

23-65-154

Mr. A. M. Toye,
Bridge Engineer.
Materials & Research Section.
Attention: Mr. S. McCombie.

August 15, 1960.
PRELIMINARY FOUNDATION
INVESTIGATION - by P.H.C.

Re: Hwy. 18 & Turkey Creek Proposed Crossing,
0.88 Mi. West of La Salle, Ontario
W.P. 139-60 -- W.J. 60-P-70 -- District 1.

A preliminary foundation investigation consisting of 2 sampled boreholes, has been carried out at the above noted structure location; the locations of these borholes are shown on the attached drawing. Results of the borings indicate that the subsoil at this site, consists of a deep deposit of soft clay overlying bedrock. The soft clay stratum, in general, was found to be overlain by alluvial deposits of organic matter of the order of 7 ft. The clay is soft and shear strengths of the order of 600 p.s.f. were measured by in-situ vane apparatus. Bedrock has not been reached at a depth of 71 ft. below the existing ground surface, but, according to available well-drilling records in the vicinity of the site, it is believed that bedrock will be encountered at a depth of the order of 80 ft. to 100 ft. below the existing ground surface.

On the basis of our preliminary subsoil findings, spread footing type of foundation support for the proposed structure can be ruled out in view of the measured low shear strength of the soft clay. A pile-supported foundation for the structure is necessary. The type of piles to be used will depend to a

cont'd. /2 ...

great extent, upon the depth of bedrock contact.

It is our understanding that two revision lines of Hwy. 18 at the creek crossing are being considered. We believe that subsoil conditions at both locations would be similar and that, regardless of which revision line of Hwy. 18 is to be adopted, the structure will have to be supported on piles. A detailed investigation will be carried out when the revision line has been finalized.

We trust that this information will be useful to you in the selection of the final structure location.

L. G. Soderman,
PRINCIPAL FOUNDATIONS ENGR.

Per:

AKL

(A. K. Loh,
PROJECT FOUNDATIONS ENGR.)

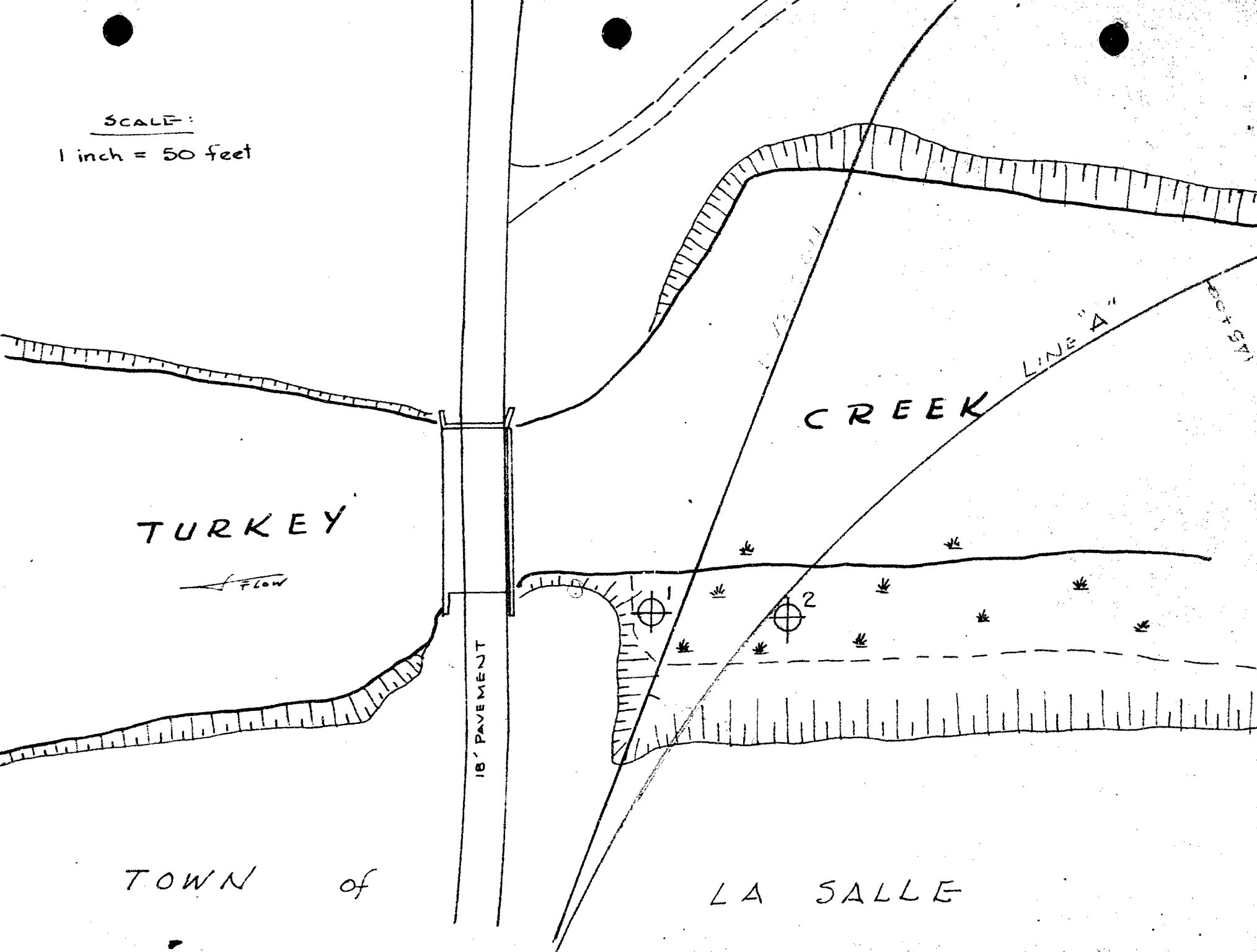
AKL/MdeF
Attach.

cc: Messrs. A. M. Toye (2)
H. A. Tregaskes
D. G. Ramsay
A. Oater
C. U. Howell
J. Roy

Foundations Office (2)
Gen. Files.

SCALE:

1 inch = 50 feet





ONTARIO

DEPARTMENT OF HIGHWAYS

Southwest Region Planning,
335 Saskatoon Street,
LONDON, Ontario.

November 24, 1961.

MEMORANDUM TO:

Mr. J.R. Roy,
Regional Soils Engineer,
LONDON, Ontario.

Re: Design of Approaches to Turkey
Creek Structure on Highway 18
at north limits of "LaSalle",
W.P. 139-60

Enclosed are (1) a portion print of plan 12B119 showing a "Diversion" line and a line "B" across Turkey Creek, (2) a portion print of profile F3330-2 showing a 5 foot clearance over Turkey Creek on Line "B" and (3) a portion print of profile C1048-2 showing a 5 foot and a 10 foot clearance over Turkey Creek on the "Diversion" line.

As the stability of the soil in this area may be affected by "fills" as proposed above, could you advise if a special type of cross-section is required (berms perhaps)? If a special type of cross-section is required for a certain height of fill, what is the maximum height of fill that can be used with a standard cross-section. It should be noted that the highway will vary from a 4 lane divided north of "LaSalle" to a 4 lane undivided across Turkey Creek, to a 2 lane with 9 foot parking lanes (42 feet of pavement) through "LaSalle".

As the Township has requested that the new structure provide a clearance for boats, this office wishes to determine exactly what is involved as to cost of

construction, property damage, design problems,
etc., with various heights of clearance.



LWS:pm
Copies:
H. Orlando
C. Chang
File:
W.P. 139-60
W.P. 2-60-2

L.W. Simms,
Regional Project Study Engineer.
for:
C.R. Hopkins,
Regional Planning Engineer.



ONTARIO
DEPARTMENT OF HIGHWAYS

Memo to Mr. A.G. Stermac *Date* November 27, 1961
Principal Foundations Engineer *Subject* Re: W.P.139-60 Hwy.18
Downsview
From Materials & Research-London Turkey Creek at LaSalle

Attached is a memo from the Regional Planning Engineer requesting information on the approaches to Turkey Creek. The Foundation section has already carried out a limited amount of boring at this structure site.

Could you kindly review the information you have with respect to line "B" and the "Diversion" line. The Planning section have plotted tentative grade lines on the enclosed profiles. Would you please supply them with the information requested if this is possible from the investigation you have already carried out.

JRR/je
cc: C.R.Hopkins
File

A handwritten signature in cursive script, appearing to read 'J.R. Roy'.

J.R.Roy
Regional Soils Engineer

Mr. C. R. Hopkins,
Regional Planning Engineer,
London, Ontario.

Materials & Research Division,
(Foundation Section).

Attention: Mr. L. W. Simms,
Reg. Proj. Study Engr.

November 30, 1961.

W.P. 139-60, Hwy. 18, Dist.#2

Turkey Creek at LaSalle.

Mr. J. R. Roy, Regional Soils Engineer, has sent us a copy of your letter to him, dated November 24, 1961, concerning the above-mentioned project. Enclosed, we are sending you a copy of the preliminary foundation investigation report carried out by this Section. This investigation was carried out along line "A" and along the "Diversion" line.

We are of the opinion that the information obtained from these two boreholes, is not adequate for the new line, and we would recommend that an additional foundation investigation be carried out. This new investigation would provide all the answers that you require.

AGS/MdeF
Encl.


A. G. Stermac,
PRINCIPAL FOUNDATION ENGINEER

cc: Mr. J. Roy

Foundations Office
Gen. Files.

Mr. A. M. Toye,
Bridge Engineer.
Materials & Research Section.
Attention: Mr. S. McCombie.

August 15, 1960.

PRELIMINARY FOUNDATION
INVESTIGATION - by D.H.C.

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(A. K. Loh,
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AKL/mdeF
Attach.

cc: Messrs. A. M. Toye (2)
H. A. Tregaskes
D. C. Farnsay
A. Gater
C. U. Howell
J. Roy

Foundations Office (2)
Gen. Files.

SCALE:
1 inch = 50 feet

87' *structure*
dead tree

TURKEY

FLOW

18' PAVEMENT

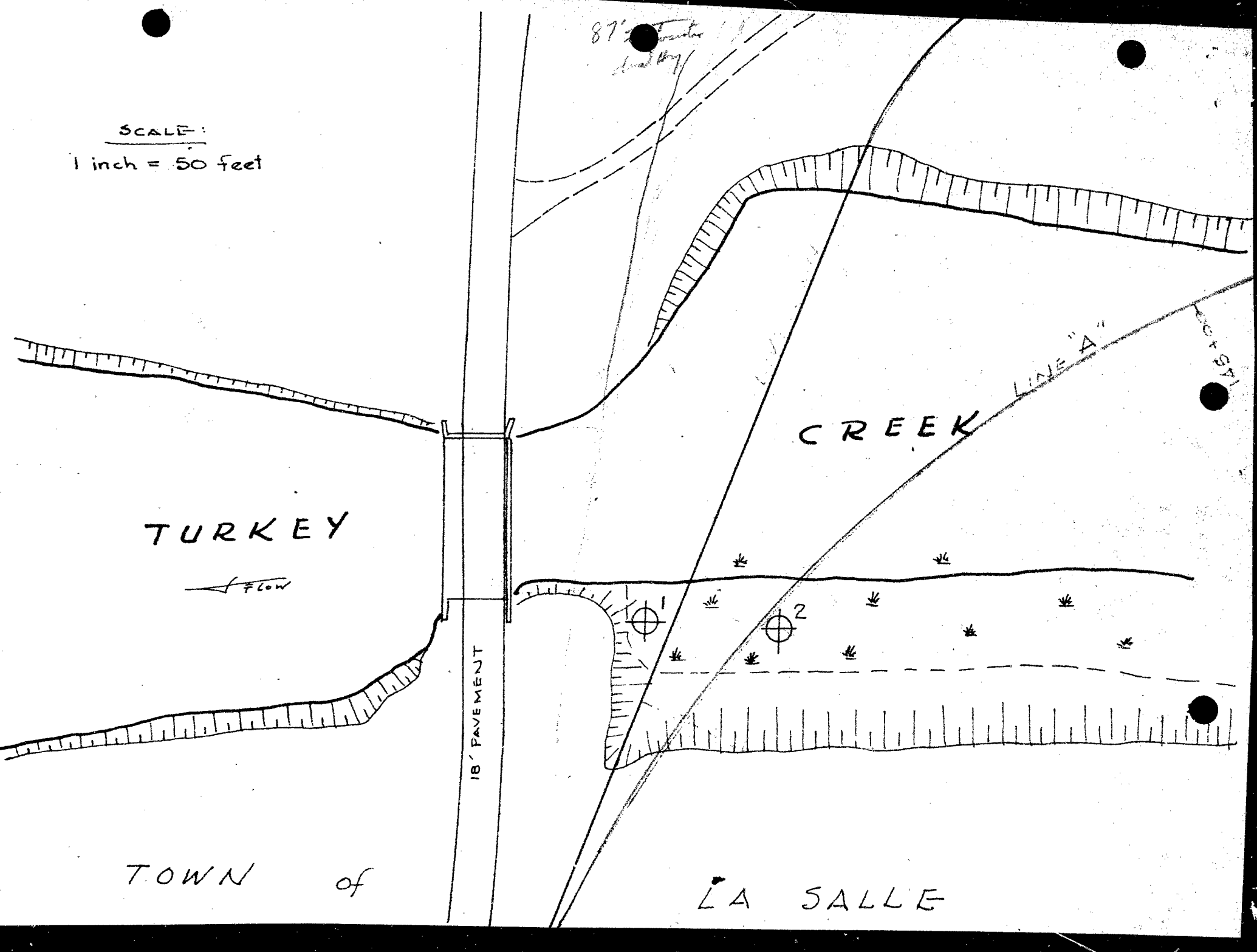
CREEK

LINE "A"

LOC 181

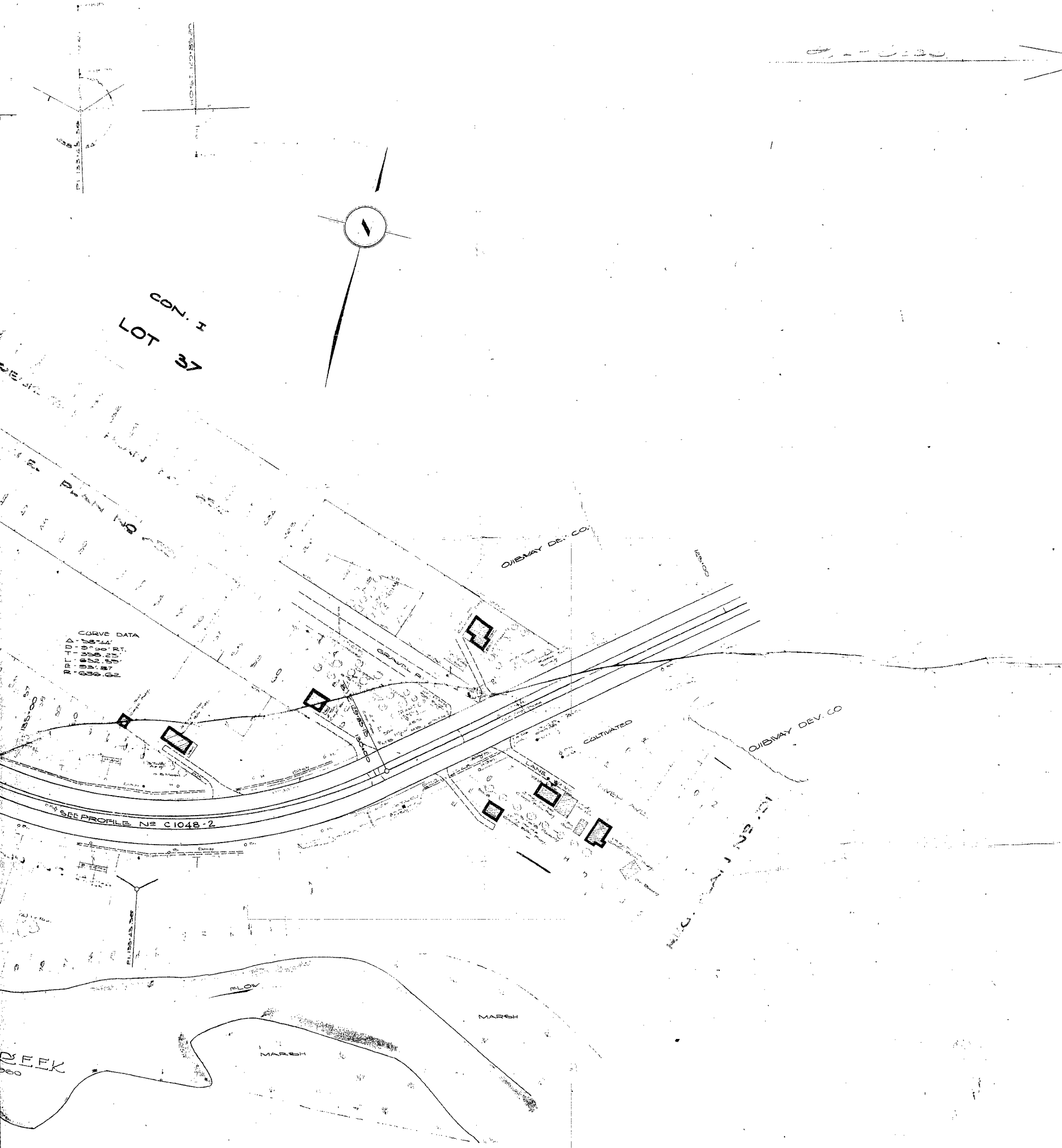
TOWN of

LA SALLE



#60-F-70
W.P.# 139-60
Hwy. #18 E
PROP. CROSSING
TURKEY CREEK
.88 MILES W. OF
LA SALLE

THIS PLAN NO 12 B 119



SOME DEFECTS IN NEGATIVE DUE

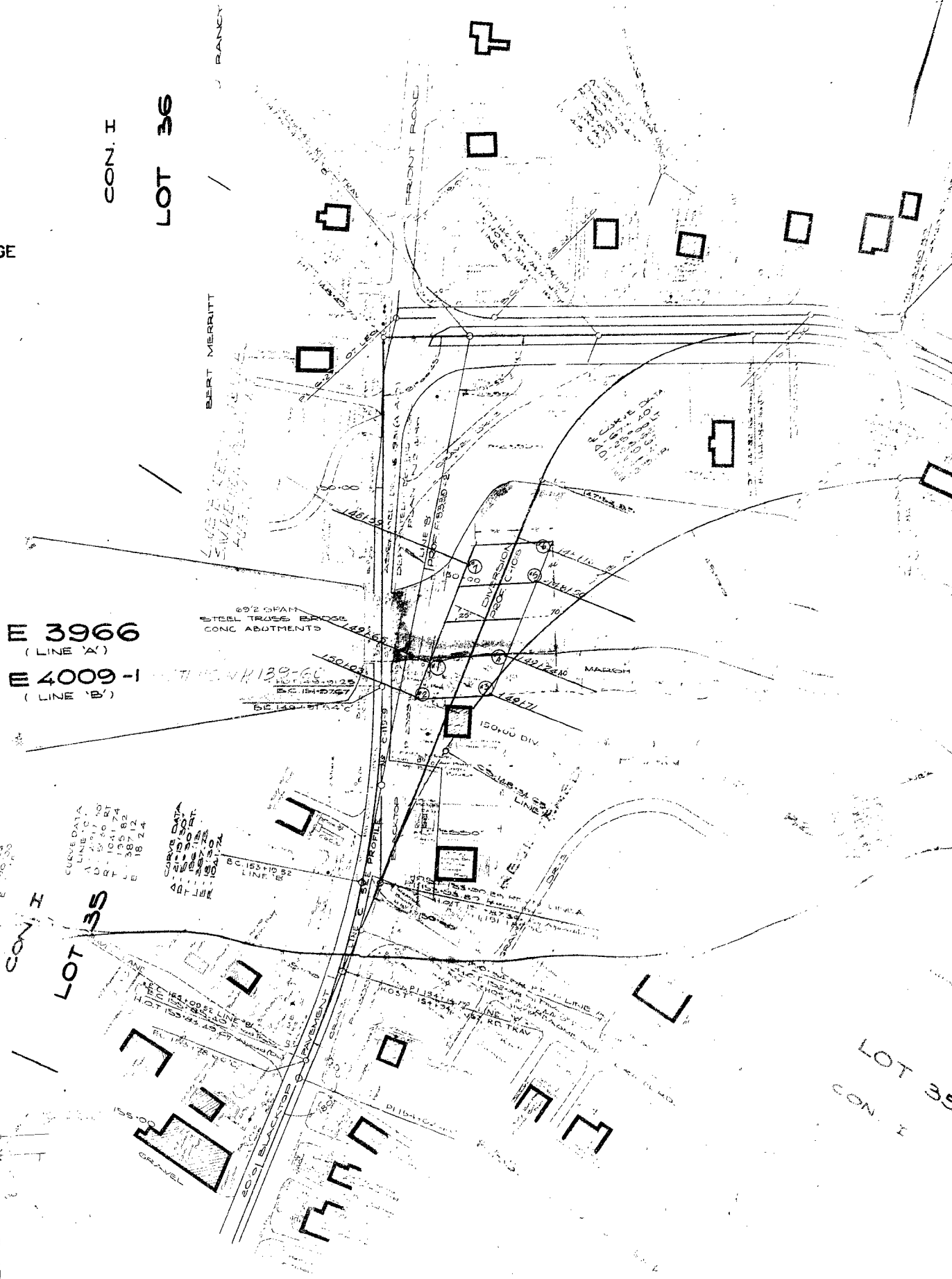
TO CONDITION OF ORIGINAL DOCUMENTS

THIS PLAN NO 12 B 119



SOME DEFECTS IN NEGATIVE DUE
TO CONDITION OF ORIGINAL DOCUMENTS

LOCATION OF BOREHOLES FOR TURKEY CREEK BRIDGE
HWY NO. 18. VILLAGE OF LASALLE
TOWNSHIP OF SANDWICH WEST
COUNTY OF ESSEX



SOME DEFECTS IN NEGATIVE DUE
TO CONDITION OF ORIGINAL DOCUMENTS