



Juneau Comprehensive Operations Analysis and  
Transit Development Plan

# DRAFT RECOMMENDATIONS

January 2014



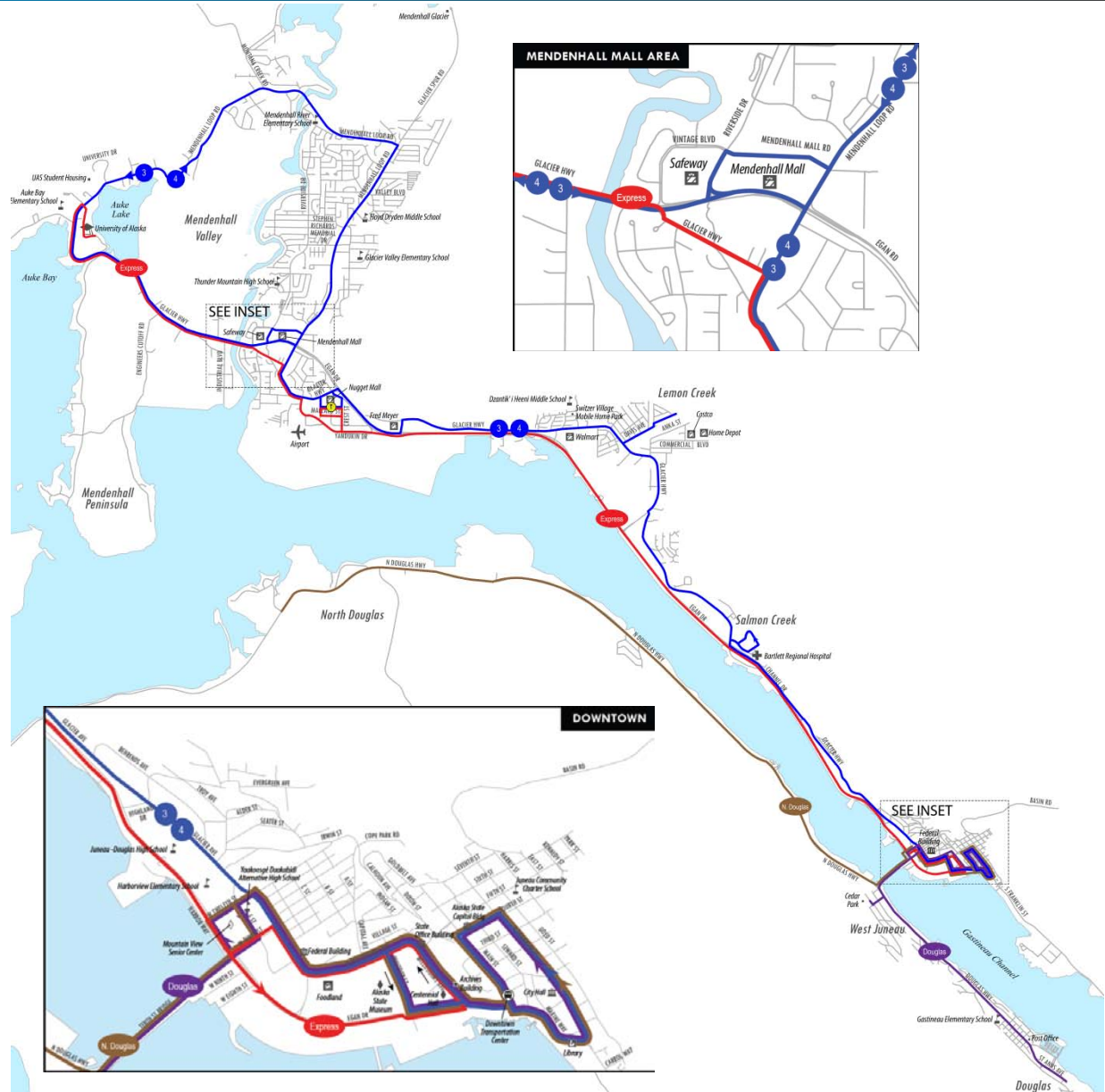
# Tonight's Agenda

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- System Strengths & Weaknesses
- Service Improvement Objectives
- Draft Recommendations

# Existing System: Strengths

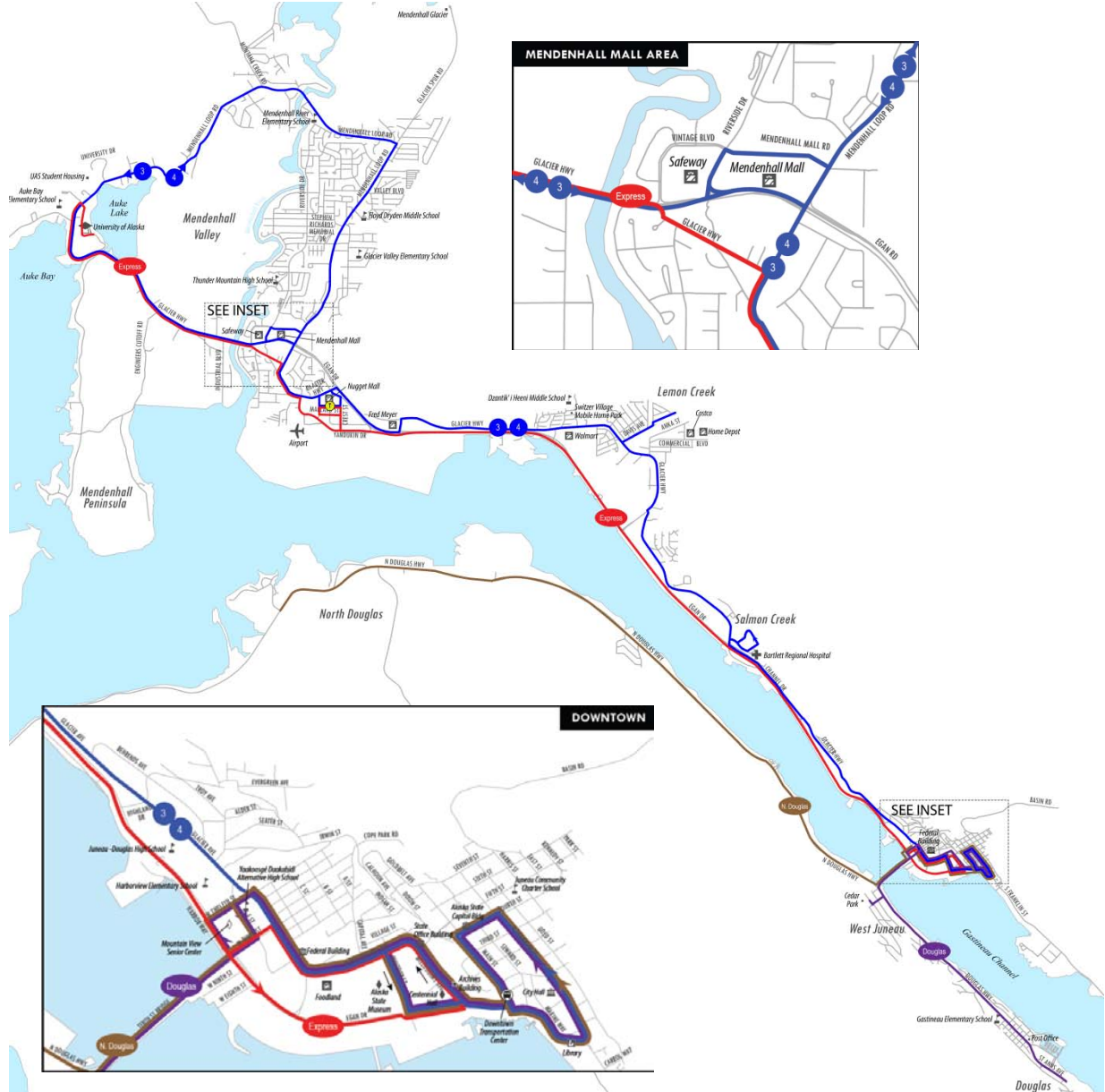
- Good to excellent service to most areas
- Frequent service (every 30 minutes) on most routes most of the time
- Express service between UAS, Valley, and downtown
- Late evening service on Valley Local and Douglas routes
- Timed-transfers between routes at Nugget Mall and Federal Building
- Two routes serve downtown loop
- High ridership and productivity (especially compared to peer cities)
- High community satisfaction





# Existing System: Weaknesses

- Service has not kept pace with Juneau's growth
- Schedules stretched thin
  - Buses running behind schedule
  - Transfers being missed
  - Express route doesn't have time to get to DTC
- Overcrowding
- Some significant demands not served
  - Riverside Drive
  - Lemon Creek Industrial Area
  - Auke Bay Ferry Terminal
  - Early work times
- Too much service in areas with low demand
  - Back Loop
  - Auke Bay
  - North Douglas



# Service Improvement Objectives

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## Objective

- Improve on-time performance
- Maintain timed-transfers
- Make service simpler and easier to use
- Provide service to areas with high demand
  - Riverside Drive
  - Lemon Creek Industrial Area
  - Ferry Terminal
- Maintain existing service coverage, even where demand is low
  - Back Loop
  - North Douglas
- Implement downtown circulator

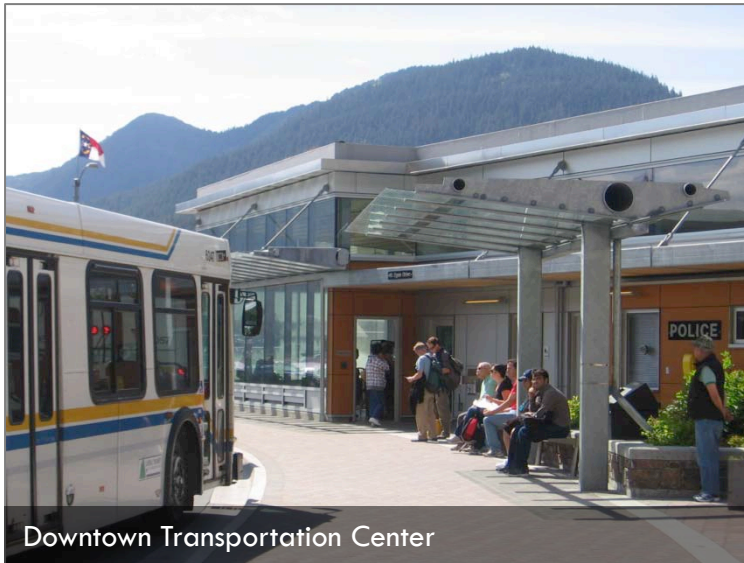
# Service Improvement Objectives

Objective	Short-Term	Mid-Term
<ul style="list-style-type: none"> <li>▪ Improve on-time performance</li> </ul>	☑	☑
<ul style="list-style-type: none"> <li>▪ Maintain timed-transfers</li> </ul>	Most	Most
<ul style="list-style-type: none"> <li>▪ Make service simpler and easier to use</li> </ul>	☑	☑
<ul style="list-style-type: none"> <li>▪ Provide service to areas with high demand               <ul style="list-style-type: none"> <li>– Riverside Drive</li> <li>– Lemon Creek Industrial Area</li> <li>– Ferry Terminal</li> </ul> </li> </ul>	☑	☑ ☑ ☑
<ul style="list-style-type: none"> <li>▪ Maintain service coverage, even where demand is low               <ul style="list-style-type: none"> <li>– Back Loop</li> <li>– North Douglas</li> </ul> </li> </ul>	☑ ☑	☑ ☑
<ul style="list-style-type: none"> <li>▪ Implement downtown circulator</li> </ul>		

# Additional Improvement Objectives

## Objective

- Provide more user-friendly information
- Implement technology improvements
- Upgrade facilities



Downtown Transportation Center



Nugget Mall Transfer "Hub"

# Additional Improvement Objectives

Objective	Short-Term	Mid-Term
<ul style="list-style-type: none"> <li>▪ Provide more user-friendly information               <ul style="list-style-type: none"> <li>– Upgraded website</li> <li>– Improved maps and schedules</li> <li>– Google Transit</li> <li>– Real-time passenger information</li> </ul> </li> </ul>	<input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <li>▪ Implement technology improvements               <ul style="list-style-type: none"> <li>– Automatic vehicle location (AVL)</li> <li>– Computer aided dispatch (CAD)</li> <li>– Automatic passenger counters (APCs)</li> <li>– Electronic fareboxes</li> </ul> </li> </ul>		<input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <li>▪ Upgrade facilities               <ul style="list-style-type: none"> <li>– Nugget Mall Superstop</li> <li>– Shelter Lighting</li> </ul> </li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>



# Short-Term Service Recommendations

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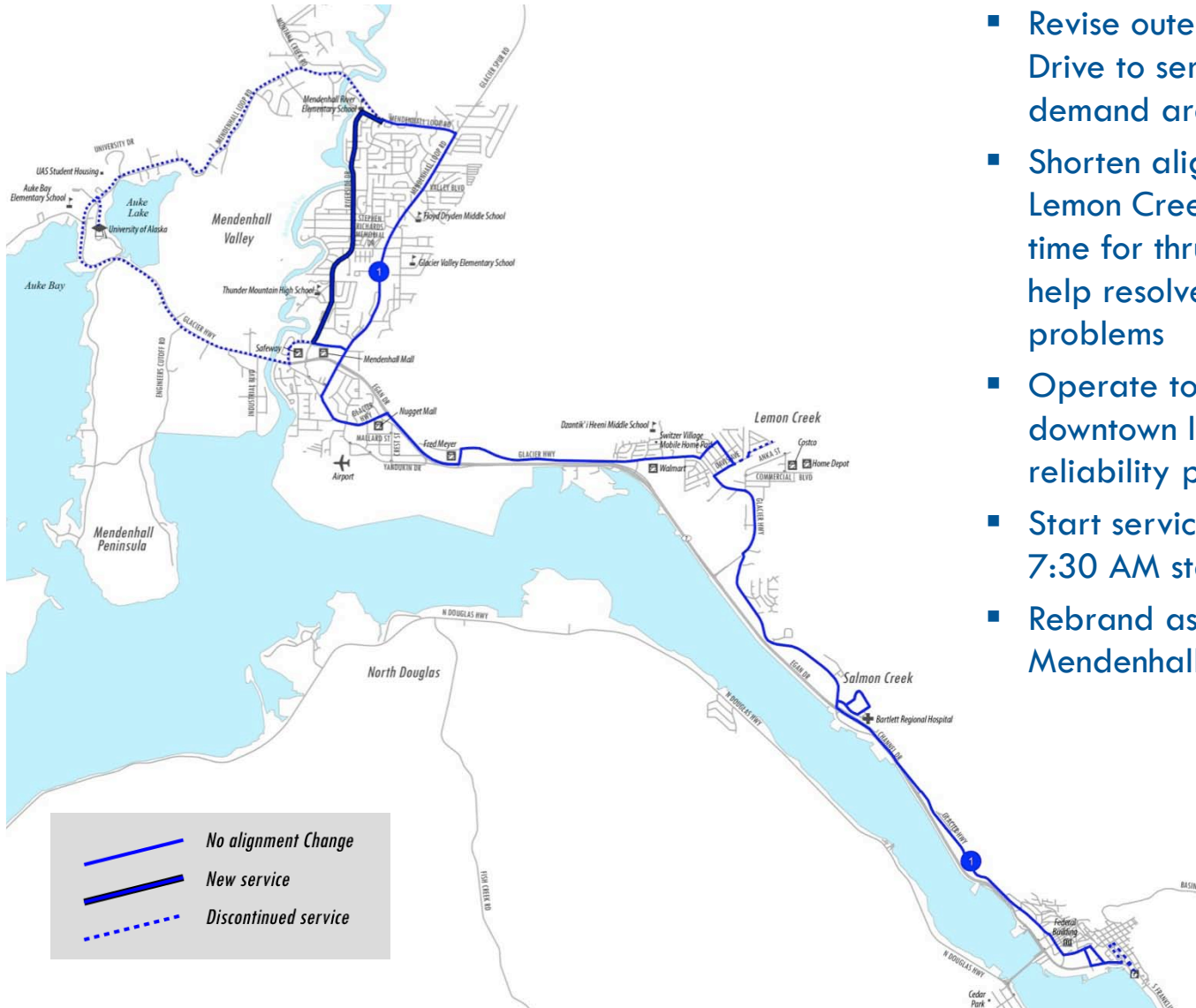
## ■ Systemwide

- Rebrand all routes with number and names
- Publish schedule information on Google Transit
- Produce system map and single brochure with all routes
- Upgrade website

## ■ Route changes

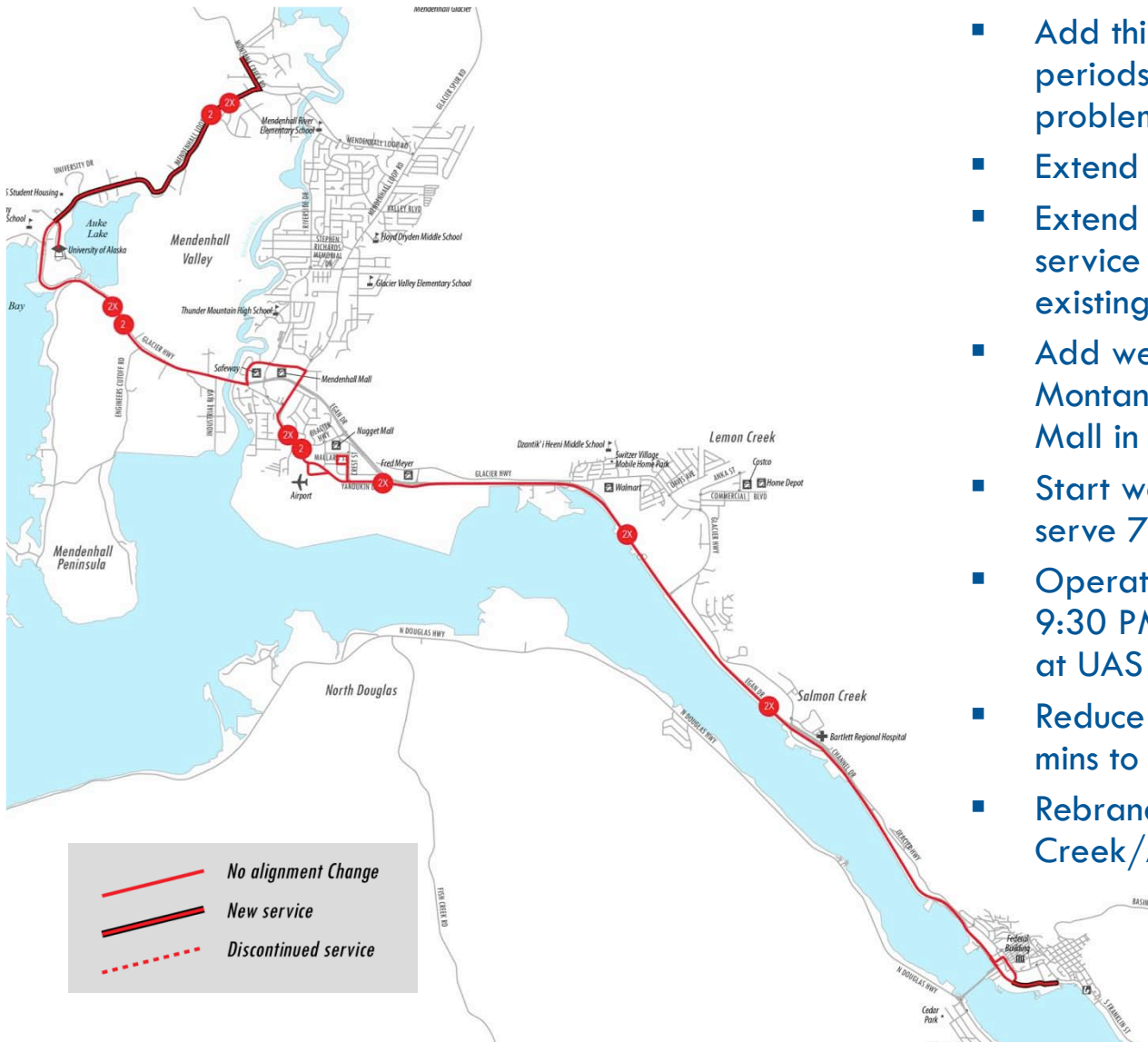
- **Valley Local:** Alignment changes to resolve on-time performance problems, operate via Riverside Drive, and earlier service
- **Express:** Add bus during peak periods to resolve running time problems, extend to Montana Creek and DTC, and earlier service; reduce midday frequencies to 60 minutes to offset cost of add'l bus
- **Douglas:** Only minor changes
- **North Douglas:** Discontinue barely utilized midday trip
- **“Additional Service” commuter runs:** Consolidate into new express route

# Valley Local



- Revise outer loop to Riverside Drive to serve this high demand area
- Shorten alignment through Lemon Creek to reduce travel time for thru passengers and help resolve reliability problems
- Operate to DTC instead of downtown loop also to resolve reliability problems
- Start service earlier to serve 7:30 AM start times
- Rebrand as Route 1 Mendenhall Valley - Downtown

# Express



- Add third bus during peak periods to solve reliability problems
- Extend inner end service to DTC
- Extend weekday outer end service via Back Loop in lieu of existing Valley Local service
- Add weekend service between Montana Creek and the Nugget Mall in lieu of Valley Local
- Start weekday service earlier to serve 7:00 AM start times
- Operate weekday service until 9:30 PM to serve evening classes at UAS
- Reduce midday frequencies to 60 mins to offset cost of new bus
- Rebrand as Route 2X Montana Creek/Auke Bay - Downtown

# Douglas



- Incorporate AM peak “Douglas Express” morning trip into the regular Douglas schedule to simplify service and plug the hole in the existing Douglas schedule.
- Continue to provide service around the downtown loop
- Continue to provide timed-transfers to peak direction passengers
- However, changes to Valley Local service to improve reliability would “break” non-peak direction timed-transfers
- Rebrand Service as Route 5 Douglas – Downtown

# North Douglas



- Discontinue midday trip used by only 2 passengers in each direction to help fund other improvements
- Rebrand Service as Route 6 North Douglas – Downtown



# “Additional Service” Commuter Runs



- Four AM inbound and three PM outbound trips provide similar but different service in a confusing manner
- Consolidate these trips into new Mendenhall Valley – Downtown express route that provides all service in the same manner
- On weekdays, provide four AM inbound and four PM outbound trips.
- Brand as Route 1X Mendenhall Valley – Downtown Express.

# Impacts of Short-Term Changes

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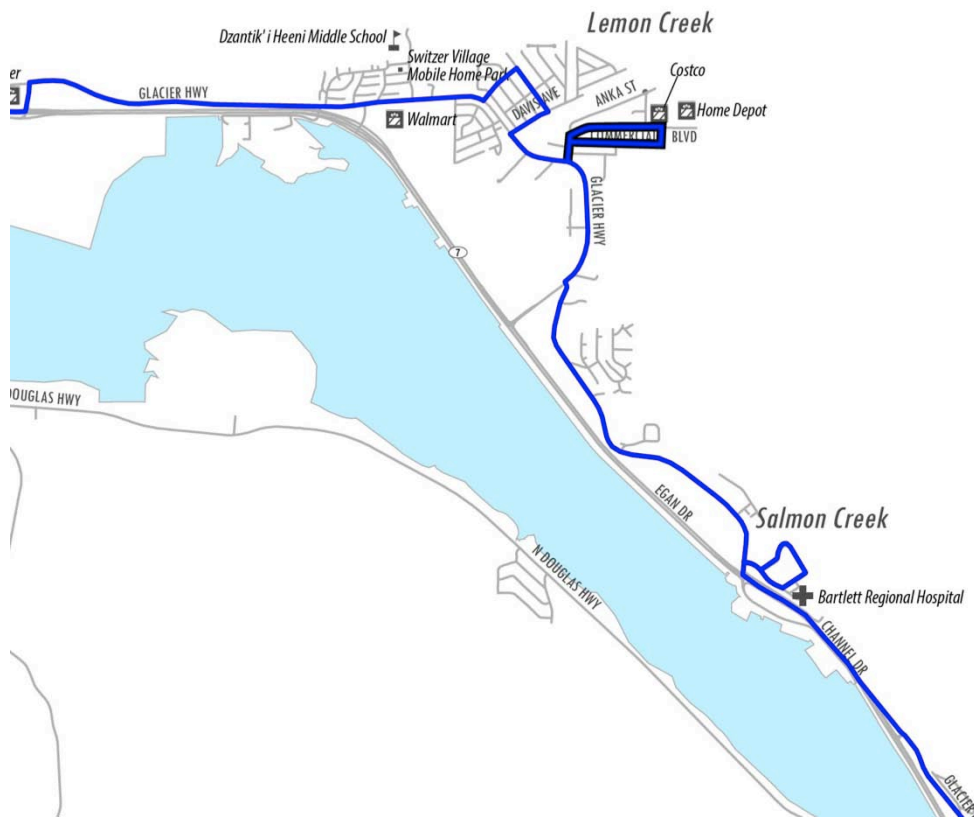
- **Resolve on-time performance issues**
- **Provide equal or better service for most riders**
  - Exceptions:
    - Midday Express route riders (frequencies reduced from 30 to 60 mins)
    - Nighttime Auke Bay riders (service would end at 9:30 PM instead of 11:30 PM)
    - Midday North Douglas riders (but only four)
- **Serve new riders**
  - Riverside Drive
  - Earlier work trips
- **Maintain timed-transfers for large majority of riders**
  - Exception: Douglas – Valley Local non-peak direction travel
- **Operating cost impact = \$200,000 per year**

# Mid-Term Recommendations

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- **Service to Lemon Creek Industrial Area**
- **Service to Auke Bay Ferry Terminal**
- **Earlier and later service** (beyond short-term recs)
- **Technology improvements**
  - Automatic Vehicle Location (AVL)
  - Computer Aided Dispatch (CAD)
  - Automatic passenger counters (APCs)
  - Electronic fareboxes
  - Real-time passenger information
- **Facility improvements**
  - Nugget Mall superstop
  - Shelter lighting

# Service to Lemon Creek Industrial Area



- Would require addition of one bus to Valley Local service (new Route 1)
- Would also allow service to be extended around downtown loop
- Operating cost = \$540,000 per year

# Service to Auke Bay Ferry Terminal



- Most cost-effective approach to alternate outer end Express (new Route 2X) service between Montana Creek and Ferry Terminal
- 60 min service to each outer leg/30 min trunk service would cost add'l \$450,000 per year
- Would also restore 30 min midday service, and add 30 minute evening service



# Earlier and Later Service

- First arrivals in downtown to serve 7:00 AM work start times:

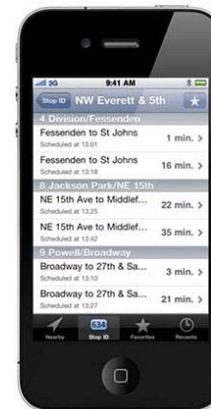
	First Arrival in Downtown		Annual Operating Cost
	Short-Term Recs	Mid-Term Recs	
Rt 1 Mendenhall Valley - Downtown	7:20 AM	6:50 AM	\$35,000
Rt 2X Montana Creek/Auke Bay – Downtown Express	6:27 AM	6:27 AM	\$0
Rt 5 Douglas - Downtown	7:12 AM	6:42 AM	\$15,000
Total			\$50,000

- Last departures from downtown no earlier than 11:30 PM:

	First Arrival in Downtown		Annual Operating Cost
	Short-Term Recs	Mid-Term Recs	
Rt 1 Mendenhall Valley - Downtown	10:35 PM	11:35 PM	\$30,000
Rt 2 Montana Creek/Auke Bay – Nugget Mall	8:47 PM	11:47 AM	\$100,000
Rt 5 Douglas - Downtown	11:17 PM	12:17 AM	\$15,000
Total			\$145,000

# Technology Improvements

- **Automatic Vehicle Location Computer Aided Dispatch (AVL/CAD)** to know where buses are, better responded to delays, incidents, and automate scheduling (\$600,000)
- **Scheduling software** to produce more efficient schedules in a timely manner (\$150,000)
- **Automatic passenger counters (APCs)** to track ridership on an ongoing basis (\$200,000)
- **Electronic fareboxes** to automate fare handling (\$250,000)
- **Real-time passenger information** to provide much better information to passengers (\$250,000)



# Facility Improvements

- **Nugget Mall Transfer Hub** upgrades (\$500,000):
  - Location is highest ridership stop outside of downtown
  - Facilities are minimal and substandard for a major transfer point
  - Upgrade to “Superstop”
- **Shelter Lighting** at unlit or poorly lit locations (\$1000 per shelter)



Nugget Mall Transfer Hub



Arlington, VA Superstop

# Cost Impacts

- Short-term operating costs increases would be low (\$200,000)
- Mid-term costs significantly higher

	Short-Term	Mid-Term	Total
<b>Operating Costs</b>			
<b>Short-Term Operating Recommendations</b>	\$200,000	--	\$200,000
<b>Mid-Term Expansion</b>			
Lemon Creek Industrial Area		\$550,000	\$550,000
Auke Bay Ferry Terminal		\$450,000	\$450,000
Earlier/Later Service		\$200,000	\$200,000
<b>Total</b>	<b>\$200,000</b>	<b>\$1.2 million</b>	<b>\$1.4 million</b>
<b>Capital Costs</b>			
<b>Technology Improvements</b>			
Automatic Vehicle Location/Computer Aided Dispatch (AVL/CAD)		\$600,000	\$600,000
Scheduling Software		\$300,000	\$300,000
Automatic Passenger Counters (APCs)		\$150,000	\$150,000
Real-Time Passenger Information		\$250,000	\$250,000
Electronic Fareboxes		\$250,000	\$250,000
<b>Total</b>		<b>\$1.6 million</b>	<b>\$1.6 million</b>
<b>Facility Upgrades</b>			
Nugget Mall Transfer Facility Upgrades		\$500,000	\$500,000
Shelter Lighting		\$50,000	\$50,000
<b>Total</b>		<b>\$550,000</b>	<b>\$550,000</b>
<b>Total Capital</b>		<b>\$2.7 million</b>	<b>\$2.7 million</b>

# Summary

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- Juneau served with impressively successful transit system
- But demands have outgrown capacity
- Many new demands can be met with only small increase in operating costs
- But not all, including:
  - Lemon Creek Industrial Area
  - Auke Bay Ferry Terminal
  - Early and later service
- Proposed service changes represent collaborative effort between PMT and consulting team. They involve trade-offs but will:
  - Resolve existing service issues
  - Provide better or equal service for large majority of existing riders
  - More effective use of existing resources
  - Attract new riders