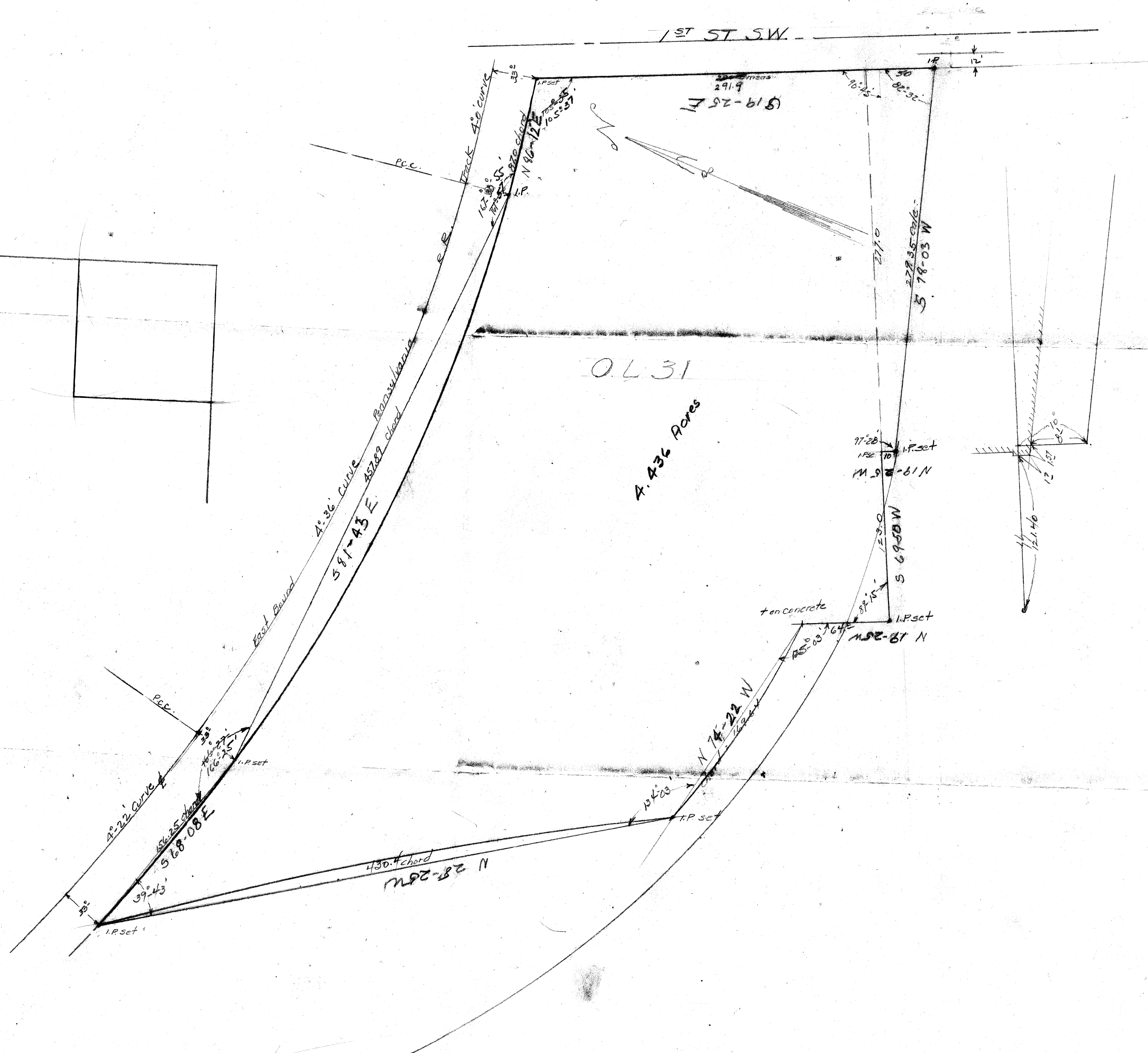


November 1941

Scale 1"=50'



$$R = T \times \cot \frac{1}{2} I$$

$$= 474.29 \times 6.04051$$

$$= 2864.95$$

$$\Delta = 18^{\circ} 48'$$

$$T = 474.29$$

$$L = 940.13$$

$$C = 2 T \cos \frac{1}{2} I$$

$$= 2 \times 474.29 \times .98657$$

$$= 948.58 \times .98657 = 935.84$$

$$\sin D = (C \times \tan .16555) \div 474.29 \times 2$$

$$= \frac{935.84 \times .16555}{948.58} = \frac{154.93}{948.58} \sin = .16332 = 9^{\circ} 24' ?$$

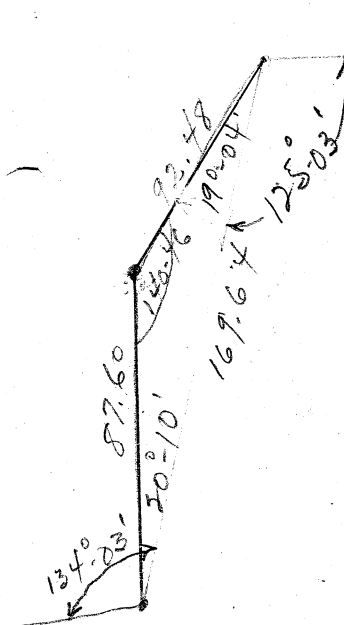
$$\frac{50}{2864.95} = .017452$$

$$\frac{5730}{R} = \frac{4}{8} \times 9.40(2)$$

$$R = \frac{5730}{D} = D = \frac{5730}{R} \quad D = \frac{5730}{2864.95} = 2^{\circ} 0' \text{ Curve}$$

20

179.60
140.46
39.14



$$C^2 = 92.48^2 + 87.60^2 - 2(92.48 \times 87.60 \times \cos 39.14)$$

$$= 8552.55 + 7673.76 - 2(8101.25 \times .77458)$$

$$= 16226.31 - 12550.14$$

$$= 3676.17$$

$$C = 169.64$$

$$\begin{array}{r} 26 \overline{) 187} \\ \underline{156} \\ 3176 \\ 329 \overline{) 2961} \\ \underline{21545} \\ 3380 \overline{) 30316} \\ \underline{33923} \\ 33926 \overline{) 122900} \\ \underline{101769} \\ 2113100 \end{array}$$

$$\begin{array}{r} 26331 \\ 2335 \\ \hline 18.68 \end{array}$$

$$\sin B = \frac{b \sin C}{c} = \frac{92.48 \times .63248}{169.64} = \frac{58.4917504}{169.64} = \sin 34.480$$

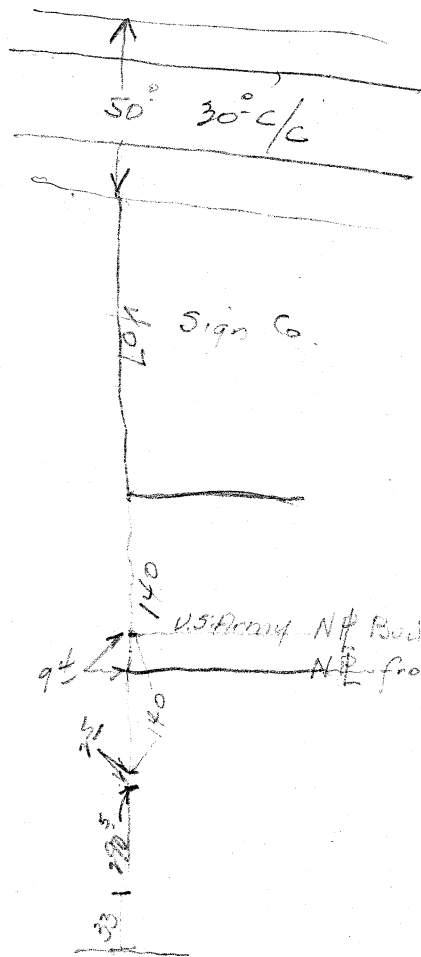
$$= 20-10'$$

$$\sin A = \frac{a \sin C}{c} = \frac{87.60 \times .63248}{169.64} = \frac{55.40525}{169.64} = \sin 32.660$$

$$= 19-04'$$

$$\begin{array}{r} 140-46' \\ 20-10' \\ 19-04' \\ \hline 179-60' \end{array}$$

$$\begin{array}{r} 144-07 \\ 19-04 \\ \hline 125-03 \\ 113-53 \\ 20-10 \\ \hline 134-03 \end{array}$$



$$\sin C = \frac{c \sin A}{a}$$

$$\frac{211.75 \times 22977}{457.89} = \frac{71.5159}{457.89} = .15618 = 8^{\circ} 59' 40'' - 18' = 166^{\circ} - 4.3' = 178^{\circ} 12.0'$$

CITY OF
MASSILLON

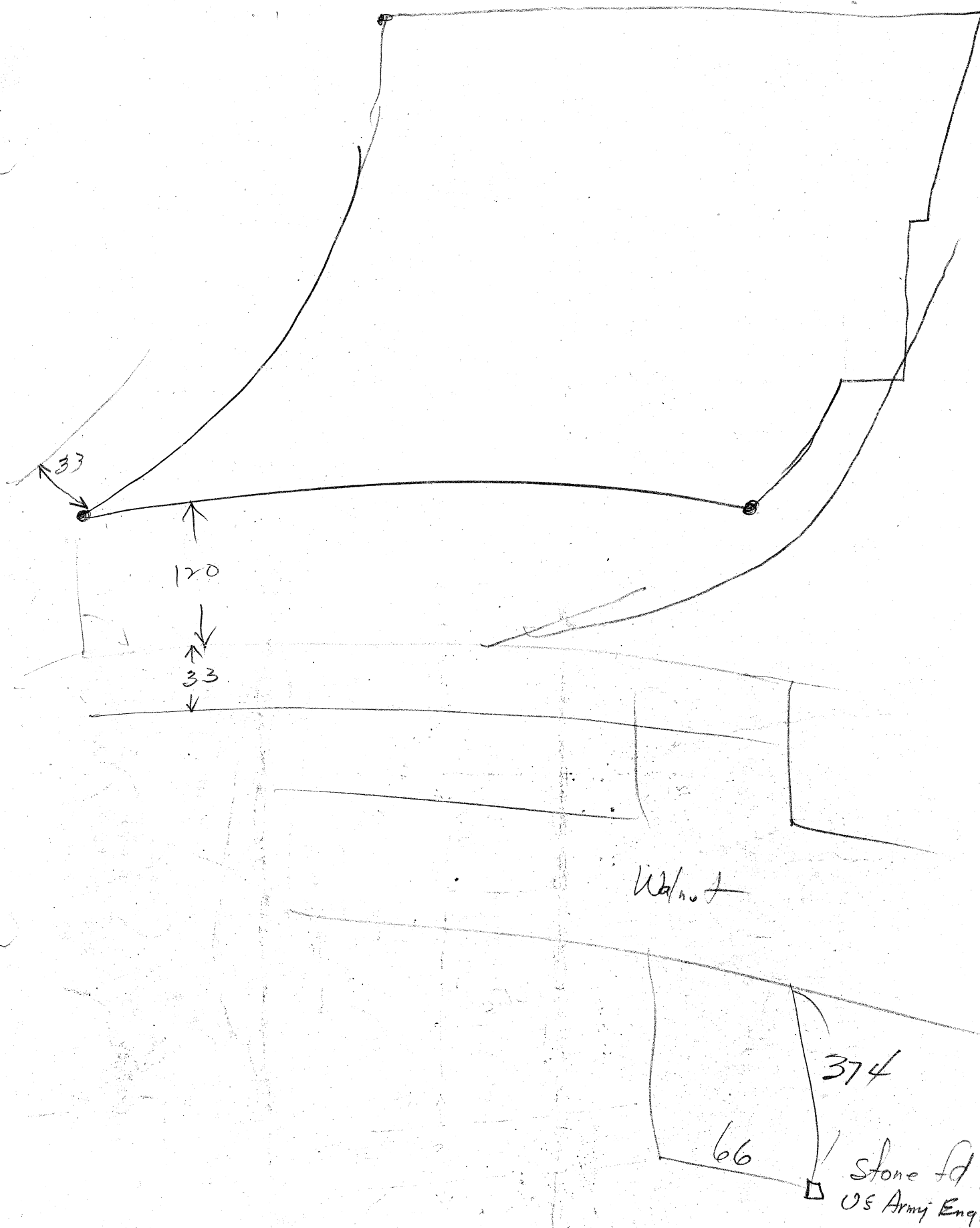
DEPT. OF
ENGINEERING

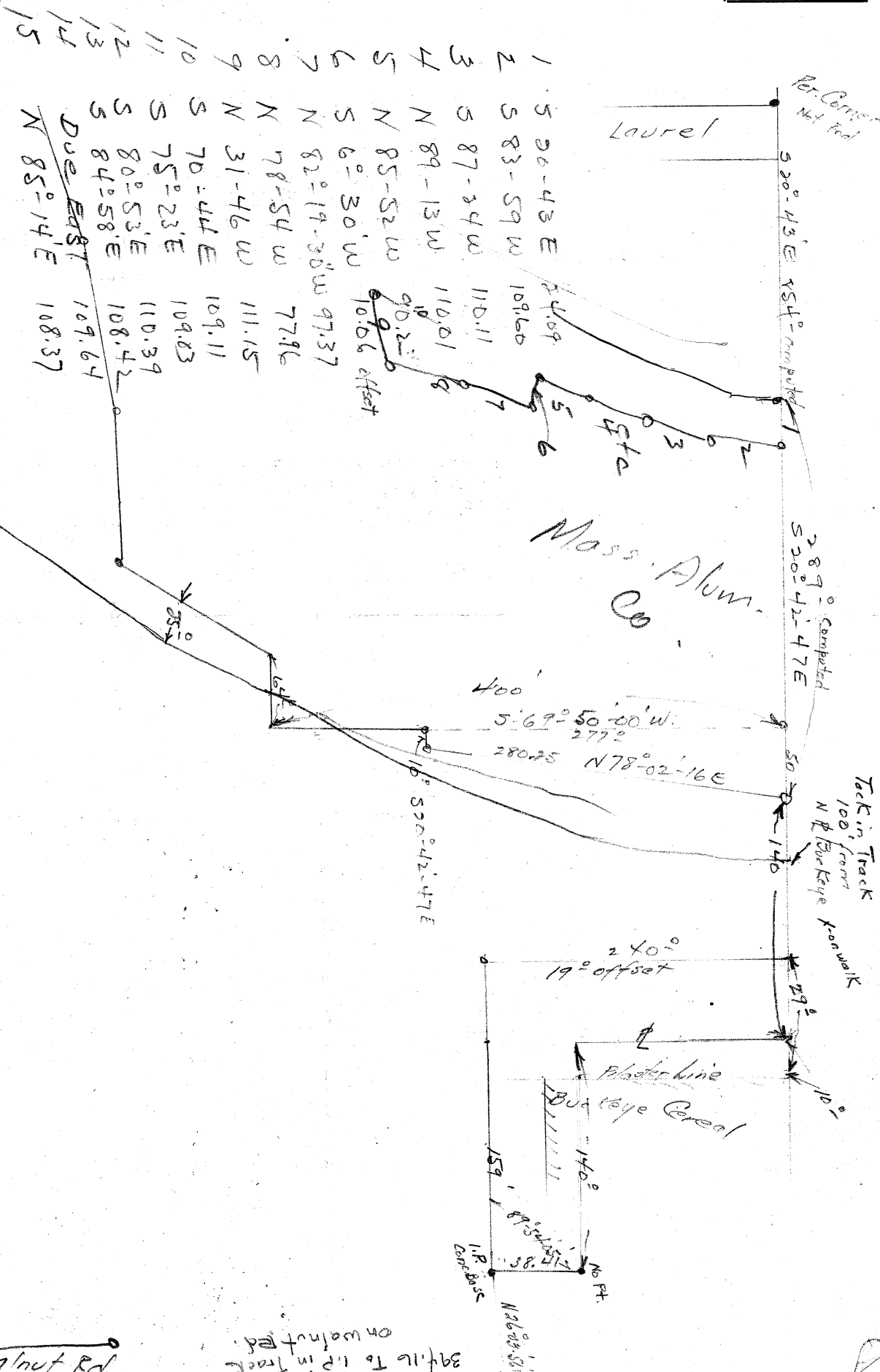
LOCATION _____
SUBJECT _____
COMPUTED BY _____ DATE _____ CHECKED BY _____ DATE _____

JOB NO.

FILE NO.

SHEET NO.

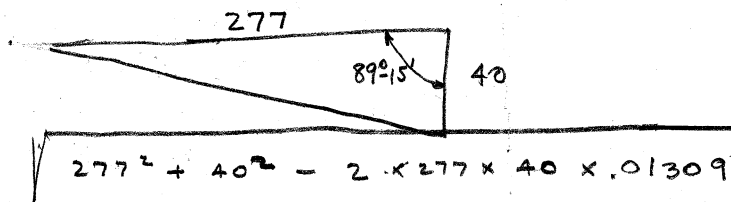




CITY OF
MASSILLON
DEPT. OF
ENGINEERING

LOCATION _____
SUBJECT _____
COMPUTED BY _____ DATE _____ CHECKED BY _____ DATE _____

JOB NO.
FILE NO.
SHEET NO.



$$\begin{array}{r} 76,729 + 1600 - \\ \underline{1600} \\ 78,329 \\ \underline{290.07} \\ 78,038.93 \end{array}$$

$$\begin{array}{r} 554 \\ 40 = 22,160 \\ \times .01309 \end{array}$$

$$290,0744$$

$2 \times 20 = 40$
 ~~$2 \times 40 = 80$~~

$27 \times 20 = 540$
 $\underline{540}$
540

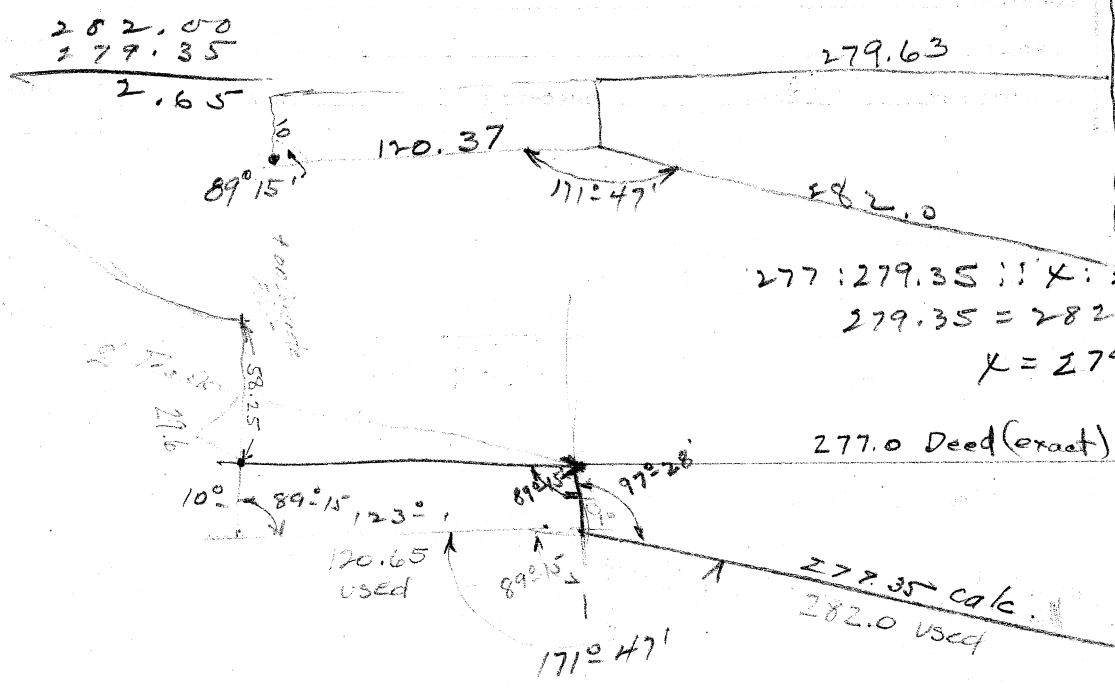
$78,038.93$
 $\underline{4}$
382
 $\underline{329}$
5138
 $\underline{4941}$
19793
 $\underline{16749}$
304400
 $\underline{32791375}$
55865
 $\underline{55865}$
558709
 $\underline{558709}$
2234816

289.354

$$82^\circ 32'$$

$$282^2 + 40 - 2 \times 182 \times 40$$

33 R = Cir
66 x 3.14 = 207.24
 $\frac{18^\circ 30'}{360} \times 207.24 = 5.6$
450 + 5.6 = 455.6
Arc Dist on ~~of~~ of Al. Co.



400.00
279.63
120.37

$$277 : 279.35 :: X : 282$$

$$279.35 = 282 \times 277$$

$$X = 279.63$$

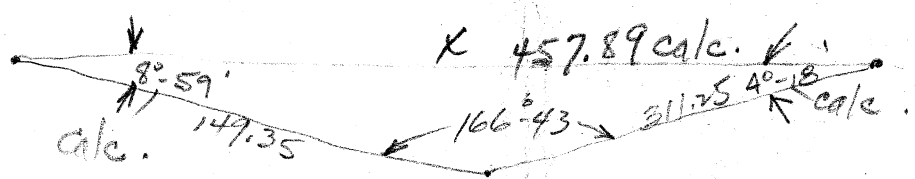
North Line calculations

$$\sin B = \frac{A \sin 13^\circ 17'}{457.89}$$

$$= \frac{149.35 \times .22977}{457.89} = \frac{34.316149}{457.89} = .074944$$

$$= 4^\circ 18'$$

$$\sin C = \frac{C \sin 13^\circ 17'}{457.89} = \frac{311.25 \times .22977}{457.89} = \frac{71.5159}{457.89} = .15618 = 8^\circ 59'$$



40-18'
166°-43'
180°-00'

$$K^2 = 311.25^2 + 149.35^2 - 2(149.35 \times 311.25) \cos 166^\circ 43'$$

$$= 96876.56 + 22305.42 - 2(149.35 \times 311.25) \cos 13^\circ 17'$$

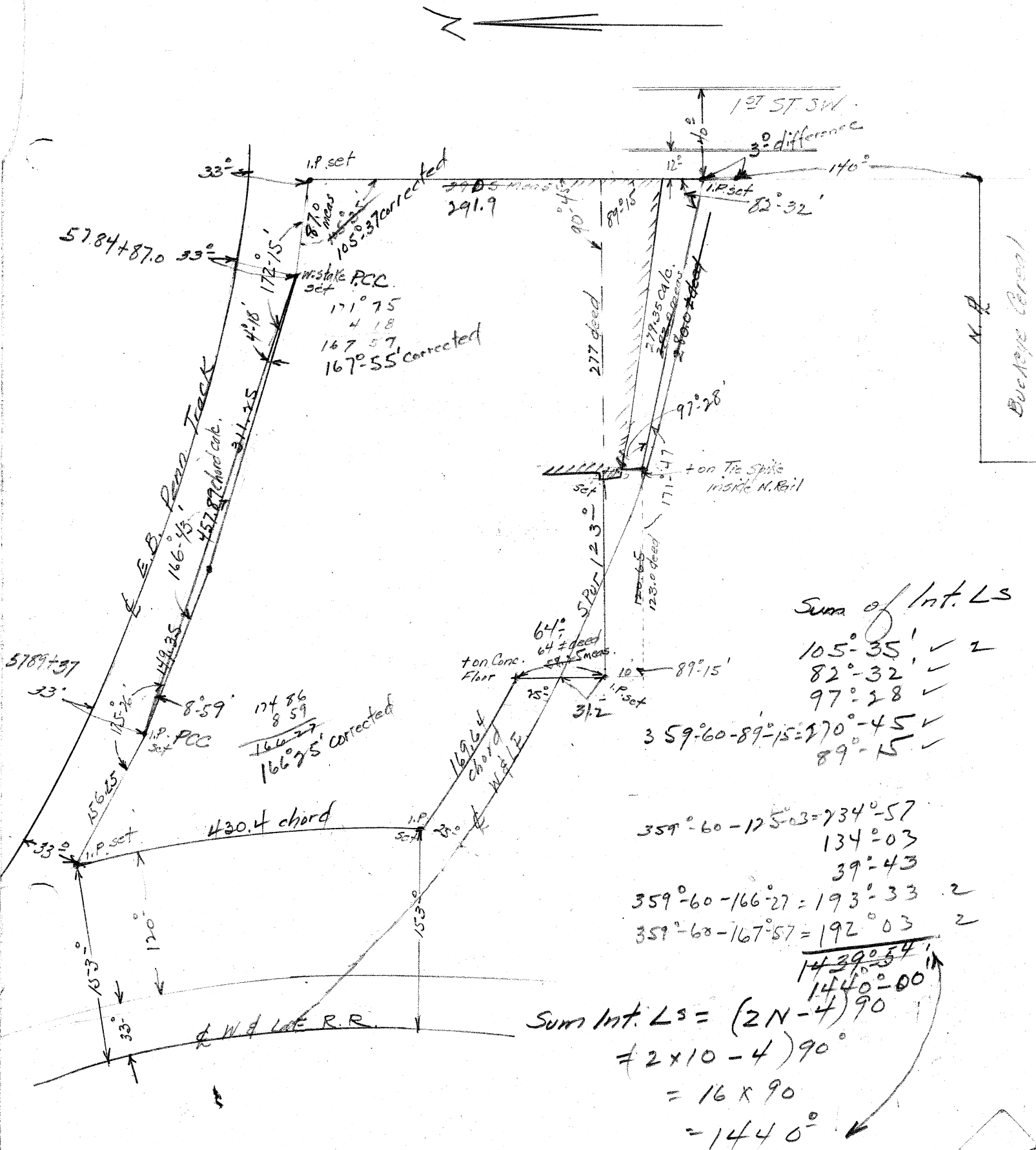
96876.56
22305.42
119181.98
90483.42
109665.40

46485.19
92970.38

$$K^2 = 20,9665.40$$

$$K = 457.89$$

85 1096
425
907 17165
6349
948 81620
73180
82560
82412
2107900



RICE & WALLACE

REGISTERED CIVIL AND MINING ENGINEERS
SURVEYORS

MASSILLON, OHIO

DESCRIPTION OF OUT LOT 31 CITY OF MASSILLON

Beginning at an iron pin at the southeast corner of Out Lot 31 on the west line of 1st St. SW., and which point is fifty (50) feet southerly from the north east corner of former lot No. 64 of the Wetmore Binney & Fay partition as shown on Stark County Plat Records, Volume 5, pages 8 to 10 and which point is also six hundred eighty seven (687) feet measured northerly along the west line of 1st St. SW., from the north line of Walnut Rd. SW., thence south $78^{\circ}-03'$ west; two hundred seventy nine and thirty five hundredths (279.35) feet to an iron pin; thence north $19^{\circ}-25'$ west, ten (10) feet to a point; thence south $69^{\circ}-50'$ west along the north line of the above mentioned former lot #64 one hundred twenty three (123) feet to an iron pin; thence north $19^{\circ}-25'$ west sixty four (64) feet to a cross in the top of an old concrete building foundation; thence westerly on a nine degree curve to the right whose chord is north $74^{\circ}-22'$ west and which chord is one hundred sixty nine and sixty four hundredths (169.64) feet long to an iron pin which point is twenty five (25) feet radially and northerly from the center line of the Wheeling and Lake Erie Railroad track; thence northerly on a 2 degree curve to the left whose chord is north $28^{\circ}-25'$ west and which chord is four hundred thirty and four tenths (430.4) feet in length to an iron pin, this last mentioned curve course being the easterly boundary line of a certain parcel of land conveyed to the Granite Improvement Company by deed dated 10-12-14 from The Massillon Aluminum Company as recorded in Stark County Deed Records Volume 564, page 89, and this last mentioned iron pin being on the south line of the Pittsburgh, Ft. Wayne & Chicago Railroad Company Right of way; thence south easterly on a $4^{\circ}-22'$ curve to the left whose chord is south $68^{\circ}-08'$ east and which chord is one hundred fifty-six and twenty five hundredths (156.25)

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RICE & WALLACE
REGISTERED CIVIL AND MINING ENGINEERS
SURVEYORS
MASSILLON, OHIO

feet in length to an iron pin on the southerly right of way line of the last mentioned railroad; thence south easterly on a $4^{\circ} 36'$ curve to the left, ^{whose} chord is south $81^{\circ}-43'$ east and which chord is four hundred fifty seven and eighty nine hundredths (457.89) feet in length to an iron pin on the southerly right of way line of the last mentioned railroad; thence north easterly on a 4° curve to the left, ^{whose} chord is north $86^{\circ}-12'$ east and which chord is eighty seven (87) feet long to an iron pin located on the southerly right of way line of the last mentioned railroad and also being at the north east corner of out lot 31; thence south $19^{\circ}-25'$ east two hundred ninety one and nine tenths (291.9) feet along the east line of Out Lot 31 being also the west line of 1st St. SW., to the place of beginning containing 4.436 acres more or less.

DESCRIPTION OF OL 31 CITY OF MASSILLON

Beginning at an iron pin at the southeast corner of OL 31, on the west line of 1st St. S.W. and which point is 50 ft. southerly from the north east corner of former OL64; thence South $78^{\circ}-03'$ West, Two hundred seventy nine and thirty five hundredths (279.35) ft. to an iron pin; thence North $19^{\circ}-25'$ West, ten (10) ft. to a point; thence South $69^{\circ}-50'$ West, one hundred twenty three (123) ft. to an iron pin; thence North $19^{\circ}-25'$ West, sixty four (64) ft. to a point; thence westerly on a 9° curve whose chord is North $74^{\circ}-22'$ West, one hundred sixty nine and sixty four (169.64) ft to an iron pin which is 25 ft. radially and northerly from the center line of the Wheeling & Lake Erie Railroad track; thence northerly on 2° curve whose chord is North $28^{\circ}-25'$ West, four hundred thirty and four tenths (430.4) ft to an iron pin located on the south line of the Pittsburgh & Ft Wayne Railroad right of way; thence south easterly on a $4^{\circ}-22'$ curve whose chord is South $68^{\circ}-08'$ East, one hundred fifty six and twenty five hundredths (156.25) ft. to an iron pin on the southerly right of way line of last mentioned railroad; thence south easterly on a $4^{\circ}-36'$ curve whose chord is South $81^{\circ}-43'$ East, four hundred fifty seven and eighty nine hundredths (457.89) ft. to an iron pin on the southerly right of way line of the last mentioned railroad; thence north easterly on 4° curve whose chord is North $86^{\circ}-12'$ East, eighty seven (87.0) ft. to an iron pin located on the southerly line of the last mentioned railroad right of way and also being the north east corner of OL 31; thence South $19^{\circ}-25'$ East, two hundred ninety one and nine tenths (291.9) ft. along the east line of OL 31 being also the west line of 1st St. S.W. to the place of beginning containing 4.436 acres more or less.

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DESCRIPTION OF OUT LOT 31 CITY OF MASSILLON

Beginning at an iron pin at the southeast corner of Out Lot 31 on the west line of 1st St.SW., and which point is fifty (50) feet southerly from the north east corner of former lot No.64 of the Wetmore Binney & Fay partition as shown on Stark County Plat Records, Volume 5, pages 8 to 10 and which point is also six hundred eighty seven (687) feet measured northerly along the west line of 1st St.SW., from the north line of Walnut Rd.SW., thence south $78^{\circ} - 03'$ west; two hundred seventy nine and thirty-five hundreths (279.35) feet to an iron pin; thence north $19^{\circ} - 25'$ west, ten (10) feet to a point; thence south $69^{\circ} - 50'$ west along the north line of the above mentioned former lot #64 one hundred twenty three (123) feet to an iron pin; thence north $19^{\circ} - 25'$ west sixty four (64) feet to a cross in the top of an old concrete building foundation; thence westerly on a nine degree curve whose chord is north $74^{\circ} - 22'$ west and which chord is one hundred sixty nine and sixty four hundreths (169.64)^{ft} along to an iron pin which point is twenty five (25) feet radially and northerly from the center line of the Wheeling and Lake Erie Railroad track; thence northerly on a 2 degree curve whose chord is north $28^{\circ} - 25'$ west and which chord is four hundred thirty and four tenths (430.4) feet in length to an iron pin, this last mentioned curve course being the easterly boundary line of a certain parcel of land conveyed to the Granite Improvement Company by deed from The Massillon Aluminum Company as recorded in Stark County Deed Records Volume 564, page 89, and this last mentioned iron pin being on the south

line of the Pittsburgh, Ft. Wayne & Chicago Railroad Company right-of way; thence south easterly on a $4^{\circ}-22'$ curve whose chord is south $68^{\circ}-08'$ east and which chord is one hundred fifty-six and twenty five hundreths (156.25) feet in length to an iron pin on the southerly right of way line of the last mentioned railroad; thence south easterly on a $4^{\circ} 36'$ curve whose chord is south $81^{\circ}-43'$ east and which chord is four hundred fifty seven and eighty nine hundreths (457.89) feet in length to an iron pin on the southerly right of way line of the last mentioned railroad; thence north easterly on a 4° curve whose chord is north $86^{\circ}-12'$ east and which chord is eighty seven (87) feet^{long} to an iron pin located on the southerly right of way line of the last mentioned railroad and also being at the northeast corner of out lot 31; thence south $19^{\circ}-25'$ east two hundred ninety one and nine tenths (291.9) feet along the east line of Out Lot 31 being also the west line of 1st St. SW., to the place of beginning containing 4.436 acres more or less.

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Dated 10-12-14

line of the Pittsburgh, Ft. Wayne & Chicago Railroad Company right-
of way; thence south easterly on a $4^{\circ}-22'$ curve^{to the left} whose chord is
south $68^{\circ}-08'$ east and which chord is one hundred fifty-six and
twenty five hundreths (156.25) feet in length to an iron pin on the
southerly right of way line of the last mentioned railroad; thence
south easterly on a $4^{\circ} 36'$ curve^{to the Left} whose chord is south $81^{\circ}-43'$ east
and which chord is four hundred fifty seven and eighty nine hundreths
(457.89) feet in length to an iron pin on the southerly right of way
line of the last mentioned railroad; thence north easterly on a 4°
curve^{to the left} whose chord is north $86^{\circ}-12'$ east and which chord is eighty seven
(87) feet^{long} to an iron pin located on the southerly right of way line
of the last mentioned railroad and also being at the northeast corner
of out lot 31; thence south $19^{\circ}-25'$ east two hundred ninety one and
nine tenths (291.9) feet along the east line of Out Lot 31 being also
the west line of 1st St. SW., to the place of beginning containing
4.436 acres more or less.

DESCRIPTION OF OL 31 CITY OF MASSILLON

Beginning at an iron pin at the southeast corner of OL 31, on the west line of 1st St. S.W. and which point is 50 ft. southerly from the north east corner of former OL 64; thence South $78^{\circ}-03'$ West, Two hundred seventy nine and thirty five hundredths (279.35) ft. to an iron pin; thence North $19^{\circ}-25'$ West, ten (10) ft. to a point; thence South $69^{\circ}-50'$ West, one hundred twenty three (123) ft. to an iron pin; thence North $19^{\circ}-25'$ West, sixty four (64) ft. to a point; thence westerly on a 9° curve whose chord is North $74^{\circ}-22'$ West, one hundred sixty nine and sixty four (169.64) ft to an iron pin which is 25 ft. radially and northerly from the center line of the Wheeling & Lake Erie Railroad track; thence northerly on 2° curve whose chord is North $28^{\circ}-25'$ West, four hundred thirty and four tenths (430.4) ft to an iron pin located on the south line of the Pittsburgh & Ft Wayne Railroad right of way; thence south easterly on a $4^{\circ}-22'$ curve whose chord is South $68^{\circ}-08'$ East, one hundred fifty six and twenty five hundredths (156.25) ft. to an iron pin on the southerly right of way line of last mentioned railroad; thence south easterly on a $4^{\circ}-36'$ curve whose chord is South $81^{\circ}-43'$ East, four hundred fifty seven and eighty nine hundredths (457.89) ft. to an iron pin on the southerly right of way line of the last mentioned railroad; thence north easterly on 4° curve whose chord is North $36^{\circ}-12'$ East eighty seven (87.0) ft. to an iron pin located on the southerly line of the last mentioned railroad right of way and also being the north east corner of OL 31; thence South $19^{\circ}-25'$ East, two hundred ninety one and nine tenths (291.9) ft. along the east line of OL 31 being also the west line of 1st St. S.W. to the place of beginning containing 4.436 acres more or less.