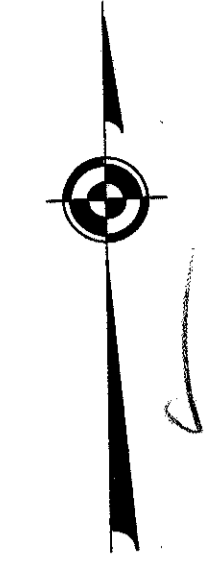


S.H. No. 604, Sec. Willowick, T. Willowick, Co. County Lake

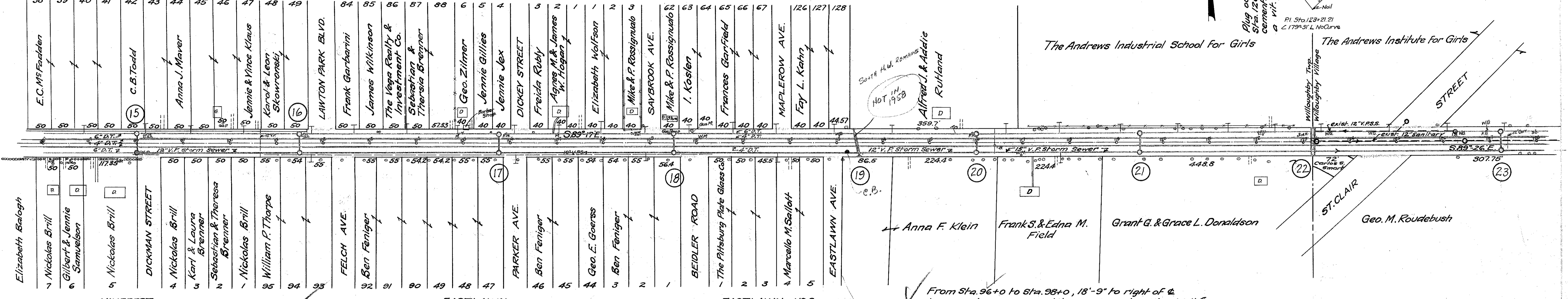
Raise or lower Valve boxes to grade at following: 98+14L, 101+53L, 105+93L, 109+84L, 115+92L, 122+03L, 126+92L.

Raise Man. Coat. of Sta. 123+21.21'.



Plug outlet to existing I.B. at Sta. 126+27.18' to left by cementing or by the use of a vit. pipe stopper.

- 15 Sta. 96+0 Build 54" dia. 12' x 40' enc. vit. pipe culvert I.B. on R. 9' L. Place 12" x 4" vit. T branch at 8' to R. 9' L. of E. (I.B. included in Rely Quant)
- 16 Sta. 101+50 Build 54" dia. 12' x 40' enc. vit. pipe culvert I.B. on R. 9' L. Place 12" x 4" vit. T branch at 8' to R. 9' L. of E. (I.B. included in Rely Quant)
- 17 Sta. 105+75 Build 54" dia. 12' x 40' enc. vit. pipe culvert I.B. on R. 9' L. Place 12" x 4" vit. T branch at 8' to R. 9' L. of E. (I.B. included in Rely Quant)
- 18 Sta. 109+50 Build 54" dia. 12' x 40' enc. vit. pipe culvert I.B. on R. 9' L. Place 12" x 4" vit. T branch at 8' to R. 9' L. of E. (I.B. included in Rely Quant)
- 19 Sta. 115+41 Remove coverstones to existing stone cul. and build 50" dia. vit. pipe culvert between existing stone walls. Sid. headwall on R. 9' L. of E. (I.B. included in Rely Quant)
- 20 Sta. 116+0 Build 54" dia. 12' x 40' enc. vit. pipe culvert I.B. on R. 9' L. of E. Place 12" x 4" vit. T branch at 8' to R. 9' L. of E. (I.B. included in Rely Quant)
- 21 Sta. 119+50 Build 54" dia. 12' x 40' enc. vit. pipe culvert I.B. on R. 9' L. of E. Place 12" x 4" vit. T branch at 8' to R. 9' L. of E. (I.B. included in Rely Quant)
- 22 Sta. 123+21 Extend existing 54" dia. vit. pipe culvert with 54" dia. vit. pipe culvert. Place 12" x 4" vit. T branch at 8' to R. 9' L. of E. (I.B. included in Rely Quant)
- 23 Sta. 127+25 Build 54" dia. 12' x 40' enc. vit. pipe culvert I.B. on R. 9' L. of E. Place 12" x 4" vit. T branch at 8' to R. 9' L. of E. (I.B. included in Rely Quant)



From Sta. 96+0 to Sta. 128+0, 18'-9" to left of  $\phi$   
Lay 3180 lin. ft. 6" drain tile, 30" deep, stone backfill (connect with I.B.s)

From Sta. 96+0 to Sta. 128+0, 7'-9" to left of  $\phi$   
Lay 3186 lin. ft. 4" drain tile, 24" deep, stone backfill (connect with culverts)

From Sta. 96+0 to Sta. 98+0, 18'-9" to right of  $\phi$   
Lay 200 lin. ft. 6" drain tile, 30" deep, stone backfill (connect with I.B.s)

From Sta. 96+0 to Sta. 128+0, 7'-9" to right of  $\phi$   
Lay 3186 lin. ft. 4" drain tile, 24" deep, stone backfill (connect with culverts)

B.M. #14 Sta. 101+49 Spike in root of 16" poplar 34' to R of  $\phi$  Elev. = 630.06

B.M. #15 Sta. 108+90 Spike in root of 18" poplar 55' to R of  $\phi$  Elev. = 629.08

B.M. #16 Sta. 117+23 Spike in root of 28" elm 25' to L of  $\phi$  Elev. = 630.11

B.M. #17 Sta. 123+26 Cross on N.E. corner of N. parapet to culv. 29' to L of  $\phi$  Elev. = 631.50

B.M. #18 Sta. 127+43 Spike in root of 28" oak 29' to L of  $\phi$  Elev. = 629.91

Grade line shown is crown elevation of finished pavement.

| Station | Left Curb | Center Line | Right Curb | Grade  |
|---------|-----------|-------------|------------|--------|
| 96      | 630.32    | 630.48      | 630.36     | +0.24% |
| 97      | 630.61    | 630.72      | 630.60     | -0.20% |
| 98      | 630.51    | 630.67      | 630.57     | -0.20% |
| 99      | 630.32    | 630.49      | 630.32     | -0.12% |
| 100     | 630.10    | 630.30      | 630.18     | -0.20% |
| 101     | 629.84    | 630.09      | 629.94     | -0.20% |
| 102     | 629.73    | 629.94      | 629.86     | -0.20% |
| 103     | 629.56    | 629.78      | 629.69     | -0.20% |
| 104     | 629.40    | 629.61      | 629.50     | -0.20% |
| 105     | 629.32    | 629.54      | 629.45     | -0.20% |
| 106     | 629.18    | 629.39      | 629.36     | -0.20% |
| 107     | 628.89    | 629.16      | 629.14     | -0.20% |
| 108     | 628.75    | 628.98      | 628.99     | -0.20% |
| 109     | 628.64    | 628.86      | 628.76     | -0.20% |
| 110     | 628.60    | 628.71      | 628.73     | -0.20% |
| 111     | 628.86    | 628.99      | 628.94     | +0.19% |
| 112     | 629.33    | 629.56      | 629.45     | +0.60% |
| 113     | 629.88    | 630.17      | 630.15     | -0.20% |
| 114     | 630.09    | 630.25      | 630.18     | -0.25% |
| 115     | 629.83    | 630.01      | 629.84     | +0.23% |
| 116     | 629.65    | 629.79      | 629.63     | -0.20% |
| 117     | 629.68    | 629.78      | 629.82     | -0.20% |
| 118     | 629.96    | 630.08      | 630.06     | -0.20% |
| 119     | 630.24    | 630.40      | 630.33     | -0.20% |
| 120     | 630.53    | 630.72      | 630.57     | -0.20% |
| 121     | 630.83    | 630.93      | 630.75     | -0.20% |
| 122     | 630.99    | 631.20      | 631.06     | -0.20% |
| 123     | 631.10    | 631.28      | 631.07     | -0.20% |
| 124     | 630.82    | 630.87      | 629.87     | -0.20% |
| 125     | 629.26    | 629.22      | 629.22     | -0.20% |
| 126     | 628.77    | 628.63      | 628.63     | -0.20% |
| 127     | 628.60    | 628.65      | 628.65     | +0.27% |

Exc. Emb. Waste 503.0 Cu. Yds. 436.3 501.7 1.3

Exc. Emb. Waste 848.1 Cu. Yds. 720.0 828.0 20.1