Bicycle Infrastructure

G Neighborhood Enhancement

Analysis Results

Proposed Project	With Mitigation
783 Daily Vehicle Trips	**783** Daily Vehicle Trips
4,854 Daily VMT	**4,854** Daily VMT
3.5 Household VMT per Capita	**3.5** Household VMT per Capita
N/A Work VMT per Employee	**N/A** Work VMT per Employee

Significant VMT Impact?

Household: No Threshold = 6.0 15% Below APC	**Household: No** Threshold = 6.0 15% Below APC
Work: N/A Threshold = 7.6 15% Below APC	**Work: N/A** Threshold = 7.6 15% Below APC

Measuring the Miles

1/28/2021

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: January 28, 2021
Project Name: 8GH
Project Scenario: Alternative 3
Project Address: 754 S HOPE ST, 90017

Version 1.2

Project Information

Land Use Type		Value	Units
Housing	*Single Family*	*0*	*DU*
	Multi Family	228	DU
	Townhouse	*0*	*DU*
	Hotel	*0*	*Rooms*
	Motel	*0*	*Rooms*
Affordable Housing	*Family*	*0*	*DU*
	Senior	*0*	*DU*
	Special Needs	*0*	*DU*
	Permanent Supportive	*0*	*DU*
Retail	*General Retail*	*0.000*	*ksf*
	Furniture Store	*0.000*	*ksf*
	Pharmacy/Drugstore	*0.000*	*ksf*
	Supermarket	*0.000*	*ksf*
	Bank	*0.000*	*ksf*
	Health Club	*0.000*	*ksf*
	High-Turnover Sit-Down Restaurant	7.499	ksf
	Fast-Food Restaurant	*0.000*	*ksf*
	Quality Restaurant	*0.000*	*ksf*
	Auto Repair	*0.000*	*ksf*
	Home Improvement	*0.000*	*ksf*
	Free-Standing Discount	*0.000*	*ksf*
	Movie Theater	*0*	*Seats*
Office	*General Office*	*0.000*	*ksf*
	Medical Office	*0.000*	*ksf*
Industrial	*Light Industrial*	*0.000*	*ksf*
	Manufacturing	*0.000*	*ksf*
	Warehousing/Self-Storage	*0.000*	*ksf*
School	*University*	*0*	*Students*
	High School	*0*	*Students*
	Middle School	*0*	*Students*
	Elementary	*0*	*Students*
	Private School (K-12)	*0*	*Students*
Other		*0*	*Trips*

Analysis Results

Total Employees: 30
Total Population: 514

Proposed Project		*With Mitigation*	
783	**Daily Vehicle Trips**	**783**	**Daily Vehicle Trips**
4,854	**Daily VMT**	**4,854**	**Daily VMT**
3.5	**Household VMT per Capita**	**3.5**	**Household VMT per Capita**
N/A	**Work VMT per Employee**	**N/A**	**Work VMT per Employee**

Significant VMT Impact?

APC: Central

Impact Threshold: 15% Below APC Average
Household = 6.0
Work = 7.6

Proposed Project		*With Mitigation*	
VMT Threshold	**Impact**	**VMT Threshold**	**Impact**
Household > 6.0	No	Household > 6.0	No
Work > 7.6	N/A	Work > 7.6	N/A

TDM Strategy Inputs

Strategy Type		Description	Proposed Project	Mitigations
Parking	*Reduce parking supply*	*City code parking provision (spaces)*	*0*	*0*
		Actual parking provision (spaces)	*0*	*0*
	Unbundle parking	*Monthly cost for parking ($)*	*$0*	*$0*
	Parking cash-out	*Employees eligible (%)*	*0%*	*0%*
	Price workplace parking	*Daily parking charge ($)*	*$0.00*	*$0.00*
		Employees subject to priced parking (%)	*0%*	*0%*
	Residential area parking permits	*Cost of annual permit ($)*	*$0*	*$0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Transit	*Reduce transit headways*	*Reduction in headways (increase in frequency) (%)*	*0%*	*0%*
		Existing transit mode share (as a percent of total daily trips) (%)	*0%*	*0%*
		Lines within project site improved (<50%, >=50%)	*0*	*0*
	Implement neighborhood shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees and residents eligible (%)	*0%*	*0%*
	Transit subsidies	*Employees and residents eligible (%)*	*0%*	*0%*
		Amount of transit subsidy per passenger (daily equivalent) ($)	*$0.00*	*$0.00*
Education & Encouragement	*Voluntary travel behavior change program*	*Employees and residents participating (%)*	*0%*	*0%*
	Promotions and marketing	*Employees and residents participating (%)*	*0%*	*0%*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Commute Trip Reductions	*Required commute trip reduction program*	*Employees participating (%)*	*0%*	*0%*
	Alternative Work Schedules and Telecommute	*Employees participating (%)*	*0%*	*0%*
		Type of program	*0*	*0*
	Employer sponsored vanpool or shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees eligible (%)	*0%*	*0%*
		Employer size (small, medium, large)	*0*	*0*
	Ride-share program	*Employees eligible (%)*	*0%*	*0%*
Shared Mobility	*Car share*	*Car share project setting (Urban, Suburban, All Other)*	*0*	*0*
	Bike share	*Within 600 feet of existing bike share station - OR- implementing new bike share station (Yes/No)*	*0*	*0*
	School carpool program	*Level of implementation (Low, Medium, High)*	*0*	*0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Bicycle Infrastructure	*Implement/Improve on-street bicycle facility*	*Provide bicycle facility along site (Yes/No)*	*0*	*0*
	Include Bike parking per LAMC	*Meets City Bike Parking Code (Yes/No)*	*0*	*0*
	Include secure bike parking and showers	*Includes indoor bike parking/lockers, showers, & repair station (Yes/No)*	*0*	*0*
Neighborhood Enhancement	*Traffic calming improvements*	*Streets with traffic calming improvements (%)*	*0%*	*0%*
		Intersections with traffic calming improvements (%)	*0%*	*0%*
	Pedestrian network improvements	*Included (within project and connecting off-site/within project only)*	*0*	*0*

TDM Adjustments by Trip Purpose & Strategy

Place type: Urban

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Parking	Reduce parking supply	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Parking sections 1 - 5
	Unbundle parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Residential area parking permits	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Transit	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Transit sections 1 - 3
	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education & Encouragement	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Education & Encouragement sections 1 - 2
	Promotions and marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Commute Trip Reductions	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4
	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Ride-share program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Shared Mobility	Car-share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Shared Mobility sections 1 - 3
	Bike share	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	School carpool program	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Urban

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle Infrastructure	Implement/ Improve on-street bicycle facility	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	
	Include secure bike parking and showers	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	
Neighborhood Enhancement	Traffic calming improvements	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Neighborhood Enhancement sections 1 - 2
	Pedestrian network improvements	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	

Final Combined & Maximum TDM Effect

	Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
MAX. TDM EFFECT	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*

= Minimum (X%, 1-[(1-A)*(1-B)…])

where X%=

PLACE TYPE MAX:	urban	75%
	compact infill	*40%*
	suburban center	*20%*
	suburban	*15%*

Note: (1-[(1-A)*(1-B)…]) reflects the dampened combined effectiveness of TDM Strategies (e.g., A, B,...). See the TDM Strategy Appendix (*Transportation Assessment Guidelines Attachment G)* for further discussion of dampening.

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: January 28, 2021
Project Name: 8GH
Project Scenario: Alternative 3
Project Address: 754 S HOPE ST, 90017

Version 1.2

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	309	-49.2%	157	5.7	1,761	895
Home Based Other Production	827	-74.0%	215	4.1	3,391	882
Non-Home Based Other Production	139	-24.5%	105	8.4	1,168	882
Home-Based Work Attraction	43	-58.1%	18	8.2	353	148
Home-Based Other Attraction	468	-74.4%	120	6.7	3,136	804
Non-Home Based Other Attraction	222	-24.3%	168	7.4	1,643	1,243

MXD Methodology with TDM Measures

	Proposed Project			*Project with Mitigation Measures*		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	0.0%	157	895	0.0%	157	895
Home Based Other Production	0.0%	215	882	0.0%	215	882
Non-Home Based Other Production	0.0%	105	882	0.0%	105	882
Home-Based Work Attraction	0.0%	18	148	0.0%	18	148
Home-Based Other Attraction	0.0%	120	804	0.0%	120	804
Non-Home Based Other Attraction	0.0%	168	1,243	0.0%	168	1,243

MXD VMT Methodology Per Capita & Per Employee

Total Population: 514
Total Employees: 30
APC: Central

	Proposed Project	*Project with Mitigation Measures*
Total Home Based Production VMT	**1,777**	**1,777**
Total Home Based Work Attraction VMT	**148**	**148**
Total Home Based VMT Per Capita	**3.5**	**3.5**
Total Work Based VMT Per Employee	**N/A**	**N/A**

CITY OF LOS ANGELES VMT CALCULATOR Version 1.2

Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project: 8GH

Scenario: Alternative 4 Rev 4-20-21

Address: 754 S HOPE ST, 90017

If the project is replacing an existing number of residential units with a smaller number of residential units, is the proposed project located within one-half mile of a fixed-rail or fixed-guideway transit station?

● Yes ○ No

Existing Land Use

Land Use Type	Value	Unit
Housing | Single Family		DU

☐ Click here to add a single custom land use type (will be included in the above list)

Proposed Project Land Use

Land Use Type	Value	Unit
Housing | Multi-Family	448	DU
Housing | Multi-Family	290	DU
Retail | High-Turnover Sit-Down Restaurant	7.499	ksf

☐ Click here to add a single custom land use type (will be included in the above list)

Project Screening Summary

Existing Land Use	Proposed Project
0 Daily Vehicle Trips	908 Daily Vehicle Trips
0 Daily VMT	5,505 Daily VMT

Tier 1 Screening Criteria

Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. ☐

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips	908 Net Daily Trips
The net increase in daily VMT ≤ 0	5,505 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	7.499 ksf

The proposed project is required to perform VMT analysis.

Measuring the Miles

4/20/2021

CITY OF LOS ANGELES VMT CALCULATOR Version 1.2

Project Information

Project: 8GH

Scenario: Alternative 4 Rev 4-20-21

Address: 754 S HOPE ST, 90017

Proposed Project Land Use Type	Value	Unit
Housing | Multi-Family	290	DU
Retail | High-Turnover Sit-Down Restaurant	7,499	ksf

TDM Strategies

Select each section to show individual strategies

Use ☑ to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

	Proposed Project	With Mitigation
Max Home Based TDM Achieved?	No	No
Max Work Based TDM Achieved?	No	No

A Parking

Reduce Parking Supply
☐ Proposed Prj ☐ Mitigation
- 100 city code parking provision for the project site
- 74 actual parking provision for the project site

Unbundle Parking
☐ Proposed Prj ☐ Mitigation
- 150 monthly parking cost (dollar) for the project site

Parking Cash-Out
☐ Proposed Prj ☐ Mitigation
- 50 percent of employees eligible

Price Workplace Parking
☐ Proposed Prj ☐ Mitigation
- 6.00 daily parking charge (dollar)
- 25 percent of employees subject to priced parking

Residential Area Parking Permits
☐ Proposed Prj ☐ Mitigation
- 200 cost (dollar) of annual permit

B Transit

C Education & Encouragement

D Commute Trip Reductions

E Shared Mobility

F Bicycle Infrastructure

G Neighborhood Enhancement

Analysis Results

Proposed Project	With Mitigation
908 Daily Vehicle Trips	**908** Daily Vehicle Trips
5,505 Daily VMT	**5,505** Daily VMT
3.4 Household VMT per Capita	**3.4** Household VMT per Capita
N/A Work VMT per Employee	**N/A** Work VMT per Employee

Significant VMT Impact?

Household: No Threshold = 6.0 15% Below APC	**Household: No** Threshold = 6.0 15% Below APC
Work: N/A Threshold = 7.6 15% Below APC	**Work: N/A** Threshold = 7.6 15% Below APC

Measuring the Miles

4/20/2021

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: April 20, 2021
Project Name: 8GH
Project Scenario: Alternative 4 Rev 4-20-21
Project Address: 754 S HOPE ST, 90017

Version 1.2

Project Information

Land Use Type		Value	Units
Housing	Single Family	0	DU
	Multi Family	290	DU
	Townhouse	0	DU
	Hotel	0	Rooms
	Motel	0	Rooms
Affordable Housing	Family	0	DU
	Senior	0	DU
	Special Needs	0	DU
	Permanent Supportive	0	DU
Retail	General Retail	0.000	ksf
	Furniture Store	0.000	ksf
	Pharmacy/Drugstore	0.000	ksf
	Supermarket	0.000	ksf
	Bank	0.000	ksf
	Health Club	0.000	ksf
	High-Turnover Sit-Down Restaurant	7.499	ksf
	Fast Food Restaurant	0.000	ksf
	Quality Restaurant	0.000	ksf
	Auto Repair	0.000	ksf
	Home Improvement	0.000	ksf
	Free Standing Discount	0.000	ksf
	Movie Theater	0	Seats
Office	General Office	0.000	ksf
	Medical Office	0.000	ksf
Industrial	Light Industrial	0.000	ksf
	Manufacturing	0.000	ksf
	Warehousing/Self Storage	0.000	ksf
School	University	0	Students
	High School	0	Students
	Middle School	0	Students
	Elementary	0	Students
	Private School (K-12)	0	Students

Other	0	trips

Analysis Results

Total Employees: 30
Total Population: 653

Proposed Project		*With Mitigation*	
908	**Daily Vehicle Trips**	**908**	**Daily Vehicle Trips**
5,505	**Daily VMT**	**5,505**	**Daily VMT**
3.4	**Household VMT per Capita**	**3.4**	**Household VMT per Capita**
N/A	**Work VMT per Employee**	**N/A**	**Work VMT per Employee**

Significant VMT Impact?

APC: Central

Impact Threshold: 15% Below APC Average
Household = 6.0
Work = 7.6

Proposed Project		*With Mitigation*	
VMT Threshold	**Impact**	**VMT Threshold**	**Impact**
Household > 6.0	No	Household > 6.0	No
Work > 7.6	N/A	Work > 7.6	N/A

TDM Strategy Inputs

Strategy Type		Description	Proposed Project	Mitigations
Parking	Reduce parking supply	City code parking provision (spaces)	0	0
		Actual parking provision (spaces)	0	0
	Unbundle parking	Monthly cost for parking ($)	$0	$0
	Parking cash out	Employees eligible (%)	0%	0%
	Price workplace parking	Daily parking charge ($)	$0.00	$0.00
		Employees subject to priced parking (%)	0%	0%
	Residential area parking permits	Cost of annual permit ($)	$0	$0

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Transit	Reduce transit headways	Reduction in headways (increase in frequency) (%)	0%	0%
		Existing transit mode share (as a percent of total daily trips) (%)	0%	0%
		Lines within project site improved (<50%, >=50%)	0	0
	Implement neighborhood shuttle	Degree of implementation (low, medium, high)	0	0
		Employees and residents eligible (%)	0%	0%
	Transit subsidies	Employees and residents eligible (%)	0%	0%
		Amount of transit subsidy per passenger (daily equivalent) ($)	$0.00	$0.00
Education & Encouragement	Voluntary travel behavior change program	Employees and residents participating (%)	0%	0%
	Promotions and marketing	Employees and residents participating (%)	0%	0%

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Commute Trip Reductions	Required commute trip reduction program	Employees participating (%)	0%	0%
	Alternative Work Schedules and Telecommute	Employees participating (%)	0%	0%
		Type of program	0	0
		Degree of implementation (low, medium, high)	0	0
	Employer sponsored vanpool or shuttle	Employees eligible (%)	0%	0%
		Employer size (small, medium, large)	0	0
	Ride share program	Employees eligible (%)	0%	0%
Shared Mobility	Car share	Car share project setting (Urban, Suburban, All Other)	0	0
	Bike share	Within 600 feet of existing bike share station OR implementing new bike share station (Yes/No)	0	0
	School carpool program	Level of implementation (Low, Medium, High)	0	0

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Bicycle Infrastructure	Implement/improve on-street bicycle facility	Provide bicycle facility along site (Yes/No)	0	0
	Include bike parking per LAMC	Meets City Bike Parking Code (Yes/No)	0	0
	Include secure bike parking and showers	Includes indoor bike parking/lockers, showers, & repair station (Yes/No)	0	0
Neighborhood Enhancement	Traffic calming improvements	Streets with traffic calming improvements (%)	0%	0%
		Intersections with traffic calming improvements (%)	0%	0%
	Pedestrian network improvements	Included (within project and connecting off-site/within project only)	0	0

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: April 20, 2021
Project Name: 8GH
Project Scenario: Alternative 4 Rev 4-20-21
Project Address: 754 S HOPE ST, 90017

Version 1.2

TDM Adjustments by Trip Purpose & Strategy

Place type: Urban

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Parking	Better parking supply	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Parking sections 1 - 5
	Unbundle parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Residential parking permits	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Transit	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Transit sections 1 - 3
	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Transit subsidy	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education & Encouragement	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Education & Encouragement sections 1 - 2
	Education and marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Commute Trip Reductions	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4
	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Ride-share program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Shared Mobility	Car share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Shared Mobility sections 1 - 3
	Bike share	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	School carpool program	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Urban

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle Infrastructure	Implement/ maintain on-street bicycle facility	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include 50% parking per LAMC	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	Include secure bike parking and showers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Neighborhood Enhancement	Traffic calming improvement	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Neighborhood Enhancement
	Pedestrian network improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Final Combined & Maximum TDM Effect

	Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
MAX. TDM EFFECT	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*

= Minimum (X%, 1-[(1-A)*(1-B)...])

where X%=

PLACE TYPE MAX:	urban	75%
	compact infill	*40%*
	suburban center	*20%*
	suburban	*15%*

Note: (1-[(1-A)*(1-B)...]) reflects the dampened combined effectiveness of TDM Strategies (e.g., A, B,...). See the TDM Strategy Appendix (*Transportation Assessment Guidelines Attachment G)* for further discussion of dampening.

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: April 20, 2021
Project Name: 8GH
Project Scenario: Alternative 4 Rev 4-20-21
Project Address: 754 S HOPE ST, 90017

Version 1.2

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	393	-49.4%	199	5.7	2,240	1,134
Home Based Other Production	1,052	-74.0%	273	4.1	4,313	1,119
Non-Home Based Other Production	139	-25.2%	104	8.4	1,168	874
Home-Based Work Attraction	43	-62.8%	16	8.2	353	131
Home-Based Other Attraction	509	-74.3%	131	6.7	3,410	878
Non-Home Based Other Attraction	245	-24.5%	185	7.4	1,813	1,369

MXD Methodology with TDM Measures

	Proposed Project			*Project with Mitigation Measures*		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	0.0%	199	1,134	0.0%	199	1,134
Home Based Other Production	0.0%	273	1,119	0.0%	273	1,119
Non-Home Based Other Production	0.0%	104	874	0.0%	104	874
Home-Based Work Attraction	0.0%	16	131	0.0%	16	131
Home-Based Other Attraction	0.0%	131	878	0.0%	131	878
Non-Home Based Other Attraction	0.0%	185	1,369	0.0%	185	1,369

MXD VMT Methodology Per Capita & Per Employee

Total Population: 653
Total Employees: 30
APC: Central

	Proposed Project	*Project with Mitigation Measures*
Total Home Based Production VMT	**2,253**	**2,253**
Total Home Based Work Attraction VMT	**131**	**131**
Total Home Based VMT Per Capita	**3.4**	**3.4**
Total Work Based VMT Per Employee	**N/A**	**N/A**

The **Mobility** Group
Transportation Strategies & Solutions

Memorandum

To: Frankie Tong, Eyestone Environmental

From: Mike Bates

Subject: 8th Grand Hope Project – Alternatives Analysis – Freeway Screening Check

Date: May 13, 2021

The Transportation Assessment Report (December, 2020) conducted a Freeway Safety Analysis Screening of project added freeway off-ramp volumes (Chapter 2.5). It concluded that as the Project would add less than 25 trips to all the freeway off-ramps in both peak hours, a freeway safety analysis was not required.

This memorandum documents a similar screening analysis for the Project Alternatives, which are defined as follows:

Alternative 2: 375 hotel rooms, 10,499 sq. ft. retail (assumed restaurant).

Alternative 3: 228 DU's, 7,499 sq. ft. retail (assumed restaurant).

Alternative 4: 290 DU's, 7,499 sq. ft. retail (assumed restaurant).

The project added trips are shown in Table 1 for the Proposed Project and for the Project Alternatives. Table 1 shows that all three project alternatives would add less than 25 trips to all the freeway off-ramps in both peak hours. A freeway safety analysis is therefore not required for any of the alternatives.

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Suite 490
Irvine, CA 92612
Phone: 949-474-1591
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Table 1. Project Added Volumes to Off-Ramps – Proposed Project and Project Alternatives

Off-Ramp Location	*Proposed Project*			*Alternative 2*			*Alternative 3*			*Alternative 4*	
	AM Peak Hour	*PM Peak Hour*		*AM Peak Hour*	*PM Peak Hour*		*AM Peak Hour*	*PM Peak Hour*		*AM Peak Hour*	*PM Peak Hour*
1. SR-110 NB Off-Ramp at 6th St.	1	7		5	9		1	4		1	4
2. SR-110 SB Off-Ramp at 6th St.	3	16		14	21		2	9		2	10
3. SR-110 NB Off-Ramp at James M. Wood Blvd.	1	4		5	5		1	2		1	3
4. I-10 WB Off-Ramp at Los Angeles St.	2	8		9	10		1	4		1	5
5. US-101 NB Off-Ramp at Grand Ave.	1	4		5	5		1	2		1	3

Appendix J.3

Alternative 2 Air Quality, GHG, and Energy Analysis

8th, Grand and Hope

Alternative 2 Summary - Air Quality and Energy

Air Quality Summary

Project Emissions (lbs/day)	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	14	<1	48	<1	<1	<1
Energy (Natural Gas)	<1	1	<1	<1	<1	<1
Mobile	2	11	22	<1	7	2
Emergency Generators	<1	1	1	<1	<1	<1
Total	17	14	72	<1	7	2
Alternative 2 Emissions (lbs/day)						
Area	7	<1	<1	<1	<1	<1
Energy (Natural Gas)	<1	2	2	<1	<1	<1
Mobile	3	12	27	<1	9	2
Emergency Generators	<1	1	1	<1	<1	<1
Total	11	16	30	<1	9	3
Alt 2 vs. Project	**(6)**	**2**	**(42)**	**<1**	**2**	**1**

Energy Summary

	Alternative 2	Project	Units
Electricity			
Electricity (building)	3,247,276	2,895,390	kWh
Electricity (water)	122,692	528,877	kWh
EV Charger	103,418	103,418	kWh
Electricity Total	**3,473,385**	**3,527,684**	kWh
Natural Gas	**8,580,438**	**4,859,882**	cf/year
Mobile			
Gasoline	135,778	102,531	gallons/year
Diesel	26,722	20,179	gallons/year
Mobile Total	**162,499**	**122,710**	gallons/year

8th, Grand and Hope - Alt 2 - Los Angeles-South Coast County, Winter

8th, Grand and Hope - Alt 2

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Commercial	1.00	User Defined Unit	0.00	1.00	0
Enclosed Parking with Elevator	198.00	Space	0.00	79,200.00	0
Unenclosed Parking with Elevator	438.00	Space	0.00	175,200.00	0
High Turnover (Sit Down Restaurant)	10.50	1000sqft	0.24	10,499.00	0
Hotel	375.00	Room	12.50	301,612.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	616	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SB100 Renewable Portfolio Standards - Year 2025 = 616 lbs/MWh

Land Use - Project specific land use sq ft; total of 0.83 acres; User Defined is for purposes of running LADOT VMT data instead of CalEEMod default. Alt 2

Construction Phase - Consistent with Project Description

Off-road Equipment - Project Specific Equipment List

Off-road Equipment - Project Specific Equipment List

Off-road Equipment - Project Specific Equipment List

Off-road Equipment - Project Specific Equipment List

Off-road Equipment - Project Specific Equipment List

Off-road Equipment - Project Specific Equipment List

Trips and VMT - Number of hauls reflect total amount of material requiring transport; Haul length reflects round trip to Irwindale Landfill. Foundation vehicle class changed to HHDT to reflect concrete trucks

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - LADOT VMT Calculator

Woodstoves - No Wood Stoves; Reflects PDF AQ-2

Area Coating -

Energy Use - Consistency with Section 120.6(c) CBS, Mandatory Requirements for Enclosed Parking Garages

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation - City of LA Waste Diversion Rate

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	156,056.00	162,802.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	468,168.00	488,405.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.21	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	6.2720e-003	0.00
tblFleetMix	MCY	5.2390e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	8.4100e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.5720e-003	0.00
tblFleetMix	SBUS	7.0000e-004	0.00
tblFleetMix	UBUS	1.9840e-003	0.00
tblLandUse	LandUseSquareFeet	0.00	1.00
tblLandUse	LandUseSquareFeet	10,500.00	10,499.00
tblLandUse	LandUseSquareFeet	544,500.00	301,612.00
tblLandUse	LotAcreage	1.78	0.00
tblLandUse	LotAcreage	3.94	0.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	616
tblTripsAndVMT	HaulingTripNumber	1,780.00	1,250.00
tblTripsAndVMT	HaulingTripNumber	0.00	8,690.00
tblTripsAndVMT	VendorTripNumber	93.00	95.00
tblTripsAndVMT	WorkerTripNumber	238.00	243.00
tblTripsAndVMT	WorkerTripNumber	48.00	49.00
tblVehicleTrips	CC_TL	8.40	7.35
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	PB_TP	0.00	36.85
tblVehicleTrips	PR_TP	0.00	63.15
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	0.00	2,437.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	0.00	2,437.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	0.00	2,437.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.0916	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004						
Energy	0.2853	2.5935	2.1785	0.0156		0.1971	0.1971		0.1971	0.1971						
Mobile	2.6928	11.7650	27.0053	0.0995	8.8228	0.0801	8.9029	2.3606	0.0744	2.4350						
Stationary	0.4923	1.3760	1.2553	2.3700e-003		0.0724	0.0724		0.0724	0.0724						
Total	**10.5620**	**15.7354**	**30.5432**	**0.1174**	**8.8228**	**0.3500**	**9.1728**	**2.3606**	**0.3442**	**2.7049**						

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.0916	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004						
Energy	0.2662	2.4200	2.0328	0.0145		0.1839	0.1839		0.1839	0.1839						
Mobile	2.6928	11.7650	27.0053	0.0995	8.8228	0.0801	8.9029	2.3606	0.0744	2.4350						
Stationary	0.4923	1.3760	1.2553	2.3700e-003		0.0724	0.0724		0.0724	0.0724						
Total	**10.5429**	**15.5619**	**30.3975**	**0.1164**	**8.8228**	**0.3368**	**9.1596**	**2.3606**	**0.3311**	**2.6917**						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.18**	**1.10**	**0.48**	**0.89**	**0.00**	**3.77**	**0.14**	**0.00**	**3.83**	**0.49**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.6928	11.7650	27.0053	0.0995	8.8228	0.0801	8.9029	2.3606	0.0744	2.4350						

Unmitigated	2.6928	11.7650	27.0053	0.0995	8.8228	0.0801	8.9029	2.3606	0.0744	2.4350						

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
User Defined Commercial	2,437.00	2,437.00	2437.00	4,150,037	4,150,037
Total	2,437.00	2,437.00	2,437.00	4,150,037	4,150,037

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Unenclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Commercial	0.00	7.35	0.00	0.00	100.00	0.00	63.15	0	36.85

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.544880	0.044491	0.207704	0.117752	0.014693	0.006272	0.020732	0.032141	0.002572	0.001984	0.005239	0.000700	0.000841
High Turnover (Sit Down Restaurant)	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Hotel	0.544880	0.044491	0.207704	0.117752	0.014693	0.006272	0.020732	0.032141	0.002572	0.001984	0.005239	0.000700	0.000841
Unenclosed Parking with Elevator	0.544880	0.044491	0.207704	0.117752	0.014693	0.006272	0.020732	0.032141	0.002572	0.001984	0.005239	0.000700	0.000841
User Defined Commercial	0.544880	0.044491	0.207704	0.117752	0.014693	0.006272	0.020732	0.032141	0.002572	0.001984	0.005239	0.000700	0.000841

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2662	2.4200	2.0328	0.0145		0.1839	0.1839		0.1839	0.1839						
NaturalGas Unmitigated	0.2853	2.5935	2.1785	0.0156		0.1971	0.1971		0.1971	0.1971						

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
High Turnover (Sit Down Restaurant)	6637.67	0.0716	0.6508	0.5466	3.9000e-003		0.0495	0.0495		0.0495	0.0495						
Hotel	19815.5	0.2137	1.9427	1.6319	0.0117		0.1476	0.1476		0.1476	0.1476						
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		**0.2853**	**2.5935**	**2.1785**	**0.0156**		**0.1971**	**0.1971**		**0.1971**	**0.1971**						

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
High Turnover (Sit Down Restaurant)	6.51404	0.0703	0.6386	0.5365	3.8300e-003		0.0485	0.0485		0.0485	0.0485						
Hotel	18.1694	0.1959	1.7813	1.4963	0.0107		0.1354	0.1354		0.1354	0.1354						
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		**0.2662**	**2.4200**	**2.0328**	**0.0145**		**0.1839**	**0.1839**		**0.1839**	**0.1839**						

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.0916	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004						
Unmitigated	7.0916	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004						

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8121					0.0000	0.0000		0.0000	0.0000						
Consumer Products	6.2699					0.0000	0.0000		0.0000	0.0000						
Landscaping	9.5900e-003	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004						
Total	**7.0916**	**9.4000e-004**	**0.1041**	**1.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**						

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8121					0.0000	0.0000		0.0000	0.0000						
Consumer Products	6.2699					0.0000	0.0000		0.0000	0.0000						
Landscaping	9.5900e-003	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004						
Total	**7.0916**	**9.4000e-004**	**0.1041**	**1.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**						

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	1	12	300	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel	0.4923	1.3760	1.2553	2.3700e-003		0.0724	0.0724		0.0724	0.0724						
Total	**0.4923**	**1.3760**	**1.2553**	**2.3700e-003**		**0.0724**	**0.0724**		**0.0724**	**0.0724**						

11.0 Vegetation

8th, Grand and Hope - Alt 2

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Commercial	1.00	User Defined Unit	0.00	1.00	0
Enclosed Parking with Elevator	198.00	Space	0.00	79,200.00	0
Unenclosed Parking with Elevator	438.00	Space	0.00	175,200.00	0
High Turnover (Sit Down Restaurant)	10.50	1000sqft	0.24	10,499.00	0
Hotel	375.00	Room	12.50	301,612.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	616	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SB100 Renewable Portfolio Standards - Year 2025 = 616 lbs/MWh

Land Use - Project specific land use sq ft; total of 0.83 acres; User Defined is for purposes of running LADOT VMT data instead of CalEEMod default. Alt 2

Construction Phase - Consistent with Project Description

Off-road Equipment - Project Specific Equipment List

Off-road Equipment - Project Specific Equipment List

Off-road Equipment - Project Specific Equipment List

Off-road Equipment - Project Specific Equipment List

Off-road Equipment - Project Specific Equipment List

Off-road Equipment - Project Specific Equipment List

Trips and VMT - Number of hauls reflect total amount of material requiring transport; Haul length reflects round trip to Irwindale Landfill. Foundation vehicle class changed to HHDT to reflect concrete trucks

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - LADOT VMT Calculator

Woodstoves - No Wood Stoves; Reflects PDF AQ-2

Area Coating -

Energy Use - Consistency with Section 120.6(c) CBS, Mandatory Requirements for Enclosed Parking Garages

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation - City of LA Waste Diversion Rate

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	156,056.00	162,802.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	468,168.00	488,405.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.21	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	6.2720e-003	0.00
tblFleetMix	MCY	5.2390e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	8.4100e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.5720e-003	0.00
tblFleetMix	SBUS	7.0000e-004	0.00
tblFleetMix	UBUS	1.9840e-003	0.00
tblLandUse	LandUseSquareFeet	0.00	1.00
tblLandUse	LandUseSquareFeet	10,500.00	10,499.00
tblLandUse	LandUseSquareFeet	544,500.00	301,612.00
tblLandUse	LotAcreage	1.78	0.00
tblLandUse	LotAcreage	3.94	0.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	616
tblTripsAndVMT	HaulingTripNumber	1,780.00	1,250.00
tblTripsAndVMT	HaulingTripNumber	0.00	8,690.00
tblTripsAndVMT	VendorTripNumber	93.00	95.00
tblTripsAndVMT	WorkerTripNumber	238.00	243.00
tblTripsAndVMT	WorkerTripNumber	48.00	49.00
tblVehicleTrips	CC_TL	8.40	7.35
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	PB_TP	0.00	36.85
tblVehicleTrips	PR_TP	0.00	63.15
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	0.00	2,437.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	0.00	2,437.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	0.00	2,437.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area																0.0270
Energy																1,515.2960
Mobile																1,707.7237
Stationary																1.3757
Waste																166.0883
Water																67.6076
Total																**3,458.1183**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area																0.0270
Energy																1,365.6534
Mobile																1,707.7237
Stationary																1.3757
Waste																39.1968
Water																54.0861
Total																**3,168.0628**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**8.39**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated																1,707.7237
Unmitigated																1,707.7237

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
User Defined Commercial	2,437.00	2,437.00	2437.00	4,150,037	4,150,037
Total	2,437.00	2,437.00	2,437.00	4,150,037	4,150,037

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Unenclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Commercial	0.00	7.35	0.00	0.00	100.00	0.00	63.15	0	36.85

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.544880	0.044491	0.207704	0.117752	0.014693	0.006272	0.020732	0.032141	0.002572	0.001984	0.005239	0.000700	0.000841
High Turnover (Sit Down Restaurant)	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Hotel	0.544880	0.044491	0.207704	0.117752	0.014693	0.006272	0.020732	0.032141	0.002572	0.001984	0.005239	0.000700	0.000841
Unenclosed Parking with Elevator	0.544880	0.044491	0.207704	0.117752	0.014693	0.006272	0.020732	0.032141	0.002572	0.001984	0.005239	0.000700	0.000841
User Defined Commercial	0.544880	0.044491	0.207704	0.117752	0.014693	0.006272	0.020732	0.032141	0.002572	0.001984	0.005239	0.000700	0.000841

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Electricity Mitigated																882.0168
Electricity Unmitigated																996.9849
NaturalGas Mitigated																483.6366
NaturalGas Unmitigated																518.3111

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0																0.0000
High Turnover (Sit Down Restaurant)	2.42275e+006																130.0554
Hotel	7.23266e+006																388.2556
Unenclosed Parking with Elevator	0																0.0000
User Defined Commercial	0																0.0000
Total																	**518.3110**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0																0.0000
High Turnover (Sit Down Restaurant)	2.37762e+006																127.6331
Hotel	6.63184e+006																356.0035
Unenclosed Parking with Elevator	0																0.0000
User Defined Commercial	0																0.0000
Total																	**483.6366**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	464112				130.2079

High Turnover (Sit Down Restaurant)	463426				130.0154
Hotel	2.28622e+006				641.4051
Unenclosed Parking with Elevator	339888				95.3565
User Defined Commercial	0				0.0000
Total					**996.9849**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	398416				111.7766
High Turnover (Sit Down Restaurant)	434254				121.8313
Hotel	2.04795e+006				574.5568
Unenclosed Parking with Elevator	263238				73.8522
User Defined Commercial	0				0.0000
Total					**882.0168**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated																0.0270
Unmitigated																0.0270

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating																0.0000

Consumer Products																0.0000
Landscaping																0.0270
Total																**0.0270**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating																0.0000
Consumer Products																0.0000
Landscaping																0.0270
Total																**0.0270**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				54.0861
Unmitigated				67.6076

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0				0.0000
High Turnover (Sit Down Restaurant)	3.1871 / 0.203432				16.6150
Hotel	9.51254 / 1.05695				50.9926
Unenclosed Parking with Elevator	0 / 0				0.0000
User Defined Commercial	0 / 0				0.0000

Total				**67.6076**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0				0.0000
High Turnover (Sit Down Restaurant)	2.54968 / 0.162746				13.2920
Hotel	7.61003 / 0.845559				40.7941
Unenclosed Parking with Elevator	0 / 0				0.0000
User Defined Commercial	0 / 0				0.0000
Total					**54.0861**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				39.1968
Unmitigated				166.0883

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0				0.0000
High Turnover (Sit Down Restaurant)	124.95				62.8375
Hotel	205.31				103.2507
Unenclosed Parking with Elevator	0				0.0000
User Defined Commercial	0				0.0000

Total				**166.0883**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0				0.0000
High Turnover (Sit Down Restaurant)	29.4882				14.8297
Hotel	48.4532				24.3672
Unenclosed Parking with Elevator	0				0.0000
User Defined Commercial	0				0.0000
Total					**39.1968**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	1	12	300	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (300 - 600 HP)																1.3757
Total																**1.3757**

11.0 Vegetation

8th, Grand and Hope - Alternative 2 Operations
Los Angeles-South Coast County, Annual

Land Use Details

Land Uses	*Size*	*Metric*	*Lot Acreage*	*Floor Surface Area*	*Population*
Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Commercial	1.00	User Defined U	0.00	1.00	0
Enclosed Parking with Elevator	198.00	Space	0.00	79,200.00	0
Unenclosed Parking with Elevator	438.00	Space	0.00	175,200.00	0
High Turnover (Sit Down Restaurant)	10.50	1000sqft	0.24	10,499.00	0

Trip Summary Information

Land Uses	*Average Daily Trip Rate*			*Mitigated*
	Weekday	*Saturday*	*Sunday*	
Enclosed Parking with Elevator	0	0	0	0
High Turnover (Sit Down Restaurant)	0.0	0.0	0.0	0
Hotel	0.0	0.0	0.0	0
Unenclosed Parking with Elevator	0.0	0.0	0.0	0
User Defined Commercial	2,437	2,437	2,437	4,150,037
Total	2,437	2,437	2,437	4,150,037

Mitigated Gasoline and Diesel Usage

	Gasoline	*Diesel*
Miles/Gallon	28.3	11.3
% Fleet Mix	92.7%	7.3%
Total (Gallons):	**135,778**	**26,722**

Note: Fleet mix is 92.3% gasoline @ 30.6 miles/gallon and 7.7% diesel @ 12.1 miles/gallon.

Energy by Land Use - Natural Gas (Mitigated)

Land Uses	*kBTU/yr*	cu ft/year
Enclosed Parking with Elevator	0	0
High Turnover (Sit Down Restaurant)	2,377,620	2,264,400
Hotel	6,631,840	6,316,038
Unenclosed Parking with Elevator	0	0
Total	9,009,460	**8,580,438**

Energy by Land Use - Electricity (Mitigated)

Land Uses	*kWH/yr*
Enclosed Parking with Elevator	501,834
High Turnover (Sit Down Restaurant)	434,254
Hotel	2,047,950
Unenclosed Parking with Elevator	263,238
Total	**3,247,276**

Note: Reduction in electricity usage reflects implementation of CalGreen and 2019 Title 24 which exceeds 2016 Title 24 by at least 10 percent for energy efficiency, based on 2016 standards and 25% for lighting).

Water Detail (Unmitigated)

Land Uses	*Indoor Use (Mgal)*	*Outdoor Use (Mgal)*	*Electricity Use (kWh/yr)*
Enclosed Parking with Elevator	0.000	0.000	0
High Turnover (Sit Down Restaurant)	2.550	0.163	29,913
Hotel	7.610	0.846	92,780
Unenclosed Parking with Elevator	0.000	0.000	0
Total	10.16	1.01	**122,692**

Notes: Indoor water results in 0.0111 kWhr of electricity usage per gallon from delivery, treatment, and distribution of water within Southern California (CalEEMod). Outdoor water results in 0.009727 kWhr ofelectricity usage per gallon from delivery and distribution of water within Southern California (CalEEMod). The City of Los Angeles Green Building Code (Chapter IX, Article 9, of the LAMC) requires newly constructed non-residential and high-rise residential buildings to reduce indoor water use by at least 20 percent by: (1) using water saving fixtures or flow restrictions; and/or (2) demonstrating a 20 percent reduction in baseline water