

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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SECRETARY

July 31, 2003

MEMO TO: Mr. Jay Bennett, PE, State Roadway Design Engineer

Mr. J. Victor Barbour, PE, State Design Services Engineer

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FROM: Cynthia B. Perry, PE Cymlin D. Verry

Plans and Standards Engineer

SUBJECT: Combining State Highway Projects

This is a guide for combining projects into a project with a single WBS Construction Element if the distribution of final right of way plans has occurred on a part or the entire combined project.

The basic assembly of plans for two or more projects into a combined project is as follows:

- A. Sheet 1 Title sheet for the Combined Project (See Attachment no. 1)
 - 1. Show the contract number and all TIP numbers from the combined projects across the left end of the sheet.
 - 2. Identify the right of way project limits on the plan layout by TIP numbers and stations. Label each TIP number as a Part (Part I, Part II, Part III, etc.)
 - 3. A combined length of Roadway, a combined length of Structure, and a total combined project length are needed.
 - 4. The Project Identification Block in the top right corner of the sheet contains information as follows:
 - a. State Project Reference No. All TIP Numbers
 - b. State Project No. P.E., R/W, Utility and Construction WBS Elements for all TIP numbers.

WEBSITE: WWW.DOH.DOT.STATE.NC.US

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- c. F.A. Project Number P.E., R/W, Utility and Construction numbers as applicable to each TIP number.
- d. Description Describe as P.E., R/W, Utility and Construction with each TIP number
- B. Sheet 1-A of Combined Project (See Attachment no. 2)
 - 1. Index of Sheets
 - 2. General Notes
 - 3. List of Standards
- C. Sheet 2 of Combined Project
 - 1. Conventional Symbols
- D. Sheet 3 of Combined Project
 - 1. Summary of Quantities

The WBS elements, FA Project numbers and TIP designation are shown on all of the title sheets. However, the combined title sheet is the only one on which the contract number is shown.

The individual parts (TIP projects) are placed behind the combined project sheets. With a few exceptions, each individual TIP is assembled as if it was an independent project rather than a part of the combined project. These exceptions are that the individual parts (TIP projects) do NOT require the index of sheets, general notes, list of standards, conventional symbols or summary of quantities (Number 3 sheet).

The summary sheet totals from other parts shall be listed under the respective summary totals on Part I. These totals must be added and shown as a grand total. This grand total is the figure shown on the SUMMARY OF QUANTITIES (See Attachment no. 3). Only one (1) estimate is prepared for a combined project with a single WBS Construction element.

It may be necessary place all parts of some plans that supplement the Roadway Design plans into Part I of the combined project. An example of this is the need for a temporary traffic phase to operate continuously throughout the various parts of a combined project. This requires placing the entire Traffic Control package in Part I.

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A new Calculation of Quantities sheet no. 1 is needed. This sheet reflects information as it should be shown for the combined project. Label each TIP package as a part (Part I, Part II, etc.) over the heading of sheet one for each individual part. Stack the parts in ascending order. Place sheet one for the combined project on top of the stack and fasten it all together. Pay item totals from other parts shall be listed under the totals on Part I.

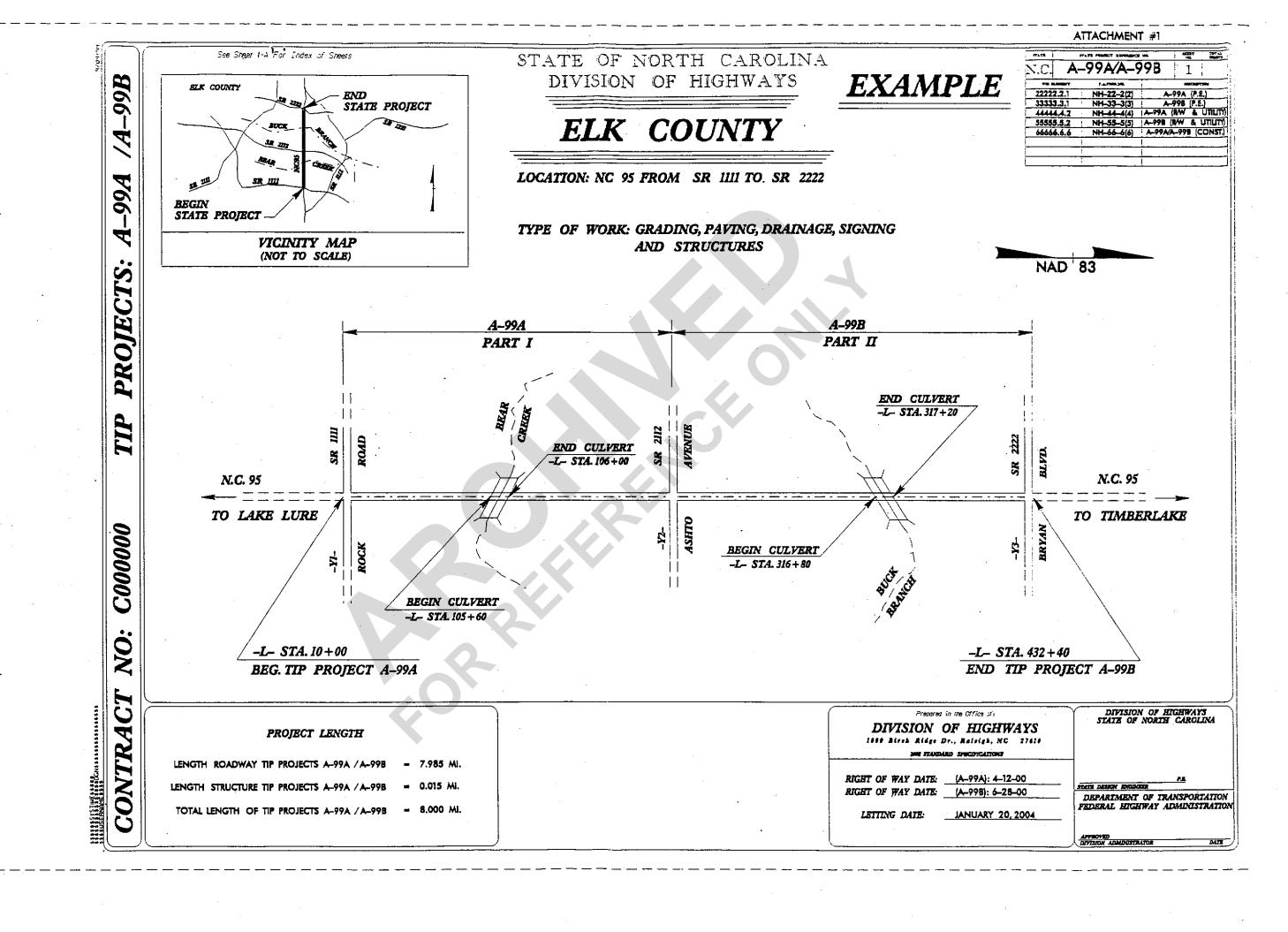
These totals must be added and shown as a grand total. The grand total is the figure shown in the Summary of Quantities (Number 3 sheet). Show TIP numbers for projects numbers on the applicable parts.

If you have any questions or need additional information, please contact me at (919) 250-4128.

CBP/jgl

Attachments

cc: Mr. Scott D. Blevins, PE Mr. Randy Garris, PE Mr. Andy Gay, PE Mr. Ron Davenport, PE



METRIC PROJECT REFERENCE NO. 4-99A /4-998

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

INDEX OF SHEETS, GENERAL NOTES, LIST OF STANDARDS



840.72 Pipe Coller

\$46.01 Concrete Curb, Gutter and Curb & Gutter

850.11 Guide for Berm Drainage Outlet - 24" and 30" Pipe

\$66.02 Woven Wire Force - with Wood Past

INDEX OF SHEETS

SHEET NUMBER

Part I 3-L 4 thru 36 37 thru 67. TCP-1 thru TCP-PM-1 thru PM-EC-1 thru EC-L-1 thru L-SIGN -1 thru SIGN-32 UC-1 thru UC-3 UO-1 thru UO-11 X-1 thru X-202 C-1 thru C-S-1 thru S-

2 than 2-D 3-A thru 3-F

Part II

3-G 15 thre 31 EC-1 thre EC-L-1 thru L-SIGN-1 thru SIGN-UO-1 thru UO-11 X-1 thru X-79 Title Sheet (A-99A/A-99B)

Title Shon. (A ~ 9 9 A)
Typical Sections, revenuest Schedule
Dicks Details
Detail of Temperary Debrate and Cross-Overs
Continue Grading Plan & Shear Point Diagram
Denail of Sim Blanter
Detail of Small Blanter
Detail of Debrated Concrete Planne
Detail of Debrated Concrete Planne
Detail of Enhanterment in Pened Re'W Dain Sheet List of Pipe, Endwalls, Etc. (For Pipe 1200mm & Under List of Pipe, Endwalls, Etc. (For Pipe 1350mm & Over) Guardrail Summary
Cable Guiderail Summary, Summary of Prov Summary of Woven Who Feace Summary of Earthwork in Cubic Meters

Detail of Sand Blanket

Detail to Convert Existing Drop Inlet or Catch Basin to America BOX (Manusce Optional)
List of Pipe, Endwalls, Etc. (For Pipe 1200mm & Under)
List of Pipe, Endwalls, Etc. (For Pipe 1350mm & Over)
Guardrall Summery, Summery Woven Wire Fence, Summ
Pavement Removal. Summery of Earthwork in Cubic Meters

GENERAL NOTES

GRADE LINE:

GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROPLES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAYEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACION WILL BY PLACED. GRADE LINES MAY 86 ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-JU.

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD.

NO. 223,04 OR 223.05 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS.
SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL

SHOULDER CONSTRUCTION:

SHOULDER CONSTRUCTION ON HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD, NO. 560.01 OR 560.02

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT, THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS

BERM DITCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 240.01 AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

UNDERDRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.03 AT LOCATIONS DIRECTED BY THE ENGINEER.

DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD, NO, 848.02 USING 3:900 MM RADII OR RADII AS SHOWN ON THE PLANS, LOCATIONS OF DRIVES WILL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER

STREET RETURNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. I48.04 USING THE RADII NOTED ON PLANS.

GUARDRAIL:

THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 194-7.

THE ENGINEER SHALL CHECK THE STRUCTURE END BENT PLANS, DETAILS, AND CROSS-SECTION PRIOR TO SETTING OF THE SLOPE STAKES FOR THE EMBANGMENT OR EXCAVATION APPROACHING A BRIDGE.

UNLITIES:

UTILITY OWNERS ON THIS PROJECT ARE:

CAROLINA POSTE & LIGHT

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS, EXCEPT

RIGHT-OF-WAY MARKERS:

RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS AND BY CONTRACT IN ACCORDANCE WITH DESIGNATED SYMBOLS AND AS SHOWN IN SUMMARY.

ROADWAY ENGLISH STANDARD DRAWINGS

The following Road-wey Standards as appear in "Road-way Standard Drawings" Highway Design Branch - N. C. Department of Transportation Falleigh, N. C., Dated January 15, 2002 are applicable to this project and by reference hereby are considered a part of these plant:

DIVISION 2 - EARTHWORK

DIVISION 3 - PIPE CULVERTS

300.01 Method of Pipe Installation - Method 'A'

DIVISION 5 - SUBGRADE, BASES AND SHOULDERS

560.02 Method of Shoulder Construction - High Side of Superclavated Curve - Method II

DIVISION 6 - ASPHALT BASES AND PAVEMENTS 610.03 Guide for Paving Shoulders Under Bridges - Method III

DIVISION 8 - INCIDENTALS

838.27 Reinforced Concrete Endwall - for Single 60° Pipe 90° Skew \$18.45 Notes for Reinforced Concrete Endural L. Std. Date 5 838.71 thru \$38.40

\$38,57 Reinforced Brick Endwall - for Single 60" Pipe 90" Skew

938.75 Notes for Reinforced Brick Endwall - Std. Dwe.s 838.51 thru 838.70

840.14 Concrete Drop Injet - 12" thru 30" Pipe

\$40,16 Drop Inlet Frame and Grates - for use with Std. Dwg.s \$40.14 and \$40.15

840.17 Concrete Median Drop Inlet Type "A" - 12" thru 72" Pipe

arete Median Drop Inlet Type "B" - 12" thru 36" Pipe

840.19 Concrete Median Drop Inlet Type "D" - 12" that 36" Pipe

\$40.10 Frames and Wide Slot Flat Grates

\$40.26 Brick Median Drop Inlet Type 'A' - 12" thru 72" Pipe

\$40.27 Brick Median Drop Inlet Type 'B' - 12" thru 36" Pipe

840,28 Brick Median Drop (niet Type 'D' - 12" dun: 36" Pipe

\$46.12 Brick Junction Box - 12" thru 66" Pipe

\$40.35 Traffic Bearing Oron Inlet - for Cast Iron Double Frame and Grate

\$40.46 Fraffic Bearing Precast Drainage Structure

340.66 Drainage Structure Steps 340.71 Concrete and Brick Pipe Plug

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____ DATE: _____ 4/00

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DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

LIST OF PIPE, ENDWALLS, ETC. (FOR PIPE 1350mm & OVER)

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