CITY OF WASHINGTON, ILLINOIS
City Council Agenda Communication

Meeting Date: March 20, 2023

Prepared By: Dennis Carr, P.E. – City Engineer

Agenda Item: Hamilton's Alternate Analysis Costs Review

Explanation: As part of the discussion at the March Committee of the Whole meeting, Alderman Blundy referenced discrepancies with the cost analysis of the alternatives in Appendix J. Staff had not reviewed the appendices of the Hamilton Report as the analysis was meant to be unbiased and any assistance given to Hamilton via staff would have been undoubtedly and unfairly criticized by others.

With Council having asked for staff to dig into the report appendices, there are some significant discrepancies. While I was purely reviewing from a pdf standpoint and measurements are rough, the cost for both L-1 and E-3 were significantly lower. The following are some concerns over the costs:

- The amount of bore and jack 42" pipe in casing was extremely inflated. While I am uncertain on what grounds the trenchless install was being triggered, a depth of 28 feet was used in my estimations (closely matches Strands plans as well). Most Excavators max out at a depth close to 26-27 ft. Caterpillar has 1 type of excavator that can dig over 28.5 feet. The excavator to dig this deep weighs over 100 tons. I do not believe this is a suitable installation method without significant shoring and benching which I don't see in the unit prices.
- The manhole counts appear to be wrong for every alternative.
- The abandonment of the existing manholes would be required for each alternative.
- Seeding was greatly under estimated on L-1 and E-3.
- Clearing and Grubbing was used instead of tree removal and the areas were underestimated for L-1 and E-3.
- The perimeter Erosion Barrier on L-1 was reduced by half, but without cross sections this is just protecting the creek side as a safe estimate.
- Foundation material is difficult to estimate without designing the trenchless bore pit locations individually. Due to this, all foundation materials are assumed equal to eliminate it as a skewing factor.
- L-1 follows fairly close to the creek for most of the length. I would expect a higher install price due to the likely need for trench dewatering.
- L-1 crosses the creek the first time with only 1 foot of cover. While it is shown with a casing pipe, Alignment B lowered the alignment to avoid the chance of the pipe or casing becoming exposed. It would be the same staff recommendation for the crossing of L-1. This would lower half the alignment by 4 feet and add additional trenchless installation.
- E-3 travels under a barn.
- E-3 has one specific run length of 1250 feet which is farther than we can jet with our own equipment. This would make it difficult to get IEPA to approve this.
- With constant work traffic crossing railroad for material deliveries, railroad might require rail protection or a lookout. This would add a significant cost in both slower work schedule and actual monetary cost to the railroad for said protection/lookout.

Cost Change Summary

Company	Hamilton Estimate	Revised Estimate
Alignment B	$ 7,927,480.48	$ 7,775,169.99
Alignment L-1	$ 10,980,641.77	$ 8,056,431.00
Alignment E-3	$ 12,581,197.43	$ 9,978,553.48

Unit Costs for these were estimated (2/2020) before two straight years of massive construction inflation. Project costs for pipe projects has shown increases upwards of 20% in the last couple years. It's possible that each of these estimates would be at least $1 - $1.5 million higher because of inflation since the project was stalled.

Appendix J also contained Permanent and Temporary Easement Information. The Easement information was severely skewed against Strands Alignment B because it had been fully designed and access was designed.

- The Easement was a consistent 50' for Alignment B to maintain future maintenance area if/when repair work is needed. 30' will not give City Crews enough room to dig 20' in the ground, stockpile dirt a safe distance from the hole, and still be able to pass by with equipment and stay on permanent easement.
- Access is not maintained for the entire length of the northern routes. Access agreements similar to that of alignment B will be needed to access sections of the trunkline.
    - There are two separate instances where L-1 traverses both sides of an oxbow. Without access planned around these areas, it is assumed that all equipment will need to traverse across the creek. It would be extremely cost prohibitive to protect from environmental issues of daily creek crossings, so access around these areas will be required.
- Adjusting Easements to 50' and removing access easements for B.
    - B – 9.50 acres of Perm and 5.83 acres of Temp
    - L-1 – 10.72 acres of Perm and 6.06 acres of Temp
    - E-3 – 9.54 acres of Perm and 5.72 acres of Temp

Land Acquisition

- $$$Farmland Easement>$$Residential land Easement>$Hilly Forest easement.
- Alignment B – 3 owners over 1 acre for trunk – 3 under 1 acre
- L-1 – 5 owners over 1 acre for trunk – 2 under 1 acre
- E-3 – 4 owners over 1 acre for trunk – 3 under 1 acre
-

In General, no property owner wants trunkline on their property.

I have not had time to review the force main alternative or the bypass lines.

Strand Alignment B

Description	Units	Est Unit Price	Draft Report		Revised	
			Quan	EOPCC	Quan	EOPCC
FOUNDATION MATERIAL	CY	$52.00	417.12	$21,690.24	417.12	$21,690.24
RESTORATION-SEED, class 2 (topsoil,fertilizer,excelsior blanket, mulch incidental)	ACRE	$9,654.55	4.32	$41,707.66	4.32	$41,707.66
RESTORATION-SEED, class 4/5 (topsoil,fertilizer,excelsior blanket, mulch incidental)	ACRE	$9,654.55	4.32	$41,707.66	4.32	$41,707.66
RESTORATION-SEED, class 4B/5B (topsoil,fertilizer,excelsior blanket, mulch incidental)	ACRE	$9,654.55	4.32	$41,707.66	4.32	$41,707.66
PERIMETER EROSION BARRIER	FT	$4.00	7508	$30,032.00	7508	$30,032.00
TREE REMOVAL (OVER 6 UNITS DIAMETER)	EA	$12.00	7508	$90,096.00	7508	$90,096.00
STABILIZED CONSTRUCTION ACCESS	EA	$6,000.00	0	$0.00	0	$0.00
SANITARY SEWER, 42-IN HOBAS - OPEN CUT	LF	$350.00	9385	$3,284,750.00	9384	$3,284,400.00
SANITARY SEWER, 42-IN HOBAS - TRENCHLESS	LF	$896.55	1740	$1,559,997.00	1600	$1,434,480.00
SANITARY SEWER, 12-IN HOBAS - OPEN CUT	LF	$80.00	520	$41,600.00	0	$0.00
SANITARY SEWER, 18-IN HOBAS - OPEN CUT	LF	$140.00	220	$30,800.00	151	$21,140.00
SANITARY SEWER, 42-IN HOBAS - BORE AND JACK 60" STEEL CASING	LF	$0.00	0	$0.00	0	$0.00
TRENCHLESS CONSTRUCTION, 8-IN SANITARY SEWER WITH 20-IN STEEL CASING	LF	$400.00	140	$56,000.00		$0.00
TRENCHLESS CONSTRUCTION, 18-IN SANITARY SEWER WITH 30-IN STEEL CASING	LF	$450.00	280	$126,000.00	315	$141,750.00
NEW 12-IN INSIDE EXISTING 30-IN	LF	$1,250.00	12	$15,000.00	134	$167,500.00
PROTECT EXISTING SANITARY SEWER AT CROSSINGS	EA	$4,000.00	3	$12,000.00	3	$12,000.00
ABANDONMENT OF EXISTING SANITARY MANHOLES	EA	$2,000.00	39	$78,000.00	39	$78,000.00
SANITARY MANHOLE, TYPE A, 6-FT DIA, LESS THAN 20' DEEP	EA	$9,000.00	14	$126,000.00	14	$126,000.00
SANITARY MANHOLE, TYPE A, 6-FT DIA, 20' TO 25' DEEP	EA	$12,000.00	3	$36,000.00	10	$120,000.00
SANITARY MANHOLE, TYPE A, 6-FT DIA, 25' TO 30' DEEP	EA	$15,000.00	1	$15,000.00	5	$75,000.00
SANITARY MANHOLE, TYPE A, 6-FT DIA, 30' TO 35' DEEP	EA	$18,000.00	1	$18,000.00	3	$54,000.00
SANITARY MANHOLE, TYPE A, 6-FT DIA, 35' TO 40' DEEP	EA	$21,000.00	1	$21,000.00	0	$0.00
SANITARY MANHOLE, TYPE A, 6-FT DIA, 40' TO 45' DEEP	EA	$24,000.00	0	$0.00	1	$24,000.00
SANITARY MANHOLE, TYPE A, 6-FT DIA, CONSTRUCTED ON EXISTING SEWER PIPE	EA	$12,000.00	3	$36,000.00	0	$0.00
SANITARY MANHOLE, TYPE A, 8-FT DIA, LESS THAN 20 FT DEEP	EA	$18,000.00	5	$90,000.00	0	$0.00
SANITARY MANHOLE, TYPE A, 8-FT DIA, 20' TO 25' DEEP	EA	$22,000.00	3	$66,000.00	0	$0.00
SANITARY MANHOLE, TYPE A, 8-FT DIA, JUNCTION MANHOLE	EA	$20,000.00	2	$40,000.00	0	$0.00
OUTSIDE DROP MANHOLE CONNECTION, 18"	EA	$8,000.00	1	$8,000.00	1	$8,000.00
SUBTOTAL CONSTRUCTION				$5,927,088.21		$5,813,211.21
MOBILIZATION (CONTRACTOR PROFIT, BONDS, INSURANCE)	LS		2%	$118,541.76	2%	$116,264.22
ENGINEERING AND LEGAL	LS		5%	$296,354.41	5%	$290,660.56
TOTAL BASE PROJECT				$6,341,984.38		$6,220,135.99
Contingencies - Base				25%		25%
Total - Base Project w/ Contingencies				$7,927,480.48		$7,775,169.99

INSTALL 134 LF 12" PVC SEWER IN EXISTING 36" PIPE

EXISTING RAILROAD CROSSING AND ACCESS ROUTE

CORE AND BOOT EXISTING MANHOLE MH-204 FOR NEW 18" SANITARY SEWER TO MH-100

ABANDON EXISTING 36" SANITARY SEWER

ABANDON EXISTING MANHOLE MH-204

REMOVE AND REPLACE EXISTING MH-203
RIM: 645.842
I.E.: 632.452

ABANDON EXISTING 36" SANITARY SEWER

REMOVE EXISTING MH-202

CONTRACTOR'S CHOICE TO INSTALL SEWER VIA TRENCHLESS OR OPEN-CUT METHODS UNDER CREEK FROM STATION 104+60 TO 106+60

FARM CREEK

MEADOW VALLEY LLC
PIN 02-02-28-100-006

EXISTING 36" SANITARY SEWER

MH-102
6'-DIA
STA. 108+00

TOLEDO, PEORIA, & WESTERN RAILROAD

MATCH LINE STA. 113+00

S1-1

25.00'

100+00

105+00

110+00

18 LF - 42" SANITARY SEWER @ 0.50% (BY OTHERS)

PROPOSED INFLUENT PUMPING STATION (BY OTHERS)

NEW JUNCTION MANHOLE
MH-100
6'-DIA
STA. 100+96

CITY OF WASHINGTON
PIN 02-02-28-100-003

EXTEND NEW 12" PVC SEWER

20' TEMPORARY EASEMENT FOR ACCESS

PROPOSED 42" SANITARY SEWER

50' PERMANENT EASEMENT

30' TEMPORARY EASEMENT

MH-103
6'-DIA.
STA. 111+54, 10' RT

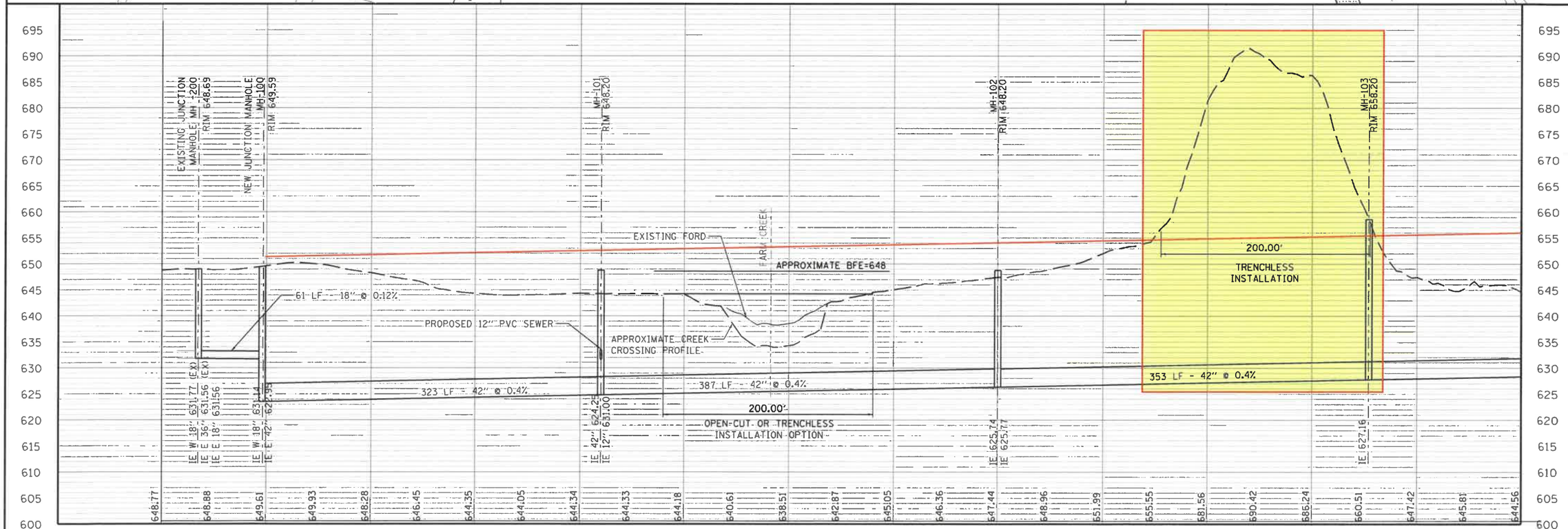
MH-101
6'-DIA
STA. 104+20

REMOVE AND RECONSTRUCT EXISTING CONCRETE FORD (SEE SHEET 23)

MEADOW VALLEY LLC
PIN 02-02-28-100-006

N

10'
VERT SCALE
0
0 50'
HORIZ SCALE
SCALE IN FEET



NO.	REVISIONS	DATE:
1	50% ENGINEERING	8/1/20
2	PRE-FINAL ENGINEERING FOR PERMITTING	1/27/21

PLAN AND PROFILE

FARM CREEK TRUNK SEWER
CITY OF WASHINGTON
TAZEWELL COUNTY, ILLINOIS

JOB NO.
1879.024

PROJECT MGR.
MRW

STRAND ASSOCIATES®

SHEET
11

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MILLER
PIN 02-02-28-200-003

MH 206

MH 207

MH 208

TOLEDO, PEORIA, & WESTERN RAILROAD

MATCH LINE STA. 113+00

MATCH LINE STA. 127+00

115+00

120+00

125+00

25.00

RECONSTRUCT CREEK
ON REVISED ALIGNMENT
(SEE CROSS SECTIONS)

MH-104
6'-DIA.
STA. 116+49, 10' RT

MH-105
6'-DIA.
STA. 121+00

50' PERMANENT EASEMENT

30' TEMPORARY EASEMENT

MH-106
6'-DIA.
STA. 125+73

20' TEMPORARY EASEMENT
FOR ACCESS

MILLER
PIN 02-02-28-200-003

ZONE A FLOOD PLAIN

10'
VERT
SCALE
0

0 POND 50'
HORIZ SCALE
SCALE IN FEET

MH-104
RIM 658.20
1E 629.14

MH-105
RIM 658.20
1E 630.94

MH-106
RIM 660.24
1E 632.84

APPROXIMATE BFE=658

495 LF - 42" @ 0.4%

451 LF - 42" @ 0.4%

473 LF - 42" @ 0.4%

227 LF - 42" @ 0.4%

644.56 646.76 646.32 646.21 646.66 648.47 651.66 653.98 654.28 654.97 655.18 655.29 656.28 656.48 656.91 657.11 657.11 657.13 657.36 658.17 659.62 658.73 659.69 659.52 659.42 660.21 661.62 662.07 663.01

695 690 685 680 675 670 665 660 655 650 645 640 635 630 625 620 615 610 605 600

113+00 114+00 115+00 116+00 117+00 118+00 119+00 120+00 121+00 122+00 123+00 124+00 125+00 126+00 127+00

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EXISTING 20' EASEMENT

MILLER
PIN 02-02-28-200-003

MH 209

MH 210

FARM CREEK

MH 211

30' PERMANENT EASEMENT

WIEGAND
PIN 02-02-28-200-007

MH 212

MH 213

MH 214

TOLEDO, PEORIA, & WESTERN RAILROAD

MATCH LINE STA. 127+00

MATCH LINE STA. 141+00

SEE SHEET 20 FOR PLAN AND PROFILE OF RAILROAD CROSSING 1 BORE AND JACK FOR LOCAL SEWER CONNECTION

130+00

135+00

140+00

MH-107
6'-DIA.
STA. 128+00

MH-108
6'-DIA.
STA. 130+13

PROPOSED 42"
SANITARY SEWER

MH-109
6'-DIA.
STA. 135+00

MH-110
6'-DIA.
STA. 138+56

20' TEMPORARY EASEMENT
FOR ACCESS

30' TEMPORARY EASEMENT

50' PERMANENT EASEMENT

MILLER
PIN 02-02-28-200-003

POND

10'
VERT
SCALE
0

0 50'
HORIZ SCALE
SCALE IN FEET

MH-107
RIM 665.81
IE 633.74

MH-108
RIM 659.75
IE 42" 634.54
IE 18" N 636.31

MH-109
RIM 657.78
IE 640.10

MH-110
RIM 659.00
IE 640.77

310.00'
TRENCHLESS
INSTALLATION

PROPOSED 18" SANITARY SEWER

242 LF - 42" @ 0.4%

455 LF - 42" @ 1.38%

356 LF - 42" @ 0.35%

NO.	REVISIONS	DATE:
1	50% ENGINEERING	8/1/20
2	PRE-FINAL ENGINEERING FOR PERMITTING	1/27/21

PLAN AND PROFILE

FARM CREEK TRUNK SEWER
CITY OF WASHINGTON
TAZEWELL COUNTY, ILLINOIS

JOB NO.
1879.024

PROJECT MGR.
MRW

STRAND ASSOCIATES®

SHEET
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MH 215

FRANZEN
PIN 02-02-27-100-009

EXISTING 20' EASEMENT

KARA STEEPCHASES ESTATES INC.
PIN 02-2-27-100-011

MH 217

MH 216

FARM CREEK

ABANDON EXISTING 30"
SANITARY SEWER

SEE SHEET 21 FOR PLAN AND PROFILE OF
RAILROAD CROSSING 2 BORE AND JACK FOR
LOCAL SEWER CONNECTION

30' PERMANENT EASEMENT

TOLEDO, PEORIA, & WESTERN RAILROAD

MATCH LINE STA. 141+00

MATCH LINE STA. 151+00

CONTRACTOR SHALL COORDINATE
WITH RAILROAD FOR TEMPORARY
ACCESS ON RAILROAD ROW

1145+00

1150+00

MH-111
6'-DIA.
STA. 143+00

MH-112
6'-DIA.
STA. 146+88

MH-113
6'-DIA.
STA. 150+25

MILLER
PIN 02-02-28-200-003

PUDIK
PIN 02-02-27-100-005

N

10'
VERT
SCALE
0

0 50'
HORIZ SCALE
SCALE IN FEET

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705
700
695
690
685
680
675
670
665
660
655
650
645
640
635
630
625
620
615
610

MH-111
RIM 666.51
IE 642.90

MH-112
RIM 667.92
IE 644.25

MH-113
RIM 665.91
IE 42" 645.43
IE 18" 650.00

185.00'
TRENCHLESS
INSTALLATION

PROPOSED 18" SANITARY SEWER

444 LF - 42" @ 0.35%

388 LF - 42" @ 0.35%

331 LF - 42" @ 0.35%

658.79 665.38 669.39 669.28 666.51 665.80 665.78 664.74 667.05 667.70 667.96 667.14 668.16 672.68 671.55 681.16 681.52 682.28 670.69 666.30 665.91

141+00 142+00 143+00 144+00 145+00 146+00 147+00 148+00 149+00 150+00 151+00

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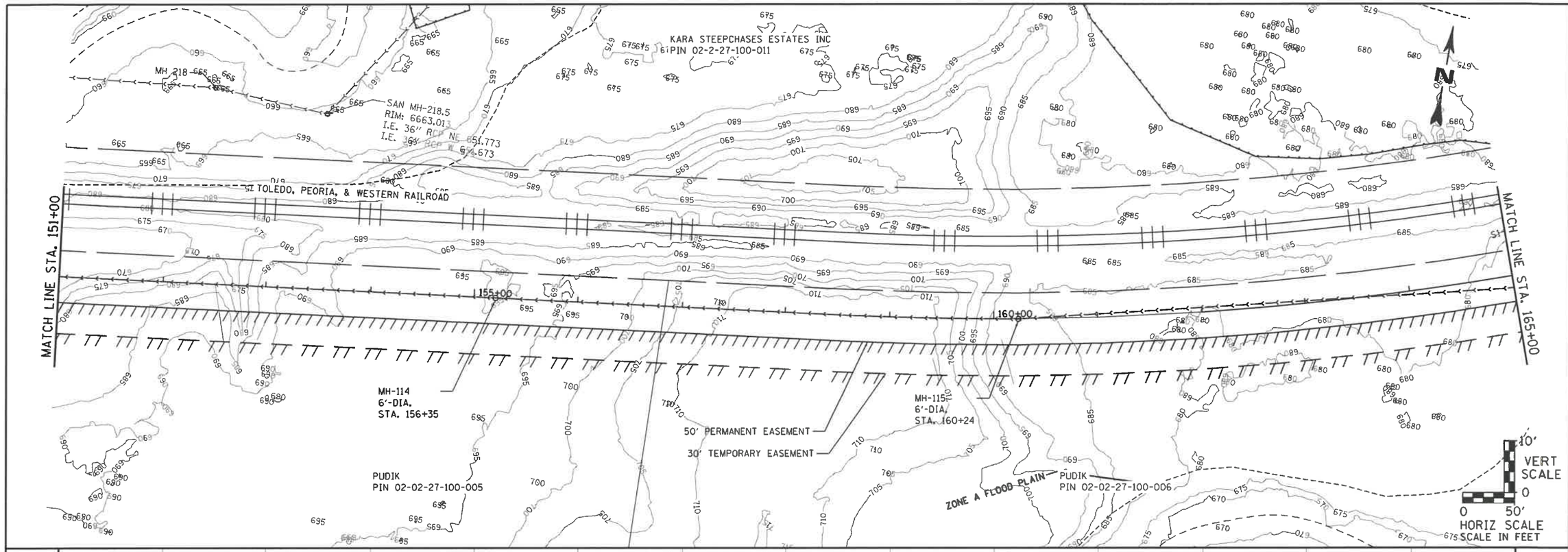

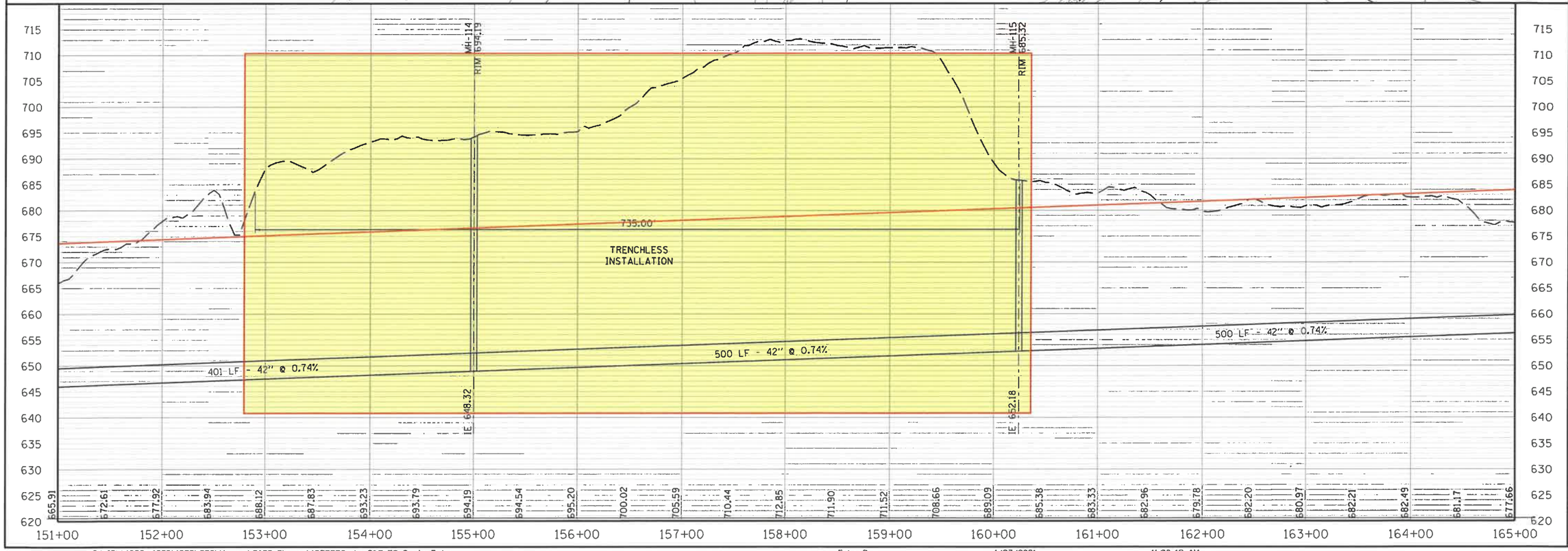

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KARA STEEPLECHASE ESTATES
PIN 02-02-27-100-011

EXISTING 36"
SANITARY SEWER

EX MH-224

KARA STEEPLECHASE ESTATES
PIN 02-02-27-101-005

CONTRACTOR'S CHOICE TO INSTALL SEWER VIA TRENCHLESS OR OPEN-CUT METHODS UNDER CREEK FROM STATION 165+30 TO 167+55

ZONE A FLOOD PLAIN

TOLEDO, PEORIA, & WESTERN RAILROAD

MATCH LINE STA. 165+00

MATCH LINE STA. 179+00

165+00

170+00

175+00

25.00'

MH 116
6'-DIA.
STA. 165+26

MH-117
6'-DIA.
STA. 168+49

MH-118
6'-DIA.
STA. 171+00

MH-119
6'-DIA.
STA. 173+50, 10' RT

MH-120
6'-DIA.
STA. 178+20

20' TEMPORARY EASEMENT
FOR ACCESS

PROPOSED 42"
SANITARY SEWER

PUDIK
PIN 02-02-27-100-006

50' PERMANENT EASEMENT

30' TEMPORARY EASEMENT

10'
VERT
SCALE
0
50'
HORIZ
SCALE IN FEET

MH-116 RIM 677.09
MH-117 RIM 677.20
MH-118 RIM 687.20
MH-119 RIM 687.20
MH-120 RIM 693.99

225.00'
OPEN-CUT OR TRENCHLESS
INSTALLATION OPTION

FARM CREEK

APPROXIMATE BFE=677

APPROXIMATE BFE=687

170.00'
TRENCHLESS
INSTALLATION

500.00'
TRENCHLESS
INSTALLATION
(OPTIONAL)

324 LF - 42" @ 0.3%

251 LF - 42" @ 2.29%

250 LF - 42" @ 2.29%

470 LF - 42" @ 0.3%

EXISTING 30" SANITARY SEWER

IE 655.88
IE 656.85
IE 662.47
IE 668.19
IE 669.60

677.66 677.45 673.90 665.76 672.78 674.63 674.58 675.89 697.92 715.51 698.05 682.73 683.42 683.15 684.72 686.20 686.43 686.10 694.84 698.49 698.38 698.55 698.75 698.95 699.22 699.13 696.97 695.07 694.37

165+00 166+00 167+00 168+00 169+00 170+00 171+00 172+00 173+00 174+00 175+00 176+00 177+00 178+00 179+00

725 720 715 710 705 700 695 690 685 680 675 670 665 660 655 650 645 640 635 630

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CITY OF WASHINGTON
TAZEWELL COUNTY, ILLINOIS

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MRW

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MH-122
6'-DIA.
STA. 183+00, 10' LT

MH-123
6'-DIA.
STA. 185+80, 12' LT

MH-124
6'-DIA.
STA. 190+00

CITY OF WASHINGTON
PIN 02-02-22-400-011

TOLEDO, PEORIA, & WESTERN RAILROAD

S1-3

W8.5

MATCH LINE STA. 179+00

MATCH LINE STA. 193+00

180+00

185+00

190+00

MH-121
6'-DIA.
STA. 180+75

PROPOSED 42"
SANITARY SEWER

MH 232

MH 233

MH 234

CONTRACTOR'S CHOICE TO INSTALL
SEWER VIA TRENCHLESS OR OPEN-CUT
METHODS UNDER CREEK FROM
STATION 183+05 TO 185+55

PUDIK
PIN 02-02-27-100-006

PUDIK
PIN 02-02-27-200-003

CITY OF WASHINGTON
PIN 02-02-22-400-012

10'
VERT
SCALE
0
0 50'
HORIZ SCALE
SCALE IN FEET

MH-121
RIM 692.23
IE 670.37

MH-122
RIM 693.92
IE 671.04

MH-123
RIM 690.20
IE 672.41

MH-124
RIM 693.91
IE 675.03

250.00'
OPEN-CUT OR TRENCHLESS
INSTALLATION OPTION

FARM CREEK

FARM CREEK

APPROXIMATE BFE=690

255 LF - 42" @ 0.3%

225 LF - 42" @ 0.3%

280 LF - 42" @ 0.49%

420 LF - 42" @ 0.49%

517 LF - 42" @ 0.3%

694.37 694.10 693.65 693.14 692.51 693.07 692.89 693.11 693.92 695.23 681.18 683.94 681.58 687.72 689.32 689.49 691.36 691.09 689.65 689.32 692.54 694.81 693.91 695.50 699.37 700.81 703.34 703.93 704.81

735 730 725 720 715 710 705 700 695 690 685 680 675 670 665 660 655 650 645 640

179+00 180+00 181+00 182+00 183+00 184+00 185+00 186+00 187+00 188+00 189+00 190+00 191+00 192+00 193+00

NO.	REVISIONS	DATE:
1	50% ENGINEERING	8/1/20
2	PRE-FINAL ENGINEERING FOR PERMITTING	1/27/21

PLAN AND PROFILE

FARM CREEK TRUNK SEWER
CITY OF WASHINGTON
TAZEWELL COUNTY, ILLINOIS

JOB NO.
1879.024

PROJECT MGR.
MRW

STRAND ASSOCIATES®

SHEET
17

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MATCH LINE STA. 193+00

MATCH LINE STA. 207+00

SAN MH-235-N
RIM: 701.562
I.E. 8" VCP NW 690.312
I.E. 8" VCP NE 690.42
I.E. 8" VCP SE 688.54

W10

W15

W14

W13

W12

TOLEDO, PEORIA, & WESTERN RAILROAD

CONNECT TO EXISTING
8" DIAMETER SEWER

193+00

200+00

205+00

MH-128
6'-DIA.
STA. 203+00

MH-129
6'-DIA.
STA. 205+00

PROPOSED 42"
SANITARY SEWER

MH-125
6'-DIA.
STA. 195+14

MH-126
6'-DIA.
STA. 197+00

MH-127
6'-DIA.
STA. 200+00

ZONE A FLOOD PLAIN

EXISTING 30"
SANITARY SEWER

CITY OF WASHINGTON
PIN 02-02-22-400-012

MH 236

CITY OF WASHINGTON
PIN 02-02-23-302-007

10'
VERT
SCALE
0
0
50'
HORIZ SCALE
SCALE IN FEET

N

MH-125
RIM 695.48
IE 676.58

MH-126
RIM 696.49
IE 681.37

MH-127
RIM 699.72
IE 690.43

MH-128
RIM 698.34
IE 691.33

MH-129
RIM 700.12
IE 692.50

CONNECT EXISTING
8" SANITARY SEWER

183 LF 42" @ 3.02%

300 LF 42" @ 3.02%

300 LF 42" @ 0.3%

200 LF 42" @ 0.3%

704.81 704.16 705.82 707.77 695.69 695.60 696.95 696.76 696.90 698.66 701.26 702.06 698.57 699.59 700.43 703.66 704.24 706.25 706.61 699.45 698.91 698.67 700.17 700.41 700.12 701.26 703.12 704.59 703.59

193+00 194+00 195+00 196+00 197+00 198+00 199+00 200+00 201+00 202+00 203+00 204+00 205+00 206+00 207+00

745 740 735 730 725 720 715 710 705 700 695 690 685 680 675 670 665 660 655 650

NO.	REVISIONS	DATE:
1	50% ENGINEERING	8/1/20
2	PRE-FINAL ENGINEERING FOR PERMITTING	1/27/21

PLAN AND PROFILE

FARM CREEK TRUNK SEWER
CITY OF WASHINGTON
TAZEWELL COUNTY, ILLINOIS

JOB NO.
1879.024

PROJECT MGR.
MRW

STRAND ASSOCIATES®

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TOLEDO, PEORIA, & WESTERN RAILROAD

MATCH LINE STA. 207+00

210+00

MH-130
6'-DIA.
STA. 210+86

CORE AND BOOT TO EXISTING SANITARY MANHOLE

ABANDON EXISTING 42" SANITARY SEWER

ALTERNATE ROUTING

N

10'
VERT SCALE
0

0 50'
HORIZ SCALE
SCALE IN FEET

MH-129
RIM 703.67
IE 694.25
IE 700.02

RIM 705.82
EXISTING IE 700.10

583 LF - 42" @ 0.3%

34 LF - 42" @ 0.3%

703.59 703.39 704.75 704.49 703.90 704.03 703.88 703.52 704.17

745 740 735 730 725 720 715 710 705 700 695 690 685 680 675 670 665 660 655 650

207+00 208+00 209+00 210+00 211+00

NO.	REVISIONS	DATE:
1	50% ENGINEERING	8/1/20
2	PRE-FINAL ENGINEERING FOR PERMITTING	1/27/21

PLAN AND PROFILE

FARM CREEK TRUNK SEWER
CITY OF WASHINGTON
TAZEWELL COUNTY, ILLINOIS

JOB NO.
1879.024

PROJECT MGR.
MRW

STRAND ASSOCIATES®

SHEET
19

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TOLEDO, PEORIA, AND WESTERN
CENTERLINE OF RAILROAD TRACKS

TOLEDO, PEORIA, AND WESTERN ROW

FARM CREEK

APPROXIMATE BORE PIT LOCATION

BORE AND JACK 150 LF OF 18" SANITARY SEWER W/ 30" STEEL CASING PIPE

APPROXIMATE BORE PIT LOCATION

POT STA 400+00.00

130+00

1,524 FT ALONG RAILROAD FROM ERNEST ST

POT STA 402+40.00

N: 1464701.5564
E: 2495336.5179

60'

92'

400+00

401

402

90°00'00"

50'

50'

N: 1464463.2280
E: 2495364.7950

MH 108
STA. 400+15
(STA. 130+43)

R/W WARNING SIGN LOCATION (TYP.)

CONNECT TO EXISTING 12" SANITARY W/ DROP CONNECTION MANHOLE
RIM: 655.67
APPROXIMATE NW 12" I.E. - 646.80
S 18" I.E. - 639.11

ABANDON EXISTING MANHOLE MH-210

5' VERT SCALE
0
0 20'
HORIZ SCALE
SCALE IN FEET

TOLEDO, PEORIA, AND WESTERN RAILROAD
WASHINGTON, TAZEWELL COUNTY, ILLINOIS

RAILROAD CROSSING COORDINATES
N: 1464552.6177 E: 2495354.1897
LAT: 40.6859269° LONG: -089.4499218°

UTILITY PIPE CROSS-SECTION

NON COATED STEEL CASING PIPE, GRADE B IN ACCORDANCE WITH ASTM A-139
OD: 30.94"
ID: 30" PVC (SDR 26) CARRIER PIPE
OD: 18.701
ID: 17.174

NOTES:
1. - RIGHT OF WAY WARNING SIGNS SHALL BE DURABLE, WEATHERPROOF SIGN LOCATED OVER THE CENTERLINE OF THE PIPE. SIGNS SHALL SHOW THE FOLLOWING: NAME AND ADDRESS OF OWNER; CONTENTS OF PIPE, PRESSURE IN PIPE, PIPE DEPTH BELOW GRADED AT POINT OF SIGN; AND EMERGENCY TELEPHONE NUMBER IN EVENT OF PIPELINE RUPTURE.

R/W WARNING SIGN

PROPOSED MH 208

T.P. & W ROW

T.P. & W ROW

℄ TRACK

50'

50'

60'

92'

10'

FARM CREEK

DROP CONNECTION MH

EXISTING GROUND ABOVE PROPOSED SEWER

42'

23'

16.25'

7.75'
(5' MIN.)

PROPOSED 42" SANITARY SEWER

201 LF - 18" PVC SDR 26 @ 0.4%

APPROXIMATE DEPTH OF EXISTING 12" SANITARY SEWER

APPROXIMATE BORE PIT

APPROXIMATE BORE PIT

CONNECT TO MH 108
I.E. 638.31

150 L.F. - 30" STEEL CASING

APPROXIMATE DEPTH OF EXISTING 36" SANITARY SEWER

670
665
660
655
650
645
640
635
630

661.65
658.03
662.61
647.91
655.08

400+00
400+50
401+00
401+50
402+00

NO.	REVISIONS	DATE:
1	PRE-FINAL ENGINEERING FOR PERMITTING	1/27/21

RAILROAD CROSSING #1
PLAN AND PROFILE

FARM CREEK TRUNK SEWER
CITY OF WASHINGTON
TAZEWELL COUNTY, ILLINOIS

JOB NO.
1879.024

PROJECT MGR.
MRW

STRAND ASSOCIATES®

SHEET
20

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APPROXIMATE BORE PIT LOCATION

MH 113
STA. 500+10
(STA. 150+25)

POT Sta 500+00.00

150.00'

TOLEDO, PEORIA, AND WESTERN CENTERLINE OF RAILROAD TRACKS

TOLEDO, PEORIA, AND WESTERN ROW

4154 FT ALONG RAILROAD FROM ERNEST ST

50'

57'

50'

90'

66'

FARM CREEK

APPROXIMATE BORE PIT LOCATION

DROP CONNECTION MH-230
STA. 502+09

POT Sta 502+40.02

N: 1464909.09
E: 2497213.43

CONNECT TO EXISTING 15" SANITARY SEWER

500+00

501

502

55'

55'

N: 1464703.03
E: 2497336.52

R/W WARNING SIGN LOCATION (TYP.)

BORE AND JACK 135 LF OF 18" SANITARY SEWER W/ 30" STEEL CASING PIPE

TOLEDO, PEORIA, AND WESTERN ROW

REMOVE EXISTING MH-217

5'
VERT SCALE
0

0 20'
HORIZ SCALE
SCALE IN FEET

TOLEDO, PEORIA, AND WESTERN RAILROAD
WASHINGTON, TAZEWELL COUNTY, ILLINOIS

RAILROAD CROSSING COORDINATES
N: 1464782.1430 E: 2497289.2688
LAT: 40.6865133° LONG: -089.4429379°

UTILITY PIPE CROSS-SECTION

NON COATED STEEL CASING PIPE, GRADE B IN ACCORDANCE WITH ASTM A-139
OD: 30.94"
ID: 30"
PVC (SDR 26) CARRIER PIPE
OD: 18.701
ID: 17.174

NOTES:
1. RIGHT OF WAY WARNING SIGNS SHALL BE DURABLE, WEATHERPROOF SIGN LOCATED OVER THE CENTERLINE OF THE PIPE. SIGNS SHALL SHOW THE FOLLOWING: NAME AND ADDRESS OF OWNER; CONTENTS OF PIPE; PRESSURE IN PIPE; PIPE DEPTH BELOW GRADED AT POINT OF SIGN; AND EMERGENCY TELEPHONE NUMBER IN EVENT OF PIPELINE REPTURE.

R/W WARNING SIGN

T.P. & W ROW

℄ TRACK

55'

55'

T.P. & W ROW

PROPOSED MH 113

APPROXIMATE BORE PIT LOCATION

10'

28'

14'

CONNECT TO MH-113
I.E. 648.93

PROPOSED 42" SANITARY SEWER

165 LF OF 30" STEEL CASING

5' MIN.

194 LF - 18" PVC SDR-26 @ 1.0%

FARM CREEK

47'

DROP CONNECTION MH 130
RIM 666.49

APPROXIMATE BORE PIT LOCATION

EXISTING GROUND ABOVE PROPOSED SEWER

CONNECT EXISTING 15" SANITARY SEWER TO PROPOSED MH VIA DROP CONNECTION MH

18" S 649.41
15" N 653.91

667.07 665.07 678.38 656.28 666.63

685 680 675 670 665 660 655 650 645

500+00 500+50 501+00 501+50 502+00

NO.	REVISIONS	DATE:
1	PRE-FINAL ENGINEERING FOR PERMITTING	1/27/21

RAILROAD CROSSING #2
PLAN AND PROFILE

FARM CREEK TRUNK SEWER
CITY OF WASHINGTON
TAZEWELL COUNTY, ILLINOIS

JOB NO. 1879.024
PROJECT MGR. MRW

STRAND ASSOCIATES®

SHEET 21

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Alignment L-1

Description	Units	Est Unit Price	Draft Report Quan	Draft Report EOPCC		Revised Quan	Revised EOPCC
FOUNDATION MATERIAL	CY	$52.00	825	$42,900.00	**	417.12	$21,690.24
RESTORATION-SEED, class 2 (topsoil,fertilizer,excelsior blanket, mulch incidental)	ACRE	$9,654.55	2.8	$27,032.74	*	12.5	$120,681.88
RESTORATION-SEED, class 4/5 (topsoil,fertilizer,excelsior blanket, mulch incidental)	ACRE	$9,654.55	2.8	$27,032.74			$0.00
RESTORATION-SEED, class 4B/5B (topsoil,fertilizer,excelsior blanket, mulch incidental)	ACRE	$9,654.55	2.8	$27,032.74			$0.00
PERIMETER EROSION BARRIER	FT	$4.00	20456	$81,824.00		10000	$40,000.00
CLEAR & GRUB	ACRE	$2,500.00	2.6	$6,500.00		5	$12,500.00
STABILIZED CONSTRUCTION ACCESS	EA	$6,000.00	2	$12,000.00		2	$12,000.00
SANITARY SEWER, 42-IN HOBAS - OPEN CUT	LF	$350.00	5565	$1,947,750.00		9355	$3,274,250.00
SANITARY SEWER, 42-IN HOBAS - TRENCHLESS	LF	$896.55	3028	$2,714,753.40		934	$837,377.70
SANITARY SEWER, 42-IN HOBAS - BORE AND JACK 60" STEEL CASING	LF	$1,000.00	2990	$2,990,000.00		1294	$1,294,000.00
PROTECT EXISTING SANITARY SEWER AT CROSSINGS	EA	$4,000.00	3	$12,000.00		3	$12,000.00
ABANDONMENT OF EXISTING SANITARY MANHOLES	EA	$2,000.00	3	$6,000.00		39	$78,000.00
SANITARY MANHOLE, TYPE A, 6-FT DIA, LESS THAN 20' DEEP	EA	$9,000.00	28	$252,000.00		23	$207,000.00
SANITARY MANHOLE, TYPE A, 6-FT DIA, 20' TO 25' DEEP	EA	$12,000.00	4	$48,000.00		3	$36,000.00
SANITARY MANHOLE, TYPE A, 6-FT DIA, 25' TO 30' DEEP	EA	$15,000.00	1	$15,000.00		4	$60,000.00
SANITARY MANHOLE, TYPE A, 6-FT DIA, 30' TO 35' DEEP	EA	$18,000.00		$0.00		1	$18,000.00
	SUBTOTAL CONSTRUCTION			$8,209,825.62			$6,023,499.82
MOBILIZATION (CONTRACTOR PROFIT, BONDS, INSURANCE)	LS		2%	$164,196.51		2%	$120,470.00
ENGINEERING AND LEGAL	LS		5%	$410,491.28		5%	$301,174.99
TOTAL BASE PROJECT				$8,784,513.41			$6,445,144.80
Contingencies - Base				25%			25%
Total - Base Project w/ Contingencies				$10,980,641.77			$8,056,431.00

*all seeding costs estimated the same so all were lumped into one for ease of calculations

** Uncertain on where this material is going. Assuming all equal

Clear and Grubbing includes tree removal

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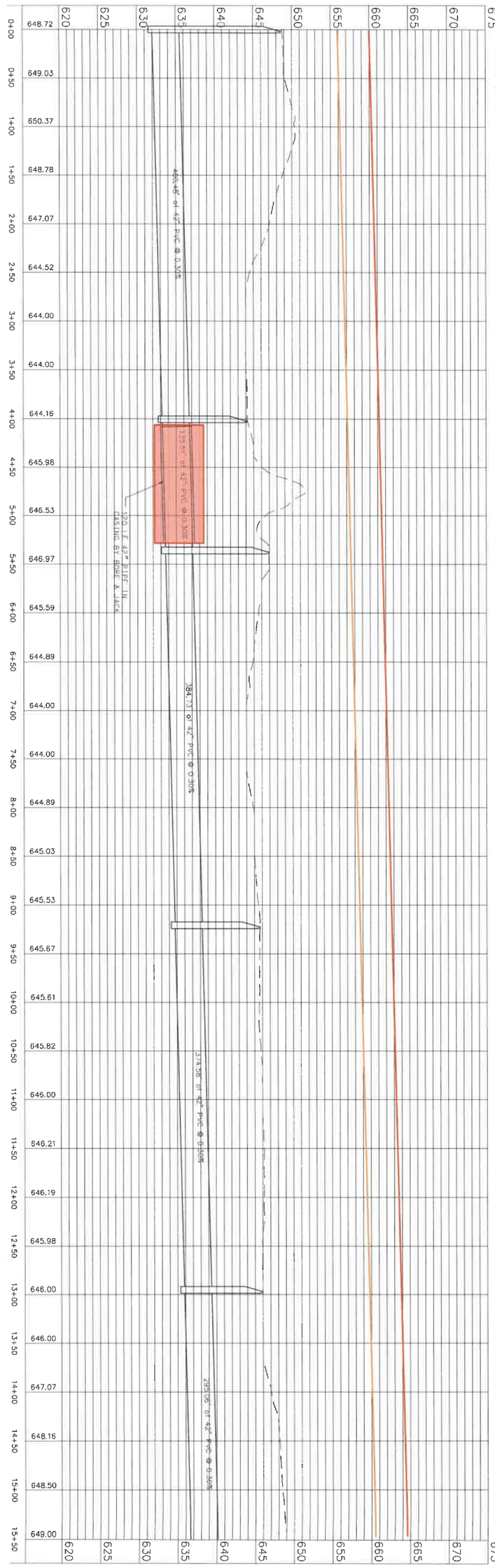

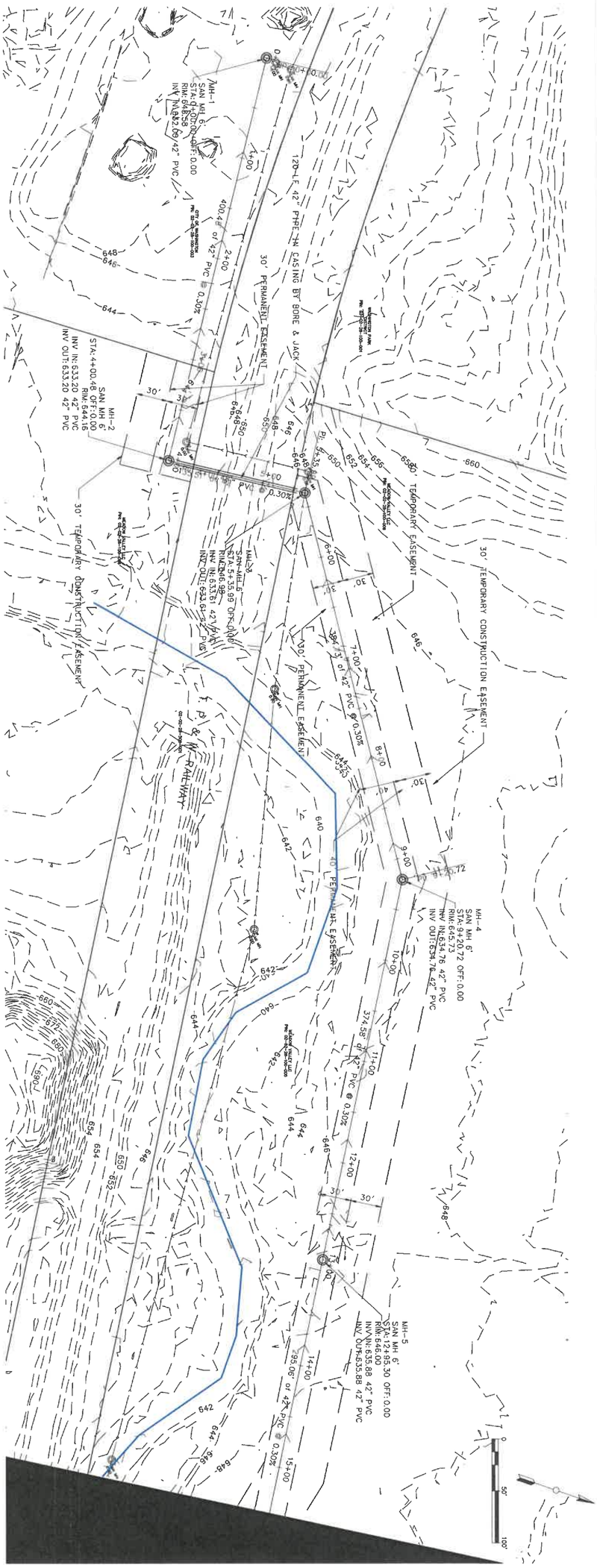

SHEET 1 of 8	SCALE: HOR. 1" = 50' VERT. 1" = 5'	CITY OF WASHINGTON 301 WALNUT ST WASHINGTON, IL 61571	ALTERNATIVE B, PUDIK L-1 PLAN AND PROFILE STA 0+00 TO STA 15+50
PROJECT NO. 21911	DATE 2-2-2022		
DESIGNED DWS	CHECKED HJH		

	DATE	REVISIONS
1		
2		
3		
4		
5		
6		

HAMILTON CONSULTING ENGINEERS, INC.
3230 Executive Drive, Joliet, Illinois 60431
Ph: (815) 730-3444 Fax: (815) 730-6703
IL LICENSE NO. 184-003205

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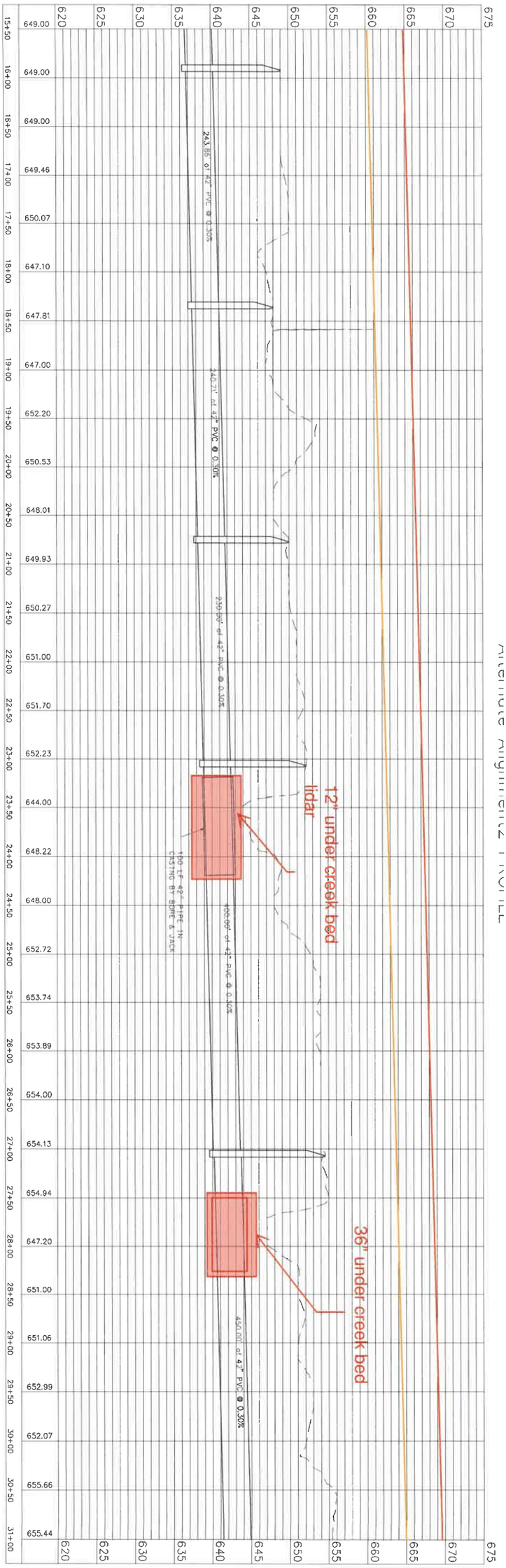

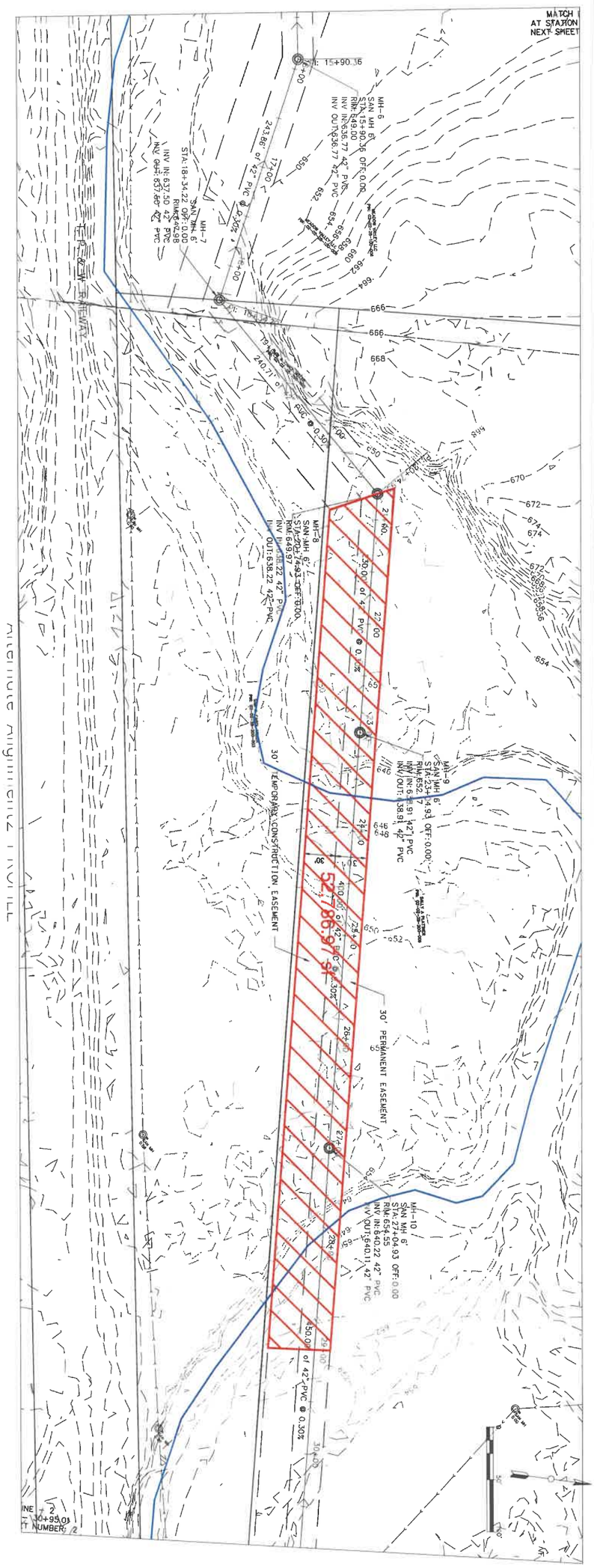

CITY OF WASHINGTON
301 WALNUT ST
WASHINGTON, IL 61571

ALTERNATIVE B, PUDIK L-1
PLAN AND PROFILE
STA 15+50 TO STA 31+00

DATE	REVISIONS

HAMILTON CONSULTING ENGINEERS, INC.
3230 Executive Drive, Joliet, Illinois 60431
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SHEET 2 OF 8
PROJECT NO. 21911
DESIGNED DWS
DRAWN HJH
CHECKED
SCALE HOR. 1" = 50'
VERT. 1" = 5'
DATE 2-2-2022

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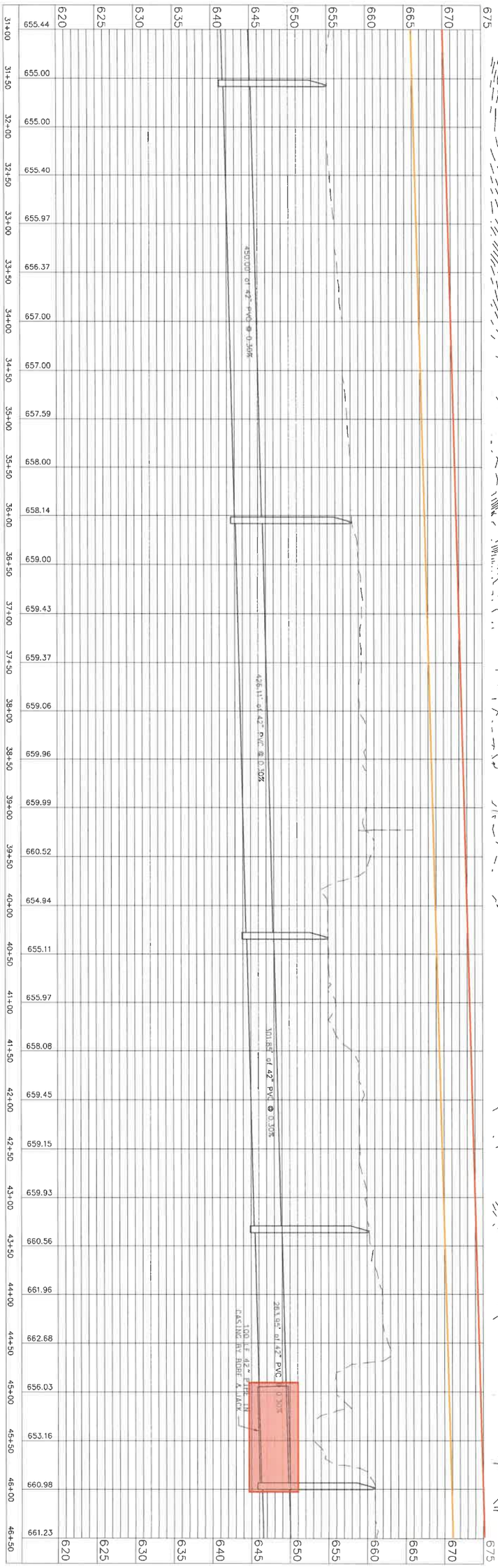

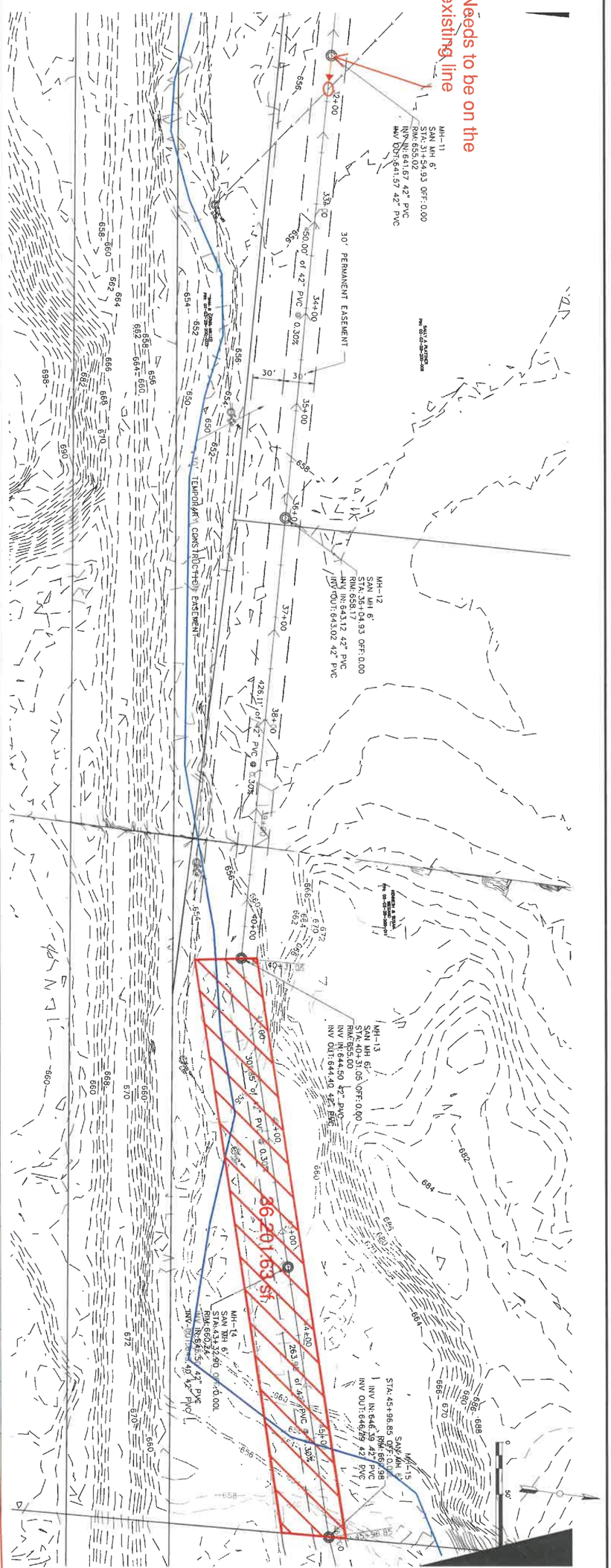

SHEET 3 OF 8	SCALE: HOR. 1" = 50' VERT. 1" = 5'	CITY OF WASHINGTON 301 WALNUT ST WASHINGTON, IL 61571	ALTERNATIVE B, PUDIK L-1 PLAN AND PROFILE STA 31+00 TO STA 46+50
	DATE: 2-2-2022 DESIGNED: HJH DRAWN: DWS CHECKED: PROJECT NO.: 21911		

NO.	DATE	REVISIONS
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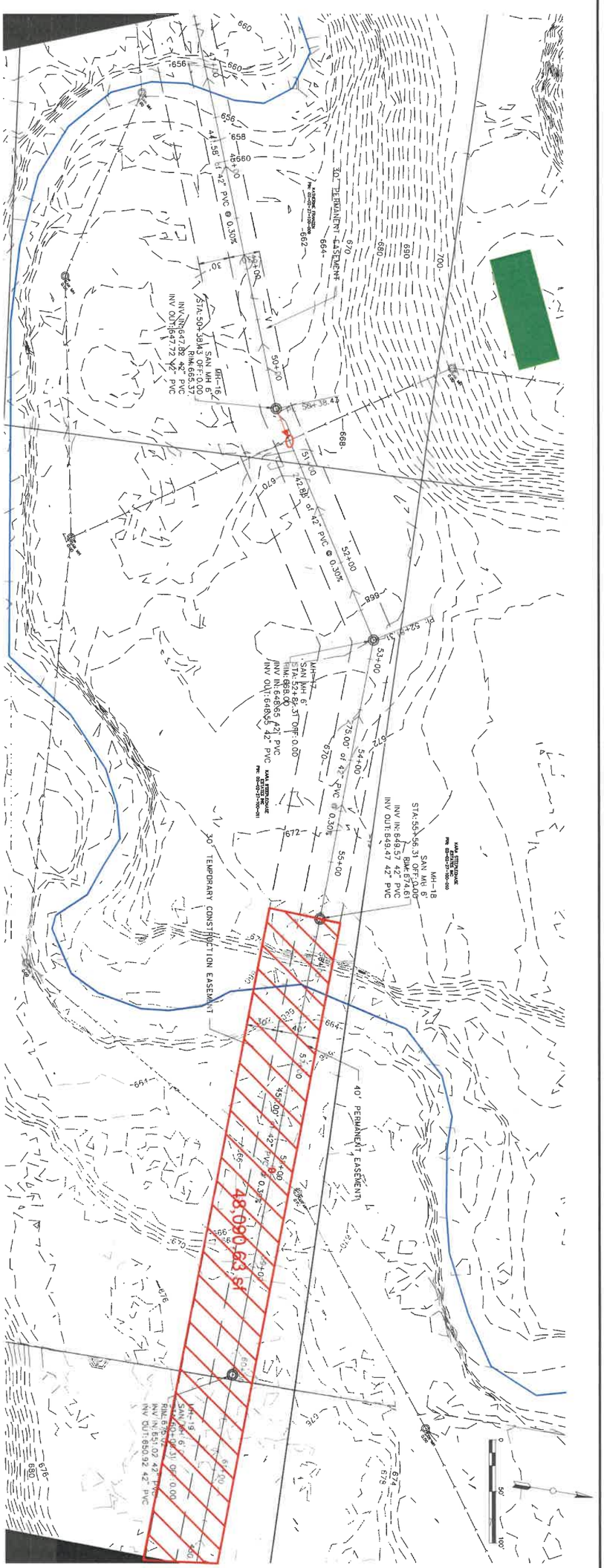

SHEET 4 OF 8	CITY OF WASHINGTON 301 WALNUT ST WASHINGTON, IL 61571	ALTERNATIVE B, PUDIK L-1 PLAN AND PROFILE STA 46+50 TO 62+00	DATE / REVISIONS

SCALE: HOR. 1" = 50'
DATE: 2-2-2022
DESIGNED: DWS
DRAWN: DWS
CHECKED: HJH
PROJECT NO. 21911

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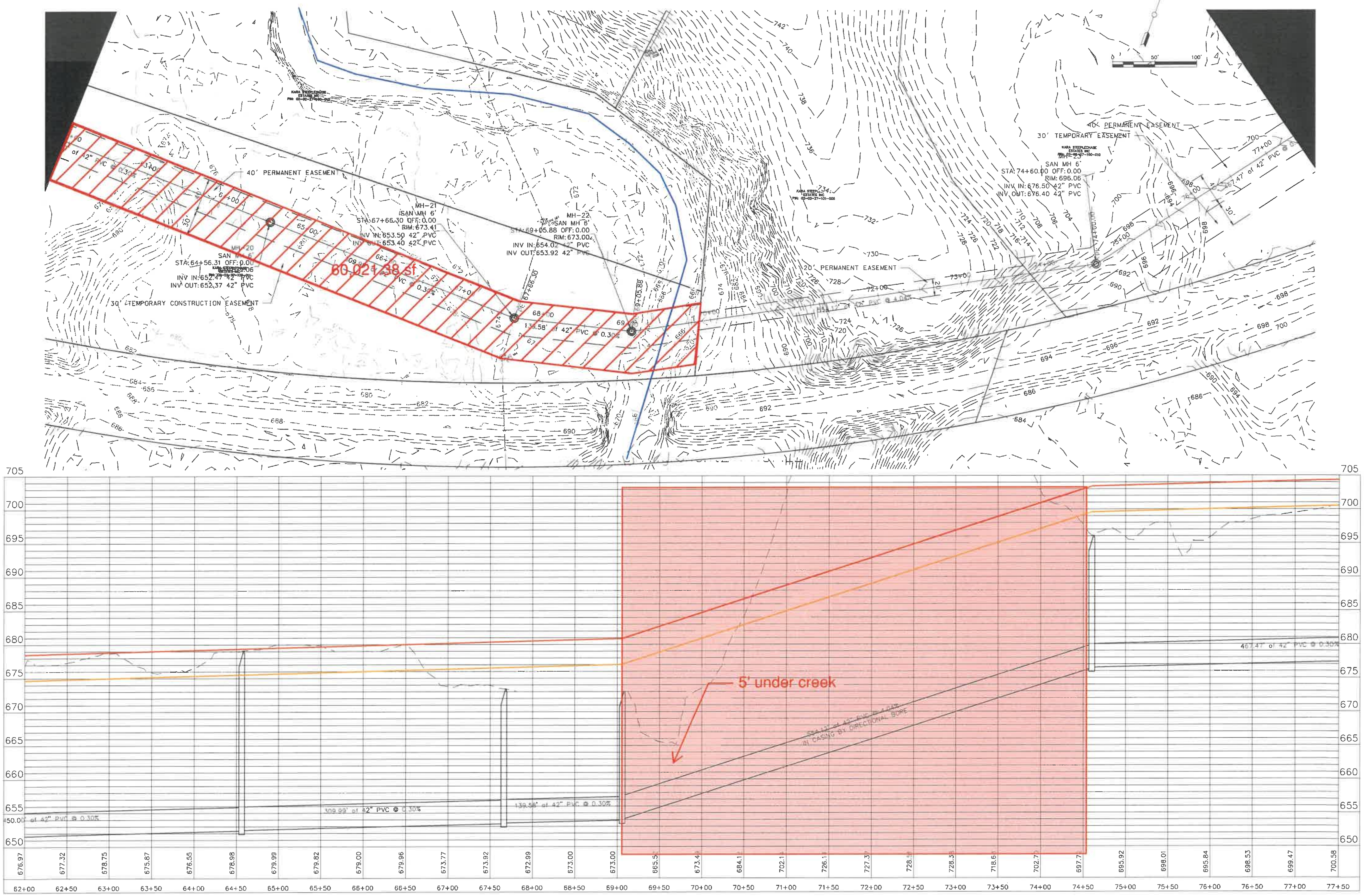

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3230 Executive Drive, Joliet, Illinois 60431
Ph: (815) 730-3444 Fax: (815) 730-6703

IL LICENSE NO. 184-003205

REVISIONS | DATE

ALTERNATIVE B, PUDIK L-1 PLAN AND PROFILE STA 62+00 TO STA 77+50

CITY OF WASHINGTON
301 WALNUT ST
WASHINGTON, IL 61571

SCALE 1" = 50'
DATE 2-2-2022
DESIGN HJH
CHECKED
DRAWN DWS
PROJECT NO. 21911
SHEET 5 of 8

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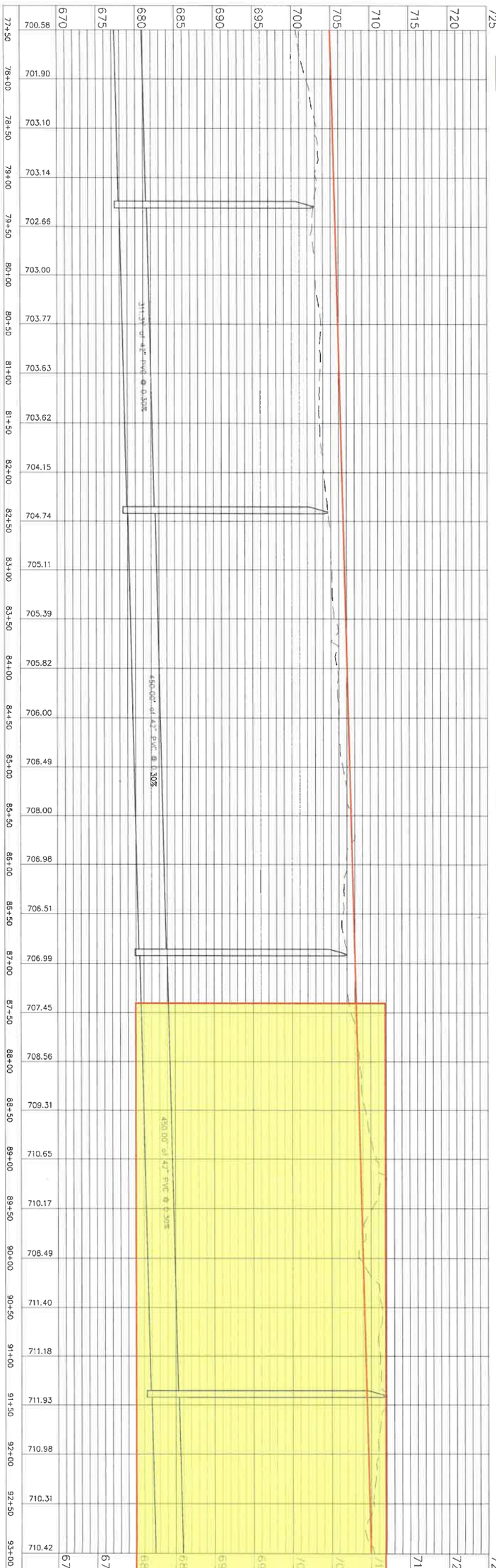

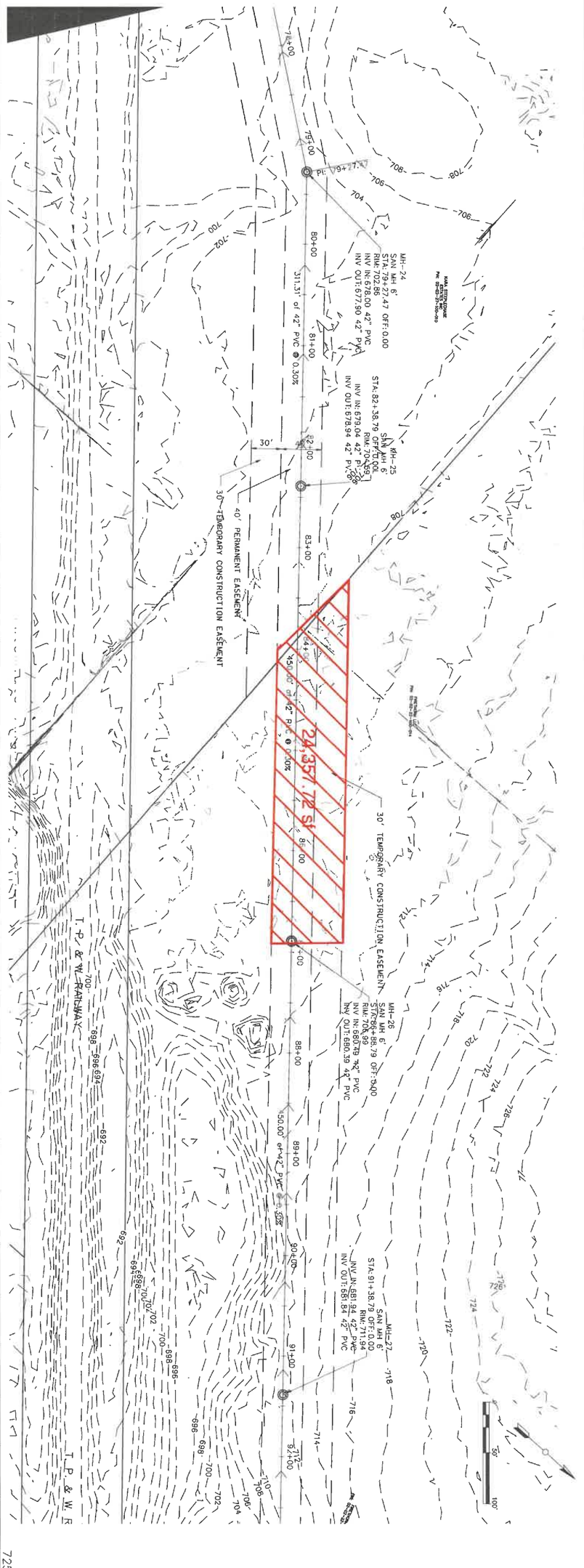

CITY OF WASHINGTON
301 WALNUT ST
WASHINGTON, IL 61571

ALTERNATIVE B, PUDIK L-1
PLAN AND PROFILE
STA 77+50 TO STA 93+00

DATE	REVISIONS
1	
2	
3	
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6	

SHEET 6 OF 8
PROJECT NO: 21911
DRAWN BY: DWS
DESIGNED BY: HJH
CHECKED
DATE: 2-2-2022
SCALE: 1" = 50'

HAMILTON CONSULTING ENGINEERS, INC.
3230 Executive Drive, Joliet, Illinois 60431
Ph: (815) 730-3444 Fax: (815) 730-6703
IL LICENSE NO. 184-003205

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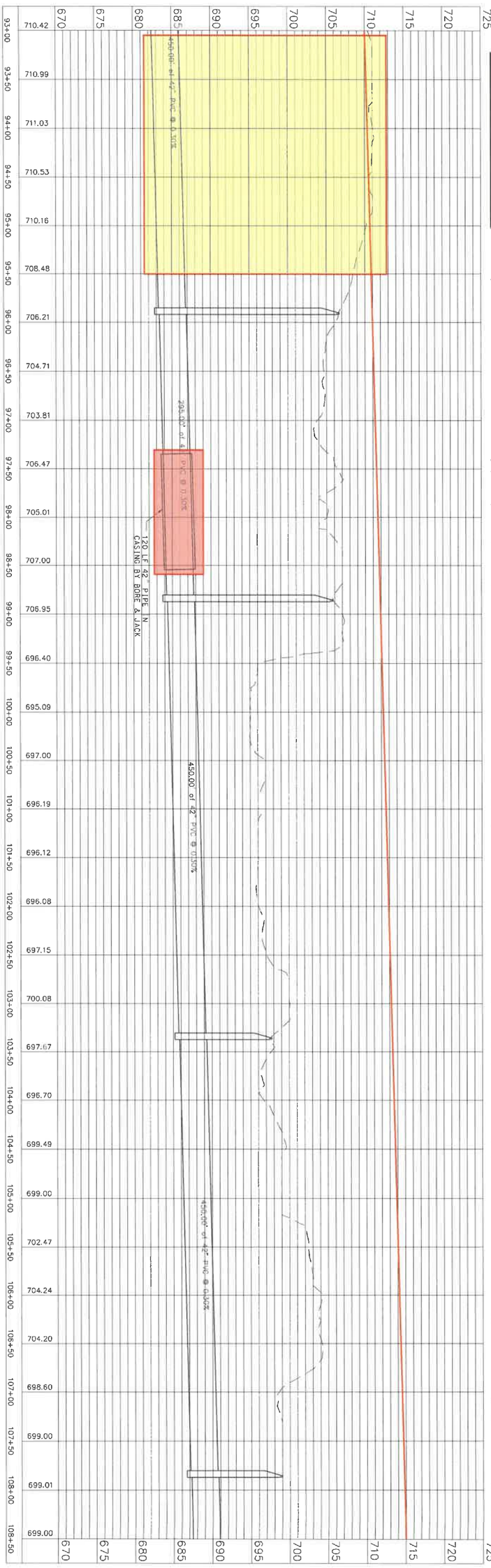

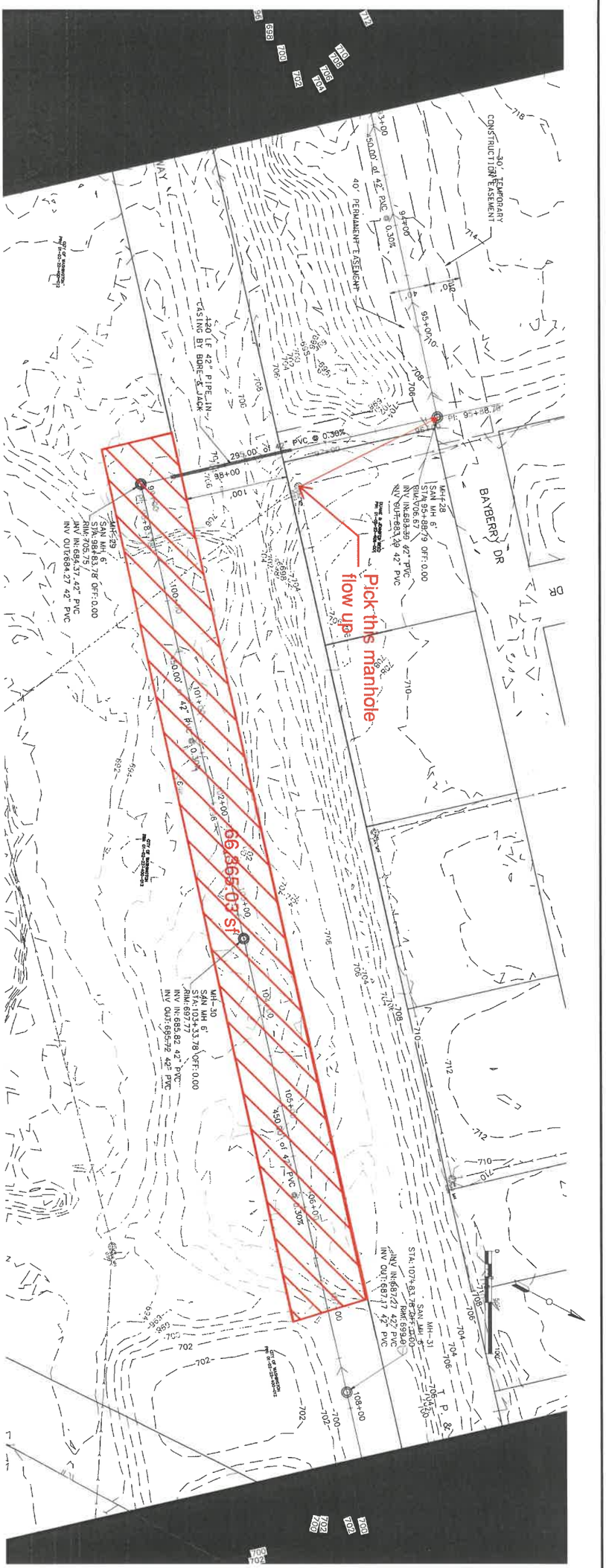

SHEET 7 OF 8	CITY OF WASHINGTON 301 WALNUT ST WASHINGTON, IL 61571	ALTERNATIVE B, PUDIK L-1 PLAN AND PROFILE STA 93+00 TO STA 108+50	DATE / REVISIONS	HAMILTON CONSULTING ENGINEERS, INC. 3230 Executive Drive, Joliet, Illinois 60431 Ph: (815) 730-3444 Fax: (815) 730-6703 IL LICENSE NO. 184-003205 © 2022 HAMILTON CONSULTING ENGINEERS, INC.

DESIGNED: H.J.H. | DRAWN: D.W.S. | CHECKED: | PROJECT NO.: 21911 | SCALE: 1" = 50' | DATE: 2-2-2022

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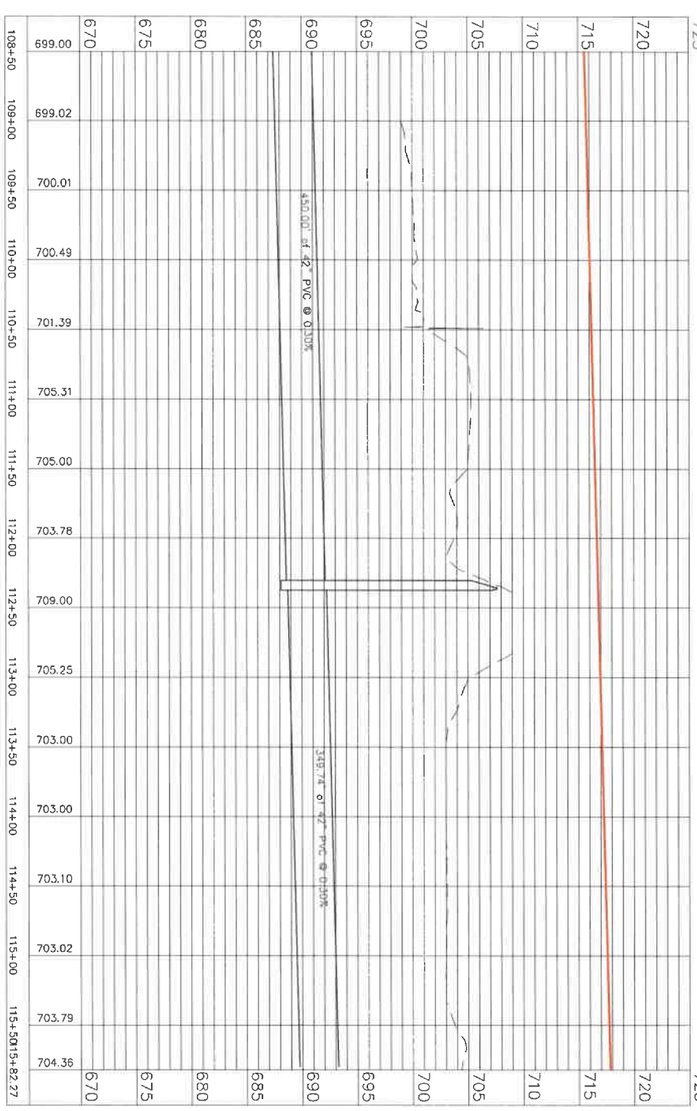

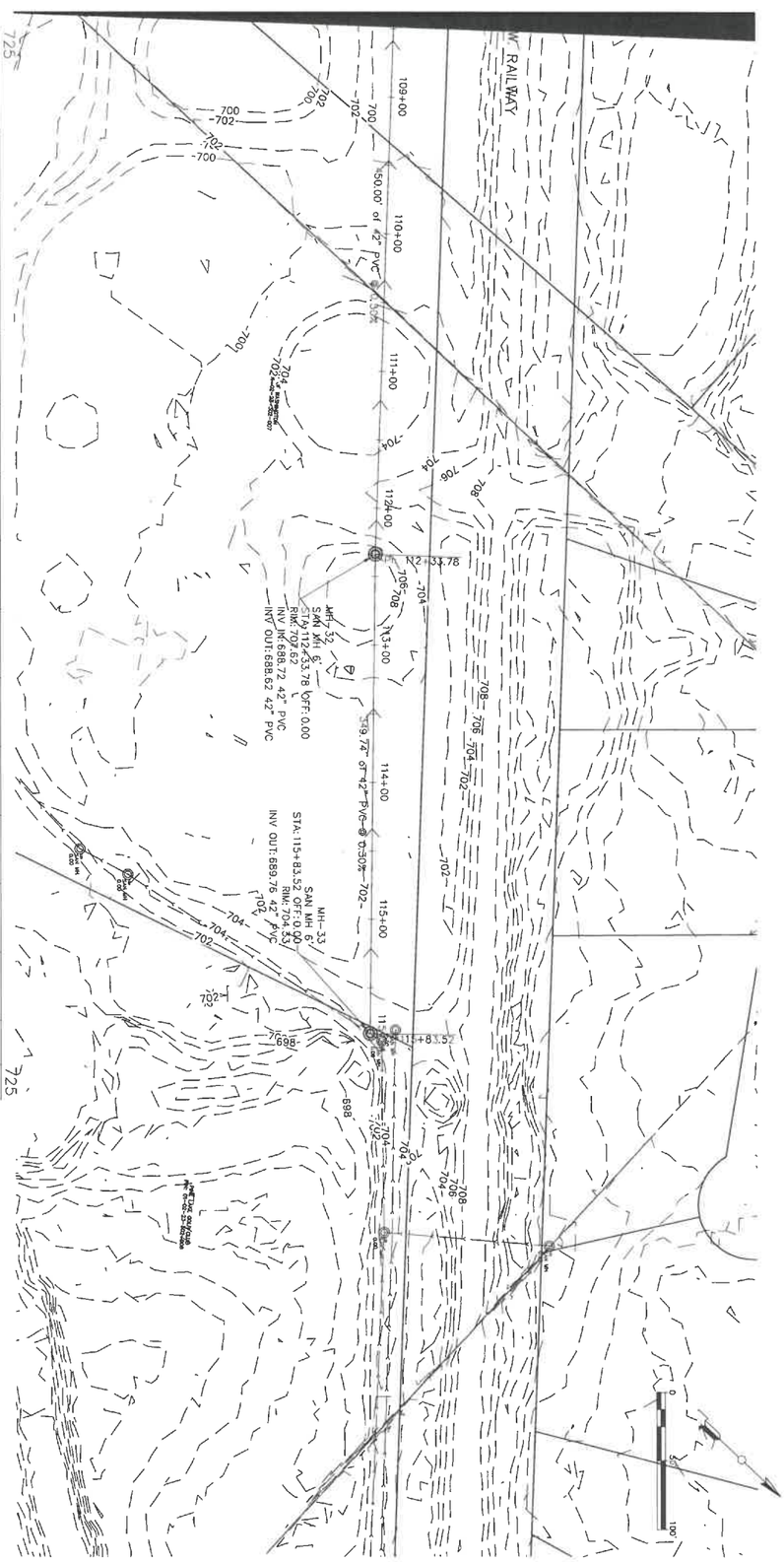

SHEET 8 OF 8	CITY OF WASHINGTON 301 WALNUT ST WASHINGTON, IL 61571	ALTERNATIVE B, PUDIK L-1 PLAN AND PROFILE STA 108+50 TO STA 115+82.27	DATE / REVISIONS

SCALE: 1" = 50'
DESIGNED: HJH
DRAWN: DWS
CHECKED:
PROJECT NO.: 21911
2-2-2022

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Alignment E-3

Description	Units	Est Unit Price	Draft Report Quan	Draft Report EOPCC		Revised Quan	Revised EOPCC
FOUNDATION MATERIAL	CY	$52.00	451	$23,452.00	**	417.12	$21,690.24
RESTORATION-SEED, class 2 (topsoil,fertilizer,excelsior blanket, mulch incidental)	ACRE	$9,654.55	2	$19,309.10	*	8.5	$82,063.68
RESTORATION-SEED, class 4/5 (topsoil,fertilizer,excelsior blanket, mulch incidental)	ACRE	$9,654.55	2	$19,309.10			$0.00
RESTORATION-SEED, class 4B/5B (topsoil,fertilizer,excelsior blanket, mulch incidental)	ACRE	$9,654.55	2	$19,309.10			$0.00
PERIMETER EROSION BARRIER	FT	$4.00	8818	$35,272.00		8818	$35,272.00
CLEAR & GRUB	ACRE	$2,500.00	1.4	$3,500.00		1.75	$4,375.00
STABILIZED CONSTRUCTION ACCESS	EA	$6,000.00	3	$18,000.00		3	$18,000.00
SANITARY SEWER, 42-IN HOBAS - OPEN CUT	LF	$350.00	3043	$1,065,050.00		6169.92	$2,159,472.00
SANITARY SEWER, 42-IN HOBAS - TRENCHLESS	LF	$896.55	5159	$4,625,301.45		4667.59	$4,184,727.81
SANITARY SEWER, 42-IN HOBAS - BORE AND JACK 60" STEEL CASING	LF	$1,000.00	3155	$3,155,000.00		520	$520,000.00
PROTECT EXISTING SANITARY SEWER AT CROSSINGS	EA	$4,000.00	3	$12,000.00		3	$12,000.00
ABANDONMENT OF EXISTING SANITARY MANHOLES	EA	$2,000.00	3	$6,000.00		39	$78,000.00
SANITARY MANHOLE, TYPE A, 6-FT DIA, LESS THAN 20' DEEP	EA	$9,000.00	13	$117,000.00		12	$108,000.00
SANITARY MANHOLE, TYPE A, 6-FT DIA, 20' TO 25' DEEP	EA	$12,000.00	6	$72,000.00		5	$60,000.00
SANITARY MANHOLE, TYPE A, 6-FT DIA, 25' TO 30' DEEP	EA	$15,000.00	2	$30,000.00		4	$60,000.00
SANITARY MANHOLE, TYPE A, 6-FT DIA, 30' TO 35' DEEP	EA	$18,000.00	4	$72,000.00		3	$54,000.00
SANITARY MANHOLE, TYPE A, 6-FT DIA, 35' TO 35' DEE40	EA	$21,000.00	2	$42,000.00		3	$63,000.00
SANITARY MANHOLE, TYPE A, 6-FT DIA, CONSTRUCTED ON EXISTING SEWER PIPE	EA	$12,000.00	6	$72,000.00			$0.00
SUBTOTAL CONSTRUCTION				$9,406,502.75			$7,460,600.73
MOBILIZATION (CONTRACTOR PROFIT, BONDS, INSURANCE)	LS		2%	$188,130.06		2%	$149,212.01
ENGINEERING AND LEGAL	LS		5%	$470,325.14		5%	$373,030.04
TOTAL BASE PROJECT				$10,064,957.94			$7,982,842.78
Contingencies - Base				25%			25%
Total - Base Project w/ Contingencies				$12,581,197.43			$9,978,553.48

*all seeding costs estimated the same so all were lumped into one for ease of calculations

** Uncertain on where this material is going. Assuming all equal

Clear and Grubbing includes tree removal

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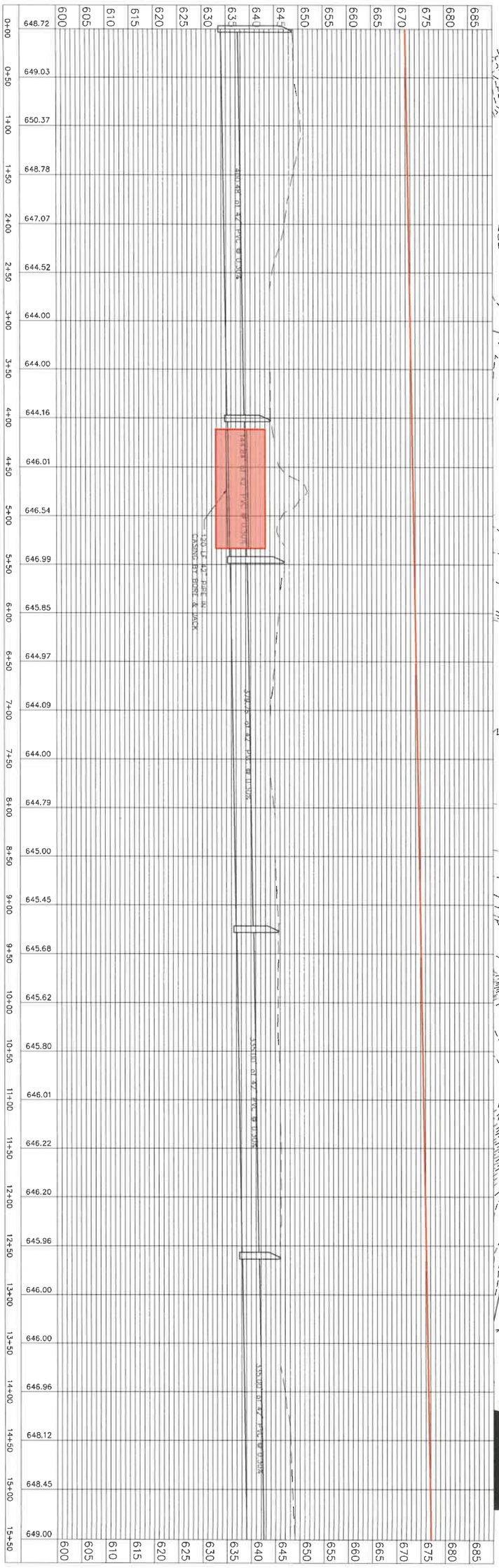

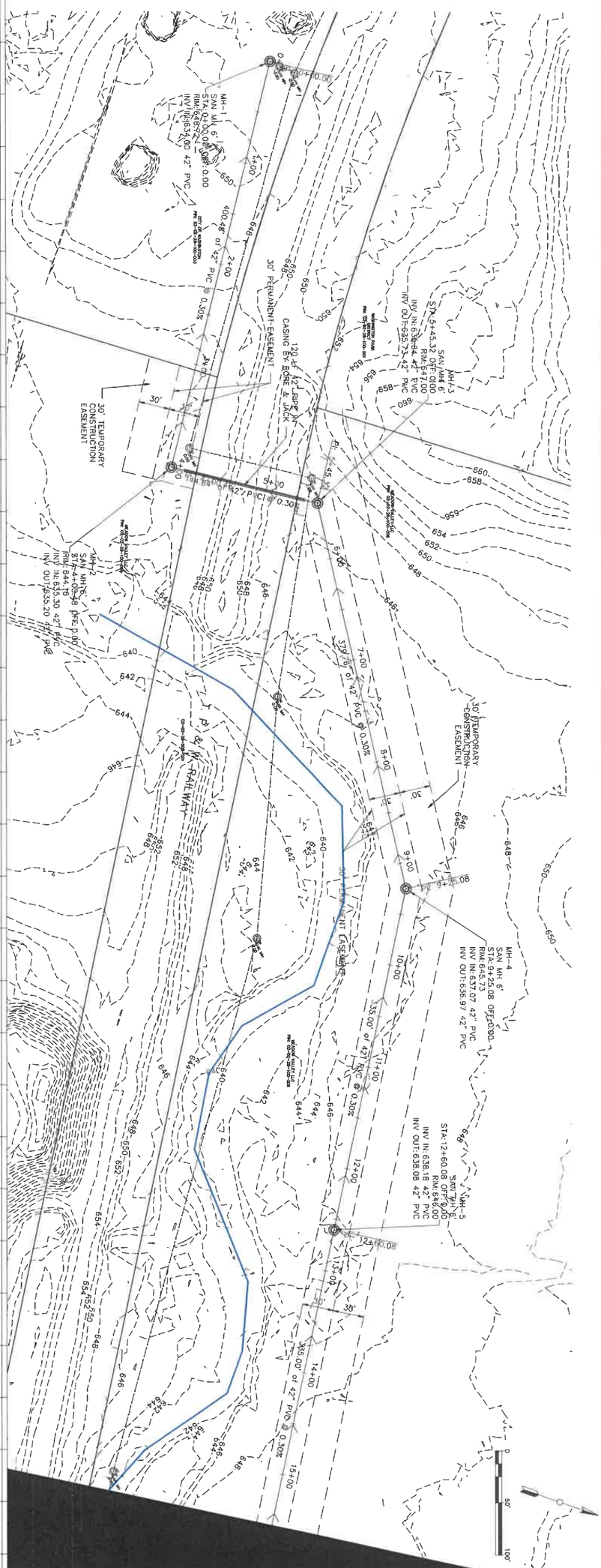

SHEET 1 OF 8	PROJECT NO. 21911	DWG. NO. PLAN	SCALE: 1" = 50' DATE: 2-2-2022
DESIGNED DWS	DRAWN DWS	CHECKED PLAN	

CITY OF WASHINGTON
301 WALNUT ST
WASHINGTON, IL 61571

ALTERNATIVE C, PUDIK E-3
PLAN AND PROFILE
STA 0+00 TO STA 15+50

DATE	REVISIONS
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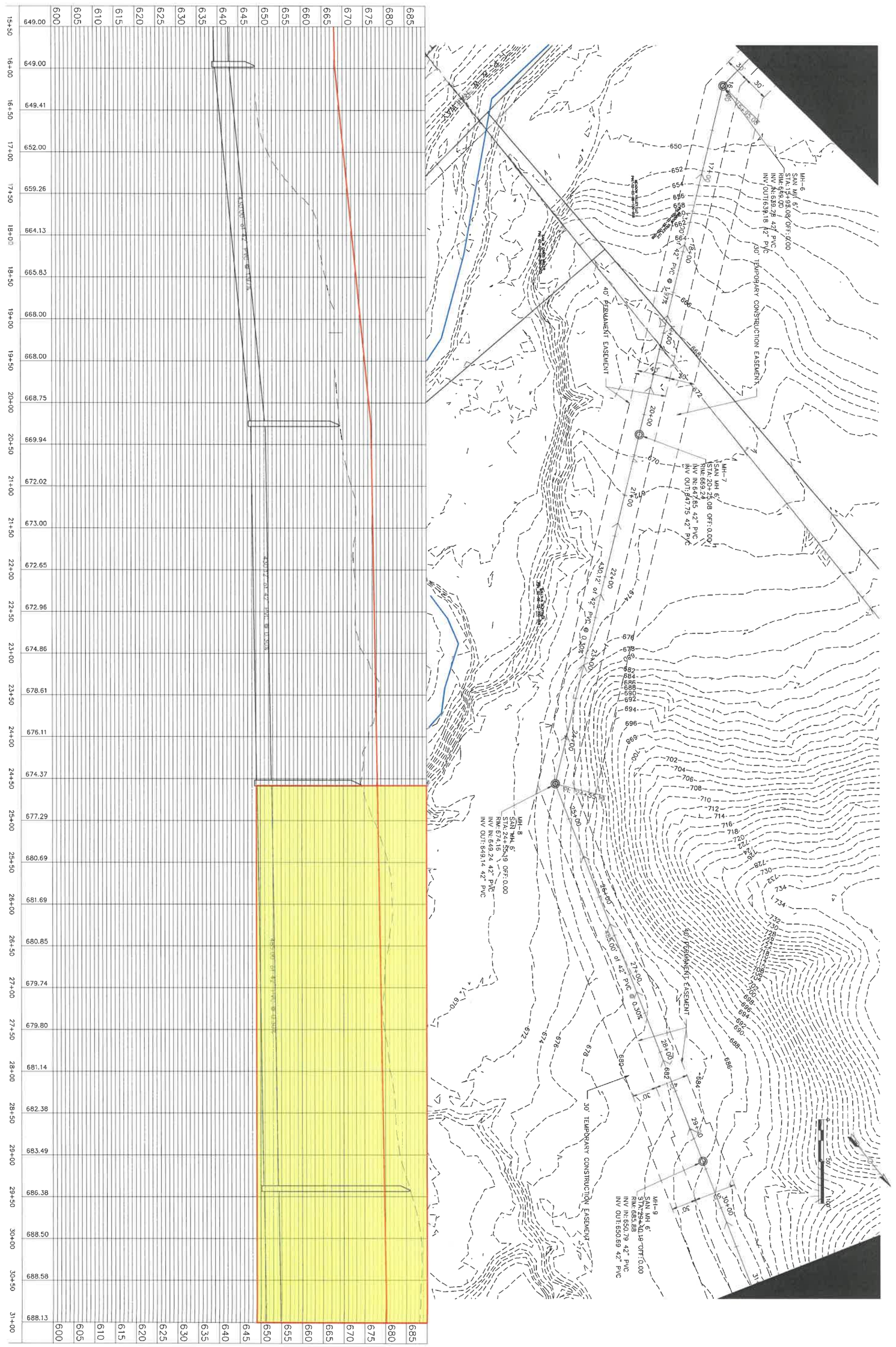

SHEET 2 of 8	SCALE: 1" = 50'	CITY OF WASHINGTON 301 WALNUT ST WASHINGTON, IL 61571	ALTERNATIVE C, PUDIK E-3 PLAN AND PROFILE STA 15+50 TO STA 31+00
PROJECT NO. 21911	DATE 2-2-2022		
DESIGNED DWS	DRAWN MJH		
CHECKED			

NO.	DATE	REVISIONS
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MH-10
SAN MH 6'
STA: 33+95.56 OFF: 0.00
RIM: 692.16
INV IN: 652.26 42" PVC
INV OUT: 652.16 42" PVC

50' PERMANENT EASEMENT

371.20' of 42" PVC @ 0.30%

30' TEMPORARY CONSTRUCTION EASEMENT

MH-11
SAN MH 6'
STA: 37+57.76 OFF: 0.00
RIM: 685.16
INV IN: 653.47 42" PVC
INV OUT: 653.37 42" PVC

342.24' of 42" PVC @ 0.30%

80 LF 42" PIPE IN CASING
BY BORE & JACK

MH-12
SAN MH 6'
STA: 41+18.00 OFF: 0.00
RIM: 673.03
INV IN: 654.60 42" PVC
INV OUT: 654.50 42" PVC

456.36' of 42" PVC @ 0.30%

30"

0 50' 100

30" below tributary

80 LF 42" PIPE IN CASING
BY BORE & JACK

725 720 715 710 705 700 695 690 685 680 675 670 665 660 655 650 645 640

31+00 31+50 32+00 32+50 33+00 33+50 34+00 34+50 35+00 35+50 36+00 36+50 37+00 37+50 38+00 38+50 39+00 39+50 40+00 40+50 41+00 41+50 42+00 42+50 43+00 43+50 44+00 44+50 45+00 45+50 46+00 46+50

681.79 683.43 688.44 689.27 685.13 676.82 695.77

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ALTERNATIVE C, PUDIK E-3
PLAN AND PROFILE
STA 31+00 TO STA 46+50

CITY OF WASHINGTON
301 WALNUT ST
WASHINGTON, IL 61571

SCALE: 1" = 50'
DATE: 2-2-2022
DESIGN: HJH
DRAWN: DWS
CHECKED:
PROJECT NO: 21911
SHEET: 3 of 8

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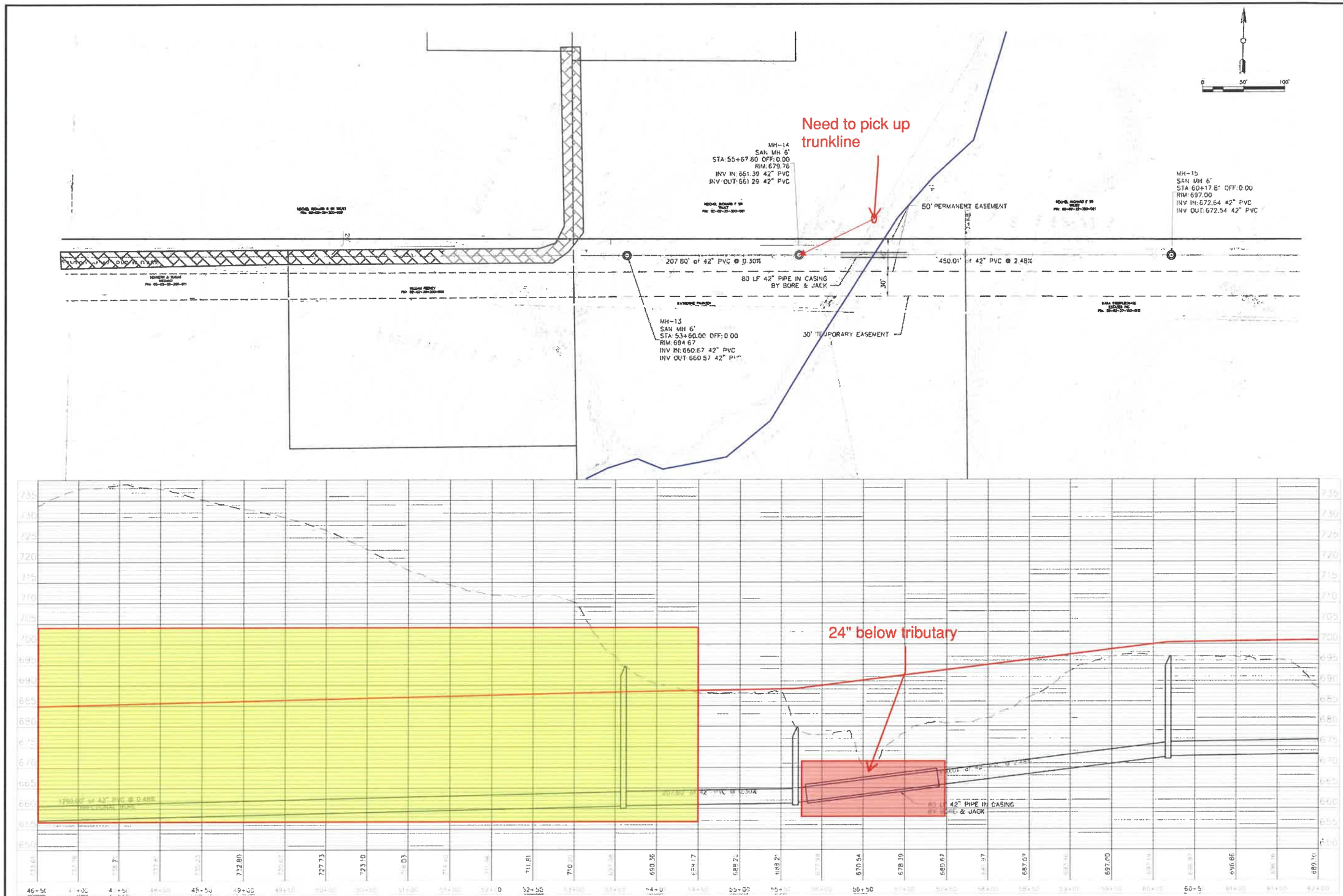

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ALTERNATIVE C, PUDIK E-3
PLAN AND PROFILE
STA 46+50 TO STA 62+00

CITY OF WASHINGTON
301 WALNUT ST
WASHINGTON, IL 61571

SCALE: 1" = 50'
DATE: 2-2-2022
DESIGN: HJH
DRAWN: DWS
CHECKED:
PROJECT NO: 21911
SHEET: 4 of 8

MH-17
SAN MH 6'
STA 654+25.00 OFF: 0.00
RIM: 700.49
INV IN: 674.26 42" PVC
INV OUT: 674.16 42" PVC

MH-18
SAN MH 6'
STA: 71+64.32 OFF: -0.14L
RIM: 712.17
INV IN: 676.28 42" PVC
INV OUT: 676.18 42" PVC

50' PERMANENT EASEMENT

719' of 42" P

639.32' of 42" PVC @ 0.30%

835.67' of 42" PVC @ 0.30%

30' TEMPORARY EASEMENT

30' TEMPORARY EASEMENT

TIMBER RAIL

71+00

71+00

0 50 100'

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ALTERNATIVE C, PUDIK E-3
PLAN AND PROFILE
STA 62+00 TO STA 77+50

CITY OF WASHINGTON
301 WALNUT ST
WASHINGTON, IL 61571

SCALE: 1" = 50'
DATE: 2-2-2022
DESIGNED: HJH
DRAWN: DWS
CHECKED:
PROJECT NO. 21911
SHEET 5 OF 8

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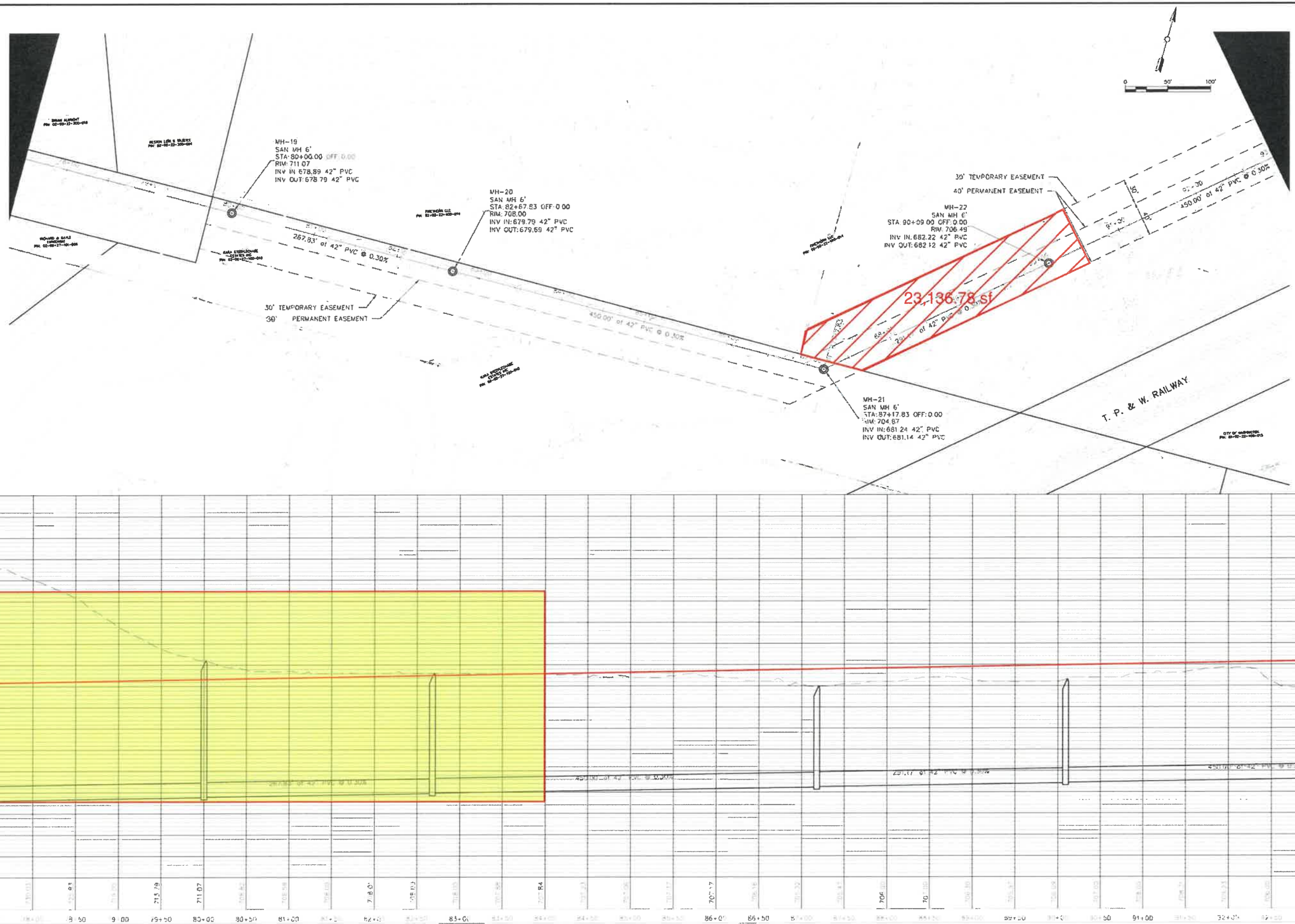

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ALTERNATIVE C, PUDIK E-3
PLAN AND PROFILE
STA 77+50 TO STA 93+00

CITY OF WASHINGTON
301 WALNUT ST
WASHINGTON, IL 61571

SCALE: 1" = 50'
DATE: 2-2-2022
DESIGN: HJH
DRAWN: LWS
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PROJECT NO. 21911
SHEET 6 of 8

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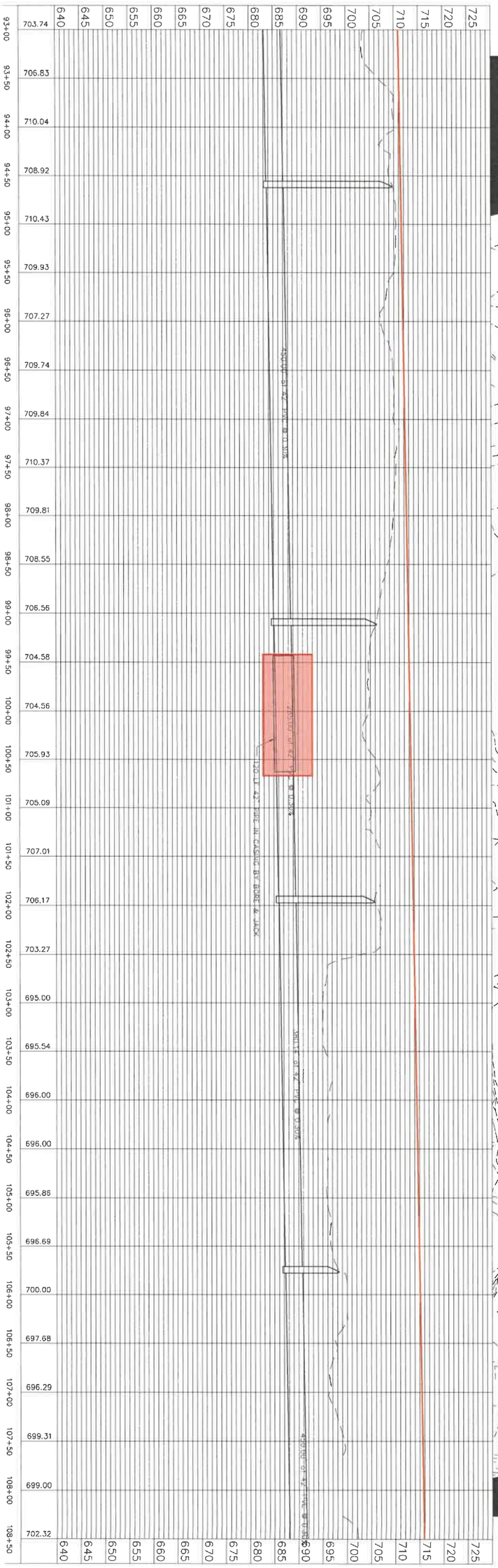

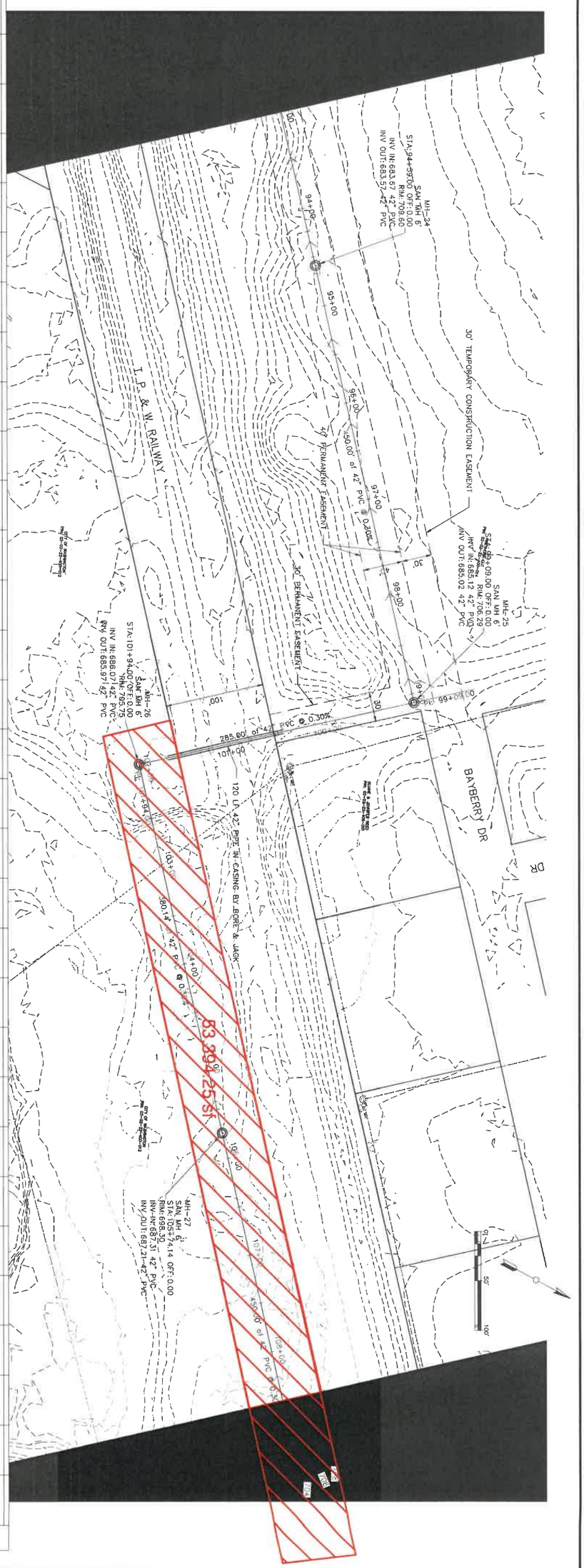

SHEET 7 of 8	SCALE: HOR. 1" = 50' VERT. 1" = 5'	CITY OF WASHINGTON 301 WALNUT ST WASHINGTON, IL 61571	ALTERNATIVE C, PUDIK E-3 PLAN AND PROFILE STA 93+00 TO STA 108+50

DATE: 2-2-2022
DESIGNED: T.J.H.
DRAWN: D.W.S.
CHECKED:
PROJECT NO. 21911

NO.	DATE	REVISIONS
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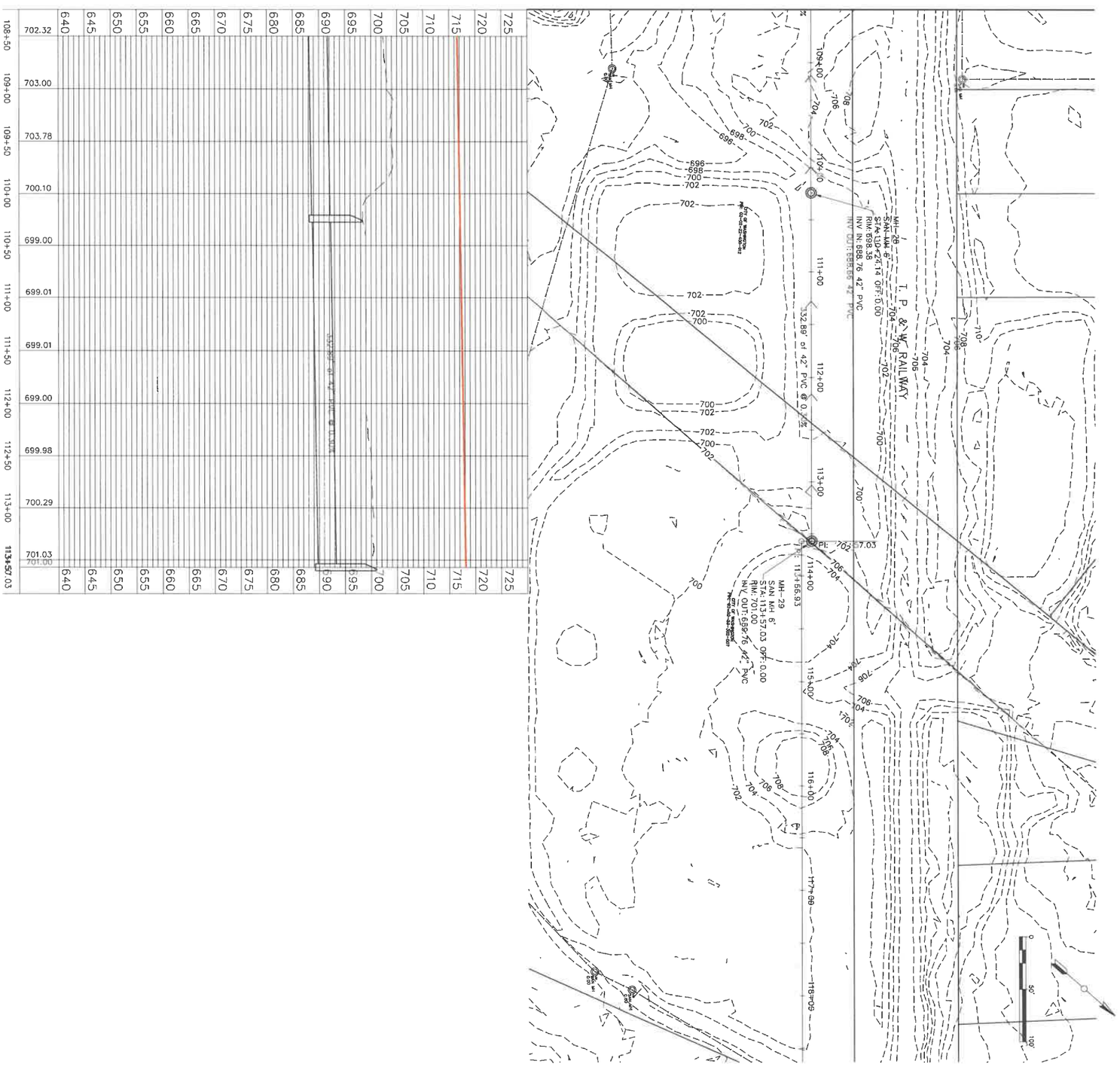

SHEET 8 of 8	CITY OF WASHINGTON 301 WALNUT ST WASHINGTON, IL 61571	ALTERNATIVE C, PUDIK E-3 PLAN AND PROFILE STA 108+50 TO STA 113+57.03	HAMILTON CONSULTING ENGINEERS, INC. 3230 Executive Drive, Joliet, Illinois 60431 Ph: (815) 730-3444 Fax: (815) 730-6703 IL LICENSE NO. 184-003205 © 2022 HAMILTON CONSULTING ENGINEERS, INC.

SCALE: Hor. 1" = 50'
DATE: 2-2-2022
DESIGNED: DWS
DRAWN: RJH
CHECKED:
PROJECT NO. 21911

NO.	DATE	REVISIONS
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