Form 4-a—1-24-35—6M

STATE OF MICHIGAN
Office of the Michigan Public Utilities Commission, } ss.

I, Clarke W. Brown, Secretary of the Michigan Public Utilities Commission

Do Hereby Certify, That I have compared the annexed copy of Permit ED2-8-156

3869

with the original

recorded in File No. ED2-8-156

and that it is a true and correct transcript therefrom, and of the whole of such original.

In Testimony Whereof, I have hereunto set my hand and affixed the seal of the Commission, at Lansing, this 13th day of August in the year of our Lord one thousand nine hundred thirty-five.

Clarke W. Brown
Secretary, Michigan Public Utilities Commission

3869

RECORDED RIGHT OF WAY NO. 34636
Jo/41

Form 14

STATE OF MICHIGAN
BEFORE MICHIGAN PUBLIC UTILITIES COMMISSION

Standard Railroad Wire-Crossing Permit No. ED2-8-156

In Re Application of **Detroit Edison Company (Detroit)**

Pursuant to Act No. 171 of the Session Laws of 1893, as amended, application having been made to Michigan Public Utilities Commission by said

Detroit Edison Company

for permission to string wires across the tracks of the

Grand Trunk Western Railroad Company

and said

Detroit Edison Company

having conformed to the Commission's rules governing the filing of notices and issuing of permits for the construction of electrical lines and said rail **road** company having waived the right of notice and hearing provided for in said act

THEREFORE, It is ordered that said

Detroit Edison Company

be permitted to string the following described wires across the tracks of said railroad at the following described place:

In Pontiac Township, Oakland County, Michigan : - -	**North of Lake Angelus Road, 4 miles north of Pontiac Depot, in NW¼ of Section 4, T-3-N, R-10-E, with 3 - #2 A.C.S.R. wires, 4500 volts three-phase.**

as indicated on the attached plans, when, as and if approved.

At the point of crossing said wires shall be constructed in accordance with this Commission's rules and regulations.

Given under our hands and the Official Seal of this Commission at the City of Lansing, State of Michigan, this **13th** day of **August** A. D. 19**35**

MICHIGAN PUBLIC UTILITIES COMMISSION
By

William M. Smith
Chairman,

Emerson R. Boyles
Commissioner,

Ivan E. Hull
Commissioner,

Paul W. Voorhies
Commissioner,

Harold J. Waples
Commissioner.

Countersigned
Clarke W. Brown
Secretary

RECORDED RIGHT OF WAY NO 34634 P141

E 72-8-156

DATA SHEET TO ACCOMPANY DRAWING RX-1512

Name of Company
The Detroit Edison Company.

Name and Location of Crossing
Over the Grand Trunk R.R. (P.O. & N. Division) on private property north of Lake Angelus Road, approximately 4 miles north of Pontiac Depot, N.W. ¼ of Section 4, Township 3 north, Range 10 east, Pontiac Township, Oakland County, Michigan.

Circuits
Proposed one 4800 volt, 60 cycle, 3 wire, 3 phase, distribution circuit.

Poles
Poles(A)(D) 40' Southern Pine, 15" top circumference, 27" butt circumference at ground line set 6' in clay soil.
Poles(B)(C) 45' Southern Pine, 25" top circumference, 41½" butt circumference at ground line set 6'- 6" in clay soil.

Guys and Guy Attachments
Proposed one 5/16" Copperweld Guy from Pole(B) 37' above ground to Anchor (E) 30' from butt of Pole(B).
Proposed one 5/16" Copperweld Guy from Pole(C) 37' above ground to Anchor(F) 30' from butt of Pole(C).
One 5/16" Copperweld Guy from Pole(B) to Pole(C).

Cross Arms
Proposed one 3¼"x 4¼"x 96" Douglas Fir, double cross arm per crossing pole.

Conductors
Proposed 3 #2 A.C.S.R. wires.

RECORDED RIGHT OF WAY NO. 34636
20141

Guy Clamps
Serve 5/16"x 3/8", 1/2" and 6M guys at pole end.
One 3-bolt clamp at anchor end on 5/16" and 3/8" guys.
Two 7/16" U-bolt clamps at anchor end of 1/2" & both ends of 16M guys.
Two 3-bolt clamps at both ends of 5/16" copperweld guys.

Guy Insulators
O.B. #26500 (or equivalent) in 5/16", 3/8" and 6M guys.
O.B. #25009 (or equivalent) in 1/2", 10M, and 5/16" copperweld guys.
Two insulators per guy for 24,000 volt circuits, and one per guy for distribution circuits.

Guy Anchors
On 5/16", 3/8" and 6M guys - 8" cone anchor set 5-1/2' deep.
On 10M, 1/2" steel, and 5/16" copperweld guys - 8" expanding anchor set 7-1/2' deep.
On 16M guy, one concrete anchor (8 cu. ft. concrete) 6-1/2' deep.

Anchor Rods
On 5/16", 3/8" and 6M guys - 5/8"x 6' round galvanized steel.
On 1/2", 5/16" copperweld, 10M, 16M - 3/4"x 8' round galvanized steel.

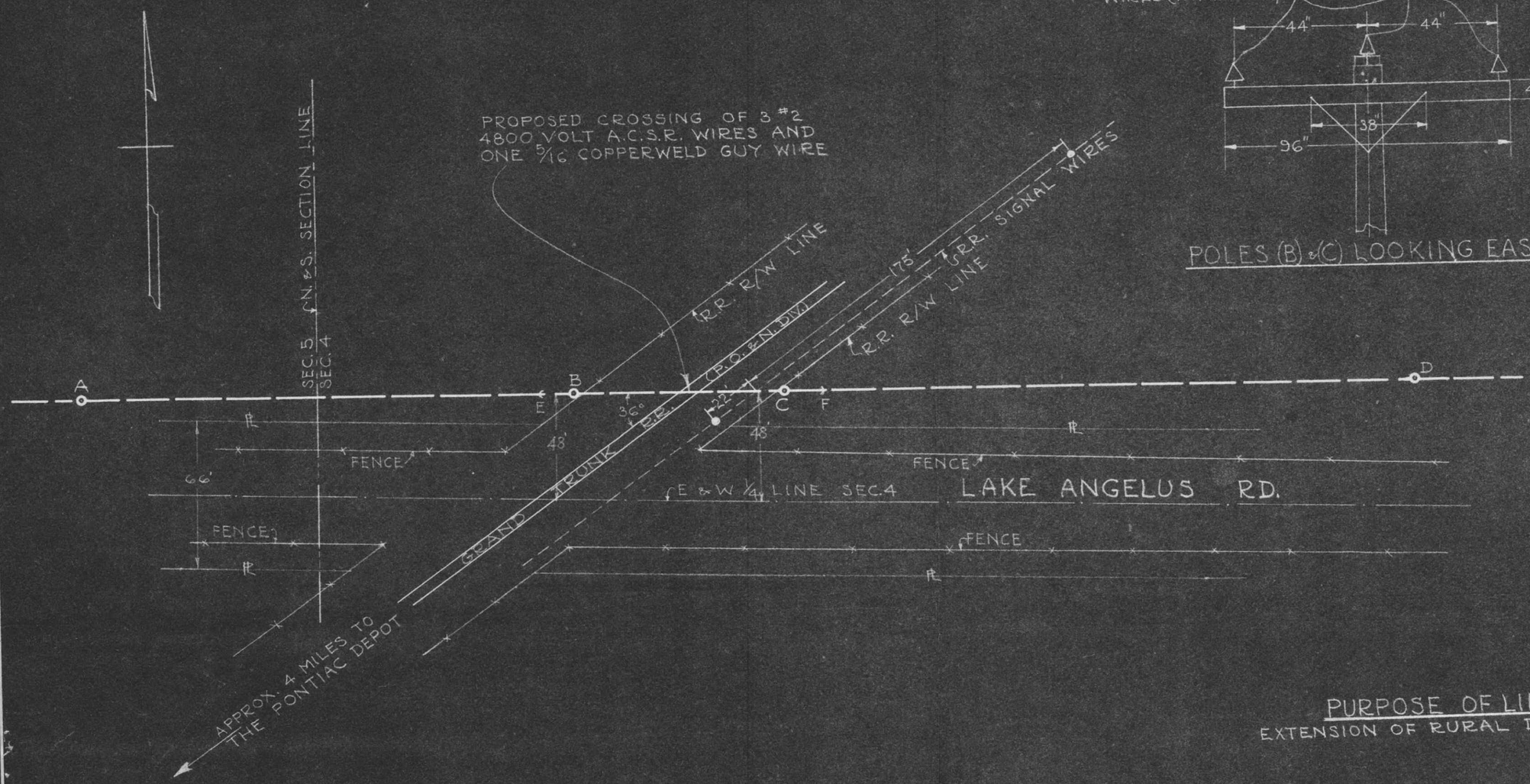
Cross Arm Attachments
Center bolts and spacer bolts - 5/8" galvanized steel.
Spacer blocks - 4"x 4" treated pine.
Braces - 1"x 2-1/2"x 30" treated yellow pine for 24,000 volt circuits.
Braces - 1/4"x 1-1/4"x 28" galvanized steel for all other circuits.
Brace bolts - 3/8" galvanized steel bolts at arm and 1/2"x 5" lag screws at pole.

Pins
Locust 1-3/4"x 13-3/4"x 1-3/8" on arms and 3-3/4"x 3-3/4"x 17" pole top for 24,000 volt circuits.
Locust 1-1/2"x 9"x 1" on 3-1/4"x 4-1/4" arms, and 1-3/4"x 10"x 1" on 3-3/4"x 4-3/4" arms, for all other circuits.

Insulators
24 kv. circuits - one O.B. #11623 (or equivalent) porcelain pin type and six Thomas #1162 (or equivalent) disk type for dead-end construction, or two O.B. #11623 (or equivalent) for double pin construction.
4800 volt, series lighting, and private telephone circuits - two O.B. #12847 (or equivalent) pin type per wire.
120-240 volt circuits - two Hemingray #20 (or equivalent) glass pin type per wire.

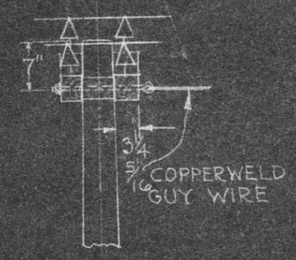
Note
For strain type construction - on 4800 volt and series lighting circuits, two Lapp #6810 (or equivalent) strain insulators and one O.B. #12847 (or equivalent).
On 120-240 volt circuits - two O.B. #25009 (or equivalent) strain and one Hemingray #20 (or equivalent) glass pin type.

Ties
Standard top groove tie on 24,000 volt, 4800 volt series lighting and private telephone circuits.
Standard side groove tie on 120-240 volt circuits.
Tie wire - #8 soft bare copper on 24,000 volt, and bare telephone wires. #6 or #8 soft solid weatherproof copper for all conductors having weatherproof covering.
Aluminum armour rods and #10 galvanized iron tie wire for A.C.S.R. conductors.



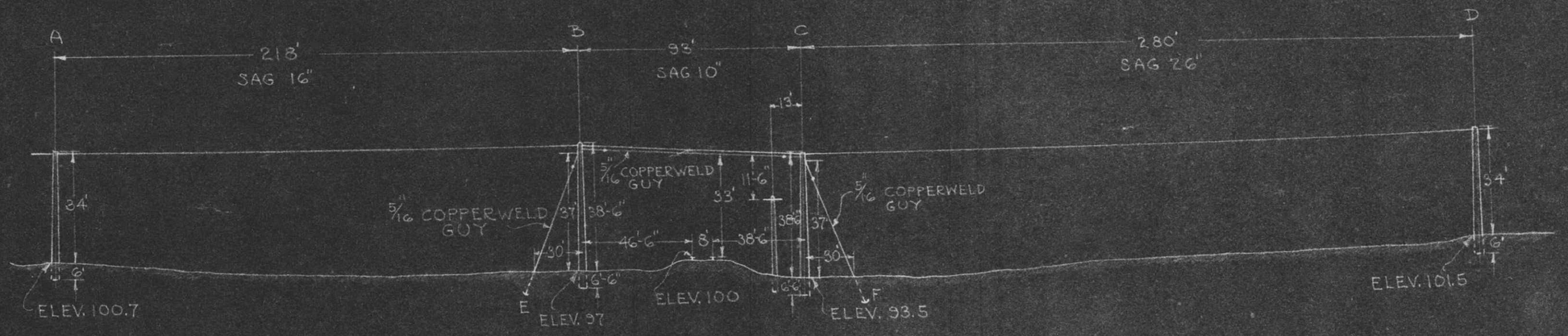
PLAN OF CROSSING

POLES (B) & (C) LOOKING EAST



POLE (B) NORTH
POLE (C) SOUTH

PURPOSE OF LINE:
EXTENSION OF RURAL DISTRIBUTION



ELEVATION OF CROSSING LOOKING NORTH

APPROVED: MRB
FOR MICHIGAN PUBLIC UTILITIES COMMISSION
Ray V. Holland
E-II 2-8-156 CHIEF ENGINEER
FILE DATE JUL 31 1935

CITY
COUNTY OAKLAND
TOWNSHIP PONTIAC
SURVEY NO. OF TWP. 3 NORTH
RANGE NO. 10 EAST
SECTION NO. N.W. 1/4 SEC. 4

THE DETROIT EDISON COMPANY
PLAN SUBMITTED TO MICHIGAN PUBLIC UTILITIES COMMISSION
FOR 4800 VOLT CROSSING
OVER GRAND TRUNK R.R. (P.O.&N. DIV)
DRAWN BY W.R. DATE 7-24-35
CHECKED BY [illegible] DATE 7-24-35

SCHAIRER: BIRMINGHAM

DRAFTING & SURVEYING BUREAU RX # 1512