



Kelly W. Knight · Director

To: Mayor and Members of the Tupelo City Council

From: Tupelo Public Works Department

Subject: Justification for Addition of a Sole Source TRUC KAT Truck-Mounted Side-Arm Mower to the Public Works Equipment Fleet

Dear Mayor and Council Members:

The Tupelo Public Works Department respectfully requests consideration for the addition of a TRUC KAT truck-mounted side arm mower to the City's equipment fleet. This equipment would provide Public Works with a purpose-built mowing unit capable of safely and efficiently maintaining roadside rights-of-way, drainage ditches, slopes, medians, and other areas that are difficult to access with conventional tractor-mounted mowing equipment.

The need for this equipment is based on both operational efficiency and employee and public safety. Tupelo Public Works personnel routinely perform mowing operations in areas adjacent to active roadways, drainage ditches, uneven terrain, guardrails, signs, trees, utility infrastructure, and other roadside obstacles. A truck-mounted side-arm mower is particularly suited to these conditions because the mowing apparatus can be positioned laterally from the truck while the primary vehicle remains on the roadway or a more stable driving surface.

Improved Roadside Access and Productivity

A truck-mounted side-arm mower would allow one operator to travel along a roadway while positioning the cutting head into roadside areas, including ditch banks and slopes. This configuration can substantially reduce the amount of time and maneuvering required to mow areas that would otherwise require repeated passes with a tractor. For a municipal Public Works department, mounting the mower on a dedicated truck also provides an important fleet advantage: the mowing unit is integrated with a vehicle designed for roadway travel rather than requiring a separate agricultural tractor and mower combination to be transported between work locations.



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Limitations of Tractor-Mounted Side-Arm Mowers

Tractor-mounted side arm and boom mowers remain useful pieces of equipment and would continue to have appropriate applications. However, they are not a complete substitute for a truck-mounted unit for the type of roadside mowing performed by Tupelo Public Works.

Manufacturer safety guidance specifically recognizes additional hazards associated with side-mounted and boom mowing. Bush Hog's safety materials warn that ditch-bank operations require extreme care because washouts, erosion, and other obstructions can cause a side-mounted or boom mower to affect the tractor's front end and potentially direct it toward the ditch. The same guidance notes that tractor and mower stability is reduced on slopes and uneven terrain.

Federal Highway Administration guidance likewise recognizes the advantages of a side-mounted mower on a boom for steep roadside slopes where the tractor can remain on flatter ground while the mower reaches the slope.

In practical municipal operations, a conventional tractor-mounted side-arm mower can therefore present several limitations:

The tractor itself must travel along the roadside shoulder or other available surface while the mower reaches into the ditch or slope.

Uneven shoulders, soft ground, drainage structures, washouts, and steep slopes can affect tractor stability.

The tractor and mower combination can occupy a substantial portion of the roadway or shoulder during transportation and mowing.

The operator must manage both the tractor and the extended mower assembly in close proximity to traffic and roadside obstacles.



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Moving a tractor-mounted mower from one work location to another requires operating or transporting a slower agricultural machine on public roadways.

Tractor-mounted equipment can require additional maneuvering when entering and leaving roadside work areas.

Bush Hog's own roadway guidance cautions operators that tractors are slower than automotive traffic and that extra care is required when equipment is wider than the tractor or extends beyond the tractor's lane. The manufacturer also requires appropriate warning equipment and roadway precautions when transporting tractor-mounted implements.

Safety Advantages of a Truck-Mounted Configuration

The primary justification for the proposed TRUC KAT is not simply that it can mow more acreage; it is that it provides a configuration better suited to roadside municipal mowing.

A truck-mounted side-arm mower can allow the operator to remain in the truck while the cutting head is extended away from the vehicle and into the mowing area. This can reduce the need to place a large agricultural tractor directly on unstable shoulders, steep ditch banks, or other difficult terrain.

Keeping the primary vehicle on the roadway or a relatively stable surface can also give the operator greater control over the vehicle's position while the mower reaches areas that would otherwise require the tractor itself to travel onto the slope.

Safety is particularly important because mowing operations involve the possibility of thrown objects. Bush Hog guidance emphasizes the need for appropriate shielding, keeping personnel away from the mowing area, inspecting the mowing area for debris, and exercising additional caution when operating side-mounted or boom equipment.



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The City should also recognize that no mowing configuration eliminates all hazards. A truck-mounted mower must still be operated by trained personnel, maintained according to the manufacturer's requirements, and equipped with appropriate guarding, lighting, warning devices, and other safety equipment. The advantage is that the equipment configuration is specifically suited to the operating environment encountered by Public Works.

Better Use of the City's Existing Fleet

Adding a TRUC KAT would also allow Tupelo Public Works to assign equipment according to the job for which it is best suited.

Tractors and conventional tractor-mounted mowers can remain available for open wide rights-of-way, large undeveloped city owned lots, and other applications where tractor operation is appropriate. The truck-mounted side-arm mower could be dedicated primarily to roadside rights-of-way, drainage channels, ditch banks, medians, and other linear mowing operations.

This specialization would reduce unnecessary exposure of agricultural-type equipment to public-roadway transportation.

Public Safety and Service to Tupelo

Maintaining clear and properly mowed rights-of-way is an important part of municipal infrastructure maintenance. Vegetation can obstruct motorists' sight lines, conceal drainage features and roadside hazards, interfere with signs and other infrastructure, and contribute to reduced visibility along roadways.

A truck-mounted side-arm mower would give Public Works a more effective tool for maintaining these areas while minimizing the amount of equipment that must operate directly on slopes and other difficult terrain.



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The proposed equipment should be viewed as an addition to the City's existing fleet rather than a replacement for all tractor-mounted mowing equipment. Its purpose would be to provide a specialized capability that conventional tractor-mounted equipment cannot provide as safely or efficiently in every roadside application.

The investment in a truck-mounted side-arm mower would strengthen the City's ability to maintain Tupelo's rights-of-way and drainage infrastructure while providing Public Works employees with equipment better suited to the conditions in which they are required to work.

Respectfully,

Kelly W. Knight

Tupelo Public Works Department

City of Tupelo, Mississippi