

# Design Standards Letter

**Letter Number: G-2003-03**

**Letter Date: 05/28/2003**

**Effective Date: 08/01/2003**

**Section/Plan No.: None**

**Subject: Contract Leveling Course Projects**

## Body

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In order to coordinate and expedite the preparation of projects for the 2003-2004 Contract Leveling Course Program, plans shall be prepared in English units and submitted to GHQ Design by August 1, 2003. This will enable the bidding and contract services section to adjust the groupings, if necessary, and to appropriately schedule bid opening dates.

The contract leveling course program is intended for use on roadways with less than 3500 ADT, and on which a BP-1, Type C, Type IC or Superpave mixture has not been previously placed. Superpave resurfacing is viewed as more involved work, and should be programmed as a thin lift overlay project outside of the contract leveling course program.

To shorten the processing time, improve the quality of plans and to standardize procedures across the state, the following should be used when preparing plans in English units:

- Each project should have, as a minimum, the following plan sheets:

1. Title Sheet, with north arrow pointing to the top of the sheet, if possible.
2. Length of Project Sheet - should include "exceptions."
3. Typical Section Sheet - should include "estimate factors."

- The plans are placed in a proposal that contains a vertical format, and should read accordingly when possible. Original plans should be submitted using the format shown on Figure 6-05.1 of the Project Development Manual (PDM), with pages numbered by the district. To improve the quality of printing, originals should be submitted, not copies.

- Leveling course projects must have logical termini. Do not break projects at district, county or city limit lines (short projects which abut should not be shown as separate projects). Coordination with adjoining districts should be done when a project abuts a district boundary.

- Projects less than 2 miles in length should have 334 square feet of construction signs.

Projects greater than 2 miles in length should have 354 square feet of construction signs.

- Figure 4-09.13 in the PDM provides sample templates for the location sketch, project length and typical sections and are available electronically in Microstation format on district servers.
- Bridges should be excepted, unless prior written approval for overlay is obtained from GHQ Bridge. When bridges are not excepted, the District shall supply a list of bridge numbers to GHQ Bridge. For each bridge, this list shall include the county and route, the thickness of the existing overlay, the scarification depth, and the thickness of the new overlay. GHQ Bridge will then verify the load ratings for each bridge and verify that there will not be a pavement elevation change on each bridge. If the pavement elevation on a bridge is raised by more than ¼”, then the bridge railings will need to be brought up to current safety standards. When bridges are not excepted, the written approval should be submitted with the transmittal package.
- Districts need to supply at time of submittal conflict of interest documentation (see PDM Subsection 4-03.17(1)(f)) and core team certification.
- Use of district forces requires approval in accordance with PDM Subsection 4-03.14.

Tack quantities should be based on tacking the entire roadway surface at an estimated rate of 0.05 gallons/square yard. The asphalt binder for the contract leveling course mixture (surface leveling) should be PG 64-22.

Quantities for asphalt binder and mineral aggregate for individual projects will vary and should be shown, along with the estimate factors used for calculating quantities on the typical section sheets for the project. Minimum thicknesses are 1 inch for Plant Mix Bituminous Surface mixtures, 1-¼ inch for BP-2 mixtures, and 1-¾ inches for BP-1 mixtures.

The following table is a guide for selecting bituminous mixtures for leveling course projects. If the district elects to use a mixture other than what is specified, the project manager should submit by letter to GHQ Design the justification for specifying a different mixture or thickness than given in the table below. In addition, at the bottom of the letter, an approval signature block similar to that on the Design Exception Information Form (see PDM Figure 2-01.9) should be provided for the State Design Engineer.

**Bituminous Mixtures Criteria  
for Contract Leveling Course Projects**

<b>Corridor Designation</b>	<b>Traffic</b>	<b>Recommended Mix and Thickness</b>
Light Duty	ADT < 1750	1" Sec 402 Mixture
Light Duty	1750 < ADT < 3500	1 ¼" BP-2 * (Sec 401)

\*If the district feels warranted, a 1 ¾" BP-1 (Sec 401) mixture may be substituted for this application.

If special situations require limiting loads on a given route, a "Haul Road Restriction" special provision will be considered on a project-by-project basis. Otherwise, the only load restrictions, other than the 80,000-pound legal load limit, will be any posted bridge load limits.

Traffic control plans and job special provisions will be inserted by GHQ Design. Copies of the traffic control plan sheets are available on district servers. The districts should provide to GHQ Design the necessary traffic control plans if special circumstances warrant unique traffic control measures. The pay item Installing "No Center Stripe" Signs, per each should be included with the quantity needed to sign the entire project. On contract leveling jobs, final pavement marking may be required in the contract, included in a district wide pavement marking contract, or done by district forces. Subsection 8-04.5 and Figure 8-04.23 in the PDM provide guidance for selection of pavement marking material. Temporary raised pavement markers are included in the resurfacing contract at no direct pay to the contractor, regardless of method of pavement marking.

Below are the average prices that should be used for the 2003 leveling course projects in lieu of the prices obtained from Estimate 2000. The asphalt binder and mineral aggregate prices below are based on current quotes, however, their prices have been known to fluctuate as much as 25% in a matter of months, which could affect the final cost of the project. The prices for those items will be adjusted at the time of the final engineer's estimate:

402-11.10 – Asphalt Binder (surface leveling) PG64-22 - \$220/ton  
402-20.10 – Mineral Aggregate (surface leveling) PG64-22 - \$19.00/ton  
407-10.05 – Tack - \$1.10/gal  
612-90.40 – Installing "No Center Stripe" Signs - \$25.00/ea  
616-10.05 – Construction Signs - \$5.50/sq. ft.

Please contact General Headquarters Design if you have any questions.

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Attachments