

South Broadway NEPA Process - Level 1: Screening (DRAFT) - Project Team Recommendations - October 6, 2005

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			Screening Criteria				Status			
Diagram	Goal Served	Suggestion	Screening Criteria				Status			Comments (Include Reasons for Screening Out or Continuing)
			In the Scope/Study Area?	Can it meet any element of Purpose & Need?	Are potential environmental impacts resolvable?	Is it practicable?	Screened Out	No Action	Continue Through	
1	N-S Capacity	Acoma north-south through - local streets/pedestrian and vehicle at-grade, back to Broadway	Yes	Yes	Yes	Yes		✓		For local access, bikes and peds. In Cherokee GDP: Alameda to Mississippi (No Action). No regional capacity improvements. Impacts to businesses and residential potential for multi-modal and access.
2	N-S Capacity	Bannock (west of river) north-south through - local streets/pedestrian and vehicle back to Santa Fe	Yes	Yes	Yes	Yes		✓		For local, multi-modal access; bikes and peds. Same as #49. Part of Cherokee GDP (No Action). Redraw.
3	N-S Capacity	Northbound Santa Fe and southbound Broadway	No	No	Yes	No	✓			Does not increase capacity or access and would increase cut-through traffic. Santa Fe/Kalamath (NB)/Broadway (SB) don't work as a pair (one-way couplet). Concern with no alternative routes for incident management.
4	N-S Capacity	Broadway-Lincoln couplet (extend south) (Cherokee 1) One-way NB tunnel segment at I-25	Yes	Yes	Unknown	Yes			✓	Provide additional capacity south of I-25 (critical two blocks). Potential HazMat issue if tunneling's required. Improved LOS might show up as a result of Cost-Benefit analysis.
5	N-S Capacity	Broadway-Acoma couplet (Arizona to Louisiana)	Yes	Yes	Unknown	Yes			✓	At-grade or tunnel tying into Broadway at Arizona/Louisiana. Fewer environmental issues than #4 (opposite). Impacts transit station and future TOD.
6	N-S Capacity	Southbound Broadway tunnel to southbound I-25 (Cherokee 3) Highway on-ramp (off east side)	Yes	Yes	Unknown	Yes			✓	Handles N-S movement and eliminates a major turning movement problem, thereby increasing capacity. Preferred by Denver in I-25/Valley Highway EIS.
7	N-S Capacity	(New) Broadway Corridor Expressway (Arizona to 5th)	No	Yes	No	No	✓			Separates through traffic in some fashion (via a tunnel or structure). Fails a previous Cost-Benefit analysis conducted by HNTB. Much of this suggestion is outside the project area. Severe and significant impacts due to major underground utilities and overhead structures, is not practicable.
8	N-S Capacity	Broadway two-lane tunnel north of Mississippi to Exposition	Yes	Yes	Unknown	Yes			✓	Potential 2-lane (1 NB, 1 SB) tunnel or contraflow lanes. Would keep local traffic at-grade.
9	N-S Capacity	Lincoln tunnel north of Mississippi to Exposition	Yes	Yes	Unknown	No	✓			Same as #8, but with tunnel in different location. Need to consider stormwater outfall at Mississippi. Many environmental concerns.
10	N-S Capacity	Add capacity on Broadway (2 lanes and turn lanes) (Cherokee 2, 3) south of I-25 through Louisiana	Yes	Yes	Unknown	Yes			✓	Additional ROW required; widening both sides (25' total). At-grade improvements.
11	N-S Capacity	Broadway and Lincoln change (back) to two-way streets	No	No	Yes	Yes	✓			Would have to be reversed through the CBD. Doesn't add any capacity and is outside of study area.
12	N-S Capacity	Grade separate Broadway/Mississippi	Yes	Yes	Yes	Yes			✓	Interchange at Broadway/Mississippi with Broadway elevated over Mississippi.
13	N-S Capacity	Close access northbound Broadway to northbound I-25 (use Mississippi/Santa Fe)	No	No	Yes	Yes	✓			To not build a new access ramp to NB I-25. Make current detour permanent. Does not add capacity, does not meet goals of access for local business and redevelopment or address any other needs. It is not expected to provide noticeable relief to traffic.

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14	N-S Capacity	Southbound Broadway to northbound I-25 ramp (west side) and reroute traffic	Yes	Yes	Yes	Yes		✓		Part of I-25/Valley Highway EIS. Need to verify funding commitment.
15	N-S Capacity	Southbound Broadway flyover to southbound I-25	Yes	Yes	Unknown	Yes			✓	Could violate Washington Park viewplane. Potential HazMat issues with piers.
16	N-S Capacity	Northbound Lincoln extension hook ramp to southbound I-25	Yes	No	Yes	Yes	✓			Supporting element only if there's a couplet. Combination of #4 and 17. By itself it doesn't meet any element of the P&N, but may in combination with other suggestions. Since this suggestion is incorporated in #17, this one is screened out.
17	N-S Capacity	Access to southbound I-25 from Tennessee	Yes	Yes	Yes	Yes			✓	
18	Multi-Modal	Access Broadway park-n-Ride via Exposition (additional park-n-Ride access)	Yes	Yes	Yes	Yes			✓	All-purpose improvement that facilitates neighborhood access, but could cause cut-through traffic.
19	Multi-Modal	Access improvements for RTD at Kentucky (dedicated bus lane)	Yes	Yes	Yes	Yes			✓	
20	Multi-Modal	Add Local LRT along existing tracks (or 4th track)	Yes	Yes	Yes	Yes			✓	
21	Multi-Modal	East-west pedestrian plaza (bridge) over Broadway at developments	Yes	Yes	No	Yes			✓	South of I-25 between Mississippi and Kentucky.
22	Multi-Modal	East-west pedestrian plaza under Broadway at developments (traffic remains at-grade)	Yes	Yes	No	Yes			✓	Potential HazMat issues with underground construction.
23	Multi-Modal	Central Connector (BRT/LRT/At-grade/Subway) (Broadway to Civic Center recommended in study)	Yes	Yes	Yes	Yes			✓	Central Connector's recommended mode was BRT. Terminus at Broadway/I-25 station north to 20th/Collfax. Could increase traffic in the corridor.
24	Multi-Modal	More bike capacity on Platte River Trail	Yes	Yes	Yes	Yes			✓	Does not meet P&N as stand-alone alternative. Improves multi-modal travel and removes some bike traffic from Broadway.
25	Multi-Modal	Pedestrian/Bike facility between Broadway Station to Alameda Station and west side development	Yes	Yes	Yes	Yes			✓	Improves multi-modal travel.
26	Multi-Modal	Pedestrian signals at Ohio to connect with Broadway Station (Valley Highway System Alternative 2)	Yes	Yes	Yes	Yes			✓	Improves multi-modal travel.

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27	Multi-Modal	Dedicated bus (diamond) lanes on Broadway/or other to south	Yes	Yes	Yes	Yes			✓	Improves multi-modal travel.
28	Multi-Modal	Pedestrian crossings over Consolidated Main Line (CML) railroad (Cherokee Land Plan Elements)	Yes	Yes	Yes	Yes		✓		Improves multi-modal travel. Programmed improvements north of Kentucky and at Tennessee. Included in No Action alternative.
29	Multi-Modal	More fixed-route bus service	Yes	Yes	Yes	Yes		✓	✓	Improves multi-modal travel. FasTracks 2017 improvements will be part of No Action Alternative. Additional fixed-route bus service may be analyzed.
30	Multi-Modal	Shorter LRT headways	Yes	Yes	Yes	Yes		✓	✓	Improves multi-modal travel. FasTracks 2017 improvements will be part of No Action Alternative. Further headway improvements may be analyzed.
31	Multi-Modal	Increase LRT consists to 4 cars	Yes	Yes	Yes	Yes		✓		Improves multi-modal travel. Part of No Action alternative which will include FasTracks 2017 improvements.
32	Multi-Modal	Add Central Corridor LRT capacity	Yes	Yes	Yes	Yes		✓	✓	Improves multi-modal travel. FasTracks 2017 improvements will be part of No Action Alternative. Further capacity improvements may be analyzed.
33	Multi-Modal	Maintain left-turn options at park-n-Ride (Kentucky)	Yes	Yes	Unknown	Yes			✓	
34	Multi-Modal	Provide bike lanes in study area	Yes	Yes	Unknown	Yes			✓	Redraw and define <i>where</i> in second phase (i.e., what streets). Bike lanes should be packaged with any multi-modal alternative.
35	Multi-Modal	Better pedestrian access on Mississippi at CML bridge	Yes	Yes	Unknown	Yes			✓	Make CML underpass more pedestrian-friendly. Could be part of new developments.
36	Multi-Modal	Personal Rapid Transit (PRT) or Peplemover system	Yes	No	Yes	No	✓			Distributor of people to various destinations. Unproven technology and screened out for practicability.
37	Neighborhood Issue	Bury CML Tracks	No	No	Unknown	No	✓			Grade for freight rail tracks would require improvements far outside study area. Not feasible to construct. Possible HazMat issue in railroad area. By itself does not meet any elements of P&N.
38	Neighborhood Issue	Extend Ohio to Santa Fe	Yes	Yes	Unknown	Yes			✓	Provides access to/from neighborhoods to the west. Additional access to Cherokee redevelopment's questionable. Potential HazMat issue in railroad area.
39	Neighborhood Issue	Bridge across I-25 at Mississippi	Yes	Yes	Unknown	Yes			✓	Improves multi-modal access for neighborhoods from the west.

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40	Neighborhood Issue	Traffic calming	Yes	Yes	Yes	Yes			✓	Could work in tandem with #41. Improves neighborhood access. Could be implemented with any alternative.
41	Neighborhood Issue	One-way pairs to manage east-west cut-through traffic in neighborhoods	Yes	Yes	Yes	Yes			✓	In order to achieve #4, choose two roads to north and two to south to preserve other streets by directing traffic.
42	Access	Additional vehicle connection under CML (east-west) north of Mississippi	Yes	Yes	Yes	Yes			✓	Improves multi-modal access. Similar to #38.
43	Other	I-25 Collector-Distributor roads; Broadway to Santa Fe	No	No	Yes	Yes	✓			Out of study area. This alternative will not add capacity to or remove noticable traffic from the S. Broadway Corridor, nor does it address access, multi-modal, or neighborhood needs of the project.
44	Other	New east-west connection north of study area	Yes	No	Yes	Yes	✓			Out of immediate study area and not expected to provide any traffic relief.
45	Other	Santa Fe/Mississippi interchange	No	No	Yes	Yes	✓			Out of study area. This alternative will not add capacity to or remove noticable traffic from the S. Broadway Corridor, nor does it address access, multi-modal, or neighborhood needs of the project.
46	Other	Improve Mississippi (by adding vehicular capacity)	Yes	Yes	Yes	Yes			✓	Improves multi-modal access. Some widening could increase LOS, even without a full interchange.
47	Other	Replace surface with structured parking at Broadway Station	Yes	Yes	Yes	Yes		✓		Need to verify funding through FasTracks 2017 or new development plans.
48	Other	Implement congestion management, TSM/TDM programs and policies	Yes	Yes	Yes	Yes			✓	Required by DRCOG.
49	N-S Capacity	Cherokee extension	Yes	Yes	Yes	Yes		✓		Same resolution as #2 (duplicative).
50	N-S Capacity	Santa Fe reconfiguration (as a local two-way street)	No	No	Yes	No	✓			Out of study area. This alternative will not add capacity to or remove noticable traffic from the S. Broadway Corridor, nor does it address access, multi-modal, or neighborhood needs of the project. This suggestion is related to suggestion #3.
51	N-S Capacity	Broadway-Acoma south of Louisiana to Evans (#5)	No	No	Yes	Yes	✓			A portion or all of this is outside the study area. Assumes study area stops before Evans. Adding potential capacity south of the study area would not address any of the P&N elements and may increase traffic, instead of adding capacity. Could also affect business access.
52	N-S Capacity	SB Broadway tunnel (peels off of west side) (#6)	Yes	Yes	Yes	Yes			✓	Gets rid of left angle at SB Broadway to SB I-25

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53	N-S Capacity	Broadway Corridor tunnel/expressway (Exposition to Arizona)	Yes	No	Unknown	Yes			✓	Provides both north and south access. Similar to #8 but at different location. Could bring additional traffic into neighborhoods.
54	Multi-Modal	Pedestrian infrastructure improvements	Yes	Yes	Yes	Yes			✓	Supporting elements of all alternatives in some form throughout study area.
55	Multi-Modal	Improve parking at Evans park-n-Ride (convert surface lot to structure/deck)	No	Maybe	Yes	Yes	✓			Removes some congestion at Broadway, but may push traffic impacts into someone else's back yard (See #45). Since this could remove some traffic from Broadway P&R, this could be considered as mitigation.
56	N-S Capacity	Move SB Broadway to SB I-25 on-ramp closer to I-25	Yes	Yes	Yes	Yes			✓	Could also leave existing on-ramp and build more left-hand turns to access I-25.
57	N-S Capacity	Two-lane on-ramp to SB I-25 at Kentucky	Yes	Yes	Yes	Yes			✓	
58	Multi-Modal	Utilize CML corridor for other modes (i.e., as regional transportation corridor)	No	Yes	Yes	No	✓			Out of study area and scope. Safety requirements limit use of railroad ROW to rail uses. Not adequate ROW for other uses. Additional rail uses considered in suggestion #20
59	N-S Capacity	SB Broadway loop-ramp to SB I-25	Yes	Yes	Yes	Yes			✓	Would require some RTD park-n-Ride lot mitigation.
60	N-S Capacity	"Boulevard" concept (multi-lane, multi-use Broadway)	Yes	Yes	Yes	Yes			✓	
61	Multi-Modal	13-foot sidewalks within redevelopment	Yes	Yes	Yes	Yes		✓		Already part of Cherokee GDP's design guidelines.
62	N-S Capacity	Right in/right out (only) at Broadway and Kentucky	Yes	Yes	Yes	No			✓	Not preferred by RTD.
63	N-S Capacity	Grade separate Broadway/Mississippi	Yes	Yes	Yes	Yes	✓			Interchange at Broadway/Mississippi with Broadway depressed under Mississippi. Not practicable due to conflict with new Mississippi outfall.
64	Other	Parking management adjacent to or at 3 LRT stations	Yes	Yes	Yes	Yes			✓	Could include paid parking, reserved parking, special use parking (HOV), or other parking restrictions.
65	Access	Direct access ramp from park-n-Ride (grade separated). Loop ramp?	Yes	Yes	Yes	Yes			✓	

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66	Access	Roundabouts	Yes	Yes	Yes	Yes			✓	
67	N-S Capacity	Close Broadway/I-25 interchange	Yes	No	Yes	Yes			✓	Potential increase in capacity by removal of I-25 traffic.
68	Access	Split diamond interchanges on Broadway and Santa Fe	Yes	Yes	Yes	Yes			✓	
69	Access	Right in/right out only on existing Broadway between Exposition and Louisiana	Yes	Yes	Yes	Yes			✓	Maybe as as element of "Boulevard" Concept.
70	Access	Continuous Flow Intersections (CFI) at Mississippi and Broadway/I-25	Yes	Yes	Yes	Yes			✓	
71	Access	Direct I-25 access to park-n-Ride	Yes	Yes	Yes	Yes			✓	
72	Access	Major parking facility north of I-25 with shuttle/circulator bus to key locations in redevelopment area with access from Santa Fe, Broadway, and Lincoln	Yes	Yes	Yes	Yes			✓	"Zip shuttle" concept with dedicated ROW that could be shared with bicycles and pedestrians.
73	Access	Parking on west side of CML south of I-25 with connections across to LRT (use #28 connection) - across from Santa Fe	Yes	Yes	Yes	Yes			✓	See #55.
74	Capacity	Eliminate all at-grade intersections	Yes	Yes	Yes	Yes			✓	Limits access.
75	Capacity	Elevated/cantilever along Broadway (with local access at-grade)	Yes	Yes	Yes	Yes			✓	Possible practicability issue.
76	Capacity	Lincoln-Acoma couplet south of I-25	Yes	Yes	Yes	Yes			✓	Broadway could be limited to pedestrians, local traffic, and transit, thereby greatly reducing capacity.
77	Capacity	broadway converted to pedestrian and transit mall in center lanes with frontage roads on the outside (example: La Rambla in Barcelona, Spain)	Yes	Yes	Yes	Yes			✓	
78	Capacity	Grade separate all intersections (Broadway at-grade with all intersections above grade)	Yes	Yes	Yes	Yes			✓	

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79	Capacity	Contraflow (reverse direction) lane(s) on Broadway	Yes	Yes	Yes	Yes			✓	Could be a TSM measure.
80	Capacity	No on-street parking allowed on Broadway during a.m. and p.m. peak periods.	Yes	Yes	Yes	Yes			✓	
81	Capacity	Toll all intersections	Yes	Yes	Yes	No	✓			Tolling current (established) roadways is prohibited. Would divert traffic to surrounding neighborhoods. Logistically impossible to collect tolls at all intersections.
82	Capacity	Special roadway paralleling CML within study area (with grade-separated crossings)	Yes	Yes	Yes	Yes			✓	
83	Capacity	Complete E-W grid for all streets, at CML tracks, river, developments from Broadway to Sante Fe	Yes	Yes	Yes	Yes			✓	Would enhance transit as well.
84	Multi-Modal	Broadway streetcar running from CBD south to Highlands Ranch	Yes	Yes	Yes	Yes			✓	
85	Multi-Modal	Broadway LRT line	Yes	No	Yes	Yes			✓	Duplicative with current SW Corridor service.
86	Multi-Modal	HOV lanes on Broadway	Yes	Yes	Yes	Yes			✓	Potential TSM measure.
87	Multi-Modal	Bicycle/Pedestrian improvements on Louisiana and Pearl	Yes	Yes	Yes	Yes			✓	
88	Neighborhood Issue	Permit parking in neighborhoods surrounding redevelopments	Yes	Yes	Yes	Yes			✓	TSM/TDM measures.
89	Neighborhood Issue	Kentucky, Arizona, Tennessee - overhead pedestrian passages	Yes	Yes	Yes	Yes			✓	
Note: Alternatives 49-89 were added by the Project Team.										