

Requesting Aerial Photography

Project Development and Environmental Analysis Branch		Approved: 11/21/2008 Version 1.0
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Purpose

The purpose of this procedure is to guide the Project Development Engineer (PDE) through the process of requesting aerial photography needs both on an annual basis and under special circumstances.

Responsibility

The PDE is responsible for assessing and cataloging all needed mapping products for their individual projects and submitting this information to their Group Leader. The Group Leaders and Regional Unit Heads are responsible for submitting a combined list of needs to the PDEA Staff Engineer.

Scheduling and Time Constraints

Mapping needs are assessed annually starting the first week in August. However, the PDE should coordinate with the Photogrammetry Unit throughout the year as mapping needs arise.

Procedures

- Step 1.** Begin assessing mapping needs for the next 18 months the 1st week of August. For Bridge Replacement Projects, assess mapping needs for the next two years.
- Step 2.** Look at the following STaRS activities to obtain start and finish dates for each active project.
 - Develop Mosaic/Orthographic Mapping
 - Generate Preliminary Mapping
 - Develop Preliminary Plan Sheet Mapping
 - Final Survey/Base Mapping for Plan Sheets

The last two STaRS activities are assigned to the Roadway Design Co-Project Manager. However, the PDE should have these dates to facilitate discussions on upcoming mapping needs.

- Step 3.** Identify the mapping products that will be required within the next 18 months to 2 years.
- Step 4.** Coordinate with the appropriate Roadway Design Co-Project Manager on the following points:
- Mapping product that best meets the need of the project
 - STaRS delivery dates and general project schedule
 - Tri-Project Manager responsible for the request
 - Seasonal constraints
 - Ways to streamline the mapping needs, such as phased delivery of a product, if the project schedule is a concern.
 - Coverage needed
 - Scale

For additional information, reference the [NCDOT Mapping Guidelines for Planning and Design Activities.](#)

- Step 5.** Fill out the [Mapping Needs Request Spreadsheet](#) for your projects and submit to the Group Leader.
- Step 6.** Group Leaders will compile a master list of mapping needs for their group and submit this combined list to the PDEA Staff Engineer.
- Step 7.** PDEA Staff Engineer will compile a master list for the entire branch and submit to the Photogrammetry Unit by the first week in September.
- Step 8.** The Photogrammetry Unit will begin coordinating with both PDEA and Roadway Design. The coordination will:
- Clarify and refine the Mapping Needs Request Spreadsheet.
 - May include individual meetings to use GIS information to streamline the process by immediately delineating the mapping limits.

Although it is still acceptable to send mapping with the coverage location marked, it is **highly recommended** that the PDE schedule a meeting at the Photogrammetry Unit conference room to discuss all of the mapping needs that PDEA is responsible for requesting. At this interactive meeting, the Photogrammetry Unit will aid PDEA and Roadway Design by projecting aerial photos onto a screen and using GIS to designate coverage areas. The group will discuss adequate coverage for the needed product, appropriate scale, realistic delivery dates, and any needs for phased product delivery.

- Step 9.** The Photogrammetry Unit will issue a FINAL Mapping Needs Request spreadsheet to both PDEA and Roadway Design by October 1.
- Step 10.** Complete the mapping request letters with location maps as appropriate by October 15. Location maps will not be needed for Orthophotos requests delineated using GIS Information in Step 8.

NOTE: The actual requests for Final Surveys are not needed by October 15. These requests will be handled throughout the year as needed by the Roadway Design Tri-Project Manager. Final Survey Requests will require location maps

designating the coverage area. Final Survey needs are noted on the spreadsheet for use by Location and Surveys to anticipate yearly workload.

Step 11. Confirm the appropriate STaRS activity once the request is complete.

Background

Mapping products are an essential part of the planning and design for transportation projects. Coordination between PDEA, Roadway Design, and the Photogrammetry Unit ensures that the mapping needs for various stages of the project provide the necessary coverage, are to an adequate scale, and are delivered on time. In 2007, a definitive process was established to “improve the yearly process of identifying mapping needs.” The goal of the process was to “streamline the request process and facilitate communication between PDEA, Roadway Design, and the Photogrammetry Unit.” The process was implemented with the 2007-2008 flight season.

Policy, Regulatory, and Legal Requirements

None

Warnings and Precautions

Requesting mapping needs as early as feasible aids in maintaining the project schedule.

Resources and Tools

[Mapping Needs Request Spreadsheet](#)

[NCDOT Mapping Guidelines for Planning and Design Activities.](#)

Contacts

- For suggestions to change this procedure contact: Karen Capps, (919) 715-7299
- For questions about performing this procedure contact: Ted Devens, (919) 733-7844 ext. 360, Rob Allen, (919) 250-4167, Glenn Mumford, (919) 250-4016.

User Access

Select appropriate User Access:

- Restricted NCDOT, FHWA, MPO, RPO, Consultants, etc.