

**Avaltroni, Robert**

**From:** Jim Miller [jmill@health.nyc.gov]  
**Sent:** Monday, May 13, 2002 11:05 AM  
**Cc:** avaltronir@dep.nyc.gov; michaelgi@dep.nyc.gov; Callahan.Kathy@epamail.epa.gov; Jessica Leighton; Jeanine Prudhomme; Kelly McKinney; Nancy Jeffery; Roger Hayes; Reena Mahajan; Vincent Coluccio; Wilfredo Lopez  
**Subject:** Building and Parks Data Inventory



DOITT scope  
051302.doc

Jim—thanks for pulling this document together.

Everyone else—The attached outlines DOITT/PlanGraphics' scope of work for the Building and Parks Data Inventory. You may want to read the attachment before reading my comments.

Two comments. I foresee that the NYC Law Department will be another system user. The Law Department will want full access to the database, including apartment-specific information.

The proposal contemplates the addition of 2 substances (beyond asbestos) to the database (p. 2, 1<sup>st</sup> full bullet). As the EPA is currently working with a list of 7 specific substances (asbestos, fibrous glass, refractile ceramic fibers, silica, dioxins, PAHs, and lead), plus total dust, the database should be developed to accomodate these 8 items. In addition, test results for other substances may be available, and the database should have a section for these other substances.

Does this proposal include data entry? While a large portion of test information may be importable in an electronic format, some test results may exist only in hard copy and thus need data entry. Cleaning information about various locations will also need to be entered.

I am copying DEP, EPA, Law, and MOEC on this reply. Let's include an update on this project for the Bldgs and Parks cmte meeting: 11 am on Weds 5/15 at MOEC.

"Jim Hall" <jhall@plangraphics.com> 05/13/02 10:05AM >>>

Jim & Sam - I made some changes to the previous version based on feedback from Sam.

Jim - Let me know if you have any questions or comments.

Thanks, Jim

—Original Message—

**From:** Jim Miller [mailto:jmill@health.nyc.gov]  
**Sent:** Thursday, May 09, 2002 4:57 PM  
**To:** jhall@plangraphics.com  
**Cc:** sbenson@oem.nyc.gov  
**Subject:** RE: DOITT funding for WTC

Could you send me a copy too? Thanks, Jim

"Jim Hall" <jhall@plangraphics.com> 05/09/02 03:55PM >>>

Jim - I sent a scope and budget to Sam this morning.

I think that he can help me turn it into a proposal to FEMA.

Thanks, Jim

—Original Message—

**From:** Jim Miller [mailto:jmill@health.nyc.gov]

**Sent:** Tuesday, May 07, 2002 11:02 AM  
**To:** [jhall@doitt.nyc.gov](mailto:jhall@doitt.nyc.gov)  
**Cc:** [sbenson@oem.nyc.gov](mailto:sbenson@oem.nyc.gov)  
**Subject:** DOITT funding for WTC

Has a budget request been prepared re DOITT support for continued work on the Building and Parks database?

# Proposal for Database and Web Application Development to Support the Needs of the Lower Manhattan Air Quality Task Force

## Introduction

The Lower Manhattan Air Quality Task Force (LMAQTF) was created in order to collect air quality data for southern Manhattan and publish it for public access on the internet. The LMAQTF has been tasked with the following:

- Collecting air quality data from several City, state and federal agencies
- Extracting, transforming and loading the data into a central repository
- Publishing select components of the entire database for public access via the internet
- Providing expanded repository access to scientific entities performing research

PlanGraphics Inc. has developed a pilot intranet Asbestos Mapping Application (<http://167.153.41.41/projects/projects/projects.html>) that is available to agencies and individuals who have access to New York City government's intranet (known as "Citynet"). This site is limited in both data and functionality (e.g. it only includes data provided by four agencies) and was developed primarily as a proof of concept. The New York City Department of Information Technology and Telecommunications funded the development of the pilot.

In this document PlanGraphics lays out the scope and budget to complete a broader implementation to support the data gathering and publishing needs of the Lower Manhattan Air Quality Task Force.

## Project Scope

## Assumptions

The following assumptions have guided the development of this document:

- Two levels of data access should be included:
  - Restricted public access via internet
  - Direct scientific access
- Nine agencies have already contributed data to the effort including:
  - Environmental Protection Agency (EPA)
  - New York City Board of Education (NYCBOE)
  - New York City Housing Authority (NYCHA)
  - New York City Department of City Administrative Services (NYCDCAS)
  - New York City Department of Environmental Protection (NYCDEP)
  - New York City Department of Health (NYCDOH)
  - New York State Department of Environmental Conservation (NYSDEC)
  - New York State Public Employee and Health Bureau (PESH)
  - Occupational Safety and Health Administration (OSHA)

The project team will collect and work with data from these nine and up to six others.

- The systems architecture supporting the public access web site must have the following characteristics:
  - N-tier architecture
  - Full systems redundancy for each tier
  - Redundant power supplies for each tier
  - Target system uptime will be 99.5%

- System will have to be operational for up to one year from the starting date of the project
- This scope of work covers the development of database and web application(s) sufficient to present three different types or groupings of contaminants (asbestos and two others)
- LMAQTF can provide subject matter experts to help define the presentation of the data
- The application development will be done with Java Server Pages – a Java applet in a browser may be used
- The systems architecture solution is not yet defined. Potential options include:
  - Use NYCOEM's EMOLS architecture (ArcIMS w/Oracle)
  - Use a NYC DOH-based/provided solution (unknown)
  - Use an EPA-based/provided solution (unknown)
  - Completely new systems architecture housed at NYC DoITT (Xmarc w/Oracle Spatial or ArcIMS w/Oracle Spatial)

The specifics of the work effort described below will depend upon and vary according to the systems architecture solution chosen.

### **Task Series 1. Planning and Design**

The following activities will occur as part of the project's initial planning and design effort.

- Conduct Requirement and Resource Analysis
- Review Deployment Architecture Options
- Select Deployment Architecture Solution
- Design Overall Internet GIS Application Architecture
- Conduct Application(s) Functional Requirements Workshop(s)
- Develop Application(s) Function Specifications
- Develop Application(s) Design and Prototype
- Develop Acceptance Criteria

### **Task Series 2. Database Development**

The following activities will be needed to ensure the development of the data repository:

- Collect and Analyze Agency Datasets
- Develop Logical Database Design for LMAQTF Application(s)
- Develop Physical Database Implementation for LMAQTF Application(s)
- Extract and Load Existing DoITT GIS Utility Data Sets
- Extract, Transform and Load Agency Datasets into Oracle
- Perform Data Quality Control\*
- Perform Database Indexing and Tuning
- Database Movement Between Development and Production Systems
- Design & Implement Database Security and User Security
- Develop Database Management Procedures
- Develop System Administration Procedures
- Additional Data Cleanup (costs presented in this document include the time for two junior staff to work for one week each)

\* The project team will make a good faith attempt to resolve data problems, but would

have to rely on the maintaining agency to perform major data cleanup or reformatting

### **Task Series 3. Application Development**

The following activities will be required in order to develop and deploy the application interfaces:

- Develop Overall Common Application Functions
- Revise Asbestos Mapping Application
- Develop Each Application Using Iterative Prototyping
- Unit Test Each Application
- Install and Perform Integration Testing for Each Application
- Develop Online Help Manual
- Perform System Testing Against Acceptance Criteria
- Provide One Year Limited Maintenance Support
- Provide User Training
- Provide User Support (9-5, M-F)
- Provide Administration Support (9-5, M-F)

### **Tasks Series 4. Systems Architecture Development**

The following tasks are required to ensure that the software, hardware and networking components of the project are successfully implemented:

- Develop System Configuration Design
- Assist in Hardware and Software Procurements
- Oversee the System Installation and Configuration
- Perform System Acceptance Test
- Configure Servers
- Provide Oracle DBA Services for GIS DB Server
- Provide System Admin Services for GIS System
- Perform Stress Testing on the GIS System
- Provide System Capacity Requirements

### **Task Series 5. Project Coordination**

These tasks are needed to ensure that the project meets scope and budget defined in this document and accurately reflect the needs of the participating agencies and the public.

- Attend Weekly LMAQTF Meetings
- Attend Weekly Buildings-Parks-Data Committee Meetings
- Coordinate with LMAQTF on the Database Issues
- Coordinate with LMAQTF on the Presentation Issues
- Project Management

## ***Project Costs***

### **Costs By Task**

The estimated fees for this effort are presented in Table 1 below. Note: The specifics of the work effort described below will vary according to the systems architecture solution chosen.

**Table 1. – Costs By Task**

| <b>Task Series Designation</b>             | <b>Task Series Cost</b> |
|--------------------------------------------|-------------------------|
| 1. Planning and Design                     | \$24,000                |
| 2. Database Development                    | \$75,000*               |
| 3. Application Development                 | \$40,000                |
| 4. Systems Architecture Development        | \$22,500                |
| 5. Project Coordination                    | \$27,500                |
| Total Project Cost (Labor and Expenses):   | \$189,000               |
| Additional Optional Infrastructure Cost**: | \$160,000               |

\* This assumes that the data received from the nine agencies is of sufficient quality and completeness to enable "quick" loading – If unforeseen data cleanup is required, PlanGraphics will look to the maintaining agency to perform major data cleanup or reformatting or, if this is not possible, perform the actions required and bill for time and materials above and beyond the estimated cost of the project.

\*\* New hardware, software and networking components will be needed only if an alternate hosting option can not be found. The architecture priced is based on a collection of Sun 220R servers.

### **Contract Terms**

The work described in this document will commence upon PlanGraphics' receipt of a purchase order or contract from either FEMA or the City of New York. PlanGraphics has both a GSA Schedule and an existing contract with the New York City Department of Information Technology and Telecommunications; either could potentially be used as a contract vehicle.