



ENGINEERING & OPERATIONS

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TRANSPORTATION TECHNICAL MANUAL BULLETIN 23-01

TRANSPORTATION DESIGN MANUAL BULLETIN 23-01

(Rescinds Bulletins 21-06 & 22-01)

DATE: December 15, 2022

TO: County Director of Engineering & Operations Department,
County Director of Capital Programs Department,
County Manager of Construction Services,
County Director of Transportation Maintenance Division,
County Project Managers, and Project Engineers of Record

FROM: County Engineer,
County Director of Technical Services Division

COPIES: County Director of Performance Data and Analytics Department

SUBJECT: PAVEMENT MARKING REMOVAL

This bulletin rescinds and replaces Bulletin 21-06 Pavement Markings Removal by Grinding or Water Blasting dated January 11, 2021 and Bulletin 22-01 Pavement Marking Removal dated May 27, 2022. This bulletin announces treatment of pavement marking removal methods for Construction Plans, Temporary Traffic Control Operations and Pavement Marking Errors during Construction and identifies the Hillsborough County Pavement Marking Removal Method Criteria.

REQUIREMENTS

CONSTRUCTION PLANS AND TEMPORARY TRAFFIC CONTROL OPERATIONS

Hillsborough County Construction Plans and Specifications must not specify the use of grinding, water blasting, or other pavement marking removal methods to change or remove permanent pavement markings on final flexible pavement surfaces. When pavement removal is warranted to remove unsuitable, permanent pavement markings, mill a minimum 1.5-inch depth for the entire affected lane width to place a new surface course, and then apply new permanent pavement markings per the plans.

A note has been added to the County Capital Improvement Program (CIP) Project Standard General Notes (Roadway) sheet that instructs the Contractor to: Pre-mark pavement marking placement and notify the County Engineer the time and date of placement of temporary and permanent pavement markings one week prior to installation. County Construction Engineering and Inspection personnel must be on site to inspect pavement marking placement and installation

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in accordance with the County's Contract Documents, Specifications, and Construction Plans.

Grinding, water blasting or other nondestructive methods, as approved by the Engineer, will be allowed for removal of existing pavement markings on existing pavement surfaces during Temporary Traffic Control Operations, only when the construction plans specify the existing pavement is to be replaced with new permanent pavement. Where construction exceeds three working days, safety measures such as retroreflective raised pavement markers (RPM's) must be used in conjunction with the new temporary striping. This process will only be allowed during Temporary Traffic Control Operations.

A note has been added to the CIP Project Standard General Notes (Roadway) sheet that states: Pavement markings placed on existing pavement for Temporary Traffic Control, beyond the limits of new permanent construction shown in the plans, must be removed by milling and resurfacing. Limits of milling and resurfacing will extend to the limits of all temporary pavement markings placed on the existing pavement. Pavement marking plans for temporary traffic control extending beyond the limits of new permanent construction shown in the plans must be approved by the Engineer.

The two general notes above must also be included on all Subdivision and Site Development Project plans.

PAVEMENT MARKING ERRORS DURING CONSTRUCTION

Permanent pavement markings incorrectly constructed by Contractors working within County right-of-way, or on projects where right-of-way will be turned over to the County, must be corrected by Milling, Resurfacing and Restriping at no cost to the County. The Contractor has the option to submit a proposal for an alternative pavement marking removal method, in lieu of the milling and resurfacing method. The proposal must be submitted for review and approval to Construction Services of the Capital Programs Department in accordance with the governing Contract Documents. A form for requesting an alternative pavement marking removal method proposal is provided on Page 4.

PAVEMENT MARKING REMOVAL METHOD CRITERIA

The use of black paint to mask existing pavement markings is prohibited on all Hillsborough County roads. The proposed pavement marking removal methods stipulated above for "Construction Plans and Temporary Traffic Control Operations" and "Pavement Marking Errors During Construction" must achieve complete removal of conflicting existing pavement markings and must not leave scarring, remnant markings or discoloration that may mislead or cause confusion for drivers in wet, dry, daytime, nighttime, or any other adverse driving conditions. If the removal method results in ghost markings that may create a safety concern or damages the pavement, then additional corrective action may need to be taken that may require milling and resurfacing.

BACKGROUND

Pavement marking removal can be problematic if the markings are not completely removed or the removal technique produces scarring of the roadway surface, which can be confusing to drivers, create an unsafe driving environment, and negatively impact the pavement condition. The result

can include scarring that leaves the pavement with imprints of the removed markings which are especially noticeable in rainy conditions. These ghost markings create confusing information to drivers. These methods of pavement marking removal may also damage the surface course leading to reduced service life.

IMPLEMENTATION

Implementation is the date of the County Engineer’s signature.

CONTACT

Please use the email link below to address any questions or comments in reference to this Design Bulletin:

[PW-Standards Inquiry](#)

Recommended / Date:

Approved / Effective Date:

Leland Dicus, Professional Engineer
Technical Services Division Director

Michael J. Williams, Professional Engineer
County Engineer



ENGINEERING & OPERATIONS

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SUBJECT: ALTERNATIVE PAVEMENT MARKING REMOVAL METHOD PROPOSAL

TO: _____ **DATE:** _____

County Construction Engineer

County Street Name and/or Road Number: _____

Project Description: _____

County Capital Improvement Program (CIP #) or Land Development Project Identification Number (PI #): _____

PAVEMENT REMOVAL:

During Temporary Traffic Control

Pavement Marking Errors

REQUIRED DOCUMENTS:

Plans Showing Errant Pavement Markings to be Removed

Pictures Showing the Pavement Markings to be Removed

Equipment Manufacture: _____

Equipment Model: _____

Operating Parameters: _____

Explain how you will achieve complete removal of conflicting existing pavement markings:

Explain how you will minimize damage to the pavement:

CONTRACTOR SIGNATURE

COUNTY SIGNATURE APPROVAL

Print Name / Date

Print Name / Date