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## 2001 CAPACITY ANALYSIS WORKSHEETS

Bay Bridge 2001 Summer Weekend Day Westbound Analysis

\_\_\_\_\_Operational Analysis\_\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis T Analysis Time Period: 7 AM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1019 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 283 v Trucks and buses 6 % Recreational vehicles 0 % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 400 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 400 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 6.6 pc/mi/ln Level of service, LOS А Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis T Analysis Time Period: 7 AM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1445 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 401 v Trucks and buses 6 8 0 Recreational vehicles % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 567 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 567 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 9.4 pc/mi/ln Level of service, LOS А Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis T Analysis Time Period: 9 AM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1887 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 524 v Trucks and buses 6 % Recreational vehicles 0 % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 741 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 741 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 12.3 pc/mi/ln Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis T Analysis Time Period: 10 AM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2439 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 678 v Trucks and buses 6 % Recreational vehicles 0 % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 958 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 958 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 15.9 pc/mi/ln Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis T Analysis Time Period: 11 AM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2978 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 827 v Trucks and buses 6 % Recreational vehicles 0 % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 1169 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1169 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 19.4 pc/mi/ln Level of service, LOS C Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/13/00 Analysis Time Analysis Time Period: 12 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND - FRIDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2434 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 676 v Trucks and buses 6 % Recreational vehicles 0 % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 956 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 956 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 15.8 pc/mi/ln Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/13/00 Analysis Time Analysis Time Period: 1 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND - FRIDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2652 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 737 v Trucks and buses 6 % 0 Recreational vehicles % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 1041 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1041 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 17.2 pc/mi/ln Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 2 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND - FRIDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2627 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 730 v Trucks and buses 6 % Recreational vehicles 0 % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 1031 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1031 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 17.1 pc/mi/ln Level of service, LOS B Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis T Analysis Time Period: 3 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2565 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 713 v Trucks and buses 6 8 0 Recreational vehicles % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 1007 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1007 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 pc/mi/ln Density, D 16.7 Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 4 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2327 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 646 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 914 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 914 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 15.1 pc/mi/ln Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 5 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3488 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 969 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 1369 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1369 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 pc/mi/ln Density, D 22.7 Level of service, LOS C Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 6 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2931 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 814 v Trucks and buses 6 8 0 Recreational vehicles % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 1151 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 4.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.8 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 61.2 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1151 Free-flow speed, FFS 61.2 mi/h Average passenger-car speed, S 61.2 mi/h Number of lanes, N 3 Density, D 18.8 pc/mi/ln Level of service, LOS C Overall results are not computed when free-flow speed is less than 55 mph.

Bay Bridge 2001 Summer Weekend Day Eastbound Analysis

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis T Analysis Time Period: 7 AM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2935 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 815 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1679 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1679 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 Density, D 28.9 pc/mi/ln Level of service, LOS D Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 8 AM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3572 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 992 v Trucks and buses 6 2 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 2044 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 2044 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 56.0 mi/h Number of lanes, N 2 Density, D 36.5 pc/mi/ln Level of service, LOS Ε Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 9 AM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3653 veh/h Peak-hour factor, PHF 0.90 1015 Peak 15-min volume, v15 v Trucks and buses 6 0 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 2090 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 2090 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 55.2 mi/h Number of lanes, N 2 Density, D 37.8 pc/mi/ln Level of service, LOS Ε Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 10 AM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3524 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 979 v Trucks and buses 6 0 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 2017 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 2017 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 56.3 mi/h Number of lanes, N 2 Density, D 35.8 pc/mi/ln Level of service, LOS Ε Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 11 AM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3443 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 956 v Trucks and buses 6 0 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1970 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1970 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 56.9 mi/h Number of lanes, N 2 Density, D 34.6 pc/mi/ln Level of service, LOS D Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 12 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3508 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 974 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 2007 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 2007 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 56.5 mi/h Number of lanes, N 2 Density, D 35.6 pc/mi/ln Level of service, LOS Ε Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis T Analysis Time Period: 1 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3010 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 836 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1722 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1722 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 Density, D 29.6 pc/mi/ln Level of service, LOS D Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis T Analysis Time Period: 2 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3083 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 856 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1764 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1764 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.0 mi/h Number of lanes, N 2 Density, D 30.4 pc/mi/ln Level of service, LOS D Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 3 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3604 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1001 v Trucks and buses 6 0 0 Recreational vehicles % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 2062 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 2062 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 55.7 mi/h Number of lanes, N 2 Density, D 37.0 pc/mi/ln Level of service, LOS Ε Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis T Analysis Time Period: 4 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3467 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 963 v Trucks and buses 6 0 0 Recreational vehicles % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1984 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1984 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 56.7 mi/h Number of lanes, N 2 Density, D 35.0pc/mi/ln Level of service, LOS D Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 5 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1985 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 551 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1136 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1136 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 Density, D 19.6 pc/mi/ln Level of service, LOS C Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 6 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2201 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 611 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1259 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1259 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 Density, D 21.7 pc/mi/ln Level of service, LOS C Overall results are not computed when free-flow speed is less than 55 mph.

Bay Bridge 2001 Summer Weekend – Friday Westbound Analysis

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 12 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND - FRIDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2434 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 676 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 956 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 956 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 15.8 pc/mi/ln Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 1 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND - FRIDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2652 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 737 v Trucks and buses 6 0 0 Recreational vehicles % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 1041 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1041 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 17.2 pc/mi/ln Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

## HCS2000: Basic Freeway Segments Release 4.1a

\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Agency or Company: Parsons Date Performed: 8/13/02 Analysis Time Period: 2 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND - FRIDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_\_ Volume, V 2627 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 730 v Trucks and buses 6 % Recreational vehicles 0 ° Terrain type: Grade % Grade 3.50 Segment length 0.60 mi 2.0 Trucks and buses PCE, ET Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 1031 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft interchange/mi Interchange density 0.50 Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h 3.0 Number of lanes adjustment, fN mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ Flow rate, vp 1031 pc/h/ln Free-flow speed, FFS 60.4 mi/h 60.4 Average passenger-car speed, S mi/h Number of lanes, N 3 Density, D 17.1 pc/mi/ln Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 3 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND - FRIDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3042 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 845 v Trucks and buses 6 0 Recreational vehicles 0 % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 1194 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1194 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 19.8 pc/mi/ln Level of service, LOS C Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis T Analysis Time Period: 4 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND - FRIDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2878 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 799 v Trucks and buses 6 8 0 Recreational vehicles % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 1130 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1130 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 18.7 pc/mi/ln Level of service, LOS C Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 5 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND - FRIDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2563 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 712 v Trucks and buses 6 % 0 Recreational vehicles % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 1006 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 4.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.8 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 61.2 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1006 Free-flow speed, FFS 61.2 mi/h Average passenger-car speed, S 61.2 mi/h Number of lanes, N 3 Density, D 16.4 pc/mi/ln Level of service, LOS B Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 6 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND - FRIDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2435 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 676 v Trucks and buses 6 % Recreational vehicles 0 % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 956 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 956 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 15.8 pc/mi/ln Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

Bay Bridge 2001 Summer Weekend – Friday Eastbound Analysis

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 12 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND - FRIDAY Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3332 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 926 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1907 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1907 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 57.4 mi/h Number of lanes, N 2 Density, D 33.2 pc/mi/ln Level of service, LOS D Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis T Analysis Time Period: 1 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND - FRIDAY Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3440 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 956 v Trucks and buses 6 0 0 Recreational vehicles % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1968 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1968 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 56.9 mi/h Number of lanes, N 2 Density, D 34.6 pc/mi/ln Level of service, LOS D Overall results are not computed when free-flow speed is less than 55 mph.

	Operational Ana	alysis					
Analyst:	Bala Akundi						
Agency or Company:	Parsons						
	8/13/02						
Analysis Time Period:							
Freeway/Direction:							
From/To:							
Jurisdiction:							
Analysis Year:	2001 SUMMER WEEP	KEND - FRIDAY					
Description: 2 EB LANE	IS						
	Flow Inputs and	d Adjustments					
Volume, V		3804	veh/h				
Peak-hour factor, PHF		0.90					
Peak 15-min volume, v15	5	1057	v				
Trucks and buses		6	00				
Recreational vehicles		0	00				
Terrain type:		Grade					
Grade		3.00	90				
Segment length		0.70	mi				
Trucks and buses PCE, E	T	1.5					
Recreational vehicle PC	CE, ER	3.0					
Heavy vehicle adjustmer	nt, fHV	0.971					
Driver population facto	or, vp	1.00					
Flow rate, vp		2177	pc/h/ln				
	Speed Inputs ar	nd Adjustments					
Lane width		12.0	ft				
Right-shoulder lateral	clearance	2.0	ft				
Interchange density		0.50	interchange/mi				
Number of lanes, N		2					
Free-flow speed:		Ideal					
FFS or BFFS		65.0	mi/h				
Lane width adjustment,	fLW	0.0	mi/h				
Lateral clearance adjus		2.4	mi/h				
Interchange density adjustment, fID		0.0	mi/h				
Number of lanes adjustm	nent, fN	4.5	mi/h				
Free-flow speed, FFS		58.1	mi/h				
		Urban Freew	ау				
	LOS and Perform	mance Measures					
Flow rate, vp		2177	pc/h/ln				
Free-flow speed, FFS		58.1	mi/h				
Average passenger-car speed, S		53.5	mi/h				
Number of lanes, N		2					
Density, D		40.7	pc/mi/ln				
Level of service, LOS		E					
Overall results are r	not computed when	free-flow speed	is less than 55 mph.				

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/13/00 Analysis Time Analysis Time Period: 3 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND - FRIDAY Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 4013 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1115 v Trucks and buses 6 0 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 2296 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 2296 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S mi/h 2 Number of lanes, N Density, D pc/mi/ln Level of service, LOS F Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND - FRIDAY Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3972 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1103 v Trucks and buses 6 0 Recreational vehicles 0 % Terrain type: Grade 3.00 % Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 2273 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 2273 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 50.9 mi/h Number of lanes, N 2 Density, D 44.6 pc/mi/ln Level of service, LOS Ε Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis T Analysis Time Period: 5 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND - FRIDAY Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 4011 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1114 v Trucks and buses 5 0 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.976 Driver population factor, vp 1.00 Flow rate, vp 2284 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 2284 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S mi/h 2 Number of lanes, N Density, D pc/mi/ln Level of service, LOS F Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 6 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND - FRIDAY Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3146 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 874 v Trucks and buses 5 8 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.976 Driver population factor, vp 1.00 Flow rate, vp 1791 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1791 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.0 mi/h Number of lanes, N 2 Density, D 30.9 pc/mi/ln Level of service, LOS D Overall results are not computed when free-flow speed is less than 55 mph.

Bay Bridge 2001 Average Weekday Westbound Analysis

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Date Performed: 8/13/00 Analysis Te Analysis Time Period: 7 AM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2891 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 803 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 1135 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1135 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 18.8 pc/mi/ln Level of service, LOS C Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Parsons Agency or Company: Date Performed: Analysis Time Period: 8 AM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2505 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 696 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.50 ° Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 983 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 983 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 16.3 pc/mi/ln Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Date Performed: 8/12/00 Analysic T Analysis Time Period: 9 AM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1781 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 495 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.50 ° Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 679 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 679 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 11.2 pc/mi/ln Level of service, LOS B Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Date Performed: 8/13/00 Analysis Tri Analysis Time Period: 10 AM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1571 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 436 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.50 Ŷ Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 617 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 617 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 10.2 pc/mi/ln Level of service, LOS А Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_\_ Analyst: BKA Date Performed: 8/13/00 Analysis Te Analysis Time Period: 11 AM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1505 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 418 v Trucks and buses 6 8 0 Recreational vehicles % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 591 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 591 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 9.8 pc/mi/ln Level of service, LOS А Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Date Performed: 8/13/00 Analysis Te Analysis Time Period: 12 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1449 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 403 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 569 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 569 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 9.4 pc/mi/ln Level of service, LOS А Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Parsons Agency or Company: Date Performed: Analysis Time Period: 1 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1613 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 448 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.50 ° Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 633 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 633 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 10.5 pc/mi/ln Level of service, LOS А Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Parsons Agency or Company: Date Performed: Analysis Time Period: 2 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1716 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 477 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.50 ° Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 674 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 674 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 11.2 pc/mi/ln Level of service, LOS B Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Parsons Agency or Company: Date Performed: Analysis Time Period: 3 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1761 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 489 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.50 ° Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 691 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 691 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 11.4 pc/mi/ln Level of service, LOS B Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_\_ Analyst: BKA Parsons Agency or Company: Date Performed: Analysis Time Period: 4 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1698 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 472 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.50 ° Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 667 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 667 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 11.0+ pc/mi/ln Level of service, LOS B Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Date Performed: 8/13/00 Analysis T Analysis Time Period: 5 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1576 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 438 v Trucks and buses 6 8 0 Recreational vehicles % Terrain type: Grade 3.50 8 Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 619 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 619 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 10.2 pc/mi/ln Level of service, LOS А Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Date Performed: 8/13/00 Analysis T Analysis Time Period: 6 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 3 WB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1329 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 369 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.50 ° Grade Segment length 0.60 mi Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 522 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 522 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 8.6 pc/mi/ln Level of service, LOS А Overall results are not computed when free-flow speed is less than 55 mph. Bay Bridge 2001 Average Weekday Eastbound Analysis

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis T Analysis Time Period: 7 AM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1221 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 339 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 699 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 699 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 Density, D 12.0 pc/mi/ln Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis T Analysis Time Period: 8 AM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1405 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 390 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 804 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 804 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 Density, D 13.8 pc/mi/ln Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 9 AM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1282 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 356 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 734 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 734 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 Density, D 12.6 pc/mi/ln Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 10 AM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1370 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 381 v Trucks and buses 6 8 0 Recreational vehicles % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 784 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 784 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 Density, D 13.5 pc/mi/ln Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 11 AM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1596 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 443 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 913 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 913 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 pc/mi/ln Density, D 15.7 Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 12 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1544 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 429 v Trucks and buses 6 0 0 Recreational vehicles % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 884 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 884 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 Density, D 15.2 pc/mi/ln Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/13/00 Analysis Time Analysis Time Period: 1 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1752 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 487 v Trucks and buses 6 2 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1003 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1003 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 Density, D 17.3 pc/mi/ln Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis T-Analysis Time Period: 2 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1792 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 498 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1025 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1025 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 Density, D 17.6 pc/mi/ln Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis Time Analysis Time Period: 3 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2185 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 607 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1250 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1250 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 Density, D 21.5 pc/mi/ln Level of service, LOS C Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis T Analysis Time Period: 4 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2599 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 722 v Trucks and buses 6 2 0 Recreational vehicles % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1487 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1487 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 Density, D 25.6 pc/mi/ln Level of service, LOS C Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/13/00 Analysis Time Analysis Time Period: 5 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3082 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 856 v Trucks and buses 6 2 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1764 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1764 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.0 mi/h Number of lanes, N 2 Density, D 30.4 pc/mi/ln Level of service, LOS D Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: Bala Akundi Date Performed: 8/12/00 Analysis T-Analysis Time Period: 6 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 2 EB LANES \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 3181 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 884 v Trucks and buses 6 8 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1820 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1820 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 57.9 mi/h Number of lanes, N 2 Density, D 31.4 pc/mi/ln Level of service, LOS D Overall results are not computed when free-flow speed is less than 55 mph.

Bay Bridge 2001 Summer Weekend Day Reversible Lane Operation Westbound Analysis

Analyst: BA									
Agency/Co:									
Date: 8/18/02									
Analsis Period: 7 AM									
	BAY BRIDGE WESTBOUND SPAN								
From/To:									
Jurisdiction:									
Analysis Year: 2001 SUMMER WEEKEND									
Project ID: REVERSIBLE LANE OPE	RATION								
FREE	-FLOW SPEE	ID							
Direction	1		2	<b>C</b> 1					
Lane width Lateral clearance:	12.0	ft	12.0	ft					
	2.0	ft	6.0	ft					
Right edge	2.0 6.0		6.0						
Left edge Total lateral clearance	6.0 8.0	ft ft	6.0 12.0	ft ft					
	8.U 0	LL	12.0	ft					
Access points per mile Median type	Undivided								
Free-flow speed:	Base	eu	Measured						
FFS or BFFS	60.0	mph	60.0	mph					
Lane width adjustment, FLW	0.0	mph	0.0	mph					
Lateral clearance adjustment, FLC	0.9	mph	0.0	mph					
Median type adjustment, FM	1.6	mph	0.0	mph					
Access points adjustment, FA	0.0	mph	0.0	mph					
Free-flow speed	57.5	mph	60.0	mph					
Direction	1		2						
Volume, V	1019	vph	0	vph					
Peak-hour factor, PHF	0.90	vpii	0.90	vpii					
Peak 15-minute volume, v15	283		0						
Trucks and buses	6	90	0	00					
Recreational vehicles	0	00	0	00					
Terrain type	Grade	-	Level	-					
Grade	3.50	9	0.00	20					
Segment length	0.60	mi	0.00	mi					
Number of lanes	2		2						
Driver population adjustment, fP	1.00		1.00						
Irucks and buses PCE, ET	2.0		1.5						
Recreational vehicles PCE, ER	3.0		1.2						
Heavy vehicle adjustment, fHV	0.943		1.000						
Flow rate, vp	600	pcphpl	0	pcphpl					
	_RESULTS								
Direction	 1		2						
			_	_					
Flow rate, vp	600	pcphpl	0	pcphpl					
		_							
Free-flow speed, FFS	57.5	mph	60.0	mph					
Free-flow speed, FFS Avg. passenger-car travel speed, S	57.5 57.5	mph mph	60.0	mph mph					
Free-flow speed, FFS	57.5		60.0 A	=					

\_\_\_\_\_OPERATIONAL ANALYSIS\_\_\_\_\_\_

Overall results are not computed when free-flow speed is less than 45 mph.

Analyst: BA Agency/Co:										
Date: 8/18/02										
Analsis Period: 8 AM										
Highway: BAY BRIDGE WESTBOUN	BAY BRIDGE WESTBOUND SPAN									
From/To:										
Jurisdiction:										
Analysis Year: 2001 SUMMER WEEKEND										
Project ID: REVERSIBLE LANE OPE	RATION									
FREE	-FLOW SPEN	ED								
Direction	1		2							
Lane width	12.0	ft	12.0	ft						
Lateral clearance:	0.0	<b>C</b> 1	<b>C</b> 0							
Right edge	2.0	ft	6.0	ft						
Left edge	6.0	ft	6.0	ft						
Total lateral clearance	8.0	ft	12.0	ft						
Access points per mile	0 Undivid	d	0							
Median type Free flow speed:	Undivide	ea	Moorres	a la						
Free-flow speed: FFS or BFFS	Base 60.0	mph	Measured 60.0	mph						
Lane width adjustment, FLW		=		=						
Lateral clearance adjustment, FLC	0.0 0.9	mph mph	0.0 0.0	mph mph						
Median type adjustment, FM	1.6	mph	0.0	mph						
Access points adjustment, FA	0.0	mph	0.0	mph						
Free-flow speed	57.5	mph	60.0	mph						
	VOLUME	Ť		L						
Direction	1		2							
Volume, V	1445	Turch	∠ 0	rmh						
Peak-hour factor, PHF	0.90	vph	0.90	vph						
Peak 15-minute volume, v15	401		0.90							
Trucks and buses	5	8	0	8						
Recreational vehicles	0	0 00	0	0						
Terrain type	Grade	0	Level	0						
Grade	3.50	00	0.00	8						
Segment length	0.60	mi	0.00	mi						
Number of lanes	2		2							
Driver population adjustment, fP	1.00		1.00							
Trucks and buses PCE, ET	2.0		1.5							
Recreational vehicles PCE, ER	3.0		1.2							
Heavy vehicle adjustment, fHV	0.952		1.000							
Flow rate, vp	842	pcphpl	0	pcphpl						
	RESULTS									
Direction	1		2							
	0.4.0		0	, ,						
Flow rate, vp	842	pcphpl	0	pcphpl						
Free-flow speed, FFS	57.5	mph	60.0	mph						
Avg. passenger-car travel speed, S	57.5 B	mph	60.0	mph						
Level of service, LOS Density, D	в 14.6	pc/mi/ln	A 0.0	pc/mi/ln						
	± 1.0	PC/ m1/ 111	0.0	P.C./ IIIT/ TII						

\_\_\_\_\_OPERATIONAL ANALYSIS\_\_\_\_\_\_

Overall results are not computed when free-flow speed is less than 45 mph.

Analyst: BA				
Agency/Co:				
Date: 8/18/02				
Analsis Period: 9 AM				
Highway: BAY BRIDGE WESTBOUN	D SPAN			
From/To:				
Jurisdiction:				
Analysis Year: 2001 SUMMER WEEKEND				
Project ID: REVERSIBLE LANE OPE	RATION			
FREE	-FLOW SPEE	D		
Dimention	1		2	
Direction Lane width	1 12.0	ft	2 12.0	ft
Lateral clearance:	12.0	IL	12.0	IL
Right edge	2.0	ft	6.0	ft
Left edge	2.0 6.0	ft	6.0	ft
Total lateral clearance	8.0	ft	12.0	ft
Access points per mile	0	ΙU	0	IL
Median type	Undivide	d	0	
Free-flow speed:	Base	a	Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.9	mph	0.0	mph
Median type adjustment, FM	1.6	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	57.5	mph	60.0	mph
file film Speed		mpii	00.0	mp11
	_VOLUME			
Direction	1		2	
Volume, V	1887	vph	0	vph
Peak-hour factor, PHF	0.90		0.90	
Peak 15-minute volume, v15	524		0	
Trucks and buses	5	00	0	00
Recreational vehicles	0	00	0	00
Terrain type	Grade		Level	
Grade	3.50	00	0.00	00
Segment length	0.60	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	2.0		1.5	
Recreational vehicles PCE, ER	3.0		1.2	
Heavy vehicle adjustment, fHV	0.952		1.000	
Flow rate, vp	1100	pcphpl	0	pcphpl
	_RESULTS			
Divertion			2	
Direction	1		2	
Flow rate, vp	1100	pcphpl	0	pcphpl
Free-flow speed, FFS	57.5	mph	60.0	mph
Avg. passenger-car travel speed, S	57.5	mph	60.0	mph
Level of service, LOS	C	Ŧ	A	÷
Density, D	19.1	pc/mi/ln		pc/mi/ln

Analyst: BA					
Agency/Co:	2 ( 0 2				
Date: 8/18 Analsis Period: 10 A					
	M BRIDGE WESTBOUN	NADS C			
From/To:	BRIDGE WESIBOON	J SPAN			
Jurisdiction:					
	L SUMMER WEEKEND				
-	ERSIBLE LANE OPEN	RATION			
	FREE:	-FLOW SPEE	!D		
I	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		2.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral o	clearance	8.0	ft	12.0	ft
Access points per mi	0		0		
Median type	Undivided				
Free-flow speed:	Base		Measured		
FFS or BFFS Lane width adjustment, FLW		60.0	mph	60.0	mph
		0.0	mph	0.0	mph
Lateral clearance ad	ljustment, FLC	0.9	mph mph	0.0 0.0	mph mph
Median type adjustme	ent, FM	1.6			
Access points adjust	cment, FA	0.0	mph	0.0	mph
Free-flow speed		57.5	mph	60.0	mph
		_VOLUME			
I	Direction	1		2	
Volume, V		2439	vph	0	vph
Peak-hour factor, PH		0.90		0.90	
Peak 15-minute volum	ne, v15	678		0	
Trucks and buses		5	010	0	010
Recreational vehicle	es	0	010	0	00
Terrain type		Grade		Level	
Grade		3.50	00	0.00	oo
Segment length		0.60	mi	0.00	mi
Number of lanes		2		2	
Driver population ad		1.00		1.00	
Trucks and buses PCE		2.0		1.5	
Recreational vehicle		3.0		1.2	
Heavy vehicle adjust	cment, IHV	0.952		1.000	le 1
Flow rate, vp		1422	pcphpl	0	pcphpl
		_RESULTS			
I	Direction	1		2	
Flow rate, vp		1422	pcphpl	0	pcphpl
Free-flow speed, FFS	3	57.5	mph	60.0	mph
Avg. passenger-car t		57.5	mph	60.0	mph
Level of service, LO		С	-	A	-
Density, D		24.7	pc/mi/ln	0.0	pc/mi/ln

Analyst:	ВА				
Agency/Co:	0 / 1 0 / 0 0				
Date:	8/18/02				
Analsis Period: Highway:					
From/To:	BAY BRIDGE WESTBOUN	J SPAN			
Jurisdiction:					
Analysis Year:	2001 SUMMER WEEKEND				
Project ID:	REVERSIBLE LANE OPEN	RATION			
		-FLOW SPEE	ים!		
	Direction	1		2	
Lane width	Direction	12.0	ft	12.0	ft
Lateral clearan	ce:	12.0	10	12.0	10
Right edge			ft	6.0	ft
Left edge		2.0 6.0	ft	6.0	ft
-	ral clearance	8.0	ft	12.0	ft
Access points p	0		0		
Median type	Undivided				
Free-flow speed	:	Base		Measured	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adju	stment, FLW	0.0 0.9 1.6	mph mph	0.0 0.0 0.0	mph mph mph
	ce adjustment, FLC				
Median type adj	-				
Access points a		0.0	mph	0.0	mph
Free-flow speed		57.5	mph	60.0	mph
		VOLUME			
	Direction	1		2	
Volume, V		2978	vph	0	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute <sup>.</sup>	volume, v15	827		0	
Trucks and buse	S	5	00	0	00
Recreational vel	hicles	0	00	0	8
Terrain type		Grade		Level	
Grade		3.50	00	0.00	00
Segment leng	gth	0.60	mi	0.00	mi
Number of lanes		2		2	
Driver population	on adjustment, fP	1.00		1.00	
Trucks and buse		2.0		1.5	
Recreational vel		3.0		1.2	
Heavy vehicle a	djustment, fHV	0.952		1.000	
Flow rate, vp		1737	pcphpl	0	pcphpl
		_RESULTS			
	Direction	1		2	
Flow rate, vp		1737	pcphpl	0	pcphpl
Free-flow speed	, FFS	57.5	mph	60.0	mph
	car travel speed, S	56.1	mph	60.0	mph
Level of service		D		A	т
Density, D		31.0	pc/mi/ln		pc/mi/ln

Analyst:	BA				
Agency/Co:					
Date:	8/18/02				
Analsis Period:					
Highway:	BAY BRIDGE WESTBOUN	D SPAN			
From/To: Jurisdiction:					
Analysis Year:	2001 SUMMER WEEKEND				
Project ID:	REVERSIBLE LANE OPE	PATTON			
		-FLOW SPEE	םי.		
	Direction			2	
Lane width	DIFECTION	1 12.0	ft	12.0	ft
Lateral clearand	7e:	12.0	IC	12.0	IC
Right edge			ft	6.0	ft
Left edge		2.0 6.0	ft	6.0	ft
5	ral clearance	8.0	ft	12.0	ft
Access points p		0	шu	0	<u>т</u> с
Median type	Undivide	bé	J		
Free-flow speed	:	Base	~~	Measured	
FFS or BFFS Lane width adjustment, FLW		60.0	mph	60.0	mph mph
		0.0	mph	0.0	
	ce adjustment, FLC	0.9	mph mph	0.0	mph
Median type adju	-	1.6			mph
Access points ad		0.0	mph	0.0	mph
Free-flow speed		57.5	mph	60.0	mph
		_VOLUME			
	Direction	1		2	
Volume, V	Direction	2695	vph	0	vph
Peak-hour factor, PHF		0.90	VPII	0.90	vpii
Peak 15-minute		749		0	
Trucks and buses		5	00	0	8
Recreational vel		0	8	0	0
Terrain type		Grade	0	Level	0
Grade		3.50	8	0.00	8
Segment leng	ath	0.60	mi	0.00	mi
Number of lanes	3011	2		2	
	on adjustment, fP	1.00		1.00	
Trucks and buses		2.0		1.5	
Recreational vel		3.0		1.2	
Heavy vehicle a		0.952		1.000	
Flow rate, vp		1572	pcphpl	0	pcphpl
LUW LALE, VP					1 1 1
riow late, vp					
riow rate, vp		_RESULTS			
Flow face, vp	Direction	_results1		2	
	Direction		pcphpl	2	pcphpl
Flow rate, vp		1 1572			pcphpl mph
Flow rate, vp Free-flow speed	, FFS	1	pcphpl mph mph	0	pcphpl mph mph
Flow rate, vp Free-flow speed	, FFS car travel speed, S	1 1572 57.5	mph	0 60.0	mph

	BA				
Analyst: Agency/Co:					
Date:	8/18/02				
Analsis Period:					
Highway:	BAY BRIDGE WESTBOUNI	) SPAN			
From/To:		5 SIIM			
Jurisdiction:					
Analysis Year:	2001 SUMMER WEEKEND				
Project ID:	REVERSIBLE LANE OPEN	RATION			
	FREE	-FLOW SPEE	D		
Lane width	Direction	1 12.0	ft	2 12.0	ft
Lateral clearan	<b>a</b> o <b>i</b>	12.0	IL	12.0	IL
Right edge		2.0	ft	6.0	ft
Left edge		2.0 6.0	ft	6.0	ft
	ral clearance	8.0	ft	12.0	ft
		0	ΙL	0	IL
Access points p	Undivide	d			
Median type Free-flow speed		Base	a	Measured	
FIEE-IIOW Speed FFS or BFF	60.0	mph	60.0	mph	
Lane width adjustment, FLW		0.0	mph	0.0	mph
	ce adjustment, FLC	0.9 1.6	mph mph	0.0	mph
Median type adj					mph
Access points a		0.0	mph	0.0	mph
Free-flow speed		57.5	mph	60.0	mph
filee filow speed			mpii	00.0	mp11
		_VOLUME			
	Direction	1		2	
Volume, V		3585	vph	0	vph
Peak-hour facto	r, PHF	0.90		0.90	
Peak 15-minute	volume, v15	996		0	
Trucks and buse		5	00	0	00
Recreational ve	hicles	0	00	0	00
Terrain type		Grade		Level	
Grade		3.50	00	0.00	00
Segment len	5	0.60	mi	0.00	mi
Number of lanes		2		2	
	on adjustment, fP	1.00		1.00	
Trucks and buse		2.0		1.5	
Recreational ve		3.0		1.2	
Heavy vehicle a	djustment, fHV	0.952		1.000	
Flow rate, vp		2091	pcphpl	0	pcphpl
		_RESULTS			
	Direction	1		2	
Flow rate, vp		2091	pcphpl	0	pcphpl
Free-flow speed	. FFS	57.5	mph	60.0	mph
	car travel speed, S	54.0	mph	60.0	mph
Level of servic		E	<u>.</u>	A	
Density, D	c, <u> </u>	38.8	pc/mi/ln		pc/mi/ln

Analyst:	BA				
Agency/Co:					
Date:	8/18/02				
Analsis Period:					
Highway: From/To:	BAY BRIDGE WESTBOUNI	J SPAN			
Jurisdiction:					
Analysis Year:	2001 SUMMER WEEKEND				
Project ID:	REVERSIBLE LANE OPEN	RATION			
		-FLOW SPEE	רו		
	Direction	1		2	
Lane width	DITECTION	12.0	ft	12.0	ft
Lateral clearan	7e:	12.0	шu	12.0	IC
Right edge		2.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
	ral clearance	8.0	ft	12.0	ft
Access points p	0	10	0	10	
Median type	Undivided				
Free-flow speed	:	Base		Measured	
FFS or BFFS Lane width adjustment, FLW		60.0	mph	60.0	mph
		0.0	mph	0.0	mph
	ce adjustment, FLC	0.9 1.6	mph mph	0.0	mph mph
Median type adj					
Access points a		0.0	mph	0.0	mph
Free-flow speed		57.5	mph	60.0	mph
		_VOLUME			
	Direction	1		2	
Volume, V		3333	vph	0	vph
Peak-hour factor, PHF		0.90		0.90	· <u>r</u>
Peak 15-minute v		926		0	
Irucks and buse:		5	80	0	8
Recreational vel	hicles	0	00	0	00
Terrain type		Grade		Level	
Grade		3.50	00	0.00	00
Segment leng	gth	0.60	mi	0.00	mi
Number of lanes		2		2	
Driver population	on adjustment, fP	1.00		1.00	
Trucks and buse		2.0		1.5	
Recreational vel		3.0		1.2	
Heavy vehicle a		0.952		1.000	
Flow rate, vp		1944	pcphpl	0	pcphpl
		_RESULTS			
	Direction	1		2	
Flow rate, vp		1944	pcphpl	0	pcphpl
Free-flow speed	FFS	57.5	mph	60.0	mph
	, ffS car travel speed, S	57.5	mph	60.0	mph
Level of service		54.9 E	шЪп	A	шЪп
Density, D	-,	35.4	pc/mi/ln		pc/mi/ln
Density, D		35.4	pc/mi/ln	0.0	pc/mi/ln

OPERATIONAL ANALYSIS\_\_\_\_\_

Analyst: BA Agency/Co: Date: 8/18/02 Analsis Period: 3 PM Highway: BAY BRIDGE WESTBOUN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Project ID: REVERSIBLE LANE OPE	RATION				
P.R.E.E	-FLOW SPEE	:D			
Direction	1		2		
Lane width	12.0	ft	12.0	ft	
Lateral clearance:					
Right edge	2.0	ft	6.0	ft	
Left edge	6.0	ft	6.0	ft	
Total lateral clearance	8.0	ft	12.0	ft	
Access points per mile	0		0		
Median type	Undivided				
Free-flow speed:	Base		Measured		
FFS or BFFS	60.0	mph	60.0	mph	
Lane width adjustment, FLW	0.0 0.9 1.6	mph	0.0 0.0 0.0	mph	
Lateral clearance adjustment, FLC		mph mph		mph	
Median type adjustment, FM				mph	
Access points adjustment, FA	0.0	mph	0.0	mph	
Free-flow speed	57.5	mph	60.0	mph	
	VOLUME				
Direction	1		2		
Volume, V	2565	vph	0	vph	
Peak-hour factor, PHF	0.90		0.90		
Peak 15-minute volume, v15	713		0		
Trucks and buses	5	00	0	010	
Recreational vehicles	0	010	0	olo	
Terrain type	Grade		Level		
Grade	3.50	00	0.00	00	
Segment length	0.60	mi	0.00	mi	
Number of lanes	2		2		
Driver population adjustment, fP	1.00		1.00		
Trucks and buses PCE, ET	2.0		1.5		
Recreational vehicles PCE, ER	3.0		1.2		
Heavy vehicle adjustment, fHV	0.952		1.000		
Flow rate, vp	1496	pcphpl	0	pcphpl	
	_RESULTS				
Direction	1		2		
	1406	n an h- 1	0	nanhnl	
Flow rate, vp Free-flow speed FFS	1496 57 5	pcphpl	0	pcphpl	
Free-flow speed, FFS	57.5	mph	60.0	mph	
Avg. passenger-car travel speed, S	57.2	mph	60.0	mph	
Level of service, LOS Density, D	D 26.1	pc/mi/ln	A 0.0	pc/mi/ln	

Analyst: BA						
Agency/Co:						
Date: 8/18/02 Analsis Period: 4 PM						
Highway: BAY BRIDGE WESTE	NADS CINID					
From/To:	BOUND SPAN					
Jurisdiction:						
Analysis Year: 2001 SUMMER WEEK	K F.ND					
Project ID: REVERSIBLE LANE						
	FREE-FLOW SPEE	!D				
Direction	1		2			
Lane width	12.0	ft	12.0	ft		
Lateral clearance:						
Right edge	2.0	ft	6.0	ft		
Left edge	6.0	ft	6.0	ft		
Total lateral clearance	8.0	ft	12.0	ft		
Access points per mile	0		0			
Median type	Undivide	Undivided				
Free-flow speed:	Base		Measure	d		
FFS or BFFS	60.0	mph	60.0	mph		
Lane width adjustment, FLW	0.0	mph	0.0 0.0 0.0	mph		
Lateral clearance adjustment, FI	LC 0.9	mph		mph		
Median type adjustment, FM	1.6	mph		mph		
Access points adjustment, FA	0.0	mph	0.0	mph		
Free-flow speed	57.5	mph	60.0	mph		
	VOLUME					
Direction	1		2			
Jolume, V	2327	vph	0	vph		
Peak-hour factor, PHF	0.90		0.90			
Peak 15-minute volume, v15	646		0			
Trucks and buses	5	olo	0	00		
Recreational vehicles	0	010	0	olo		
Terrain type	Grade		Level			
Grade	3.50	oo	0.00	₽		
Segment length	0.60	mi	0.00	mi		
Number of lanes	2		2			
Driver population adjustment, f			1.00			
Frucks and buses PCE, ET	2.0		1.5			
Recreational vehicles PCE, ER	3.0		1.2			
Heavy vehicle adjustment, fHV	0.952		1.000			
Flow rate, vp	1357	pcphpl	0	pcphpl		
	RESULTS					
			_			
Direction	1		2			
	1 1357	pcphpl	2 0	pcphpl		
Flow rate, vp	1357			pcphpl mph		
	1357 57.5	pcphpl mph mph	0			
Flow rate, vp Free-flow speed, FFS	1357 57.5	mph	0 60.0	mph		

Analsis Period: 5 Pl Highway: BAY From/To: Jurisdiction: Analysis Year: 2001 Project ID: REV	BRIDGE WESTBOUN 1 SUMMER WEEKEND ERSIBLE LANE OPE FREE Direction		1D	2 12.0	
Analsis Period: 5 Pl Highway: BAY From/To: Jurisdiction: Analysis Year: 200 Project ID: REV Lane width Lateral clearance: Right edge Left edge Total lateral of	M BRIDGE WESTBOUN 1 SUMMER WEEKEND ERSIBLE LANE OPE FREE Direction	RATION -FLOW SPEE 1 12.0			
Highway: BAY From/To: Jurisdiction: Analysis Year: 200 Project ID: REV Lane width Lateral clearance: Right edge Left edge Total lateral of	BRIDGE WESTBOUN 1 SUMMER WEEKEND ERSIBLE LANE OPE FREE Direction	RATION -FLOW SPEE 1 12.0			
From/To: Jurisdiction: Analysis Year: 200 Project ID: REV Lane width Lateral clearance: Right edge Left edge Total lateral of	1 SUMMER WEEKEND ERSIBLE LANE OPE FREE Direction	RATION -FLOW SPEE 1 12.0			
Jurisdiction: Analysis Year: 200 Project ID: REV Lane width Lateral clearance: Right edge Left edge Total lateral of	ERSIBLE LANE OPE	-FLOW SPEE 1 12.0			
Analysis Year: 200 Project ID: REV Lane width Lateral clearance: Right edge Left edge Total lateral o	ERSIBLE LANE OPE	-FLOW SPEE 1 12.0			
Project ID: REV Lane width Lateral clearance: Right edge Left edge Total lateral o	ERSIBLE LANE OPE	-FLOW SPEE 1 12.0			
Lane width Lateral clearance: Right edge Left edge Total lateral o	FREE	-FLOW SPEE 1 12.0			
Lane width Lateral clearance: Right edge Left edge Total lateral o	Direction	1 12.0			
Lane width Lateral clearance: Right edge Left edge Total lateral o		12.0	ft		
Lateral clearance: Right edge Left edge Total lateral o	clearance		ft	12 0	
Right edge Left edge Total lateral o	clearance	2.0		TT.0	ft
Left edge Total lateral o	clearance	2.0	_		_
Total lateral	clearance		ft	6.0	ft
	clearance	6.0 8.0	ft ft	6.0	ft
Access points per m				12.0	ft
	0		0		
Median type	Undivided				
Free-flow speed:	Base		Measured		
FFS or BFFS	60.0	mph	60.0	mph	
Lane width adjustme		0.0	mph	0.0	mph
Lateral clearance a		0.9 1.6	mph mph mph	0.0	mph
Median type adjustmo					mph
Access points adjust	tment, FA	0.0	mph	0.0	mph
Free-flow speed		57.5	mph	60.0	mph
		_VOLUME			
	Direction	1	_	2	_
Volume, V		3488	vph	0	vph
Peak-hour factor, Pl		0.90		0.90	
Peak 15-minute volu	me, v15	969		0	
Trucks and buses		5	8	0	00
Recreational vehicle	es	0	00	0	00
Terrain type		Grade	0	Level	0
Grade		3.50	00 	0.00	8 
Segment length		0.60	mi	0.00	mi
Number of lanes	d-jugtmont fD	2		2	
Driver population ad		1.00		1.00	
Trucks and buses PC		2.0 3.0		1.5 1.2	
Recreational vehicle Heavy vehicle adjus		0.952		1.000	
	LMEIL, IHV		nanhnl	0	nanhnl
Flow rate, vp		2034	pcphpl	0	pcphpl
		_RESULTS			
2	Direction	1		2	
Flow rate, vp		2034	pcphpl	0	pcphpl
Free-flow speed, FF	S	57.5	mph	60.0	mph
Avg. passenger-car		54.3	mph	60.0	mph
Level of service, L		E	Ŧ	A	Ŧ
Density, D		37.4	pc/mi/ln		pc/mi/ln

\_\_\_\_\_OPERATIONAL ANALYSIS\_\_\_\_\_\_OPERATIONAL ANALYSIS\_\_\_\_\_

Analyst: BA						
Agency/Co:						
Date: 8/18/02						
Analsis Period: 6 PM						
Highway: BAY BRIDGE WES	STBOUNI	) SPAN				
From/To:						
Jurisdiction:						
Analysis Year: 2001 SUMMER WI						
Project ID: REVERSIBLE LAN	NE OPEI	RATION				
	FREE	-FLOW SPEE	5D			
Direction		1	£ L	2	5-	
Lane width Lateral clearance:		12.0	ft	12.0	ft	
		2.0	ft	6.0	ft	
Right edge	2.0 6.0		6.0			
Left edge Total lateral clearance		6.0 8.0	ft ft	6.0 12.0	ft ft	
		8.U 0	LL	12.0	ft	
Access points per mile Median type		Undivided				
Free-flow speed:	Base	eu	Measure	4		
FFS or BFFS	60.0	mph	60.0	mph		
Lane width adjustment, FLW	0.0	mph	0.0	mph		
Lateral clearance adjustment,	FLC	0.9	mph	0.0	mph	
Median type adjustment, FM	1 10	1.6	mph		mph	
Access points adjustment, FA		0.0	mph	0.0	mph	
Free-flow speed		57.5	mph	60.0	mph	
-		VOLUME	_		-	
Direction		1		2		
Volume, V		2931	vph	0	umh	
Peak-hour factor, PHF		0.90	vpii	0.90	vph	
Peak 15-minute volume, v15		814		0.50		
Trucks and buses		5	00	0	00	
Recreational vehicles		0	0	0	0	
Terrain type		Grade	Ŭ	Level	Ū	
Grade		3.50	00	0.00	8	
Segment length		0.60	mi	0.00	mi	
Number of lanes		2		2		
Driver population adjustment,	fP	1.00		1.00		
Trucks and buses PCE, ET		2.0		1.5		
Recreational vehicles PCE, ER		3.0		1.2		
Heavy vehicle adjustment, fHV		0.952		1.000		
					pcphpl	
		1709	pcphpl	0	pepupi	
			pcphpl	0	рерпрт	
Flow rate, vp		1709 _RESULTS 1	pcphpl	2		
		_RESULTS	pcphpl			
Flow rate, vp Direction		_RESULTS	pcphpl		pcphpl	
Flow rate, vp Direction Flow rate, vp		_RESULTS 1		2		
Flow rate, vp Direction Flow rate, vp Free-flow speed, FFS	ed, S	_RESULTS 1 1709	pcphpl	2	pcphpl	
Flow rate, vp	ed, S	_RESULTS 1 1709 57.5	pcphpl mph	2 0 60.0 60.0 A	pcphpl mph	

Bay Bridge 2001 Summer Weekend Day Reversible Lane Operation Eastbound Analysis (2 Lanes, 80 Percent Traffic)

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Date Performed: 8/12/00 Analysic T Analysis Time Period: 7 AM Freeway/Direction: BAY BRIDGE EASTBOUND From/To: Anne Arundel County Jurisdiction: Analysis Year: 2001 Description: REVERSIBLE OPERATION 2 LANES 80% EB TRAFFIC \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2348 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 652 v Trucks and buses 6 2 Recreational vehicles 0 % Terrain type: Grade 3.00 Ŷ Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1344 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1344 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 Density, D 23.1 pc/mi/ln Level of service, LOS C Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Date Performed: 8/13/00 Analysis Te Analysis Time Period: 7 AM Freeway/Direction: BAY BRIDGE EASTBOUND From/To: Anne Arundel County Jurisdiction: Analysis Year: 2001 Description: REVERSIBLE OPERATION 2 LANES 80% EB TRAFFIC \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2858 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 794 v Trucks and buses 6 2 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1635 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1635 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 Density, D 28.1 pc/mi/ln Level of service, LOS D Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Date Performed: 8/13/00 Analysis Te Analysis Time Period: 9 AM Freeway/Direction: BAY BRIDGE EASTBOUND From/To: Anne Arundel County Jurisdiction: Analysis Year: 2001 Description: REVERSIBLE OPERATION 2 LANES 80% EB TRAFFIC \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2922 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 812 v Trucks and buses 6 2 0 Recreational vehicles % Terrain type: Grade 3.00 % Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1672 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1672 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 pc/mi/ln Density, D 28.8 Level of service, LOS D Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Date Performed: 8/13/00 Analysis Te Analysis Time Period: 10 AM Freeway/Direction: BAY BRIDGE EASTBOUND From/To: Anne Arundel County Jurisdiction: Analysis Year: 2001 Description: REVERSIBLE OPERATION 2 LANES 80% EB TRAFFIC \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2819 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 783 v Trucks and buses 6 2 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1613 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1613 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 pc/mi/ln Density, D 27.8 Level of service, LOS D Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Date Performed: 8/13/00 Analysis Tri Analysis Time Period: 11 AM Freeway/Direction: BAY BRIDGE EASTBOUND From/To: Anne Arundel County Jurisdiction: Analysis Year: 2001 Description: REVERSIBLE OPERATION 2 LANES 80% EB TRAFFIC \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2754 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 765 v Trucks and buses 6 2 Recreational vehicles 0 % Terrain type: Grade 3.00 % Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1576 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1576 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 Density, D 27.1 pc/mi/ln Level of service, LOS D Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Date Performed: 8/13/00 Analysis Te Analysis Time Period: 12 PM Freeway/Direction: BAY BRIDGE EASTBOUND From/To: Anne Arundel County Jurisdiction: Analysis Year: 2001 Description: REVERSIBLE OPERATION 2 LANES 80% EB TRAFFIC \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2806 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 779 v Trucks and buses 6 2 Recreational vehicles 0 % Terrain type: Grade 3.00 % Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1606 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1606 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 pc/mi/ln Density, D 27.6 Level of service, LOS D Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Parsons Agency or Company: Date Performed: Analysis Time Period: 1 PM Freeway/Direction: BAY BRIDGE EASTBOUND From/To: Anne Arundel County Jurisdiction: Analysis Year: 2001 Description: REVERSIBLE OPERATION 2 LANES 80% EB TRAFFIC \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2408 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 669 v Trucks and buses 6 2 Recreational vehicles 0 % Terrain type: Grade 3.00 ° Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1378 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1378 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 pc/mi/ln Density, D 23.7 Level of service, LOS C Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_\_ Analyst: BKA Date Performed: 8/12/00 Analysic T Analysis Time Period: 2 PM Freeway/Direction: BAY BRIDGE EASTBOUND From/To: Anne Arundel County Jurisdiction: Analysis Year: 2001 Description: REVERSIBLE OPERATION 2 LANES 80% EB TRAFFIC \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2466 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 685 v Trucks and buses 6 2 Recreational vehicles 0 % Terrain type: Grade 3.00 % Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1411 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1411 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 pc/mi/ln Density, D 24.3 Level of service, LOS C Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Date Performed: 8/13/00 Analysis Te Analysis Time Period: 3 PM Freeway/Direction: BAY BRIDGE EASTBOUND From/To: Anne Arundel County Jurisdiction: Analysis Year: 2001 Description: REVERSIBLE OPERATION 2 LANES 80% EB TRAFFIC \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 2883 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 801 v Trucks and buses 6 2 Recreational vehicles 0 % Terrain type: Grade 3.00 % Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1650 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1650 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 pc/mi/ln Density, D 28.4 Level of service, LOS D Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_\_ Analyst: BKA Date Performed: 8/13/00 Analysis Te Analysis Time Period: 4 PM Freeway/Direction: BAY BRIDGE EASTBOUND From/To: Anne Arundel County Jurisdiction: Analysis Year: 2001 Description: REVERSIBLE OPERATION 2 LANES 80% EB TRAFFIC Flow Inputs and Adjustments Volume, V 2774 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 771 v Trucks and buses 6 2 Recreational vehicles 0 % Terrain type: Grade 3.00 8 Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1587 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1587 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 pc/mi/ln Density, D 27.3 Level of service, LOS D Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Date Performed: 8/13/00 Analysis Tri Analysis Time Period: 5 PM Freeway/Direction: BAY BRIDGE EASTBOUND From/To: Anne Arundel County Jurisdiction: Analysis Year: 2001 Description: REVERSIBLE OPERATION 2 LANES 80% EB TRAFFIC \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1588 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 441 v Trucks and buses 6 2 Recreational vehicles 0 % Terrain type: Grade 3.00 ° Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 909 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 909 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 Density, D 15.6 pc/mi/ln Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.

\_\_\_\_\_Operational Analysis\_\_\_\_\_ Analyst: BKA Date Performed: 8/13/00 Analysis Te Analysis Time Period: 6 PM Freeway/Direction: BAY BRIDGE EASTBOUND From/To: Anne Arundel County Jurisdiction: Analysis Year: 2001 Description: REVERSIBLE OPERATION 2 LANES 80% EB TRAFFIC \_\_\_\_\_Flow Inputs and Adjustments\_\_\_ Volume, V 1761 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 489 v Trucks and buses 6 2 Recreational vehicles 0 % Terrain type: Grade 3.00 Ŷ Grade Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1008 pc/h/ln \_\_\_\_\_Speed Inputs and Adjustments\_\_\_\_ Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway \_\_\_\_LOS and Performance Measures\_\_\_\_\_ pc/h/ln Flow rate, vp 1008 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 pc/mi/ln Density, D 17.3 Level of service, LOS В Overall results are not computed when free-flow speed is less than 55 mph.