

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

DISTRICT THREE DESIGN

Quarterly News Letter

□(Internet Address - ftp.dot.state.fl.us/pub/dist03/design/Newsletter)**□**

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FLORIDA DEPARTMENT OF TRANSPORTATION
If you are interested in obtaining a copy of this free news letter, contact Brian Blanchard, District Design Engineer.

DISTRICT THREE DESIGN

(850) 638-0250) X - 425 or fax (850) 638-6148

NEWSLETTER VIA THE INTERNET

Darrell Weeks.

District Bidability Team
Starting in 1999, District
Three's newsletter will be
available through the internet
only, unless a hard-copy is
specifically requested.
This document will be a
word perfect document and it
will be placed on the FDOT
FTP Site on the Internet.

The location on the Internet:
(ftp://ftp.dot.state.fl.us/pub/

- dist03/design/Newsletter)
 The file names will be by quarter. Ex. Mar99.wpd,
 June99.wpd, Sept99.wpd,
 Dec99.wpd. We will remind the consultants by letter of this change for the last time in January 1999. Please mark
- your calendars each quarter to remind yourselves of this change since important design issues and supplemental agreement information are provided for the designer's benefit. �

DESIGN ISSUES Brian Blanchard, District Design Engineer

The following are important design issues that generate repetitive comments by the Department's plans reviewers. This information will be itemized below for all designers.

- I have instructed designers not to include a pay item and quantity for desilting pipes unless specifically requested by the Maintenance Department. This is considered a routine activity but can be included in design plans if specifically requested.
- ♦ Comments have been submitted in the past by the local Maintenance Offices requesting commercial material at mailbox locations.

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This is considered a maintenance activity and will not be included in our design plans.

- ♦ Inlets located within the return cause a continuous maintenance problem and should be avoided. This requirement continues to be overlooked by designers.
- All pay items should have a sheet in the computation book. This is preferred for use by the District Three Construction Office. For tabulations shown in the plans, the computation book sheet should have a quantity and should refer back to the plans for tabulations. This includes signing & marking and signalization pay items.
- Designers should include a pay item for adjusting manholes when manholes are present (unless the Maintenance Office says it's acceptable to cover them back up, if they were already covered). The District 3-R Survey Guidelines require that the surveyor gather information on manholes. The surveyor should distinguish between utility owned and state owned. On past projects, the contractor has inflated utility owned manhole pay items when the Department's manholes were overlooked. This causes utility companies to pay an inflated price for their manholes. The following pay items should be used when applicable:

425-5(English): "State Owned" Storm Sewer Manhole Adjust

425-5-1: "Utility Owned" Manholes 425-6: "Utility Owned" Valve Boxes

Designers should always use new

standards for clear zone when deciding whether to use mitered end sections, setting guardrail lengths, extending boxes, etc. However, less than the new standards for clear zone should be used if right of way acquisition can be avoided.

- A recurring problem is geotechnical investigations for unscheduled activities, i.e., overhead signs, signal poles, pipe extensions(single pipes 36" and greater and multiple pipes), temporary and permanent walls including gravity walls, etc. Temporary walls are often required late in the design phase to minimize wetland fill, for maintenance of traffic, phased construction, etc. Additional in-house geotechnical investigations will usually take up to 10 weeks depending on the project. Please keep this in mind during the design of a project.
- ♦ The R/W distances must be shown on all plan sheets. The F.D.O.T. furnishes R/W Maps if they are requested. It is the responsibility of the designer to request R/W Maps for each project.

 Construction will occur near R/W limits and the contractor needs this information shown on this project. All F.D.O.T. Roadway Projects require R/W distances. Also, show the R/W distances on County Roads and Side Streets. Remove words stating APPROX. EXISTING R/W and EXISTING R/W on R/W lines, on all plan sheets; simply state R/W LINE.
- ♦ Consultants should talk to the Design Department and safety office before reducing the design speed of a roadway. The 3-R guidelines require 55mph as a

minimum for a rural roadway. This can have a big impact on safety as well as earthwork, asphalt quantities, etc., when the superelevation is reduced. Design speed used on the original design of the highway should be used. ❖

REQUIREMENTS FOR TITLE TRANSFERS OF RIGHT OF WAY (FROM OTHER GOV. AGENCIES) Brian Blanchard, District Design Engineer

The coordination for Local Public Agency (LPA) right of way on transportation projects has been overlooked on recent multilane and intersection type projects. Designers have recently omitted these requirements from right of way maps resulting in construction claims, plans changes, and public meetings during construction at the request of the LPA. Please note that the Department must seek a formal conveyance of LPA rights of way or some other form of consent to the Department's use, such as a letter. It is the consultant's responsibility to coordinate this effort with the LPA during the design phase. Any letter obtained from the LPA should be forwarded to the Right of Way Department to the attention of Harvey Hayes. The Office of the General Counsel has agreed that the Florida Statutes allow the Department sufficient authority to use LPA right of way without a formal title transfer. They recommend the following approach when LPA rights of way are need.

As early as is practical in the development phases of a project the Department should seek to obtain written commitments from all affected

- LPA's setting out all conditions to be met prior to conveyance of any necessary LPA right of way.
- If any LPA objects to the Department's use of its right of way the Department should not proceed without consent and should attempt to negotiate a mutually acceptable agreement in exchange for the LPA's approval.
- The Department should seek to obtain formal conveyance of LPA rights of way, either by deed or right of way map.
- If an LPA is reluctant to provide a conveyance but agrees to some other form of consent to the Department's use such as a letter, the Department may accept such consent as sufficient for purposes of right of way certification.
- In infrequent circumstances, if an LPA is nonresponsive to our request to provide affirmative consent but it is apparent that the LPA does not formally object to the Department's use of its right of way the Department may utilize the affected right of way and rely on statutory authority as sufficient for the purposes of right of way certification.

PERFORMANCE AND PRODUCTION REVIEW OF F.D.O.T.

Lee Vause, Chairman Florida Transportation Commission

At its public meeting on September 10, 1998, the Commission conducted the *FY 1997/98*

Performance and Production Review of the Florida Department of Transportation.

Secretary Barry and all eight district secretaries participated in the review.

Overall, Department performance was very good to excellent, making this the *seventh* year of high performance ratings.

Under three performance measures that assess how well the Department keeps the commitments made in the 5-year work program to design, acquire right of way and construct projects on schedule, the Department did an outstanding job, achieving 96%, 93% and 98% of planned commitments, respectively. From the standpoint of dollar volume, this year the Department let to construction a record \$1.258 Billion in contracts, a 41% increase over the dollar volume let five years ago, in FY 1992/93. The Commission, as well as the Department, is encouraged that the upward trend in construction time and cost increases appear to have abated. As with last year, this year the commission spent a great deal of time analyzing and discussing the reasons for time and cost increases with the district secretaries. This year, however, we focused on the "avoidable, no-value added" cost increases, which by definition are those that can and should be eliminated since they did not add value to the project (e.g., delay costs, repair work); these cost increases totaled \$5.5 Million or 0.4% of the final contract amount of \$1.3 Billion for the 377 contracts completed this year. Each district secretary spoke to a cost increase of this type and was asked to describe actions that were taken or will be taken to avoid repetition in the future. Even though this category makes up less than one-half of one percent of the total contract amount for this year, the Commission stressed the importance of eliminating these unnecessary expenditures where it is within the Department's control to do so. 🌣

SUPPLEMENTAL AGREEMENT REPORT - SEPTEMBER

Brian Blanchard District Design Engineer

This is the Supplemental Agreement Report for the month of September, 1998. The three (3) categories of supplemental agreements that are included in this month's report are codes 105, 113 and 851.

Below is a description of those areas and our responses:

Description Code 105: Conflicts resulting from discrepancies, inconsistencies, etc. between plans notes, details, pay items, standard indexes or specifications.

S.P. No. 57002-3419, FPN: 222709-1-52-01 (Okaloosa County)

Reason: The existing shoulder gutter had to be removed and replaced because the difference in the finished grade of the roadway was some 4" higher than the existing grade. Resurfacing the existing shoulders on a 0.06 slope resulted in the asphalt being about 4" higher at the lip of shoulder gutter. The slope of the shoulders could not be increased to where this would not occur. The algebraic difference between the slope of the roadway and the paved shoulders cannot exceed 0.07 and meet design criteria. This supplemental included the removal of the existing concrete shoulder gutter, construction of new shoulder gutter and borrow necessary to bring the shoulder and front slope to the new grade requirements.

Increase = \$342,677.58 (4 supplementals)

Response: This supplemental agreement was

a design error. The designer should have taken this into consideration. There were cross sections in the plans on the ramps that depicted the shoulder gutter being higher because of the grade difference. He should have realized that the same would be true on the main roadway even though no cross sections were taken.

This report will be a part of the next Quarterly Design Newsletter and will serve as a reminder to designers to consider the impacts that finished grades verses existing grades will have on the shoulders and other fixed objects that are grade dependent on resurfacing/rehabilitation projects.

Description Code 113: Modification to pavement design required.

S.P. No. 57002-3419, FPN: 222709-1-52-01 (Okaloosa County)

Reason: Due to rutting problems after the asphalt structural course was placed, a decision was made to add milling and superpave to correct the problem.

Increase = \$327,019.71

Response: This supplemental agreement was not a design error.

Description Code 851: Claims settlement (to be used only when project issues have been grouped and a final settlement is issued to cover all included---specific items should be broken out individually when possible and where tracking is warranted)

S.P. No. 57002-3419, FPN: 222709-1-52-01 (Okaloosa County)

Reason: The purpose of this supplemental agreement was to amicably settle all claims on this project.

Increase = \$481,832.94 Note: This is in addition to all the other individual supplementals.

Response: This supplemental agreement is not being classified as a design error.

This supplemental is being included because this report will be included in the next Quarterly Design Newsletter. Hopefully it will help the designers realize the extreme cost of overruns that can be incurred upon a project of this magnitude. Possibly part of this settlement could have been design errors, unclear plans or changed conditions that were not detected, however Construction felt it was in the best interest of the Department to settle it as a lump sum, thereby withholding blame from anyone.

SUPPLEMENTAL AGREEMENT REPORT - OCTOBER

Brian Blanchard District Design Engineer

This is the Supplemental Agreement Report for the month of October, 1998. The two (2) categories of supplemental agreements that are included in this month's report are codes 001 and 105.

Below is a description of those areas and our responses:

Description Code 001: Subsurface material or feature encountered not shown in plans - assuming reasonable engineering judgement/processes used in plans preparation (i.e. muck, old piling, boulders, artesian springs, abandoned utility lines, etc.).

S.P. No. 48050-3536, FPN: 218479-1-52-01 (Escambia County)

Reason: The contractor had to remove 4' steel reinforced concrete underground footings from below the concrete building slab at Day Break Marina. Due to the size and depth of the footings, unforeseen additional work was required in order to remove them.

Increase = \$4,190.56

Response: This supplemental agreement was not a design error. Reasonable engineering judgement was used by the designer. The designer had no reason to believe the complete foundation of the building would not be removed by the Clearing and Grubbing pay item as specified in the Standard Specifications.

Description Code 105: Conflicts resulting from discrepancies, inconsistencies, etc. between plans notes, details, pay items, standard indexes or specifications.

S.P. No. 48050-3536, FPN: 218479-1-52-01 (Escambia County)

Reason: The contractor had to furnish all the PVC conduit, couplings and adaptors located in the barrier walls for the bridge navigation lights. A plans note on sheet B-131 called for all the conduit to be supplied by the utility company and installed by the contractor. The conduit used for bridge navigation lights was not for utilities and therefore was not supplied by the utility company.

Increase = \$9,685.66

Response: This supplemental agreement was a design error. The designer should have included quantities for the conduit, couplings and adaptors in the plans.

This report will be a part of the next Quarterly Design Newsletter with the following instructions.

1. Before putting a note in the plans for the

utility company to furnish the conduit, etc. Be sure that the conduit is being included for their benefit and not the Department's. Usually they have made a request to the Department for it to be included either by letter or verbally to the Utility Coordinators.

- 2. Include the necessary pay items for this work when included for lighting or when deemed that the work was not requested by a Utility company.
- 3. Before including any note in the plans, make sure it is necessary and that it does not conflict with the plans, plan details, pay items, standard indexes or the specifications.

SUPPLEMENTAL AGREEMENT REPORT - NOVEMBER

Brian Blanchard District Design Engineer

This is the Supplemental Agreement Report for the month of November, 1998. The two (2) categories of supplemental agreements that are included in this month's report are codes 107 and 851.

Below is a description of those areas and our responses:

Description Code 107: Modification of approved MOT plan to accommodate various modes of transportation (ie...peds, boats, cars, bikes, etc.).

S.P. No. 48040-3568, FPN: 218598-1-52-01 (Escambia County)

Reason: The project called for milling, widening and resurfacing on SR 95 (US 29) in the vicinity of CR 184 and Beck's Lake Rd. Intersection at Cantonment. It also included the upgrading of a railroad crossing within the project limits. The traffic control plans

established an offsite detour along a nearby roadway to maintain the flow of traffic during closure of SR 95 for replacement of the railroad crossing. A review of the detour route revealed weight restrictions that prohibited heavy truck traffic, therefore a detour had to be established on SR 95.

Increase = \$13,500.00

Response: This supplemental agreement was a design error. The designer should have checked the route for signage indicating a weight restriction and contacted the regulating authority of the roadway before designating the roadway as a detour.

This report will be a part of the next Quarterly Design Newsletter and will serve as instructions to designer's to check alternate routes for weight restrictions and other reasons prior to designating them as detours. They should follow the procedures given in chapter 10 of the Design Plans Preparation Manual and they must contact the regulating authority of a roadway (city, county, etc.) prior to using as a detour to secure their approval. Even the use of other state roads should be reviewed/approved by Maintenance and Traffic Operations prior to designating as a detour.

S.P. No. 60030-3528, FPN: 220662-1-52-01 (Walton County)

Reason: The contract plans included the installation of a cross drain on SR 20. The proposed MOT plan called for constructing the cross drain one half at the time by constructing an additional lane of pavement on one side (phase 1) and then constructing another lane of pavement on the other side after the first half of pipe was installed (phase 2) thereby requiring two roadway shifts.

The contractor requested and was granted

permission to construct a 2 lane detour on the south side of SR 20 in lieu of the phase construction, thus eliminating the need for two traffic shifts. This was possible because the necessary right of way existed.

Increase = \$0.00

Response: This supplemental agreement was not a design error. The cross drain was constructable as provided in the plans. The MOT revision was the contractor's construction preference.

Description Code 851: Claims settlement (to be used only when project issues have been grouped and a final settlement is issued to cover all included---specific items should be broken out individually when possible and where tracking is warranted)

S.P. No. 58080-3515, FPN: 220410-1-52-01 (Santa Rosa County)

Reason: The purpose of this supplemental agreement was to amicably settle all claims on this project. The claim settlement was for additional work related to damages and/or additional cost associated with concrete ditch pavement construction, unforeseen earthwork quantities, storm damage and utility delays.

Increase = \$495,000.00 Note: The contractor agreed to accept the \$495,000 and release all (approx. \$1,205,164.00) of the liquidated damages as full and final settlement for the claims made on the project.

Response: This supplemental agreement is not being classified as a design error.

This supplemental is being included because this report will be included in the next Quarterly Design Newsletter. Hopefully it will help designers realize the cost overruns that can be incurred upon a project. Possibly part of this settlement could have been because of design errors, unclear plans, not enough survey or changed conditions that were not detected, however Construction felt it was in the best interest of the Department to settle it as a lump sum. ❖

NOTIFICATION OF ELECTRONIC FILE UPDATE Billy Hattaway, State Roadway Design Engineer

UPDATES: The Office of Roadway Design Web page has been updated. The highlights of this update are four files as follows:

File#1) Roadway Design/Roadway Updates/P1980805.pdf

Contains the Implementation of July, 1998 revisions to the Plans Preparation Manual, Volume 1 Metric, January, 1998 Cover Letter. This file must be viewed using the Adobe Acrobat reader.

File#2) Roadway Design/Roadway Updates/BE981001.pdf

Contains a letter from Bill Albaugh, Highway Operations Director, on the use of a new pay item: Initial Contingency Amount. This file must be viewed using the Adobe Acrobat reader.

File#3) Roadway Design/Specifications Files/AS980921.exe; SP980915.exe; SP980921.exe

Contains the Metric (AS) and English (SP) special provisions and supplemental specifications to the 1999 Specifications Book. Delete all your old files and replace with these. Expand in order of date. (Expand AS980917.exe first then Expand AS980921.exe and choose overwrite existing files).

File#4)Roadway/Design/Roadway/m98blofl.exe

Contains the Interim Index for the SKT-350, REGENT, FLEAT-350, and Motorist Aid Call Box Concrete Pad.

District CADD managers have been asked to download the above files and make them available for district personnel.

District Consultant Project Management Engineers are requested to notify the Consultants of these updates available on the Internet.

If you have any suggestions to this process, please contact Cheryl Adams: SC 994-4327; MS32; RD960CA;

cheryl.adams@dot.state.fl.us. �

EDITOR	BRIAN BLANCHARD
GRAPHICS AND	LAYOUTEDDIE REGISTER
CONTRIBUTING	WRITERS:
••••••	BRIAN BLANCHARD
•••••	BILLY HATTAWAY
***************************************	LEE VAUSE
	DARRELL WEEKS