

1070000 ROADSIDE LITTER REMOVAL AND MOWING
COMMENTS FROM 2nd INDUSTRY REVIEW

John Previte
D1 Specifications Office

Comments:

For information, due to questions from bidders, D1 commonly adds a general note:

Consider the seasonal variations in growth rate when determining the number of mowing cycles for bidding purposes. All undisturbed and performance turf areas within the entire right of way width are to be mowed at the same frequency as required for sodded areas.

Response:

This note will no longer be necessary because the Designer will provide the number of mowing cycles for the project. The Designer will be given guidance in the PPM and BOE and the Engineer will be able to require mowing and litter pick-up as needed. See 107-2.1.

Marshall Douberley
863-519-2382, Fax: 863-534-0071
marshall.douberley@dot.state.fl.us

Comments:

One comment that I have, is that in 107-2.1 the sentence "After final acceptance, perform litter removal and mowing until new turf is established in accordance with 570-4 at no cost to the Department." should be a separate paragraph to avoid the misconception that maintenance of turf at 6 to 12 inches is only for the spec. 570-4 requirements.

Response:

There is no misconception. The intent of the language is to differentiate between work before final acceptance and after final acceptance. The first paragraph has been modified to make this clear.

Melissa Hollis
850-414-4182
melissa.hollis@dot.state.fl.us

Comments:

Suggested text is inserted with brackets [] below: 107-2.4 Disposal of Litter and Debris: [During each litter removal cycle,] bag and remove all litter or piles at the end of each working day. 107-3 Method of Measurement. For [each] Litter Removal [cycle], the quantity to be paid will be the plan quantity for the area, in acres, from which litter has been picked up, removed, and disposed, completed and accepted. For [each] Mowing [cycle], the quantity to be paid will be the plan quantity for the area, in acres, of mowing completed and accepted.

Response:

Agree. Changes made.

Steven A. Sheffield
Sr. Estimator/Scheduler I
Project Management/Turnpike Production
Florida's Turnpike Enterprise
Florida's Turnpike, Milepost 263
Bldg. 5315, P.O. Box 613069
Ocoee, Fl 34761
407-264-3444, 407-822-6663 Fax

Comments:

107-2.3 Limitations: Maintain traffic in accordance with Section 102. When mowing within four feet of a travel lane, operate the equipment in the same direction of traffic, unless the adjacent lane is closed to traffic. All lane closures must receive prior approval from the Engineer. Perform all work during daylight hours.

All lane closures should be in accordance with the Turnpike's Lane closure policy and as shown in the plans? Some lane closure analyses do not allow day time lane closures.

Response:

No lane closures should be needed for litter removal or mowing. First paragraph has been changed to clarify "lane closure due to construction operations" and the last sentence deleted.

Chris Sweitzer
386-961-7418
chris.sweitzer@dot.state.fl.us

Comments:

The classification of "brush" as litter does not seem appropriate. The word brush has been changed to "brush debris".

2nd paragraph, 2nd sentence, suggest adding "Section" before "570". Change has been made.

107-2.1, last paragraph, suggest modifying the first part of the last sentence to read "Avoid cutting wildflowers until after they have completed blooming..." With the current wording they could be cut just prior to blooming. I'm not sure what is meant by the last part of this sentence, "...and when re-seeding." Sentence has been clarified.

107-2.4, first sentence, what are the "piles" mentioned? Suggest modifying the last sentence to "Do not store or stockpile litter or debris within the project limits." Piles are pieces of litter too large to be bagged.

Response:

See above.

Frank W. Chupka, PE
Assistant District Design Engineer

FDOT District One
801 North Broadway Ave., MS 1-20
Bartow, FL 33830
(863)519-2572

Comments:

Thank you for the opportunity to review Proposed Specification 1070000 for Litter Removal and Mowing.

1. I am concerned that the effort taken to quantify the amount of turf for each phase will not result in a more accurate prediction of the amount of mowing than we already have. This is because there is very little consistency within any one phase as to the amount of turf to be cut because this is a function of how long the soil is exposed during the construction of individual features within the phase and how quickly the area is sodded after a feature is completed. This would depend on a particular contractor's approach to constructing these features and would likely be different from any other contractor's approach, since we allow this flexibility within any one phase.

As an example, say Contractor A is constructing an embankment during a 120 day phase of a project. He may clear and grub on Day 1 and spend 30 days building the embankment, sod the embankment on Day 32 and then have 88 days where he would be responsible for mowing the new turf. Contractor B, however, may work on a non-embankment feature for 30 days, then spend 45 days building the embankment and sod the embankment on Day 76 and have 44 days to be responsible for mowing the new turf and 30 extra days of responsibility for mowing existing turf that Contractor A did not have. And if one of the contractors sods at the end of each week as much as he can of the constructed embankment, that further complicates the amount of grass to be cut.

And FDOT can't predict when we are going to have a rainy summer (increased growing rate and number of cuttings) any better than the contractor can.

I think the best we can do is show the quantity of new turf to be installed during the entire project (which we already do) and show the limits of all construction (sum of all phases; which we already do) so that the contractor can figure out the amount of undisturbed grass to be cut, the amount of disturbed ground that exists (and won't be cut), and the percentage of new turf that exists, and the associated durations and proportions of each of these, which are all controlled by his specific approach to the project. The amount of undisturbed grass will also vary because different contractors will have different footprints depending on individual approaches.

2. Also, I think that the current method of specifying a maximum allowable height gives us better control because it gives a measurable trigger point for the cutting requirement.
3. Finally, I recommend the following sentence be added at the beginning of Section 107-1: "For the purposes of litter removal and mowing, 'project limits' shall include the entire right of way width and all pond sites between the begin construction station and the end

construction station shown in the plans.” Without this, the contractor may think he does not have to cut existing grass within the longitudinal project limits that is outside of the lateral “limits of construction.” Typically for major reconstruction the lateral “limits of construction” are concurrent with the right of way line and this is not a problem, however, if these limits are designated by the plans as being at a point within the right of way lines then there is an undisturbed area left that will need to be cut. For resurfacing projects, the lateral construction limits are usually well within the right of way lines. Also, for projects where lanes are being added to the outside without disturbing the median, the contractor may consider median grass to be outside of project limits. Conversely, in District One, a contractor working on a median cable barrier project did not feel obligated to mow grass between the paved shoulders and the right of way line. Our District Secretary has been very sensitive to contractors not cutting undisturbed grass.

Thank you again for the opportunity to comment. If you have any questions, please do not hesitate to contact me.

Response:

1. The designer is to provide the cycles and quantities based on the phases of work shown in the plans. It is recognized that the designer has no control over how the contractor chooses to proceed with the phases of work. The Engineer will handle adjustments needed.
2. This specification is being implemented to provide the Contractor with a quantity to bid based on the number of cycles and area. This is a change from the current method. No changes made.
3. The quantities shown in the plans will include all areas of mowing and litter removal within the project limits. “Project limit” is from begin project to end project as shown on the key sheets and encompasses the entire right-of-way. No changes made.

Lorie A. Wilson
District Construction Support Manager
719 South Woodland Blvd.
DeLand, Fl. 32720-6834
MS 3-506
Phone (386) 943-5346
Fax (386) 740-4292
E-Mail: Lorie.Wilson@dot.state.fl.us

Comments:

The attached are comments that we sent in for Mowing and Litter Removal. We liked the previous version that was out for review and I’ve attached the District 5 memo below that we are following.

The previous version that was out for review worked for D-5.

We prefer the “Mowing Heights” approach.
The spec spells out mowing heights like it did in the previous version.

The plans would give the qty (area) to be mowed per cycle.

FDOT could have a total qty based on assumed number of cycles x area.

Contractor would mow as needed to meet performance criteria.

We could shift to a “plan qty per cycle” concept, but that would only be appropriate on rural or resurfacing projects.

Example: RURAL JOB – Plan Qty per cycle

Plans will spell out area of 15.8 acres of grassed area to be mowed via note. It is a 180 day job.

Based on discussion with Maint, designer assumes 4 cycles.

Total qty is $15.8 \times 4 = 63.2$ acres

Contractor ends up only mowing three cycles...if no one has issues with 15.8, we pay $3 \times 15.8 = 47.4$ acres

Plan qty on mowing is not appropriate for urban widening and reconstruction projects. There are too many variables in mowing areas through the life of the project.

The attached memo is how D5 is currently handling and we would like to continue to do so in a similar fashion. The previous version of the spec was written as such.

<http://d5sharepoint.dot.state.fl.us/sites/consultmtg/Lists/Quarterly%20Quality%20Forum/Attachments/52/DM%2009-01.pdf>

See the District 5 Memo below.



Florida Department of Transportation

CHARLIE CRIST
GOVERNOR

719 S. Woodland Blvd.
DeLand, FL 32720

STEPHANIE C. KOPELOUSOS
SECRETARY

DESIGN MEMORANDUM 09-01

Date: April 29, 2009
To: Designers & Project Managers
From: Annette K. Brennan, District Design Engineer *JKB*
cc: John Tyler, George Borchik, Mark Robinson, Mario Bizzio, Frank O'Dea,
Todd Hammrle, Ed Kestory, Technical Support Staff, and Production Support Staff
Subject: Litter Removal and Mowing

Issue Background:

Section 104-7.2 and the mowing portion of 570-4 of the standard specifications read:

104-7.2 Mowing: The Engineer may direct mowing of areas within the limits of the project, in addition to and apart from those areas specified in Section 580. Mow these designated areas within seven days of receiving such order. Remove and properly dispose of all litter and debris prior to the mowing operation. Use conventional and specialized equipment along with hand labor to mow the entire area including slopes, wet areas, intersections, overpasses and around all appurtenances. Mow all areas to obtain a uniform height of 6 inches, unless directed otherwise by the Engineer.

570-4 Turf Establishment: Take responsibility for litter removal and mowing turf (including undisturbed areas within the project limits) until final acceptance. Begin mowing new turf after establishment of a healthy root system. Mow all turf to the height of not less than 6 inches. Mow the sodded areas when competing vegetation height exceeds 20 inches in height. Do not mow wildflower areas until at least three weeks after the peak of the bloom period and do not mow lower than 6 inches.

We currently are using the following pay item note to supplement the specification:

xxx-xx includes xx.x acres of mowing on an xx day cycle

The quantities and cycle times are provided by maintenance to the designer upon request.

The problem with this note and approach is the cycle time is fixed and it does not take into account the actual growth of the vegetation during the contract time. Either the vegetation is not being mowed frequently enough during the summer months when it grows faster than the average cycle time or

www.dot.state.fl.us

Response:

The Roadway Design Bulletin dated December 18, 2009 clarifies how litter removal and mowing is to be quantified in the plans statewide which is similar to the guidance provided by District 5. The PPM and BOE will be changed to reflect the bulletin.

Christopher Wood
D2 Construction, Contract Support Specialist
2198 Edison Ave, Jacksonville, FL 32204-2619, MS 2803

(904) 360-5673, (386)623-0552- Cell
195*106*55925-Direct Connect
Email:Christopher.Wood@dot.state.fl.us

Comments:

I have received the following comments from the D2 Construction Residencies for the above mentioned Specification:

The issue about dead animal pick-up should be addressed. If it is the responsibility of the Maintenance Office then it should also be stated in the Spec.

Someone should make sure Maintenance is aware that dead animal pick-up is their responsibility.

Response:

Dead animal pick up is the responsibility of the Maintenance Office. Coordination of responsibilities between the Construction and Maintenance Offices is covered under Procedure Topic Number 850-000-005, Maintenance Responsibilities on Construction Projects. No changes made.

From: Quigley, Robert
Sent: Wednesday, November 18, 2009 4:27 PM
To: Borchik, George; Creed, Richard; Glass, Miranda; Hardy, Britton; Majboor, Belqis; McBee, Kirby T; Mills, Jim; Quigley, Robert; Shannon, Michael; Tavella, Chris
Subject: Mowing and Litter Removal

I just wanted to give the group a "heads up" on a change that is under development. If you have not done so already, please review the proposed spec change: Section 107 Litter Removal and Mowing:
<http://www2.dot.state.fl.us/SpecificationsEstimates/Development/IndustryReview.aspx>

We have been in discussions with the Construction, Specifications and Estimates Offices, to determine the impact to Design. The intent of this effort is to pay for mowing separate from performance turf, and they are shooting for a July 2010 implementation (through a Design Bulletin).

Construction would like the mowing quantity to be based on the Plan Area of mowing all grassed areas in the project limits, determined by the area and number of cycles for each construction phase. They currently suggest that the designer will need to tabulate these areas in the Summary of Quantities. The mowing area for each construction phase will need to be multiplied by an estimated # of mowing cycles (which would be based on a rate to be provided in the BOE) to come up with the total area per phase...and then total the phase areas for the project. Construction also stated that no comp book sheet would be required for this item. Through construction, the contractor

would be paid based on the plan area (per cycle) for mowing during each construction phase. It may be something similar to the following table:

Const. Phase	Mowing Area per Cycle (Acres)	Phase Duration (Days)	Estimated Mowing Rate	# of Cycles	Total Area (Acres)
1	50	120	Every 30 days	4	200
2	40	90	Every 30 days	3	120
3	30	60	Every 30 days	2	60
4	20	40	Every 30 days	1	20
TOTAL AREA					400 Acres

In this case, the estimate would be based on mowing 400 acres. The actual construction areas may vary depending on actual mowing cycles; so if the contractor must mow 4 cycles during phase 2, that 4th cycle would be paid as 40 acres.

Also, litter removal will be based on the same area as mowing. This is separate from mowing so that the Construction Engineer can direct litter removal as needed.

That is the current recommendation from the Construction Office, we wanted to let you know what is coming and give you an opportunity to review provide input. If I get a draft of the proposed bulletin, I will share that as well.

If you have any comments or questions, please let me know.

Thanks.

Rob

Robert F. Quigley, P.E.
 Florida Department of Transportation
 Roadway Design Office - Criteria and Standards
 605 Suwannee Street - MS-32
 Tallahassee, Florida 32399-0450
 (850) 414-4356 Fax (850) 414-5261
robert.quigley@dot.state.fl.us

Richard Creed, PE
 FDOT District 4 Design

*3400 West Commercial Boulevard
Fort Lauderdale, Fl, 33309
richard.creed@dot.state.fl.us
954-777-4428*

Comments:

Questions or comments:

- Looks way too complicated for the type of work. Recommend Simplification.
No response needed.
- Break out urban versus rural. (Urban projects typically have much fewer areas for mowing.
This is not necessary. The area of litter removal and mowing will be shown in the plans regardless of urban or rural. No change.
- Issue today as well as if new spec....What about maintenance agreements with locals, how are they handled in this effort? Does the City still maintain within their agreement areas?
Typically with a Construction project, the Contractor assumes responsibility within the project limits. See Procedure Topic no. 850-000-005 Maintenance Responsibilities on Construction Projects.
- Recommend Lump sum mowing based on entire sod area (Not per cycle) might be a better alternative. (Still using some type of performance spec with regional identified intervals.)
A lump sum quantity does not clarify how to bid litter removal and mowing. Refer to the general response below.
- Why would mowing and/or litter pick be calculated per phase? This would lead to very inconsistent calculations which may or may not represent actual field construction phasing.
The designer is to provide the cycles and quantities based on the phases of work shown in the plans. It is recognized that the designer has no control over how the contractor chooses to proceed with the phases of work. The Engineer will handle adjustments needed.
- Old spec called for 20 inch height and new spec calls for 6-12 inch height for mowing? Why not simply update old spec rural or interstate of 20 inch and urban projects at 12 inch. (Winter/dry months would never see 12" height in urban areas.)
The 6" – 12" range is for "after" final acceptance. The intent of the language is to differentiate between work before final acceptance and after final acceptance. The first paragraph has been modified to make this clear.
- "Regional" seasonal spec for mowing intervals should be developed based on sod type. In the dry season, (winter) little to no growth with grass but litter still an issue, how is that handled?
This specification is for litter removal and mowing in a construction site. Mowing includes existing areas and new turf areas. Litter removal and mowing have separate pay items. The Engineer can direct litter removal without mowing.

Belqis M. Majboor, PE, ME, CPM
District Roadway Design Engineer
800-749-2967 or 386-961-7444
belqis.majboor@dot.state.fl.us

We agree with Richard's comments; especially on making Mowing Lump Sum and also including litter pick up in the mowing pay item. Lump sum Mowing pay item that includes litter pick up would work well, if all the height requirements are included in the current Specs. The contractor would mow and pickup litter based on Specs and no area calculation or number of cycles would have to be listed on the plans. Occasional game day, festival, or other litter pick up may be handled it by a plan note in advance or contingency money could be used for unforeseen items. Also, we would have to coordinate with the city/county/schools on their responsibilities.

The specs need to include the finish soil layer pay item in performance turf pay item and performance sod pay item. The contractor does not have a lot of problems establishing performance sod, but there are problems with establishing performance turf (seed & mulch) without the finish soil layer pay item. Currently, a separate finish soil layer pay item is called for with performance turf pay item. We need to make sure all the missing ingredients are listed in the Specs for establishing sod and seed & mulch.

Response: A lump sum quantity does not clarify how to bid litter removal and mowing. Refer to the general response below.

Miranda Glass
FDOT District 3 Roadway Design Engineer
850-415-9450

We have been including a pay item footnote in the plans stating:

“0570-1 IT IS THE CONTRACTOR'S RESPONSIBILITY TO MOW AND PICK UP LITTER WITHIN DESIGNATED AREAS AND UNDISTURBED AREAS ON A 30 DAY CYCLE BEGINNING IN MAY THROUGH OCTOBER. HAND CUTTING AROUND MOWING OBSTRUCTIONS SUCH AS SIGNS, HEADWALLS, GUARDRAIL, ETC. IS ALSO REQUIRED AND SHALL BE INCIDENTAL TO THE MOWING PERFORMED ON EACH CYCLE. IN ADDITION, INCLUDE ONE LITTER PICKUP & MOWING CYCLE IN FEBRUARY. INCLUDES MOWING AND LITTER PICKUP OF APPROXIMATELY ??? ACRES OF UNDISTURBED AREAS OF EXISTING TURF WITHIN THE PROJECT LIMITS.”

The intention is to include all of the area within the project limits that would require mowing or litter pickup, regardless whether turf is required for the entire acreage. I would suggest providing a pay item (LS) with secondary units (AC) that would specify the total area for a single cycle. This would eliminate repetitive notes such as the one above that are constant for

most projects. Like Belquis mentioned, the notes we include in the plans could then be exceptions to the norm... which is how they're intended to be!

Response: The above note should not be needed anymore. See general response below.

G. Britton Hardy, P.E.
District Roadway Design Engineer
11201 N. McKinley Drive, MS 7-810
Tampa, Florida 33612
Phone 813-975-6083

There have been several good suggestions regarding this particular issue. There are many projects noted during drive-by inspections where the mowing and litter pickup are not being enforced. Whether this is due to lack of concern by the contractor, the CEI forces, or a presumed lack of intent specified in the plans and specifications is possibly the issue at question. We need Construction support to address this issue successfully.

Response: The changes to the specifications, BOE, PPM, and CPAM clarify this issue.

Richard Creed, PE
FDOT District 4 Design
3400 West Commercial Boulevard
Fort Lauderdale, Fl, 33309
richard.creed@dot.state.fl.us
954-777-4428

Design Comments on the spec changes.

- This process appears to move away from performance based effort and back to formula based with cycles even when they may not be needed. (Dry or winter months).
The Engineer may direct more or fewer litter removal or mowing cycles as needed. The CPAM will provide guidance to the Engineer on determining the need. Unless directed otherwise, the contractor will perform the cycles as stated in the plans. The quantity paid is determined by field measurement.
- For rural and interstate projects, what about exotic growth for longer duration projects? Does this revision address those issues?
A special need for a project can be addressed by using a Modified Special Provision.
- I would recommend litter removal include the project limits. (Different from mowing area.) Especially in urban areas, litter is a project wide issue and not contained in turf areas. Wouldn't most projects require additional litter pick up outside of mowing areas and would therefore require additional areas identified, most likely project limits? Looks like supplemental would be needed.)

The same quantity will be used for litter removal and mowing and adjusted in the field if needed.

- Is mowing once every 30 days realistic in urban areas? Would improved performance based language work better? For example. when grass exceeds 12" length, mowing required?

The requirements for maintaining a construction site are different than the requirements for routine maintenance. If needed, the Engineer may direct more or fewer cycles and the CPAM will provide the Engineer with guidance.

- Other than major reconstruction projects, how would TCP phases drastically impact mowing and litter removal? Since phases typically change during construction, how would that impact this effort?

The quantity for litter removal and mowing is to be consistent with the phasing shown in the design plans.

- Section 107 – identifies 6" to 12" after final acceptance, why couldn't this same type performance be utilized during construction?

This would not clarify how to bid litter removal and mowing.

- This spec does not address local MOAs within project limits? These are prevalent in So Fl and there needs to be some accommodation for the "specialized" maintenance required in some areas.

This would need to be addressed at the project level.

- Since mowing is now to be quantified and paid separately, was the pay item and spec for performance turf also modified to exclude responsibility for mowing the entire project limits?

Yes. Changes to Section 104, 107, and 570 will be implemented in July 2010.

From Construction...

If we include the Summary table in the plans, I would want the Duration (Days) column removed. The reason is we un-necessarily paint ourselves into a corner by stating the number of days per construction phase. We don't want to imply that each phase should only require a certain amount of time. We provide the contractor a total contract time without any representation of how much time is needed for each phase. Let me know if you need more information.

The duration is provided to quantify the number of cycles per phase based on the phasing shown in the design plans. The contractor may choose to revise the phasing. So, as a result, the contractor would revise the litter removal and mowing table. The Engineer will determine the quantity to be paid by field measurement.

In response to the attached documents pertaining to Litter Removal and Mowing, I offer the following comments:

1. As shown in Basis of Estimates (BOE), Litter Removal and Disposal (pay item #107-1) and Mowing (pay item #107-2) are plan quantity concept items and are paid to the 10th of an acre. The new 107 Specification (attached) has removed the plan quantity concept.
This is a contradiction.
The BOE will be changed.
2. In the current Performance Turf Specification, the Contractor is responsible for continually picking up litter throughout the Project and the cost is included in the unit price of the turf. The Performance Turf pay item is plan quantity concept.
All references to litter removal and mowing have been removed from Sections 104 and 570.
3. Per the new spec, the litter removal and mowing is cyclical unless directed by the Engineer and is paid for separately in acres based on the length, width and station dimensions as shown in the plans.
 - a. How does the Engineer quantify and pay for isolated incidences of litter (i.e. truck tire in the road) when it is outside the time frame of the litter removal cycles? If the tire debris measures 10 SF, that equals to .00022956841 AC. How is it suggested that this be paid for?
The contractor is responsible for keeping the site clean and safe. That is outside the maintenance of litter removal and mowing.
4. In the current Supplemental Specifications, the 2010 Specifications and current BOE, Performance Turf (pay item #570-1) includes mowing and litter pickup of undisturbed areas and notes that pay item #104-4 (Mowing, still listed in BOE) shall not be used in conjunction with #570-1).
The BOE, PPM, and CPAM are being revised to be consistent.
5. 2010 Standard Specification for Performance Turf (pay item #570-1) includes the following statement “Take responsibility for litter removal and mowing turf (including undisturbed areas within the project limits) until final acceptance”. Thus far, this has not been modified in the workbook nor is there a mandatory revision as per the specification office website. There was a proposed spec change back in August '09 (as seen in Industry Review) that is still in the response stage.
All references to litter removal and mowing will be removed from Sections 104 and 570 effective in July 2010 with the new Section 107 to be consistent.

Opinion: We are taking a huge step backwards with this proposed change. A lot of work went into making Performance Turf an all inclusive pay item which includes litter removal, mowing, fertilizer, watering...etc. The Performance Turf pay item has worked out very well on our Projects thus far in keeping them clean and mowed without controversy over payment for how much area was mowed, how much area had litter picked up...etc.

If there is a need to add separate mowing and litter removal specifications and pay items for projects that do not have performance turf then do so however; leave the 570 Performance Turf Specification

as is and do not include a mowing or litter removal pay item when the Performance Turf pay item exists in a Contract.

If there are Projects with an exorbitant amount of undisturbed areas in comparison with new performance turf areas, ensure that general notes are provided in the plans stating the undisturbed and new turf areas to be maintained as part of the Performance Turf pay item unit price.

Bottom line: Regardless of the final determination of pay items and specifications for this issue, please make sure all pertinent documents (Plan Notes, Basis of Estimates, Specifications, CPAM, Prep and Doc Manual...etc) are revised to be consistent and to quell further confusion in the construction, payment and final estimate closeout of these pay items.

Hopefully these changes will clarify the issues associated with litter removal and mowing statewide.

General Response: The following is a combined response to comments, questions, and opinions received from Richard Creed, Beqis Majboor, Miranda Glass, and Britton Hardy. The changes to the specifications, BOE, PPM, and CPAM clarify how litter removal and mowing are to be estimated and bid, how often they are to be performed, and how they are to be measured and paid. Input was received statewide in drafting these changes. Please refer to the Roadway and Estimates Bulletin dated December 18, 2009.
