

DAVID E. ROSS ASSOCIATES, INC.

Civil Engineers, Land Surveyors, Environmental Consultants

March 20, 2000

Sterling Building Needs Committee
Butterick Bldg
One Park Street
Sterling, MA 01564

By Hand Delivery

Re: Project Status Additional Scope of Services, Combined Sewage Disposal Facility
Veteran's Memorial Park
Ross Assoc. Project No. 13415

Dear Committee Members;

As discussed with Mr. Chandler, Chief Baker and Mr. Carell last week, this office has developed a schematic sewage disposal system design to accommodate the expanded fire station and adaptive re-use of the Old Town Hall.

On March 7, 2000, members of our staff achieved the second needed percolation test for the Fire Station and Old Town Hall system. This test did not require any extra ordinary efforts, just the field survey which identified the limits of the property owned by the Town. Attached is a sketch location of the proposed leach fields (primary & reserve). As of today's date we have not made a qualitative assessment as to which of the two fields will be the primary. This decision will be made using the following as a priority:

1. Any opinion from the Board of Health will be held as the first priority.
2. Construction Cost will be the second priority.
3. Aesthetics will be the lowest priority.

The system was reverse engineered. We designed the maximum field that would fit within the constraints of offsets and loading. A small treatment plant will be required and this too was accommodated in the design capacity. Ultimately, the maximum flow "permissible" on this site is 1,800± gals./day. The new, expanded fire station requires a flow capacity of 1,100 gal./day, leaving a flow of 700 ± gal./day for the Old Town Hall. This usage rate equates to two floors of office space (6,000 sf) and a meeting room capable of holding 70± people.

In appearance the leach fields will be a minimum of six (6') feet above existing grade, with side slopes of 3:1 (horiz:vert). The top of the bed will be generally level and will slope down and away on all four sides. Where it abuts the adjoining property, a small swale will be formed to pitch water away.

111 Fitchburg Road P.O. Box 368 Ayer, Massachusetts 01432-0368
978-772-6232 978-368-1065 978-448-3916 FAX 978-772-6258

E-Mail: derinc@ma.ultranet.com Home Page: <http://www.ma.ultranet.com/-derinc>

We believe that the cost to construct this system scheme will remain in the general estimate of \$ 150,000 – \$ 200,000. This cost is exclusive of landscaping or other site work (drainage, paving...), it is for the construction of the only system (pump chamber, treatment system, septic tanks, lines and leach field) serving both facilities only.

Our next step is to present our findings and sketch design to the Sterling Board of Health for their review and consideration. This will give the Board a glance at the remaining issues (Zone II and presence of the "town ditch" pipe). Once we have received comments from the Board of Health, we will proceed with the formal design and permitting process.

Should you have any questions or require additional information, please do not hesitate to contact the undersigned.

Sincerely,
DAVID E. ROSS ASSOCIATES, INC.
By:

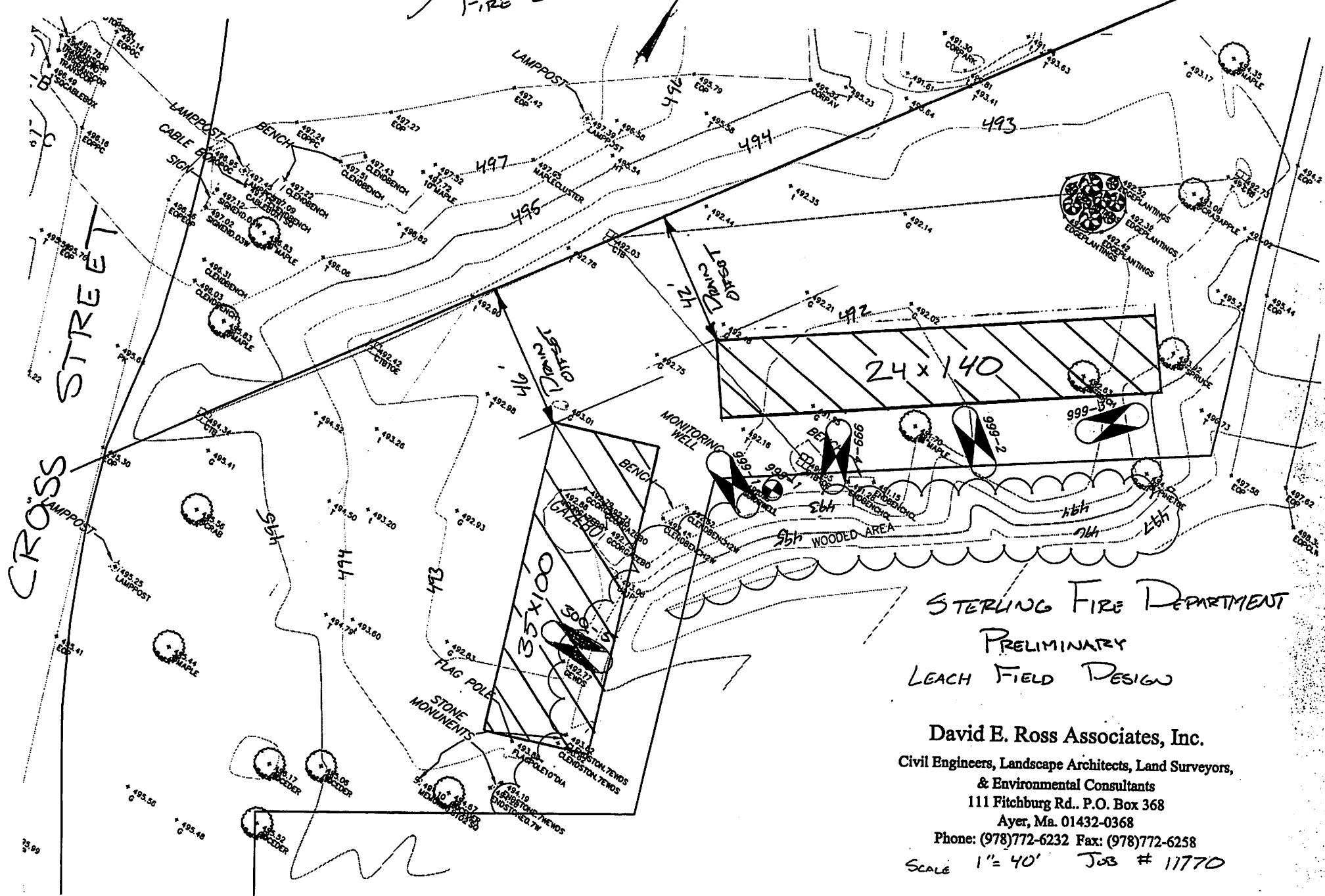

William E. Murray, L.A.

Enc. Sketch design of proposed leach field layout.

DAVID E. ROSS ASSOCIATES, INC.

111 Fitchburg Road P.O. Box 368 Ayer, Massachusetts 01432-0368
978-772-6232 978-368-1065 978-448-3916 FAX 978-772-6258
E-Mail: derinc@ma.ultranet.com Home Page: <http://www.ma.ultranet.com/-derinc>

To FIRE STATION



STERLING FIRE DEPARTMENT
 PRELIMINARY
 LEACH FIELD DESIGN

David E. Ross Associates, Inc.
 Civil Engineers, Landscape Architects, Land Surveyors,
 & Environmental Consultants
 111 Fitchburg Rd., P.O. Box 368
 Ayer, Ma. 01432-0368
 Phone: (978)772-6232 Fax: (978)772-6258
 SCALE 1" = 40' JOB # 11770