Documentation of Contract Quantities Synopsis 2026-2027

Test: Computer based, open book/open notes, minimum passing score is **70** (out of 100), 14 Professional Development Hours if you take the class and pass the test.

Objectives: Set up filing system, maintain quantity book and diary, obtain required measurements, documentation of Extra Work pay items, and calculate proper pay quantities & adjustments

INTRODUCTION

Current Construction Manual Table of Contents: Appendix page 1

Current Construction Inspector's Checklist: Appendix page 2

Construction Inspector's Checklist for contract Administration: Appendix pages 3-10

Current Construction Memorandums: Appendix page 11

Coordination of Contract Documents: Art 105.05, Appendix page 12, **Workbook 1**

Standard Specifications book: Six Parts of a specification: 1-Pay item description, 2-Materials, 3-Equipment, 4-Construction requirements, 5-Method of measurement, 6-Basis of payment

Contract: Legal binding agreement, Art 101.09, Contract, time limit, awarded prices, special provisions, supplemental specs, recurring special provisions, federal provisions, Appendix pages 13-20

Item number designation: Items letter prefix A-XZ, website for "Coded pay items", Appendix page 15

Plans: Highway Standards, summary of quantities, fund types, award notice, general notes, typical sections, Appendix pages 20-21

Contract Bond: Bonding Company, execution date, Art 108.03, Appendix page 22-23

Section 100: 104 Scope, 105 Control, 106 Materials, 108 Prosecution & Progress, 109 Payments

Progress Schedule: Required for all contracts using controlling item to determine working days and time extensions, working days or completion date, Art 108, Appendix 24

Construction Manual Section 109 – Measurement and Payment: Contractor Payments, when to pay, what to pay, what not to pay on estimates, Appendix pages 25-46

Contract 70924: ICORS pay estimate example, Appendix pages 47-48

SECTION A

Project Diary for Contract 70924: Recognized legal document, day-to-day record of events, only the facts, A 3-4, Example F 1-3

Weekly Report for Contract 70924: Track completion date, working or workable days charged, Ex F 4

Quantity Book System: Separate quantity book or ICORS download for each contract, keystone of record-keeping, daily quantities posted here, Index of Sheets, A 5-6, Example F 5-10

Evidence of Material Inspection: All materials permanently incorporated into the project must have the required inspection documentation, A-6, Section C, PPG Attachment 3, Appendix 54-71

Project Procedure Guide (PPG): Policy set by Bureau of Matls and Physical Research (BMPR), explains material inspection requirements, IDOT sampling and testing guides, Attachment 3, Appendix 49-71

Project Procedures Guide Section 300-400: Responsibilities of the RE and contractor, Appendix 49

Field Inspection Reports-Source Document: IDR, field book, calc file, weight tickets, spreadsheet, A 7-8

Field Book Required: Permanent survey records, concrete superstructure pours, PC Concrete & HMA paving summaries can be on forms BC 2531 and BC 2529, Examples F 11-19

Initials and Dates: Required, measured, calculated, checked by & dates, **initial own work,** A 8

Recommended Checking Procedures for Documentation of Quantities: All calcs must be checked, D 12

Plan Quantity Acceptance: Existing plans are accurate, plan quantities are accurate, work is built according to plan, **Method of Measurement Spec, Art 202.07(a),** A 8-10, Ex F 20-22

Estimate Daily Load Earth Volumes with Load Counts: Volume = load count x struck capacity x 80%, A 10, D 1, Example F 23-24

Estimate Concrete & Rebar: Extract volumes from calculation file or use 90% of actual delivered concrete, A 10-11, Example F 26

Estimate Sod: Pay 25% of measured area at placement, 75% after 30 days if accepted, Art 252, A 11

Estimate Traffic Control Standard: 25% on initial set up, prorate 65%, 10% for removal, Example F 28

Est Blasting Residue Containment Disposal: 30% 1st day, 50% during removal, 20% on completion, A 12

Estimate Topsoil Ex and Place: 50% on excavation, stockpiled, 50% on replacement, Art 211, F 29

Computers: Approved calculation programs by IDOT, spreadsheets, or other software programs, A 12-13, Example F 30-31

Force Account Billing: CM 08-09, Extra Work & Agreed Unit Price, Art 109.04, A 14, Appendix 73-89

Material Allowance: Contractor allowed payment for stored and inspected material before placement, Art 109.07, Construction Manual, A 14, Example F 32-33, Appendix 33-35

Maximum Payment: Weight items in pounds, tons, gallons, **Method of Measurement Spec gives maximum pay percentage**, max pay calculated when pay item complete, A 15, Ex F 34, **Workbook 2 & 66-67**

Yield Checks: Required for HMA & PC Concrete Paving, but recommended for all materials, A 15-16, F 14, **Workbook 3-4**

Thickness Determination Schedule: Depth check should be on located on source document, either the IDR or in the Field Book, A 16-19, Example F 36, **Workbook 5**

Ton items: Weight Tickets, DOA approved scales, scale numbers required for Quantity Book, Daily Truck Tare Weights, Independent Truck Weight Check, A 21-25, Examples F 35, 37-41

Aggregate Moisture Correction: Ty A stone, 6% moisture by weight, Art 311.08(b), A 25-26, F 41

Small Quantities: Aggregates <500 ton per day, HMA<250 ton per day, Prime Ct <4 ton per day, A 26

Final Documentation: Cross referenced on Quantity Book page, must be final measured, **calculate to the accuracy in Section B**, checked by another person, final quantity cannot be estimated, A-27-28

SECTION B

Acre: Seeding, measured along the surface area, Art 250, B 1, Example F 43

Calendar Day: Traffic Control Surveillance Report, safety critical pay item B 1, Ex F 44, **Workbook 6 & 48, 49**

Calendar Month: Engineers Field Office, note in Quantity Book when accepted and released, B 1

Cubic Yard:

Structure Excavation, 2' allowed for payment on each side of proposed structure, Art 502.12(b), B 1, Example F 45, **Workbook 7 & 52, 53**

Trench Backfill, required within 2'of edge of pavt, curb and gutter, shoulder or sidewalk, Art 208.01 and 602.12, Section E for Trench Backfill Tables, B 1, Example F 46, **Workbook 8-14 & 58-60**

Concrete Structures, deduction for concrete for volume of pile except H pile, B 1, Ex F 47-48

Concrete Outlet Standard, note on Doc source- built according to standard #, B 1, Ex F 49

Each: Surface Variations are bumps found after resurfacing, Art 406.11, B 1, Ex F 50, **Workbook 15**

Lump sum: Traffic Control Standard and Price Adjustment, Art 701, B 1, F 51-53, **Workbook 16, 17 & 61-63**

Foot:

Electric Cables, vertical cable and slack in Traffic Signals are paid according to Art 873, B 2, Example F 54-55, **Workbook 18**

Pipe Culvert, open drainage system, pay staked length unless measure less, Art 542, B 2, Ex F 56

Furnish and Drive Pile, pay furnished length specified by Engineer, Art 512, B 2, Ex F 57-60, Appendix 92

Gallon: Prime Coat, delivered in pounds, convert to gallons on Source Doc, Art 406, B 2, Example F 61

Hour: Trainees, FHWA Projects only, refer to Training Special Provision in contract, B 2, Example F 62

Pound:

Tack Coat / Prime Coat, pay only for residual asphalt applied on job, Art 406.13, Construction Manual Art 406.14, B 2, Appendix 120-126, Ex F 71-72, **Workbook 19 & 45-47**

F & E Structural Steel for bridge rehab, pay for only steel delivered to job, Art 505, B 2, Ex F 63

Fertilizer, delivered in bags or bulk rate ticket with % of nutrients listed, Art 250, B 2, Ex F 64

Square Foot: PC Concrete Sidewalk, show depth checks on source document, Art 424, B 3, Ex F 36

Square Yard:

Patching, various types and classes of patching, possible adjustment for depth variances, Art 442, B 3, Example F 65, **Workbook 20-21 & 64-65**

PCC BC & Widen, use horizontal width measurement from plans, Art 354, B 3, Example F 66

Slope wall, show depth checks and parallelogram calculations, Art 511, B 3, Example F 67

Tons:

Aggregate Ground Limestone, adjust PH in the soil for seed and sod, Art 250, A-26, B 3, Example F 42

Aggregate Base Course Type A, moisture correction for stone shown on ticket tape, A-25, B 3, Ex F 41

HMA SC Adjust of Plan Qty, Art 406.13, Method of Measurement, Ex F 34, **Workbook 22-24 & 66-67**

HMA Surface Yield Check Example, maximum pay, A 15-16, Example F 17-18, **Workbook 22-24**

ICORS Daily Quantities and Quantity Book examples: Contract 76864, Appendix 94-95

Bituminous Daily Paving Record: Example F 17-18

Units:

Supplemental Watering for Sod, 16 watering applications incidental to the Sod pay item, additional water is paid under the Supplemental Watering pay item, Art 252, B 4, Example F 68

Seedlings pay 90% upon planting, 10% after period of establishment, Art 253, B 4, Example F 69

Unit Diameter: Tree Removal, two pay items, 6-15", >15", must note if using tree tape on source document, Art 201, B 4, Example F 70

Authorization for Contract Changes: Construction Memo 17-4, Specialty Pay item numbers, Appendix 96-116

Request for Procurement Policy Board Waiver: Contract work efforts over $30,000, Appendix 117

Section 700 in the Construction Manual: Work Zone Traffic Control, daytime inspections are required weekly, nighttime inspections are required bimonthly, form BSE 726, Appendix page 119

Railroad Liability Insurance pay item: To pay the Contractor a letter from IDOT, Bureau of Design & Environment is required to be on file, insurance needed within 50'of RR right of way, Art 107.11, Appendix 120