The State Transportation Commission has the constitutional and statutory authority to sell bonds for transportation purposes by pledging constitutionally restricted revenue from motor fuel taxes and vehicle registration taxes. The Commission also has the authority to sell bonds by pledging federal grant revenue as a source of repayment.¹

The Commission’s authority is put into effect when it authorizes the Michigan Department of Transportation (MDOT) to proceed with the sale of bonds. These bonds are not state general obligation or “full faith and credit” bonds of the State of Michigan; they are considered revenue bonds; i.e., they are sold using the pledge of a state restricted revenue source or a dedicated federal program revenue source. All bonds issued by MDOT have this character—they are all revenue bonds.

MDOT does not need legislative approval to issue bonds. 1951 PA 51 (“Act 51”) does require that the Commission provide to the House and Senate Appropriations Committees the list of projects for which notes or bonds are to be issued at least 30 days before the notes or bonds are issued.

Bond proceeds are not appropriated. The only recognition of the MDOT bond program in the transportation budget is in the appropriation for debt service.

MDOT has sold bonds by pledging constitutionally dedicated transportation revenue credited to the State Trunkline Fund (STF), as well as bonds using a pledge of future federal surface transportation program grant revenue. Bond proceeds from these sales have been used for capital road and bridge construction and reconstruction projects.

MDOT has also sold bonds by pledging constitutionally dedicated transportation revenue credited to the Comprehensive Transportation Fund (CTF) for capital public transportation program needs.

The balance of this paper will focus on STF and federal grant anticipation bonds and debt service.

Outstanding STF and federal grant anticipation debt peaked in FY 2008-09 at **$2,258.3 million**. Debt service on STF-related debt, including federal grant anticipation bonds, peaked in FY 2014-15 at **$219.1 million** ($166.3 million STF, $52.8 million federal).

The preliminary estimate of outstanding STF and federal grant anticipation bonds at the end of FY 2018-19 is **$1,071.0 million**—significantly below the 2009 peak. Total FY 2019-20 debt service on STF bonds, including federal grant anticipation bonds, totals **$199.6 million**. Of this, $118.4 million would come from state restricted sources, primarily the STF, in payment of bonds issued under a pledge of STF revenue; $81.2 million would come from federal revenue sources in payment of bonds issued under a pledge of future federal surface transportation program grants.

According to MDOT debt service schedules, debt service on STF-issued debt will decline from $118.4 million in FY 2019-20 to $114.6 million and $114.5 million, respectively, in FYs 2020-21 and 2021-22. STF-related debt service will fall to $74.9 million in FY 2022-23, to $19.6 million in FYs 2023-24 and 2024-25, and to $9.2 million in FYs 2025-26 and 2026-27. STF-related debt service would be $6.4 million for the ten years starting in FY 2027-28 and through FY 2036-37.

Total FY 2019-20 debt service on bonds issued in anticipation of federal surface transportation program grants is $81.2 million. Beyond FY 2019-20, debt service for these bonds ranges from a low of $55.2 million (FYs 2020-21 and 2021-22) to a high of $130.2 million in FY 2026-27, the year all federal grant anticipation bonds are scheduled to be retired (see Table 1 on page 4).

The variation in the debt service payments for federal grant anticipation bonds illustrates the fact that transportation bonds do not follow a steady amortization schedule—they are not like most home mortgages or car payments. Transportation bonds are often issued in series of different terms, different interest rates, and varying repayment schedules.

The structure of these bond sales depends in part on the needs of MDOT’s capital construction program and projected cash flow needs. However, the structure is also a function of the demands of bond markets.

Underwriters establish a nominal interest rate prior to sale. Purchasers may bid up the bond price if the stated interest rates are higher than what is otherwise available in the bond market. That’s why the actual proceeds from a bond sale may be higher than the nominal face value of the bond issue; buyers will have paid a premium for the bonds. For example, a December 2011 STF bond issue had a stated value of $90.98 million, but the sale realized $101.6 million. The December 2011 bond sale was the last “new money” bond sale.

The weighted average interest rate on STF bonds outstanding at September 30, 2018, ranged from 4.49% to 5.25%.

MDOT does refinance bonds if bonds are callable and if refunding a bond issue would achieve a net present value savings of at least 3%. MDOT indicates that it looks for opportunities to refinance. However, not all bonds are callable.

There is no strict statutory limit on total outstanding transportation debt. However, Act 51 does establish limits on STF and CTF debt service, which effectively limits the total of outstanding debt.
Act 51 limits STF transportation-related debt service to 50% of the previous year’s constitutionally restricted transportation revenue credited to the STF.\textsuperscript{2} To state this another way, constitutionally restricted STF revenue pledged to secure bonds or notes must be at least twice the amount of the related STF debt service. State Transportation Commission policy is more restrictive than statute; it requires a 4-to-1 revenue-to-debt service coverage ratio.

Current STF debt service is below these statutory limits. For FY 2017-18, STF revenue available to cover debt service was approximately $1.1 billion, 7.0 times the amount needed to cover STF debt service. STF revenue-to-debt service coverage will rise significantly beginning in FY 2022-23 as scheduled STF debt service declines.

Under the State Transportation Commission’s 4-to-1 revenue-to-debt service requirement, annual STF-related debt service could be as high as $300.0 million, assuming constitutionally restricted free STF revenue of $1.2 billion.

The amount of bonded debt these limits would support is a function of a number of factors, including bond interest rates and bond maturities.

MDOT’s bond program, particularly during the early 2000s, helped “frontload” the department’s road and bridge reconstruction program and helped achieve the stated trunkline pavement performance goal of 90% in “good” condition by 2007.

While bonding helped MDOT achieve its pavement performance goal in 2007, subsequent increases in debt service reduced the amount of STF and federal aid revenue available for the ongoing state trunkline road and bridge capital construction program.

State trunkline pavement condition fell below the 90% “good” condition measure in 2011.

\textsuperscript{2} Act 51 makes a similar limitation with respect to CTF debt.
## Michigan Department of Transportation
### State Trunkline and Federal Grant Anticipation Bond Debt Service

**Table 1**

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>Federal</td>
<td>$81,155,000</td>
<td>$55,180,900</td>
<td>$55,209,000</td>
<td>$63,707,800</td>
<td>$114,778,300</td>
<td>$116,350,100</td>
<td>$128,425,100</td>
<td>$130,231,400</td>
<td>$127,275,300</td>
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<tr>
<td>STF</td>
<td>118,410,500</td>
<td>114,570,700</td>
<td>114,538,200</td>
<td>74,939,200</td>
<td>19,580,900</td>
<td>19,580,200</td>
<td>9,181,700</td>
<td>9,181,600</td>
<td>6,417,700</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$199,565,500</strong></td>
<td><strong>$169,751,600</strong></td>
<td><strong>$169,747,200</strong></td>
<td><strong>$138,647,000</strong></td>
<td><strong>$134,359,200</strong></td>
<td><strong>$135,930,300</strong></td>
<td><strong>$137,606,800</strong></td>
<td><strong>$139,413,000</strong></td>
<td><strong>$6,417,700</strong></td>
</tr>
</tbody>
</table>

*Source: MDOT debt service schedules January 2019.*