

**CETA,
Coalition for
Effective
Transportation
Alternatives**

**Report to Congress
on the Seattle Link
Light Rail Project**

By John Niles

May 15, 2003

**SUMMARY
VERSION**



The Five Subareas of the Sound Transit District
Map from the Sound Transit web site.

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SUMMARY

The ongoing USDOT Inspector General audit of Federal Transit Administration (FTA) oversight of the Seattle Central Link Light Rail Project has been an opportunity for many people and organizations to compile and present descriptions of problem areas with this particular transit project. Critics of Central Link have been doing this since January 2001, when Office of Inspector General (OIG) first began its audit examination. The source of this present report, CETA, Coalition for Effective Transportation Alternatives, is a voluntary citizen association in the central Puget Sound region that supports transit alternatives that could be implemented if Central Link were stopped and its resources redirected more productively. In this report, CETA recounts the evidence showing a number of problems with Central Link that have emerged despite Federal Transit Administration oversight.

The evidence presented here, some of which is newly revealed by CETA, may provide opportunities for OIG to deepen its Congressionally requested examination of the FTA oversight that has brought the Central Link Project to where it is today. We trust that most of the evidence presented here is already being considered by OIG. If not, this report provides sufficient detail for OIG, as well as any other government oversight bodies, to ask additional questions from which the answers would quickly and powerfully reinforce the need for independent professional scrutiny like that already begun by OIG.

The areas of concern detailed here fall in three categories: financial risks, schedule risks, and other problem areas that present a risk to Sound Transit taxing district citizens or the integrity of the FTA New Starts program. For CETA, the third category covering these other problem areas is most compelling, and is covered first.

The non-financial areas where FTA needs to focus due diligence in the FFGA review process are:

- First, the Central Link Light Rail Initial Segment project scope is not a complete, independent stand-alone project qualified for FTA funding. The viability of the 14 mile Initial Segment is completely and inextricably dependent upon the future determination of alignment, cost, and funding of North Link, the eight mile northward extension of the Initial Segment. Yet North Link's alignment, engineering, cost, and funding are undetermined and now set to remain so until after the Initial Segment is under construction.
- Second, the planned physical design and operation of the Central Link Initial segment likely presents a Category 1C safety hazard under the Hazard Analysis Guidelines for Transit Projects published by the Federal Transit Administration in year 2000. The resulting Category 1C rating means that more than one fatality or serious injury is to be expected in any one million hours of system operation. Such a hazard is described as occasional, catastrophic, and unacceptable. The combination of 23 at-grade vehicle crossings and ten additional signalized pedestrian crossings exposed to the planned 272 trains per weekday is an unsavory feature resulting from the right-of-way design and operations plan of the Initial Segment. Based on data from the 1999 Final EIS and historical light rail experience

nationwide, this grade crossing feature is unlikely to reach one million hours of operation without killing several people.

- Third, FTA acceptance of the Sound Transit conclusion of future efficiency from joint bus and train usage of the Downtown Seattle Transit Tunnel (DSTT) is an oversight error. The DSTT was built with FTA funds in the 1980s, and is the premier central business district Bus Rapid Transit right of way in America. Not only is the Sound Transit claim of efficiency in converting it to partial light rail use completely undemonstrated, the exact opposite is shown in this report. Adding the planned light rail to the DSTT will reduce both its capacity and ridership.
- Next, FTA acceptance of the Central Link Light Rail No Build alternative used for comparison purposes in the FTA New Starts funding qualification is unwarranted. This report shows that the Sound Transit "no build baseline" bus plan is inferior in capacity and forecast ridership to reasonable and available all-bus alternatives. In awarding Sound Transit an FFGA for the Initial Segment, FTA would move the Seattle region backward in mass public transit capability compared to obvious alternatives.
- Finally, there are other examples of FTA carelessness in its erroneous statements about Central Link Light Rail found in the FY 2004 New Starts Report transmitted to Congress in February. As an example, for the second year in a row, the New Starts Report has stated in a summary table that the "new riders" forecast for Central Link Initial Segment is 29,000 daily out of 42,500 total. The correct number in the environmental record is 16,000. CETA members are shocked and outraged that Sound Transit and FTA have let that number be presented to Congress as a compelling "fact" for two successive editions.

The financial risks that FTA needs to assess in the FFGA review process fall under cost issues and funding sources:

There are several areas of Central Link Light Rail Initial Segment cost where there is risk that the Initial Segment project budget may be exceeded, or else costs added to budgets of other agencies.

- The cost of the mile long Beacon Hill Tunnel is sufficiently uncertain that FTA has authorized Sound Transit digging a two million dollar, 18 foot diameter deep "test shaft" where the agency hopes the main elevator shaft will someday be viable to construct. CETA assumes that this test shaft is indeed a "pre construction" soils examination exercise and not a way of moving dirt before the FFGA is executed.
- The size and hence cost of the initial Seattle Link rail car vehicle fleet and associated maintenance base shows a curious relationship to the operating schedule and 2020 ridership forecast. The 31 rail cars budgeted for the Initial Segment are only sufficient to run two-car trains, and yet the projected ridership and even stated intentions of Sound Transit call for the possibility of four-car trains. The Maintenance Base is budgeted for a capacity of 40 rail cars, but running four-car trains on a rush hour schedule could mean 60 rail cars are needed.
- Cost overruns for expanding and operating other Sound Transit lines of business, namely express buses and commuter rail, may impact the overall cash needs of the agency and hence force more issuance of bonds sooner to pay for light rail construction, instead of the planned use of inter-subarea loans. Recent year-over-year forecasts for Sounder Commuter Rail and Regional Express Bus consistently show cost growth. The costs of railroad track enhancements necessary to implement commuter rail north to Everett from Seattle jumped over one hundred million dollars in just the past year.

- Bus system costs have been insufficiently examined for the King County Metro bus transit agency that will someday have to rearrange routes and redeploy buses to feed the majority of the Initial Segment's riders into train stations. The long-standing claim that the advent of 14 miles of light rail in a revamped transit corridor creates bus redeployment opportunities that lead to cost savings needs closer examination by FTA.
- Transit advocates and light rail neighbors who are disturbed at the prospect of 272 two- or four-car trains per day crossing the path of tens of thousands of motor vehicles daily at 18 grade crossings have been developing a growing understanding of the FTA-mandated safety hazard assessment processes. With new found expertise in conjunction with USDOT's top priority interest in safety, these activists may be able to force design changes in the Link Initial Segment that could add significant cost.

Areas of risk to Central Link Light Rail funding sources:

- The Washington statewide transportation funding climate presents some future risk of tax rollback initiatives that could pinch light rail funding. The I-776 Initiative, for example, could be rewritten and resubmitted by light rail opponents if it fails to be supported in the State Attorney General's appeal this summer to the Washington State Supreme Court.
- Funding shortfall risks to Central Link could come from reaction to suburban concerns over the long-term strength of policy firewalls that now prevent three of the five Sound Transit subareas from permanently contributing any revenue to Central Link. Temporary contributions are now authorized through subarea lending, and this kind of cash flow could potentially be successfully attacked and either restricted or repealed.
- There are funding risks to Central Link arising from the fact that City of Seattle citizens living in the North King Sound Transit subarea are about to enter a period of high taxation and disruption for a 14 mile monorail construction project that shares some of the characteristics of light rail.

Schedule risks that FTA needs to assess in the FFGA review process:

- The single biggest schedule risk to the Initial Segment comes from undisclosed details about the route to the North for Central Link. Since there are powerful downtown Seattle interests who do not want the Downtown Bus Tunnel converted to light rail unless the extension of the Initial Segment is planned, funded, and set for early construction, the many remaining issues in the design and cost of North Link are positioned to disrupt the Initial Segment construction.
- Future state legislative changes to Sound Transit's authority and governance structure may be disruptive. Several changes passed through one of the two legislative chambers in the Spring 2003 session.
- Another potential source of delay that needs to be assessed is the stance of official opposition to the Initial Segment alignment taken by the City of Tukwila city council in a vote June 2001. This resistance could potentially be turned into additional measures by this elected Council that would be contrary to the interests of Sound Transit in timely processing of city permits.
- While the Sane Transit and I-776 lawsuits before the Washington State Supreme Court may very well be settled by the date of FFGA execution, two light rail opposition lawsuits appealed in Federal Court (Citizens for Mobility and Save Our Valley) may not be.

- Awareness of the problems with light rail in the Puget Sound region, as well as alternatives, is continuing to grow. The pro-transit opposition is becoming more broad based and well organized, and will continue to represent a schedule risk to the Initial Segment even if an FFGA were to be executed.

At the conclusion of this report, CETA presents specific recommendations of conditions that should be met before FTA executes a Central Link Initial Segment FFGA with Sound Transit, in order to protect the interests of the Federal Government and the citizens of the Sound Transit taxing district. The most important of these is that FTA should require Sound Transit Board approval of the selected alignment, budget, funding plan, environmental clearance, and necessary third party agreements for constructing North Link from CPS to Northgate. CETA's position on Board approval of North Link is that significant changes from the 1996 Sound Move Plan need to be put before voters in a new election.

There are other recommendations at the end of this report.

Unless and until FTA assesses and responds to all of the risks and concerns detailed in the report, CETA must conclude that FTA's eagerness to be a "partner" with Sound Transit in the construction of Link Light Rail Initial Segment is overwhelming its statutory oversight role. FTA must be a steward of America's Federal public transportation resources, and make these resources available only to the worthiest projects around the nation.

This summary of issues was prepared for CETA by John Niles, with assistance from Maggi Fimia, Ruth Korkowski, Emory Bundy, Jim MacIsaac, John Bruns, Tom Heller, Rich Harkness, Ron Lamb, Ed Brighton, and many others. Questions or comments about any statement in this report should be directed to John Niles at 206-781-4475 or jniles@alum.mit.edu, who takes full responsibility for any inadvertent misinterpretations of facts.

INTRODUCTION

In response to a request from Rep. Hal Rogers, Chairman of the House Appropriations Subcommittee on Transportation and Related Agencies, USDOT Office of Inspector General in early 2001 initiated an audit of the January 2001 decision by the Department of Transportation to approve a \$500 million grant application for the Seattle Central Link Light Rail Project. In April 2001, OIG reported the finding that Federal Transit Administration (FTA) did not perform satisfactory due diligence in the grant application review process. OIG recommended the Secretary of Transportation direct FTA to hold funds and funding decisions for Central Link in abeyance until (1) Sound Transit identifies and discloses all issues that could materially impact cost, schedule, and scope; (2) FTA and its project management oversight consultant validate the estimated completion cost; (3) FTA and its financial management oversight consultant validate that funding sources are sufficient to complete the Project; and (4) Congress has the necessary 60 days to review the Project's grant agreement. The Secretary concurred with these recommendations. He did not release \$50 million in previously appropriated FTA New Starts funds for Central Link Light Rail until August 2002, when he apparently determined that the conditions set by OIG were sufficiently met.

Meanwhile, in response to a further request in June 2002 from Rep. Rogers, the Office of Inspector General in September 2002 started a follow up audit of the Seattle Central Link Light Rail Project that continues through this writing. The new audit scope is to ensure that the recommendations of the earlier audit are implemented, that the new 14 mile Initial Segment of Link Light Rail is

qualified for an FFGA, and two additional issues: (1) review safety and other issues related to running buses and trains in the downtown bus tunnel, and (2) review FTA's determination that this project constitutes a stand-alone system and would not require additional segments. Currently, Sound Transit is in the process of applying for a new version of the \$500 million Full Funding Grant Agreement (FFGA) blocked in 2001 as a result of the first audit. Execution of this new FFGA for a 14 mile Initial Segment would set the stage for Congress appropriating \$75 million in FY 2004 New Starts funds, with an additional \$334 million to be made available over the next few years as the Initial Segment is being constructed, on top of the \$91 million already received in anticipation of the FFGA.

The current OIG audit of FTA oversight of the Central Link Light Rail project is an opportunity for many people and organizations to compile and present descriptions of problem areas with this particular transit project. Opponents of the Central Link project have been doing this since January 2001, when IG first began its audit examination. The source of this report, CETA, Coalition for Effective Transportation Alternatives, is a voluntary citizen association that supports transit alternatives that could be implemented if Central Link were stopped and its resources redirected more productively. In this report, CETA presents a number of problems with Central Link that have emerged despite Federal Transit Administration oversight.

The areas of concern detailed here fall into three categories: financial risks, schedule risks, and all other problem areas that present a risk to Sound Transit taxing district citizens or the integrity of the FTA New Starts program. For CETA, the third category covering these other problem areas is most compelling, and is covered first. As shown later, some of these problems also bear on financial and schedule risk that need to be assessed in FTA's due diligence before issuing an FFGA to Sound Transit.

PROBLEMS REQUIRING ADDITIONAL FTA OVERSIGHT

The non-financial areas where FTA needs to focus due diligence in the FFGA review process are:

- Project scope definition
- Hazard assessment
- Efficiency of joint bus and rail use of the DSTT
- No Build Baseline Alternative
- Additional errors in the New Starts report

Central Link Light Rail project scope is not properly defined for purposes of FTA funding

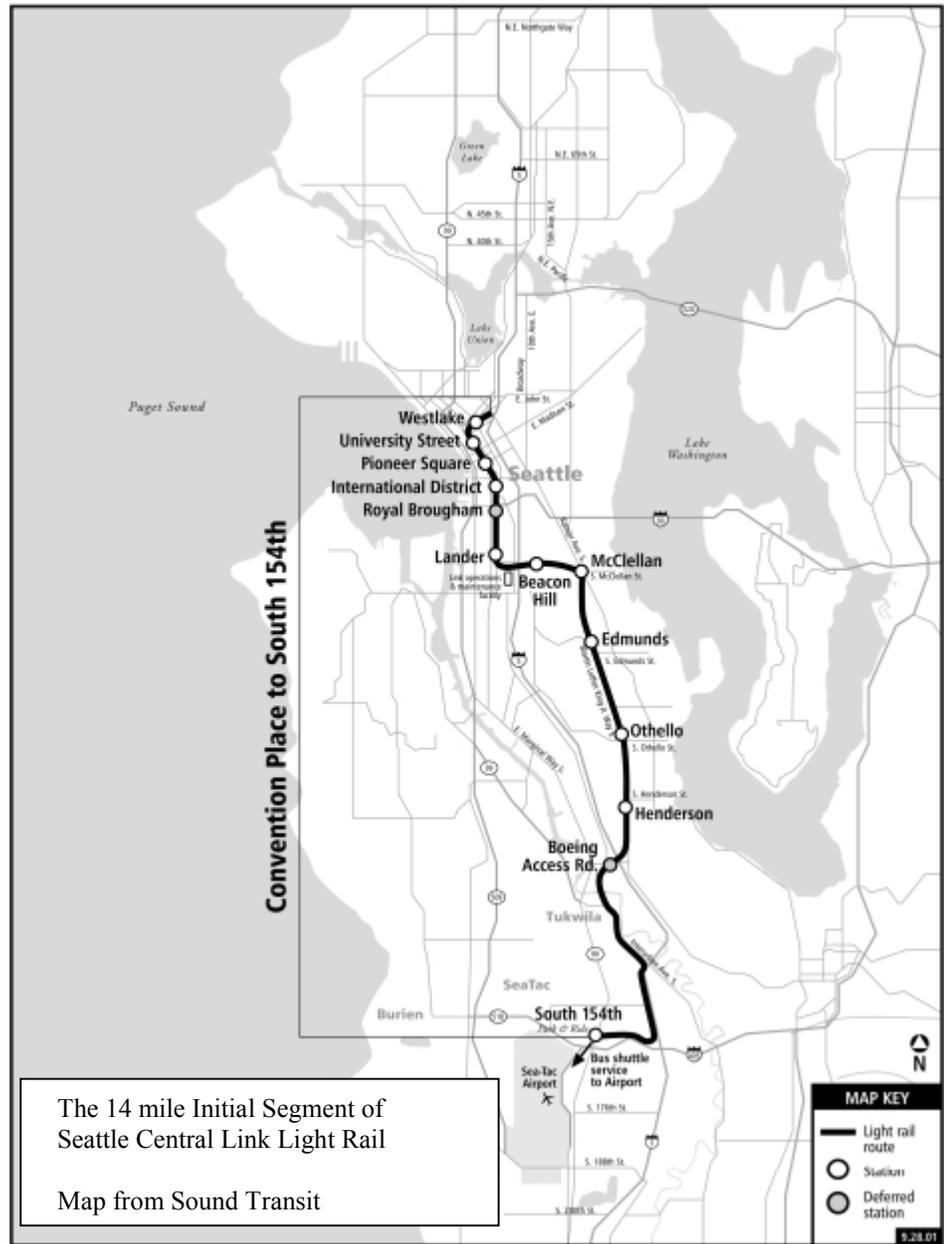
Summary: The Central Link Light Rail Initial Segment project scope is not a complete, independent scope of activity qualified for FTA funding. As its name implies, the Initial Segment is not a stand-alone system and it would require additional segments. The viability of the 14 mile Initial Segment is completely and inextricably dependent upon the future determination of alignment, cost, and funding of the eight mile northward extension of the Initial Segment.

As described in the 2004 New Starts Report to Congress, Sound Transit is planning to build a 24-mile light rail transit line running north to south from the Northgate urban center through downtown Seattle and Southeast Seattle to the cities of Tukwila and SeaTac. Called Central Link, the system would operate on existing and new rights-of-way, including the existing 1.3-mile Downtown Seattle Transit Tunnel (DSTT). Sound Transit plans to construct the entire system in phases.

The Sound Transit Board formally adopted a 7.2-mile initial Minimum Operable Segment, known as the MOS-1, for Federal participation in November 1999. After Congress and the USDOT IG raised significant questions about project costs, the Sound Transit Board directed staff to re-examine the entire MOS-1 project to determine if a portion of the proposed line between University District and SeaTac could be identified as a new MOS. During the re-examination, the Sound Transit Board maintained its commitment to build the entire 24-mile alignment.

In November 2001 the Sound Transit Board decided to implement as a new MOS the Central Link Initial Segment, a 14-mile, 11-station line extending from Convention Place through downtown Seattle and terminating at South 154th in Tukwila. That route is shown in the map at right.

The May 2002 Record of Decision for Central Link Initial Segment in Attachment F, page 13 reaffirms, "the Initial Segment is a Minimum Operable Segment (MOS), which is a stand-alone portion of the project that has independent utility."



This definition is derived from Federal regulations at 23 CFR Part 771.111(f) which state the requirements for projects like the Initial Segment that are evaluated under NEPA rules. Three requirements are stated for projects like the Initial Segment of Link Light Rail: (1) Connect logical termini and be of sufficient length to address environmental matters on a broad scope; (2) Have independent utility or independent significance, i.e., be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made; and (3) Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

CONCLUSIONS AND RECOMMENDATIONS

CETA concludes from the evidence presented here that the execution of a Federal Full Funding Grant Agreement for the Central Link Initial Segment would not be beneficial for the citizens of Washington State, nor in the best interests of the Federal Government. FTA has not yet completed the due diligence required in fulfilling its oversight role. FTA Region 10 in particular has been too eager to be a "partner" with Sound Transit in the construction of Link Light Rail Initial Segment.

To be clear, CETA takes the position based on considerations going beyond those in this report that local officials should stop Central Link Light Rail and take action to implement better transit alternatives. But based on the limited set of issues covered in this report, CETA recommends that this minimal list of conditions be met by FTA and Sound Transit before an FFGA is executed for the Initial Segment:

1. Sound Transit Board approval of the selected alignment, budget, funding plan, environmental clearance, and necessary third party agreements for constructing North Link from CPS to Northgate. (CETA's position on Board approval of North Link is that significant changes from the 1996 Sound Move Plan need to be put before voters in a new election.)
2. An Initial Segment light rail plan for the short section of right of way north of Westlake Station at a level of design that is completely integrated with the physical requirement of the chosen North Link alignment in the vicinity of Convention Place Station.
3. A signed agreement from City of Tukwila, City of SeaTac, and Port of Seattle that the planned S154th is acceptable as a southern terminus for Central Link for an indefinite period of time until such time as there is sufficient funding to construct Central Link to a southern terminus at S 200th Street.
4. An independent audit of the accuracy and validity of the data submitted by Sound Transit to FTA for its Initial Segment New Starts justification with a special focus on the definition of the No Build Baseline to make sure that it represents, per FTA, "the best that can be done for mobility without constructing a new transit guideway" and that the costs of this Baseline are not unreasonably inflated to make the Initial Segment look better than it would otherwise.
5. Independent professional hazard analysis and safety certification of the intermodal collision risk that shows the present light rail right-of-way design in the DSTT and in the Rainier Valley can achieve better than FTA Hazard Risk Index Category 1C, which is "unacceptable."
6. Certification by Sound Transit and independent audit verification that the full 24 miles of Central Link can be constructed and operated by expending from, and pledging for the necessary bonds from, only the authorized local tax base of the North King and South King subareas of the Sound Transit district, to conform to subarea equity policy that is a foundation of the Sound Move program.

Unless and until FTA assesses and responds appropriately to all of the risks detailed in this report, we conclude that FTA's "partnership" with Sound Transit in the construction of Link Light Rail Initial Segment must be judged as overwhelming its statutory oversight role. FTA must be a steward of America's Federal public transportation resources, and make these resources available only to the most worthy mass transit projects around the country. Central Link Light Rail is not a project worthy of Federal support.

CETA
COALITION FOR EFFECTIVE TRANSPORTATION
ALTERNATIVES

REPORT TO CONGRESS ON THE SEATTLE LINK LIGHT
RAIL PROJECT

By John Niles

May 15, 2003

Copies of this Report are available on our web site or can be ordered for \$10.00.

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