






TRANSPORTATION MODE SUMMARY

Bus Transit

BUS TRANSIT PHYSICAL DESCRIPTION		
Local Bus	Express Bus	Bus Rapid Transit (BRT)
<ul style="list-style-type: none"> • Uses existing roadway • Operates with existing traffic • Headways – Flexible • Frequent stops • Variety of service options • Familiar vehicles • On-board fare collection • Can change route/service easily • ADA accessible • Same vulnerabilities as an automobile 	<ul style="list-style-type: none"> • Uses existing roadway • Operates with existing traffic • Headways – Flexible (often less frequent than local bus) • Fewer stops • Quicker travel times • Familiar vehicles • On-board fare collection • Can change route/service easily • ADA accessible • Same vulnerabilities as an automobile 	<ul style="list-style-type: none"> • “Light Rail on Tires” • Exclusive lanes • Faster travel times • More reliable than local bus • Fewer stops - Typically ½ to 1 mile • Stations with shelters/seating • Variety of service options • Off-board fare collection • Next Bus Information • ADA accessible • Some but not all same vulnerabilities as an automobile
		




BUS TRANSIT ATTRIBUTE SUMMARY		
Attribute	Range	Assumptions
Capacity	Varies by frequency/headways	<ul style="list-style-type: none"> • Range of headways between 2 hrs. to 5 minutes
Operating Characteristics		<ul style="list-style-type: none"> • Follows roadway grades • Flexible service • Variety of fuels – grades limit performance
Access	Wide range	<ul style="list-style-type: none"> • Local bus service could have many stops • BRT service fewer stops • Express Bus fewest stops
Cost	\$ - \$\$	<ul style="list-style-type: none"> • High end includes double exclusive lanes, new vehicles, stations, TSP, ticket vending, etc. • Varies based on amenities
Accessibility		<ul style="list-style-type: none"> • ADA Accessible
Qualitative Advantages		<ul style="list-style-type: none"> • Practical • Economical • Recognizable branding • Stations can be similar to rail stations • ADA Accessible

Rail Transit

RAIL TRANSIT PHYSICAL DESCRIPTION	
Light Rail	Commuter Rail
<ul style="list-style-type: none"> • Exclusive Rights-of-Way (can operate in mixed traffic) • Stops – Typically ½ to 1 mile spacing • Service frequency dependent on single track or double track, demand • Vehicle modification required to engage rack (cog rail if necessary) <ul style="list-style-type: none"> • Can travel on grades up to 15%-25% • Electric overhead power is typical • Off-board fare collection • Connection to existing system on Wasatch Front • ADA Accessible • All-weather reliability 	<ul style="list-style-type: none"> • Exclusive Right of Way • Stations – Typically 5 to 10 mile spacing • Service frequency dependent on single track or double track, demand • Limited to 2.5% sustained grades • Diesel/Electric or electric overhead power • Off-board fare collection • Connection to existing system • ADA Accessible • All-weather reliability
	

RAIL TRANSIT ATTRIBUTE SUMMARY			
Attribute	Rail Type	Range	Assumptions
Capacity	Light Rail	Varies by frequency/headways	<ul style="list-style-type: none"> • Scalable – headways and # of cars/train can be varied to accommodate demand
	Commuter Rail		<ul style="list-style-type: none"> • Scalable – headways and # of cars/train can be varied to accommodate demand
Operating Characteristics	Light Rail		<ul style="list-style-type: none"> • Grades up to 15%-25% (cog system) • ½ - 1 mile typical station spacing • 65 mph max. train speed (slower in rack sections)
	Commuter Rail		<ul style="list-style-type: none"> • Limited to 2.5% sustained grades, short distances up to 4% • 5-10 mile typical station spacing • 79mph max train speed
Accessibility	Light Rail		<ul style="list-style-type: none"> • ADA Accessible
	Commuter Rail		
Qualitative Advantages	Light Rail		<ul style="list-style-type: none"> • Reliable • Attractive • Predictable
	Commuter Rail		

Aerial Transportation

AERIAL TRANSPORT PHYSICAL DESCRIPTION		
Gondola	Aerial Tram Description Same as Gondola	Funitel Description Same as Gondola
<ul style="list-style-type: none"> • Ropeway (steel cable) • Fixed or detachable cars • 8-180 people per cabin • Limited by wind speeds 37-68 mph • Limited by electrical storms • Travel speed 14 - 22 mph • Electrically powered • ADA Accessible 	<ul style="list-style-type: none"> • Ropeway (steel cable) • Fixed or detachable cars • 8-180 people per cabin • Limited by wind speeds 37-68 mph • Electrical Storms • Travel speed 14 - 22 mph • Electrically powered • ADA Accessible 	<ul style="list-style-type: none"> • Ropeway (steel cable) • Fixed or detachable cars • 8-180 people per cabin • Limited by wind speeds 37-68 mph • Electrical Storms • Travel speed 14 - 22 mph • Electrically powered • ADA Accessible
		

AERIAL TRANSPORT ATTRIBUTE SUMMARY (3S Gondola Example)		
Attribute	Range	Assumptions
Capacity	Depends on car spacing	<ul style="list-style-type: none"> • Less scalable, but can add/remove cars
Operating Characteristics		<ul style="list-style-type: none"> • 17 mph gondola speed • 1.5 min through angle station
Access		<ul style="list-style-type: none"> • Stations and Ski Areas
Parking		<ul style="list-style-type: none"> • Large parking lots needed at termini
Accessibility		<ul style="list-style-type: none"> • ADA Accessible
Footprint		<ul style="list-style-type: none"> • Appx 9500 ft max. tower spacing between towers • Appx 200 ft max. tower height • Tower footing 3 ½ feet by 3 ½ feet (4 feet per tower) • Stations 66-ft wide by 125-ft long • Access required to towers for construction, power, evacuation and rigging cable (road or helicopter)
Safety		<p><u>Accidents</u></p> <ul style="list-style-type: none"> • Safety comparison – Aerial systems are 90% safer than highway (from National Ski Areas Association) <p><u>Avalanche Path Avoidance</u></p> <ul style="list-style-type: none"> • Through tower placement • With vertical clearance <p><u>Evacuation</u></p>

AERIAL TRANSPORT ATTRIBUTE SUMMARY (3S Gondola Example)		
Attribute	Range	Assumptions
		<ul style="list-style-type: none"> • Attendant in cabin or at station • Winch horizontal or rope vertical rescue
Qualitative Advantages		<ul style="list-style-type: none"> • Iconic • Innovative • Attraction • Provides a view • Highly visible

Chairlifts

It is important to note that chairlifts are NOT included in this primer on transportation modes. While lifts do transport people from one place to another, lifts are not considered a mode in the Mountain Accord process for the following reasons:

- Not ADA accessible
- Limited function, such as not useful for work or shopping trips
- Usually limited in their seasonality

Therefore, the “One Wasatch” concept of linking resort areas via chairlifts, is not considered a valid transportation concept.