




September 21, 1999

THIS MEMO IS EXPIRED

MEMORANDUM NO: 30-99

TO: DISTRICT CONSTRUCTION ENGINEERS

FROM: 
Greg Sanders, State Construction Engineer

COPIES: Bill Deyo, Bill Albaugh, Charles Goodman, Archie Montgomery, Jim Johnson,
Area Engineers

SUBJECT: CONTRACT CHANGE CODING IN CARS AND CRS FINAL
ASSESSMENT REPORT

Purpose As part of the State Construction Office Strategic Plan this office has completed an assessment of our cost and time overrun tracking systems for input problems including accuracy and ease of use. The assessment determined if the State Construction Office tracking system for cost and time overruns is adequate, effective, comprehensive, and, wherever possible, suggested improvements. From May 3rd to May 11th, a representative from my office visited 4 Districts and produced an initial assessment report. Each of you were given a copy of the initial assessment and asked to comment on it. The changes resulting from this assessment are based on your comments and another sample of time suspension data from each district.

Method

At each district visited, an attempt was made to check 15 Supplemental Agreements, 15 Time Extensions and 15 Time Suspensions which had been done between April 30th, 1998 and April 29th, 1999. We asked to see the documents and the supporting paperwork for each contract change. Some districts were unable to provide the 15 examples requested because 15 examples had not occurred in the district during the one year time frame studied. At each district a comparison was made between the documents provided and the 6 character coding information shown in the construction office CARS tracking programs and the information shown for Supplemental Agreements in the CRS system.

The 6 character coding in the CARS system consists of 4 parts. The first part is a 3 digit number called a reason code, which is used to describe the root cause of the contract change rather than describing the work. The remaining 3 parts are single character codes used to denote avoidability, cost recovery and claim settlements or project limit extensions (see lists of available choices at end of this memo). A subset of these codes is used on time extensions and time suspensions.

At each District, a separate discussion was held with the District Construction Engineer, the Engineer in charge of the administrative aspects of contract changes and the individual responsible for data entry. During these discussions the district personnel were assured that the report

resulting from the visit would not mention specific districts or projects. This was done to get access to the widest sample of data and elicit the most candid suggestions for improvement during the brief time available for these visits to the districts. For this reason statistics on the individual districts have been anonymously tabulated under the headings Dist. A through Dist. D.

Statistical Summary of Findings

Reporting Period 04/30/98 to 04/30/99

SUPPLEMENTAL AGREEMENTS					
	<u>Dist. A</u>	<u>Dist. B</u>	<u>Dist. C</u>	<u>Dist. D</u>	<u>4 Dist.'s</u>
# Supplemental Agreements Checked	15	15	15	15	60
# Coded Correctly in CRS	14	15	13	10	52
% Coded Correctly in CRS	93.3%	100.0%	86.7%	66.7%	86.7%
# Coded Correctly in CARS	9	10	11	14	44
% Coded Correctly in CARS	60.0%	66.7%	73.3%	93.3%	73.3%
TIME EXTENSIONS					
	<u>Dist. A</u>	<u>Dist. B</u>	<u>Dist. C</u>	<u>Dist. D</u>	<u>4 Dist.'s</u>
# Time Extensions Checked	15	5	15	15	50
# Coded Correctly on document backup	11	5	13	13	42
% Coded Correctly on document backup	73.3%	100.0%	86.7%	86.7%	84.0%
# Coded Correctly in CARS	4	4	13	13	34
% Coded Correctly in CARS	26.7%	80.0%	86.7%	86.7%	68.0%
TIME SUSPENSIONS					
	<u>Dist. A</u>	<u>Dist. B</u>	<u>Dist. C</u>	<u>Dist. D</u>	<u>4 Dist.'s</u>
# Time Suspensions Checked	15	15	15	7	52
# Coded Correctly on document backup	11	11	14	6	42
% Coded Correctly on document backup	73.3%	73.3%	93.3%	85.7%	80.8%
# Coded Correctly in CARS	8	10	12	6	36
% Coded Correctly in CARS	53.3%	66.7%	80.0%	85.7%	69.2%
SAMPLE SIZE DATA					
	<u>Dist. A</u>	<u>Dist. B</u>	<u>Dist. C</u>	<u>Dist. D</u>	<u>4 Dist.'s</u>
(no data on tot. # SAs in current reports)					
Total # Time Susp., Ext. & Weather Letters	521	138	402	51	1112
Total # Weather Letters	<u>427</u>	<u>66</u>	<u>229</u>	<u>21</u>	<u>743</u>
# Time Susp. & Ext.	94	72	173	30	369
# Time Susp. & Ext. Checked	30	20	30	22	102
% Time Susp. & Ext. Checked	31.91%	27.78%	17.34%	73.33%	27.64%

Findings and Results

- 1) One district was entering data into the CARS system 5 to 6 months after the execution of the contract changes.

Contract changes shall be entered in the CARS tracking program within 30 calendar days after the execution of an SA or grant of a time extension or time suspension. The CPAM will be amended appropriately to indicate this responsibility.

- 2) There was a general confusion over when a claim settlement code should be used and if the 3 digit reason code "851" for claim settlement should be used in lieu of the last single character code "C" which also indicates a claim settlement. The claim settlement is overused because "claim settlement" needs a definition different from "negotiated settlement"

A uniform definition of claim settlement has been given to all districts. The 3 digit root cause reason code "851" for claim settlement will be blocked. This field will be used to show the cause for the work or claim settlement. Provision will be made, in the tracking programs, to show that a contract change stems from a claim by using the single digit code for "claim settlements / project limit extension / or neither" (see codes at end of this report) for all contract changes.

As a result of your comments the 3 digit root cause reason code "850" for contingency supplemental agreements will be allowed for SAs but blocked for use on work orders. The State Construction Office agrees that "850" contingency reason code should only be used for an SA. The individual work orders written on that contingency SA should show the root cause for each work order. The CARS contract tracking programs will be amended to accomplish this as time permits.

- 3) There was confusion over entering reason codes for multiple issues on time extensions. The current version of Construction System User's Guide contains no instructions on using multiple segments to enter various reason codes for multiple issues covered on a single time extension. The tracking program currently supports this capability but the available report options display only the reason codes for the first segment and the total time.

Instructions on using multiple segments to enter various reason codes for multiple issues covered on a single time extension will be added to the Construction System User's Guide. The reporting options will be reviewed and adjusted if necessary to display multiple segments of a single time extension when they are entered. This will be accomplished by the Construction Systems Office as time permits.

Findings and Results. . . continued

- 4) There was also a general belief that it was acceptable to issue time suspensions for multiple reasons. This is a view not held by the State Construction Office.

Note: Subsequent to this review, a decision was made to eliminate the use of any additional time suspensions on all contracts effective as of January 1, 2000. Until then... a single time suspension may be issued for multiple issues but it must have a single start date and a single stop date. This practice is to be used with discretion only when the District Construction Engineer or his delegates feel it is the most appropriate way to handle overlapping suspension issues. It will be reported as a single suspension in all reports and the reason code used for this type suspension should be the reason for the issue causing the largest delay. As with all other single issue suspensions, if the contractor begins the work during the suspension period, the suspension will be terminated and contract time will begin to be charged again.

- 5) There was confusion as to the meaning of "Date Granted" in the report options dealing with time suspensions.

Note: Subsequent to this review, a decision was made to eliminate the use of any additional time suspensions on all contracts effective as of January 1, 2000. Until then... it will be understood that in the report options dealing with time suspensions, the date shown under the heading "date granted" is actually the first day of the time suspension.

- 6) Negative time extensions were being used.

Negative time extensions will not be used. A supplemental agreement or work order will be used to accomplish a contract time reduction. The CPAM will be reviewed and amended to specifically prohibit the use of negative time extensions even though it can already be interpreted to that end. To avoid data input errors, we will block the input of negative days into the time extension/suspension tracking system by having an error message displayed if the user attempts to enter a negative number of days. This will be accomplished by the Construction Systems Office as time permits.

- 7) Time reports often showed a blank field for the number of days. Several District staffers also complained that there is no way to delete an incorrect record once it has been created.

Before accepting a data entry, the contract time tracking program will require a positive integer in the field for the number of days for a non-weather time extension or a time suspension. The tracking program will allow a way to delete an incorrect time suspension or time extension entry after it has been created. The user must now contact Kathy Lovett or Quinton Tillman by phone or e-mail to request the deletion of a specific record. A new delete option will be developed to allow the deletion of most records. When this new option encounters an exception, the program will prompt the user to contact Kathy Lovett or Quinton Tillman, as is now required. This will be shown in the Construction System User's Guide and will be accomplished by the Construction Systems Office as time permits.

Findings and Results. . . continued

Several district staff noted time suspensions could be suppressed in the reports by changing the data record for the 3 digit reason code to 3 blank spaces. This programming bug will be corrected as 3 blank spaces was never intended to be a valid reason code. This will be accomplished by the Construction Systems Office as time permits.

- 8) The report options for time changes did not include separate totals for all time extensions exclusive of weather time extensions and all time suspensions.

The report options for time changes will include separate overall totals for 3 sections of the report,

- a)--- for all time extensions exclusive of weather time extensions*
- b)--- for all weather time extensions*
- c)--- for all time suspensions.*

This will be accomplished by the Construction Systems Office as time permits.

- 9) When a letter informing the contractor that no days are being granted for weather delays during a specific period is sent out, several districts were uncertain if this needed to be entered in the CARS tracking system. Some felt it would demonstrate that weather days had been considered... but entering a zero only produced an entry on that date showing a blank for number of days.

Zero day weather time extension letters may be entered and will display a zero in the report formats when a zero has been entered. Entry will be permitted but not required at the discretion of the District Construction Engineer.

- 10) Requiring a date on a pending SA in CRS leads to problems when the certification of funds occurs after the assumed date of the pending SA... and... the district staff does not change the date on the pending SA before approving it in CRS to match the date actually used on the paper SA document and in CARS.

Note Corrected Text. (the text of this recommendation was originally distributed in error with "CARS " showing everywhere "CRS" is now displayed in the corrected copy shown below)

As we are unlikely to get any program change in the CRS system, the Construction System User's Guide should contain instructions to the district staff on how to change the date of a pending SA and who to call to change the date of an approved SA in the CRS system. Programming in the CARS system should be changed so that the date of an SA is read from the CRS system without the opportunity for change by the user. Any attempt, by a user, to change the SA date shown in the CARS system should generate an automated message to the user instructing the user that the date must be changed in the CRS system first.

Findings and Results. . . continued

The Construction System User's Guide will contain instructions to the district staff on how to change the date of a pending SA and instruct them to call Ken Stanley with the State Construction Office Systems Section to change the date of an approved SA in the CRS system. Programming in the CARS system will be changed so that the date of an SA is read from the CRS system without the opportunity for change by the user. Any attempt, by a user, to change the SA date shown in the CARS system will generate a message instructing the user that the date must be changed in the CRS system first and referring the user to the Construction System User's Guide. This will be accomplished by the Construction Systems Office as time permits.

- 11) In current contract change reports there is no way to distinguish between federal aid and non federal aid jobs... and... consequently no way to determine what percent of contract changes on federal aid projects are federal aid participating.

*The lack of ability to separate federal aid and non federal aid projects is not causing any immediate difficulties and this additional feature will not be added until after migration to the Trns*port program.*

- 12) There is no current report option which will display only all those contract changes containing a specific reason code... on at least one the work orders in an SA... or ...on at least one segment of a time extension. This results in an inability to display the total costs or additional contract time associated with a specific reason code.

A report option capable of showing only those SA's between two dates having a work order/issue for a particular reason code will be developed. . . this report will sum up the total costs and days attributed to the portion of those SAs represented by the work order/issues for the particular reason code being studied. Note that where SAs contain multiple work orders/issues for various reason codes. . . the costs and time for a particular reason code will only be a fraction of the total SAs costs and time. A similar report will be developed for time extensions which can also be granted for multiple reasons listed on individual time extension segments.

The time suspension report as currently written provides this information because it sums up the information by reason code. Each suspension is intended to cover only one issue and therefore contains only one reason code. . . that portion of the current report dealing only with the reason code of interest. . . should be appended to the time extension report summing up the total of all portions of time extensions granted for a specific reason code.

- 13) For most of our customers, the length of project time is seen as the duration of disruption between... the time the construction ahead signs go up... and the time they come down. The use of time suspensions to prevent an increase the number of contract days... is an arbitrary device which confuses the issue of contract time for both the public and other branches of Florida's government. As the need to avoid contract delays has focused attention on this area... the use of time suspensions in lieu of time extensions has increased in some parts of the state.

Note: Subsequent to this review, a decision was made to eliminate the use of any additional time suspensions on all contracts effective as of January 1, 2000.

Available Choices for Single Digit Codes

Avoidability Codes

- 0 - Unavoidable; no remedial action required
- 1 - Avoidable: design consultant
- 2 - Avoidable: in house designer
- 3 - Avoidable: CEI consultant
- 4 - Avoidable: in house CEI
- 5 - Avoidable: 3rd party

Cost Recovery Codes

- Y - Initiated
- N - No action recommended
- C - Action Closed
- P - Recovery Pursued
- R - Action recommended
- \$ - Closed/recovery received

Claim/Extended Limits Codes

- C - Claim settlement
- N - Neither
- E - Extend Project Limits

GX/bc

Attachments: list of root cause reason codes

THE FLORIDA DEPARTMENT OF TRANSPORTATION'S

ROOT CAUSE CODES WITH DESCRIPTIONS

- 001 Subsurface material or feature not shown in plan
- 003 Harmonize project with adjacent projects
- 004 Design standards, Specification or Policy change after contract letting
- 005 Utility adjustment delaying schedule with no Joint Project Agreement
- 007 Work added or deleted from 3rd party agreements
- 008 Project modifications at Right of Way Office's request
- 009 Permit related issues
- 010 New work items, overruns or plans modifications due to weather
- 012 Deterioration of, or Damage to Project (not weather related)
- 013 Test features not included prior to letting
- 015 Changes required to project modifying Utility Joint Project Agreement
- 016 Article 8-7.3.2(2) of Standard Specifications including Materials Acquisition
- 018 Special events or excessive traffic
- 019 Conflicts between contractors
- 101 Necessary pay item(s) not included in contract
- 103 Incorrect or insufficient subsoil information
- 104 Incorrect method of measurement for earthwork
- 105 Discrepancies between plan notes, details, standard indexes and specifications
- 106 Inaccurate identification of utility with no Joint Project Agreement
- 107 Modification of Maintenance of Traffic for pedestrians, boats, cars, bikes, etc.
- 108 Plans do not describe scope of work
- 112 Phasing or plan components not constructable as shown in plans
- 113 Modification to pavement design required
- 115 Required drainage modifications
- 116 Inadequate Right of Way to construct as shown on plans
- 117 Access management issues
- 118 Improper or inadequate signing, signalization or pavement marking design feature
- 119 Revisions required related to major structural component changes
- 120 Hazardous materials encountered requiring plan changes
- 122 Bike, pedestrian, ADA or other public transit not properly addressed (Non-MOT)
- 123 Landscaping issues not adequately addressed
- 126 Computation error
- 128 Inaccurate survey information used in plans preparation
- 130 Indecision or delayed response causing contract delay
- 131 Architectural feature related issue (generally for building modifications)
- 208 No specification provided for item of work
- 300 Value Engineering Change Proposal
- 325 Partnering (should be overrun only)
- 502 Inaccurate directions during construction
- 503 Change resulting from engineering decision
- 700 Overrun of existing pay items: contract + 5%
- 725 Defective materials (should be negative SA)
- 850 Contingency supplemental agreement
- 851 Claim settlement