

HGB Draft On-Road SIP Control Strategies

ID	Old ID	Control Strategy	Category	Year Added	EPA PQSE	Nox Chg.	VOC Chg.	Comment
1	17	Bicycle and pedestrian action groups	Bicycle and Pedestrian	2006	N			<i>Specified percentage of employees requesting facilities as a group and pledging to commute by bicycle 33% of the time.</i>
2	51	Clean Cities Technical Coalition	Clean Vehicle Programs	2006	N			<i>This measure patterned after the H-GAC Clean Cities Program. Heavy-duty</i>
3	54	Private sector clean fuel fleets	Clean Vehicle Programs	2006	Y			
4	56	Close loopholes in the Texas Clean Fleet Program making fewer exemptions for fleets	Clean Vehicle Programs	2006	N			
5	58	Fleet review, procurement and operations policies	Clean Vehicle Programs	2006	Y			
6	59	Public agency clean fleet program	Clean Vehicle Programs	2006	Y			<i>Commitment by public agencies to purchase cleanest possible fleet vehicle. See Measure 54</i>
7	71	Electric Vehicles	Clean Vehicle Programs	2006	Y			<i>Fuel cells incentive or mandated</i>
8	99	Area-wide "Steer It/Clear It" program	Freeway Incident / Roadway Construction Management	2006	Y			<i>Program for immediate removal of vehicles from roadway in event of a stall or non-serious accident. Light-duty only</i>
9	100	Additional freeway service patrol	Freeway Incident / Roadway Construction Management	2006	Y			<i>Operation of additional lane miles of new roving tow truck patrols to clear incidents and reduce delay on freeways during peak periods.</i>
10	101	SAFEClear - Mandatory quick removal of disabled vehicles during peak periods	Freeway Incident / Roadway Construction Management	2006	Y			
11	115	Cleaner diesel fuel	Fuel Standards	2006	Y			
12	127	Air quality information with driver training	General Public Education and Outreach	2006	N			<i>Include information on vehicle emissions and air pollution with new-driver and defensive-driving education.</i>
13	144	Divert trucks from nonattainment areas	Goods Movement	2006	Y			<i>Require through-traffic trucks to travel around rather than through nonattainment areas</i>
14	146	Peak period truck bans on freeways and major arterials	Goods Movement	2006	Y			
15	147	Permit HOV lane use by qualifying low emission vehicles (LEV)	High Occupancy Vehicle (HOV) Lanes/Managed Lanes	2006	Y			
16	150	Increase occupancy to three or more per vehicle	High Occupancy Vehicle (HOV) Lanes/Managed Lanes	2006	Y			
17	157	Single Occupant Vehicles (SOV) access to HOV and transit stations	High Occupancy Vehicle (HOV) Lanes/Managed Lanes	2006	N			<i>Provide direct freeway access to adjoining HOV or transit park-and-ride facilities to encourage use and expedite access.</i>
18	161	Managed lanes to accommodate some single occupant vehicles in HOV lanes	High Occupancy Vehicle (HOV) Lanes/Managed Lanes	2006	Y			<i>In highly congested corridors where speeds are below 20 miles per hour on freeway lanes, permit limited use of HOV lanes by SOV using tolls or other limiting technique.</i>
19	163	Focus on finding and penalizing extreme high emitters	High-Emitting Vehicle Detection and Programs	2006	Y			
20	165	Rewards for reporting smoking or high emitting vehicles	High-Emitting Vehicle Detection and Programs	2006	Y			<i>See measure 166</i>
21	172	Scrappage/buy-back plan	High-Emitting Vehicle Detection and Programs	2006	Y			<i>Monetary compensation for old vehicle scrappage. Increase the range of vehicles and heavy-duty truck engines targeted for replacement credit or subsidy. LIRAP Light-duty VMEP</i>
22	181	Dedicated funding for school bus replacement	High-Emitting Vehicle Detection and Programs	2006	N			
23	186	Non-profit organization assistance program	High-Emitting Vehicle Detection and Programs	2006	N			<i>Investigate opportunities to partner with non-profit organizations to ensure high-emitting donation vehicles are not returned to the road and reused in an "as is" condition.</i>
24	188	Enforce smoking vehicle reports and require repairs	High-Emitting Vehicle Detection and Programs	2006	N			
25	191	Low-interest financing for low income and/or old vehicle trade-ins	High-Emitting Vehicle Detection and Programs	2006	N			<i>See measure 172</i>
26	193	Ban sale of high-emitting vehicles	High-Emitting Vehicle Detection and Programs	2006	N			
27	194	Ban high-emitting vehicles in CBD	High-Emitting Vehicle Detection and Programs	2006	N			
28	195	Deny registration to vehicles with repeated emission failures	High-Emitting Vehicle Detection and Programs	2006	N			

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29	201	Communicate by radio best routes through area to avoid congestion	Intelligent Transportation Systems (ITS)	2006	N			<p><i>Provide hotlink to local transportation conditions website or provide internal webpage with transit, traffic, other conditions, schedules and directions to encourage use of modes other than driving alone.</i></p> <p><i>Provide changeable message signing at bus stops noting ETA of the next buses arriving at the stop.</i></p> <p><i>Almost exactly the same as 227</i></p> <p><i>Provide free parking at facilities served by transit; include costs elsewhere or subsidize. Include in weekly or monthly passes.</i></p> <p><i>No free parking. All parking at actual fully-allocated cost. Institute a parking space tax or surcharge which is used to subsidize transit</i></p> <p><i>Use flextime, but permit only vehicles with two or more occupants to enter workplace parking facilities during peak periods.</i></p> <p><i>Charge vehicles to enter high-activity centers (retail/business districts, etc.) in cities, with higher prices charged during high-traffic hours.</i></p>
30	202	Information telephone hotline for traffic conditions	Intelligent Transportation Systems (ITS)	2006	N			
31	207	Provide transportation conditions internet site	Intelligent Transportation Systems (ITS)	2006	N			
32	208	Encourage bicycle use by using ITS to increase safety in strategic bicycle/automobile conflict areas	Intelligent Transportation Systems (ITS)	2006	N			
33	209	Dynamic message signs for control of truck movements	Intelligent Transportation Systems (ITS)	2006	N			
34	210	Dynamic message signs for freeway traffic control	Intelligent Transportation Systems (ITS)	2006	N			
35	211	Real-time display of estimated time of arrivals at bus stops	Intelligent Transportation Systems (ITS)	2006	N			
36	212	Increase system surveillance	Intelligent Transportation Systems (ITS)	2006	N			
37	214	Limit left turns on selected thoroughfares during ozone season	Ozone Action Day / Ozone Season	2006	N			
38	218	Delay high emissions producing activities on ozone action days; delay activities for non-ozone action days	Ozone Action Day / Ozone Season	2006	N			
39	227	Preferential parking for High Occupancy Vehicle (HOV) lane users and ride sharers; Free spaces, reserved spaces	Parking Management	2006	Y			
40	228	Preferential parking for High Occupancy Vehicle (HOV) lane users and ride sharers; Rate reduction	Parking Management	2006	N			
41	229	Preferential parking for High Occupancy Vehicle (HOV) lane users and ride sharers; Metered spaces	Parking Management	2006	Y			
42	231	Free parking at park-and-ride facilities for High Occupancy Vehicle (HOV) lane and transit users	Parking Management	2006	N			
43	235	Increase parking at transit centers or stops	Parking Management	2006	N			
44	236	Use direct ramps to connect park-and-ride lots with freeway system	Parking Management	2006	N			
45	237	Locate fringe parking and park-and-ride lots on approach rc	Parking Management	2006	N			
46	240	Provide parking at all major transit stations	Parking Management	2006	N			
47	241	Commuter parking pricing	Parking Management	2006	Y			
48	243	Parking space tax or surcharge	Parking Management	2006	N			
49	246	Increase meter fees for on-street parking	Parking Management	2006	N			
50	248	Eliminate employee parking subsidies	Parking Management	2006	Y			
51	249	Employee parking cash-out program	Parking Management	2006	Y			
52	253	Smart Cards pay as you go parking	Parking Management	2006	N			
53	256	Reduce legal on-street parking spaces in high congestion areas	Parking Management	2006	N			
54	262	Limit peak period parking to vehicles with two or more occupants	Parking Management	2006	N			
55	271	Remove fuel subsidies	Pricing Measures	2006	Y			
56	273	Accelerated depreciation allowance for employer provided vanpool and bicycle facilities	Pricing Measures	2006	N			
57	275	Congestion pricing for major activity centers	Pricing Measures	2006	Y			

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58	277	Pay-As-You-Drive Insurance (per-mile)	Pricing Measures	2006	Y			<i>Spring 2004-Local officials meet with Department of Insurance representatives, Fall 2004-Research on pay as you drive programs begins, January 2005-"Before" portion of pilot program commences, January 2006-"After" portion of pilot program commences</i>
59	287	Local or regional fuel taxes	Pricing Measures	2006	N			<i>Charge a tax for VMT per year.</i>
60	291	Vehicle miles traveled - based taxes	Pricing Measures	2006	Y			
61	295	Increase tolls during peak traffic periods	Pricing Measures	2006	Y			<i>Increase amount of fines for exceeding existing speed limits over 45 miles per hour; use addition</i>
62	298	No tolls for buses and vanpools	Pricing Measures	2006	N			
63	300	Increased speeding fines	Speed	2006	Y			
64	302	Aggressive driving enforcement	Speed	2006	N			
65	304	Lower speed limit in urban area to 55 miles per hour	Speed	2006	Y			
66	311	Reduce speed to 55 miles per hour for commercial trucks	Speed	2006	Y			
67	316	Incentives for infill and redevelopment	Sustainable and Transit-Oriented Development	2006	N			<i>Increase the number of local "neighborhood" facilities for routine medical procedures</i>
68	319	Local medical facilities	Sustainable and Transit-Oriented Development	2006	N			<i>Apply Planned Use Development (PUD) concept by area, requiring a mix of complementary uses in each square mile or other development area in accordance to a sub-area, locally developed plan.</i>
69	321	Encourage or require complementary uses in close proximity in all developments or development areas	Sustainable and Transit-Oriented Development	2006	N			<i>Comprehensive design guidelines for layout of schools, neighborhoods and other activity centers to maximize walkability and minimize the need for short-distance automobile trips.</i>
70	323	Comprehensive design guidelines for activity centers	Sustainable and Transit-Oriented Development	2006	N			
71	324	Locate personal business support centers at park-and-ride facilities (convenience businesses)	Sustainable and Transit-Oriented Development	2006	N			<i>Local event centers at sites of major transit centers to ensure high level of service.</i>
72	326	Co-locate event centers and major transit centers and stations	Sustainable and Transit-Oriented Development	2006	N			<i>Daycare, other convenience services at park-and-ride lots and transit stations.</i>
73	327	Daycare and other services	Sustainable and Transit-Oriented Development	2006	N			
74	328	Ban left turns	Traffic Flow Improvements	2006	N			<i>Traffic signals that change timing/cycles to accommodate real-time traffic conditions.</i>
75	342	Reversible traffic lanes	Traffic Flow Improvements	2006	N			
76	350	Local intersection signal improvements	Traffic Flow Improvements	2006	Y			
77	351	Traffic signal equipment or software updating	Traffic Flow Improvements	2006	Y			
78	352	Emphasis on major route traffic signalization; through route traffic platooning	Traffic Flow Improvements	2006	Y			
79	354	Real-time traffic flow management	Traffic Flow Improvements	2006	Y			
80	355	Adaptive traffic signals and signal timing	Traffic Flow Improvements	2006	Y			<i>Currently signal coordination tends to focus on reducing delay time for individual drivers; alter coordination to promote greatest movement for traffic as a whole.</i>
81	357	Light emitting diode (LED) traffic signal replacement	Traffic Flow Improvements	2006	N			
82	358	Two-phase signals	Traffic Flow Improvements	2006	N			
83	360	Signal timing and coordination to promote traffic progression	Traffic Flow Improvements	2006	Y			
84	366	Prohibit drive-thru service during ozone season	Traffic Management	2006	Y			
85	371	Reduce transit fares	Transit	2006	Y			<i>Provide buses with laptop/Internet links, telephone and other business amenities.</i>
86	374	Peak/off-peak transit fares	Transit	2006	Y			
87	376	Personalized rapid transit	Transit	2006	Y			
88	377	Transit schedule coordination	Transit	2006	N			
89	393	Guaranteed ride home	Transit	2006	N			
90	403	Subscription bus service	Transit	2006	Y			
91	407	Business First enhanced buses	Transit	2006	Y			
92	414	Electrify bus routes	Transit	2006	Y			

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93	422	Monthly transit pass programs	Transit	2006	N			<i>Already have</i>
94	423	Eliminate trips - Free transit from remote sites	Transit	2006	Y			
95	424	Provide an off-peak unlimited-ride daily pass	Transit	2006	Y			
96	426	Uniticket programs	Transit	2006	N			
97	428	Simplified fare collection	Transit	2006	N			
98	430	Public transportation - Special fares	Transit	2006	N			
99	433	Accelerate rail expansion	Transit	2006	N			
100	436	Commuter Rail	Transit	2006	N			
101	437	High-speed rail	Transit	2006	N			
102	438	Free circulator service to major generators	Transit	2006	N			
103	441	Provide High Occupancy Vehicle (HOV) shuttle between company facilities	Transit	2006	Y			<i>Free shuttle/transit service connecting remote areas with major activity generators. Between transit stops and CBD locations</i>
104	446	Teleconferencing of meetings	Travel Demand Management: Business Operations	2006	Y			
105	453	Mandated peak spreading	Travel Demand Management: Business Operations	2006	Y			<i>Require business hours to be staggered to spread peak traffic over a wider time period and reduce congestion.</i>
106	459	Mandatory or voluntary compressed work week	Travel Demand Management: Business Operations	2006	Y			
107	460	Subscription buses or buspooling	Travel Demand Management: Business Operations	2006	N			
108	461	Internet ridematching services	Travel Demand Management: Business Operations	2006	Y			<i>Real-time ridematching offered via a Website, by an employer, or by a third party (sponsored by city or transportation authority).</i>
109	462	Purchase vans for vanpools	Travel Demand Management: Business Operations	2006	Y			
110	463	Mandate or encourage vanpooling and carpooling	Travel Demand Management: Business Operations	2006	Y			
111	465	Mandatory or voluntary flextime program (daily start and end time)	Travel Demand Management: Business Operations	2006	N			
112	470	Pay or other financial incentive for not driving	Travel Demand Management: Business Operations	2006	Y			<i>Employer pays employees who do not drive a monthly stipend; employees who drive receive no corresponding benefit.</i>
113	471	Employer tax credit or deduction	Travel Demand Management: Business Operations	2006	Y			<i>Institute a tax credit or deduction for employees that regularly use a non-single occupancy vehicle mode for commuting and/or for employers, based on number of employees that commute using non-SOV</i>
114	475	Incentives for Best Workplaces for Commutes Designation	Travel Demand Management: Business Operations	2006	N			<i>Already implementing in Houston</i>
115	477	Trade equivalent jobs to be closer to work	Travel Demand Management: Business Operations	2006	N			<i>For employees of the same company but at different worksites, identify opportunities to "trade jobs" or worksites to reduce commute distance.</i>
116	484	Personalized travel planning	Travel Demand Management: Business Operations	2006	N			<i>Based on rider's origin and destination(s), personalized travel plan of transit routes and connections provided via website or telephone service.</i>
117	487	Telecommuting incentives or mandates	Travel Demand Management: Business Operations	2006	N			
118	496	Regional Vanpool programs	Travel Demand Management: Regional Applications	2006	Y			<i>Could add more to current Houston vanpooling program</i>
119	499	Share hybrid vehicles	Travel Demand Management: Regional Applications	2006	Y			Shared vehicles among a group of owners
120	500	Encourage pooled ownership of single occupant vehicles for local midday travel	Travel Demand Management: Regional Applications	2006	N			<i>Encourage pooled ownership of cars, trucks; e.g., one neighborhood collectively owns an SOV for periodic use.</i>
121	501	Car Sharing Programs (Flexcar)	Travel Demand Management: Regional Applications	2006	Y			<i>Car-sharing programs. We give our members the key to new cars, trucks, and minivans located across a metropolitan region. You pay an hourly rate, and the company pays for the car, insurance, gas and a reserved parking spot!</i>
122	503	Rideshare matching, transit marketing and information programs	Travel Demand Management: Regional Applications	2006	N			
123	504	Rewards for reducing total vehicle miles traveled in a city or region	Travel Demand Management: Regional Applications	2006	N			

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124	551	If the California Low Emitting Vehicle Program is adopted and only LEV certified, gasoline vehicles are for sale in Texas, then mandated fleets should have to purchase the ULEV alternative fuel version of the same vehicle rather than the gasoline version	Vehicle Emission Standards	2006	Y			
125	553	Adopt California standards for vehicle emission rates	Vehicle Emission Standards	2006	Y			<i>Public and Publicly contracted fleet rules May require city ordinance. Will require additional power sources for local major events.</i>
126	576	Limitations on idling of heavy-duty vehicles	Vehicle Idling	2006	Y			
127	587	Heavy-Duty Vehicle Border Inspection Program for AB 1009 (Pavley 2004)	Vehicle Inspection and Maintenance	2006	N			
128	589	More frequent emissions tests for taxi cabs	Vehicle Inspection and Maintenance	2006	N			<i>HD vehicles are inspected to detect mal-maintenance and tampering and to measure smoke emissions in mixed-use communities.</i>
129	592	Augment truck and bus highway inspections with community-based inspections (HDV8)	Vehicle Inspection and Maintenance	2006	N			
130	594	Addition of HDGV2B weight class vehicles to inspection	Vehicle Inspection and Maintenance	2006	N			Already included
131	598	More frequent testing for vehicles that repeatedly fail inspection tests	Vehicle Inspection and Maintenance	2006	N			
132	601	Extend or expand light-duty diesel engine inspection and maintenance program	Vehicle Inspection and Maintenance	2006	N			3 counties not included in I/M
133	604	If the largest city in a county takes part in a testing program, the entire county must opt-in.	Vehicle Inspection and Maintenance	2006	Y			
134	623	Mandated no drive days	Vehicle Operations Management	2006	Y			
135	628	Voluntary no drive day programs	Vehicle Operations Management	2006	Y			
136	629	License plates determine access to vehicle use (odd/even driving days)	Vehicle Operations Management	2006	Y			
137	630	Encourage/Mandate Livable Centers	Sustainable and Transit-Oriented Development	2008				
138	631	DPS-like emissions sensors in HCTRA toll booths - enhanced smoking vehicles program	Vehicle Inspection and Maintenance	2008				
139	632	Enhanced enforcement for Smoking Vehicles Program - vehicle impounding for violators (like Dallas Emissions Enforcement Pilot Program)	High-Emitting Vehicle Detection and Programs	2008				
140	633	Limit left turns on selected thoroughfares at all times	Traffic Flow Improvements	2008				
141	634	Higher registration fees for high emissions vehicles	Pricing Measures	2008				
142	635	Prime parking for vanpools/carpools/hybrids	Parking Management	2008				
143	636	Hybrid cars parking meter fee exemption	Parking Management	2008				
144	637	Use of taller highway barriers to reduce "rubbernecking"	Freeway Incident / Roadway Construction Management	2008				
145	638	Increased use of hybrid buses	Transit	2008				
146	639	Initiate a flexbike service to encourage bicycling	Bicycle and Pedestrian	2008				
147	640	Creation of regional government idling restriction MOU	Vehicle Idling	2008				
148	641	Industry idling restrictions	Vehicle Idling	2008				
149	642	More stringent I/M cut points	Vehicle Inspection and Maintenance	2008				
150	643	Accelerate development and construction of mass transit projects	Transit	2008				