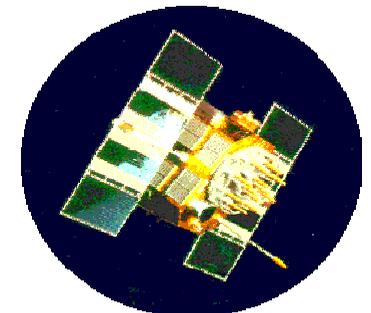




A NEW ERA IN CONSTRUCTION  
COMPUTATION METHODS  
FOR  
DESIGN, CONSTRUCTION & FINAL ESTIMATES



Preparing our Customers for Success  
Using Tomorrow's Technology  
Prepared by  
State Construction Office



**COMPUTATION METHODS  
FOR  
DESIGN, CONSTRUCTION  
AND FINAL ESTIMATES  
HANDBOOK**

TOPIC NO.: 700-050-001-e  
Effective Date: October 9, 2000  
UPDATED JULY 2008

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*Florida Department of Transportation*

CHARLIE CRIST  
GOVERNOR

605 Suwannee Street MS #31  
Tallahassee, FL 32399-0450

STEPHANIE C. KOPELOUSOS  
SECRETARY

MEMORANDUM

DATE: July 21, 2008  
TO: Consultants, Design and Construction Personnel  
FROM: Brian Blanchard, Director Office of Construction  
SUBJECT: COMPUTATION METHODS HANDBOOK

A handwritten signature in black ink, appearing to read "Brian Blanchard".

The Computation Methods for Design, Construction, and Final Estimates Handbook contains examples which are guided by procedures and are to be followed by all production units when preparing Computation Books for construction projects. The examples in this handbook are offered as a ready reference for Consultant, Design and Construction personnel engaged in the preparation of original and final pay quantities.

The Computation Book is an integral part of the plans package. It provides a means of documenting calculations done by Design in estimating quantities on a project. These calculations/documentations will be used later by Construction and Final Estimates personnel to support final pay quantities.

This handbook was compiled by the State Construction Office, Final Estimates Section. The examples provided are offered only as a guide and is not intended to override any standard specification, design standard or a project's specific contract.

The handbook can be accessed on the State Construction Office Web Site under "Forms and Manuals". <http://www.dot.state.fl.us/construction/Publications/ManualsMain.htm>

**Suggestions & Comments Letter**  
**COMPUTATION METHODS FOR DESIGN, CONSTRUCTION**  
**AND FINAL ESTIMATES**  
**(CMDCFE)**

NAME OF FIRM/  
FDOT DEPARTMENT: \_\_\_\_\_

ADDRESS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NAME OF PERSON  
RESPONSIBLE FOR  
SUGGESTIONS OR  
COMMENTS: \_\_\_\_\_

TELEPHONE NO.: ( ) \_\_\_\_\_

FAX NO.: ( ) \_\_\_\_\_

SUGGESTIONS OR  
COMMENTS:  
(Please reference the  
section and page  
number)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Comments or Suggestions may be attached as marked up copies of pages from the handbook.)

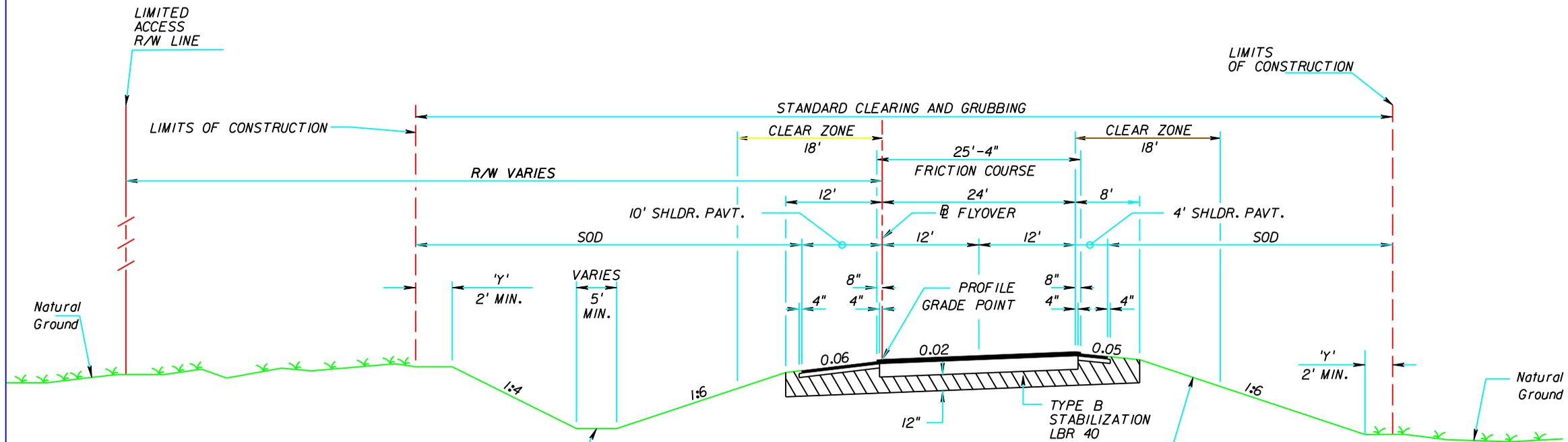
PLEASE COMPLETE THE REQUIRED INFORMATION ON A COPY OF THIS SHEET AND RETURN TO:

FLORIDA DEPARTMENT OF TRANSPORTATION  
State Construction Office - Final Estimates  
Mail Station 31  
605 Suwannee Street  
Tallahassee, Florida 32399-0450  
FAX (850) 414-4874

ADDITIONAL COMMENTS:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**A: Example of Optional Base Group 1 and 6 (Limerock), shoulder and Roadway with Thickness Adjustment calculations. This example shows how Designer calculated the 4" overlap.**

**See Typical Section followed by the Comp Book pages.**



STA. 150+36.30 TO STA. 169+35.00  
 STA. 186+94.00 TO STA. 200+03.95

NOTE:  
 1. FOR SHOULDER PAVEMENT & SHOULDER GUTTER DETAIL  
 SEE TYPICAL SECTION (4)

1:6 FOR FILLS TO 5'  
 1:6 TO EDGE OF CLEAR ZONE & 1:4 FOR FILLS 5' TO 10'  
 1:6 TO EDGE OF CLEAR ZONE & 1:3 FOR FILLS 10' TO 20'  
 1:2 (WITH GUARDRAIL) FOR FILLS OVER 20'

TRAFFIC DATA:  
 CURRENT YEAR = 2002 AADT = 16,650  
 ESTIMATED OPENING YEAR = 2008 AADT = 22,700  
 ESTIMATED DESIGN YEAR = 2028 AADT = 30,900  
 K= 9.6% D= 55% T= 0.9% (24 HOUR)  
 DESIGN HOUR T= 0.5%

**DESIGN SPEED 40 MPH**

NEW CONSTRUCTION  
 OPTIONAL BASE GROUP 6 WITH  
 TYPE SP STRUCTURAL COURSE (TRAFFIC LEVEL B)(4.0 INCHES)  
 AND FRICTION COURSE FC-5 (0.75 INCHES)(RUBBER)

SHOULDER PAVEMENT  
 OPTIONAL BASE GROUP 1 WITH  
 TYPE SP STRUCTURAL COURSE (TRAFFIC LEVEL B)(1.5")

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 6815-23.003, F.A.C.

| REVISIONS |    |             |      |    |             |
|-----------|----|-------------|------|----|-------------|
| DATE      | BY | DESCRIPTION | DATE | BY | DESCRIPTION |
|           |    |             |      |    |             |

**URS**  
 URS Corporation Southern  
 7850 West Courtney  
 Campbell Causeway  
 TAMPA, FL 33607-1462  
 C.A. NO. 0000002  
 Robert W. Joel, P.E. No. 52479

| STATE OF FLORIDA<br>DEPARTMENT OF TRANSPORTATION |        |                      |
|--|--------|----------------------|
| ROAD NO.   | COUNTY | FINANCIAL PROJECT ID |
|  |        |                      |

**TYPICAL SECTION (1)**

SHEET NO.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
**AREA COMPUTATIONS**

PAY ITEMNO. 285-704-104

PAY ITEM DESCRIPTION OPTIONAL BASE, BASE GROUP 01 (4" LIMEROCK)

| STATION TO STATION    | TRAV. OR PAGE NO. | SIDE | DESIGN ORIGINAL |          |                  |                               | CONSTRUCTION FINAL |       |             |  |
|-----------------------|-------------------|------|-----------------|----------|------------------|-------------------------------|--------------------|-------|-------------|--|
|                       |                   |      | WIDTH           | LENGTH   | CURVE CORR.(+/-) | AREA (S.Y. / M <sup>2</sup> ) | REMARKS            | WIDTH | LENGTH      | AREA (S.Y. / M <sup>2</sup> )            |
| 150+36.30 - 169+35.00 |                   | LT   | 10.33           | 1,897.70 |                  | 2,178.14                      |                    |       | ✓           |  |
| 186+94.00 - 200+03.95 |                   | LT   | 10.33           | 1,309.00 |                  | 1,502.44                      |                    |       | ✓           |  |
| 150+36.30 - 169+35.00 |                   | RT   | 4.33            | 1,897.70 |                  | 913.00                        |                    |       | ✓           |  |
| 186+94.00 - 200+03.95 |                   | RT   | 4.33            | 1,309.00 |                  | 629.77                        |                    |       | ✓           |  |
| <b>EXAMPLE ONLY</b>   |                   |      |                 |          |                  |                               |                    |       |             |  |
|                       |                   |      |                 |          |                  |                               |                    |       |             | <i>Core out Avg. from Report = 4.51"</i> |
|                       |                   |      |                 |          |                  |                               |                    |       |             | <i>(4.51_4) ÷ 4 = 0.1275</i>             |
|                       |                   |      |                 |          |                  |                               |                    |       |             | <i>0.1275 X 100 = 12.75% &gt;</i>        |
|                       |                   |      |                 |          |                  |                               |                    |       |             | <i>5%. Maximum pay is</i>                |
|                       |                   |      |                 |          |                  |                               |                    |       |             | <i>Up to 5% of total</i>                 |
|                       |                   |      |                 |          |                  |                               |                    |       |             | <i>5223 X 1.05 = 5484.6</i>              |
|                       |                   |      |                 |          |                  |                               |                    |       |             | <i>And 5484_5223 =</i>                   |
|                       |                   |      |                 |          |                  |                               |                    |       | <u>261</u>  | <i>261 Thickness Adj.</i>                |
|                       |                   |      |                 |          |                  |                               |                    |       | <u>5484</u> | <i>per specification</i>                 |
|                       |                   |      |                 |          |                  |                               |                    |       |             | <i>285-8 (See Optional Base folder)</i>  |
|                       |                   |      |                 |          |                  |                               |                    |       |             | Not shown, for reference only            |

|      |                         |      |
|------|-------------------------|------|
| 5223 | < PAGE TOTAL >          | 5484 |
| 5223 | < PROJECT GRAND TOTAL > | 5484 |

NOTES FOR EXPLANATION OF OVER/UNDER RUN: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

EXTRA NOTES: \_\_\_\_\_

\_\_\_\_\_

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

AREA COMPUTATIONS

PAY ITEM NO. 285-706

PAY ITEM DESCRIPTION OPTIONAL BASE, BASE GROUP 06 ( 8" LIMEROCK)

| STATION TO STATION    | TRAV. OR PAGE NO. | SIDE | DESIGN ORIGINAL |          |                  |                  | CONSTRUCTION FINAL |       |               |                                |
|-----------------------|-------------------|------|-----------------|----------|------------------|------------------|--------------------|-------|---------------|--------------------------------|
|                       |                   |      | WIDTH           | LENGTH   | CURVE CORR.(+/-) | AREA (S.Y. / M2) | REMARKS            | WIDTH | LENGTH        | AREA (S.Y. / M2)               |
| 150+36.30 - 169+35.00 |                   | L/R  | 24.66           | 1,897.70 |                  | 5,199.70         |                    |       | ✓             |                                |
| 186+94.00 - 200+03.95 |                   | L/R  | 24.66           | 1,309.00 |                  | 3,586.66         |                    |       | ✓             |                                |
| <b>EXAMPLE ONLY</b>   |                   |      |                 |          |                  |                  |                    |       |               |                                |
|                       |                   |      |                 |          |                  |                  |                    |       |               | <i>Core out avg. from</i>      |
|                       |                   |      |                 |          |                  |                  |                    |       |               | <i>Core out Report =</i>       |
|                       |                   |      |                 |          |                  |                  |                    |       |               | <i>7.76"</i>                   |
|                       |                   |      |                 |          |                  |                  |                    |       |               | <i>(7.76 - 8) ÷ 8 = (0.03)</i> |
|                       |                   |      |                 |          |                  |                  |                    |       |               | <i>(0.03) x 100 = _ 3%</i>     |
|                       |                   |      |                 |          |                  |                  |                    |       |               | <i>This is a negative</i>      |
|                       |                   |      |                 |          |                  |                  |                    |       |               | <i>Adjustment. (Core</i>       |
|                       |                   |      |                 |          |                  |                  |                    |       |               | <i>Out Average &lt; 8")</i>    |
|                       |                   |      |                 |          |                  |                  |                    |       |               | <i>Therefore:</i>              |
|                       |                   |      |                 |          |                  |                  |                    |       |               | <i>_0.03 X 8786 = 264</i>      |
|                       |                   |      |                 |          |                  |                  |                    |       | <i>_(264)</i> | <i>Negative Thickness</i>      |
|                       |                   |      |                 |          |                  |                  |                    |       |               | <i>Adjustment</i>              |

|       |                         |       |
|-------|-------------------------|-------|
| 8,786 | < PAGE TOTAL >          | 8,522 |
| 8,786 | < PROJECT GRAND TOTAL > | 8,522 |

NOTES FOR EXPLANATION OF OVER/UNDER RUN: \_\_\_\_\_

EXTRA NOTES: \_\_\_\_\_

**B: Example of Optional Base Thickness Adjustments, and Straight Edge Deficiencies, include the following:**

- 1. Comp Book Pay Item Summary Sheet showing Thickness adjustments and Straight edge deficiency in Site Manager, see page 9.**
- 2. Computation Book page for Optional Base Pay Item, see page 10.**
- 3. Core-out Average report done in Eng. Menu program, data taken from Contractor's QC report attached, see page 11.**
- 4. Quality Control Rock base Thickness form: 675-020-27, used by Contractor to get cores, see page 12.**
- 5. Letter from Project Administrator to DCE for acceptance of the Asphalt penalty, see page 13.**
- 6. Final Straight Edge report Transmittal from the Resident Asphalt Specialist to the DFEM, see page 14.**
- 7. Asphalt Pavement Straight edge test reports, Form # 675-060-10 from Contractor's QC technician, see pages 15 and 16.**
- 8. Asphaltic Concrete, Pay reduction Summary Sheets, Straight edge deficiencies, stations and calculations, see pages 17-20.**

Date: 6/25/2008

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
 COMPUTATION BOOK PAY ITEM SUMMARY AND CERTIFICATION SHEET

Form 700-050-10  
 CONSTRUCTION  
 02/03

Contract ID:                      Fin Proj. ID:                      Managing District:                      FAP No.:

**Fin Proj regular Work Paid: \$ 427,597.02**

| Quantity  | Unit Meas. | Item Code   | S.A. Number | Pay Item Description                              | CDMS/ Page No. | Unit Price | Item Paid Amount | Line Item Adjustment Amount | Total Item Paid Amount |
|---|------------|-------------|-------------|---|----------------|------------|------------------|-----------------------------|------------------------|
| 4.000   | EA         | 0110 7 1    |             | MAILBOX F & I, SINGLE                             | 011930         | \$ 92.400  | \$ 369.60        |                             | \$ 369.60              |
| 864.000   | CY         | 0120 1      |             | REGULAR EXCAVATION                                | 011690         | \$ 6.000   | \$ 5,184.00      |                             | \$ 5,184.00            |
| 903.000   | CY         | 0120 6      |             | EMBANKMENT  | 011750         | \$ 2.000   | \$ 1,806.00      |                             | \$ 1,806.00            |
| 4,867.000   | SY         | 0160 4      |             | STABILIZATION TYPE B                              | 011760         | \$ 3.000   | \$ 14,601.00     |                             | \$ 14,601.00           |
| 2,503.000   | SY         | 0285701     |             | OPTIONAL BASE, BASE GROUP 01                      | 011761         | \$ 5.610   | \$ 14,041.83     | \$ 117.81                   | \$ 14,159.64           |
|   |            |             |             |   |                |            |                  |                             | \$                     |
|   |            |             |             |   |                |            |                  |                             | \$                     |
|   |            |             |             |   |                |            |                  |                             | \$                     |
| <b>Contract Adjustment for Pay Item Code: 0285701</b> |            |             |             | <b>Change Order Number:</b>                       |                |            |                  |                             |                        |
| 21.000  |            | 0004 THKA 1 |             | Thickness Adjustment Limerock Base (Base group 1) | 011990         | \$ 5.610   |                  | \$ 117.81                   |                        |
| 2,208.000   | SY         | 0285711     |             | OPTIONAL BASE, BASE GROUP II                      | 011991         | \$ 9.960   | \$ 21,991.68     | \$ 169.32                   | \$ 22,161.00           |
| <b>Contract Adjustments for Pay Item Code: 285711</b> |            |             |             | <b>Change Order Number</b>                        |                |            |                  |                             |                        |
| 17.000  |            | 0004 THKA 1 |             | Thickness Adjustment Limerock (base group II)     | 011872         | \$ 9.960   |                  | \$ 169.32                   |                        |
| 288.000   | SY         | 0286 1      |             | TURNOUT CONSTRUCTION                              | 011873         | \$ 20.000  | \$ 5,760.00      |                             | \$ 5,760.00            |
| 593.000   | SY         | 0327 70 1   |             | MILLING EXISTING ASPHALT PAVT. 1" AVG. DEPTH      | 011885         | \$ 1.000   | \$ 593.00        |                             | \$ 593.00              |
| 184.000   | TN         | 0334 1 13   |             | SUPERPAVE ASPHALTIC CONCRETE, TRAFIC C            | 011834         | \$ 110.000 | \$ 20,240.00     |                             | \$ 20,240.00           |
|   |            |             |             |   |                |            |                  |                             | <b>\$ 84,874.24</b>    |



FDOT V4.2.1 04/2006  
 DATE PROC: 3/24/2008  
 PROJECT NO. 41675315201  
 ROAD SR326  
 COUNTY MARION  
 DATA IS IN ENGLISH

CORE-OUT AVERAGES

PAGE NO 1

DISTRICT 5  
 Date 03/24/2008  
 MIN 3.50 MAX 4.50

VALUES ARE IN INCHES

| STATION     | WIDTH | ACTUAL THICKNESS |        |       |         | SPECIFICATION ALLOWANCE |        |       |         |
|-------------|-------|------------------|--------|-------|---------|-------------------------|--------|-------|---------|
|             |       | LEFT             | CENTER | RIGHT | AVERAGE | LEFT                    | CENTER | RIGHT | AVERAGE |
| *           |       |                  |        |       |         |                         |        |       |         |
| 254+50      | 5.00  | 4.20             |        |       | 4.20    | 4.20                    |        |       | 4.20    |
| 257+00      | 5.00  |                  |        | 4.20  | 4.20    |                         | 4.20   |       | 4.20    |
| 259+50      | 5.00  |                  | 4.50   |       | 4.50    | 4.50                    |        |       | 4.50    |
| 265+40      | 5.00  |                  |        | 3.50  | 3.50    |                         | 3.50   |       | 3.50    |
| 268+00      | 5.00  |                  | 3.50   |       | 3.50    | 3.50                    |        |       | 3.50    |
| 270+60      | 5.00  | 4.50             |        |       | 4.50    | 4.50                    |        |       | 4.50    |
| 271+00      | 5.00  | 3.80             |        |       | 3.80    | 3.80                    |        |       | 3.80    |
| 268+50      | 5.00  |                  | 3.80   |       | 3.80    |                         | 3.80   |       | 3.80    |
| 265+00      | 5.00  |                  |        | 4.10  | 4.10    |                         | 4.10   |       | 4.10    |
| 260+00      | 5.00  |                  |        | 4.00  | 4.00    |                         | 4.00   |       | 4.00    |
| 257+00      | 5.00  |                  | 4.00   |       | 4.00    | 4.00                    |        |       | 4.00    |
| 254+00      | 5.00  | 4.30             |        |       | 4.30    | 4.30                    |        |       | 4.30    |
| JOB AVERAGE |       | 48.40/           | 12     |       | 4.0333  | 48.40/                  | 12     |       | 4.0333  |

$$\left( \frac{4.0333 - 4.00}{4.00} \right) \times 100 = 0.8325\% < 5\%$$

$$0.008325 \times 2503 \text{ SY} = 20.837475 \text{ SY} \text{ OR } 21 \text{ SY}$$

QUALITY CONTROL ROCK BASE THICKNESS

FIN No. 416753-1-52-01  
 Material No. 405L  
 Cored By (TIN no.): R6347947

Pay Item No. 285-701  
 Plan Thickness 4"  
 Date: 2/28/08

| Lot | Roadway | Begin Station | End Station | Core No. | Station No. | Lane | Offset | Roadway Width | Thickness | Mainline Y/N | Compute Y/N | Verified Y/N | Comments |
|-----|---------|---------------|-------------|----------|-------------|------|--------|---------------|-----------|--------------|-------------|--------------|----------|
| 1   | Rt      | 258+15        | 262+15      | 1        | 254+50      | SHL  | 19'    | 5'            | 4.20      | N            |             | Y            | SHL Base |
|     |         |               |             | 2        | 257+00      | "    | 20'    | 5'            | 4.20      | N            |             | Y            |          |
|     |         |               |             | 3        | 259+50      | "    | 19'    | 5'            | 4.50      | N            |             | Y            |          |
|     |         |               |             | 4        | 265+40      | "    | 21'    | 5'            | 3.50      | N            |             | Y            |          |
|     |         |               |             | 5        | 268+00      | "    | 20'    | 5'            | 3.50      | N            |             | Y            |          |
| 2   | Rt      | 262+80        | 273+10      | 6        | 270+80      | "    | 17'    | 5'            | 4.50      | N            |             | Y            |          |
|     |         |               |             | 7        | 271+00      | "    | 18'    | 5'            | 3.80      | N            |             | Y            |          |
|     |         |               |             | 8        | 268+50      | "    | 20'    | 5'            | 3.80      | N            |             | Y            |          |
|     |         |               |             | 9        | 265+00      | "    | 22'    | 5'            | 4.10      | N            |             | Y            |          |
| 3   | Lt      | 273+10        | 262+80      | 10       | 260+00      | "    | 21'    | 5'            | 4.00      | N            |             | Y            |          |
|     |         |               |             | 11       | 257+00      | "    | 18'    | 5'            | 4.00      | N            |             | Y            |          |
|     |         |               |             | 12       | 254+00      | "    | 17'    | 5'            | 4.30      | N            |             | Y            |          |
| 4   | Lt      | 262+15        | 252+15      |          |             |      |        |               |           |              |             |              |          |

|          |                             |                             |
|----------|-----------------------------|-----------------------------|
| 2007.2.2 | Frequency                   | Three per LOT               |
|          | Quality Control             | Three per consecutive LOT's |
|          | Roadway Thickness           |                             |
|          | Shoulder/Widening Thickness |                             |

Note: Measure thickness to 0.1 inch (FM 5.34)



## Florida Department of Transportation

CHARLIE CRIST  
GOVERNOR

133 South Semoran Blvd.  
Orlando, Florida 32807

STEPHANIE KOPELOUSOS  
SECRETARY

Date: June 17, 2008

To: Frank O'Dea

From: Wilkes Kemp

Subject: Acceptance of Asphalt Penalty

|                      |  |
|----------------------|--|
| Description          | : Resurface SR426 from SR600 to Seminole Co line |
| Financial Project ID | : 415525-1-52-01 & 413577-5-52-01                |
| Federal Project ID   | : 886902U  |
| County/Section       | : Orange / 92010                                 |
| Contract No.         | : T-5186   |

Please find attached an Asphaltic Concrete Pay Reduction Summary Sheet for the above project. The Friction course was straight-edged and the attached areas were found to be out of tolerance.

In accordance with Standard specification 330-12.3.2, acceptance of this mix to remain in place must be approved by the District Construction Engineer.

These deficiencies are sufficiently separated and will not significantly affect the overall ride quality of pavement and corrective action would unnecessarily mar the appearance of the finished pavement. Therefore, I recommend that the Department accept this asphalt in lieu of removing and replacing. The contractor has been advised that a penalty is pending upon approval and has chosen to accept the penalty, leaving the mix in place, at reduced pay.

Your prompt attention to this matter is greatly appreciated.

Wilkes Kemp  
Project Administrator

[www11.myflorida.com](http://www11.myflorida.com)

**FINAL STRAIGHTEDGE REPORT**  
**Email Transmittal**

**Date:** May 1, 2008

**To:** John Burnette, District Final Estimates Manager, ([John.Burnette@dot.state.fl.us](mailto:John.Burnette@dot.state.fl.us))  
Don Budnovich, Resident Engineer  
Paul Wabi, Construction Supervisor  
Wilkes Kemp, Project Administrator  
Richard Hewitt, District Bituminous Engineer

**From:** Ralf Erkens, Resident Asphalt Specialist 

**Subject:** FINAL STRAIGHTEDGE REPORT  
Financial Project ID: 41552515201 & 41357715201  
Federal Project ID: 886902U  
Contract #: T5186  
County: Orange  
Road # / Job Description: SR 426 (Aloma Av.) Mill & resurface.  
Contractor: The Middlesex Corporation  
Type of Mix: FC 9.5 and FC 12.5

The friction course was straightedged and the following areas can be left in place with the proper penalties applied, all other deficiencies where corrected to the Project Administrators satisfaction.

41552515201 (FC-12.5)

L-2 4/16 High station 21+50  
R-2 4/16 High station 16+19

41357715201 (FC-9.5)

R-1 5/16 High station 16+21

\*The friction course was straightedged by F46254072 and K52030247 \_\_\_\_\_.

Document Name: Final Straightedge Report  
March 2007

### Asphalt Pavement Straightedge Test Report

Date: 4/16/13 Page 1 of 1

District: 5 County/Section No.: ORANGE FIN ID No. 415525/5261 Type of Mix: FB 12.5 gbl  
 Type of Pavement:  Structural  Friction Type of Straightedge:  15' Rolling Straightedge  15' Manual Straightedge  
 Contractor: FC, 215, 5th St Engineer:  FDOT  CEI:

| LANES | WIDTH | STATION TO STATION | DESCRIPTION OF DEFICIENCIES OR SURFACE PROBLEM(S) | DISPOSITION CODE |
|-------|-------|--------------------|---|------------------|
| L2    | 12'   | 21+50              | 4/16 Hole   | LR               |
| RA    | 12'   | 16+19              | 4/16 Hole<br>LAST ITEM                            | LR               |
|       |       |                    |   |                  |
|       |       |                    |   |                  |
|       |       |                    |   |                  |
|       |       |                    |   |                  |
|       |       |                    |   |                  |
|       |       |                    |   |                  |
|       |       |                    |   |                  |
|       |       |                    |   |                  |

REMARKS: Leave in place with no pay for the two areas reported for deficiencies. Designated area that was tested from station 15+00 to 29+10. This report includes one

QC Technician Signature: [Signature] Verification Technician Signature: [Signature]  
 QC TIN Number: 4155253200 VT TIN Number: 1552030247

District: 5 County/Section No.: ORANGE COUNTY FIN I.D. No. 413577-1-52-01 Type of Mix: FC R5  
 Type of Pavement:  Structural  Friction Type of Straightedge:  15' Rolling Straightedge  15' Manual Straightedge  
 Contractor: MIDDLESEX PAVING Engineer:  PDOT  CEI

| LANES    | WIDTH | STATION TO STATION | DESCRIPTION OF DEFICIENCIES OR SURFACE PROBLEM(S) | DISPOSITION CODE |
|----------|-------|--------------------|---|------------------|
| L-1      | 10'   | 34+33 TO 10+75     | 0 DEFICIENCIES                                    |                  |
| R-1      | 10'   | 16+21              | 5/16 HI   | L.N              |
|          |       |                    |   |                  |
|          |       |                    |   |                  |
|          |       |                    |   |                  |
|          |       |                    |   |                  |
|          |       |                    |   |                  |
|          |       |                    |   |                  |
|          |       |                    |   |                  |
| REMARKS: |       |                    |   |                  |

QC Technician Signature: 

QC TIN Number: D15211084

Verification Technician Signature: 

VT TIN Number: T65301374



FC- 12.5 Straight Edge Deductions

STA 21+50

1.5" x 2.438 x 11.5 x .24 = 10.09332 = 10.1 Tons for deduction.

STA 16+19

1.5" x 2.438 x 11.5 x .24 = 10.09332 = 10.1 Tons for deduction.

*CF*



FC- 9.5 Straight Edge Deductions

STA 16+21 ✓

T 10.0 ✓

1" x 2.438 x 10 x .24 = 5.8512 = 5.6 Tons for Deductions

5.9

**C: Example of Lump Sum Project showing the following:**

- 1. Computation Book Pay Item Summary and Certification Sheets for a Lump Sum Project (No Comp Book required).**
  - a) page 22, showing the LS pay item on the Computation Book Pay item Summary & Certification Sheet**
  - b) Page 23, shows Bituminous Diesel Fuel Adjustments, and Composite Pay factor Adjustments.**
  - c) Page 24, shows Gasoline Fuel Adjustments plus the Initial Contingency Amount used.**
  - d) Page 25, shows the Comp Book Pay Item Certification Sheet with appropriate signatures.**

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

Date: 5/9/08

COMPUTATION BOOK PAY ITEM SUMMARY AND CERTIFICATION SHEET

Contract ID:                      Fin Proj. ID:                      Managing District:                      FAP No.:

Fin Proj regular Work Paid: \$ 9,744,449.14

| Quantity | Unit Meas. | Item Code | S.A. Number | Pay Item Description                  | CDMS/ Page No. | Unit Price       | Item Paid Amount | Line Item Adjustment Amount | Total Item Paid Amount |
|----------|------------|-----------|-------------|---------------------------------------|----------------|------------------|------------------|-----------------------------|------------------------|
| 1.000    | LS         | 0999 2    |             | Lump Sum Contract Alternative Bidding | N/A            | \$ 9,094,000.000 | \$ 9,094,000.000 | \$ 635,909.55               | \$ 9,729,909.55        |

|            |                 |
|------------|-----------------|
| PAGE TOTAL | \$ 9,729,909.55 |
|------------|-----------------|

Date: 5/9/08

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
 COMPUTATION BOOK PAY ITEM SUMMARY AND CERTIFICATION SHEET

Form 700-050-10  
 CONSTRUCTION  
 02/03

Contract ID:                      Fin Proj. ID:                      Managing District:                      FAP No.:

**Fin Proj regular Work Paid: \$ 9,744,449.14**

| Quantity  | Unit Meas. | Item Code   | S.A. Number | Pay Item Description   | CDMS/ Page No. | Unit Price     | Item Paid Amount | Line Item Adjustment Amount | Total Item Paid Amount |
|---|------------|-------------|-------------|--|----------------|----------------|------------------|-----------------------------|------------------------|
| <i>Contract Adjustments for Pay Item Code: 0999 2                      Change order Number:</i> |            |             |             |  |                |                |                  |                             |                        |
|   |            | 0002 BITM 1 |             | Bituminous Adjustment  | 111584         |                |                  | \$ 142,510.23               | \$ 142,510.23          |
|   |            | 0002 BITM 1 |             | Corrected Bit Adj. for removal & replacement of 48.00 Tons           | 112391         |                |                  | \$ (378.40)                 | \$ (378.40)            |
|   |            | 0002 BITM 2 |             | Asphalt Bituminous Adjustment  | 112392         |                |                  | \$ 269,232.82               | \$ 269,232.82          |
|   |            | 0002 BITM 3 |             | Bituminous Adjustment  | 112977         |                |                  | \$ 36,537.12                | \$ 36,537.12           |
|   |            | 0002 BITM 2 |             | Corrected Bit Adj. for removal & replacement of 825.73 Tons          | 112978         |                |                  | \$ (7,661.12)               | \$ (7,661.12)          |
|   |            | 0002 BITM 1 |             | Bituminous Adjustment  | 113981         |                |                  | \$ 72,001.05                | \$ 72,001.05           |
|   |            | 0002 BITM 1 |             | Bituminous Adjustment  | 114481         |                |                  | \$ 8,096.81                 | \$ 8,096.81            |
|   |            | 0002 BITM 1 |             | Bituminous Adjustment for estimate # 5                               | 113448         |                |                  | \$ 22,613.95                | \$ 22,613.95           |
|   |            | 0002 BITM 1 |             | Corrected Bit Adj. for removal & replacement of 58.15 Tons           | 112393         |                |                  | \$ (459.05)                 | \$ (459.05)            |
| 1   | LS         | 0009 CPF 1  |             | Lot No. 3 CPF of 0.94  | 15             | \$ (9,360.00)  |                  | \$ (9,360.00)               | \$ (9,360.00)          |
| 1   | LS         | 0009 CPF 2  |             | Lot No. 6 & 14 CPF of 0.96   | 15             | \$ (18,538.57) |                  | \$ (18,538.57)              | \$ (18,538.57)         |
| 1   | LS         | 0009 CPF 3  |             | Lot No. 1, 2, 8, & 10 CPF of 0.98                                    | 15             | \$ (14,724.15) |                  | \$ (14,724.15)              | \$ (14,724.15)         |
| 1   | LS         | 0009 CPF 5  |             | Lot No. 13, 16, & 17 CPF of 1.04                                     | 15             | \$ 37,440.00   |                  | \$ 37,440.00                | \$ 37,440.00           |
| 1   | LS         | 0009 CPF 7  |             | Lot No. 19 & 21 CPF of 0.92 (FC)                                     | 15             | \$ (24,378.55) |                  | \$ (24,378.55)              | \$ (24,378.55)         |
| 1   | LS         | 0009 CPF 9  |             | Lot No. 22 & 26 CPF of 1.03 (FC)                                     | 15             | \$ 10,800.00   |                  | \$ 10,800.00                | \$ 10,800.00           |
| 1   | LS         | 0009 CPF 10 |             | Lot No. 25 CPF of 1.05 (FC)  | 15             | \$ 9,000.00    |                  | \$ 9,000.00                 | \$ 9,000.00            |
| 1   | LS         | 0009 CPF 11 |             | Lot No. 23 & 24 CPF of 1.04 (FC)                                     | 15             | \$ 14,400.00   |                  | \$ 14,400.00                | \$ 14,400.00           |
| 1   | LS         | 0009 CPF 8  |             | Lot No. 20 CPF of 0.95 (FC)f   | 15             | \$ (9,000.00)  |                  | \$ (9,000.00)               | \$ (9,000.00)          |
| 1   | LS         | 0009 CPF 6  |             | Lot No. 4, 9 & 15 CPF of 1.05  | 15             | \$ 31,200.00   |                  | \$ 31,200.00                | \$ 31,200.00           |
| 1   | LS         | 0009 CPF 4  |             | Lot No. 5, 12 & 18 CPF of 1.03                                       | 15             | \$ 19,397.92   |                  | \$ 19,397.92                | \$ 19,397.92           |
|   |            | 0001 FUEL 1 |             | Diesel Fuel Adjustment   | 111026         |                |                  | \$ 359.18                   | \$ 359.18              |
|   |            | 0004 FUEL 2 |             | Diesel Fuel Adjustment   | 112976         |                |                  | \$ 2,532.36                 | \$ 2,532.36            |
|   |            | 0004 FUEL 1 |             | Corrected Diesel Fuel Adj. for removal & replacement of 825.73 tons  | 112974         |                |                  | \$ (7,849.06)               | \$ (7,849.06)          |
|   |            | 0006 FUEL 1 |             | Diesel Fuel Adjustment   | 113988         |                |                  | \$ (2,373.37)               | \$ (2,373.37)          |
|   |            | 0005 FUEL 1 |             | Corrected Diesel Fuel Adj. -64.42 tons asphalt used for base         | 113449         |                |                  | \$ (41.95)                  | \$ (41.95)             |
|   |            | 0003 FUEL 1 |             | Diesel Fuel Adjustment   | 112340         |                |                  | \$ 53,954.47                | \$ 53,954.47           |
|   |            | 0001 GASO 1 |             | Gasoline Fuel Adjustment   | 111025         |                |                  | \$ 168.75                   | \$ 168.75              |
|   |            | 0003 GASO 1 |             | Corrected Gasoline Fuel Adj. for removal & replacement of 48 tons    | 112393         |                |                  | \$ (0.18)                   | \$ (0.18)              |
|   |            | 0004 GASO 2 |             | Corrected Gasoline Fuel Adj. for removal & replacement of 825.73 ton | 112971         |                |                  | \$ (191.54)                 | \$ (191.54)            |

|            |               |
|------------|---------------|
| PAGE TOTAL | \$ 635,288.72 |
|------------|---------------|

Date: 5/9/08

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
COMPUTATION BOOK PAY ITEM SUMMARY AND CERTIFICATION SHEET

Form 700-050-10  
CONSTRUCTION  
02/03

Contract ID:                      Fin Proj. ID:                      Managing District:                      FAP No.:

**Fin Proj regular Work Paid: \$ 9,744,449.14**

| Quantity  | Unit Meas. | Item Code   | S.A. Number | Pay Item Description  | CDMS/ Page No. | Unit Price   | Item Paid Amount | Line Item Adjustment Amount | Total Item Paid Amount |
|---|------------|-------------|-------------|---|----------------|--------------|------------------|-----------------------------|------------------------|
|   |            | 0006 GASO 1 |             | Gasoline Fuel Adjustment                                    | 113983         |              |                  | \$ (275.11)                 | \$ (275.11)            |
|   |            | 0005 GASO 2 |             | Gasoline Fuel Adjustment for estimate # 5                   | 113443         |              |                  | \$ (9.41)                   | \$ (9.41)              |
|   |            | 0005 GASO 1 |             | Corrected Gasoline Adj. -64.42 tons asphalt for base        | 113449         |              |                  | \$ (0.20)                   | \$ (0.20)              |
|   |            | 0004 GASO 3 |             | Gasoline Fuel Adjustment                                    | 112966         |              |                  | \$ 13.08                    | \$ 13.08               |
|   |            | 0004 GASO 1 |             | Corrected Gasoline Adj. removal & replacement Of 58.15 tons | 112979         |              |                  | \$ (0.23)                   | \$ (0.23)              |
|   |            | 0003 GASO 2 |             | Gasoline Fuel Adjustment                                    | 112399         |              |                  | \$ 2,991.93                 | \$ 2,991.93            |
|   |            | 0002 GASO 1 |             | Gasoline Fuel Adjustment                                    | 111585         |              |                  | \$ 267.77                   | \$ 267.77              |
| 1   | LS         | 0009 GASO 1 |             | Straight Edge Deficiencies of FC [ 26.3 @ \$ 90.00]         | 115617         | \$ 2,367.00  |                  | \$ (2,367.00)               | \$ (2,367.00)          |
| 0.000   | LS         | 0999 25     |             | INITIAL CONTINGENCY AMOUNT (DO NOT BID)                     |                | \$ 88,366.00 | 0.00             | \$ 14,539.59                | \$ 14,539.59           |
| <b>Contract Adjustments for Pay Item Code: 0999 25                      Change Order Number</b> |            |             |             |   |                |              |                  |                             |                        |
| 0.75  | LS         | 0004 CONF 1 |             | FSA#999-25-05 for cross over additional milling & asphalt   | 112547         | \$ 13,192.12 |                  | \$ 9,894.09                 | \$ 9,894.09            |
| 1   | LS         | 0004 CONF 1 |             | FSA#999-25-06 for removal of abandoned side drain           | 112905         | \$ 1,347.47  |                  | \$ 1,347.47                 | \$ 1,347.47            |
| 0.25  | LS         | 0005 CONF 1 |             | FSA#999-25-05 for cross over additional milling & asphalt   | 112547         | \$ 13,192.12 |                  | \$ 3,298.03                 | \$ 3,298.03            |
| <b>TOTAL AMOUNT OF PROJECT</b>  |            |             |             |   |                |              |                  |                             | <b>\$ 9,744,449.14</b> |

COMPUTATION BOOK PAY ITEM SUMMARY AND CERTIFICATION SHEET

Contract ID:

Managing District:

FAP No.:

| Contract Adjustments                           |        |  |                            |                        |
|--|--------|--|----------------------------|------------------------|
| Adjustment Description                         | Amount |  | Adjustment Description     | Amount                 |
| GASOLINE AND DIESEL                            |        |  | LANE RENTAL                |                        |
| BITUMINOUS MATERIAL                            |        |  | ARBITRATION ORDERS         |                        |
| STEEL ADJUSTMENTS                              |        |  | COURT ORDERS               |                        |
| LIQUIDATED SAVINGS                             |        |  | DAMAGE RECOVERY            |                        |
| LIQUIDATED DAMAGES                             |        |  | A+B INCENTIVE/DISINCENTIVE |                        |
| INCENTIVES/DISINCENTIVES                       |        |  | RETAINAGE                  |                        |
| NO EXCUSE BONUS                                |        |  | SETTLEMENT COST            |                        |
|  |        |  | OTHER                      |                        |
| <b>TOTAL AMOUNT OF CONTRACT ADJUSTMENTS:</b>   |        |  |                            |                        |
| <b>TOTAL AMOUNT OF CONTRACT (w/Cont. Adj.)</b> |        |  |                            | <b>\$ 9,744,449.14</b> |

CERTIFICATION STATEMENT

This block shall be signed by the qualified person(s) responsible for the accuracy of the Final Estimates Package, as submitted, in accordance with Chapter 4 of the R & AM.

DFEO USE ONLY

|                   |            |
|-------------------|------------|
| Initial Reviewer: |            |
| Sign _____        | Date _____ |
| Overviewer:       |            |
| Sign _____        | Date _____ |

|   |                                |            |                        |
|---|--------------------------------|------------|------------------------|
| I certify, based on my personal knowledge and well-founded belief, the quantities are accurate and conform to the contract, plan dimensions and specification tolerances, manuals and that this final estimate, as submitted is true and correct. |                                |            |                        |
| Title:  | John H. Johnson (Proj. Admin.) | Signature: | <i>John H. Johnson</i> |
|   |                                | Date:      | 5/09/08                |
| And/Or  | Tom Jones (Office Engr.)       | Signature: | <i>Tom Jones</i>       |
| Title:  |                                | Date:      | 5/09/08                |

Per R & AM, Chapter 4, Section 4.2.4

Signed \_\_\_\_\_  
Project Engineer / Project Administrator

Signed \_\_\_\_\_  
Resident Engineer / Project Administrator