# Appendix F

Noise Modeling Data



## **Construction Source Noise Prediction Model**

				Reference Emission	
	<b>Distance to Nearest</b>	<b>Combined Predicted</b>		Noise Levels (L <sub>max</sub> ) at 50	Usage
Location	Receptor in feet	Noise Level (L <sub>eq</sub> dBA)	Equipment	feet <sup>1</sup>	Factor <sup>1</sup>
Threshold	1,278	60.0	Concrete Saw	90	0.4
Capitol Park Hotel	175	77.3	Dozer	85	0.4
El Cortez Apartments	550	67.3	Roller	85	0.4
Studios At Hotel Berry	550	67.3			
Project Church	400	70.1			
Stanley Mosk Library	310	72.3			
EDD Building	367	70.8			
California State Capitol	435	69.4	Ground Type	HARD	
			Source Height	8	
			Receiver Height	5	
			Ground Factor <sup>2</sup>	0.00	

Predicted Noise Level <sup>3</sup>	L <sub>eq</sub> dBA at 50 feet <sup>3</sup>
Concrete Saw	86.0
Dozer	81.0
Roller	81.0

Combined Predicted Noise Level ( $L_{eq}$  dBA at 50 feet) 88.1

#### Sources:

 $L_{eq}(equip) = E.L.+10*log(U.F.) - 20*log(D/50) - 10*G*log(D/50)$ 

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and

D = Distance from source to receiver.

<sup>&</sup>lt;sup>1</sup>Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

<sup>&</sup>lt;sup>2</sup> Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).

<sup>&</sup>lt;sup>3</sup> Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).



## **Construction Source Noise Prediction Model**

	Distance to Nearest	Combined Predicted		Reference Emission Noise Levels (L <sub>max</sub> ) at 50	Usage
Location	Receptor in feet	Noise Level (L <sub>max</sub> dBA)	Equipment	feet <sup>1</sup>	Factor <sup>1</sup>
Threshold	2,020	60.0	Concrete Saw	90	1
Capitol Park Hotel	175	81.2	Dozer	85	1
El Cortez Apartments	550	71.3	Roller	85	1
Studios at Hotel Berry	550	71.3			
Project Church	400	74.1			
Stanley Mosk Library	310	76.3			
EDD Building	367	74.8			
California State Capitol	435	73.3	Ground Type	HARD	
		•	Source Height	8	
			Receiver Height	5	
			Ground Factor <sup>2</sup>	0.00	

Predicted Noise Level <sup>3</sup>	L <sub>max</sub> dBA at 50 feet <sup>3</sup>
Concrete Saw	90.0
Dozer	85.0
Roller	85.0

Combined Predicted Noise Level (L<sub>max</sub> dBA at 50 feet) 92.1

#### Sources:

 $L_{eq}(equip) = E.L.+10*log(U.F.) - 20*log(D/50) - 10*G*log(D/50)$ 

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and

D = Distance from source to receiver.

<sup>&</sup>lt;sup>1</sup>Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

<sup>&</sup>lt;sup>2</sup> Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).

<sup>&</sup>lt;sup>3</sup> Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).

Auger Drill Rig 20 85 84 36 79.0 72.0 100 78.0 Bar Bender 40 80 78 372 74.0 70.0 100 72.0 Bar Bender 70 80 na 0 74.0 67.0 100 72.0 Bar Bender 70 80 na 0 74.0 67.0 100 72.0 Bar Bender 70 80 na 0 74.0 67.0 100 72.0 Bar Bender 70 80 na 0 74.0 67.0 100 72.0 80 na 0 74.0 67.0 100 72.0 80 80 83 11 74.0 71.0 100 77	Equipment Description	Acoustical Usage Factor (%)	Spec 721.560 Lmax @ 50ft (dBA slow)	Actual Measured Lmax @ 50ft (dBA slow)	No. of Actual Data Samples (count)	Spec 721.560 LmaxCalc	Spec 721.560 Leq	Distance	Actual Measured LmaxCalc	Actual Measured Leq
Backhoe										
Backhoe	Auger Drill Rig	20	85	84	36	79.0	72.0	100	78.0	71.0
Blasting	_	40	80	78	372	74.0	70.0	100	72.0	68.0
Borning Jack Power Unit		20		na	0		67.0			
Chain Saw   20	•									
Clam Shove  (dropping)   20   80   83   87   4   87.0   80.0   100   81.0	=									74.0
Compressor (air)										71.0
Compressor   Garry   Compressor   Care   C										74.0 70.0
Concrete Batch Plant	· · · · ·									68.0
Concrete Mixer Truck									72.0	08.0
Concrete Pump Truck   20									73.0	69.0
Concrete Saw         20         90         90         55         84.0         77.0         100         84.0           Crane         16         85         81         405         79.0         77.0         100         75.0           Dozer         40         85         82         55         79.0         75.0         100         76.0           Drill Rig Truck         20         84         79         22         78.0         71.0         100         73.0           Drum Mixer         50         80         80         1         74.0         71.0         100         73.0           Excavator         40         84         76         31         78.0         74.0         100         75.0           Elat Bed Truck         40         84         74         4         78.0         74.0         100         68.0           Front End Loader         40         80         79         96         74.0         70.0         100         73.0           Generator (<25xVA, VMSs         50         70         73         74         64.0         61.0         100         77.0           Gradell         40         85         83										68.0
Dozer	· ·									77.0
Drill Rig Truck         20         84         79         22         78.0         71.0         100         73.0           Drum Mixer         50         80         80         1         74.0         71.0         100         74.0           Dump Truck         40         84         76         31         78.0         74.0         100         75.0           Flat Bed Truck         40         84         74         4         78.0         74.0         100         68.0           Front End Loader         40         80         79         96         74.0         700         100         75.0           Generator         50         82         81         19         76.0         73.0         100         75.0           Generator (<25KVA, VMS s			85	81	405		71.0	100		67.0
Drum Mixer   50	Dozer	40	85	82	55	79.0	75.0	100	76.0	72.0
Dump Truck	Drill Rig Truck	20	84	79	22	78.0	71.0	100	73.0	66.0
Excavator		50	80				71.0			71.0
Flat Bed Truck										66.0
Front End Loader         40         80         79         96         74.0         70.0         100         73.0           Generator         50         82         81         19         76.0         73.0         100         75.0           Generator (<25kVA, VMS s										71.0
Generator   50										64.0
Generator (<25KVA, VMS s   50   70   73   74   64.0   61.0   100   67.0										69.0
Gradall         40         85         83         70         79.0         75.0         100         77.0           Grader         40         85         na         0         79.0         75.0         100         81.0           Grapple (on Backhoe)         40         85         87         1         79.0         75.0         100         81.0           Horizontal Boring Hydr. Jac         25         80         82         6         74.0         68.0         100         76.0           Hydra Break Ram         10         90         na         0         84.0         74.0         100         95.0           Jackhammer         20         95         101         11         89.0         82.0         100         95.0           Man Lift         20         85         89         133         79.0         72.0         100         69.0           Mounted Impact Hammer         20         90         90         212         84.0         77.0         100         84.0           Paverment Scarafier         20         85         77         9         79.0         72.0         100         89.0           Paverment Scarafier         20 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>72.0 64.0</td></td<>										72.0 64.0
Grader         40         85         na         0         79.0         75.0         100           Grapple (on Backhoe)         40         85         87         1         79.0         75.0         100         81.0           Horizontal Boring Hydr. Jac         25         80         82         6         74.0         68.0         100         76.0           Hydra Break Ram         10         90         na         0         84.0         74.0         100           Impact Pile Driver         20         95         101         11         89.0         82.0         100         95.0           Jackhammer         20         85         89         133         79.0         72.0         100         83.0           Man Lift         20         85         75         23         79.0         72.0         100         69.0           Mounted Impact Hammer I         20         85         75         23         79.0         72.0         100         69.0           Pavement Scarafier         20         85         77         9         79.0         72.0         100         71.0           Paver         50         85         85         89 <td>· ·</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>73.0</td>	· ·									73.0
Grapple (on Backhoe)         40         85         87         1         79.0         75.0         100         81.0           Horizontal Boring Hydr. Jac         25         80         82         6         74.0         68.0         100         76.0           Hydra Break Ram         10         90         na         0         84.0         74.0         100         95.0           Impact Pile Driver         20         95         101         11         89.0         82.0         100         95.0           Jackhammer         20         85         89         133         79.0         72.0         100         83.0           Man Lift         20         85         75         23         79.0         72.0         100         69.0           Mounted Impact Hammer I         20         85         90         2         79.0         72.0         100         84.0           Paver Foxer         50         85         77         9         79.0         76.0         100         71.0           Paver Foxer         50         85         85         90         79.0         76.0         100         71.0           Paver Foxer         50 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>77.0</td><td>73.0</td></t<>									77.0	73.0
Horizontal Boring Hydr. Jac   25   80   82   6   74.0   68.0   100   76.0     Hydra Break Ram   10   90   na   0   84.0   74.0   100     Impact Pile Driver   20   95   101   11   89.0   82.0   100   95.0     Jackhammer   20   85   89   133   79.0   72.0   100   83.0     Man Lift   20   85   75   23   79.0   72.0   100   69.0     Mounted Impact Hammer   20   90   90   212   84.0   77.0   100   84.0     Pavement Scarafier   20   85   77   9   79.0   76.0   100   84.0     Paver   50   85   75   1   49.0   45.0   100   69.0     Pickup Truck   40   55   75   1   49.0   45.0   100   69.0     Pneumatic Tools   50   85   85   90   79.0   76.0   100   79.0     Pumps   50   77   81   17   71.0   68.0   100   75.0     Refrigerator Unit   100   82   73   3   76.0   76.0   100   75.0     Rock Drill   20   85   81   3   79.0   72.0   100   73.0     Rock Drill   20   85   86   16   79.0   72.0   100   74.0     Sand Blasting (Single Nozzli   20   85   84   12   79.0   75.0   100   74.0     Shears (on backhoe)   40   85   96   5   79.0   75.0   100   74.0     Slurry Trenching Machine   50   82   80   75   76.0   77.0   100   77.0     Vacuum Excavator (Vac-tru   40   85   85   87   1   79.0   75.0   100   79.0     Vibrating Hopper   50   85   87   1   79.0   76.0   100   73.0     Vibrating Hopper   50   85   87   1   79.0   76.0   100   76.0     Vibrating Hopper   50   85   87   1   79.0   76.0   100   74.0     Vibrating Hopper   50   85   87   1   79.0   76.0   100   74.0     Vibrating Hopper   50   85   87   1   79.0   76.0   100   74.0     Vibrating Hopper   50   85   87   1   79.0   76.0   100   74.0     Vibrating Hopper   50   85   87   1   79.0   76.0   100   74.0     Vibrating Hopper   50   85   87   1   79.0   76.0   100   74.0     Vibrating Hopper   50   85   87   1   79.0   76.0   100   74.0     Vibrating Hopper   50   85   87   1   79.0   76.0   100   74.0     Vibrating Hopper   50   85   87   1   79.0   76.0   100   74.0     Vibrating Hopper   50   80   80   80   1   4   4   4   4   6   6   6   6   6   6									81.0	77.0
Hydra Break Ram   10   90   na   0   84.0   74.0   100   100   100   100   11   11   89.0   82.0   100   95.0   100   11   11   89.0   82.0   100   95.0   100										70.0
Jackhammer   20   85   89   133   79.0   72.0   100   83.0     Man Lift   20   85   75   23   79.0   72.0   100   69.0     Mounted Impact Hammer   20   90   90   212   84.0   77.0   100   84.0     Pavement Scarafier   20   85   90   2   79.0   72.0   100   84.0     Pavement Scarafier   20   85   90   2   79.0   76.0   100   71.0     Paver   50   85   77   9   79.0   76.0   100   71.0     Pickup Truck   40   55   75   1   49.0   45.0   100   69.0     Pneumatic Tools   50   85   85   90   79.0   76.0   100   79.0     Pumps   50   77   81   17   71.0   68.0   100   75.0     Refrigerator Unit   100   82   73   3   76.0   76.0   100   75.0     Rivit Buster/chipping gun   20   85   79   19   79.0   72.0   100   73.0     Rock Drill   20   85   81   3   79.0   72.0   100   75.0     Roller   20   85   80   16   79.0   72.0   100   74.0     Sand Blasting (Single Nozzli   20   85   84   12   79.0   75.0   100   78.0     Shears (on backhoe)   40   85   84   12   79.0   75.0   100   72.0     Slurry Plant   100   78   78   1   72.0   72.0   100   72.0     Slurry Plant   100   78   78   1   72.0   72.0   100   72.0     Slurry Trenching Machine   50   82   80   75   76.0   73.0   100   74.0     Soil Mix Drill Rig   50   80   na   0   74.0   71.0   100     Tractor   40   84   na   0   78.0   74.0   100   79.0     Vacuum Excavator (Vac-tru   40   85   85   149   79.0   75.0   100   79.0     Vacuum Street Sweeper   10   80   82   19   74.0   64.0   100   76.0     Ventilation Fan   100   85   79   13   79.0   79.0   100   73.0     Vibrating Hopper   50   85   87   1   79.0   76.0   100   81.0     Vibratory Concrete Mixer   20   80   80   1   74.0   67.0   100   74.0     Vibratory Concrete Mixer   20   80   80   1   74.0   67.0   100   74.0     Vibratory Concrete Mixer   20   80   80   1   74.0   67.0   100   74.0     Vibratory Concrete Mixer   20   80   80   1   74.0   67.0   100   74.0     Vacuum Street Sweeper   10   80   80   80   1   74.0   67.0   100   74.0     Vibratory Concrete Mixer   20   80   80   1   74.0   67.0   100										
Man Lift         20         85         75         23         79.0         72.0         100         69.0           Mounted Impact Hammer I 20         90         90         212         84.0         77.0         100         84.0           Paver         50         85         90         2         79.0         72.0         100         84.0           Paver         50         85         77         9         79.0         76.0         100         71.0           Pickup Truck         40         55         75         1         49.0         45.0         100         69.0           Pneumatic Tools         50         85         85         90         79.0         76.0         100         79.0           Pumps         50         77         81         17         71.0         68.0         100         75.0           Refrigerator Unit         100         82         73         3         76.0         76.0         100         67.0           Rok Drill         20         85         81         3         79.0         72.0         100         73.0           Rok Drill         20         85         81         3         79	•	20	95	101	11	89.0	82.0	100	95.0	88.0
Mounted Impact Hammer I         20         90         90         212         84.0         77.0         100         84.0           Pavement Scarafier         20         85         90         2         79.0         72.0         100         84.0           Paver         50         85         77         9         79.0         76.0         100         71.0           Pickup Truck         40         55         75         1         49.0         45.0         100         69.0           Pneumatic Tools         50         85         85         90         79.0         76.0         100         79.0           Pumps         50         77         81         17         71.0         68.0         100         75.0           Refrigerator Unit         100         82         73         3         76.0         76.0         100         67.0           Roller         20         85         81         3         79.0         72.0         100         73.0           Roller         20         85         81         3         79.0         72.0         100         74.0           Sand Blasting (Single Nozzli         20         85 <t< td=""><td>Jackhammer</td><td>20</td><td>85</td><td>89</td><td>133</td><td>79.0</td><td>72.0</td><td>100</td><td>83.0</td><td>76.0</td></t<>	Jackhammer	20	85	89	133	79.0	72.0	100	83.0	76.0
Pavement Scarafier         20         85         90         2         79.0         72.0         100         84.0           Paver         50         85         77         9         79.0         76.0         100         71.0           Pickup Truck         40         55         75         1         49.0         45.0         100         69.0           Pneumatic Tools         50         85         85         90         79.0         76.0         100         79.0           Pumps         50         77         81         17         71.0         68.0         100         75.0           Refrigerator Unit         100         82         73         3         76.0         76.0         100         75.0           Refrigerator Unit         100         82         73         3         76.0         76.0         100         67.0           Refrigerator Unit         100         82         73         3         76.0         76.0         100         75.0           Refrigerator Unit         100         82         81         3         79.0         72.0         100         73.0           Robstance         20         85	Man Lift	20	85	75	23	79.0	72.0	100	69.0	62.0
Paver         50         85         77         9         79.0         76.0         100         71.0           Pickup Truck         40         55         75         1         49.0         45.0         100         69.0           Pneumatic Tools         50         85         85         90         79.0         76.0         100         79.0           Pumps         50         77         81         17         71.0         68.0         100         75.0           Refrigerator Unit         100         82         73         3         76.0         76.0         100         67.0           Rivit Buster/chipping gun         20         85         79         19         79.0         72.0         100         73.0           Rock Drill         20         85         81         3         79.0         72.0         100         75.0           Roller         20         85         80         16         79.0         72.0         100         74.0           Sand Blasting (Single Nozzli         20         85         84         12         79.0         75.0         100         78.0           Shears (on backhoe)         40         85					212					77.0
Pickup Truck         40         55         75         1         49.0         45.0         100         69.0           Pneumatic Tools         50         85         85         90         79.0         76.0         100         79.0           Pumps         50         77         81         17         71.0         68.0         100         75.0           Refrigerator Unit         100         82         73         3         76.0         76.0         100         67.0           Rivit Buster/chipping gun         20         85         79         19         79.0         72.0         100         73.0           Rock Drill         20         85         81         3         79.0         72.0         100         75.0           Roller         20         85         80         16         79.0         72.0         100         74.0           Sand Blasting (Single Nozzli         20         85         84         12         79.0         75.0         100         74.0           Scraper         40         85         84         12         79.0         75.0         100         78.0           Shears (on backhoe)         40         85										77.0
Pneumatic Tools         50         85         85         90         79.0         76.0         100         79.0           Pumps         50         77         81         17         71.0         68.0         100         75.0           Refrigerator Unit         100         82         73         3         76.0         76.0         100         67.0           Rivit Buster/chipping gun         20         85         79         19         79.0         72.0         100         73.0           Rock Drill         20         85         81         3         79.0         72.0         100         75.0           Roller         20         85         80         16         79.0         72.0         100         74.0           Sand Blasting (Single Nozzli         20         85         96         9         79.0         72.0         100         90.0           Scraper         40         85         84         12         79.0         75.0         100         78.0           Shears (on backhoe)         40         85         96         5         79.0         75.0         100         72.0           Slurry Plant         100         78										68.0
Pumps         50         77         81         17         71.0         68.0         100         75.0           Refrigerator Unit         100         82         73         3         76.0         76.0         100         67.0           Rivit Buster/chipping gun         20         85         79         19         79.0         72.0         100         73.0           Rock Drill         20         85         81         3         79.0         72.0         100         75.0           Roller         20         85         80         16         79.0         72.0         100         74.0           Sand Blasting (Single Nozzli         20         85         96         9         79.0         72.0         100         90.0           Scraper         40         85         84         12         79.0         75.0         100         78.0           Shears (on backhoe)         40         85         96         5         79.0         75.0         100         72.0           Slurry Plant         100         78         78         1         72.0         72.0         100         72.0           Slurry Trenching Machine         50 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>65.0</td></td<>										65.0
Refrigerator Unit         100         82         73         3         76.0         76.0         100         67.0           Rivit Buster/chipping gun         20         85         79         19         79.0         72.0         100         73.0           Rock Drill         20         85         81         3         79.0         72.0         100         75.0           Roller         20         85         80         16         79.0         72.0         100         74.0           Sand Blasting (Single Nozzli         20         85         96         9         79.0         72.0         100         90.0           Scraper         40         85         84         12         79.0         75.0         100         78.0           Shears (on backhoe)         40         85         96         5         79.0         75.0         100         72.0           Slurry Plant         100         78         78         1         72.0         72.0         100         72.0           Slurry Trenching Machine         50         82         80         75         76.0         73.0         100         74.0           Soil Mix Drill Rig         50 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>76.0</td>										76.0
Rivit Buster/chipping gun         20         85         79         19         79.0         72.0         100         73.0           Rock Drill         20         85         81         3         79.0         72.0         100         75.0           Roller         20         85         80         16         79.0         72.0         100         74.0           Sand Blasting (Single Nozzlı         20         85         96         9         79.0         72.0         100         90.0           Scraper         40         85         84         12         79.0         75.0         100         78.0           Shears (on backhoe)         40         85         96         5         79.0         75.0         100         78.0           Slurry Plant         100         78         78         1         72.0         72.0         100         72.0           Slurry Trenching Machine         50         82         80         75         76.0         73.0         100         74.0           Soil Mix Drill Rig         50         80         na         0         74.0         71.0         100           Vacuum Excavator (Vac-tru         40         8	•									72.0 67.0
Rock Drill         20         85         81         3         79.0         72.0         100         75.0           Roller         20         85         80         16         79.0         72.0         100         74.0           Sand Blasting (Single Nozzli         20         85         96         9         79.0         72.0         100         90.0           Scraper         40         85         84         12         79.0         75.0         100         78.0           Shears (on backhoe)         40         85         96         5         79.0         75.0         100         90.0           Slurry Plant         100         78         78         1         72.0         72.0         100         72.0           Slurry Trenching Machine         50         82         80         75         76.0         73.0         100         74.0           Soil Mix Drill Rig         50         80         na         0         74.0         71.0         100           Tractor         40         84         na         0         78.0         74.0         100         79.0           Vacuum Excavator (Vac-tru         40         85	_									66.0
Roller         20         85         80         16         79.0         72.0         100         74.0           Sand Blasting (Single Nozzli         20         85         96         9         79.0         72.0         100         90.0           Scraper         40         85         84         12         79.0         75.0         100         78.0           Shears (on backhoe)         40         85         96         5         79.0         75.0         100         90.0           Slurry Plant         100         78         78         1         72.0         72.0         100         72.0           Slurry Trenching Machine         50         82         80         75         76.0         73.0         100         74.0           Soil Mix Drill Rig         50         80         na         0         74.0         71.0         100         74.0           Tractor         40         84         na         0         78.0         74.0         100         79.0           Vacuum Excavator (Vac-tru         40         85         85         149         79.0         75.0         100         76.0           Vacuum Street Sweeper         10 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>68.0</td>										68.0
Sand Blasting (Single Nozzli         20         85         96         9         79.0         72.0         100         90.0           Scraper         40         85         84         12         79.0         75.0         100         78.0           Shears (on backhoe)         40         85         96         5         79.0         75.0         100         90.0           Slurry Plant         100         78         78         1         72.0         72.0         100         72.0           Slurry Trenching Machine         50         82         80         75         76.0         73.0         100         74.0           Soil Mix Drill Rig         50         80         na         0         74.0         71.0         100           Tractor         40         84         na         0         78.0         74.0         100           Vacuum Excavator (Vac-tru         40         85         85         149         79.0         75.0         100         79.0           Vacuum Street Sweeper         10         80         82         19         74.0         64.0         100         76.0           Ventilation Fan         100         85 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>67.0</td></th<>										67.0
Scraper         40         85         84         12         79.0         75.0         100         78.0           Shears (on backhoe)         40         85         96         5         79.0         75.0         100         90.0           Slurry Plant         100         78         78         1         72.0         72.0         100         72.0           Slurry Trenching Machine         50         82         80         75         76.0         73.0         100         74.0           Soil Mix Drill Rig         50         80         na         0         74.0         71.0         100           Tractor         40         84         na         0         78.0         74.0         100           Vacuum Excavator (Vac-tru         40         85         85         149         79.0         75.0         100         79.0           Vacuum Street Sweeper         10         80         82         19         74.0         64.0         100         76.0           Ventilation Fan         100         85         79         13         79.0         79.0         100         73.0           Vibrating Hopper         50         85         87										83.0
Slurry Plant         100         78         78         1         72.0         72.0         100         72.0           Slurry Trenching Machine         50         82         80         75         76.0         73.0         100         74.0           Soil Mix Drill Rig         50         80         na         0         74.0         71.0         100           Tractor         40         84         na         0         78.0         74.0         100           Vacuum Excavator (Vac-tru         40         85         85         149         79.0         75.0         100         79.0           Vacuum Street Sweeper         10         80         82         19         74.0         64.0         100         76.0           Ventilation Fan         100         85         79         13         79.0         79.0         100         73.0           Vibrating Hopper         50         85         87         1         79.0         76.0         100         81.0           Vibratory Concrete Mixer         20         80         80         1         74.0         67.0         100         74.0	= : =									74.0
Slurry Trenching Machine         50         82         80         75         76.0         73.0         100         74.0           Soil Mix Drill Rig         50         80         na         0         74.0         71.0         100           Tractor         40         84         na         0         78.0         74.0         100           Vacuum Excavator (Vac-tru         40         85         85         149         79.0         75.0         100         79.0           Vacuum Street Sweeper         10         80         82         19         74.0         64.0         100         76.0           Ventilation Fan         100         85         79         13         79.0         79.0         100         73.0           Vibrating Hopper         50         85         87         1         79.0         76.0         100         81.0           Vibratory Concrete Mixer         20         80         80         1         74.0         67.0         100         74.0	•									86.0
Soil Mix Drill Rig         50         80         na         0         74.0         71.0         100           Tractor         40         84         na         0         78.0         74.0         100           Vacuum Excavator (Vac-tru         40         85         85         149         79.0         75.0         100         79.0           Vacuum Street Sweeper         10         80         82         19         74.0         64.0         100         76.0           Ventilation Fan         100         85         79         13         79.0         79.0         100         73.0           Vibrating Hopper         50         85         87         1         79.0         76.0         100         81.0           Vibratory Concrete Mixer         20         80         80         1         74.0         67.0         100         74.0	Slurry Plant	100	78	78	1	72.0	72.0	100	72.0	72.0
Tractor         40         84         na         0         78.0         74.0         100           Vacuum Excavator (Vac-tru         40         85         85         149         79.0         75.0         100         79.0           Vacuum Street Sweeper         10         80         82         19         74.0         64.0         100         76.0           Ventilation Fan         100         85         79         13         79.0         79.0         100         73.0           Vibrating Hopper         50         85         87         1         79.0         76.0         100         81.0           Vibratory Concrete Mixer         20         80         80         1         74.0         67.0         100         74.0	Slurry Trenching Machine	50	82	80	75	76.0	73.0	100	74.0	71.0
Vacuum Excavator (Vac-tru         40         85         85         149         79.0         75.0         100         79.0           Vacuum Street Sweeper         10         80         82         19         74.0         64.0         100         76.0           Ventilation Fan         100         85         79         13         79.0         79.0         100         73.0           Vibrating Hopper         50         85         87         1         79.0         76.0         100         81.0           Vibratory Concrete Mixer         20         80         80         1         74.0         67.0         100         74.0	Soil Mix Drill Rig	50	80	na	0	74.0	71.0			
Vacuum Street Sweeper       10       80       82       19       74.0       64.0       100       76.0         Ventilation Fan       100       85       79       13       79.0       79.0       100       73.0         Vibrating Hopper       50       85       87       1       79.0       76.0       100       81.0         Vibratory Concrete Mixer       20       80       80       1       74.0       67.0       100       74.0										
Ventilation Fan         100         85         79         13         79.0         79.0         100         73.0           Vibrating Hopper         50         85         87         1         79.0         76.0         100         81.0           Vibratory Concrete Mixer         20         80         80         1         74.0         67.0         100         74.0	-									75.0
Vibrating Hopper         50         85         87         1         79.0         76.0         100         81.0           Vibratory Concrete Mixer         20         80         80         1         74.0         67.0         100         74.0	•									66.0
Vibratory Concrete Mixer 20 80 80 1 74.0 67.0 100 74.0										73.0
·										78.0
VIDIALDIVENE DILVEN /U 30 IUI 44 X9 II X/ II III 95 II										67.0
Warning Horn 5 85 83 12 79.0 66.0 100 77.0										88.0 64.0
Welder / Torch 40 73 74 5 67.0 68.0 100 77.0	_									64.0



Project:	Unruh Buildir	ng Project																
								Input								Output		
	Noise Leve	el Descriptor: CNEL																
	Site	e Conditions: Hard																
	•	Traffic Input: Peak																
	Tra	ffic K-Factor: 9.76				Distan												
						Direct	ional											
		Segment Description and Loca	tion	Peak Hour	Speed	Centerline	e, (feet) <sub>4</sub>		Traffic Di	stribution	Characte	ristics		CNEL,	Dis	stance to Co	ntour, (feet)	)3
Number	Name	From	То	Volume	(mph)	Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve	% Night	(dBA) <sub>5,6,7</sub>	70 dBA	65 dBA	60 dBA	55 dBA
Exist	ing Conditions																	
1	J Street	2nd Street	3rd Street	1,933	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	67.6	29	91	289	913
2	J Street	3rd Street	9th Street	2,397	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	68.6	36	113	358	1133
3	J Street	9th Street	10th Street	1,313	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.9	20	62	196	620
4	J Street	10th Street	11th Street	1,253	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.7	19	59	187	592
5	L Street	7th Street	8th Street	1,246	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.7	19	59	186	589
6	L Street	8th Street	9th Street	1,221	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.6	18	58	182	577
7	L Street	9th Street	10th Street	1,507	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	66.5	23	71	225	712
8	L Street	10th Street	11th Street	1,510	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	66.5	23	71	226	714
9	L Street	11th Street	12th Street	1,197	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.5	18	57	179	566
10	L Street	12th Street	13th Street	840	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	64.0	13	40	126	397
11	Capitol Mall	7th Street	8th Street	652	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	62.9	10	31	97	308
12	Capitol Mall	8th Street	9th Street	502	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	61.8	8	24	75	237
13	Capitol Mall	9th Street	10th Street	243	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	58.6	4	11	36	115
14	N Street	7th Street	8th Street	519	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	61.9	8	25	78	245
15	N Street	8th Street	9th Street	520	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	61.9	8	25	78	246
16	N Street	9th Street	10th Street	672	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	63.0	10	32	100	318
17	N Street	10th Street	11th Street	749	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	63.5	11	35	112	354
18	P Street	8th Street	9th Street	1,184	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.5	18	56	177	560
19	P Street	9th Street	10th Street	1,213	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.6	18	57	181	573
20	P Street	10th Street	11th Street	1,183	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.5	18	56	177	559
21	Q Street	2nd Street	3rd Street	2,879	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	69.3	43	136	430	1360
22	Q Street	3rd Street	9th Street	2,710	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	69.1	40	128	405	1281
23	Q Street	9th Street	10th Street	1,404	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	66.2	21	66	210	663
24	Q Street	10th Street	11th Street	1,137	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.3	17	54	170	537
25	3rd Street	l Street	J Street	570	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	62.3	9	27	85	269
26	3rd Street	J Street	K Street	988	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	64.7	15	47	148	467
27	3rd Street	P Street	Q Street	665	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	63.0	10	31	99	314
28	3rd Street	Q Street	R Street	554	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	62.2	8	26	83	262

2.0%

1.0% 80.0% 15.0% 5.0%

61.9

25

78

246

<sup>29 8</sup>th Street K Street L Street 520 35 50 50 97.0% 2.0 \*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.



Project:	Unruh Buildii	ng Project																
								Input								Output		
	Noise Leve	el Descriptor: CNEL																
	Sit	te Conditions: Hard																
		Traffic Input: Peak																
	Tra	affic K-Factor: 9.76				Distan	ce to											
						Directi												
		Segment Description and Loca	tion	Peak Hour	Speed	Centerline	e, (feet) <sub>4</sub>		Traffic D	istribution	Characte	ristics		CNEL,	Di	stance to Co	ontour, (feet	<b>)</b> <sub>3</sub>
Number	Name	From	То	Volume	(mph)	Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve	% Night	(dBA) <sub>5,6,7</sub>	70 dBA	65 dBA	60 dBA	55 dBA
Exist	ing Conditions																	
30	8th Street	L Street	Capitol Mall	560	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	62.2	8	26	84	265
31	8th Street	Capitol Mall	N Street	418	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	61.0	6	20	62	198
32	8th Street	N Street	O Street	428	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	61.1	6	20	64	202
33	9th Street	l Street	J Street	369	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	60.4	6	17	55	174
34	9th Street	J Street	L Street	446	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	61.2	7	21	67	211
35	9th Street	L Street	Capitol Mall	876	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	64.2	13	41	131	414
36	9th Street	Capitol Mall	N Street	934	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	64.5	14	44	140	441
37	9th Street	N Street	P Street	1,043	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	64.9	16	49	156	493
38	9th Street	P Street	Q Street	1,072	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.1	16	51	160	507
39	9th Street	Q Street	R Street	1,170	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.4	17	55	175	553
40	10th Street	l Street	J Street	492	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	61.7	7	23	74	232
41	10th Street	J Street	L Street	924	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	64.4	14	44	138	437
42	10th Street	L Street	Capitol Mall	912	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	64.4	14	43	136	431
43	10th Street	Capitol Mall	N Street	829	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	63.9	12	39	124	392
44	10th Street	N Street	P Street	1,218	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.6	18	58	182	576
45	10th Street	P Street	Q Street	1,243	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.7	19	59	186	587
46	10th Street	Q Street	R Street	976	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	64.6	15	46	146	461
47	11th Street	K Street	L Street	313	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	59.7	5	15	47	148
48	11th Street	V Street	W Street	640	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	62.8	10	30	96	302
49	11th Street	W Street	X Street	872	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	64.2	13	41	130	412
50	12th Street	K Street	L Street	559	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	62.2	8	26	84	264
51	W Street	10th Street	11th Street	1,660	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	67.0	25	78	248	784
52	W Street	11th Street	12th Street	1,644	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	66.9	25	78	246	777
53	Off Ramp	I-5	J Street	1,184	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.5	18	56	177	560

<sup>53</sup> Off Ramp I-5 J Street 1,184 35 50 50 97.0% 2.0
\*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.



Project:	Unruh Buildi	ing Project																
								Input								Output		
	Noise Lev	vel Descriptor: CNEL																
	Sit	te Conditions: Hard																
		Traffic Input: Peak																
	Tra	affic K-Factor: <mark>9.76</mark>				Distan												
						Directi												
		Segment Description and Loc	cation	Peak Hour	Speed	Centerline	e, (feet) <sub>4</sub>		Traffic D	istribution	Characte	ristics		CNEL,	Dis	stance to Co	ntour, (feet)	13
Number	Name	From	То	Volume	(mph)	Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve	% Night	(dBA) <sub>5,6,7</sub>	70 dBA	65 dBA	60 dBA	55 dBA
Exist	ing + Project Co	nditions																
1	J Street	2nd Street	3rd Street	1,933	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	67.6	29	91	289	913
2	J Street	3rd Street	9th Street	2,401	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	68.6	36	113	359	1135
3	J Street	9th Street	10th Street	1,317	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	66.0	20	62	197	622
4	J Street	10th Street	11th Street	1,257	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.7	19	59	188	594
5	L Street	7th Street	8th Street	1,246	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.7	19	59	186	589
6	L Street	8th Street	9th Street	1,221	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.6	18	58	182	577
7	L Street	9th Street	10th Street	1,517	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	66.6	23	72	227	717
8	L Street	10th Street	11th Street	1,525	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	66.6	23	72	228	721
9	L Street	11th Street	12th Street	1,198	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.5	18	57	179	566
10	L Street	12th Street	13th Street	841	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	64.0	13	40	126	397
11	Capitol Mall	7th Street	8th Street	656	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	62.9	10	31	98	310
12	Capitol Mall	8th Street	9th Street	506	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	61.8	8	24	76	239
13	Capitol Mall	9th Street	10th Street	243	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	58.6	4	11	36	115
14	N Street	7th Street	8th Street	519	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	61.9	8	25	78	245
15	N Street	8th Street	9th Street	520	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	61.9	8	25	78	246
16	N Street	9th Street	10th Street	674	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	63.0	10	32	101	319
17	N Street	10th Street	11th Street	751	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	63.5	11	35	112	355
18	P Street	8th Street	9th Street	1,185	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.5	18	56	177	560
19	P Street	9th Street	10th Street	1,213	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.6	18	57	181	573
20	P Street	10th Street	11th Street	1,183	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.5	18	56	177	559
21	Q Street	2nd Street	3rd Street	2,879	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	69.3	43	136	430	1360
22	Q Street	3rd Street	9th Street	2,710	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	69.1	40	128	405	1281
23	Q Street	9th Street	10th Street	1,404	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	66.2	21	66	210	663
24	Q Street	10th Street	11th Street	1,137	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.3	17	54	170	537
25	3rd Street	I Street	J Street	570	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	62.3	9	27	85	269
26	3rd Street	J Street	K Street	988	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	64.7	15	47	148	467
27	3rd Street	P Street	Q Street	665	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	63.0	10	31	99	314
28	3rd Street	Q Street	R Street	554	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	62.2	8	26	83	262
29	8th Street	K Street	L Street	520	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	61.9	8	25	78	246

<sup>29 8</sup>th Street K Street L Street 520 35 50 50 97.0% 2.0% 1.0% 80.0% 15.0% 5.0% 61.9 8 25 78

\*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.



Project:	Unruh Buildir	ng Project																
	Nieta I acce	L Descriptory CNE						Input								Output		
		el Descriptor: CNEL																
		e Conditions: Hard																
		Traffic Input: Peak				Diete:	4-											
	Tra	ffic K-Factor: 9.76				Distan												
		6			6 1	Direct			<b>-</b>		01	• • • • • •		015	D:	-t t- C-		٤١
		Segment Description and Loc		Peak Hour	Speed	Centerline		a		istribution			o/ bit 1 .	CNEL,			ontour, (feet	
Number		From	То	Volume	(mph)	Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve	% Night	(dBA) <sub>5,6,7</sub>	70 dBA	65 dBA	60 dBA	55 dB/
Exist	ing + Project Con	ditions																
30	8th Street	L Street	Capitol Mall	560	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	62.2	8	26	84	265
31	8th Street	Capitol Mall	N Street	418	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	61.0	6	20	62	198
32	8th Street	N Street	O Street	428	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	61.1	6	20	64	202
33	9th Street	l Street	J Street	369	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	60.4	6	17	55	174
34	9th Street	J Street	L Street	446	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	61.2	7	21	67	211
35	9th Street	L Street	Capitol Mall	886	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	64.2	13	42	132	419
36	9th Street	Capitol Mall	N Street	940	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	64.5	14	44	140	444
37	9th Street	N Street	P Street	1,047	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.0	16	49	156	495
38	9th Street	P Street	Q Street	1,075	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.1	16	51	161	508
39	9th Street	Q Street	R Street	1,173	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.4	18	55	175	554
40	10th Street	l Street	J Street	492	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	61.7	7	23	74	232
41	10th Street	J Street	L Street	937	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	64.5	14	44	140	443
42	10th Street	L Street	Capitol Mall	917	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	64.4	14	43	137	433
43	10th Street	Capitol Mall	N Street	833	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	64.0	12	39	124	394
44	10th Street	N Street	P Street	1,222	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.6	18	58	183	577
45	10th Street	P Street	Q Street	1,247	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.7	19	59	186	589
46	10th Street	Q Street	R Street	980	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	64.7	15	46	146	463
47	11th Street	K Street	L Street	327	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	59.9	5	15	49	155
48	11th Street	V Street	W Street	640	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	62.8	10	30	96	302
49	11th Street	W Street	X Street	872	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	64.2	13	41	130	412
50	12th Street	K Street	L Street	566	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	62.3	8	27	85	267
51	W Street	10th Street	11th Street	1,664	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	67.0	25	79	249	786
52	W Street	11th Street	12th Street	1,648	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	66.9	25	78	246	779
53	Off Ramp	I-5	J Street	1,184	35	50	50	97.0%	2.0%	1.0%	80.0%	15.0%	5.0%	65.5	18	56	177	560

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