



Florida Department of TRANSPORTATION



Approved Products Tracking and Materials Certification in MAC

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Introduction

Are Approved Product List (APL) products tracked in MAC?

No. The products are tracked on in the Pay Item Tracking system (PTS). Instructions for PTS requirements can be found on the State Construction Office website. MAC was discussed as the system of record for tracking APL products, but PTS is the system of record for tracking pay items so it was decided it would be easier for project personnel to provide all required information for tracking purposes in one system, not two.

How do Approved Product List (APL) products impact MAC?

APL is a subset of the FDOT's Certification Method of Acceptance (MOA). MC Reviewers have a report that shows them the list of products that have been entered in PTS. They compare this with the APL method of acceptance listings on the Job Guide Schedule (JGS) and identify if there are discrepancies. These instructions detail that process. The JGS shows when there **MAY BE** APL products under an APL Spec Category. Because it does not identify when specific APL products under that category are required, some judgment must be used.

- You may not have any APL products under a category.
 - If rebar is used, APL Category 415 will be assigned
 - If plastic or metal chairs and bolsters are not used on the rebar, there would be no APL product required.
- You may have multiple APL products under a category.
 - If Sign Structures are installed, you would have multiple APL products under the APL Spec Category 700.

Chapter 1 – Project Administrator’s Role for APL in MAC

A. Standard JGS

It is the PA’s responsibility to ensure that MAC reflects the contract requirements, for all MOAs, including APL. For standard JGS, the pay items that have an APL MOA can be reviewed on the online JGS by selecting the APL filter:

Pay Item	Project	APL Specs	APL Instructions	Spec. Spec. Authority	Owner	Spec Instructions	Sample Level	Method of Acceptance	Category	Sample Purpose	Normally Sampled By	Sample Size	Sample Instructions	Qualified Sampler Required
1 0425 1451 - INLETS, CURB, TYPE J-5, <10'	T6486 / 429022-1-52-01 - SR 922/NW 125 STREET FROM NW 6 AVENUE TO NE MIAMI COURT	415 - Reinforcing Steel	Ensure product is on the Approved Products List (APL) at the time of placement. Ensure any additional documentation or labeling is collected or confirmed, if required. In some cases, the APL method of											

The way MAC assigns MOAs and the fact that many pay items include the optional use of a material, just because there is an entry does not mean that this specific product will end up being used on the contract. The PA needs to familiarize himself with the potential use of APL products and identify when they are used. When they are used, he must then ensure the product in place is on the APL and identify that product in PTS.

From the screenshot above for APL Spec Category 415, you can find the APL language in FDOT Specifications Section 415 from the January 2019 workbook*:

415-5.13.3 Plastic Bar Supports and Spacers: Use non-stackable plastic bar supports and spacers. Bar supports shall be able to meet the concentrated load requirements of 415-5.13 within a working temperature range of 20 to 150°F. Spacers shall be able to provide sufficient strength to support reinforcing steel in the required position without deformation and relaxation under job conditions. For drilled shafts, use wheel spacers with a smooth perimeter surface.

Submit protection from sunlight until placed in the form and mold in a configuration which does not restrict concrete flow and consolidation.

All plastic bar supports and spacers shall have a maximum water absorption of 0.5% at 7 days as per ASTM D570. Plastic bar supports and spacers made of recycled plastic products must meet the additional requirements of Section 972.

Submit to the Engineer independent lab test data and certification verifying that the plastic spacers meet the requirements specified herein.

Use plastic bar supports listed on the Department’s APL. Provide each individual bar support with an identification number unique to the particular model permanently marked on the surface as included in the APL. Manufacturers seeking evaluation of products for inclusion on the APL must submit an application in accordance with Section 6 and include certified test reports from an independent laboratory showing that the plastic bar supports meet all the requirements specified herein.

Additional MOA

*Other workbooks may have different requirements.

Because MAC has no way of knowing what type of spacers will be used with the reinforcing steel, the system assigns this APL requirement in case this type is used. The PA must be aware of what type of spacer is used.

This project also has signs, so it got assigned the APL Spec category of 700. The PA needs to know that there are multiple product types and many products under each type that need to be identified. He needs to ensure the product(s) used under each type are on the APL and entered in PTS.

Specification Number	Resource Links	Product Types
700 - Highway Signing		<ul style="list-style-type: none"> • Dynamic Message Sign - DMS LED Retrofit Kit • Dynamic Message Sign - Embedded DMS • Dynamic Message Sign - Front Access DMS • Dynamic Message Sign - Walk-In DMS • Electronic Display Sign (EDS) – Blank-Out Sign (BOS) • Electronic Display Sign (EDS) – Electronic Regulatory Sign (ERS) • Electronic Display Sign (EDS) – Electronic Speed Feedback Sign (ESFS) • Electronic Display Sign (EDS) – Electronic Warning Sign (EWS) • Electronic Guide Sign • Illuminated Sign - Highlighted Sign • Illuminated Sign - Internally Illuminated Sign • Illuminated Sign - Internally Illuminated Sign, LED Retrofit Kit • Non-reflective Sheeting Type VI • Reflective Sheeting - Sheeting Ink or Overlay Material • Reflective Sheeting Type IV • Reflective Sheeting Type V • Reflective Sheeting Type VI • Reflective Sheeting Type XI • Sign Beacon

Very few projects will have all product types and some pay items encompass multiple product types:



B. Non standard JGS

APL MOA is assigned by the APL Specs tab on the non standard JGS. It is the Contractor's responsibility to complete this tab. It is the PA's responsibility to ensure it is complete. In many cases, this information has not been provided in MAC. This is a violation of **FDOT Specifications Section 105**. All materials must be identified on the non standard JGS, not just those with an MOA of sampling and testing. The PA's first responsibility is to review the non standard JGS to ensure that the APL Specs Tab is currently up to date.

As with the standard JGS, there may be times when an APL Spec Category is shown, but no APL product is used. There may be times when an APL Spec Category is selected and multiple product types are used with multiple products under each type. The PA must be aware of what APL products are being placed under which APL Spec Categories. The PA must ensure that the non standard JGS reflects this.

C. PTS

SCO requires the APL products used be entered into PTS. It is a good idea to enter APL products in PTS as soon as they are delivered to the project. This not only helps with the MC Review, but also assists the project personnel with coordination when the products are part of the Random Sampling Program (see [Program Random Samples on FDOT Projects](#)). The sooner the PA coordinates with the appropriate SMO technical unit, the sooner the project personnel will know if a random sample is needed and therefore, needs to be logged into MAC.

Do not wait until the end of the project to enter the APL products in PTS. Questions may arise from MC Reviewers as part of their monthly reviews. There may be many issues related to the MC Review you will need to resolve so that the PMCL can be generated. Keeping APL tracking up to date will ensure you can focus on last minute Materials Acceptance Resolution (MAR) finding processing.

Since the MC Reviewers must coordinate MAC entries with PTS entries, ensure that both systems reflect the products placed as clearly as possible.

Remember, PTS is the system the Department relies on to track the placement of the products system wide. It is critical for project personnel to ensure PTS reflects the products placed for long term material performance management, not just Materials Certification Review to get the project closed out in MAC.

Chapter 2 – MC Reviewers and APL MOA

The Contractor is using APL products. The PA is ensuring the standard JGS is correct and complete by notifying SMO when an entry is missing. The PA is ensuring the Contractor has identified all APL Spec Categories on the non standard JGS. The PA is ensuring that as APL products arrive on the contract, someone is entering the APL numbers in PTS.

What does an MC Reviewer do with this information?

As part of the MC Review for the Project Materials Certification Letter (PMCL), the MC Reviewer looks at the entries for possible APL production on the JGS (either standard or non standard). The MC Reviewer looks at the entries in PTS to confirm that the APL products that were used have been entered.

This can occur during the monthly reviews and will certainly occur during the final review.

1. Standard JGS
2. Non Standard JGS



Under the APL Specs tab, this project should have at least one entry in PTS for these 8 APL Spec Categories.

As monthly reviews show that a MAC Spec with a coordinating APL Spec Category, like 536 – Guardrail, is being placed, the MC Reviewer may look at the entries in PTS to see if the APL products have been entered.

For many of the APL Spec Categories, like those for pavement marking, they may not happen until closer to the end of the project so the MC Reviewer may wait until the final review. During the final review, the MC Reviewer will look at all materials with an MOA of APL.

3. PTS Report

The MC Reviewer generates the PTS Summary Report.

If the report is blank and there are APL products on the project, the MC Reviewer will request that the PA have someone update PTS.

If the report does not have at least one entry for each APL Spec Category on the APL Spec tab, the MC Reviewer will request that the PA confirm if there were any products placed under that Spec Category. Remember assignments can be made and the products may not actually be used. Be prepared to respond when PTS does not reflect the use of a Spec Category. Ensure someone updates PTS to include all products used so the number of “blank categories” reflects when a product wasn’t used, not that it’s a data entry omission from PTS.

If the report shows at least one product for each Spec Category, the MC Reviewer will consider that the MOA has been met. Neither MAC nor the MC Reviewer will have a way of knowing if the right number of entries is made in PTS based on the actual products used.

MC Reviewers may have other questions that arise from their review when they compare what is in MAC with what is in PTS.