

[illegible]

14. Earthwork Summary on first Grading Plan if not shown on Key to Cross Sections sheet. For contracts with cross sections, Summary to be on Key to Cross Sections - See Key to Cross Sections description for Summary content.
15. Proposed high and low points.

In an effort to keep the pavements properly drained, the Authority's Engineering Department prefers to provide a swale at pavement gore areas. This swale is graded to intercept sheet flow across the pavement gore areas, either ramp or mainline, and direct the water towards the physical nose. Inlets are installed at the physical nose to collect this water.

The following should be shown when pavement gores areas are included:

1. Spot elevations at 25-foot intervals for edges of thru pavement adjacent to gore areas.
2. Spot elevations and horizontal location of swale.

DRAINAGE TABULATION SHEETS

Drainage Tabulation Sheets are to be used only when the showing of inverts, pipe sizes and lengths, inlet types, etc. on the Drainage and Grading Plans would produce a cluttered and illegible sheet and then only with Authority's Engineering Department approval. If used, Drainage Tabulation Sheets are to be prepared for each Drainage and Grading Plan. The Tabulation is to show the following:

1. Drainage structure number conforming to number shown on the Grading Plans.
2. Baseline station and offset.
3. Invert and top of grate elevations.
4. Type of structure i.e., Inlet Type D-1, Manhole Type M-1, etc.
5. Flared end sections with size and number of each.
6. Size, length and type of pipe between drainage structures.
7. A column for remarks.
8. The above are to be the column headings on the sheet, which will then allow various entries to be tabulated in the appropriate columns.
9. The bottom line is to be headed "Sheet Totals" for totaling the various items of the final Tabulation sheet shall have a "Contract Totals" line for summarizing item totals for the contract.

SOIL EROSION AND SEDIMENT CONTROL PLANS

1. North arrow with sheet arranged so that the north arrow generally faces toward the top and/or right side of the sheet.
2. Erosion control devices

PROFILES

Profiles are required for all roadways and are required for major underground utility relocations. Profile coverage shall extend 500 feet beyond the contract limits

1. Existing ground shown in dashed line and labeled.
2. Proposed profile grade shown in solid line and labeled, e.g. "P.G.L. Ramp ST". Gradients shown to nearest 0.01 percent with a + or - to indicate rising or falling grade with respect to direction of increasing stationing.
3. 50-foot horizontal and five-foot vertical scales. Show 100-foot stations and datum elevation.
4. At every 50 feet of stationing, show vertical risers to stop, at either existing ground or profile line, whichever is higher.
5. Give proposed pavement elevations to nearest 0.01 foot and existing pavement elevations to nearest 0.1 foot at 50-foot intervals. In transition areas, give all variable edge elevations. Elevations to be written parallel to vertical risers with proposed to the right and existing to the left.
6. Clearly label profile with roadway designation.
7. Show PVI, PVC, PVT, curve length, low/high points, e and K values
8. Show structure either on profile or graphically above PGL. If on profile show footings.
9. If applicable, show pay limits of muck excavation and approximate elevation of firm bottom. Show upper limit of muck excavation backfill.
10. Show all drainage and utilities greater than 36" in diameter crossing the profile line by graphical plot, and identify utility and label size of pipe. Show major drainage parallel to roadway if critical.
11. Show station equations.
12. Across the top of the of the plan sheet, indicate the horizontal geometry as to whether the alignment is tangent, curved right, curved left, the PC, PCC and PT locations, and the curve radius.
13. Across the top of the plan sheet, indicate if the profile has a normal crown, or if it is superelevated right or left. Show the stations where superelevation transitions occur.
14. Minimum vertical clearance at bridges and structures.

SIGNING AND STRIPING PLANS

1. North arrow with sheet arranged so that the north arrow generally faces toward the top and/or right side of the sheet.
2. 1"=30' or 50' scale (or other scale as approved by the Authority's Engineering Department) plans showing proposed roadways as screened. These plans are preferably screened copies of the pavement plans.
3. Screened base should also show all drainage and guide rail.
4. Standard title box showing Signing Plan - X -.
5. Match Lines by plan number.

No.	DATE	SAMPLE PLAN REVISION
0	5-08	ORIGINAL SHEET

4. The title box is to give the roadway designation and station to station limits for the sections that appear on the individual sheets.
5. All earthwork from original ground to final grading or template lines.
6. All structures and retaining walls, including their footings.
7. At profile line, show existing and proposed elevations.
8. Limits of muck excavation and limits of Special Subgrade Material, Grade B backfill.
9. Limits of channel excavation for channels or ditches, which may be parallel to the roadway, but far enough removed from the normal roadway work area not to be considered as roadway excavation.
10. Separate sections for major drainage channels, which would not ordinarily be shown on Roadway Cross Sections.
11. Stripping limits for cut and fill conditions.
12. Continuous Cross Section baseline for each sheet, i.e. no offsets or jogs. Station for each section.
13. Section quantities tabulation, preferably on right side of sheet next to the section.
14. Section match lines indicated.
15. Cross sections are to be shown at 50-foot intervals.

KEY PLAN TO STRUCTURES

A key plan is required upon which each structure site is identified within the Section limits. Ordinarily drawn to a scale of 1"=200', this plan is similar to the Plan Reference drawing given in roadway design plans. Information shown shall include all existing and new construction and stationing at intervals of 500 feet. If space permits, the index of drawings for all included structures should be given on this sheet.

ESTIMATE OF QUANTITIES BRIDGE

1. Column headings of Item Number, Unit Code, Item Description, Unit (of measurement), Contract Quantity and As-Built Quantity.
2. Item descriptions to be completely spelled out, no abbreviations.
3. Items to be consecutively numbered for each structure and in the same order as they appear in the Specifications.
4. Use a hyphen "-" for nonstandard items that do not have a CAP EX unit code assigned.

GENERAL PLAN AND ELEVATION

This drawing should be prepared using the approved Preliminary Design Plan as a base. (See Sample Plans) The scale shall preferably be not less than 1"=16', but in no case less than 1"=30'. Where applicable, the following data is to be furnished:

1. Computed stations of abutment bearing lines and pier centerlines; other mathematics and stations to define the computed geometry of roadways in the area of the bridge.
2. Vertical alignment of the supported roadway covering the length of the bridge; profiles of transitioning edges are to be included.

3. Location and dimension of minimum clearances.
4. Existing and proposed ground lines (in elevation).
5. Toes and tops of embankment slopes (in plan).
6. Bottom of footing and berm elevations.
7. Location of proposed and future (by other contracts) electrical and lighting facilities.
8. Proposed bridge and adjacent roadway drainage facilities.
9. Bearing types (General types; specific types are to be shown on Framing Plans).
10. Approach slab limits.
11. Temporary facilities, such as sheeting, and detour structures, which are required and are therefore pay items.
12. Permanent sheeting limits.
13. Pertinent existing planimetric features including the location of underground facilities and utilities, and proposed and future improvements, all of which may have affected the planning and location of the structure.
14. Existing and proposed utilities identified as to type and size.
15. Boring locations identified and shown on the plan by symbols and numbers.
16. Deck joint types and sizes.
17. General Notes.

BORING LOGS

The boring logs shall be placed at the end of the Reference Drawings.

ADDENDA AND CHANGE OF PLANS

A Change of Plan is intended to effect minor revisions to the contract. If a Change of Plan is to be issued, or revised plans issued due to an Addendum, the following procedure is to be followed:

After the revisions have been approved by the Authority's Engineering Department, these revisions are made to the full-size drawings by the Engineer and appropriately noted in the Revision Box.

1. For revising an existing drawing, revisions must be made and "bubbled" (see Sample Plans). They shall be clearly noted in the Revision Box. The revision number shall be shown in a small triangle adjacent to the "bubbled" revision(s).
2. If the revisions to be made are so significant that "bubbling" would make a plan unreadable, the entire sheet shall be replaced. The date of the new drawing and the notation "Replace Entire Sheet" is to be shown in the Revision Box. For any drawing made to replace an existing drawing, the double reference number and the sheet number are amended by the letter "R", (i.e., DG-7, Sheet No. 28 is to become DG-7R, Sheet No. 28R). If a sheet is replaced more than once, the double reference

