



Jeffrey A. Parker
& Associates, Inc.

PUBLIC TRANSIT SUSTAINABILITY IN CHARLOTTE

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METROPOLITAN TRANSIT
COMMISSION

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Financial Overview

- **Sustainability criteria**
- **Where is CATS today relative to 2006?**
- **Sustainable alternatives for consideration**
 - Adjustments to existing system
 - Affordable Blue Line Extension (BLE) and Red Line assumptions
- **Innovative finance and Public-Private Partnership (P3) options**
- **Next steps for future corridors and bus services**



Sustainability Criteria

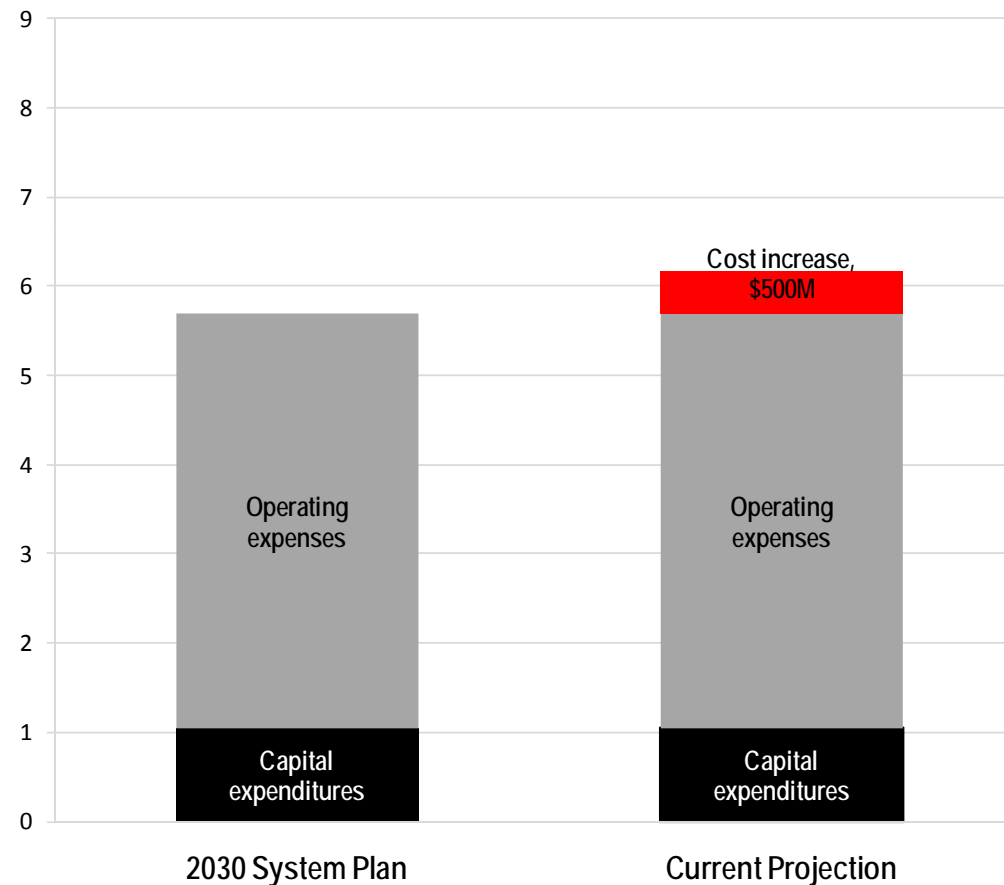
- **Preserve mobility for transit riders within envelope of existing resources**
 - Fully recognize life cycle costs – initial costs, O&M, rehabilitation, future replacement
 - Existing system – bus services + existing rail (South Corridor)
- **Leverage local funds**
 - Generate high service levels relative to CATS' capital and operating outlays
 - Impact on network and transit mode share
- **Equity**
 - Cross-subsidies from CATS jurisdictions
 - Subsidy per rider
- **Readiness**
 - Defined scope, operating plan and lifecycle costs
 - Full funding plan in place



Where are existing system costs today vs. 2030 System Plan?

Total expenditures* 2010-2035 (existing system only†)

Billions of inflated dollars



* Excludes debt service

† Existing system includes bus, STS, vanpool, and South Corridor light rail transit.

Where are new rapid transit corridor costs today vs. 2030 System Plan?



Rapid Transit Corridors Program				
Project	2030 System Plan		Current	Change
<i>Capital Costs (millions):</i>	<i>2006\$</i>	<i>2010\$</i>	<i>2010\$</i>	<i>2010\$</i>
Northeast	600	702	983	281
North	289	338	371	32
Southeast	299	349	?	?
West	183	214	?	?
Streetcar	251	294	?	?
Total	1,622	1,898	1,354	314
<i>Total O&M Expense, 2017-2035 (millions of inflated \$):</i>				
Blue Line (South + NE)		678	1,163	484
North		247	324	78
Southeast		180	?	?
West		33	?	?
Streetcar		185	?	?
Total		1,323	1,487	562

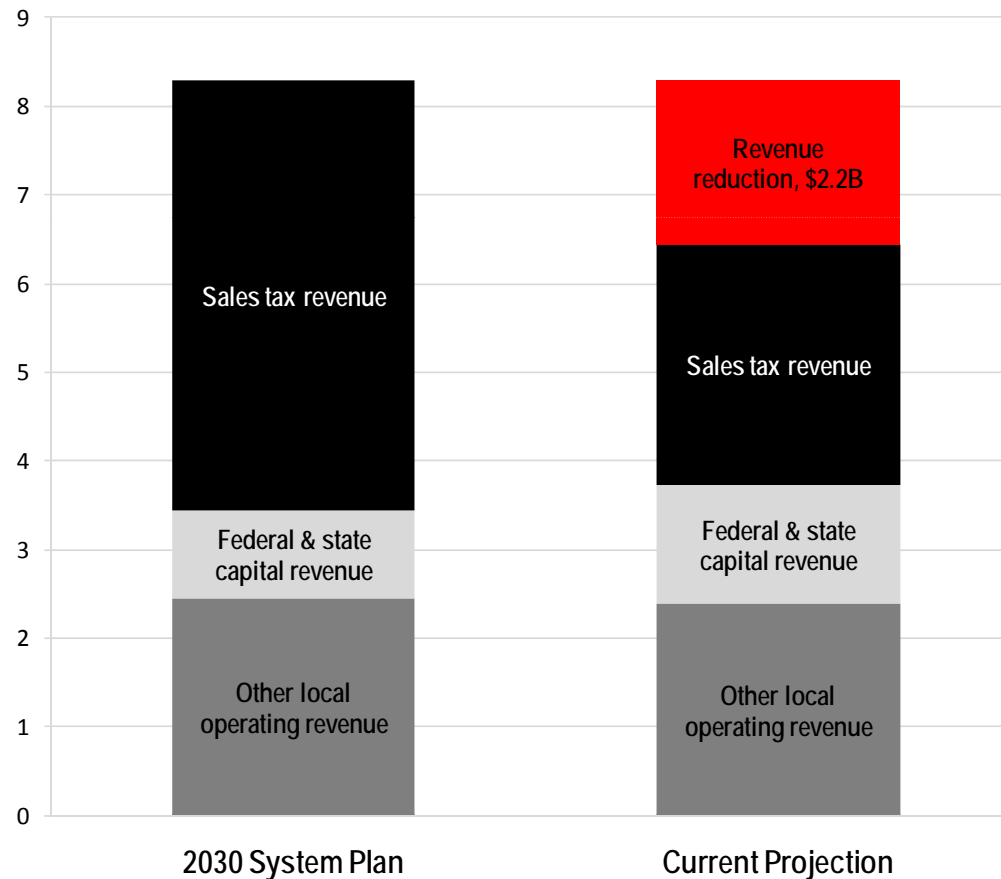
Note: costs in 2006 dollars escalated to 2010 with 4.0% inflation rate assumed in 2030 System Plan

Where are revenues today vs. 2030 System Plan?



Total revenue* 2010-2035 (existing system only†)

Billions of inflated dollars



* Excludes proceeds from debt and interest income. Current Projection ignores additional revenue resulting from expanded bus and STS service at 2030 System Plan levels.

† Existing system includes bus, STS, vanpool, and South Corridor light rail transit.



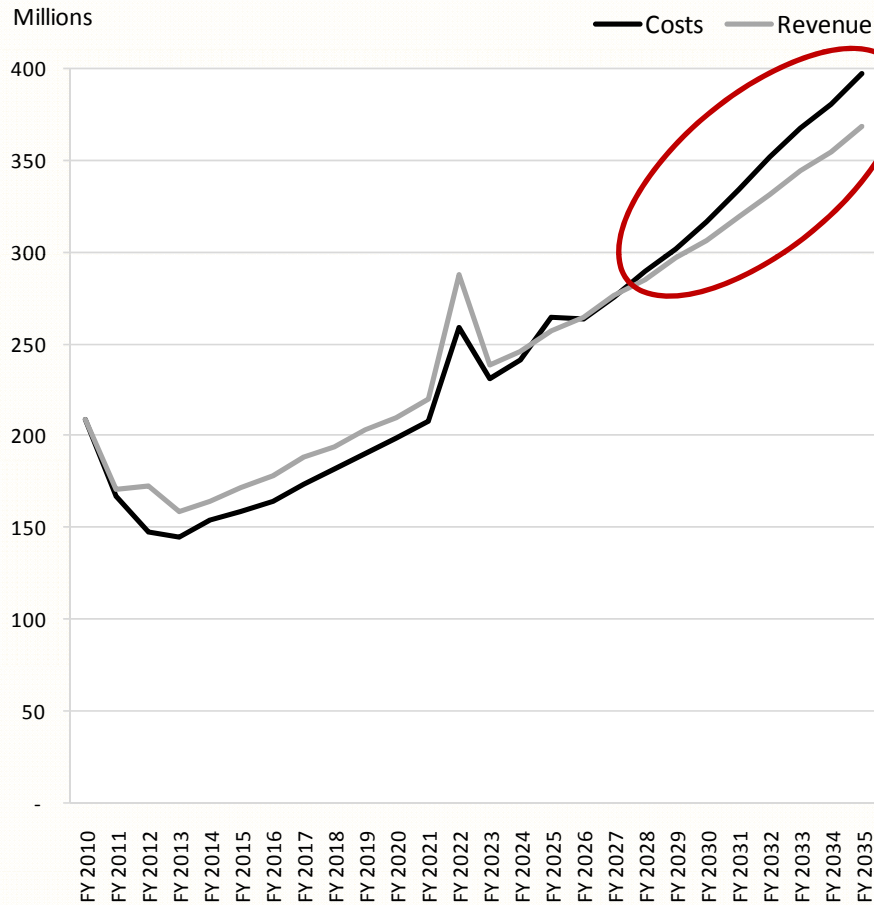
Where is CATS today vs. 2030 System Plan?

- **Capital costs for known corridors (BLE and Red Line) increased \$314M (30%) from \$1.04B to \$1.35B (2010\$)**
 - Total O&M costs from 2017-2035 for known corridors increased \$562M (60%) from \$925M to \$1.49B.
- **Technology/scope for West & Southeast undecided; no cost or schedule estimate at this time**
- **Streetcar still to be determined**
- **During 2010-2035 period:**
 - Existing system capex and opex increased \$500M (8%) from \$5.7B to \$6.2B (inflated dollars)
 - Local revenue (non-federal, non-state) declined \$2.25B (30%) from \$7.30B to \$5.05B (inflated dollars)

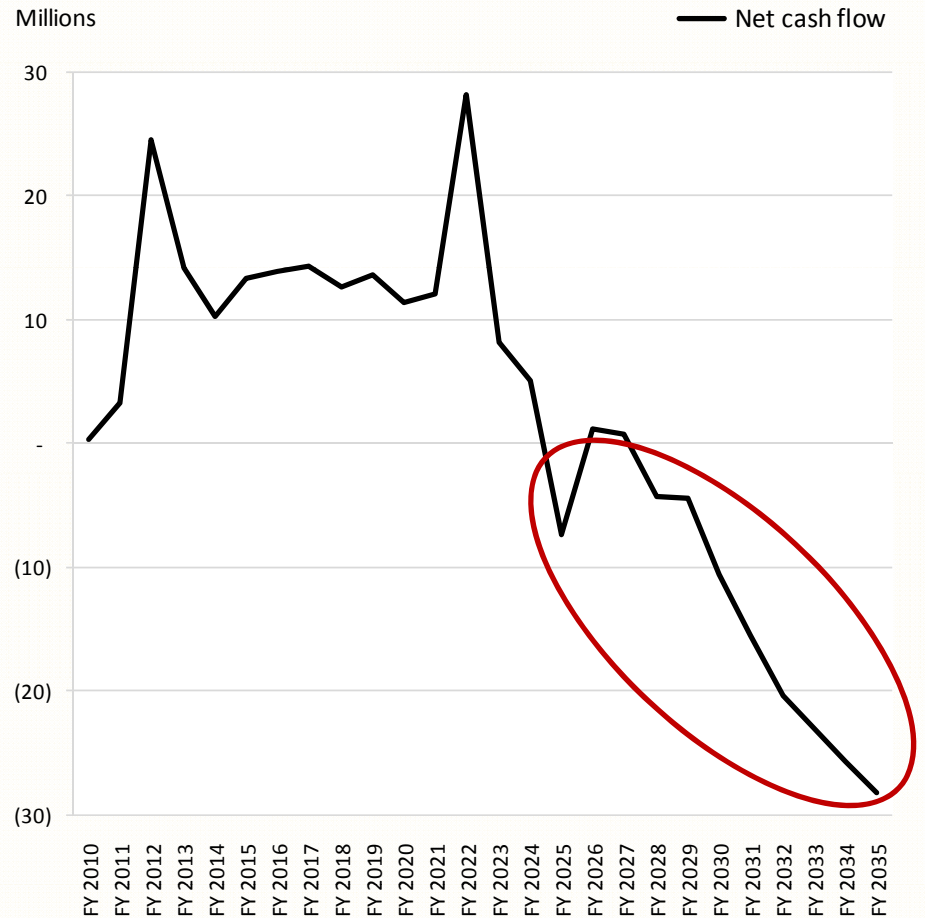


Prior Assumptions Yield Structural Imbalance for Core System Without BLE or Red Line

Revenue vs. Expenditures



Net Cash Flow

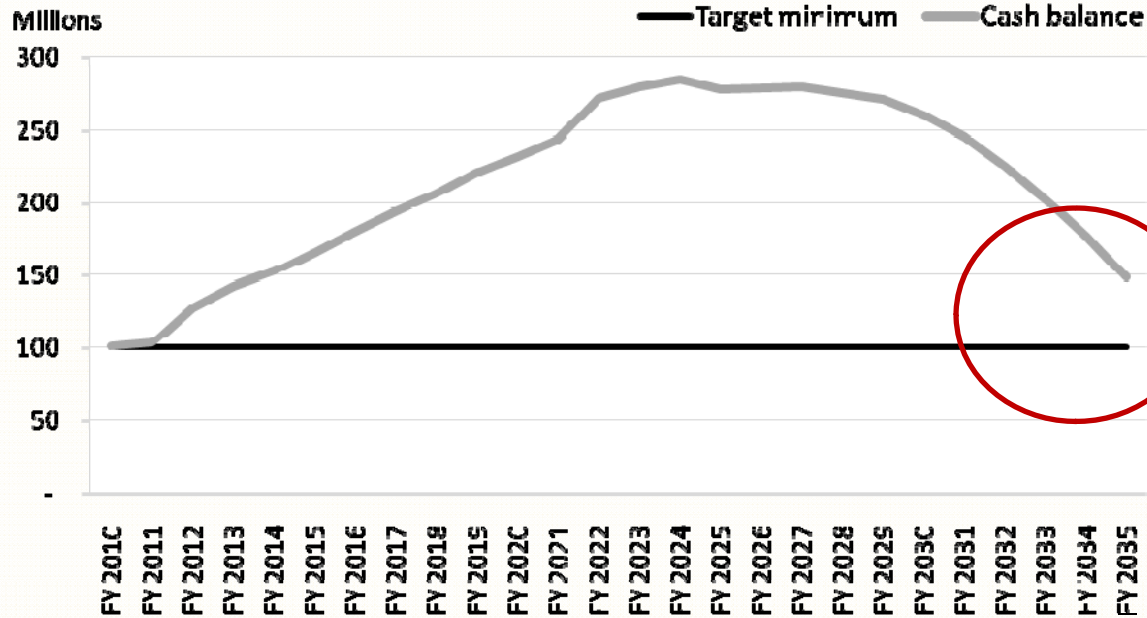


Revenues first exceed costs in FY 2025

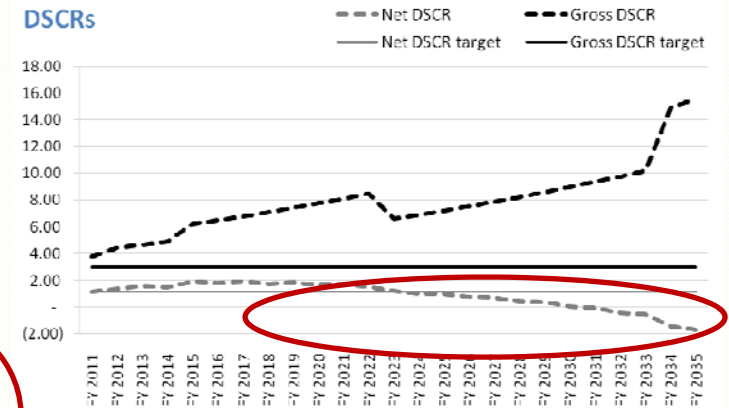


Prior Assumptions Yield Structural Imbalance for Core System Without BLE or Red Line

Cash Balance



DSCRs



MTC Financial Performance Metrics:

- Maintain \$100 million minimum cash balance
- Gross Debt Service Coverage = 3.00
- Net Debt Service Coverage = 1.15

Summary of Findings – Review of Initial Financial Model, Oct 2010



- **Structural imbalance of existing system even without new rail corridors**
- **Inadequate resources to support 2030 System Plan (bus service expansion and remaining rapid transit corridors) with current sales tax**
- **Not possible to develop a new “System Plan” with uncertainties over scope, cost and timing of West, Southeast, and Streetcar along with the uncertainty of future economic growth**
- **Priority is to avoid commitments that are unsustainable over time**



Step 1 – Correct Structural Imbalance



Sustainable Alternatives for Consideration

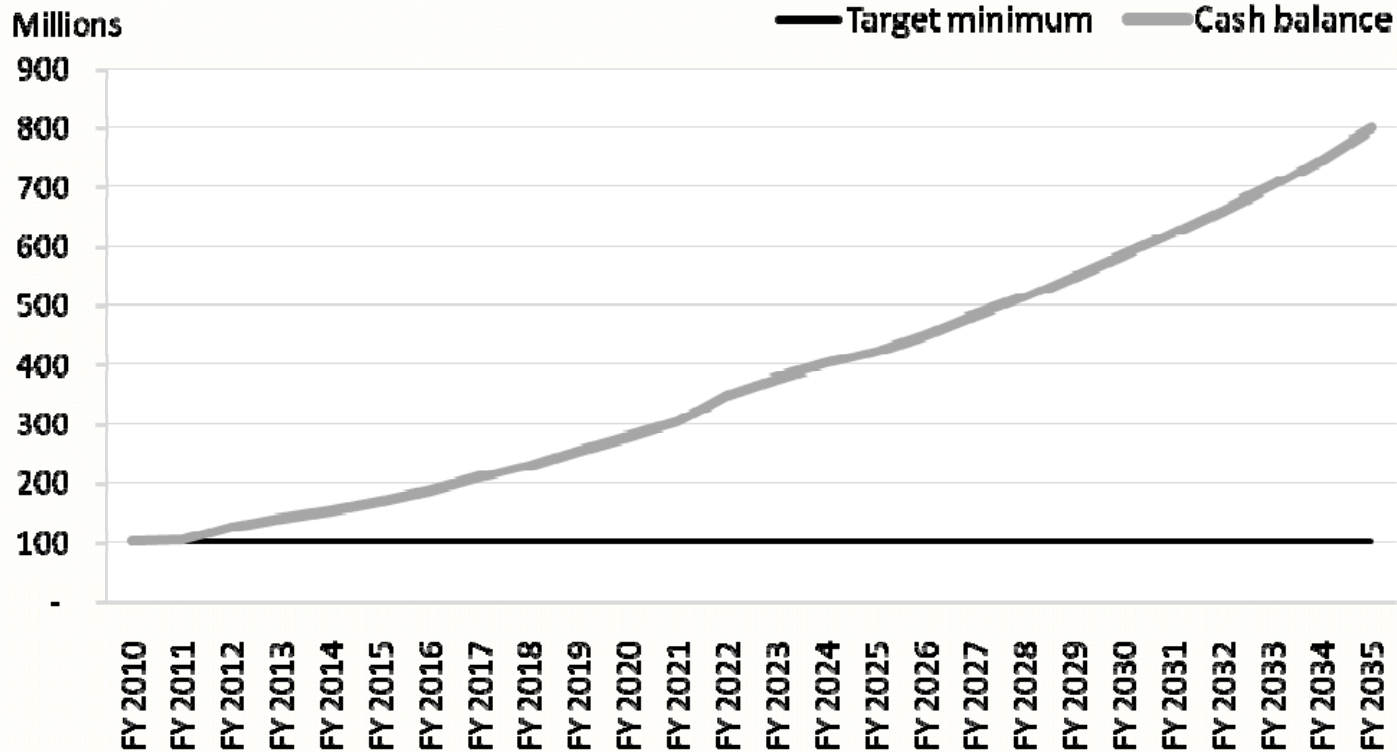
Immediate priorities:

- **Preserve level of existing bus and rail service hours**
- **Limit future bus and STS growth in service hours**
- **Cap compound annual growth rate in O&M going forward to 4%**
- **Limit investment in new transit centers and park-n-ride**



Sustainable Existing System – Sales Tax Growth Rate Remains a Risk

Cash Balance



Existing bus
and STS
service levels
preserved



Step 2 -

Expansion Scenarios

BLE only – public finance

Red Line only – public finance

BLE + Red Line – public finance



BLE only – public finance



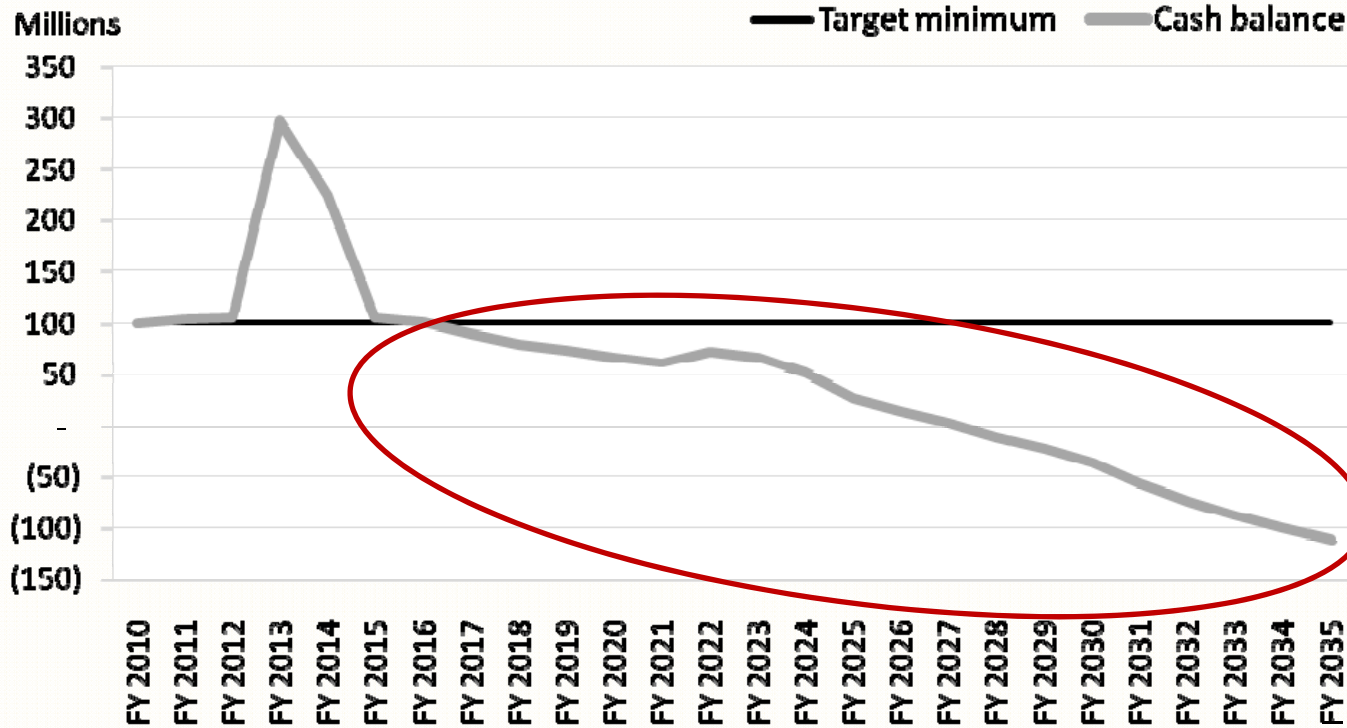
Impact of Adding Blue Line Extension (BLE) to a Sustainable Existing System

- **Revenue operations in 2016/17**
- **Capital cost = \$1.12B in inflated dollars**
 - CATS = \$280M – 25%
 - NCDOT = \$280M – 25%
 - FTA = \$561M – 50%
- **Local share financed by long-term bonds from sales tax revenues with City backing and pay-go**
- **BLE O&M cost of \$20.4M in FY 2017**
- ***Assumes NCDOT provides operating assistance for both bus and light rail: \$1.0M/yr for South Corridor, \$2.5M/yr for full Blue Line (2010 \$)***



Impact of Adding BLE to a Sustainable Existing System

Cash Balance



Capital Costs

- ✓ CATS – 25%
- ✓ NCDOT – 25%
- ✓ FTA – 50%

O&M Costs

- ✓ CATS – 100%



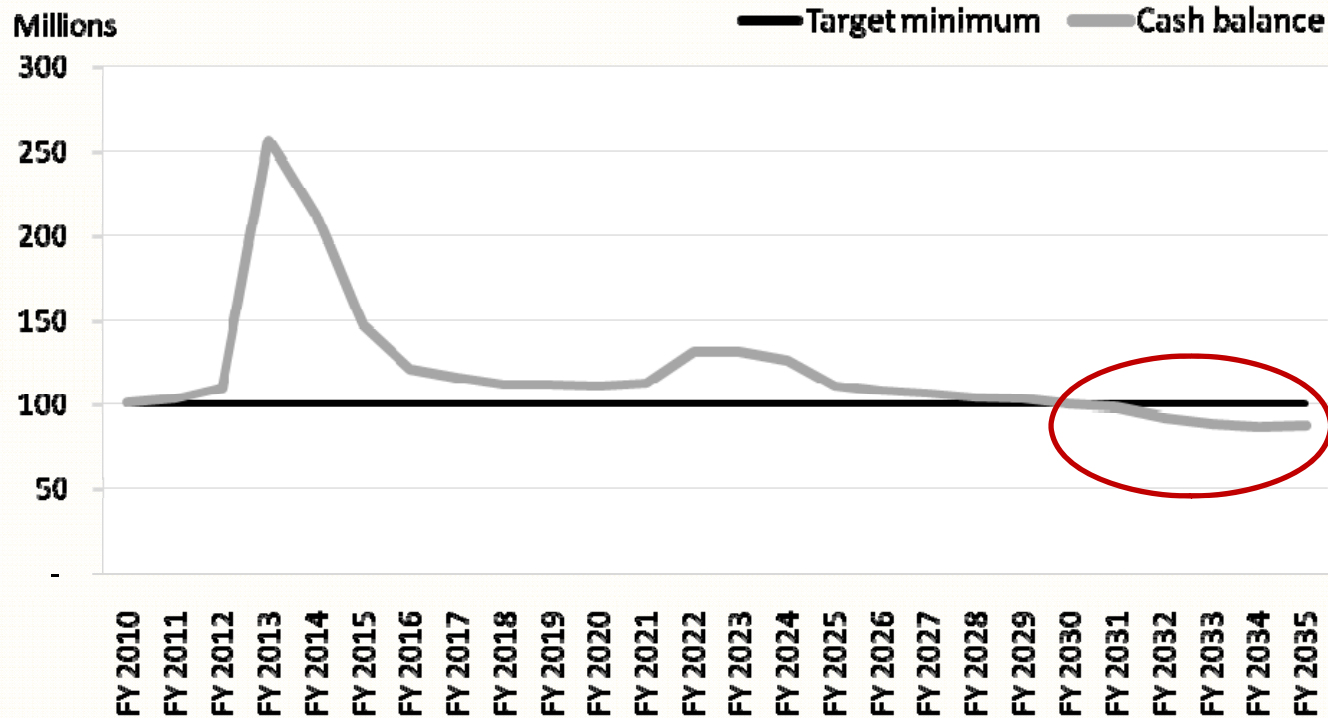
Affordable BLE Alternative

- **Cost reduction measures can produce an affordable BLE option for CATS**
 - Reduce capital cost by 20% to \$800 million in 2010\$ (\$910m inflated dollars) tested in financial model
 - Reduce BLE O&M by about 6.5% (\$18.2M in FY 2017)
- **This range of cost reductions will require scope adjustments but appears achievable**
- **MTC would need to direct CATS to identify potential cost saving measures**



Impact of Adding Affordable BLE

Cash Balance



Capital Costs

- ✓ CATS – 25%
- ✓ NCDOT – 25%
- ✓ FTA – 50%

O&M Costs

- ✓ CATS – 100%



Measures to Fill Revenue Shortfalls

- **Ancillary revenue opportunities can help bridge small revenue shortfalls**
 - More aggressive estimates on advertising revenues may be realized in a stronger economic climate
 - Other policy options could be studied, such as charging for parking or naming rights
- **Further BLE capital and O&M savings may be possible**



Red Line only – public finance



Impact of Adding Red Line to Sustainable Existing System (no BLE)

- **Revenue Operations 2017/18**
- **Capital Cost = \$456M in inflated dollars**
 - CATS = \$146M – 32%
 - NCDOT = \$114M – 25%
 - FTA = \$ 0M – 0%
 - Unfunded = \$196M – 43%
- **CATS share financed by long-term bonds and pay-go**
- **Source of funds for 43% of capex needs to be identified**
- **O&M Cost = \$12.7M in FY 2018**
- ***No NCDOT O&M assistance assumed***



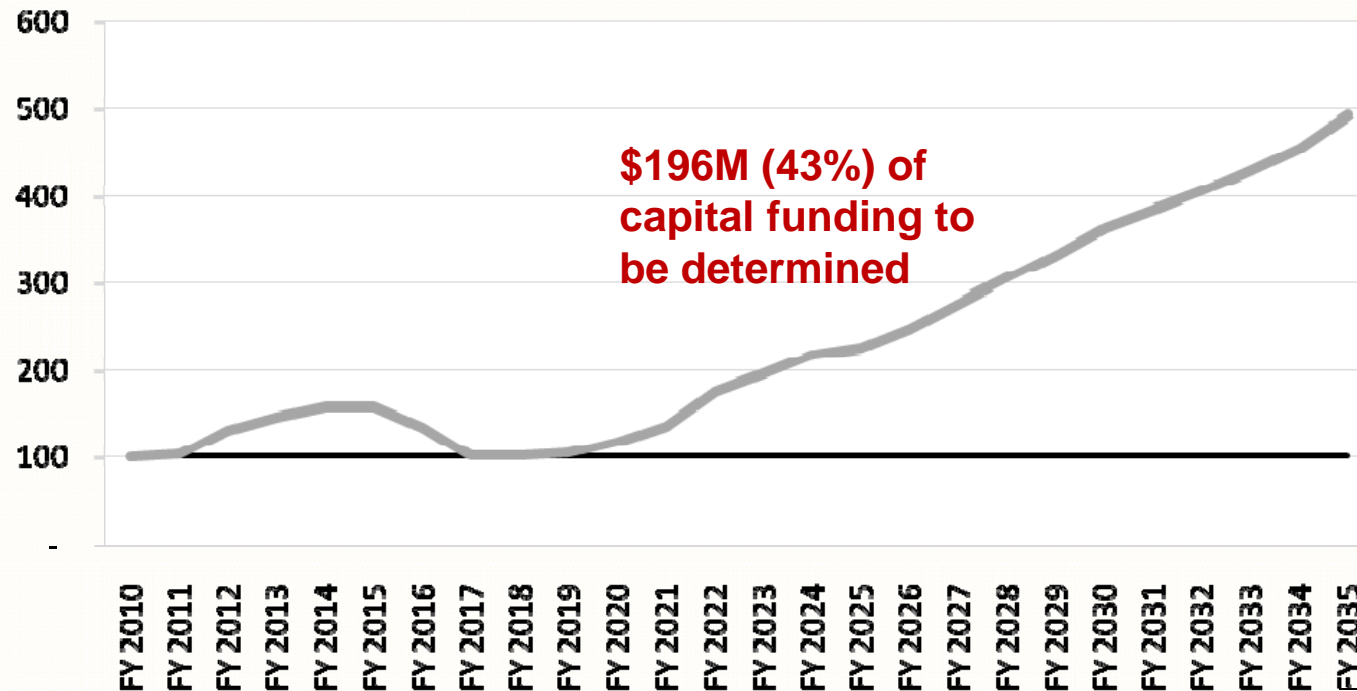
Impact of Adding Red Line to Sustainable Existing System (no BLE)

Cash Balance

Millions

— Target minimum

— Cash balance



\$196M (43%) of capital funding to be determined

Capital Costs
✓ CATS – 32%
✓ NCDOT – 25%
✗ Unfunded – 43%

O&M Costs
✓ CATS – 100%

Reflects increased FTA formula funding but no NCDOT commuter rail operating assistance

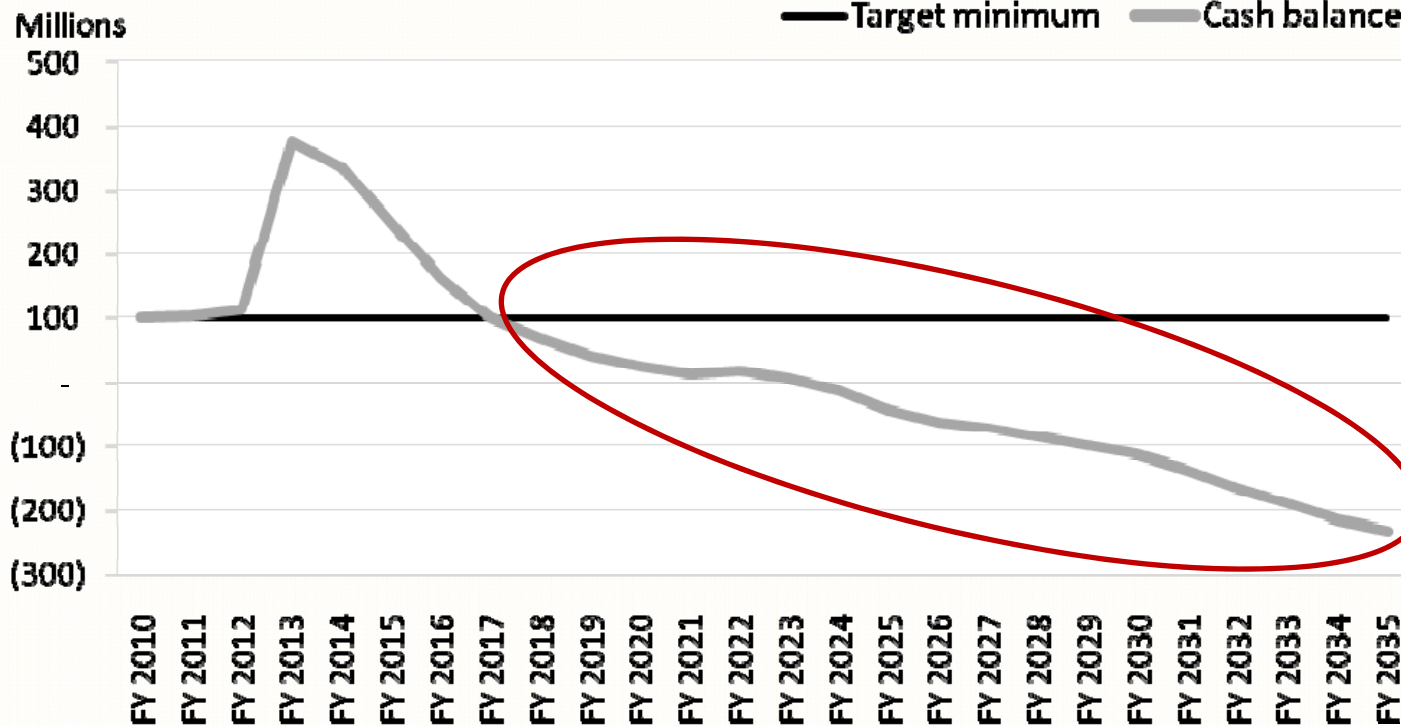


Combining BLE & Red Line – public finance



Impact of Adding Red Line to Affordable BLE

Cash Balance



Red Line

Capital Costs

- ✓ CATS – 32%
- ✓ NCDOT – 25%
- ✗ **Unfunded** – 43%

O&M Costs

- ✓ CATS – 100%

BLE

Capital Costs

- ✓ CATS – 25%
- ✓ NCDOT – 25%
- ✓ FTA – 50%

O&M Costs

- ✓ CATS – 100%

Sustainable Financial Plan for Combining Affordable BLE and CATS Contribution to the Red Line



- **NCDOT operating assistance for commuter rail needed**
- **Potential for partnership with NCDOT to combine project with road enhancements – construction economies, commuter rail as maintenance of traffic measure?**
- **Opportunities to partner with Norfolk Southern?**
- **Potential for real estate development-related revenue that is guaranteed by others?**
- **Potential for reduced capital or operating costs? Phasing?**
 - In lieu of cost cutting measures, impact of a 25% CATS capex share?
 - What would happen if CATS contributed less than 100% of O&M deficits?

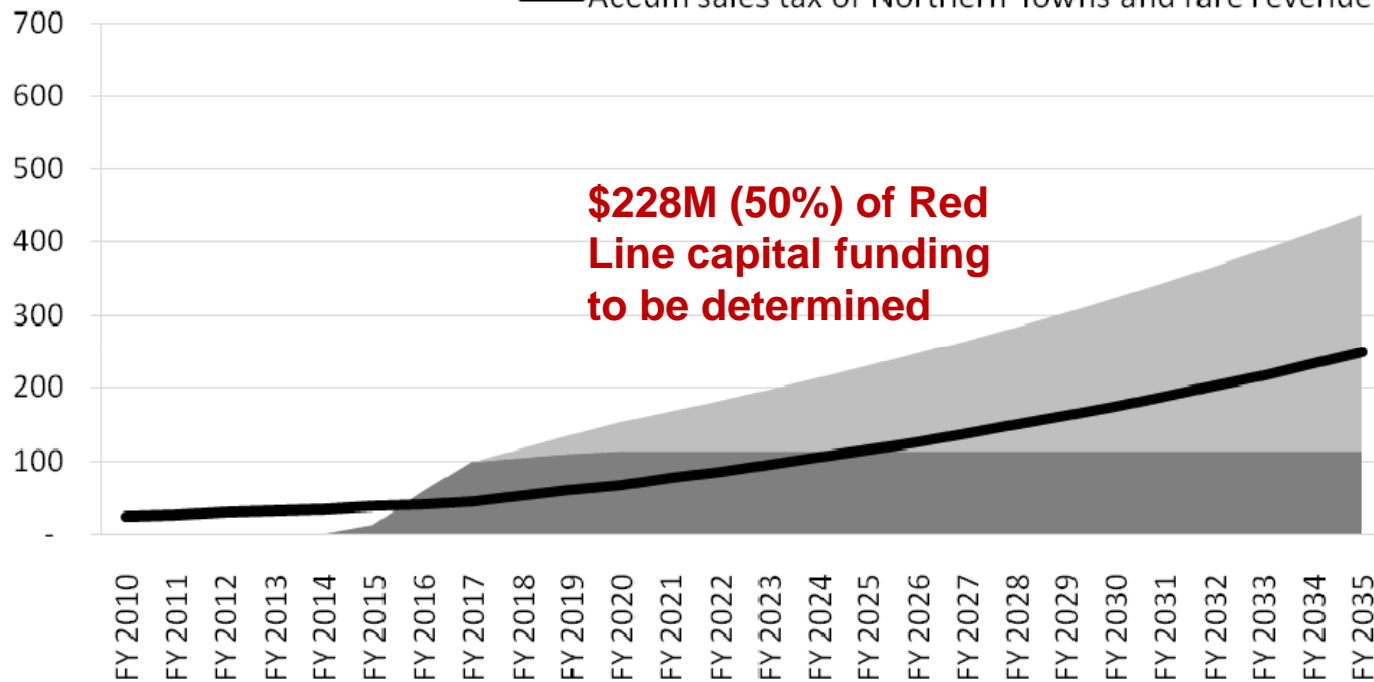
CATS O&M Contributions to the Red Line – Regional Equity Implications



North Corridor

Millions of inflated \$

- Accum CATS capital costs
- Accum CATS O&M costs
- Accum sales tax of Northern Towns and fare revenue

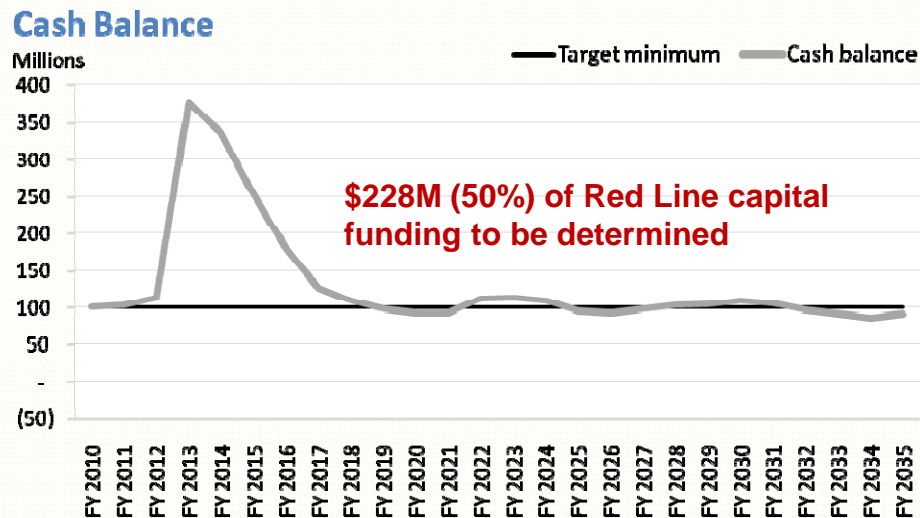


- Capital Costs**
- ✓ CATS – 25%
 - ✓ NCDOT – 25%
 - ✗ Unfunded – 50%
- O&M Costs**
- ✓ CATS – 0-100%

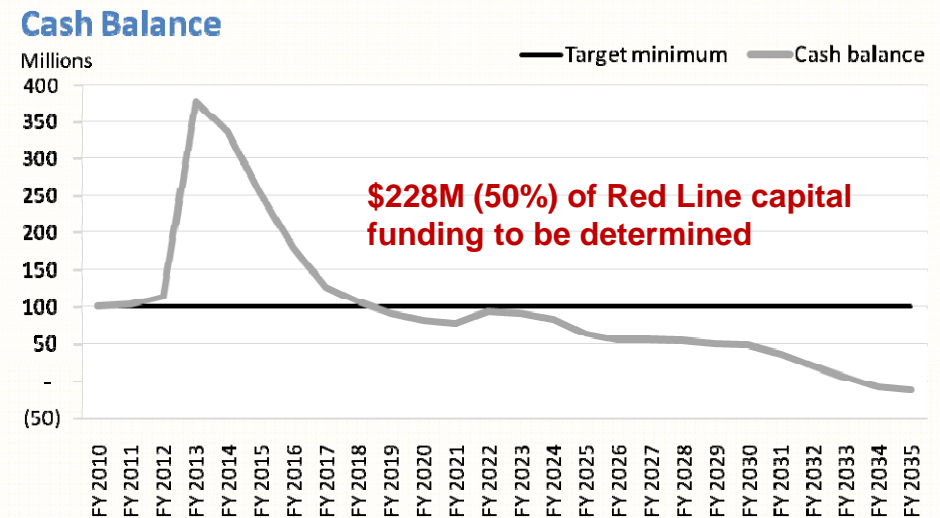


Impact of CATS Contributions to BLE and the Red Line Limited to an Affordable Range

CATS Red Line O&M share at 25% is sustainable



Increasing the share to 50% is not



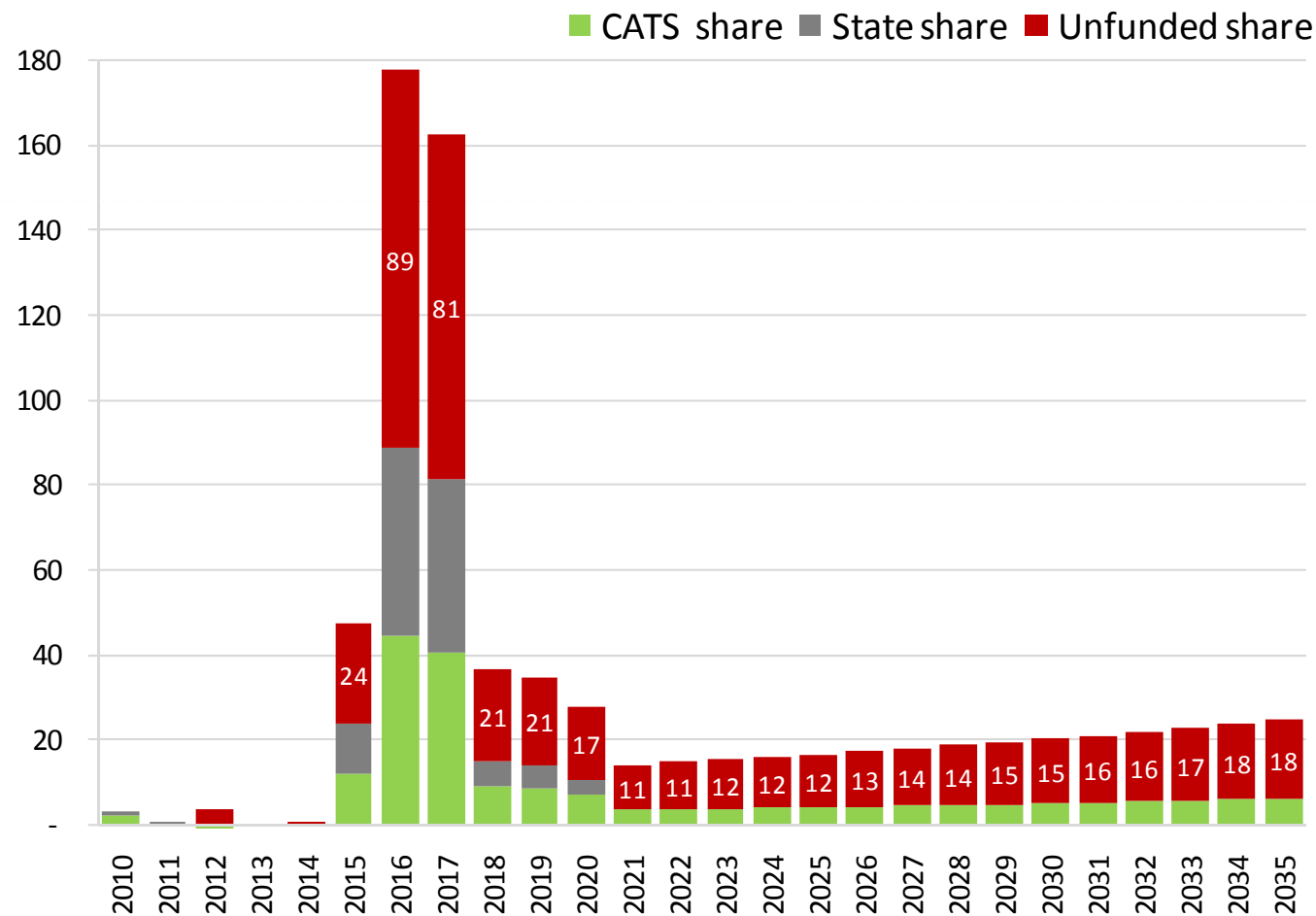
- Assumes CATS funds 25% of capital costs of both Red Line and Affordable BLE
- Red Line assumes increased FTA formula funding but no NCDOT rail operating assistance



Red Line Annual Capital and O&M Costs

North Corridor Financial Plan

Millions of inflated \$



- Capital Costs**
- ✓ CATS – 25%
 - ✓ NCDOT – 25%
 - ✗ Unfunded – 50%
- O&M Costs**
- ✓ CATS – 25%
 - ✗ Unfunded – 75%



**Combining BLE & Red Line –
public finance
*with incremental revenue***



Options for Use of Incremental Revenues Beginning in FY 2014

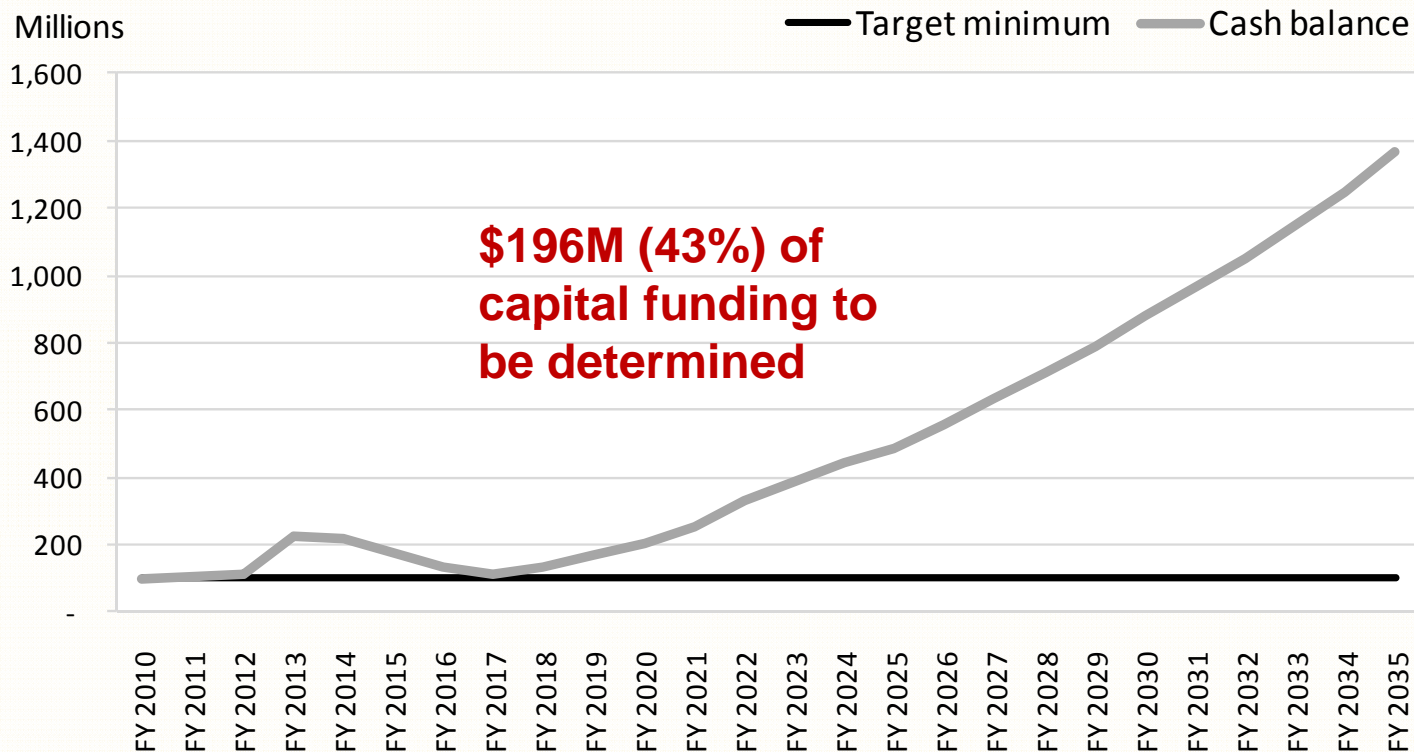
- **Restore CATS share of Red line to original 32% of capital costs and 100% of O&M costs**
- **Revisit cuts made for Affordable BLE**
- **Restore bus service growth**
- **Test lifecycle costs of additional corridors**
 - West
 - Southeast
 - Streetcar



Adding Both Affordable BLE and CATS Contribution to the Red Line

Additional revenue source of \$34m annually beginning in FY 2014

Cash Balance



Red Line

Capital Costs

- ✓ CATS – 32%
- ✓ NCDOT – 25%
- ✗ Unfunded – 43%

O&M Costs

- ✓ CATS – 100%

BLE

Capital Costs

- ✓ CATS – 25%
- ✓ NCDOT – 25%
- ✓ FTA – 50%

O&M Costs

- ✓ CATS – 100%



Step 3 - Public-Private Partnerships (P3)



P3 Potential

- **P3 structure offers improved cost certainty over project lifecycle**
- **“Availability Payments” allow cash flow management and provide incentives for positive performance during the construction and operating periods**
 - APs include capex, opex, rehabilitation and handback, and are capped for 30 – 35 years
 - Deductions for performance below contract specifications
 - APs begin when construction is complete
- **Public owner retains revenue / patronage risk**
 - Market unwilling to accept
 - Higher risk of not closing and increased cost of capital
- **Real estate development revenues possible to incorporate**



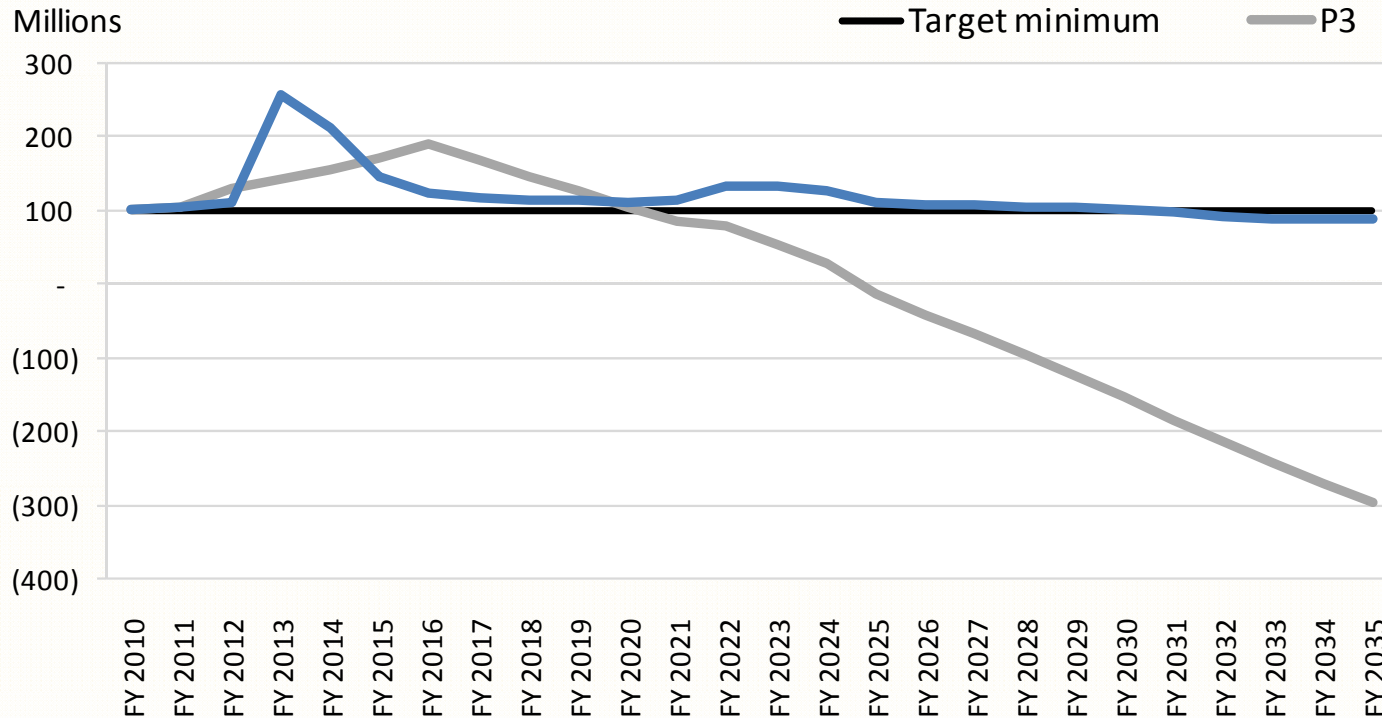
P3 Potential – Affordable BLE Example

- **P3 financing only affects CATS share**
 - State & federal grants likely to be paid out during construction
- **25% (\$212.5M) local share is privately financed over 35 years**
 - Assume 10% Equity (\$21M) at 11.7% pre-tax IRR
 - Assume 90% Private Activity Bonds at 200 bp over City's borrowing rate
- **Federal TIFIA/RRIF loan programs do not appear to be relevant for BLE as they are likely to reduce New Starts grants**
- **Combine existing South Corridor under a concession structure**
- **DB or DB+OM may approximate risk allocation of P3**



P3 Potential – Affordable BLE Example

Cash Balance



- **P3 may be unaffordable for even scaled-down BLE**
- **Limited equity of \$25M for \$910M capex may not yield sufficient risk transfer to produce value for money**



P3 Potential – Red Line Example with Non-CATS Public Owner

- **Appears to allow CATS and NCDOT to finance capital share with tax-exempt debt**
- **State leadership – 5 corridor prototype potential**
- **Potential for turnkey contract with N/SRR using availability payments – ridership and revenue risk transfer not viable**
- **Potential for participation of land developers**
- **Absence of New Starts funding improves attractiveness of TIFIA (33% of project cost) and RRIF (potentially 100% of project cost)**
 - Red Line P3 cases assume all of concessionaire's long-term debt is RRIF loan

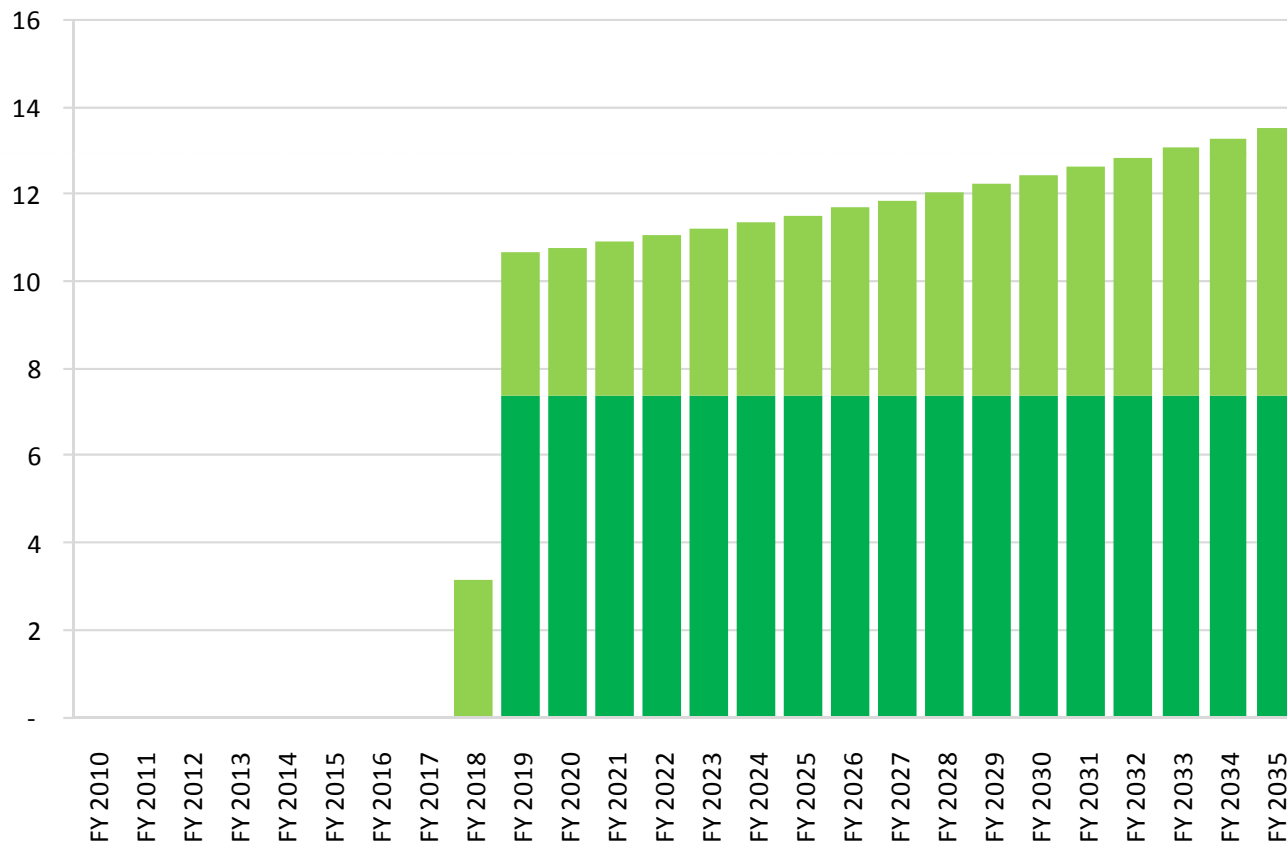
P3 Potential – Red Line Example with Non-CATS Public Owner



North Corridor P3 - CATS Cash Outlays

Millions of inflated \$

■ CATS debt payments on \$113M FAP ■ CATS payments towards O&M

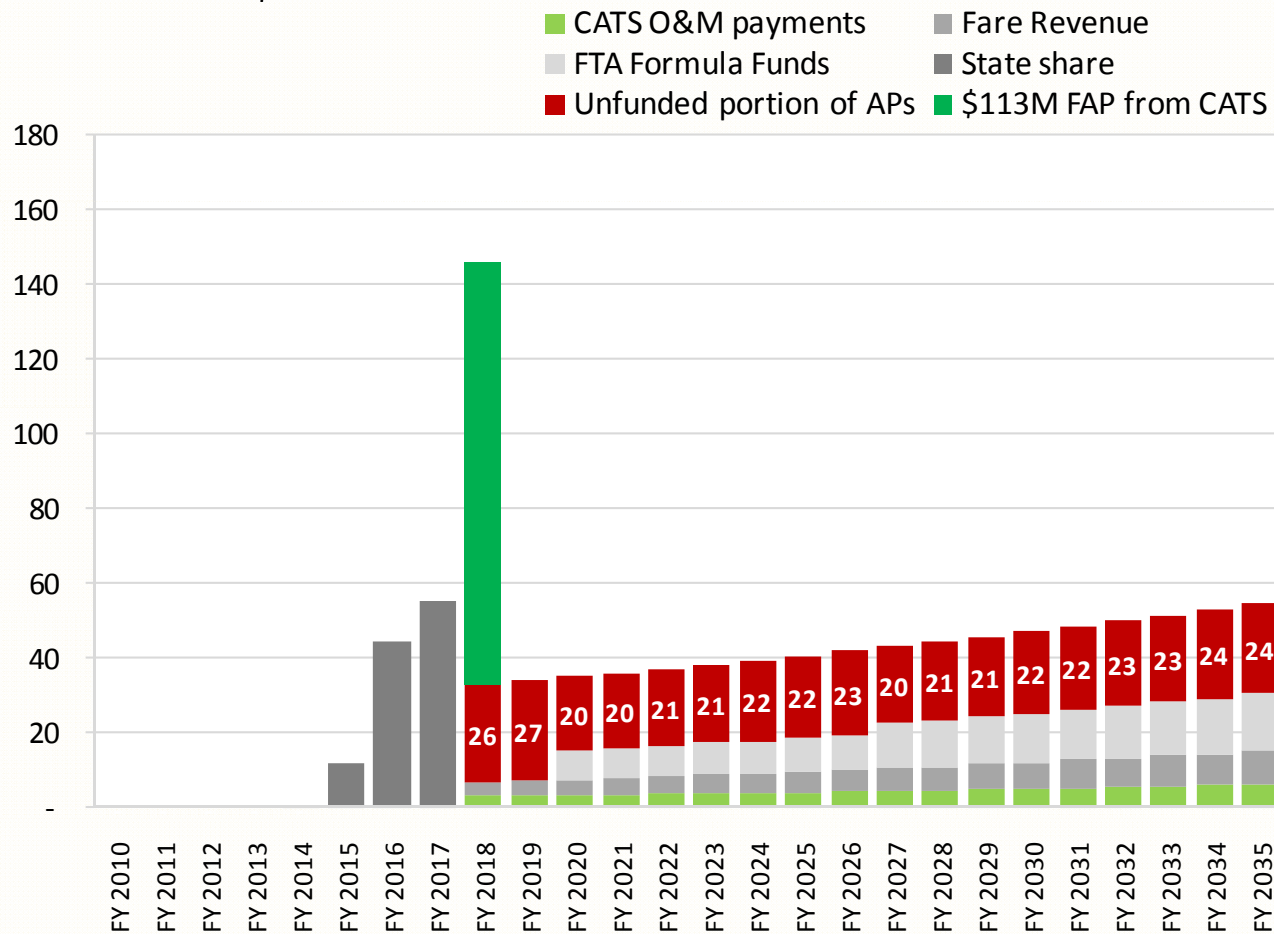




Annual Availability Payments - Red Line Example with Non-CATS Public Owner

North Corridor P3 - Public Owner Cash Outlays

Millions of inflated \$



- Capital Costs**
- ✓ CATS – 25%
 - ✓ NCDOT – 25%
 - ✗ Unfunded – 50%
- O&M Costs**
- ✓ CATS – 25%



Conclusion

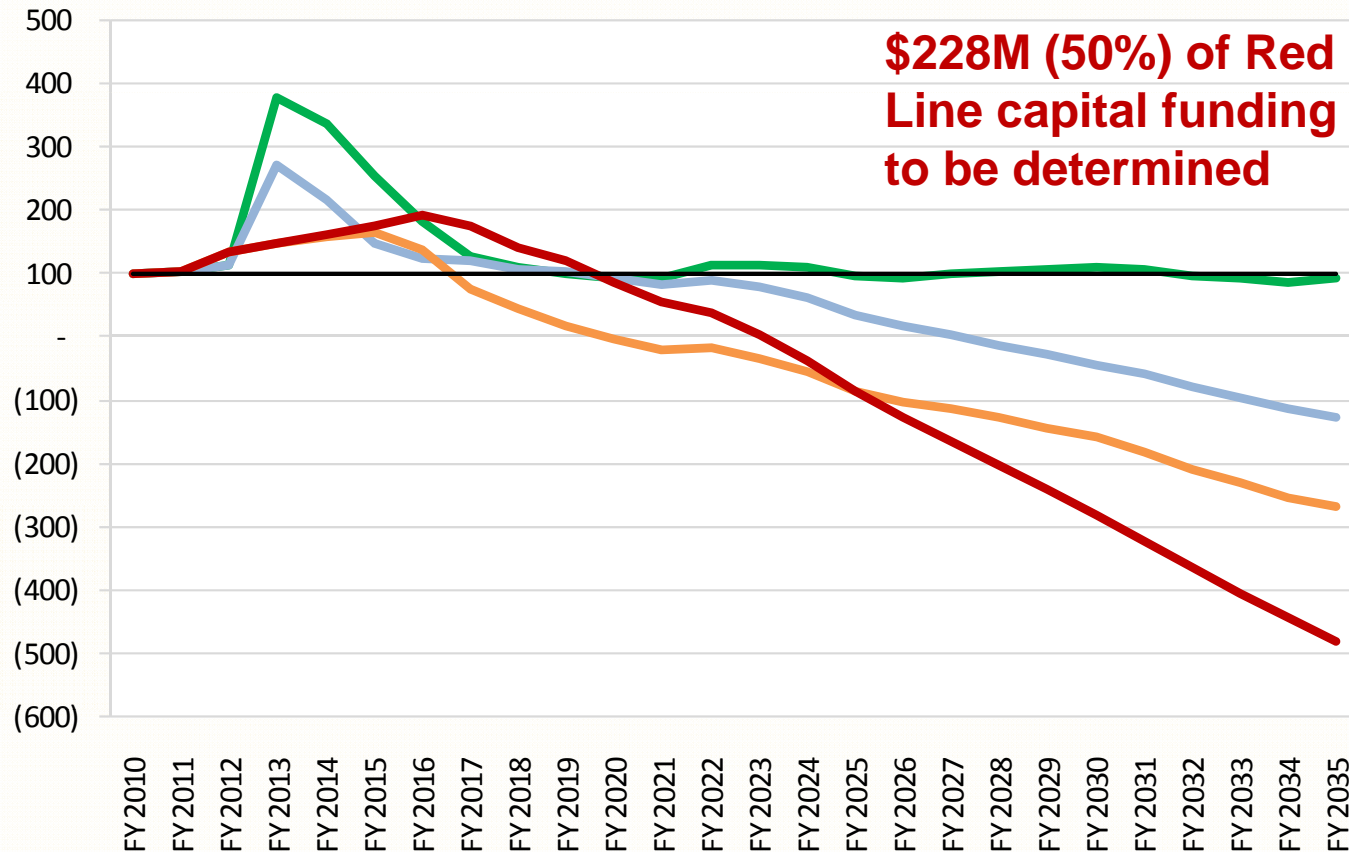


Comparison of Public Finance and P3 Options for CATS

Cash Balance

Millions

- BLE - Public Finance, Red Line - Public Finance
- BLE - Public Finance, Red Line - P3
- BLE - P3, Red Line - Public Finance
- BLE - P3, Red Line - P3
- Target minimum





Next Steps for Future Corridors

- **Scale core system to sustainable levels**
- **Advance affordable BLE in FTA Process**
- **Explore funding partnerships and P3 opportunities for Red Line**
- **Operating assistance from NCDOT for rail corridors**
- **Further studies of Southeast, West, and Streetcar**

Thank you for your attention



Jeffrey A. Parker
& Associates, Inc.

Jeffrey Parker, President
Robert Bannister
Mary DiCarlantonio

