



# Job Report

## Xerox Resende

### Job Description

- Owner:** Xerox Corporation
- Location:** Xerox Manufacturing Facility, Webster, New York; Resende Drive
- Type of Project:**
- Competitive bids for reconstruction of the existing Resende Drive at Xerox Manufacturing Facility.
  - DiFiore Construction was selected as the contractor for the project.
- Original Bid:**
- Complete pavement reconstruction including removal of existing base material and asphalt pavement. Replacement was bid to require:
    - 12" of new sub base material
    - 3" hot asphalt base course
    - 2" hot asphalt binder course
    - 1.5" hot asphalt surface.
  - Resende drive is approx. 2200ft in length consisting of (2) 12' driving lanes with an unimproved shoulder.



Resende Drive / Pre-Construction



Resende Drive / Pre-Construction

**Total bid of new construction was \$340,000.00**

### GEO Technical Investigation:

DiFiore hired EDP Consultants in connection with a proposed change to the work. Greg Samios of EDP examined the pavement in its existing condition. Cores and test pits were made prior to formulation of a different pavement section.

As a result of this geo technical investigation and in consideration of other aspects of the work, it was decided that a complete recycle and reuse of existing pavement materials could produce a new pavement of equal structural value to that originally proposed. No degradation in service life is expected.

In addition it was evident that the pavement would benefit by the addition of under drain at the edge, and that the pavement section would perform better with an improved shoulder to support the unconfined edge and to bear the loading of truck traffic at that edge of pavement

### New Work Proposal

The DiFiore Group proposed and Xerox accepted a recycling alternate (**FoamMaster**) to the proposed new pavement detail at a cost and Environmental saving to Xerox.

**Xerox was credited \$50,000.00 as a result of this change.**

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## Description of Work:

Samples of materials were sent to EDP to provide a mix design for the proposed Plant Produced Recycled Pavement Base. EDP did pavement structural calculations to recommend a Recycled Pavement section utilizing; **FoamMaster - Plant Produced Foam Recycled Asphalt** as the paving base.



Asphalt pavement was removed to a depth of 4" by milling. Millings were stockpiled in an adjacent parking lot and supplemented by other Xerox milling. Shoulder excavation was removed along with 2 feet of the existing pavement edge to accommodate new under drain system and to accommodate new shoulder sub base material. This excavated material was not suited for recycling as it contained silts and organics.



Remainder of the asphalt and sub base materials were dry recycled to provide a free draining sub base material for the roadway and shoulder section. Sub base material was graded and recompact in preparation for paving. Roadway was open to traffic during this construction.



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## Description of Work: (cont)

**FoamMaster** Paving base was produced and placed in one day. Work consisted of placement of 1- 4" lift immediately followed by 1- 3" lift. Material was produced in an adjacent parking lot and required only 3 tri axle trucks to feed the 1,850 metric tons to the paver. Compaction was accomplished with Hamm oscillatory and rubber tired rollers, using roller patterns previously established for recycled cold mix.

The **FoamMaster** pavement base was opened to traffic including truck. Some minor releveling of the surface took place as a result of cold rainy weather conditions.

The **FoamMaster** paving base was allowed to cure for 1 week prior to surfacing with 2' lift of hot asphalt top. Pavement showed no signs of displacement or rutting under loads imposed by paving trucks and equipment. Measurements were taken in wheel rut areas and exhibited no signs of rutting as is typical with other cold recycled material.

Final work consisted of placement of screened, crushed millings on shoulder and placement of pavement markings.

Entire process took 2 weeks despite adverse weather conditions.



## Services by DiFiore Group

### DiFiore Construction:

- Prime Contractor
- Milling and Paving

### FoamMaster:

- Supplied Plant Produced Foam Asphalt
- QA/QC

## Other Services Provided By

- EDP Consultants
  - Feasibility Study
  - Mix Design

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## Savings to Xerox

- \$50,000.00

## Benefit to Xerox

- In addition to other cost and environmental benefits, recycle of sub base material eliminated the need for SEEP's permitting as material remained in place.
- In addition **fiber optic cables** were reputed to be under the pavement but could not be located. This construction method reduced risk to Xerox for damage to this important utility.

## Benefit to the Environment:

- Use of recycled Foam Asphalt saved 20,000 gallons of petroleum as apposed to Hot Mix Asphalt Product.
- Re-use of subbase and existing pavement reduced waste of non renewable resources and resultant environmental impact.



Resende Drive / Post Construction