

DATE: October 1, 2001

TO: Basis of Estimate Handbook Holders

FROM: David Duncan, CES Coordinator

COPY: Ken Morefield, Freddie Simmons, Billy Hattaway, Bill Albaugh, Greg Xanders, Lex Chance, William Nickas, Duane Brautigam, Brian Blanchard, Vicki Bradford, District Design Engineers, District Project Management Engineers, District Structures Design Engineers, District Construction Engineers, District Traffic Operations Engineers, District Drainage Engineers and District Specifications Engineers

SUBJECT: **2002 - Basis of Estimate Handbook Electronic Edition**
<http://www.dot.state.fl.us/estimates>

Summary of Major Changes

The Coordination Team has made recommendations to 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 in by the Directors for the Offices of Design and Highway Operations. A detailed description of each of these changes and their implementation dates is attached. The following is a summary of issues addressed in this update:

Group	Issue Description	Effective Letting	Page No.
Estimates	TRNS*PORT PES,CES, and Designer Interface	October 2002	3 - 4
Drainage	Optional Pipe (New Item Numbers)	July 2002	5 - 9
Drainage	Desilting Pipe	July 2002	10 - 11
Structures	Aluminum and Steel Railings	July 2002	12 - 13
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MOT	Temporary Curb	October 2002	17

Additional Information for the Handbook Holders:

BOE handbook is published on line only @ <http://www.dot.state.fl.us/estimates>

Multiple formats for on-line use are available. In addition to .html (normal web viewing files), .pdf files (Adobe acrobat) are available for easier printing. Each type has their advantages; by offering both file types, we hope to serve the greatest number of users.

Please register on-line to be automatically notified when the Basis of Estimate Handbook is updated. By registering at the Estimates Web Page, with an e-mail address (FDOT, Lotus Notes, or internet), users can customize the types of update notices they want to receive. These announcements will be distributed every 3-6 months or as necessary. Users will have the option to add/delete their address for future updates.

For comments, suggestions, or to request a different format, please send an e-mail message to Melissa.Hollis@dot.state.fl.us.

Method of Pay for Asphalt Curb Pads

(For new construction projects with Asphalt Base, Type B-125 only)

For pay items 520-1-7 and 520-1-10, use the following pay item note.

"Cost of asphalt curb pad, and additional curb thickness required, to be included in the cost of curb and gutter."

*Effective October 2002 Letting**

Issue: *TRNS*PORT PES, CES, and Designer Interface*

History: The mainframe CES program will be replaced by the suite of TRNS*PORT programs, including PES, CES, LAS, and Site Manager. Many districts are already using these programs for District Contracts. Effective with the October 2002 letting, all Class 1 contracts (those contracts let in Tallahassee) will be let using the TRNS*PORT programs and the mainframe CES system will be taken off-line.

An Internet page (Designer Interface for TRNS*PORT PES) has been created to enable designers to load pay items and quantities into appropriate categories. A link to the web address will be included on the Estimates web page, when it is made available.

The State Estimates Office will be offering training on the Designer Interface, along with related BOE, Pay Item, and Security information. This training will be offered in Tallahassee, Orlando, Tampa, and Miami. For additional details and registration information, visit the Estimates web at <http://www.dot.state.fl.us/estimates>

Projects with a proposed letting date of October 2002 or later will be automatically converted from mainframe CES to TRNS*PORT PES. This conversion is scheduled to occur after the December 2001 letting is complete. **Projects not converted at this time must be manually entered into PES.** (Projects to be let now through September 2002 must remain in CES)

***NOTE:** The above dates are based on a complex schedule. If a change in effective letting date is necessary, notification will be sent to the District Estimates Office and registered BOE holders. Registration information is on page 2 of this update.

District Design: Update mainframe CES files so that the correct letting date (or a date after October 2002) exists for all projects to be automatically converted. After the conversion, verify that all items transferred correctly; update any pay items, which may have changed or are no longer valid.

Central Office Contact Person: Paul Herring 850-414-4179 SC 994-4179

OIS Contact Person: Lisa Gilbert 850-414-9272 SC 994-9272

Approved: Brian Blanchard _____ Date _____
State Roadway Design Engineer

Approved: William N. Nickas _____ Date _____
State Structures Design Engineer

Approved: Greg Xanders _____ Date _____
State Construction Engineer

Approved: Lex Chance _____ Date _____
State Estimates Engineer

Approved: Vicki Bradford _____ Date _____
Chief Information Officer

Effective with the July 2002 letting

Issue: *Pipe Culvert Optional Material*
(Repeated from April 1, 2001 update letter)

History: The Department has decided to pay for all drainage pipe culvert as Pipe Culvert Optional Material. The “new” Pipe Culvert Optional Materials pay item allows for shapes other than round (Elliptical/Arch) to be paid for as Optional Pipe using the equivalent round size found in the Design Standards Index 205. This applies to both English and Metric projects.

This change will result in the reduction of 1365 existing items, or approximately 15% of the valid master pay item list. Due to the large number of pay items impacted by this change, a longer than usual implementation plan has been set for this issue. Because this change impacts plans, pay items and specifications, which all must agree at letting, it is important that the designer does not vary from the established implementation date:

- ❑ Use existing specifications and pay item numbers thru the June 2002 letting
- ❑ Use new specifications and pay items starting with July 2002 letting

Existing specifications, pay items and design procedures require that the designer evaluate the different pipe materials for environmental and structural adequacy and show those allowed in the plans. With the current method, a designer tabulates all allowable material options, with payment being made as optional pipe. Or, the designer may elect to pay for each material type by its specific pay item, which requires the designer to prepare additional tabulation sheets for each alternate material and separate pay items for each set of alternates.

New specifications pay items and design procedures require the designer to evaluate the different pipe materials for environmental and structural adequacy and show those allowed in the plans. The designer must tabulate all allowable options with payment as optional pipe.

Implementation Plan:

Central Office Design:

Update the Plans Preparation Manual with the July 2001 revisions to include exhibits that reflect how to tabulate quantities for the new optional pipe:

Summary of Drainage Structures

(Minor change to existing sheet, add column with heading “other shape”)

Optional Materials Tabulation Sheet

(Minor change to existing sheet; add new general note # 6. “Pipe shapes other than round (Elliptical/Arch) are summarized and paid for using equivalent round pipe diameter.”)

Establish the following new pay item April 2001:

430-17a-bcc	Pipe Culvert Optional Materials	LF
2430-17a-bcc	<i>Pipe Culvert Optional Materials</i>	<i>MI</i>

a = Application

1 = Storm Sewer

2 = Cross Drain

3 = Gutter Drain

4 = Side Drain

b = Shape

1 = Round

2 = Other (Elliptical/Arch)

cc = Standard Pipe Sizes

21(12")	21(300mm)
23(15")	23(375mm)
25(18")	25(450mm)
29(24")	29(600mm)
33(30")	33(750mm)
38(36")	38(900mm)
40(42")	40(1050mm)
41(48")	41(1200mm)
42(54")	42(1350mm)
43(60")	43(1500mm)
44(66")	44(1650mm)
45(72")	45(1800mm)
46(78")	46(1950mm)
47(84")	47(2100mm)
48(90")	48(2250mm)
49(96")	49(2400mm)
50(102")	50(2550mm)
51(108")	51(2700mm)
52(120")	52(3000mm)
53(132")	53(3300mm)
54(144")	54(3600mm)
55(156")	55(3900mm)
56(168")	56(4200mm)
57(180")	57(4500mm)

Permanently block the following pay items June 30, 2002:

430-1a-bcc	Concrete Pipe Culvert
2430-1a-bcc	<i>Concrete Pipe Culvert</i>

430-2a-bcc Corrugated Steel Pipe Culvert
2430-2a-bcc *Corrugated Steel Pipe Culvert*

430-3a-bcc Bituminous Coated Corrugated Steel Pipe Culvert
2430-3a-bcc *Bituminous Coated Corrugated Steel Pipe Culvert*

430-4a-bcc Bituminous Coated and Paved Steel Pipe Culvert
2430-4a-bcc *Bituminous Coated and Paved Steel Pipe Culvert*

430-5a-bcc Corrugated Steel Pipe Arch Culvert
2430-5a-bcc *Corrugated Steel Pipe Arch Culvert*

430-6a-bcc Bituminous Coated Steel Pipe Arch Culvert
2430-6a-bcc *Bituminous Coated Steel Pipe Arch Culvert*

430-7a-bcc Bituminous Coated and Paved Pipe Arch Culvert
2430-7a-bcc *Bituminous Coated and Paved Pipe Arch Culvert*

430-8a-bcc Corrugated Aluminum Pipe Culvert
2430-8a-bcc *Corrugated Aluminum Pipe Culvert*

430-9a-bcc Bituminous Coated Corrugated Aluminum Pipe Culvert
2430-9a-bcc *Bituminous Coated Corrugated Aluminum Pipe Culvert*

430-10a-bcc Bit Coated & Paved Corrugated Alum Pipe Culvert
2430-10a-bcc *Bit Coated & Paved Corrugated Alum Pipe Culvert*

430-11a-bcc Corrugated Aluminum Pipe Arch Culvert
2430-11a-bcc *Corrugated Aluminum Pipe Arch Culvert*

430-12a-bcc Aluminized Corrugated Steel Pipe Culvert
2430-12a-bcc *Aluminized Corrugated Steel Pipe Culvert*

430-13a-bcc Aluminized Corrugated Steel Pipe Arch Culvert
2430-13a-bcc *Aluminized Corrugated Steel Pipe Arch Culvert*

430-14a-bcc Elliptical Concrete Pipe Culvert
2430-14a-bcc *Elliptical Concrete Pipe Culvert*

430-17a-xbb Pipe Culvert Optional Material
2430-17a-xbb *Pipe Culvert Optional Material*

430-99a-xbb Polyethylene Pipe Culvert
2430-99a-xbb *Polyethylene Pipe Culvert*

Modify the following pay items June 30, 2002:

430-72a-bcc Slotted or Perforated Pipe Culvert
2430-72a-bcc *Slotted or Perforated Pipe Culvert*

Permanent block only the following:

b = 1 Concrete
2 Corrugated Aluminum
3 Corrugated Steel
5 Concrete Elliptical

cc = Standard Elliptical Pipe Sizes

430-96a-bcc Polyvinyl-Chloride Pipe ~~Culvert~~ (Modify name)
2430-96a-bcc *Polyvinyl-Chloride Pipe ~~Culvert~~* (Modify name)

Permanent block only the following:

a = 3 Cell Class 12454c or 12364c

b = 3 Cross Drain
4 Gutter Drain
5 Side Drain

430-98a-bcc Mitered End Section
2430-98a-bcc *Mitered End Section*

Permanent block only the following:

b = 2 Concrete Pipe Round
3 Corrugated Pipe Round
4 Concrete Elliptical Pipe
5 Corrugated Pipe Arch

cc = Standard Elliptical Pipe Sizes (All)
Standard Arch Pipe Sizes (All)

Central Office Engineering/CADD Systems Office:

Keep existing cells (SDS2 and SDS3) and include 2 new cells in the next software release (planned for April 2001) for the following sheet:

Optional Materials Tabulation Sheet

(Add general note # 6. "Pipe shapes other than round (Elliptical/Arch) are summarized and paid for using equivalent round pipe diameter.")

District Design: Update plans and CES to indicate the use of the valid pay item on applicable projects beginning with the July 2002 letting.

Specifications: Specifications will be available for the July 2002 letting.

Central Office Contact Person - Paul Harkins 850-414-4353 SC 994-4353

Approved: Brian Blanchard _____ Date _____
State Roadway Design Engineer

Approved: William N. Nickas _____ Date _____
State Structures Design Engineer

Approved: Greg Xanders _____ Date _____
State Construction Engineer

Approved: Lex Chance _____ Date _____
State Estimates Engineer

Approved: Duane F. Brautigam _____ Date _____
State Specifications Engineer

Effective with the July 2002 Letting

Issue: ***Desilting Pipe***

History: Shapes of pipe other than round are to be paid for as the equivalent round size. Size equivalents are available in the Standard Indexes. The metric pay items for this were already blocked.

Permanently block the following English pay items June 30, 2002:

430-94a-xbb Desilting Pipe

BB = Standard Elliptical Pipe Sizes

- 01 (12" X 18")
- 02 (14" X 23")
- 03 (19" X 30")
- 04 (24" X 38")
- 05 (29" X 45")
- 08 (34" X 53")
- 09 (38" X 60")
- 11 (43" X 68")
- 12 (48" X 76")
- 13 (53" X 83")
- 14 (58" X 91")
- 15 (63" X 98")
- 16 (68" X 106")
- 17 (72" X 113")
- 22 (82" X 128")
- 26 (77" X 121")
- 28 (87" X 136")
- 30 (92" X 143")
- 32 (97" X 151")

BB = Standard Arch Pipe Sizes

- 61 (17" X 13")
- 62 (21" X 15")
- 63 (24" X 18")
- 64 (28" X 20")
- 65 (35" X 24")
- 66 (42" X 29")
- 67 (49" X 33")
- 68 (57" X 38")
- 69 (64" X 43")
- 70 (71" X 47")
- 71 (77" X 52")
- 72 (83" X 57")
- 73 (40" X 31")

- 74 (46" X 36")
- 75 (53" X 41")
- 76 (60" X 46")
- 77 (66" X 51")
- 78 (73" X 55")
- 79 (81" X 59")
- 80 (87" X 63")
- 81 (95" X 67")
- 82 (103" X 71")
- 83 (112" X 75")
- 84 (117" X 79")

District Design: Update plans and CES to indicate the use of the valid pay item on applicable projects beginning with the July 2002 letting.

Central Office Contact Person - Paul Harkins 850-414-4353 SC 994-4353

Approved: Brian Blanchard _____ Date _____
State Roadway Design Engineer

Approved: William N. Nickas _____ Date _____
State Structures Design Engineer

Approved: Greg Xanders _____ Date _____
State Construction Engineer

Approved: Lex Chance _____ Date _____
State Estimates Engineer

Effective with the July 2002 letting

Issue: *Aluminum Railings, Traffic Railings, and Pipe Handrail*

History: There has been some confusion regarding the pay item selection for various railings. The following is a summary of the correct application for each type.

- 460- 70-xxa Aluminum Railings
- 2460- 70-xxa Aluminum Railings
 - a= 1(Single Rail)
 - 2(Double Rail)
 - 3(Triple Rail)

This item detailed in 2001 Structures Indexes 800, 810, and 820.

- 460- 71-xxa Metal Traffic Railing Barrier
- 2460- 71-xxa Metal Traffic Railing Barrier
 - a= 1(Thrie Beam Retrofit)
 - 2(Steel Post and Rail)

This item is detailed in 2001 Structures Indexes 760 and 770 series. All are anticipated to be on structures web site (<http://www.dot.state.fl.us/structures/>) October 1, 2001.

- 515- 1-xxa Handrail Pipe
- 2515- 1-xxa Handrail Pipe
 - a=1 (Steel)
 - 2 (Aluminum)
 - 5 (PVC)

This item is detailed in Roadway Index 520. This two-pipe rail is generally used in locations where the drop-off is between 10" and 2' 6" (250 to 750mm). Additional applications may include "steering" pedestrians next to a sidewalk or out of a parking lot.

- 515- 2-abb Pedestrian/Bicycle Railing
- 2515- 2-abb Pedestrian/Bicycle Railing
 - a= Required Material Types
 - 1 (Non-Specified)
 - 2 (Steel Only)
 - 3 (Aluminum Only)
 - 4 (Special)

- bb= Rail Type
 - 1 (42" Picket Railing)
 - 2 (54" Picket Railing)
 - 3 (Special)

This item is detailed in 2001 Structures Indexes 850 and 860. This railing is used where dropoffs greater than 30 inches (750mm) exist.

Implementation Plan:

The above items are all currently valid; no new items to be established at this time.

Permanently block the following pay items June 30, 2002:

515- 1-xxa Handrail Pipe
2515- 1-xxa Handrail Pipe

a=3 (Steel, Bridge)
4 (Aluminum, Bridge)

District Design: Verify that the plans and Summary of Quantities (CES) indicate the correct item on applicable projects.

Central Office Contact Persons - David Duncan 850-414-4323 SC 994-4323
Roadway
Robert Robertson 850-414-4267 SC 994-4267
Structures

Approved: Brian Blanchard _____ Date _____
State Roadway Design Engineer

Approved: William N. Nickas _____ Date _____
State Structures Design Engineer

Approved: Greg Xanders _____ Date _____
State Construction Engineer

Approved: Lex Chance _____ Date _____
State Estimates Engineer

Effective with the April 2002 letting

Issue: *Mulch and Bark*

History: EMO considers the elimination of cypress trees to be ground into mulch to be spread along highways to be unnecessary, especially when many mulches made from recycled materials are available.

Rule Chapter 14-40, Florida Administrative Code, currently prohibits Cypress mulch.

Permanently block the following pay items March 31, 2002:

580-326-xxa Mulch and Bark
2580-326-xxa *Mulch and Bark*

a= 3 (Shredded Cypress Bark)

District Design: Update plans and CES.

Central Office Contact Person - David Duncan 850-414-4323 SC 994-4323

Approved: Brian Blanchard _____ Date _____
State Roadway Design Engineer

Approved: Greg Xanders _____ Date _____
State Construction Engineer

Approved: Lex Chance _____ Date _____
State Estimates Engineer

Issue: Temporary Curb

History: The temporary curb shown on 2002 Design Standards Index 600 sheet 7 of 10 can be used on state highway projects let to contract through September 30, 2002. Temporary curb and barriers other than the precast temporary concrete barrier wall detailed on index 415 that are used for shielding dropoffs on state highway projects let to contract after October 1, 2002 must meet NCHRP 350 criteria and must be included on the qualified products list. If and when a generic temporary curb or low profile type barrier is approved for use on state highway projects, the design will be posted on the roadway design web site.

Designers must review their projects to consider any additional horizontal clearances that must be addressed when selecting traffic control devices to shield dropoffs in lieu of temporary curb. The footprint of temporary curb is 12”, the footprint of barrier wall is 24” and the footprint of the low profile barrier that is being developed is 27”. Horizontal clearances for each of these devices vary and must be considered in the selection and design of the Traffic Control Plan. As options, designers may consider phasing that requires a dropoff condition be restored within the same work period or require the placement of shoulder treatment shown on Index 600 sheet 6 of 10.

Permanently block the following pay items September 30, 2002:

102-69 Temporary Curb LF
2102-69 Temporary Curb MI

District Design: Update plans and CES on applicable projects beginning with the October 2002 letting.

Specifications: Specifications will be available for as long as the pay item is valid.

Central Office Contact Person - Cheryl Adams 850-414-4327 SC 994-4327

Approved: Brian Blanchard _____ Date _____
State Roadway Design Engineer

Approved: Greg Xanders _____ Date _____
State Construction Engineer

Approved: Lex Chance _____ Date _____
State Estimates Engineer

Approved: Duane F. Brautigam _____ Date _____
State Specifications Engineer