

Tasks	
0 Audit Management	
Service Design Analysis:	
1	Determine whether routes are being designed in such a way that resources are being efficiently and effectively utilized
1.1	Service design analysis: Are Metro's service design standards appropriate and are they used effectively to make service decisions?
	To be effective, what provisions should Metro's service design standards include?
	Are Metro routes designed to minimize off-route travel unless supported by passenger boarding trends?
	Do routes unnecessarily duplicate each other?
	Do routes function effectively as an overall system?
	Does Metro's service design reflect ongoing and projected changes in land use and demographic patterns?
	What impacts do existing criteria have on service design and operating costs? Should service design standards be changed, and if so, how should they change?
1.2	Delay analysis: Does Metro evaluate delays and take steps to minimize them?
	To be cost effective, a transit system would take measures to minimize delays.
	Are policies and procedures in place that allow Metro's supervisory staff to monitor street operations and implement remedial actions when appropriate? Are established procedures followed? Are they adequate?
	Are bus stop locations appropriately spaced to minimize delays? What are the costs associated with current bus
1.3	Runtime and recovery analysis: Are route running times and schedule recovery times developed to balance on-time performance objectives and operating costs?
	What standard runtime to recovery ratios are used by peer transit agencies? What standards does Metro apply? What labor contract provisions impact Metro's standards?
	Do Metro buses run on time?
	Do Metro services meet but not greatly exceed contract requirements? Are actual run times consistent with scheduled times? Are actual layovers consistent with the contract and standard industry practices?
	What conditions cause schedule runtimes to deviate from industry norms?
	Can layover times be reduced?
1.4	Load Factor Analysis: Are vehicles being efficiently allocated to individual routes/time periods and are service frequencies and seating capacities appropriate for the loads carried?
	What should Metro's passenger load standards be?
	What load factors is Metro experiencing (current, FY08, audit period)?
	How do base and fleet constraints impact load factors and service decisions?
	How do Metro's passenger loads compare to peer agencies?
	Does the existing schedule optimize resource allocation? What actions does Metro take in response to over/under loading?
Scheduling Practices:	
2	Determine whether routes are being scheduled efficiently and effectively
2.1	Scheduling effectiveness analysis: What is an effective measure of schedule performance as a ratio of total service hours to revenue hours?
	The ratio of total service hours to revenue hours is a common and effective measure of schedule performance. What is Metro's current ratio and what should it be? What ratio do other transit agencies experience?
	Are Metro's current scheduling practices consistent with industry best practices and overall, do they appear to be
2.2	Analysis of travel times: Are schedule efficiencies considered during the planning process? Are inefficiently planned routes grouped to optimize round trip cycle times and reduce operating costs?
	How should Metro provide for running time variability in designing its schedules?
	When are interlines employed? What are the costs associated with current practices? Are agency criteria cost effective?
	Do timetables enforce synchronization of inbound and outbound trips to achieve natural efficiencies observed with the Round Trip Cycle Time (RTCT) and trip cycle time (TCT) analysis? Are Metro services interlined when it is economically advantageous to do so? Do current practices result in inefficiencies?

Tasks	
	Does Metro achieve stand alone blocking when developing routes and schedules?
	Is interlining handled appropriately?
2.3	Deadhead analysis: Is work being assigned and routed optimally?
	What rules govern the assignment of deadheads? Are they consistent with practices at other agencies?
	How do Base restrictions/constraints impact analysis/decisions? Is work being assigned from the optimal garage?
	Is deadhead routing optimal?
2.4	Blocking and fleet optimization: Do Metro's blocking and fleet optimization methodologies minimize overall operating costs?
	Do Metro's blocking and fleet optimization practices result in minimizing the number of vehicles employed, put together pieces of work that break into logical (8-10 hrs) work days, and minimize non-revenue time (layover and deadhead).
	Do Metro's scheduling and software approaches result in the production of efficient vehicle blocks?
2.5	Runcutting: Does Metro efficiently balance operator requirements and related fringe benefit costs against overtime and guarantee costs?
	Is Metro using appropriate measures to judge the effectiveness of current runcutting practices?
	Do current runcutting practices result in economical operations and effective use of operators?
Labor Contract Analysis:	
3	Determine whether collective bargaining agreement provisions are being optimized in scheduling operators
3.1	Review of labor contract provisions: Does Metro use labor contract provisions effectively in scheduling operators?
	Do Metro's scheduling practices leverage labor contract provisions to optimize the number of operators required?
	What unwritten past practices impact Metro's scheduling practices?
	Are labor rules consistent with their implementation in terms of software guidelines, scheduling practices, and resulting production schedules?
	What constraints on scheduling practices exist that management acknowledges are set by the labor agreement?
	How do side agreements constrain Metro's ability to achieve economies through scheduling practices?
	What changes has Metro agreed to over the last 2-3 labor agreements that impact Metro's ability to schedule efficiently?
	What constraints exist that restrict Metro's ability to fully leverage labor contract provisions?
Operating Practices:	
4	Determine whether staffing levels are appropriate for the level of service operated
4.1	Operator utilization: Does Metro effectively manage operator staffing requirements?
	Is Metro effectively considering service levels, labor contract provisions, attrition, absenteeism, recruitment and hiring, and training when determining staffing needs?
	Does Metro effectively employ labor contract provisions in utilizing operators?
	Is Metro utilizing part time operators efficiently and effectively?
	Are Metro's staffing and extraboard practices managed developed effectively and efficiently?
	Is Metro's span of control (Supervisors to Operators) appropriate?
Data:	
5	Determine whether Metro staff are making optimal use of available data and software
5.1	Use of data: Are APC, AVL, HASTUS and farebox data being used effectively to optimize service planning?
	What data are available and are they used in service planning and evaluation?
	Is there a need for additional data that are not readily available?
	Are there concerns about the validity and/or completeness of available data?

Tasks	
	Are there opportunities to improve available data through integration?
	Are there opportunities to better integrate data?
5.2	Software tools and approach: Is Metro optimizing the use of Hastus to achieve service effectiveness and scheduling efficiency objectives?
	Is Metro effectively using HASTUS by utilizing all available features to balance customer needs with operating costs?
	Is Metro optimizing HASTUS to achieve service effectiveness and scheduling efficiency objectives?
5.3	Service management: Are there opportunities to better manage service delivery by using data to support real-time remedial actions?
	Is Metro effectively using service data to make real-time service adjustments?
	Are service data used to make real-time service adjustments?
	Are there additional opportunities to use data to make proactive, real-time service adjustments at the Operations Control Center and in the field