# OHIO CANAL IMPROVEMENT MASSILLON, OHIO.

## FROM WALNUT RD., SW. TO WARWICK AVE., NW.

## G.C. 346

Approved, November 1, 1933, Jacob D. Dovey Jr.
Mayor, City of Massillon, O.

Approved, November 1, 1933, Claude R. Kramer
Director of Public Service, Massillon, O.

Approved, November 1 1933, C E Rice
City Engineer, Massillon, O.

Approved, November 2nd 1933, T. H. Rundle
Director of Public Works, State of Ohio.

Received for Filing, With Director of Public Works November 2nd, 1933

Filed, November 1933,
Auditor, State of Ohio.

Revised Plans Feb 22nd 1934, Approved by (See Below)

William Limbach
Mayor, City of Massillon, Ohio.

Adrian P. Howald
Director of Public Service, Massillon, Ohio.

C E Rice
City Engineer, Massillon, Ohio.

3/27/34 T. H. Rundle
Director of Public Works, State of Ohio.

Auditor, State of Ohio.

3/27/34 La Bowey
State Engineer for P.W.A

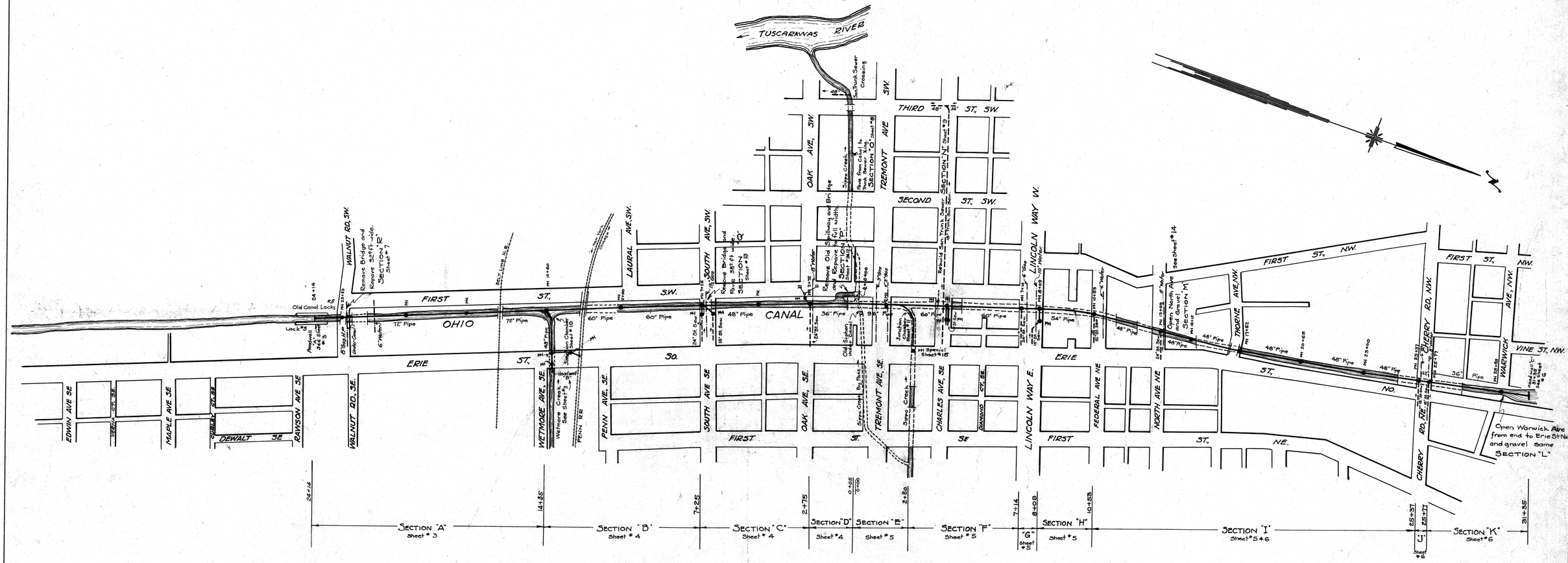
**CITY OF MASSILLON, OHIO.**

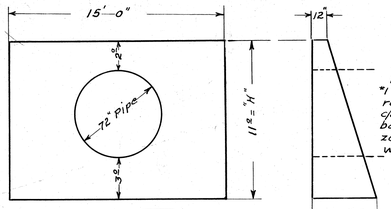
**OHIO CANAL IMPROVEMENT.**

| | |
|---|---|
| APPROVED C E Rice CITY ENGINEER | DEPT. OF PUBLIC SERVICE ENGINEERING DIVISION |
| Dr. by. Geo. C. Wallace | FEB 13th 1933 |

1/27

FILE No SE 308 Acc. No. 1196


TUSCARAWAS RIVER
San. Trunk Sewer Crossing
SW.
THIRD ST. SW.
SECOND ST. SW.
OAK AVE. SW.
TREMONT AVE
Sippo Creek
Remove Old Spillway and fill width "P"
Remove Canal Bridge "Q"
Section "N" Sheet #9
Section "O" Sheet #8
Section "P" Sheet #8
Section "Q" Sheet #8
Section "R" Sheet #7
Remove Bridge and Pave 32 ft. wide.
WALNUT RD. SW.
LAUREL AVE. SW.
SOUTH AVE. SW.
LINCOLN WAY W.
FIRST ST. SW.
OHIO CANAL
Old Canal Locks
Lock #5
Headwall 3'6" conc. #5
12" Pipe
72" Pipe
60" Pipe
48" Pipe
36" Pipe
Junction Chamber Sheet #10
Old Siphon used as Sewer
Junction Chamber Sheet #15
Special Sheet #15
Section "S" Sheet #8
Section "T" Sheet #8
Section "U" Sheet #8
Section "V" Sheet #8
Section "W" Sheet #8
Section "X" Sheet #8
Section "Y" Sheet #8
Section "Z" Sheet #8
Section "AA" Sheet #8
Section "BB" Sheet #8
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Section "Z




NOT USED

## DETAIL OF HEADWALL "A"
## CONCRETE ALTERNATE

Headwall to be Class "I Concrete. ½" ϕ def. reinf. bars spaced 12" c/c Vertical and ½ ϕ def. bars spaced 12" c/c horizontal in center of wall.

Cl. "A" Conc. Headwall 18 cu. yds. 18 lin. ft. of 18" W.S.P.

Build Headwall "A" out of Stone from 100 ft. South End of Sewer

Old Gates Remove

Stone from this wall may be used for Headwall "A".

Sillimon Survey Line

Stone Wall

Cl. "A" Conc. Fidder

Jump as Sippo Creek

Stone Wall

Old Walls to remain

OLD CANAL LOCK "5"

Class "C" Concrete, or Bubble Apron if directed.

State Property Line

WALNUT RD. SW.

DIET ROAD

Walk

172-27'

Beam Pavement

Asphalt Pavement

WALK

OPS Bldg.

ERIE ST. SO.

2 Sheets

OL. 34 | OL. 33 | OL. 32 | OL. 31

407 | 140 | 140 | 50

West Curb Line

FIRST ST. SW.
BRICK PAVEMENT

East Curb Line

℄ State Property Line

℄ Sillimon Survey Line

59'

6" Water Main

72" Pipe or Equal

MH

See Detail Sheet No 7 for lowering & Repaving street

OPS PUMPHOUSE INLET

OLD CANAL BED TO BE FILLED
SLOPE BACK FROM CURB 1ST ST. AT 10% GRADE

Hood Bridge Line

Bicycle Crossing Inlet Structure

Concrete Tank Built Sheet #10

Bridge Liners

℄ Conc. Wall

Pipe encased in Concrete

72" Pipe or Duct

BRIDGE

Junction Chamber "A" Built out of Brick See Sheet #10

Fence Posts Set

Elevated Gas Mains

Concrete Arch Floor

Junction Chamber "A"

See Detail Sheet #10

60" Pipe or Duct

0+00 Gr. Elev. 86.8 Pipe Invert 73.7

For Detail of 60" Section see sheet #4.

0+50 Gr. Elev. 86.0 Pipe Invert 80.17

For Detail of 48" Section see sheet #4.

1+00 Gr. Elev. 86.0 Pipe Invert 80.42

1+50 Gr. Elev. 86.4 Pipe Invert 80.61

Wetmore Creek

Brick Piling

Built out of 54" 2 Ring Brick @ 0.5%

El. of 48" Pipe 80.81

MH and 15" V.S.P.

Gr. Elev. 86.9

Pipe Invert 80.71 1+68±

Old Bridge Removed and Paved

Build MH

12" V.S.P. @ 0.5%

Build MH

Pier

El. Bottom Sump 86.07

El. Bottom C.B. 84.47

80 lin. ft.

℄ Con. Tracks

ERIE ST. SO.

Build MH and raise pipe so as to go over top of 24" San. Sew.

24" San. Sew.

2+47.8 End of Culvert
Ground Elev. 86.4
Pipe Invert 84.20

El. Street 90.0
El. Flow Line 81.50

Conc. Casing around pipe. Item 10 B from MH to headwall. see detail

If monolithic section is used here increase all wall thickness 2" and double the number of steel bars, bar sizes remaining the some.

Elev. Top 24" San. Sew. 84.20±

MH and 15" V.S.P.

Build Headwall to fit pipe as detailed

Headwall to be Class "I" Conc. See Sheet #10

Top slab to be poured with rest of duct, except where head-room will not allow it, then have top slab precasted and dove tailed into sidewalls

½" ϕ deformed 18" c/c top slab

¾" ϕ deformed 10" c/c, every other one bent, alternating on opposite sides

½" ϕ deformed 12" c/c Sides and bottom

½" ϕ deformed 10" c/c

7'-0"

4'-8"

5'-2"

2"

Put in lower steel when ground is soft and footer is extended

½" ϕ deformed 20" c/c

NOT USED

72" Pipe, 282.7 ft² Area this duct = 30.06 allowing 6" clearance at top.

6" ϕ def. 12" c/c

2'-0" - 2'-6"

1'-6"

Footer extends out 1'-6" on ordinary soil (good bearing)

Footer extends out 2'-0" to 2'-6" in mucky soil, depending on bearing capacity of soils.

1'-8"

Coarse gravel Back-fill

15"

8" Pipe-Underdrain

FOR ALL MONOLITHIC SECTIONS

Class "I Conc.
6 Bags cement to 1 cu yd. of finished work.
Bid price to include Standard Exp. Joint at intervals not to exceed 100 ft.

DESIGN FOR 72" SECTION
Scale ½" = 1'

B

STEEL BENDING

66½°

66½°

A

CRADLE STEEL SCHEDULE

| SIZE OF PIPE | A | B | LENGTH | DIA. | WEIGHT PER BAR # |
|---|---|---|---|---|---|
| 72" | 4'-7" | 4'-3" | 13'-1" | ⅝" ϕ | 13.86 |
| 60" | 4'-0" | 3'-10" | 11'-8" | ⅝" ϕ | 12.37 |
| 54" | 3'-6" | 3'-5" | 10'-4" | ⅝" ϕ | 10.95 |
| 48" | 3'-1" | 3'-1" | 9'-3" | ½" ϕ | 6.29 |
| 42" | 2'-9" | 2'-9" | 8'-3" | ½" ϕ | 5.61 |
| 36" | 2'-3" | 2'-5" | 7'-1" | ½" ϕ | 4.81 |

SPACING 12" C to C

6" COVERING ON PIPE TO BE SELECTED EARTH FREE FROM STONES, TO BE HAND PLACED

72" Pipe

For Seg. Block
For Brick use 3 Rings

BACK FILL TO BE SELECTED EARTH, HAND TAMPED

½" Mortar Bed

D

Steel to be spaced on steel Chairs

8" Pipe underdrain

Note:- Pipe to be bell & spigot with no joining material in the joint. this note is for all underdrain on this project.

Coarse gravel Back-fill

15"

72" SECTION

| SIZE OF PIPE | D FEET | L FEET | CU. YDS. PER. FT. |
|---|---|---|---|
| 72" | 4.29' | 8.58' | 0.599 |
| 60" | 3.79' | 7.58' | 0.496 |
| 54" | 3.46' | 6.92' | 0.434 |
| 48" | 3.17' | 6.33' | 0.376 |
| 42" | 2.92' | 5.83' | 0.336 |
| 36" | 2.56' | 5.13' | 0.277 |

CONCRETE CRADLE SCHEDULE

CONCRETE CRADLE WHERE DIRECTED BY ENGINEER IN CHARGE FOR ALL SIZES OF CIRCULAR SEWERS.
1224 Cu. Yds. Concrete
23,872 lbs. Steel Reinforcing

15"

3"

12" Pipe

"Use stones taken from Bridge abutment.

DETAIL OF OUTLET HEADWALL "A"
In laying stones use a 1:3 Mix Mortar.

## CONCRETE CASING
Under Belt Line R.R.
From Sta. 16+42 to Sta 16+54
12 feet long.
3.175 cu. yds per lin ft.
38.10 cu. yds total
Put jute in joints of 8" underdrain thru Casing.

72" Pipe

2"

2½"

11'-3½"

11'-3½"

NOT USED

48" Pipe

6"

1'-0"

Class "II" Concrete, 12" ft thick, 18.85 cu. ft. of Concrete per lin. ft. of casing. Class "II" concrete shall have 4¾ bags cement per cu. yd of finished work.

23'-8"

℄ Sidewalk

Pipe Hole for bolt

3'-3"

1'-6"

3'-6"

Pipe Hole for bolt

18" Pipe

3"

NOT USED

10'-4"

12"

(Sidewalk)

¾" ϕ hole

Headwall to be Class "I" Concrete 12" c/c Vertical and ½" ϕ def. bars spaced 12" c/c Horizontal in center of wall.

12.2

0.4 x H

City of Massillon to build, furnish, and place screen.

:BM:

Hyd # 160, N.E. Cor. Walnut & 1st St. SW. Elev. 92.29 NB 98, P33
Hyd # 159, 400' No. of Walnut on 1st St. SW. Elev. 88.03 " " "
Hyd # 215, At Belt Line R.R. and 1st St. SW. Elev. 90.24 " " "

## CONCRETE CASING
ON WETMORE CREEK BRANCH
Concrete Casing from MH at 24" San. Sewer to Headwall "B" ON ERIE ST. SO.
19 ft LONG.
13.26 Cu. Yds.

Note keep tops of MHs 1' above grading line (1% Grade from top of curb)

Keep tops of MHs 1' foot above grading

Beg. of Pipe Elev. 78.087

New Elev. 77.88

Build Headwall out of stone taken from Bridge Headwall "A" See detail above.

MH #1-2+06.1

Existing Manhole Remove and replace from Sta. 24+34 to 1st St. SW.

New Street Grade.

Conc. Encase O.P.S. Transformer & Sub-Station

Build MH. top to be at new street grade

MH #2-4+27

Build MH.

MH #3-8+33

Build MH.

BELT LINE R.R. BRIDGE

Concrete Casing Class II

Item 10 B

DETAIL OF INLET HEADWALL "B"

Build MH. of Class pipe.

ERIE ST. SO. 1+68.5 E

MH #4-10+67 END JUNCT. CH. "A"

Build MH.

Existing Canal Lock Stone Block Construction. To remain in place

1+68.5E

0+00

24-1.14

USING N ϕ 0.019
Use Det
58,145 G.P.M.

72" Pipe @ 0.2% Grade
978 lin. ft. of 72" Pipe at 0.1% Grade
60,000 gal./min ~ V. = 4.8'/sec

Built out of 72" Sag. Blk. Pipe @ 0.2% Grade

New Elev. 79.74

Elev. 79.065

El. 79.85

Elev. 79.865

90

85

80

25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14 | 14+35

Small Cradle | Large Cradle | Small Cradle

Gravel Refill

8" V.S.P. Underdrain @ 0.1% grade

Dig sump and have pump to pump out the water from underdrain

REINFORCED CONCRETE PIPE - OHIO HIGHWAY'S SPEC'S ITEM M-6 - SECTION - M-6.6 (2)

SECTION "B"

SECTION "A"

| DIA. | CAST PIPE SHELL THICKNESS INCHES | MACHINE MADE PIPE SHELL THICKNESS INCHES |
|---|---|---|
| 72" | 7" | 5¾" |
| 60" | 6" | 5" |
| 54" | 5½" | 4½" |
| 48" | 5" | 4¼" |
| 42" | 4½" | 3¾" |
| 36" | 4" | 3⅜" |

NOT USED

| FINAL REVISED DATE: |
|---|
| FEB. 16th 1934 E.C.H. |

CITY OF MASSILLON, OHIO
OHIO CANAL IMPROVEMENT
From Walnut Rd. SW to Warwick Ave. N.W.

Approved _____ City Engineer

DEPT. OF PUBLIC SERVICE
ENGINEERING DIVISION

Dr. by Geo. Wallace
Ch. by J. M.
Scale 1"=5' Ver. 1"=50' Hor.
NB 98 P 19-37

3/27

FILE No. SE308 Acc. No. 1198

LAUREL AVE, SW.

1045 | 1044 | 1043

60 | 145 | 66

40'

1ST. AVE, SW.

343 | 342 | 341 | 340

72 | 38 | 34 | 72

339 | 338

108 | 36

OAK AVE, SW.

FIRST ST. SW.

East Curb Line 1st St. SW

BRICK PAVEMENT

STONE PIER

STONE BACKWALL

Conc. WALL

24" Brick

30" Cir.

11+89 | 11+78 | 11+59 | 11+39 | 11+20

OPEN DITCH

60" Pipe or Duct

30'-15" V.S.P. @ 17.0% Grade

50'-12" V.S.P. @ 8.0% Grade

South Ave see Revised Plans Sheet # 4-A

Brick Pavement

Stone Abutment Remove

Brick Pavement

15" Storm Sewer

Brick Pavement

DOWN SPOUT CONNECT TO STORM SEWER

FRAME BLDG. BROWN LUMBER CO.

OPEN DITCH

48" Pipe or ○ Equal

New 12" V.S.P

New 24" V.S.P

Build MH 29'ft. Deep

C.B.

12" C.I. Pipe Connect to Sewer Below

C.B.

C.B.

Cut Off Existing Pipe

Cut off existing pipe

Pave this overflow to Brick Sewer, see Detail Sheet # 8

Concrete wall Remove

Spillway Remove

Footer

REMOVE PORTION OF SPILLWAY ABOVE SUBGRADE. BASE AND BUILD CULVERT UNDER 1ST ST. SW. ALSO CONTINUE SAME WIDTH PAVEMENT (28' Feet) SHEET # 11

SEE DETAIL SHEET NO 11 FOR JUNTION CHAMBER

PENN. R.R. BRIDGE OVERHEAD

Bottom Exterior of sewer to rest on concrete at grade

D | ½" | 1" | ½" | D

L = 3'-0"

Steel 12" c/c
Steel 2'-9" long

## CONCRETE SLAB

| SIZE OF PIPE | T. | D. | CU. YDS. PER FT. | SIZE OF BAR | WT. PER BAR |
|---|---|---|---|---|---|
| 72 | 8" | 0.991 | .086 | 5/8" ϕ | 2.92 |
| 60 | 8" | 1.050 | .088 | 5/8" ϕ | 2.92 |
| 54 | 8" | 1.104 | .090 | 5/8" ϕ | 2.92 |
| 48 | 6" | 0.990 | .078 | ½" ϕ | 1.87 |
| 42 | 6" | 1.078 | .076 | ½" ϕ | 1.87 |
| 36 | 6" | 1.234 | .080 | ½" ϕ | 1.87 |

Class "2 concrete Slab 36" Wide Reinforced as shown, under all circular sewers, over subdrain trench, as directed where concrete cradle is not used.
205.4 Cu.Yds. of concrete
6323 lbs. reinforcing steel.

Steel bars to be spaced on steel Chairs or fabricated in mats 8 to 10 feet in length, set on chairs.

½" ϕ Deformed 17" c/c

0'-9"

½" ϕ deformed, 12" c/c every other one bent, alternating on opposite sides.

0'-6"

This Section Not Used

5'-4"

4'-0"

½" ϕ Deformed 12" c/c

4'-4" 60" Pipe - 19.63 sq. ft. Area this duct 13.32" allowing 6" clearance at top

½" ϕ Deformed 12" c/c

0'-8"

7"

1'-6"

Gravel Refill

8" V.S.P. Underdrain

DESIGN FOR 60" SECTION

Scale ½" = 1'-0"

½" ϕ Deformed 14" c/c

0'-9"

½" ϕ deformed 12" c/c every other one bent, alternating on opposite sides

4'-2"

0'-6"

½" ϕ deformed 12" c/c

48" Pipe = 12.5 sq. ft. Area this Duct - 12.32" allowing 6" clearance at top

2"

3'-4"

4'-7"

This section not used

0'-7"

7"

1'-6"

Gravel Refill

10" V.S.P. Underdrain

DESIGN FOR 48" SECTION

Scale ½" = 1'-0"

NOTE:- PAVE FULL WIDTH (40 FEET), PUT 5' WALKS ON PROPERTY LINES, EACH SIDE ~ SEE DETAIL ON SHEET NO. 13

SOUTH

12"

Concrete Casing Class "II concrete 4¾ bags cement per cu. yd. of finished work.

## CONCRETE CASING FOR C.B. CONN.

.097 cu.yds. per lin. ft.
80± lin. ft. Casing
7.76± Cu. Yds. Concrete
CASING ON C.B. CONN. AT 1ST & OAK AVE, SW.

DESIGN FOR 36" SECTION
SEE SHEET NO. 6

B.M.

Hyd # 1st St. SW. & Tremont Ave. SW. Elev. 97.30
Hyd # 118 - 1st St. SW. & Oak Ave. SW. Elev. 87.24
Hyd # 155 - 1st St. SW. & South Ave. SW. Elev. 94.14
Hyd # 157 - 1st St. SW. & Laurel Ave. SW. Elev. 90.61

8269
8058

PENN. R.R. BR.

12+93 | 12+77

95 | 90 | 85 | 80

MH # 4 - 14+32

MH # 5 - 17+32.5

South Ave. 3W. Bridge Remove & Place See Sheet # 13

MH # 6 - 17+78

MH # 7 - 21+84

MH NOT BUILT

Elev. at Junc. Ch. "A" 79.85

Elev. = 79.865

60" 2 Ring Brick at 0.1% Grade

710' of 60 Pipe or equal @ 0.1% Grade

37,000 gal/min. ~ V = 4.3'/sec.

Gravel Refill

8" V.S.P Underdrain @ 0.1% Grade

Note: Put e

24" Storm Sewer
El. 87.9

15" Storm Sewer
El. 88.1

El. 81.42

Elev. = 80.575

Elev. = 81.375

60" 2 RING BRICK SEWER

48" 2 Ring Brick Sewer at 0.1% Grade

450' of 48" Pipe or equal @ 0.1% Grade

18,500 gal. per min ~ V = 3.3'/sec.

El. 81.69

Elev. = 81.735

Gravel Refill

8" V.S.P Underdrain @ 0.1% Grade

Build MH at this point

Build MH at this point

Build MH at this point

Elev. 82.11

275' of 36" Pipe or equal @ 0.1% Grade

Elev. 82.535 6,800 gal/min ~ V = 2.18'/sec.

Gravel Refill

8" V.S.P Underdrain @ 0.1% Grade

863'

36" 2 Ring Brick Sewer @ 0.2% Grade

Elev. 82.69

Footer Elev. 82.810 (Hold)

SOUTH END OF JUNC. CH. "B" 24+41

Conc. Spillway

Elev. 82.69

Elev. 82.810 (Hold)

0+61.46 6" Roof Drain
0+30.46 6" Roof Drain
0+65
0+48
0+32
0+15
0+00

Y2411 0+80

2+65 12" Storm Sewer

2+76 24" Storm Sewer

3+80 - 6" Roof Drain

14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0

17+25

2+75

G.C. 346

SEC. "B" | SEC. "C" | SEC. "D"

CITY OF MASSILLON, OHIO

**OHIO CANAL IMPROVEMENT**

From Walnut Rd. SW. to Warwick Ave. SW.

APPROVED _____ City Engineer

DEPT. OF PUBLIC SERVICE
ENGINEERING DIVISION

Dr. by G.C. Wallace
Ck. by D. Jones

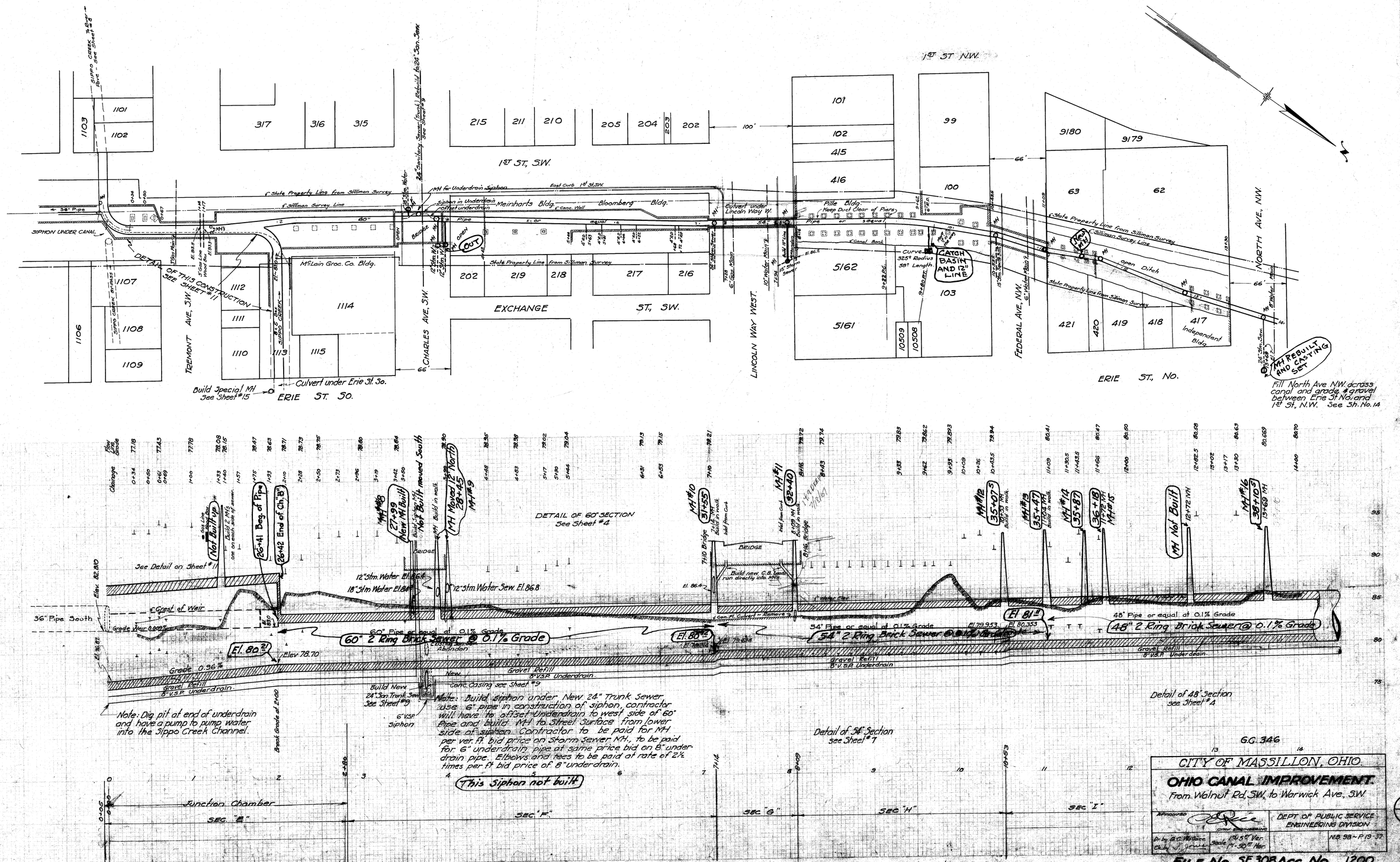
Scale 1" = 5' Ver
1" = 50' Hor

NB 38 - P 19-37

4/27

FILE No. SE 308 Acc. No. 1199

HIGHWAY PLAN - PROFILE PLATE 1
THE H. CROLL CO. - SOUVENIR SERIES







G.C. 346

CITY OF MASSILLON, OHIO.

**OHIO CANAL IMPROVEMENT.**

From Walnut Rd. SW. to Warwick Ave., SW.

Approved: C. J. Kerr, City Engineering

DEPT. OF PUBLIC SERVICE ENGINEERING DIVISION

Dr. by R.C. Wallace

Check: J. Gruse

1"=5' Ver. Scale 1"=50' Hor.

N.B. 98 ~ P. 19 - 37

FILE No. SE 308 Acc. No. 1200

15 | 2562 | 9172 | Thorne Ave. N.W. Concrete Beam Bridge | 2563 | 2564 | 2565 | 2566 | 2567 | 2568 | 14 | 2533 | 3527 | 3545 | 3546 | Warwick Ave. N.W.

State Property Line — Sillimon Survey Line — State Property Line

Concrete Piers — Refers Edge — Open Channel — MH — Peoples Cartage and Storage Co. 407 — Erie Building 1 Sty. Brick — Curb Line — Erie St. N.

18"ft. of 18" V.S.P. — CATCH BASIN & 12" LINE — 2-24" 1-12" — Overflow, 12" V.P. @ 0.5% — El. 845 — Existing MH. — Open Channel — Concrete Slab — Wood Sheet Piling

Lease — W. S. Bloomberg — 1 Sty. Brick Garage — Gas Tanks — Store spill — Cherry Rd. N.W. — +33 S. Curb — +70 N. Curb — 18"V.P. 25+37 — 12" C.I. Water Main — 18"V.P. 25+17

Lease — W. S. Bloomberg — 1 Sty. Brick Garage — Concrete Piers 2'x2' — Lease — Temporary wood bridge — Concrete wall — Open Channel — Wood Sheet Piling — +28 South 12" — MH — 2 CATCH BASINS AND 12" LINE

North Main St. — 24" Main N.E.

For Seg. Block 4½ For Brick use 2 Rings — 36" — 1.9' — 15"

For Seg. Block 6 For Brick use 2 Rings — 42" — 1.9' — 15"

CIRCULAR SECTIONS 1/2" = 1 Ft.

For good soil / For poor soil — 1'-0" / 2'-0" — 4'-9" — 7" — 6" — 3'-9" — 2" — 2'-9" NOT USED — 8" — 6" — 1½"ϕ x 4'-5" 12" c/c — Longitudinal rods 1½"ϕ 12" c/c — Vertical rods 1½"ϕ x 3'-4" 12" c/c — 1½"ϕ x 6'-0" 12" c/c — 1½"ϕ x 8'-6" 24" c/c — Use lower rods when footer is extended for poor bearing soil. — 1.9' — Coarse gravel backfill — 8" V.P. Underdrain — V.P.

Design of 42" Monolithic Section 3/4 in. = 1 Ft.

For good soil / For poor soil — 1'-0" / 2'-0" — 4'-0" — 7" — 6" — 3'-0" — 2" — 2'-9" NOT USED — 6" — 6" — 1½"ϕ x 3'-8" 12" c/c — Longitudinal rods 1½"ϕ 12" c/c — Vertical rods 1½"ϕ x 3'-5" 12" c/c — 1½"ϕ x 5'-6" 12" c/c — 1½"ϕ x 7'-6" 24" c/c — Use lower rods when footer is extended for poor bearing soil. — 1.9' — Coarse gravel backfill — 8" V.P. Underdrain — V.P.

Design of 36" Monolithic Section. 3/4 in. = 1 Ft.

14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

BENCH MARKS

Hyd. at Erie & North Ave. 98.07
Hyd. at No. 318 Erie St. N. 93.89
Hyd. at No. 422 Erie St. N. 91.78
Hyd. at Erie and Cherry Rd. 96.82

100 — 95 — 90 — 85 — 80 — 75

80.669 — MH #16 38+105 — 80.815 — MH #17 39+66 15"-15" — MH #18 42+01 — 81.052 — MH #19 45+03 20"-15" — 81.365 — 16" Bath 45+76 — 81.600 — MH #20 49+77 25"-27" — 81.840 — 82.240 — 82.280 — 82.680 — MH #21 50+19 25"-17" — MH #22 53+32 28"-45" — 82.998

Beam Seats - Erie Building — +69 +65 +56 +72 +68 +53 +18 +35 +48 +63 +78 +76 +107 +97 +48 +28 +48 +58

Top of footers shown thus ⊥

48" 2 RING BRICK SEWER @ 0.1% Grade — 48" @ 0.10% — Overflow Elev. 845 — El. 82.78 — 42" — 42" Seg. Blk. — El. 82.78 — 36" Seg Block @ 0.1% Grade — 36" @ 0.10% — 8" V.P. underdrain — Loose Joints — 51+23 North Edge of Bldg. — 53+82

SECTION "I"

Sim. sewer — San. Sewer — 1'-9" — 3'-6" — 7'-0" — 1'-6" — 8'-2" — Not Used — Class "A" Concrete — Section of Headwall "C"

North Elevation — 15'-8" — 36"

SECTION "J" — 83.103 — 83.238 — Conc. Chamber with Stone gutter and Cast Iron Grate Sewer No. 6940 — 36" Seg. Blk. @ 0.1% Grade — 36" @ 0.10% — 31+35

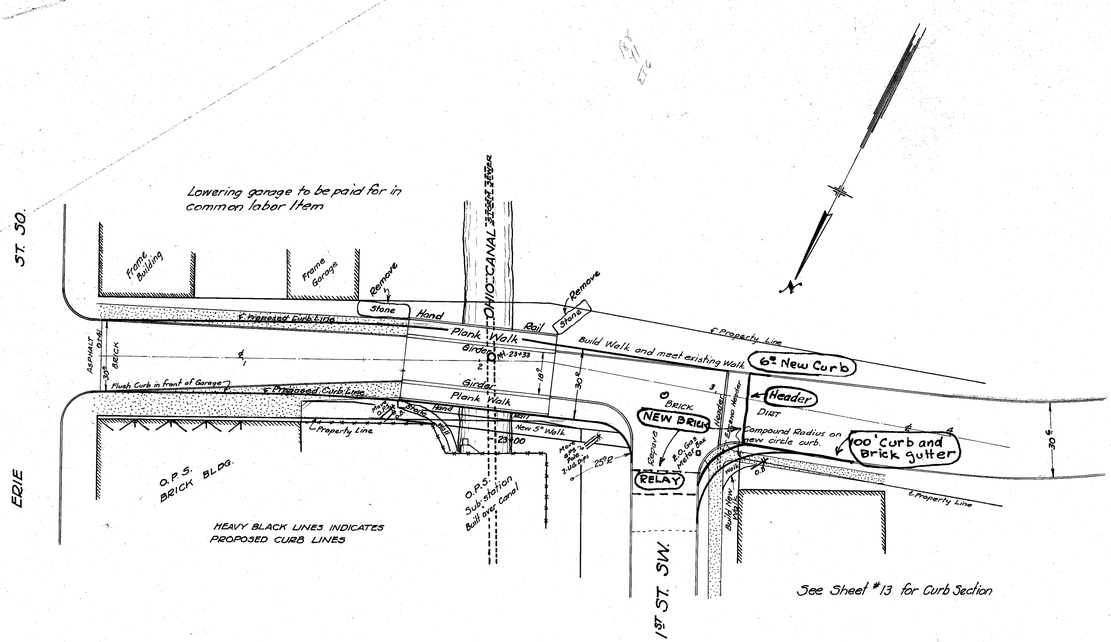
SECTION "K" CON'T

SECTION "K" — CON'T SEE BELOW — G.C. 346

CITY OF MASSILLON, OHIO.
OHIO CANAL IMPROVEMENT.
NORTH AVE. TO WARWICK AVE.

APPROVED — CITY ENGINEER — DEPT. OF PUBLIC SERVICE ENGINEERING DIVISION.
DR. BY S. JONES OCT. 8, 1938. CH. BY G.C.W. — SCALE 1"=5FT. VERT. 1"=50FT. HOR. — N.B. 98 Pages

FILE No. SE 308 ACC. No. 1201

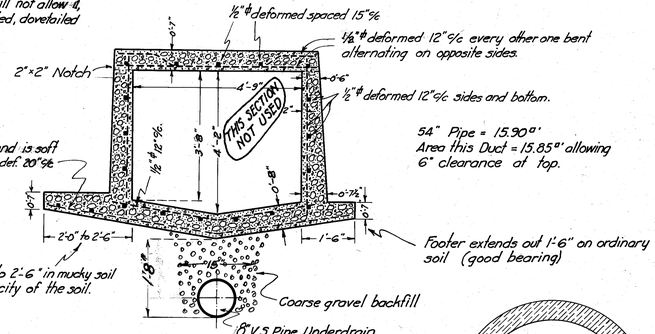



WALNUT RD. SW.

Scale 1" = 30'

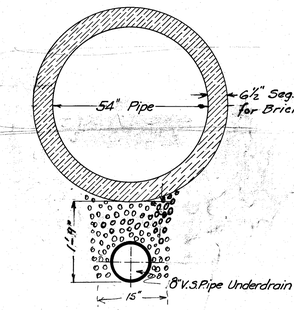
## SEC R

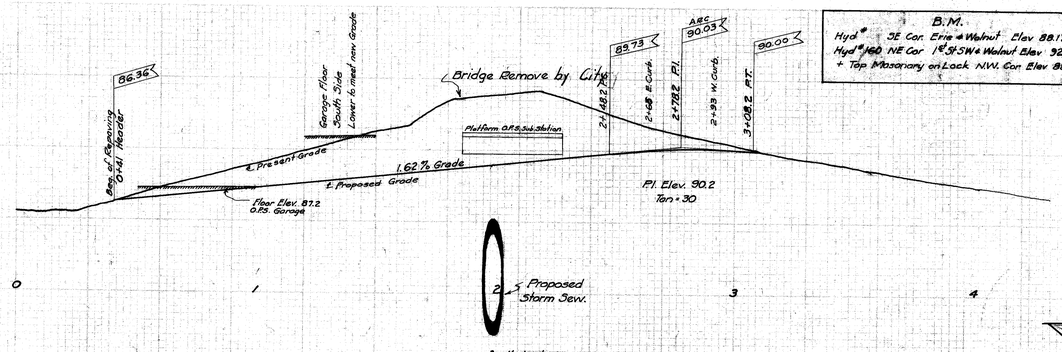
Top slab to be poured with rest of duct, except where head-room will not allow it, then have top slab precasted, dovetailed into side walls.



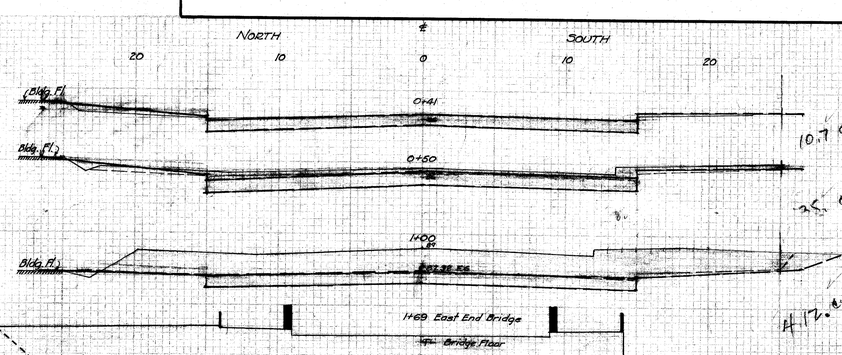

## DESIGN OF 54" SECTION

Scale ½" = 1'



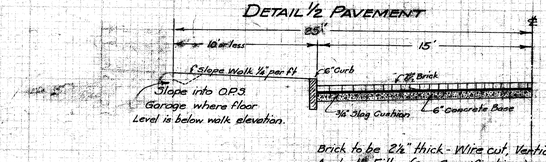

B.M.
Hyd ϕ SE Cor. Erie & Walnut Elev 88.17
Hyd ϕ 160 NE Cor 1st St SW & Walnut Elev 92.31
+ Top Masonary on Lock NW. Cor Elev 88.36




| Sta. | End Area Cut | End Area Fill | Cu. Yds. Cut | Cu. Yds. Fill |
|---|---|---|---|---|
| | 24 4/9 | | | |
| 0+41 | 0.0 | 0.0 | | |
| | | | 3.5 | 0. |
| | 44.0 | | | |
| 0+50 | 21.2 | 0.0 | | |
| | | | 54.0 | 0.6 |
| | 165.6 | | | |
| 1+00 | 37.2 | 0.6 | | |
| | | | 271.0 | 32.5 |
| | 7.16 | | | |
| 1+69 | 169.0 | 24.8 | | |
| | This section taken care of in Main X-Sections of Canal. | | | |
| 2+31.5 | 153.6 | 7.1 | | |
| | 182.8 | | 107.2 | 4.5 |
| 2+66 | 14.0 | 0.0 | | |
| | 55.2 | | 8.6 | 0.6 |
| 2+93 | 28.4 | | | |
| | 39.2 | 1.2 | | |
| 3+08 | 27.6 | | | |
| | TOTAL | | 477.3 | 38.2 |

G.C. 346.

## DETAIL ½ PAVEMENT




Brick to be 2¼" Thick - Wire cut, Vertical Fiber, Lugs.
Asphalt Filler (See Specifications)

on yor. cal by HBW 10-10-32 SEC. "R"
1794.4 cu yds exc. cal. by McClenahan

CITY OF MASSILLON, OHIO

**OHIO CANAL IMPROVEMENT**

REMOVING BRIDGE & PAVING FULL WIDTH OF

APPROVED _____ CITY ENGINEER

Dsby Geo. Wallace
Mde by J. Jones

Cmde

DEPT. OF PUBLIC SERVICE ENGINEERING DIVISION.

Oct 25 1932 N3 111 P. 94, N8 98 P. 61

FILE No. SE 308 ACC. No. 1202

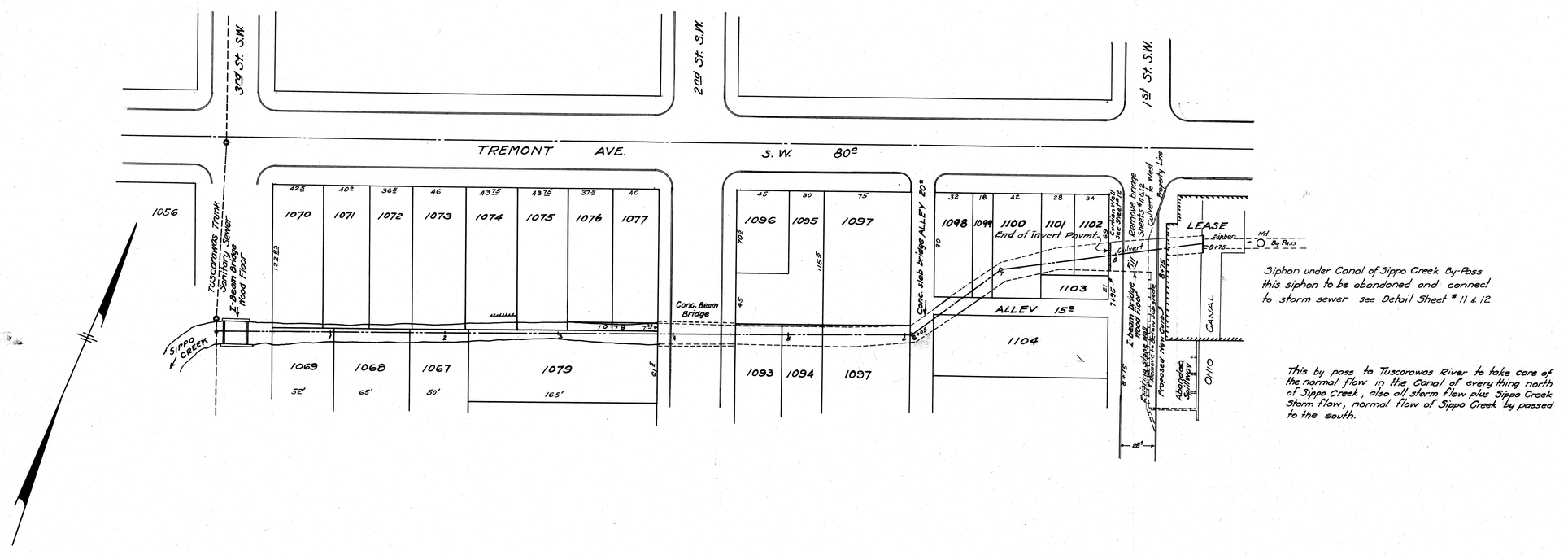
7/27

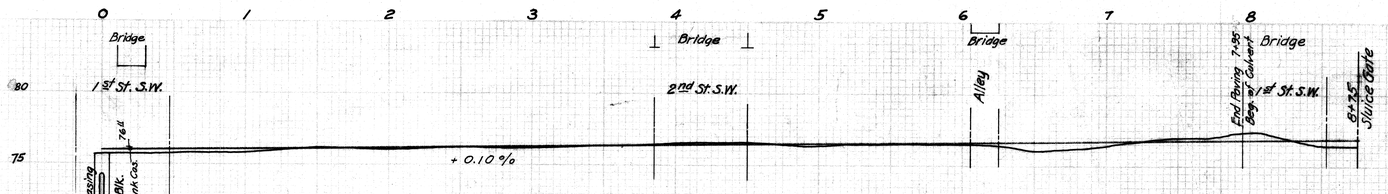
S. G.H.Y. - C.E.R. 10-18-32, G.C.H.Y. 10-25-32

111-95

S. C.E.R - G.C.H. 10-18-32, 10-25-32

111-94

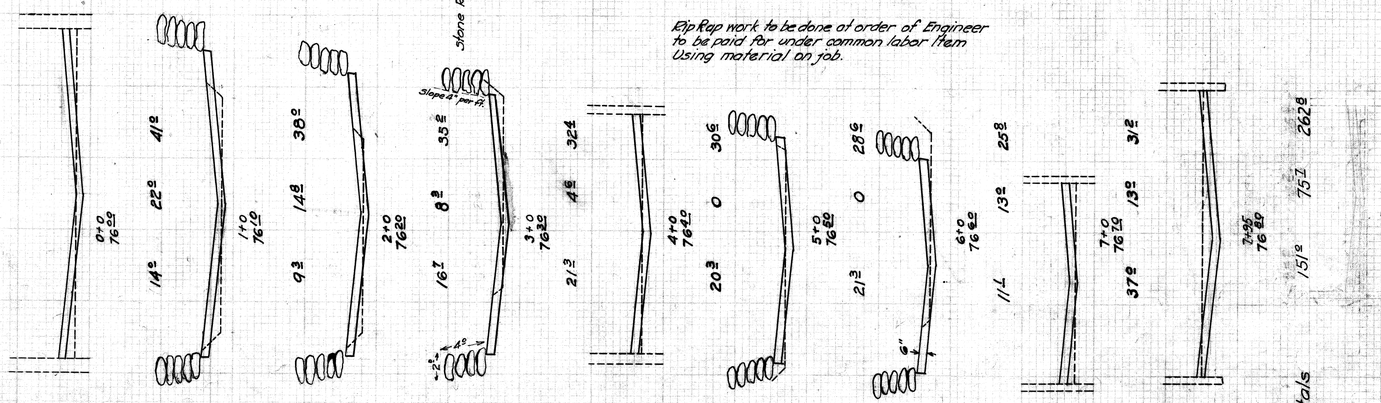



÷PROFILE÷
BED OF STREAM
ON CENTER LINE

÷BENCH MARKS÷

| | | |
|---|---|---|
| Hydrant No 120, | 3rd & Tremont St. S.W. | 84.91 |
| Hydrant No 119, | 2nd & Tremont St. S.W. | 88.29 |
| Hydrant No 118, | 1st & Tremont St. S.W. | 97.27 |




Rip Rap work to be done of order of Engineer to be paid for under common labor Item Using material on job.

6" Invert pavement to be of Class I Concrete, containing no less than six (6) bags cement to one cubic yard finished work.

Where no side walls, put in stone rip rap 4.0 ft. high and 2.0 ft. thick, slope face 4" in 1 ft.

**SEC. "O"**

JOB NO. G.C. 346

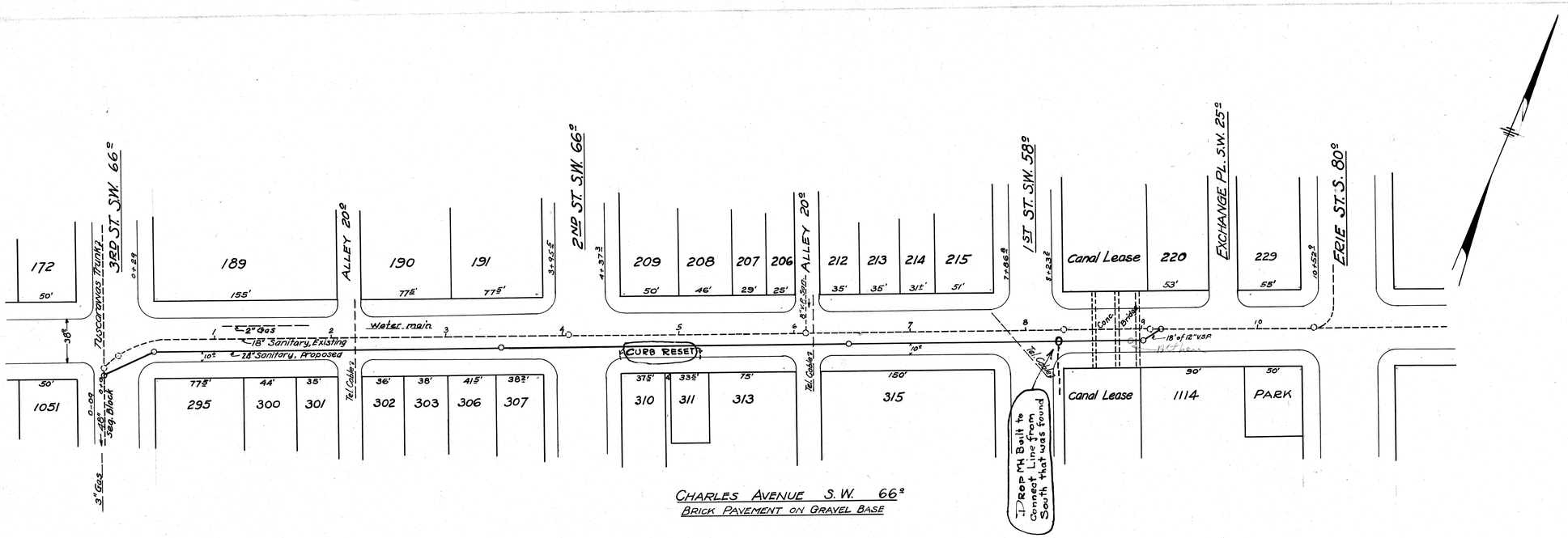
CITY OF MASSILLON, OHIO.

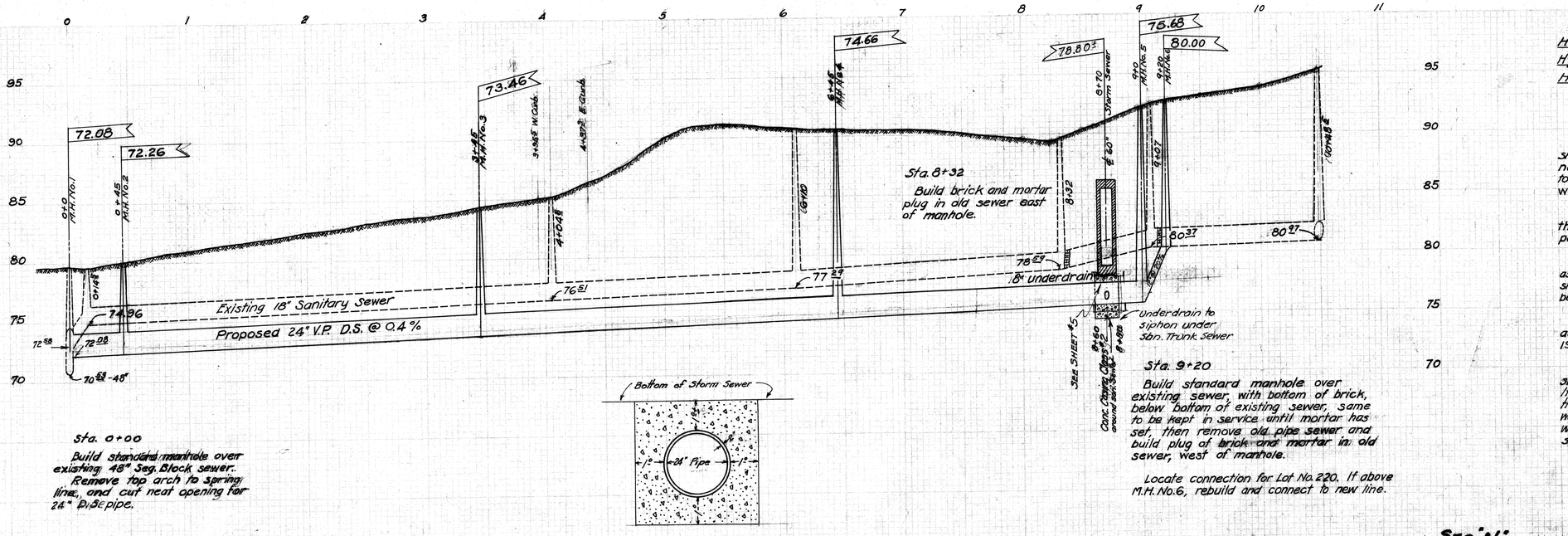
**OHIO CANAL IMPROVEMENT.**
**SIPPO CREEK CHANNEL**
**INVERT PAVEMENT**

APPROVED: CITY ENGINEER
DEPT. OF PUBLIC SERVICE
ENGINEERING DIVISION
DRAWN BY
SCALE: Horiz. 1" = 20' Vert. 1" = 10'

8-27

PROJ. NO. SL 308 ACC. NO. 1203




÷ BENCH MARKS ÷

| | |
|---|---|
| Hyd. at Charles Ave. & 3rd St. S.W. | 83.25 |
| Hyd. at Charles Ave. & 2nd St. S.W. | 88.62 |
| Hyd. at Charles Ave. & 1st St. S.W. | 92.83 |

## ÷ GENERAL NOTES ÷

All house connections to south from existing sewer shall be rebuilt and connected to wye branches in new sewer, being careful to relay new line of 6" V.P. to curb in virgin soil, and at a straight grade from wye-branch to existing pipe at curb line.

Trench for new sewer shall be tight-sheeted thruout its entire length; taking care to protect pavement and existing sewer from slides.

Backfilling of trench shall be carried forward as close to pipe-layer as is reasonably safe, and sheeting will be removed only when trench has been filled to within six (6) feet of surface.

Repaving over sewer trench will be done in accordance with the provisions of ordinance No. 1985 of the City of Massillon.

Charles Ave. SW must be kept open and the north side for the use of the public and abutting properties. It is suggested that by the use of a narrow guage industrial track the excavated material can be carried from the excavation west and dumped in the ditch over the completed work, in this way keeping street open and removing the heavy load on the side of the ditch.

Job No. 56-346

SEC. "N"

CITY OF MASSILLON, OHIO.

OHIO CANAL IMPROVEMENT

REBUILDING SANITARY SEWER

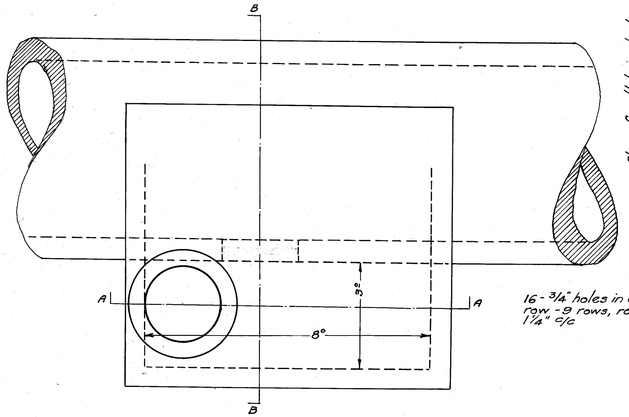
CHARLES AVENUE, S.W.

APPROVED: _____ City Engr. | DEPT. OF PUBLIC SERVICE

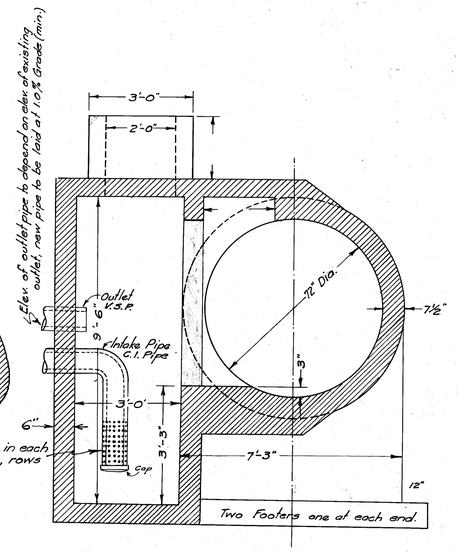
9/27

HIGHWAY PLAN-PROFILE PLATE
THE H. COLE CO. COLUMBUS, OHIO

# INTAKE TANKS

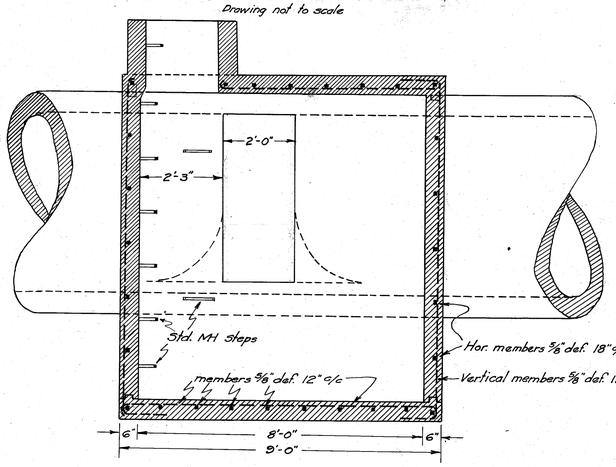



PLAN OF INTAKE TANKS



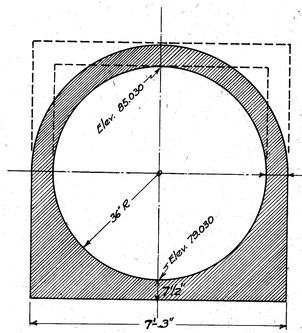

SECTION B-B

Drawing not to scale

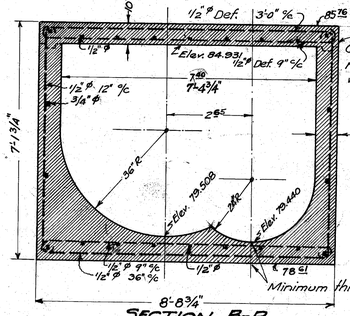



SECTION A-A

Note to Contractors
The above Intake Tank to be built if directed to do so by City Engineer.




SECTION A-A End Area = 19.2 Sq. ft.



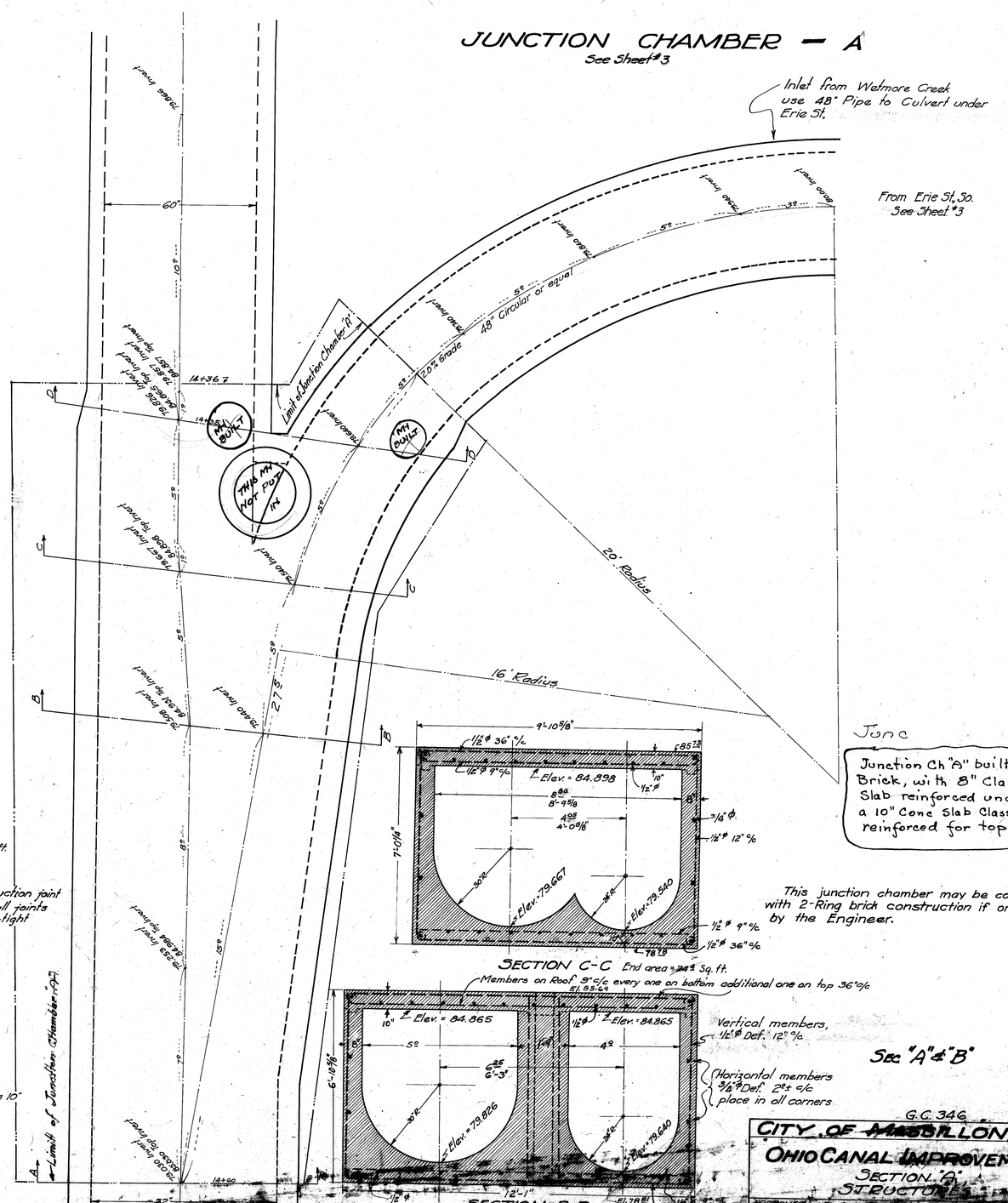

Construction joint make all joints water-tight

SECTION B-B End area = 30 Sq. ft.

General Notes
All reinforcing to be ⅝" deformed round bars, clean and free from rust and oil.
All joints of the reinforcing when occuring in the middle, shall be lapped 30 diameters.
Concrete shall be Class "1" 6 sacks per cu.yd. of finished work

# JUNCTION CHAMBER — A

See Sheet #3







SECTION C-C End area = 24.5 Sq. ft.

This junction chamber may be constructed with 2-Ring brick construction if ordered by the Engineer.




SECTION D-D End Area = 41.5 Sq. ft.

Sec "A" & "B"

10
21

G.C. 346

CITY OF MASSILLON, OHIO.
OHIO CANAL IMPROVEMENT
SECTION "A"
STRUCTURES

| | | | |
|---|---|---|---|
| DESIGNED BY G.C. Wallace | DRAWN BY | CHECKED BY | ENGINEERING DIVISION |
| TRACED BY | CHECKED BY | SCALE | Nov. 5th 1930 |

Detail of Curtain Wall See Sheet #12

PROPERTY LINE

EXISTING CURB

Put in conc. walk

Truss

Sta 1+35 Sec "O" Sheet "8"

Detail of Box Culvert See Sheet #12

BRIDGE REMOVE

Remove with Brick. 28 ft. wide.

Box Culvert or 12'8" Dia. Tunnel

120" Tonean Pipe used

See P

FIRST ST. SW.

28'

EXISTING CURB

STONE WALL REMOVE

New Curb See Sheet #13

NEW CURB LINE

TREMONT AVE SW.

Everything inside this line figured in on Junction Chamber "B"

Wood Fence

Put in Conc. Walk along Bldg. and build window wells to the small under 12 sq. ft.

Make doorway at Grade of wall.

Remove to below subgrade

Change Doorway to south side of Building

11'-6" Box Culvert or transitiant chamber

15'

45°

16'

Property line for 58° ft. street.

Property line for 66° ft. street.

SPILLWAY REMOVE & FILL

Gate, Remove 3x8-175 See "O" Sheet 8

Elev. Pipe 76.87

Sta 2+00 section to be round to work down to a "V" Type section of sta. 1+40

Angle Point

Pull in MH steps 18" Spacing

36" Pipe @ 0.1% Grade

Elev. Pipe 82.81±

Cut footer away to allow pipe to pass

SEWER IN ℄ OF WEST BAY

60" PIPE OR EQUAL

0.1% Grade

Build Conc. ramp across top of Pipe ~ 12" thick - 10' wide Steel: ⅝" ϕ def. bars spaced 14" each way, 2" up from bottom.

Note: Two piers on top of old siphon, Foreman to Rebuild, have footers on solid ground

60 MH

℄ Crest of Weir

+78.54

+78.95

+79.37

+79.76

+80.20

82.878 + Weir

82.90±

82.946±

82.968±

0.09%

Old Siphon

Old siphon has stone sidewalls timber roof, bottom?

See NB 111 Page 106

New 6x3 by pass at 4.04% Grade

Old MH opening

Build New MH next to wall

Build Sewer next to this wall use wall as one side of forms

Mud sill

Elev. Pipe 83.0

Elev. flow line Culvert 79.7±

JUNCTION CHAMBER "B"

See sheet #12 for details

SIPPO CREEK - BY PASS

Stone Arch Culvert

0.3% Grade

SIPPO CREEK.

Bldg. wall use for one side of forms

10"

8'-0"

5'-0"

4'-6"

Steel

Transverse bars ½" ϕ def. bars spaced 15" on centers.

Longitudinal bars ½" ϕ def. bars spaced 15" on centers

Longitudinal bars ½" ϕ def. 18" %

Transverse bars ⅜" ϕ def. 12" %

Grade 0.09%

4'-0"

5'-0"

2'-10"

7'-8¾"

Grade 0.003% El 82.94

Long. bars ½" ϕ def. 18" %

Trans. bars ½" ϕ def. 12" %

Footer support 8" wide one every 5' ft.

Footer 8" thick 2' ft. wide

El 79.37

Gravel Backfill

8" V.S.P. Underdrain

15"

SECTION C-C

from Sta. 1+33 to Sta. 1+50

Everything inside this line figured in on Junction Chamber "B"

8'-5 Box Culvert Same as section "A-A"

1+72 West ft

MOVED

Build MH Special See Sheet #13

10"

Curb Line

CB

Stone Bottom Culvert

CAR TRACKS

ERIE ST. SO.

CAR TRACKS

Curb Line

Note: Creek Bed Grade same Elev. as Culvert Invert

SECTION A-A

from Sta 0+00 to Sta 1+72 on Box Culvert in Sippo Creek

Longitudinal bars ½" ϕ def. 14" %

Transverse bars ⅜" ϕ def. 12" %

This distance variable 5' high at junction and 4' ft high at station 1+50

This distance variable 8' wide at junction to 4' ft wide at station 1+50

Longitudinal bars ½" ϕ def. 16" %

Transverse bars ½" ϕ def. 15" %

5'-0"

2'-10"

Longitudinal bars ½" ϕ def. 15" %

Transverse bars ½" ϕ def. 15" %

Footer support 8" wide, one every 5' ft.

Footer 8" thick, 2' wide

Gravel Backfill

8" V.S.P. Underdrain

15"

Longitudinal bars ½" ϕ def. spaced as shown

Transverse bars ½" ϕ def. 15" %

SECTION B-B

B.M.

Field Party to run precise levels and establish B.M. before staking out job.

GENERAL NOTES

Where wall is poured next to existing wall, use existing wall as one side of the forms.

Note: build by-pass first, and when building by pass and section to Sippo creek build dam in canal forcing water towards the north, be sure and have by-pass plugged in City Hall Park.

All steel to be std. reinforcing bars free from rust.

All concrete shall be class "1

Forms shall be clean and light material.

When building MH's in concrete conduit ℄ junction chamber put steps in, to bottom, 18' apart. City of of Massillon std. MH steps. Also use Std. MH covers and Frames

Every thing inside this line to be considered Junction Chamber "B" all proposals for this junction chamber shall be complete with underdrain, gravel refill around same, backfill, concrete, etc.

Culvert or bldg. wall, use as outside form

Backfill and tamp, use for bottom form, min. thickness allowed for concrete slab 10".

SECTION D-D

The dimensions and notes, the same as section C-C. from Sta 0+00 to Sta 1+33

FOR OTHER SECTIONS SEE NEXT SHEET.

CITY OF MASSILLON, OHIO.

OHIO CANAL IMPROVEMENT.

DETAIL OF JUNCTION CHAMBER "B" AND STORM SEWER AT SIPPO CREEK.

APPROVED: CITY ENGINEER

DEPT. OF PUBLIC SERVICE ENGINEERING DIVISION

Dr. by Geo. Wallace

Ch. by. W.J.

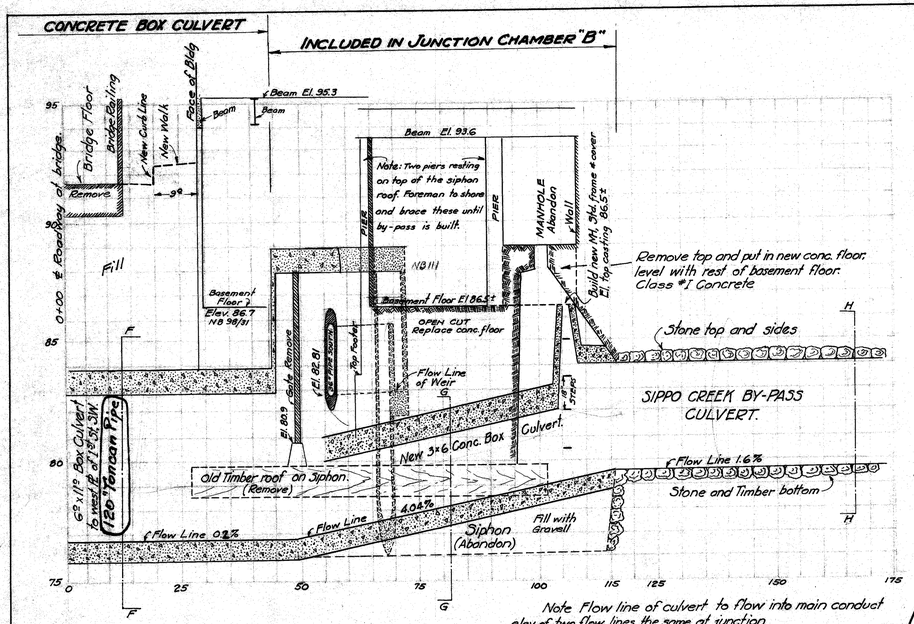
Scale Plan 1"=20' Detail 1"=2'

Mar. 4th 1933

NB 98. Pg 20-30

11 27

FILE No. SE 308 Acc. No. 1206



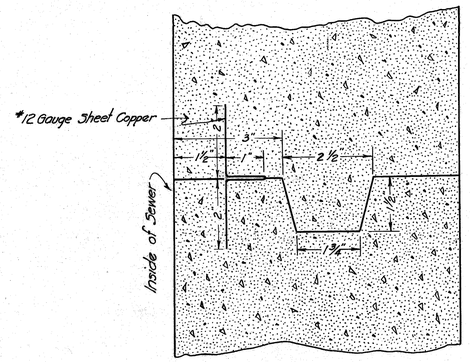

Note Flow line of culvert to flow into main conduct elev of two flow lines the same at junction.

## SECTION-E E-

LOOKING NORTH

SEE SHEET #11

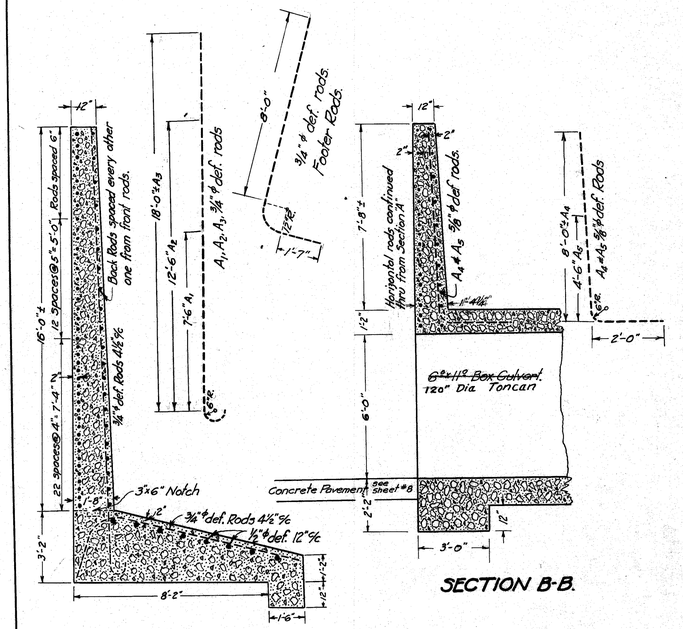
This expansion joint shall be included in unit bid price of any concrete pipe or junction chambers.




This water tight expansion joint to be put in every 100 ft. (Max.) in all the concrete ducts and structures. Joints to be painted with one heavy coat of asphalt paint.

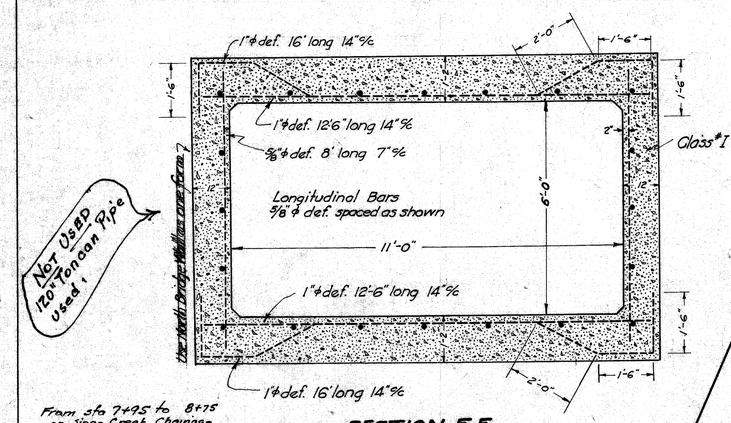
Birmingham Guage #12 = 0.109" thick

## DETAIL OF EXPANSION JOINT




## SECTION A-A

## SECTION B-B.

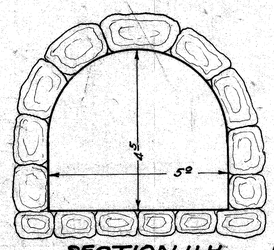



From sta 7+95 to 8+75 on Sippo Creek Chainage See Sec. "O" sheet 8 also on Sheet 11

## SECTION F-F

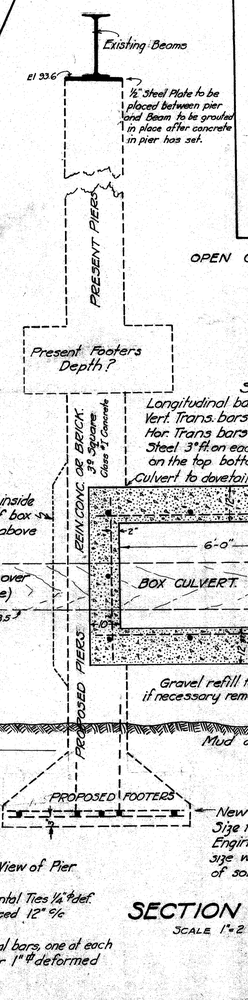
SCALE 1"=2'

## SEC "E"




## SECTION H-H

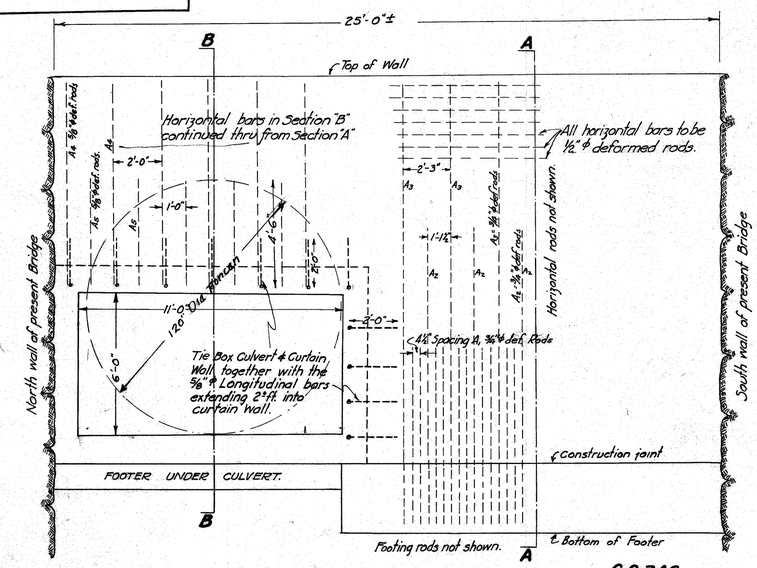
SCALE 1"=20'




## SECTION G-G

SCALE 1"=2'

## SEC "E"




## DESIGN OF CURTAIN WALL

Scale 1"=3'

Class "I Concrete.

SEE SHEET #11

At sta 7+95 on Sippo Creek Chainage See Sec. "O" Page 8

## SEC "E"

G.C. 346

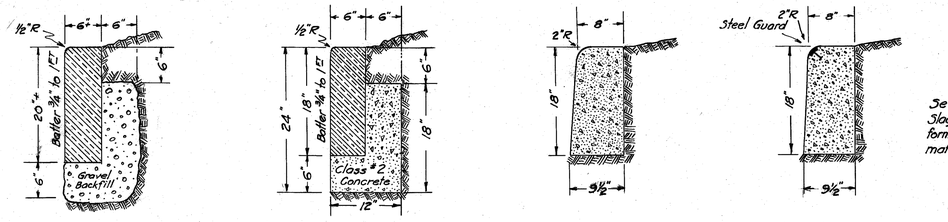
**CITY OF MASSILLON, OHIO.**

**OHIO CANAL IMPROVEMENT.**

DETAILS ON JUNCTION OF SIPPO CREEK BY-PASS.

| | |
|---|---|
| APPROVED: C. C. Rice, CITY ENGINEER | DEPT. OF PUBLIC SERVICE ENGINEERING DIVISION. |
| Dr. by Geo. Wallace; Ch. by: [illegible]; Scale: as shown | Mar 10th 1933 |
| | NB 98 - 1/3 20 # 30 |

File No. SE 308 Acc. No. 1207

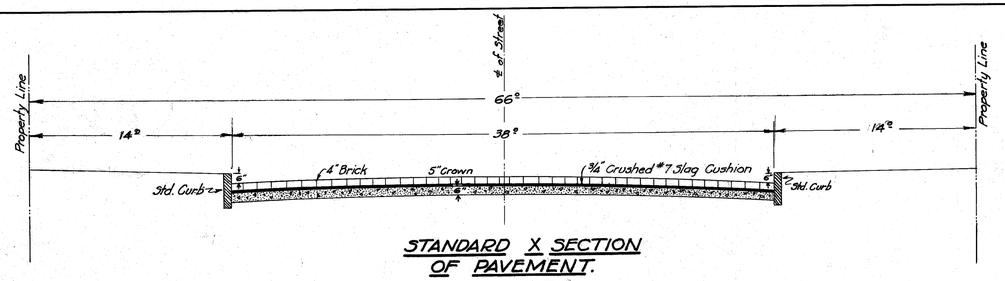



SANDSTONE CURB STRAIGHT — GRANITE CURB CIRCLE — CONCRETE CURB STRAIGHT — CONCRETE CURB CIRCLE

**TYPICAL CURB SECTIONS**

NOTE FOR ALL CONCRETE CURBS

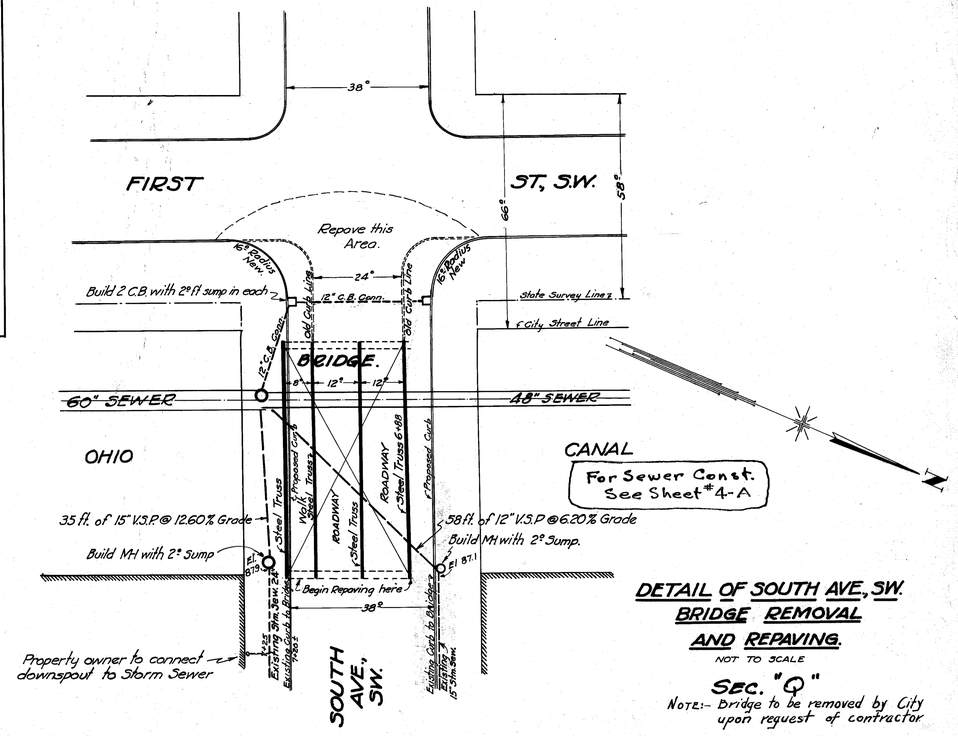
Seven (7) sacks cement (min) to cuyd of finished work. Slag (crushed) for course aggregate. Clean washed sand. Steel forms only. Curbing to be cured by keeping covered with a wet material for 3 days.




**STANDARD X SECTION OF PAVEMENT.**

SCALE 1"=5'

**SEC. "Q"**



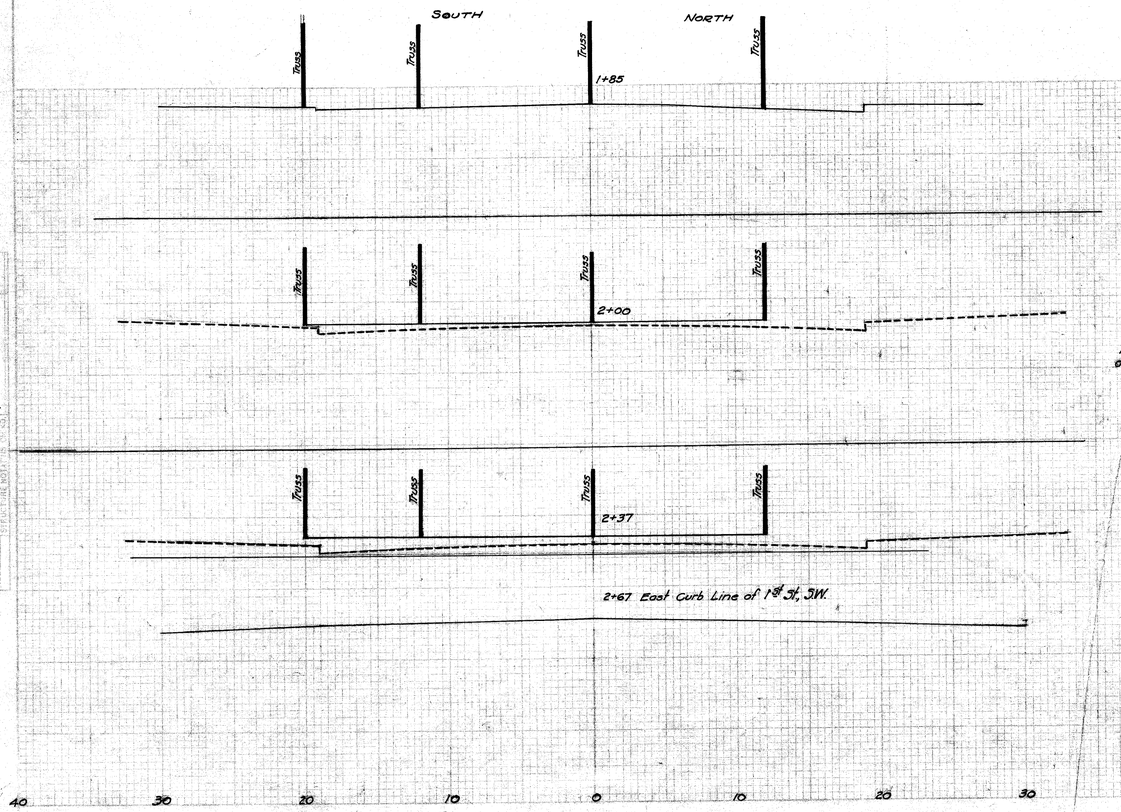

**DETAIL OF SOUTH AVE., SW. BRIDGE REMOVAL AND REPAVING.**

NOT TO SCALE

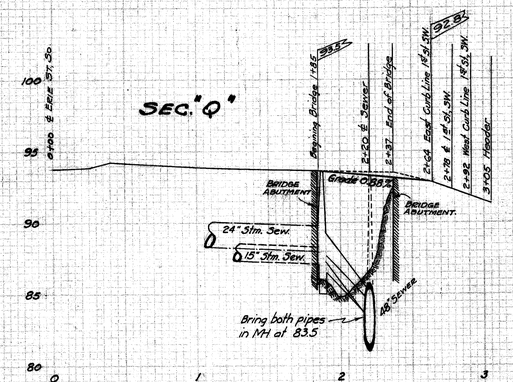
**SEC. "Q"**

NOTE:- Bridge to be removed by City upon request of contractor

BM.
Hyd #155 South of 1st St. SW. Elev. 94.14.




÷NOTE÷
Filling taken care of in Canal Sections



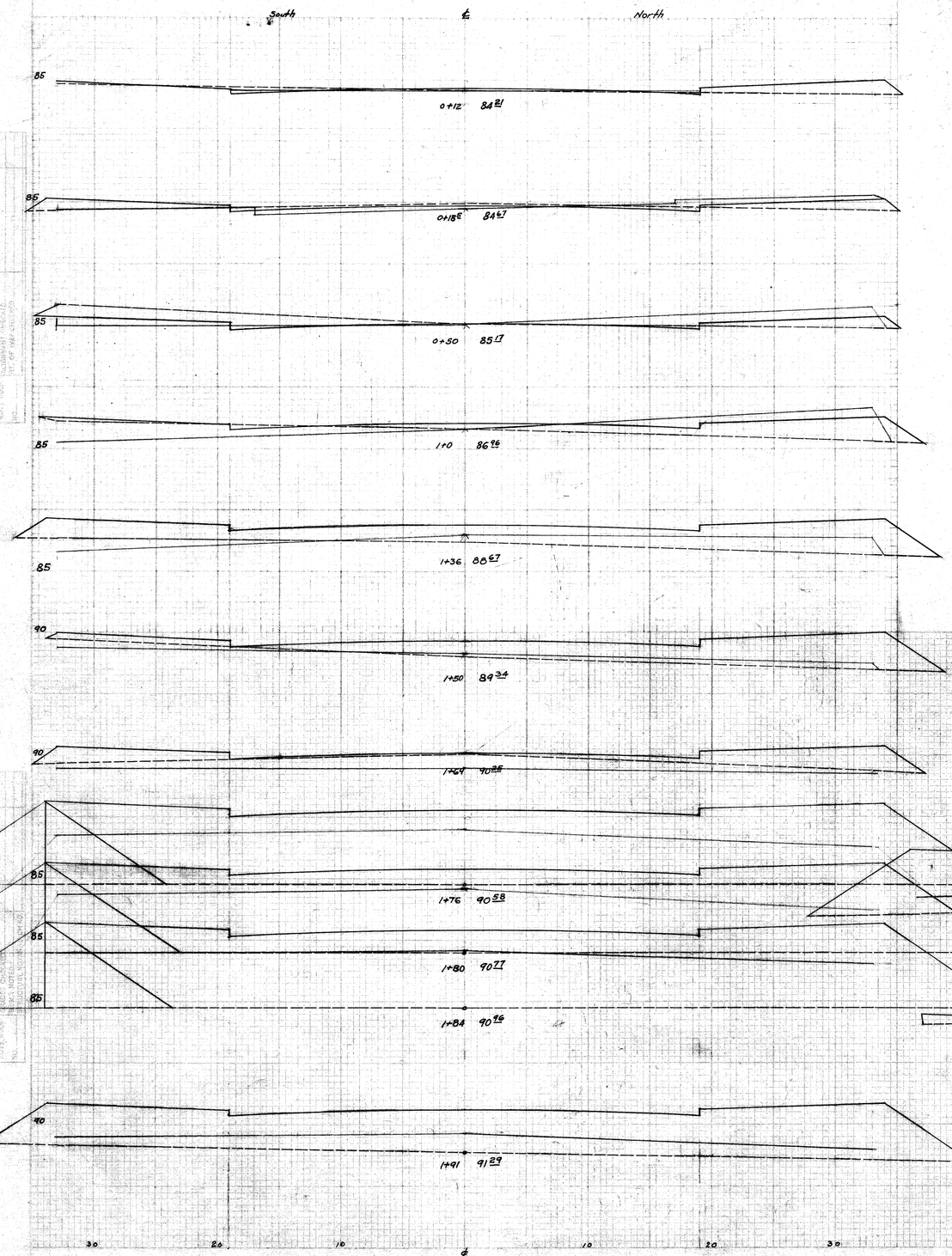

**SEC. "Q"**

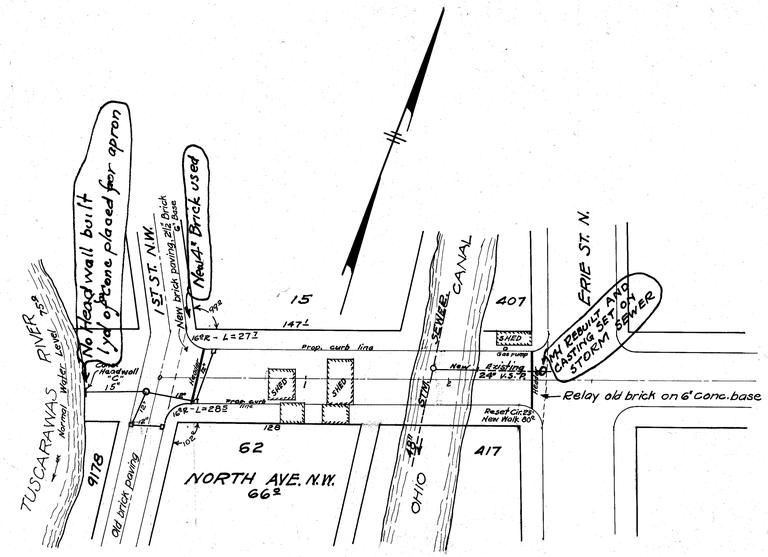
GC 346

| CITY OF MASSILLON, OHIO. | | |
|---|---|---|
| OHIO CANAL IMPROVEMENT. DETAIL OF BRIDGE REMOVAL AT SOUTH AVE. SW. | | |
| APPROVED C. E. Reis CITY ENGINEER | | DEPT. OF PUBLIC SERVICE ENGINEERING DIVISION. |
| Dr. by Geo. C. Wallace. Ck. by. | Scale as shown. | Mar 15th 1933 — MB 98 P. 62 |

FILE No. SE 308 Acc. No. 1208

13
27



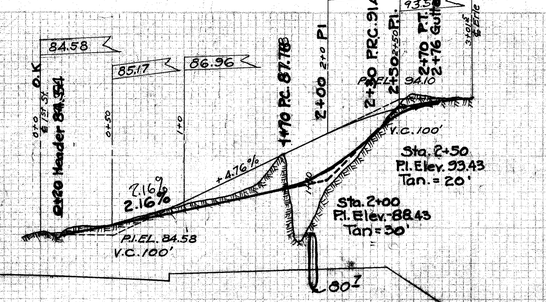




Relay old brick paving over trenches, and at Erie in accordance with Ord. No. 1985

EARTHWORK TOTALS

| Cut | Fill | Borrow +10% |
|---|---|---|
| 122.5 Yd. | 1009.1 Yd. | 97.52 Yd. |

No cut or Fill - Taken care of in X Sec of Canal Back Filling - Grade revised As shown, to fit Properties Better




SEC "M"

JOB Nº GC346

CITY OF MASSILLON, OHIO.

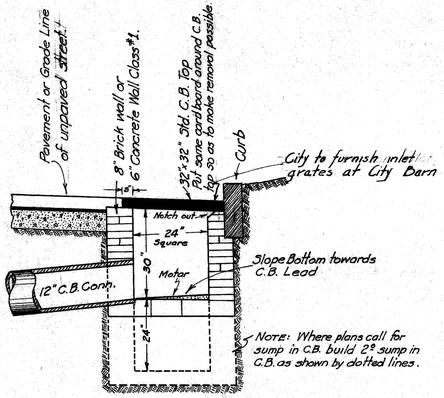
OHIO CANAL IMPROVEMENT
NORTH AVENUE NORTHWEST
PROPOSED IMPROVEMENT

14
27

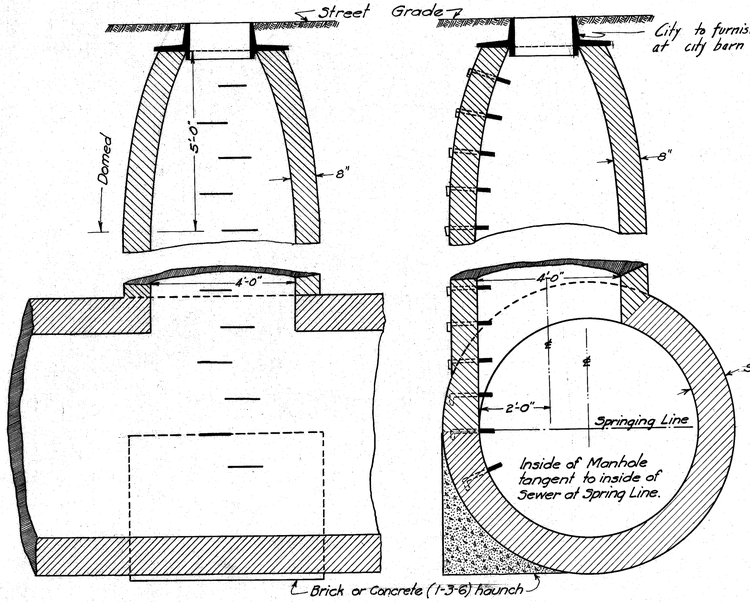
| | | | |
|---|---|---|---|
| APPROVED: City Engineer | | DEPT. OF PUBLIC SERVICE | |
| | | BUREAU OF ENGINEERING | |
| DRAWN BY S.J. | 3-20-33 | VER. 1" = 5 FT. | N.B. 113 |
| CHECKED G.C.W. | | HOR. 1" = 50 FT. | PAGE 20 |

FILE Nº SE 308 ACC. Nº 1209

HIGHWAY PLAN + PROFILE PLATE
STATE OF OHIO DEPARTMENT OF HIGHWAYS




**STANDARD CATCH BASIN.**

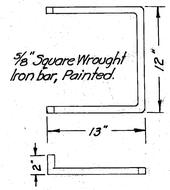



Corbelling of brick not permitted.

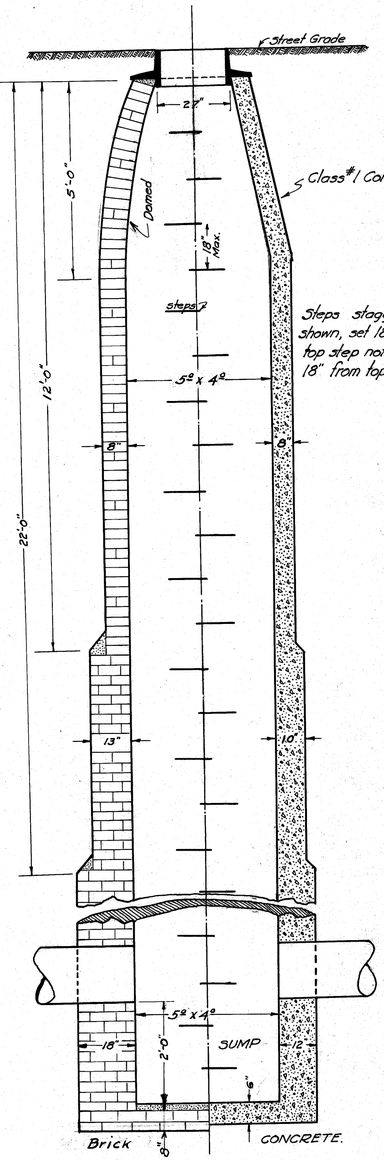
City of Massillon to furnish at City Barn all MH and C.B. Castings.

**STANDARD MANHOLE FOR LARGE SEWER.**

Payments according to specifications Item-6

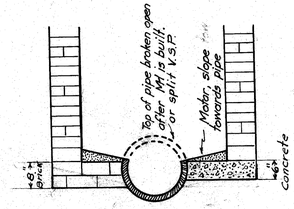



DETAIL OF STEPS
Contractor to furnish.



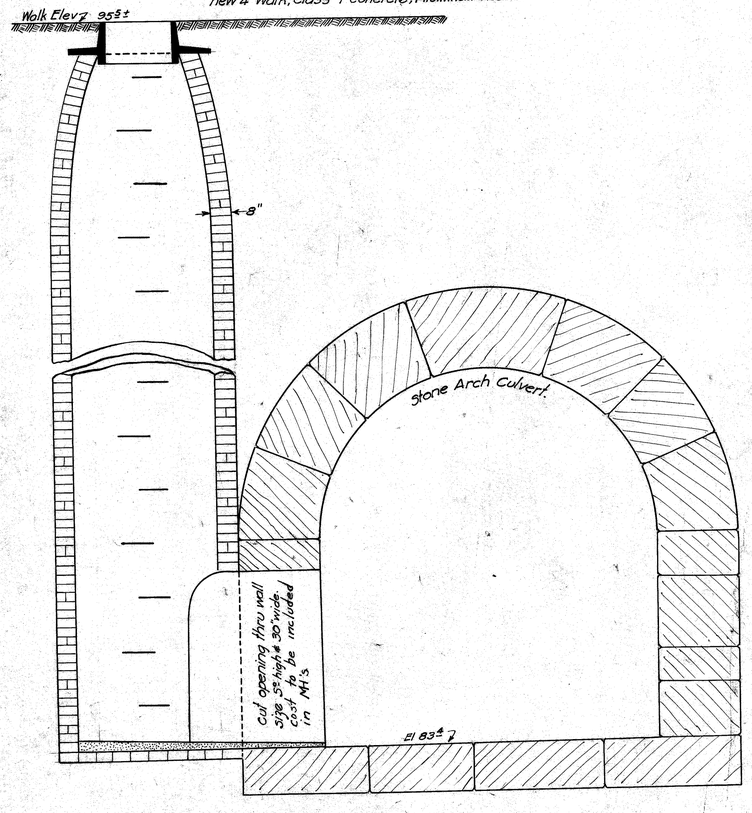

**STANDARD MANHOLE STORM SEWER.**

Note in storm sewer MH's build 2ft sump. in Sanitary Sewer MH's build MH around lower half of pipe break pipe open after MH is completed, see detail below.




**STANDARD MANHOLE BOTTOM FOR SANITARY SEWER.**

Note:-where side walk is taken up, replace with new 4" walk, Class #1 concrete, Aluminum floated.




DETAIL OF MH AT SIPPO CREEK AND ERIE ST., SOUTH.

GC. 346

CITY OF MASSILLON, OHIO.

OHIO CANAL IMPROVEMENT.

DETAIL OF MANHOLES AND CATCH BASINS.

| | |
|---|---|
| APPROVED C.E. Rice CITY ENGINEER | DEPT. OF PUBLIC SERVICE. ENGINEERING DIVISION. |
| DR. BY G.C. WALLACE CH. BY R.F. Jones | SCALE |

FILE NO. SE 308 ACC. NO. 1210

Cut 14
Fill 25

36" 82.21
96" 77.43
0+61
60

Cut 56.5
Fill 0

36" 82.24
96" 77.78
0+34
60

Cut 12
Fill 6

36" 82.24
96" 77.78
0+18
60

Cut 65.3
Fill 0

36" 82.21
96" 77.78
0+10
60

Cut 55.2
Fill 0

36" 82.43
96" 78.03
1+33
60

Cut 51.3
Fill 30.5

36" 82.25
96" 78.47
1+75
60

Cut 28
Fill 0

Cut 26
Fill 0

Cut 28
Fill 0

Cut 28
Fill 0

Cut 28
Fill 12

Cut 26
Fill 31

Cut 28
Fill 10

Cut 20
Fill 6

Cut 47
Fill 102

36" 82.26
96" 78.45
1+40
60

Cut 19.2
Fill 25.2

36" 83.19
96" 78.63 60"
1+93
60

EAST

WEST

Note from 3+32 to 4+48
add 2.0 to Fill on Centerline
& Base of Fill Slope on Rt
of Centerline

60" 78.11 2+10
60" 78.23 2+28
60" 78.25 2+50
60" 78.25 3+12
60" 78.25 3+30
60" 78.25 3+42
60" 78.25 3+59 No End Charles Pole SW Bridge
60" 4+08

Bridge Work 2E+A

SEC "E"
SEC "F"

GC.346
FILE NO SE308-ACC NO.1211
SEE SHEETS #5 & 11

OHIO CANAL IMPROVEMENT
X-SECTIONS NORTH END
NB III Part

Ignatian Chamber of North

| | CUT | FILL |
|---|---|---|
| 4+48 60" 78 98 | 272 | |
| 4+83 60" 78 99 | 272 | 30⁰ |
| 5+17 60" 79 02 | 280 | 28⁰ |
| 5+44 60" 79 04 | 268 | 30⁰ |
| 6+31 60" 79 13 | 268 | 36⁰ |
| 6+53 60" 79 15 | 268 | 32⁰ |
| 7+10 60" 79 21 | 256 | 34⁰ |
| 7+14 | 196 | 34⁴ |
| 8+09 | 168 | 28⁰ |
| 8+16 54" 79 72 | 168 | 42⁰ |
| 8+20 54" 79 72 | 176 | 42⁰ |
| 8+43 54" 79 74 | 168 | 46⁴ |
| 9+33 54" 79 83 | 176 | 46⁰ |
| 9+62 54" 79 86 | 168 | 48⁰ |
| 9+93 54" 79 89 | 124 | 41² |
| 10+43⁵ 54" 79 94 | 184 | 33⁶ |
| 10+53 54" 79 95 | 264 | 9⁶ |

Bad Area South

End Area North

SEC "F" — SEC "G" — SEC "H"

S. End Conc. Culvert at Federal Ave.

N. End Conc. Culvert at Federal Ave.

48" 80 41 11+09

SEC 1.

GC. 346
FILE NO. SE 308- ACC NO. 1212
SEC Pt "F", "G" & "H"

OHIO CANAL IMPROVEMENT
X-SECTIONS NORTH END
N.B. 113 PG. 1

17
27

CUT 20¢ 20¢ 18¢ 16¢ 12¢ 9¢ 3¢ 5¢ 16¢ 16¢ 14¢ 8¢ 8¢ 13¢ 15¢ 5¢ 3¢ 14¢ 8¢ 8¢ 6¢ 8¢ 8¢

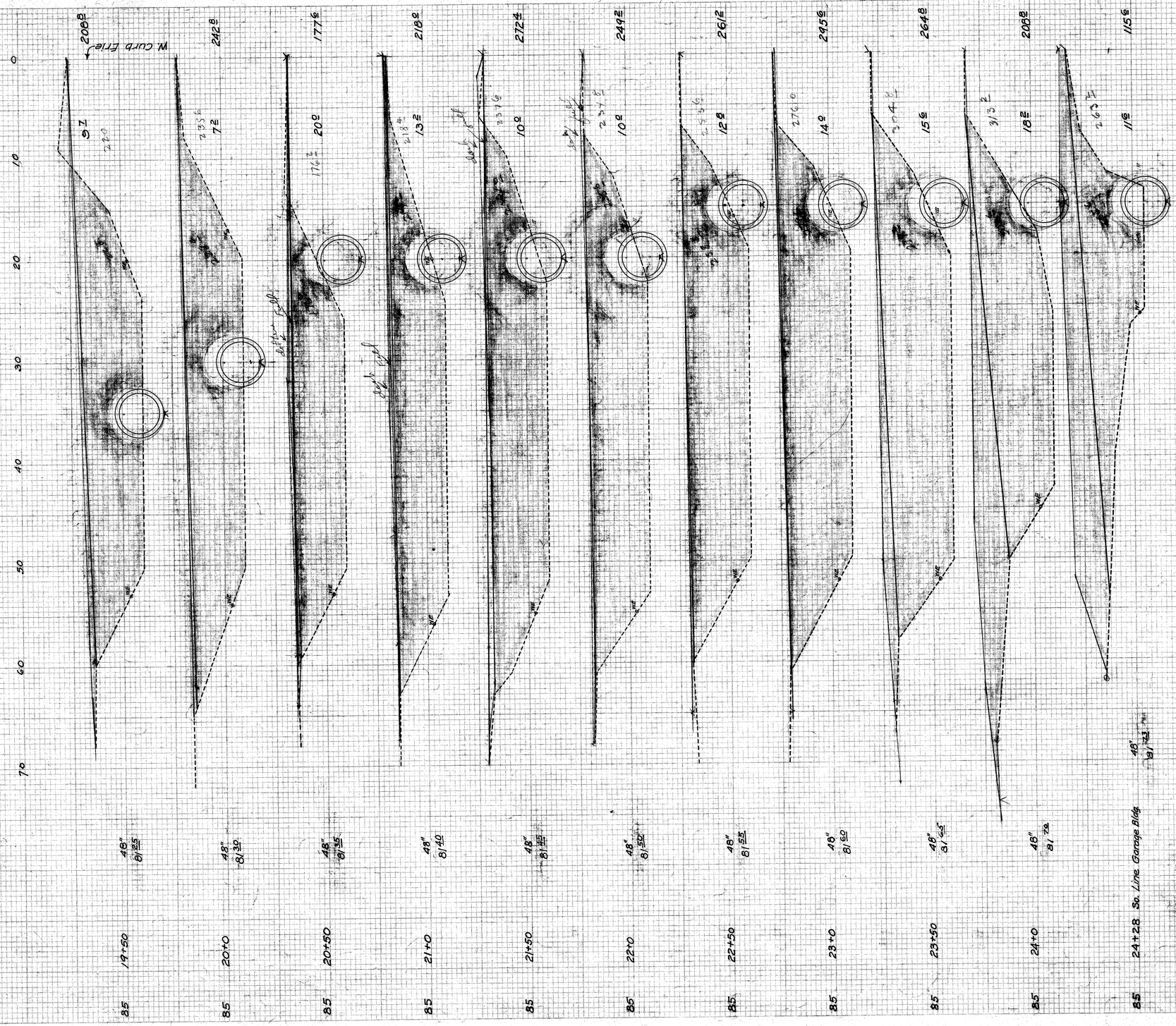
FILL 23¢ 16¢ 9¢ 32¢ 52¢ 46¢ 46¢ 74¢ 57¢ 52¢ 52¢ 46¢ 34¢ 29¢ 26¢ 26¢

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 |
| 11+09 | 11+66 No. Line Priest & Clancy | 12+10 | 12+825 S. Line Ind. Co. Bldg. | 13+30 No. Line Ind. Co. Bldg. | 14+10 | 15+20 So. End Erie Bldg. | 15+56 Under Erie Bldg. | 15+72 Offset | 16+18 | 17+07 No. End Erie Bldg. | 17+48 No. Line Thorne Ave. Bridge | 18+10 | 18+50 | 19+10 | | | | | | | | | |
| 48" 80.40 | 48" 80.41 | 48" 80.50 | 48" 80.58 | 48" 80.63 | 48" 80.76 | 48" 80.82 | 48" 80.96 | 48" 80.92 | 48" 80.72 | 48" 81.01 | 48" 81.05 | 48" 81.12 | 48" 81.18 | 48" 81.26 | | | | | | | | | |

G.C. 346
FILE NO 3E308-ACC NO. 1213
SEC "I"

OHIO CANAL IMPROVEMENT
X-SECTIONS NORTH END
N.B. III PG. 58

18/27




G.C. 346
FILE NO SE 308-ACC NO. 1214
SEC "I" & "K"
"J"

OHIO CANAL IMPROVEMEMENT
X-SECTIONS NORTH END
N.B. 113 PG. 1

19
27

End of Bldg

E. Line Brick Garage

CUT

FILL

Sheet Piling

Sheet Piling

Sheet Piling

Sheet Piling

28+73 S. Line Warwick Ave. fill

29+33 N. Line Warwick Ave. fill

WARWICK AVE

SEC "K"

SECTION "K"

Cut runs out

G.C. 346
FILE NO. SE 308-ACC NO. 1215
SEC PT OF "K"

OHIO CANAL IMPROVEMENT
X-SECTIONS NORTH END
N.B. 113 PG. 1

20
27

CUT 0 FILL

104 76 183 437 161 232 161 131 178 207 244 287 315 386

25 18 99 74 77 130 166 174 177 161 146 127 101

90 80 70 60 50 40 30 20 10 0

Wall Wall Wall Wall Wall Wall

Floor El 85

Flow 84.35

36" 82.810 Under Building 0+8.11 85

36" 82.772 Under Building 0+38.5 85

36" 82.734 Under Building 0+71 85

36" 82.723 Under Building 0+87 85

36" 82.723 0+87 S. End Building 85

36" 82.682 1+28 85

36" 82.642 1+48 Sa. End Spillway 85

36" 82.642 1+48 85

36" 82.610 2+0 85

36" 82.560 2+50 85

48" 81.80 3+0 85

48" 81.75 3+50 85

48" 81.70 4+0 85

48" 81.65 4+50 85

48" 81.60 5+0 85

48" 81.55 5+50 85

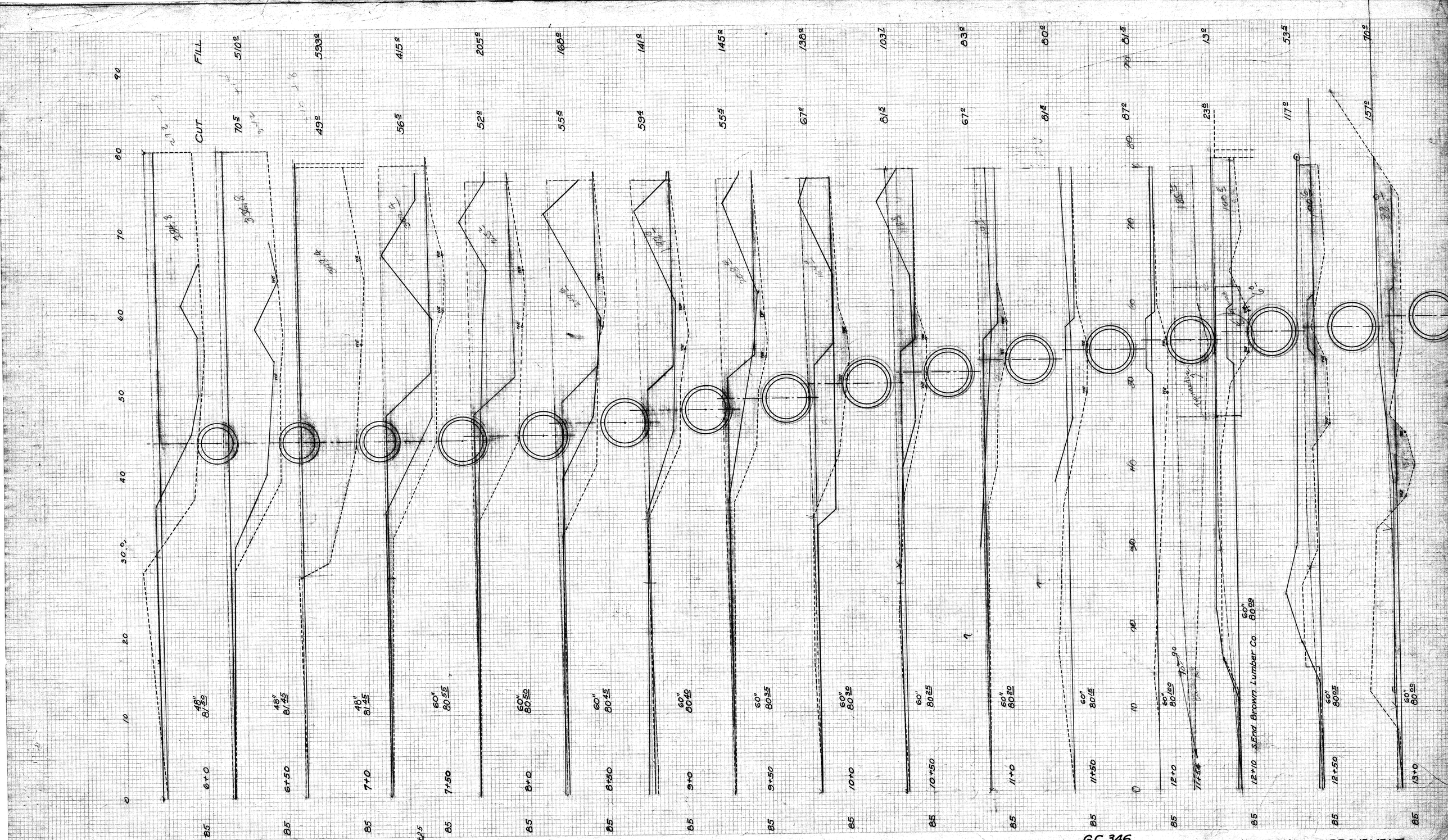
Top of E. Curb 1st St. S.W.

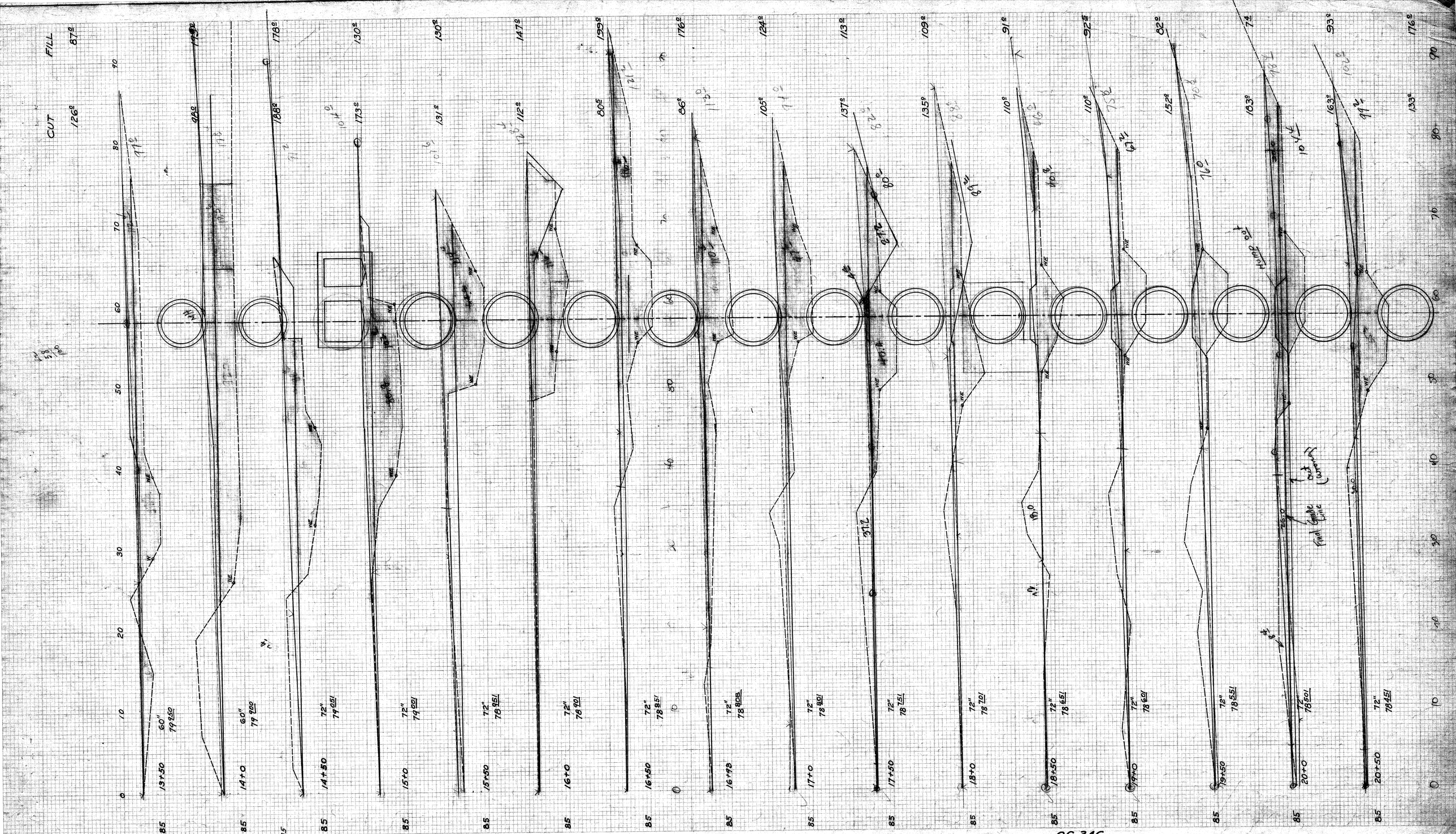
SECTION "D" 2+75 SEC. "C"

G.C. 346
FILE NO SE 308-ACC. NO 1216.

OHIO CANAL IMPROVEMENT
X-SECTIONS SOUTH END
N.B. III PG. 56

21/27


FILL
CUT
510 ft
593 ft
415 ft
205 ft
160 ft
141 ft
145 ft
138 ft
103 ft
83 ft
80 ft
81 ft
13 ft
53 ft
70 ft
70 ft
49 ft
56 ft
52 ft
55 ft
59 ft
55 ft
67 ft
81 ft
67 ft
81 ft
87 ft
23 ft
117 ft
157 ft
48" 81/20
48" 81/45
48" 81/45
60" 80/55
60" 80/50
60" 80/45
60" 80/40
60" 80/35
60" 80/30
60" 80/25
60" 80/20
60" 80/15
60" 80/10
60" 80/05
60" 80/00
End Brown Lumber Co
6+0
6+50
7+0
7+50
8+0
8+50
9+0
9+50
10+0
10+50
11+0
11+50
12+0
12+10
12+50
13+0
SEC "C"
SEC "B"
G.C. 346
FILE NO. SE 308-ACC NO. 1217
OHIO CANAL IMPROVEMENT
X-SECTIONS SOUTH END
NB 92 PG. 75
22
27




G.C. 346
FILE NO. SE. 308 - ACC. NO 1218

OHIO CANAL IMPROVEMENT.
X-SECTIONS SOUTH END
N.B. 92 PG. 75

23
27

FILL

140± CUT

272 SQ

188 SQ

117 SQ

294 SQ

508 SQ

467

23 SQ

0 SQ

112 SQ

93 SQ

111 SQ

105 SQ

WALL

WALL

WALL

WE

Stone

Timber Floor

Stone

Timber Floor

Stone

Stone

Stone

Stone

Stone

Stone

Timber Floor

Timber Floor

Timber Floor

72" 78 141

72" 78 351

72" 78 307

72" 78 259

72" 78 201

72" 78 138

72" 78 151

Sewer

End of Sewer

N. Side Sub-Sta.

S. End of Lock

23+0 to 23+50

23+50 to 23+63

23+63 to 23+75

23+63

23+75

24+0

24+14

24+72

25+00

25+50

26+0

77 53

77 38

77 68

77 76

77 7

78 12 S

78 6 S

78 6 P

78 12 P

N.B. 111/64

N.B. 92/75

SECTION "A"

END OF PROJECT

GC. 346

FILE NO. SE. 308 - ACC NO. 1219

OHIO CANAL IMPROVEMENT

X-SECTIONS - SOUTH END

N.B. 92/75 111/64

Sheet's #25-26-27 not in this project.

24/27

CUT 49.0 sq ft
FILL 68.8 sq ft

26+50 — 80 — 1723 — 92.7 / 103 sq ft — 1042 / 0 sq ft — 43.6 sq ft — 52.8 sq ft
27+0 — 80 — 1702 — 89.0 / 100 sq ft — 810 / 0 sq ft — 43.2 sq ft — 44.0 sq ft
27+50 — 80 — 1613 — 93.0 / 100 sq ft — 882 / 0 sq ft — 52.0 sq ft — 38.4 sq ft
28+0 — 80 — 1619 — 112.7 / 100 sq ft — 976 / 0 sq ft — 53.6 sq ft — 63.2 sq ft
28+50 — 80 — 1603 — 118.6 / 98 sq ft — 1071 / 0 sq ft — 61.6 sq ft — 57.6 sq ft
29+0 — 80 — 1648 — 101.6 / 103 sq ft — 1020 / 0 sq ft — 48.4 sq ft — 53.0 sq ft
29+50 — 80 — 1633 — 89.7 / 114 sq ft — 1051 / 2 sq ft — 64.8 sq ft — 44.8 sq ft
30+0 — 80 — 1618 — 120.0 / 116 sq ft — 1389 / 2 sq ft — 85.2 sq ft — 84.8 sq ft
30+50 — 80 — 1603 — 145.7 / 128 sq ft — 1362 / 1 sq ft — 62 — 78
31+0 — 80 — 1588 — 124.1 / 127 sq ft — 1181 / 2 sq ft — 65.6 — 58
31+50 — 80 — 1573 — 107.5 / 131 sq ft — 996 / 1 sq ft — 42 — 60
32+0 — 80 — 1560 — 99.6 / 142 sq ft — 982 / 0 sq ft — 64 — 47.6
32+50 — 80 — 1548 — 99.6 / 137 sq ft — 1075 / 0 sq ft — 52.0 — 60
33+0 — 80 — 1528 — 100.8 / 114 sq ft — 948 / 0 sq ft — 50.4 — 48.8
33+50 — 80 — 1513 — 100.8 / 109 sq ft — 1081 / 0 sq ft

GC. 346
FILE NO. SE 308-ACC NO. 1220

OHIO CANAL IMPROVEMENT
X-SECTIONS SOUTH END
NB III PG. 64

25
27

G.C. 346
FILE NO. SE308 ACC. NO. 1221

OHIO CANAL IMPROVEMENT
X-SECTIONS SOUTH END
NB III PG 64

GC.346
FILE NO.308–ACC.NO.1222

OHIO CANAL IMPROVEMENT
X-SECTIONS SOUTH END
NB III PG 64

27
27

ERIE ST So.

1+36 End June Ch. "B" Ohio Canal Improvement. West ℄ Erie St. So.

2+10 East Property Line Erie St. So.

Concrete Slab
Stone
8"
10"
Concrete or Stone Bottom
Stone
SECTION FROM 1+36 TO 2+10

Wood Top
Stone
6"
7"
6"
Gravel Bottom
Stone
SECTION FROM 2+10 to 2+73

Concrete Slab
Stone
12"
6"
Stone
Gravel Bottom
SECTION AT STA 3+00

N

A — A

B — B

℄ Point 2+73

TH BUILT AND SLAB OVER TOP

Build on 8" Brick curtain wall paid under Item Brick Masonry" Wall to be 9'-6" ft. wide and 3'-6" ft. high. 210 Brick.

Bldg. line

Casting to be set by contractor, furnished by City.

Remove concrete and stone obstruction, to be paid under unit Bid price of Common Labor.

SECTION AT STA 3+50
6"
8"
7"

℄ Point 3+63

C — C

D — D

E — E

Beginning of Stone Arch.

Stone Arch
7'0"
Timber Floor
SECTION AT STA. 4+39

BLDG.

Concrete wall, very poor condition

New 8" Sidewall

Old Face

New Face

10"

20"

Rebuild Stone Sidewall (Bad condition) on new line as shown, to be paid under Common Labor unit price.

Old Roof Drain plug this

Timber Floor to Arch Culvert

Built 6" Conc. Curtain Wall Pd. under Item 10-D. 8 cu. ft.

CULVERT UNDER ERIE ST So.

IN OPEN

UNDER BUILDINGS

Bldg.

I Beam

Conc. Slab see Sec E-E

Brick wall see above.

Top of wall North Side

Top of wall South Side

Top of 8" Conc. Slab

I-Beam.

Build 6" Concrete Curtain Wall Item 10-D

Backfill Item #22

Stone Work

Top Stone Arch

## PLAN AND PROFILE

Scale - Hor 1" = 10' - Ver 1" = 2'

El. 83.43

Flow Line of New Conc. Paving Slab - 0.78 % Grade

Gravel Fill

Concrete or Stone Bottom

2+10 Elev. 84.21

Cut out the Stone or Conc. Culvert Bottom

Flow Line of New Conc. Paving Slab - 1.0 % Grade

4.39 Elev. 86.39

Timber Floor

1+36 1+50 1+75 2+00 2+10 2+25 2+50 2+75 3+00 3+25 3+50 3+75 4+00 4+25 4+39

88 87 86 85 84 83

## SECTION "A-A"

Existing Timber Roof

Stone Sidewalls

6.5'

8"

Backfill and hand tamp

Present Stream Bed

Section from Sta 2+10 to Sta 2+73 6" Class "1 Concrete Paving to be paid under Item #36 B Paving Sippo Creek. Backfill to be placed and hand tamped to subgrade, free from large stones, paid under Item #22 Backfill borrow. No top slab in this section. Note:- Backfill paid only on material hauled in.

## SECTION "B-B"

Sec. B.B same as Section A A (see above) except that the width is variable - 6.5 ft. wide to 8.5 ft. wide from Sta. 2+73 to Sta. 3+36.

## SECTION "C-C"

South Side — North Side

10.5"

15" — 15"

Class "1 conc. Item # 10 D

7"

3/8" ϕ def. bars spaced 8" on centers 10'-0" long.

Key if poured separate

If stone wall is to high, remove top stone and build a 15" Vertical Conc. wall.

8.5' ±

8"

Backfill and hand tamp

Present Stream Bed

Section C-C from Sta. 3+36 to Station 3+61 - 6" Class "1 Concrete Paving to be paid under Item #36 B at #16.00 per Cu. Yd. Backfill to be placed and hand tamped. Paid under Item #22 Top slab to be placed as shown, Paid under Item # 10 D @ #22.00 per Cu. Yd. to include forms and steel complete as shown. Note:- Backfill paid only on material hauled in.

## SECTION "D-D"

South Side — North Side

Drill 1" holes 8" deep in stone wall every 2 ft. and place 3/4" ϕ bars 1'0" long - to the top slab to side walls: Grout Pins in place 1:1 Mix to be included in Item #10 D.

9.42

15"

7.5 ±

3/8" ϕ def. bars spaced 8" on Centers 9'-0" long

6.7 ±

3/8" ϕ def. bars spaced 16" c/c 7'-3" long

Item #10-D New 8" Conc. Wall

7.4 ±

8"

Existing Conc. wall Face of wall in bad condition

Wire brush face of old concrete wall to loosen all loose concrete Work to be done include in Item #10 D

Back fill and hand tamp

Present Stream Bed

Section "D-D" from Sta. 3+63 to Sta 4+05 Top Slab and side wall paid under Item # 10-D. Paving Base paid under Item # 36-B - Backfill paid on cu. yd. of material hauled in - Paid under Item # 22

## DETAIL SECTIONS

Scale 1" = 2'

## SECTION "E-E"

TRASH RACK INSTALLED AT EAST SIDE OF FIRST ST SE

Bldg. Wall.

Conc. Item #10-D

15"

4.5"

Existing Conc. Floor

2.8

1'

7'-7 ± 8" ±

3/8" ϕ def. bars spaced 16" c/c 5'-6" long bent as shown.

Stone Arch

Stone Sidewall

Conc. Wall O.K.

8"

Drill 1" holes 16" deep in stone wall every 16" and place 3/8" ϕ def. bars 5'-6" long bent as shown, grout bars in place with 1:1 Mix - to be included in Item # 10-D

Plan Revised 12-13-34

Paved Invert to be flat at Arch Culvert Sta 4+39 to be warped into a 8" inverted crown at Sta 4+25 Paid under Item # 36 B including excavation this material to be placed down stream in bed for fill purposes at no cost to project. Concrete slab on top to be placed and paid for under Item # 10-D to include drilling and grouting dowels in place.

| Date | Approval |
|---|---|
| 11-3-34 | C. B. Rice — CITY ENGINEER |
| | H. T. Sutherland — STATE INSPECTOR |
| | STATE DIRECTOR PUBLIC WORKS |
| | STATE PWA ENGINEER |

OHIO CANAL IMPROVEMENT
MASSILLON
PWA # 588 OHIO Gc. 346