

CORRECTION

4-26-05

Please note the following corrections to the April 1, 2005
BOE Summary of Major Changes (Cover Letter)

Motorist Awareness System (Page 4): The reference to Interim Index 0670, dated 7-1-05, of the Design Standards should indicate that the index **will be posted in July**, effective with the January 2006 letting. Refer to the Roadway Design web pages at

<http://www.dot.state.fl.us/rddesign/rd/2004%20Interims/2004%20Interims.htm> for additional information.

Skip Stripe (Page 11): Pay item (2)711- 31- 1 Traffic Striping Skip (Thermoplastic) (~~Yellow~~)(**White**)(8”), GM (GK). Note the change from “Yellow” to “White”.

For questions/comments, please contact the person(s) listed for each issue.



Florida Department of Transportation

JEB BUSH
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JOSÉ ABREU
SECRETARY

March 28, 2005

MEMORANDUM

DATE: April 1, 2005

TO: Freddie Simmons, State Highway Engineer

FROM: Robert Greer, Director, Office of Design
Bill Albaugh, Director, Office of Highway Operations

COPIES: Kevin Thibault

SUBJECT: Basis of Estimate Handbook – 2005 Mid-Year Update

I approve the Implementation Plan for each issue outlined in the:

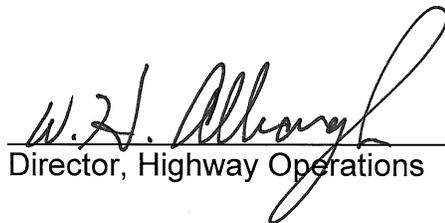
2005 Mid-Year Basis of Estimate Handbook Summary of Major Changes

Robert Greer



Director, Office of Design

Bill Albaugh



Director, Highway Operations

DATE: April 1, 2005

TO: Basis of Estimate Handbook Users

FROM: Paul Herring and Melissa Hollis

E-COPY: Freddie Simmons, Bill Albaugh, Robert Greer, Phillip "Greg" Davis, William Nickas, Duane Brautigam, Brian Blanchard, Sharon Holmes, Ananth Prasad, District Design Engineers, District Project Management Engineers, District Structures Design Engineers, District Construction Engineers, District Pavement Design Engineers, District Estimates Engineers, District Specifications Engineers and District Maintenance Engineers.

SUBJECT: **Mid Year Basis of Estimate Handbook
Summary of Major Changes**

The Coordination Team made recommendations for the implementation of changes to pay items and specifications that have been developed within the last six months. The implementation plan for each issue has been approved by the appropriate office and concurred to by the Directors of both the Office of Design, and Highway Operations. A detailed description of each of these changes and their implementation date is attached. The following is a summary of issues addressed in this update:

Subject	Contents	Effective Letting	Page No.
Minor Issues, Announcements, General Notices			
Structures	Structures Design Standards	July 2006	2
Forms	Tech Specs and Pay Item Requests	Immediately	2
Forms	CADD vs COMP Forms	Immediately	2
TRNS*PORT	'07 Master File	January '07	2
TRNS*PORT	Blocked Items	Immediately	3
TRNS*PORT	Designer Web Pages	March 2005	3
Issues and Implementation Plans			
MOT	Motorist Awareness System	January '06	4
Drainage	Vertical Drains and Retaining Walls	Immediately	7
Roadway	Permanent Crash Cushions	January '06	9
Striping	Skip Stripe	Immediately	11

Minor Issues, Announcements, General Notices

Issue: Structures Design Standards

The State Structures Design Office (SDO) is migrating its Structures Design Standards into the 2006 Design Standards. This joint publication will be on-line in July 2005 for implementation into all projects let from July 2006 onward. This migration of the SDO's standards necessitates revisions in the index numbers of both these standards as well as some of the current Design Standards. The 2006 Design Standards will include a cross-reference sheet that enables designers to find the location of old indexes numbers (from both the 2004 Design Standards & last version of the Structures Design Standards) in the 2006 Design Standards.

Only the Structures Design Standards will be brought into the Design Standards. The Structures Semi-Standards will be available as cells in the 2005 release of the FDOT 2004 CAD Software Package for attachment onto the borders of the project-responsible engineer. The Structures Instructional Standards will be located as a new chapter in the Structures Detailing Manual.

Issue: Tech Specs and Pay Item Requests

The State Specifications and Estimates Offices have issued a joint memo indicating that a copy of a Tech Spec must be submitted with a request for a new item. This requirement seeks to reduce late submittals by addressing both Tech Spec and Pay Item issues earlier in the design process. A copy of the memo is available online at <http://www.dot.state.fl.us/estimates/BOE/PayItemRequestsMemo.pdf>.

Please note that the PPM (Volume II, Chapter 2) requires that the Summary of Pay Items be loaded into TRNS*PORT for Phase 2 (approximately 60% plans) submittals.

Requests to open items with a valid structure may be submitted according to the instructions in BOE Chapter 6.

Issue: CADD vs COMP Book Forms

For some pay items, the Basis of Estimates lists both CADD (plans tabulation) and COMP book forms for recording/tabulating quantities. These forms often have different formats for recording the quantities by location. *The designer should select the best form for the item based on project conditions:* complex areas may require greater details while simple areas may utilize brief summary formats. *Do not use both CADD and COMP forms.*

Issue: '07 Master File

The current '00 Master Pay Item list was implemented in July 2000 using a 1991 pay item structure and metric conversion. Due to many changes in pay items over the past few years, it is now time to update the pay item structure. Each responsible office

(Structures, Roadway, Construction, etc.) will be updating the pay item structure over the coming months. An updated structure and implementation details will be announced in the October 2005 cover letter, with implementation scheduled for January 2007 letting.

Issue: Blocked Items

In an attempt to clean-up Tech Spec, obsolete, and inactive items, the Specifications and Estimates Offices have been reviewing pay items with limited activity. A list of blocked items is available on the BOE pages. To re-open a blocked item, follow the instructions in Chapter 6.

Issue: Designer Web Pages

The Designer Web Pages (aka TRNS*PORT Designer Interface) have been updated to require the use of JAVA coding. If you experience problems while accessing these pages, please check your browser/local computer to ensure that JAVA is enabled.

Designers should also ensure that local firewalls allow Active Server Pages (.asp pages) and JAVA objects to run on their local computer. Contact your local IT or computer support staff for assistance.

Issue: Motorist Awareness System

History: The purpose of a Motorist Awareness System (MAS) is to increase the motorist awareness of the presence of active work and provide emphasis on reduced or existing speed limits in the active work area. A MAS is created by using a combination of several different traffic control devices to draw attention to the legal speed and inform the motorist of their vehicle speed. Interim Index No. 0670, Design Standards, provides details on the most effective combination and placement of MAS traffic control devices. This Index has been issued as an Interim Index and can be found on the Department's Roadway Design web site.

The Department's goal is to achieve the same respect for Work Zones that School Zones currently receive. The key in achieving this respect is to discontinue blanket speed limit reductions in work zones, increase enforcement, and to remove the MAS when the conditions requiring it no longer exist and restore the speed limit within the limits of the project to the posted speed limit. Specifically, MAS components are to be activated when the lane closure is setup and deactivated when the lane closure is taken down. All MAS components shall be moved outside of the clear zone or to be shielded by a barrier or crash cushion when not in use.

The Motorist Awareness System (MAS), Interim Index No. 0670 dated 07/01/2005 of the Design Standards (see attached), shall be used on current and future construction contracts if all of the following conditions exist:

- Multilane facility
- Posted speed limit is 55 mph or greater
- Work operation requires a lane closure
- Workers are present

During construction, reduce the speed limit 10 MPH, but not less than 55 MPH, when the above conditions exist and restore the posted speed limit when the conditions no longer exist. Posted Speed limit is defined as the speed limit that existed prior to construction.

The State Roadway Design Office will be providing further direction to the designers in the Plans Preparation Manual emphasizing the need to include MAS, where appropriate, in contracts to be let in January 2006 and beyond. As always, the Department's goal is to maintain posted speed limits except under conditions stated above or if temporary geometric design controls dictate a reduction.

Implementation Plan:

District Construction: From July 11, 2005 until the January 2006 letting, process a Field Supplemental Agreement/Work Order to incorporate this Interim Index in accordance with District Construction Engineer's (DCE) memo no. 06-05.

Central Office Design: Update the guidelines in Plans Preparation Manual Volume 1 Chapter 10 on the use of the Motorist Awareness System.

Include Interim Index 0670 on the Design Standards webpage for use by designers on projects beginning with the January 2006 letting.

District Design: Update plans and Summary of Pay Items on applicable projects to include pay items for MAS components beginning with the January 2006 letting.

Estimate the number of construction days times the number of devices used for each direction with a lane closure. Estimate the number of Speed and Law Enforcement officers at 1/2 the construction days times 6 hours per day.

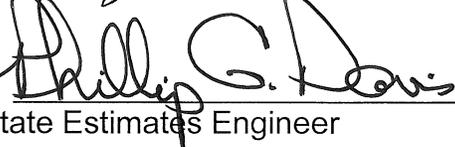
- (2)102-150- 1 Portable Regulatory Sign, ED
- (2)102-150- 2 Radar Speed Display Unit, ED
- (2)102-150- 3 Safety Warning Transmitter, ED
- (2)102-150- 4 Highway Advisory Radio, ED

Specifications: No specification changes are needed.

Contact Person(s):

Cheryl Adams, Design	850-414-4327	SC 994-4327
Stefanie Maxwell, Construction	850-414-4314	SC 994-4314

Approved: Brian Blanchard  Date 3-28-05
 State Roadway Design Engineer

Approved: Phillip "Greg" Davis  Date 3.28.2005
 State Estimates Engineer

Approved: Ananth Prasad  Date 03/28/05
Director, Office of Construction

Approved Sharon Holmes  Date 3/28/05
Director, Office of Maintenance

Approved: Duane F. Brautigam  Date 03/28/05
State Specifications Engineer

Effective Immediately

Issue: Vertical Drains and Retaining Walls

History: Vertical Drains convey water, which has been collected by inlets in bridge decks or retaining walls, to a discharge point. The drains are vertical to avoid, as much as possible, interference with lateral restraining systems for the vertical walls. Payment for vertical drains associated with retaining walls should be made under Optional Pipe, where the designer may restrict material options on the plans as needed.

Implementation Plan:

Central Office Design: Update Pay Item Details on the use of Optional Pipe pay items for Vertical Drains.

(2)430-17A-BCC Pipe Culvert Optional Material
See pay item structure for A, B, CC options

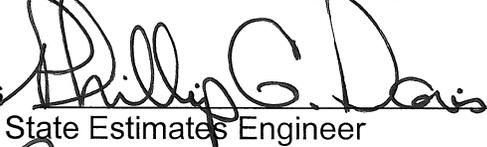
District Design: Update plans and Summary of Pay Items to indicate the use of the appropriate pay items.

Specifications: No specification changes are needed.

Contact Person: Jerome Taylor, State Drainage Office, 850-414-4355, SC 994-4355

Approved: Brian Blanchard  Date 3-28-05
State Roadway Design Engineer

Approved: William N. Nickas  Date 3-28-05
State Structures Design Engineer

Approved: Phillip "Greg" Davis  Date 3.28.2005
State Estimates Engineer

Approved: Ananth Prasad  Date 03/28/05
Director, Office of Construction

Approved Sharon Holmes  Date 3/28/05
Director, Office of Maintenance

Approved: Duane F. Brautigam  Date 03/28/05
State Specifications Engineer

Issue: Permanent Crash Cushion (Optional)

History: For use beginning with the January 2006 letting, a new pay item has been established for permanent crash cushion installations when the designer determines more than one crash cushion system is suitable for a given location. Use of this pay item will allow the contractor to select from a list of crash cushion options identified in the plans. This pay item is applicable ONLY for crash cushions being used to shield the ends of standard concrete barrier wall, standard w-beam guardrail, or thrie-beam guardrail. Use of this pay item for these locations is not mandatory. The designer may still call for a specific system brand and use the corresponding pay item. However, the reasons for restricting to a specific brand must be documented in the project design file. For crash cushions used to shield hazards other than standard concrete barrier wall, standard w-beam guardrail, or thrie-beam guardrail, designers must continue to identify the specific system to be used and use the corresponding pay item, as has been done in the past.

Interim Design Standard 430 Optional Crash Cushions will be posted by July 2005 that will include crash cushion length information for each of the crash cushion systems approved for use under this pay item. Designers should note that certain crash cushion options may have lengths that do not provide the proper length of need, and others may have lengths that exceed the available space at a given location. These should be eliminated from the list of options shown in the plans.

When using the pay item for Crash Cushion (Optional), options are to be tabulated in the plans by station location and design speed in a summary table on the summary of quantities sheet.

Implementation Plan:

Central Office Design: Establish the following new pay item

(2)544-75- AA Vehicular Impact Attenuator/Crash Cushion, EA
AA= 40 (Optional)

Include Interim Index 430 on the Design Standards web page for use by designers on projects beginning with the January 2006 letting.

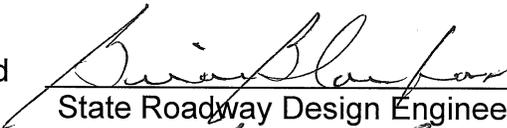
Include a standard summary table for crash cushion options in the roadway cell library in the next CADD software update.

Include revised guidelines in Chapter 4 on Crash Cushion selection in the Plans Preparation Manual January 2006 Update.

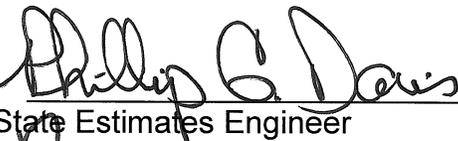
District Design: Update plans and Trns-port Summary of Pay Items on applicable projects beginning with the January 2006 letting.

Specifications: No specification changes are needed.

Design Contact Person: Andy Keel 850-414-4334 SC 994-4334

Approved: Brian Blanchard  Date 3-28-05
State Roadway Design Engineer

Approved: William N. Nickas  Date 3-28-05
State Structures Design Engineer

Approved: Phillip "Greg" Davis  Date 3.28.2005
State Estimates Engineer

Approved: Ananth Prasad  Date 3/28/05
Director, Office of Construction

Approved: Sharon Holmes  Date 3/28/05
Director, Office of Maintenance

Approved: Duane F. Brautigam  Date 03/28/05
State Specifications Engineer

Issue: Skip Stripe

History: The following information is provided to clarify the correct use of skip stripe pay items, in accordance with the specifications.

All of the following pay items will be limited to **10-30 Skip and 3-9 Skip**, which is consistent with specifications. The BOE details will be updated to remove references to 6-10 Skip and length restrictions.

A new item for 8” width Thermoplastic 3-9 skip (pay item 711- 31- 1) has been established.

- (2)702-31 Skip Traffic Stripe (Inverted Rib) (White), GM (GK)
- (2)702-32 Skip Traffic Stripe (Inverted Rib) (Yellow), GM (GK)

- (2)709-11-1 Traffic Stripe Skip (Two Reactive Comp) (White), GM (GK)
- (2)709-11-2 Traffic Stripe Skip (Two Reactive Comp) (Yellow), GM (GK)

- (2)710-21 Traffic Stripe Skip (White), GM (GK)
- (2)710-22 Traffic Stripe Skip (Yellow), GM (GK)

- (2)711-31 Traffic Striping Skip (Thermoplastic) (White) (6”), GM (GK)
- (2)711-31-1 Traffic Striping Skip (Thermoplastic) (Yellow) (8”), GM (GK)
- (2)711-32 Traffic Striping Skip (Thermoplastic) (Yellow), GM (GK)

All other skip lines (i.e. **2-4 and 6-10 skip**) will be paid for under the lineal foot pay items, regardless of the amount. Reference to quantities greater than one mile in the BOE detail will be deleted.

Implementation Plan:

Central Office Design: Pay item (2)711-31-1 has been established.

District Design: Update plans and Summary of Pay Items to indicate the use of the new/corrected pay items effective immediately.

Specifications: No change to applicable specifications.

Contact Person: Chester Henson, 850-414-4117, SC 994-4117

Approved: Brian Blanchard  Date 3-28-05
State Roadway Design Engineer

Approved: Duane F. Brautigam  Date 03/28/05
State Specifications Engineer

Approved: Phillip "Greg" Davis  Date 3.28.2005
State Estimates Engineer

Approved: Ananth Prasad  Date 03/28/05
Director, Office of Construction

Approved: Sharon Holmes  Date 3/28/05
Director, Office of Maintenance