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CITY OF STERLING

F.A.U. 5557 (EAST 2ND STREET)

RECONSTRUCTION

WHITESIDE COUNTY
SECTION 17-00152-00-BT
PROJECT NO. C94E(452)
JOB NO. C-92-058-22
CONTRACT NO. 85743
2024

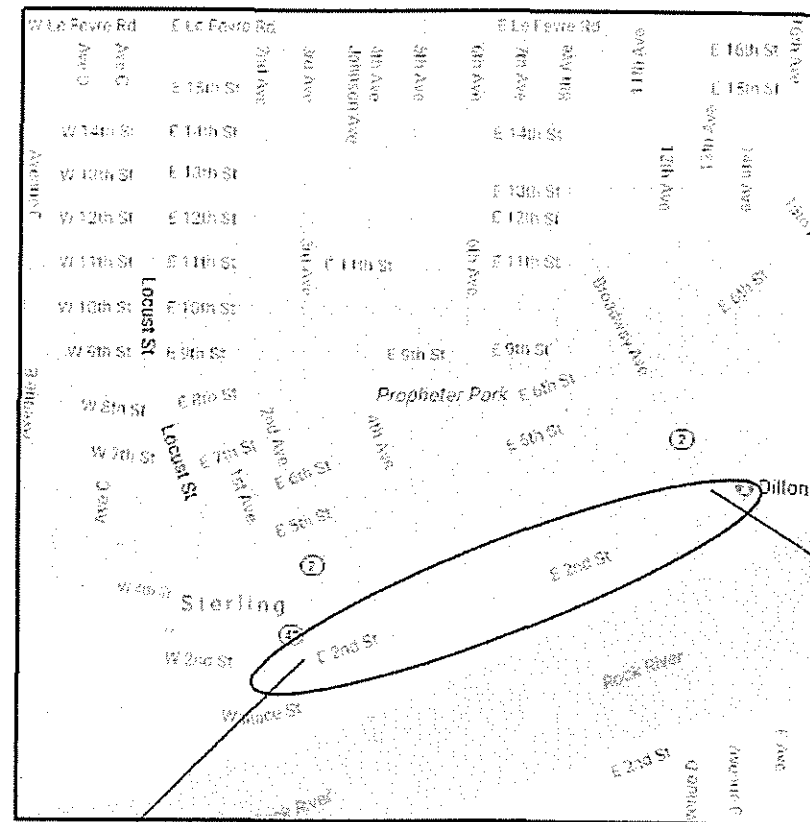
UTILITY CONTACTS

SEE SHEET 2.



Know what's below.
Call before you dig.

RANGE 7 EAST OF 4TH P.M.



PROJECT BEGINS
STA. 200+82.26

LOCATION MAP

NET LENGTH OF PROJECT = 3,815.97 FEET = 0.72 MILES

PROJECT ENDS
STA. 238+98.23



WILLET HOFMANN
& ASSOCIATES INC

ENGINEERING ARCHITECTURE LAND SURVEYING

809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 815-284-3381 DESIGN FIRM: #184-000915

DATE: 8/29/24
EXPIRES 11/30/25

WHA NO. 1254217

DATE: 8/28/2024

PAY CODE	PAY ITEM NAME	UNIT	URBAN	STU 80% FEDERAL 20% CITY	ITEP 80% FEDERAL 20% CITY
			TOTAL QUANTITY	ROADWAY 0004 QUANTITY	MULTI-USE PATH 0028 QUANTITY
44000100	PAVEMENT REMOVAL	SQ YD	21,569	18,670	2,899
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	718	603	115
44000300	CURB REMOVAL	FOOT	239	239	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	8,380	8,317	63
44000600	SIDEWALK REMOVAL	SQ FT	35,674	18,878	16,796
44003100	MEDIAN REMOVAL	SQ FT	962	962	
44201696	CLASS D PATCHES, TYPE IV, 4 INCH	SQ YD	461		461
50200100	STRUCTURE EXCAVATION	CU YD	16		16
50300225	CONCRETE STRUCTURES	CU YD	29.5		29.5
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	8,598	5,538	3,060
51201710	FURNISHING STEEL PILES HP12X84	FOOT	6,578 290	3,298	3,280 290
51202305	DRIVING PILES	FOOT	290		290
51203710	TEST PILE STEEL HP12X84	EACH	1		1
51265001	DRILLING AND SETTING PILES (IN SOIL)	CU FT	668.4		668.4
51265002	DRILLING AND SETTING PILES (IN ROCK)	CU FT	125.7		125.7
51500100	NAME PLATES	EACH	1		1
52000030	PREFORMED JOINT SEAL 2 1/2"	FOOT	24		24
52200700	PRECAST MODULAR RETAINING WALL	SQ FT	2,155		2,155
52200900	CONCRETE STRUCTURES (RETAINING WALL)	CU YD	89.3 28.5	89.3 28.5	
550A0050	STORM SEWERS, CLASS A, TYPE 1 12'	FOOT	938	717	221

+ DENOTES SPECIALTY ITEM

REVISION	DATE	BY	REMARKS	DESIGNED	LG
Δ	10/28/2024	LG	REMOVED PAY ITEM AND REVISED QUANTITIES	DRAWN	DLB
				REVIEWED	LG
				APPROVED	GFS

CITY OF STERLING
E. 2ND ST. RECONSTRUCTION
2024



WILLETT HOFMANN
& ASSOCIATES, INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0357
T: 815-284-3381 DESIGN FIRM: #184-000918

SUMMARY OF QUANTITIES

SHEET 2 OF 7

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5557	17-00152-00-BT	WHITESIDE	182	4
WHA# 1254Z17		CONTRACT NO. 85743		
ILLINOIS FED. AID PROJECT				

	PAY CODE	PAY ITEM NAME	UNIT	URBAN TOTAL QUANTITY	STU 80% FEDERAL 20% CITY ROADWAY 0004 QUANTITY	ITEP 80% FEDERAL 20% CITY MULTI-USE PATH 0028 QUANTITY
+	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	65.6	65.6	
+	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	4,746	4,398	348
+	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	2,827	2,827	
+	78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	185	185	
+	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	2,867	2,867	
+	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	359	359	
+	78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	111	111	
+	78009006	MODIFIED URETHANE PAVEMENT MARKING - LINE 6"	FOOT	313	313	
+	78009012	MODIFIED URETHANE PAVEMENT MARKING - LINE 12"	FOOT	344	344	
+	78009024	MODIFIED URETHANE PAVEMENT MARKING - LINE 24"	FOOT	23	23	
+	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	27	27	
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	27	27	
	78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	644	644	
+	83600300	LIGHT POLE FOUNDATION, 30" DIAMETER	FOOT	8		8
+	84200804	REMOVAL OF POLE FOUNDATION	EACH	9		9
	Z0012450	CONCRETE STEPS	CU YD	0.7	0.7	
	Z0012455	CONCRETE STEP REMOVAL	EACH	10	10	
	Z0056603	STORM SEWER (WATER MAIN REQUIREMENTS) 6 INCH	FOOT	12	4	8
	Z0056608	STORM SEWER (WATER MAIN REQUIREMENTS) 12 INCH	FOOT	583	583	
	Z0056610	STORM SEWER (WATER MAIN REQUIREMENTS) 15 INCH	FOOT	119	119	

+ DENOTES SPECIALTY ITEM

REVISION	DATE	BY	REMARKS	DESIGNED	LGN
Δ	10/28/2024	LGN	REVISED QUANTITIES	DRAWN	DLB
				REVIEWED	LGN
				APPROVED	GFS

CITY OF STERLING
E. 2ND ST. RECONSTRUCTION
2024

WILLET HOFMANN
& ASSOCIATES INC
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 815-284-3381 DESIGN FIRM: #184-009978

SUMMARY OF QUANTITIES

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5557	17-00152-00-BT	WHITESIDE	182	7
WHA# 1254Z17		CONTRACT NO. 85743		
ILLINOIS		FED. AID PROJECT		

	PAY CODE	PAY ITEM NAME	UNIT	URBAN TOTAL QUANTITY	STU 80% FEDERAL 20% CITY ROADWAY 0004 QUANTITY	ITEP 80% FEDERAL 20% CITY MULTI-USE PATH 0028 QUANTITY
+	X5091774	REMOVE AND RE-ERECT EXISTING HANDRAIL	FOOT	35		35
	X5220090	RETAINING WALL (SPECIAL)	SQ FT	190	190	
	X6010302	TRENCH DRAIN	FOOT	52	26	26
	X6020296	MANHOLES, TYPE A, 8'-DIAMETER, WITH SPECIAL FRAME AND GRATE	EACH	3	3	
	X6022230	MANHOLES, TYPE A, 4'-DIAMETER, WITH SPECIAL FRAME AND GRATE	EACH	11	11	
	X6022930	MANHOLES, TYPE A, 5'-DIAMETER, WITH SPECIAL FRAME AND GRATE	EACH	1	1	
	X6024090	MANHOLES, TYPE A, 6'-DIAMETER, WITH SPECIAL FRAME AND GRATE	EACH	2	2	
	X6024240	INLETS, SPECIAL	EACH	43	42	1
	X6026050	SANITARY MANHOLES TO BE ADJUSTED	EACH	7	7	
	X6026051	SANITARY MANHOLES TO BE RECONSTRUCTED	EACH	1	1	
	X6026056	SANITARY MANHOLES TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED LID	EACH	14	14	
	X6026057	SANITARY MANHOLES TO BE RECONSTRUCTED WITH NEW TYPE 1 FRAME, CLOSED LID	EACH	6	6	
+	X6640108	FENCE REMOVAL AND REINSTALLATION	FOOT	204	204	
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	0.75	0.25
	X7240600	REMOVE AND RE-ERECT EXISTING SIGN	EACH	1	1	
+	X8140115	HANDHOLE TO BE ADJUSTED	EACH	9	9	
+	X8440110	RELOCATE EXISTING LIGHT POLE WITH LUMINAIRE	EACH	1 9		1 9
+	81028750	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 2" DIA.	FOOT	948		948
+	81702120	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8	FOOT	3,850		3,850
+	83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	40		40
+	X0322951	CABLE SPLICE SPECIAL	EACH	2		2
+	X0327758	RELOCATE EXISTING CONDUIT AND CABLES	FOOT	25		25
+	X8950215	RELOCATE EXISTING HANDHOLE	EACH	7		7
+	X8950450	REMOVE EXISTING UNDERGROUND CONDUIT	FOOT	944		944
+ DENOTES SPECIALTY ITEM						

REVISION	DATE	BY	REMARKS
Δ	10/28/2024	LGN	ADDED PAY ITEMS AND REVISED QUANTITIES

DESIGNED	LGN
DRAWN	DLB
REVIEWED	LGN
APPROVED	GFS

CITY OF STERLING
E. 2ND ST. RECONSTRUCTION
2024



WILLETT HOFMANN
& ASSOCIATES INC
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 815-284-3381 DESIGN FIRM: 2184-000918

SUMMARY OF QUANTITIES

SHEET 7 OF 7

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5557	17-00152-00-BT	WHITESIDE	182	9
WHA* 1254Z17		CONTRACT NO. 85743		
		ILLINOIS FED. AID PROJECT		

44000600		
SIDEWALK REMOVAL		
STATION	SQ FT	REMARKS
E. 2ND STREET		
1ST AVE TO 2ND AVE		
LT 200+56 - 202+09	753	
RT 200+74 - 201+98	848	
RT 202+23 - 202+64	268	
LT 202+44 - 204+03	1,171	
RT 202+89 - 203+28	252	
RT 203+53 - 203+72	122	
RT 203+85 - 203+91	23	
RT 203+97 - 204+03	23	
RT 203+89 - 204+06	25	
2ND AVE TO 3RD AVE		
LT 204+46 - 205+42	461	
RT 204+48 - 205+31	1,184	
LT 205+66 - 206+08	204	
LT 206+36 - 207+70	653	
LT 207+78 - 207+95	103	
3RD AVE TO 4TH AVE		
LT 208+49 - 208+61	187	
LT 208+72 - 210+15	1,341	
LT 210+47 - 211+86	1,230	
LT 211+97 - 212+07	142	
LT 208+51 - 208+58	21	
4TH AVE TO 5TH AVE		
LT 212+48 - 212+54	82	
LT 212+62 - 213+78	622	
LT 214+61 - 216+05	842	
5TH AVE TO 6TH AVE		
LT 216+51 - 218+19	1,015	
LT 218+42 - 220+11	1,012	
6TH AVE TO 7TH AVE		
LT 220+50 - 220+61	176	
LT 224+05 - 224+17	228	
7TH AVE TO 8TH AVE		
LT 224+48 - 225+50	693	
LT 225+83 - 226+24	237	
LT 228+00 - 228+14	241	
8TH AVE TO 9TH AVE		
LT 228+53 - 228+60	161	
LT 228+87 - 229+50	126	
LT 230+92 - 230+95	47	
LT 231+27 - 231+29	28	
LT 231+94 - 232+00	188	
9TH AVE TO E 3RD ST		
LT 232+33 - 233+93	1,145	
LT 234+08 - 234+97	445	
LT 235+12 - 237+24	912	
LT 237+53 - 238+05	287	
LT 238+36 - 239+02	785	SW COR E 3RD ST & BROADWAY
NORTH SIDE E. 3RD ST		
NE COR E 3RD & BROADWAY	349	
NW COR E 3RD & BROADWAY	246	
SUBTOTAL	18,878	
MULTI-USE PATH		
LT 2000+06 - 2000+15	197	
RT 2000+05 - 2000+54	369	
RT & LT 2002+89	305	RTE. 40 (1ST AVE) MEDIAN
RT 2009+65 - 2010+48	595	
RT 2010+89 - 2011+35	385	
RT 2011+63 - 2013+19	785	

RT 2013+56 - 2013+69	20	
RT 2013+78 - 2015+30	782	
RT 2015+54 - 2017+10	758	
RT 2017+10 - 2017+25	93	
RT 2017+58 - 2017+74	55	
RT 2017+74 - 2018+64	503	
RT 2018+81 - 2019+37	323	
RT 2019+50 - 2021+21	925	
RT 2021+67 - 2023+38	900	
RT 2023+58 - 2025+24	935	
RT 2025+70 - 2026+85	712	
RT 2026+95 - 2027+44	274	
RT 2027+57 - 2029+26	928	
RT 2029+72 - 2031+244	913	
RT 2031+65 - 2033+28	928	
RT 2033+69 - 2025+43	1,138	
RT 2035+57 - 2036+07	301	
RT 2036+16 - 2037+17	616	
RT 2037+54 - 2039+09	816	
RT 2039+23 - 2041+51	1,214	
RT 2044+34 - 2044+70	1,026	SE COR E 3RD ST & BROADWAY
SUBTOTAL	16,796	
PROJECT TOTAL	35,674	

44003100		
MEDIAN REMOVAL		
STATION	SQ FT	REMARKS
E. 2ND STREET		
9TH AVE TO E. 3RD ST		
238+07 - 238+97	962	
PROJECT TOTAL	962	

44201696		
CLASS D PATCHES, TYPE IV, 4 INCH		
STATION	SQ YD	REMARKS
MULTI-USE PATH		
RT 2003+60 - 2003+75	31	
LT 2003+56 - 2007+38	430	
PROJECT TOTAL	461	

50800205		
REINFORCEMENT BARS, EPOXY COATED		
STATION	POUND	REMARKS
E. 2ND STREET		
4TH AVE TO 5TH AVE		
RT 213+80	9	1 STEP (4' W)
RT 214+09	9	1 STEP (4' W)
5TH AVE TO 6TH AVE		
LT 216+74.4 - 218+15.5	1,200	640 WALL "A" / SIDEWALK
LT 218+44.2 - 219+82.2	1,860	1,080 WALL "B" / SIDEWALK
LT 228+76.8 - 230+21.3	1,900	1,560 WALL "C" / SIDEWALK
PROJECT TOTAL	5,238	3,298

52200700		
PRECAST MODULAR RETAINING WALL		
STATION	SQ FT	REMARKS
MULTI-USE PATH		
RT 2001+25 - 2002+16.32	324	SW QUADRANT @ BRIDGE
LT 2001+25 - 2002+16.32	316	NW QUADRANT @ BRIDGE
LT 2003+77.32 - 2006+00	826	NE QUADRANT @ BRIDGE
RT 2003+77.32 - 2005+50	689	SE QUADRANT @ BRIDGE
PROJECT TOTAL	2,155	

52200900		
CONCRETE STRUCTURES (RETAINING WALL)		
STATION	CU YD	REMARKS
E. 2ND STREET		
5TH AVE TO 6TH AVE 217+82.5		
LT 216+75.0 - 218+15.0	1.4	3.1 WALL "A"
LT 216+75.0 - 218+15.0	1.1	WALL "A" FOOTING
LT 218+44.2 - 219+82.2	1.3	5.2 WALL "B"
LT 218+44.2 - 219+82.2	1.0	WALL "B" FOOTING
LT 228+76.8 - 230+21.3	1.8	12.8 WALL "C"
LT 228+76.8 - 230+21.3	1.4	WALL "C" FOOTING
PROJECT TOTAL	8.3	28.5

550A0050		
STORM SEWERS, CLASS A, TYPE 1 12"		
STATION	FOOT	REMARKS
E. 2ND STREET		
LT 200+51.6 - 200+87.0	32	PIPE #2
LT 202+75.0 - 203+81.1	12	PIPE #14
LT 204+40.0 - 204+67.0	22	PIPE #17
LT 204+60.0 - 204+67.0	10	PIPE #18
LT 200+87.0 - 201+00.0	10	PIPE #19
205+86.8	27	PIPE #34
LT 208+57.9 - 208+71.0	21	PIPE #41
RT 210+45.6	3	PIPE #49
LT 210+45.8 - 210+58.8	24	PIPE #48
RT 212+07.5 - 212+43.4	32	PIPE #57
LT 212+44.0 - 212+46.4	18	PIPE #54
RT 212+43.4 - 212+59.0	13	PIPE #58
LT 212+46.4 - 212+75.0	26	PIPE #56
RT 212+59.0 - 213+79.3	118	PIPE #60
LT 213+79.3	7	PIPE #61
LT 216+46.0 - 216+46.1	10	PIPE #64
RT 218+00.0	5	PIPE #68
RT 219+75.0	5	PIPE #70
LT 220+10.8 - 220+42.8	28	PIPE #71
LT 220+42.8 - 220+50.4	4	PIPE #73
RT 220+80.0	5	PIPE #77
LT 223+75.0 - 224+17.6	48	PIPE #78
RT 223+75.0	5	PIPE #81
LT 226+00.0 - 226+19.0	20	PIPE #85
RT 226+00.0	3	PIPE #88
RT 227+75.0	2	PIPE #91
LT 228+17.2 - 228+49.4	29	PIPE #92
RT 228+87.9	4	PIPE #96
230+75.0	20	PIPE #99
RT 230+75.0	6	PIPE #101
LT 232+03.2 - 232+33.2	26	PIPE #103
LT 232+03.2 - 232+04.2	49	PIPE #104
LT 237+55.6 - 237+55.7	32	PIPE #112
RT 237+46 - 237+55.7	20	PIPE #115
NW COR E 3R ST & BROADWAY	12	PIPE #117
NW COR E 3R ST & BROADWAY	9	PIPE #119
SUBTOTAL	717	

REVISION	DATE	BY	REMARKS	DESIGNED	LGN
Δ	10/28/2024	LGN	REVISED QUANTITIES	DRAWN	DLB
				REVIEWED	LGN
				APPROVED	GFS

CITY OF STERLING
E. 2ND ST. RECONSTRUCTION
2024



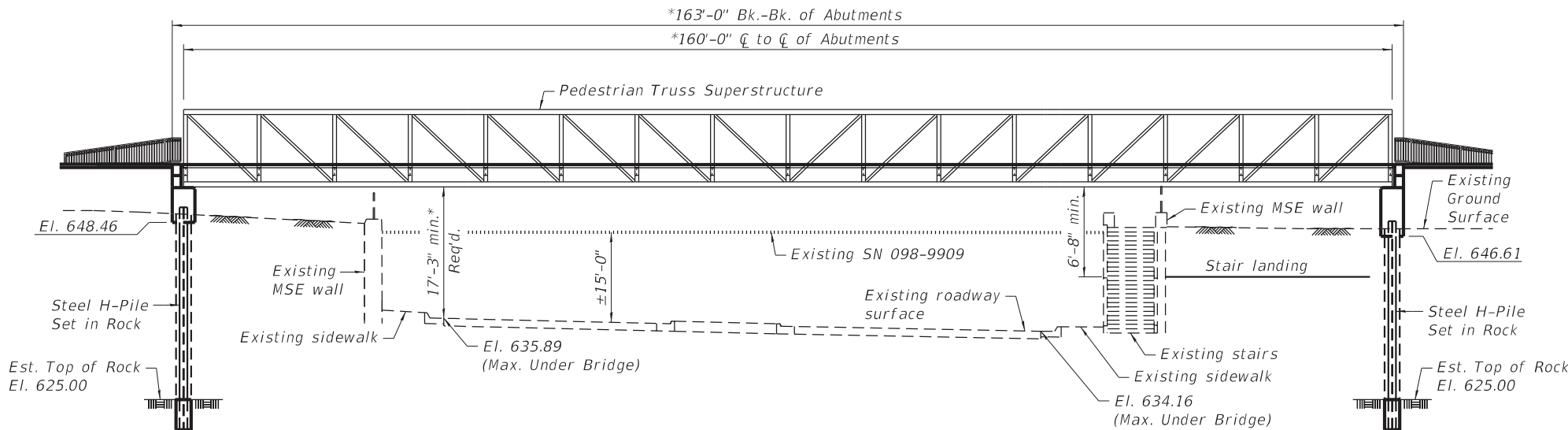
SCHEDULE OF QUANTITIES
E. 2ND. STREET
SHEET 8 OF 18

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5557	17-00152-00-BT	WHITESIDE	182	21
WHA# 1254Z17		CONTRACT NO. 85743		
ILLINOIS		FED. AID PROJECT		

BENCHMARK: #402. Disc on N. end of wall S.E. corner of E. 2nd St. & Rt. 40. 84.76' Rt. at Sta. 200+42.75, El. = 649.72

EXISTING STRUCTURE: None

PROPOSED STRUCTURE: S.N. 098-0120 is a single span (160'-0") Pedestrian Truss Superstructure Bridge on pile bent abutments. 12'-0" out to out of deck. No skew.



ELEVATION

*Subject to variation with final design by others.

**Point of minimum vertical clearance is at the highest roadway pavement elevation of IL Route 40. All elements of the pedestrian truss superstructure under maximum design deflection must be above the required clearance.

BRIDGE SUMMARY

Bridge 160' Length x 12' Width
Deck Type: IPE (Hardwood)
Bridge Finish: Weathering Steel

DESIGN SPECIFICATIONS

AASHTO LRFD Guide Specifications for Design of Pedestrian Bridges, 2nd Edition, with 2015 Interim Revision and IDOT Guide Bridge Specification, GBSP 33 - Pedestrian Truss Superstructure
AASHTO LRFD Bridge Design Specifications, 9th Edition, 2020

LOADING

Pedestrian Live Load = 90 psf

DESIGN WIND LOADS:

- 35 psf - Circular Members
- 55 psf - Flat Members
- 35 psf - Signs
- 10 psf - Chain Link Fence

H-5 - Truck Loading

PROFILE GRADE

Along $\bar{C}$ of IL Route 40 (1st Ave.)

DESIGN STRESSES

- f'_c = 3,500 psi (Concrete)
- f_y = 60,000 psi (Reinforcement)
- f_y = 50,000 psi (Structural Steel Tubing) ASTM A847
- f_y = 50,000 psi (Other Structural Steel Shapes, Plates and Bars) AASHTO M270, Grade 50W

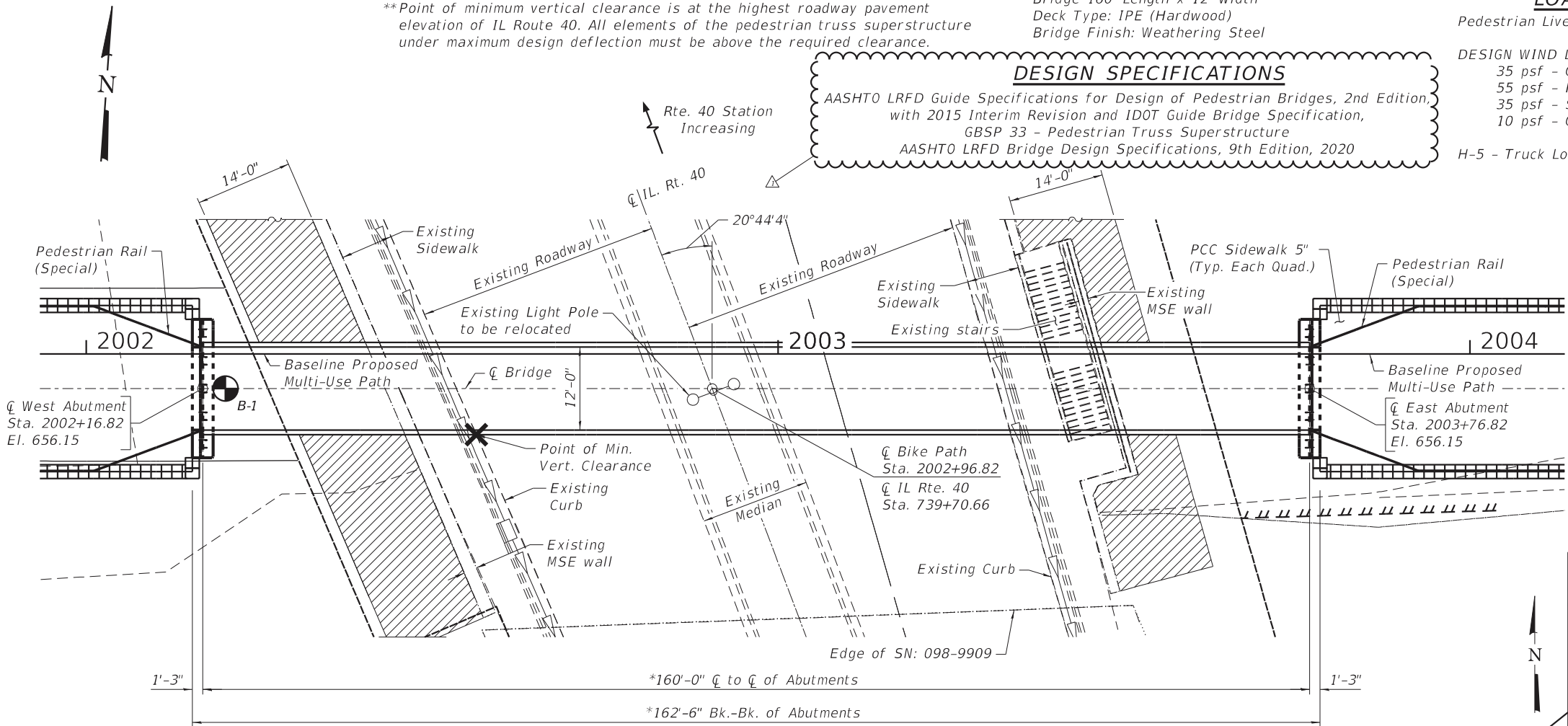
APPROVED
For Structural Adequacy Only

Scott A. Brown
Engineer of Bridges & Structures



SCOTT A. BROWN
DIXON, ILLINOIS
ILLINOIS LICENSED STRUCTURAL
ENGINEER NO. 081-005981
EXPIRES 11-30-2024

"I certify that to the best of my knowledge, information and belief, this bridge abutment design is structurally adequate for the design loading shown on the plans, the design is an economical one for the style of structure and complies with requirements of the current 'AASHTO Bridge Design Specifications.'"



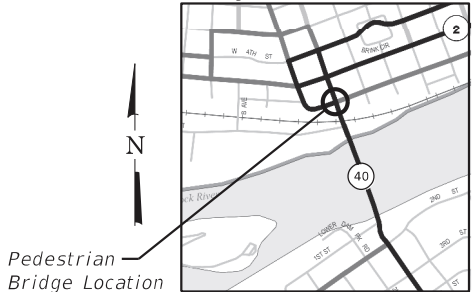
PLAN

*Subject to variation with final design by others.



Existing MSE Wall Support Region

Range 7 East of 4th P.M.



LOCATION SKETCH

**GENERAL PLAN AND ELEVATION
PEDESTRIAN BRIDGE OVER
IL RTE 40 (1ST AVENUE)
CITY OF STERLING
SEC. 17-00152-00-BT
STATION 2002+96.82
STRUCTURE NO. 098-0120**

REVISION	DATE	BY	REMARKS	DESIGNED	RB
1	10/28/2024	RB	CHANGES PER IDOT REVIEW	DRAWN	RDA
				REVIEWED	SAB
				APPROVED	SAB

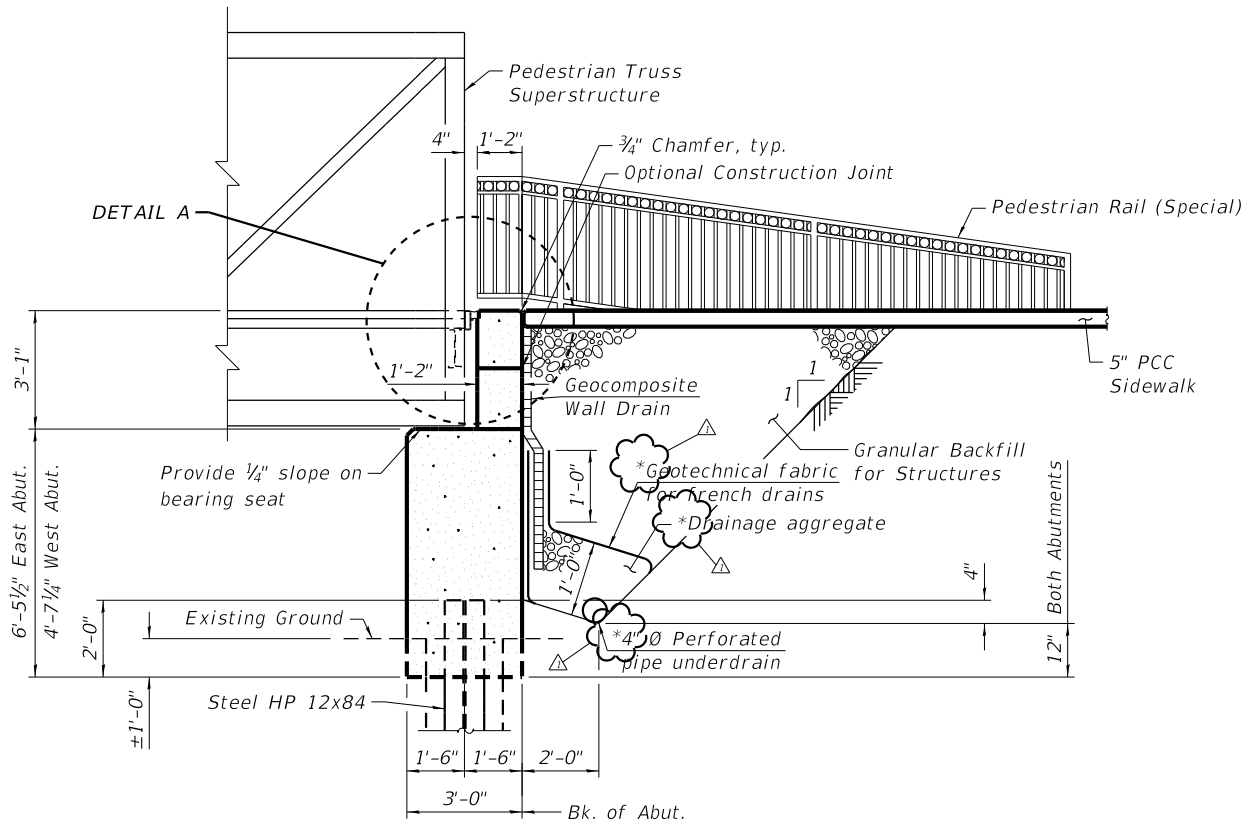
**CITY OF STERLING
E. 2ND ST. RECONSTRUCTION
2024**



**WILLET & HOFMANN
& ASSOCIATES, INC.**
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 815-284-3381 DESIGN FIRM: 2184-000918

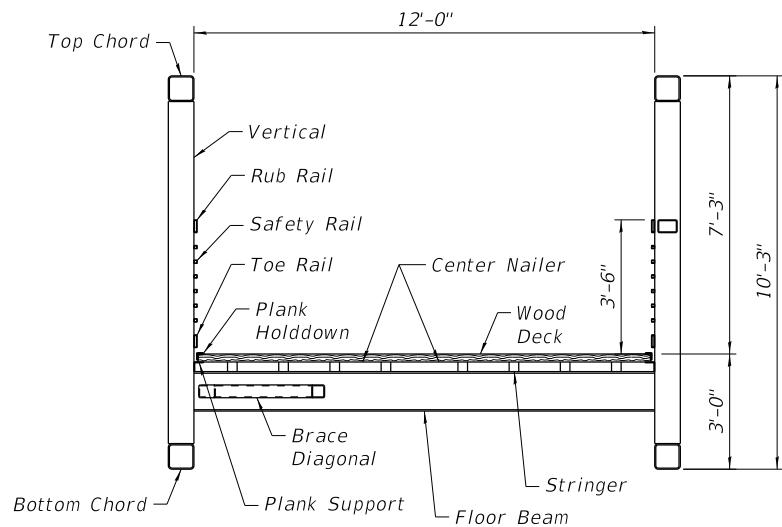
**GENERAL PLAN AND ELEVATION
PEDESTRIAN BRIDGE OVER IL RTE 40 (1ST AVENUE)
STRUCTURAL SHEET 1 OF 6 SHEETS**

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5557	17-00152-00-BT	WHITESIDE	182	90
WHA# 1254Z17		CONTRACT NO. 85743		
ILLINOIS FED. AID PROJECT				



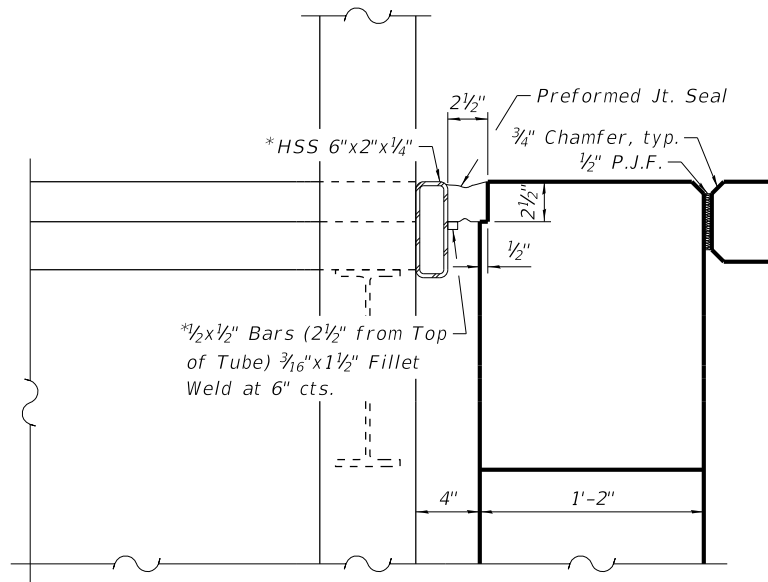
SECTION A-A

*Included in the cost of Pipe Underdrains for Structures 4"



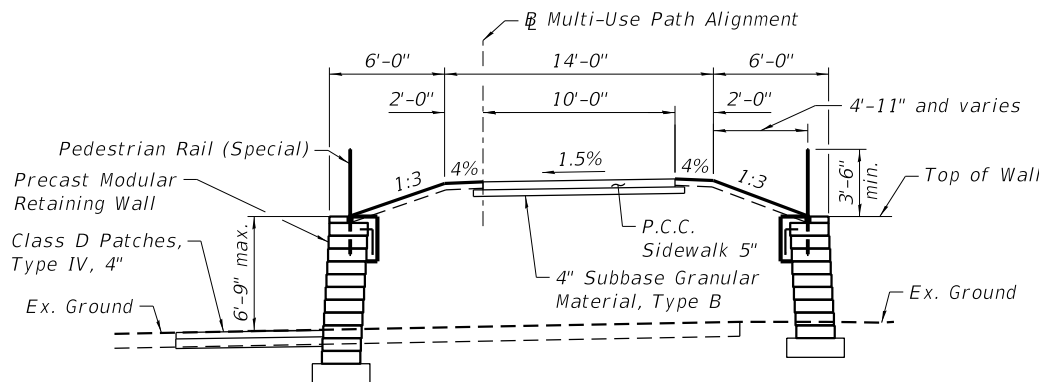
TYPICAL BRIDGE SECTION

(See Final Design By Others)



DETAIL A

*Included with Pedestrian Truss Superstructure



APPROACH PATH TYPICAL SECTION

Sta. 2001+77.68 - Sta. 2002+15.20
and
Sta. 2003+78.32 - Sta. 2005+31.00
Looking East

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUB	SUPER	TOTAL
Structure Excavation	Cu. Yd.	16	—	16
Concrete Structures	Cu. Yd.	29.5	—	29.5
Reinforcement Bars, Epoxy Coated	Pound	3,060	—	3,060
Furnishing Steel Piles HP 12x84	Foot	290	—	290
Driving Piles	Foot	290	—	290
Test Pile Steel HP 12x84	Each	1	—	1
Drilling and Setting Piles (In Soil)	Cu. Ft.	668.4	—	668.4
Drilling and Setting Piles (In Rock)	Cu. Ft.	125.7	—	125.7
Name Plates	Each	1	—	1
Preformed Joint Seal 2 1/2"	Foot	—	24	24
Granular Backfill for Structures	Cu. Yd.	77	—	77
Geocomposite Wall Drain	Sq. Yd.	39	—	39
Pipe Underdrains for Structures 4"	Foot	49	—	49
Pedestrian Truss Superstructure	Sq. Ft.	—	1,956	1,956
Construction Vibration Monitoring	L. Sum	1	—	1

3,280

GENERAL NOTES:

Reinforcement bars shall conform to the requirements of A.A.S.H.T.O. M-31, M-42 or M-53 Grade 60.

The Contractor shall install a test pile in a permanent location at the east abutment only, as directed by the Engineer, prior to ordering the remainder of the pile.

Granular backfill for structures shall be placed behind each abutment as shown in the details.

Backfill shall be placed up to 2'-0" below grade prior to placing pedestrian bridge superstructure.

Anchor bolt sizes and layout and bearing design and materials by bridge manufacturer.

See Structural Sheet 6 of 6 for boring logs.

All exposed edges of concrete shall have standard 3/4" chamfers, except as noted.

No construction vehicle equipment allowed within 10'-0" of the back of the abutment until bridge is placed.

Need to verify centerline of bearing of bridge and base plate size. Base plate shall not be too close to the cap edge. Anchor bolts shall avoid cap cages. If needed, 4" end gap could be reduced.

BUILT 2025 BY
CITY OF STERLING
SECTION 17-00152-00-BT
STR. NO. 098-0120
LOADING H5

NAME PLATE LETTERING

Refer to Std. 515001

REVISION	DATE	BY	REMARKS
△	10/28/2024	RB	CHANGES PER IDOT REVIEW

DESIGNED	RB
DRAWN	RDA
REVIEWED	SAB
APPROVED	SAB

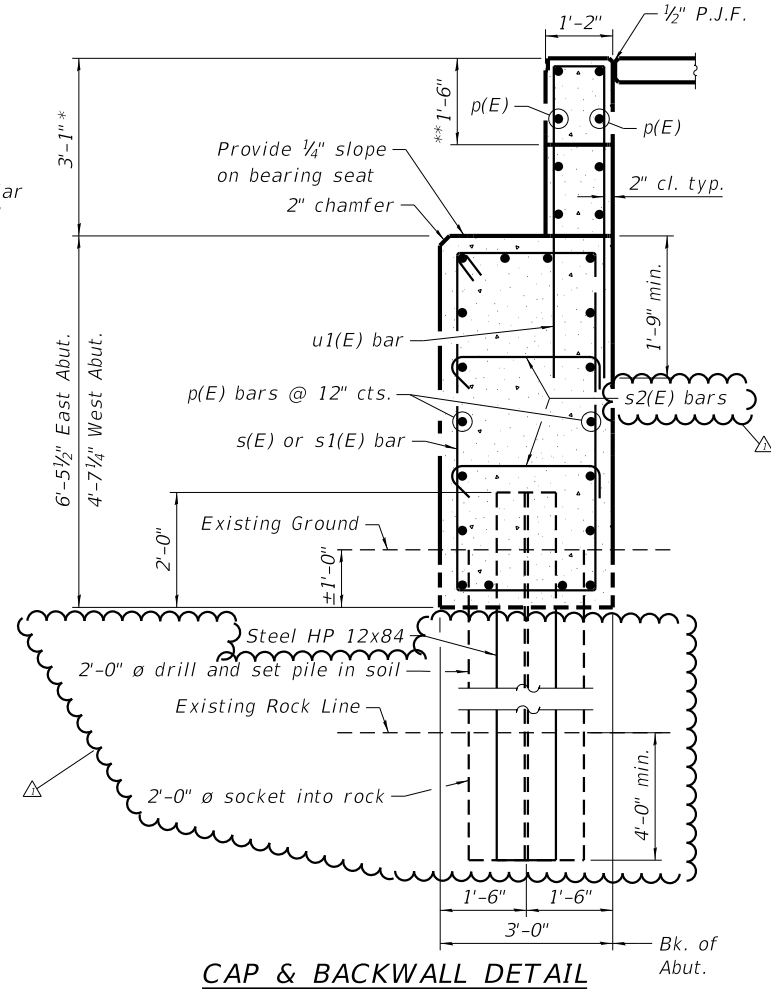
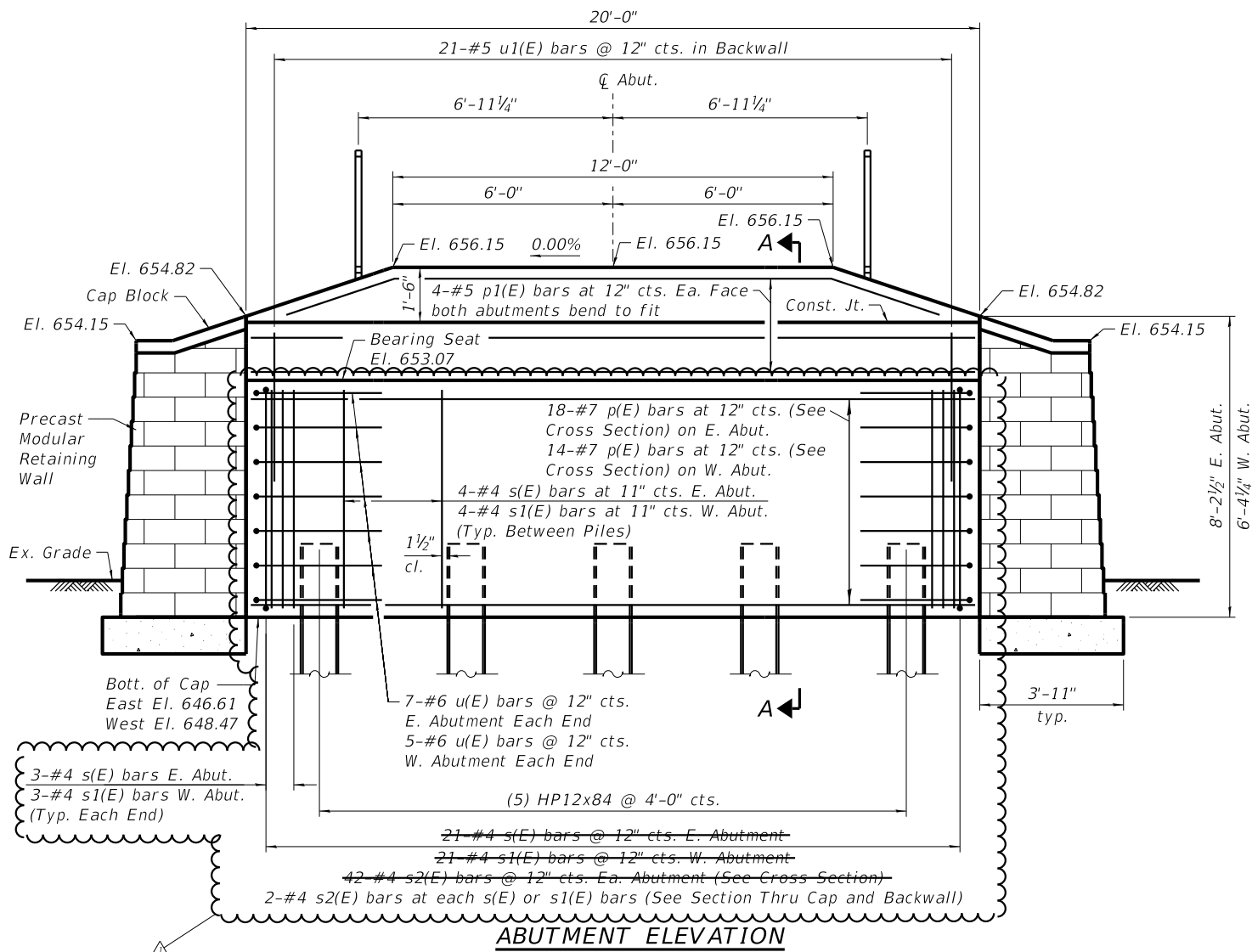
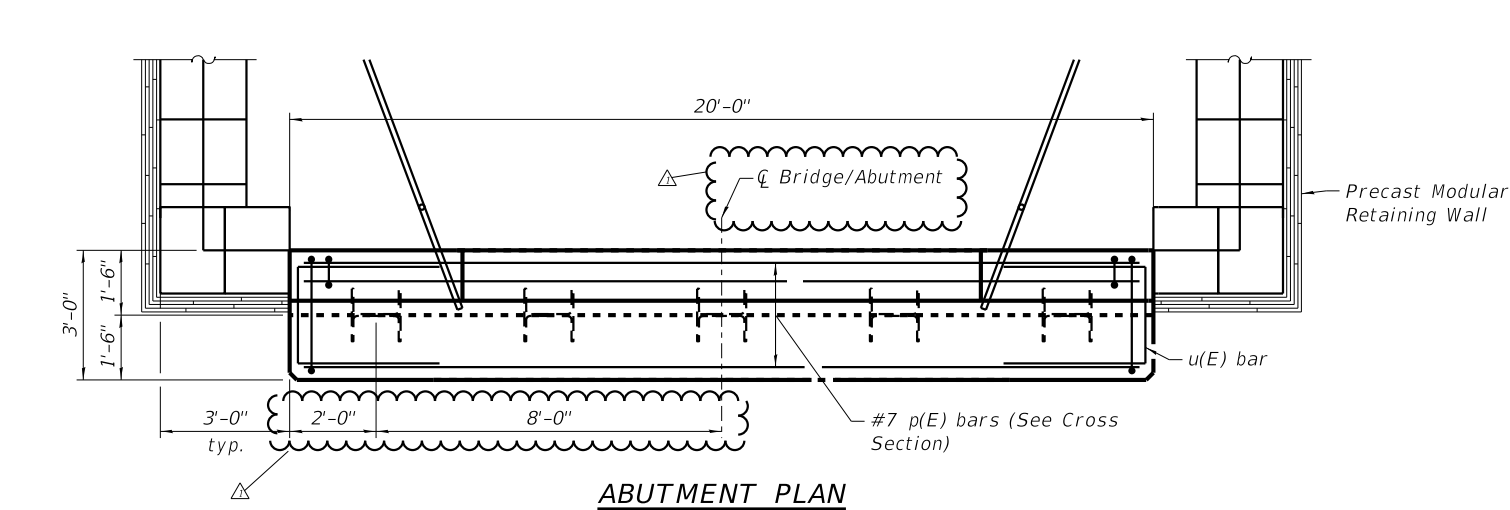
CITY OF STERLING
E. 2ND ST. RECONSTRUCTION
2024



WILLETT HOFMANN
& ASSOCIATES INC
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 815-284-3381 DESIGN FIRM: #184-000918

GENERAL DETAILS
PEDESTRIAN BRIDGE OVER IL RTE 40 (1ST AVENUE)
STRUCTURAL SHEET 2 OF 6 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5557	17-00152-00-BT	WHITESIDE	182	91
WHA# 1254217		CONTRACT NO. 85743		
ILLINOIS FED. AID PROJECT				



BILL OF MATERIAL - 2 ABUT.'s

Bar	No.	Size	Length	Shape
p(E)	32	#7	19'-8"	▬▬▬
p1(E)	16	#6	19'-8"	▬▬▬
s(E)	22-21	#4	18'-4"	▬▬▬
s1(E)	22-21	#4	14'-8"	▬▬▬
s2(E)	88-84	#4	3'-5"	▬▬▬
u(E)	24	#6	10'-8"	▬▬▬
u1(E)	42	#5	10'-2"	▬▬▬
Structure Excavation			Cu. Yd.	16
Concrete Structures			Cu. Yd.	29.5
Reinforcement Bars, Epoxy Coated			Pound	3,060
Furnishing Steel Piles HP 12x84			Foot	290
Driving Piles			Foot	290
Test Pile Steel HP 12x84			Each	1
Drilling and Setting Piles (In Soil)			Cu. Ft.	668.4
Drilling and Setting Piles (In Rock)			Cu. Ft.	125.7
Granular Backfill for Structures			Cu. Yd.	77

NOTES:

Seat elevations, abutment cap dimensions, and backwall dimensions shall be verified by Engineer after bridge shop drawings are approved and prior to ordering reinforcement bars for abutments.

Piles shall be embedded and set into rock for a minimum of 4'-0".

Pay limits for drilling and setting piles in soil and rock shall be maximum diameter of 2'-0". Larger excavations shall be approved by the engineer.

Reinforcement bars designated (E) shall be epoxy coated.

* Backwall height to be verified with Engineer.

** Top portion of backwall to be constructed after the pedestrian bridge is placed.

PEDESTRIAN BRIDGE DESIGN REACTIONS

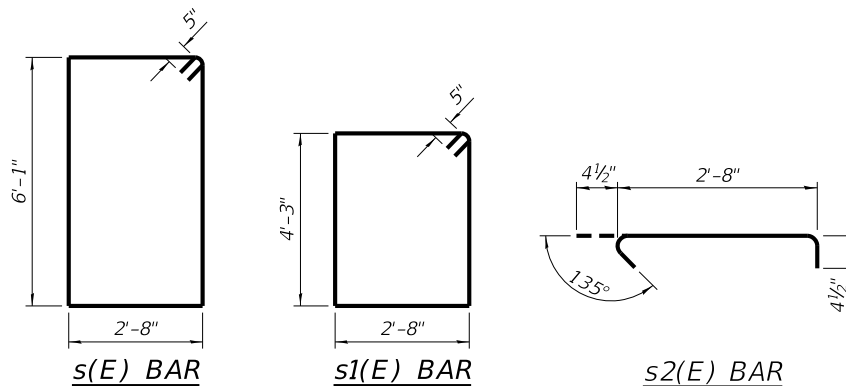
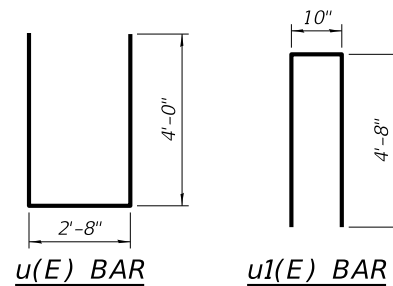
(Per Abutment)
Vehicle: 20.0 Kips
Bridge Weight: 49.2 Kips
Pedestrian Distributed Load: 86.4 Kips
Wind: ±29.4 Kips Vertical, 28.7 Kips Horizontal
Thermal: 7.4 Kips Longitudinal

WEST ABUTMENT PILE DATA

Type: HP 12x84
Nominal Required Bearing: 63 Kips (Set in Rock)
Factored Resistance Available: 388 Kips
Estimated Pile Length: 30 Feet
No. Production Piles: 5
No. of Test Piles: 0
Estimated Top of Rock El.: 725.00'
Rock Socket Depth: 4'-0" (min.)
Rock Socket Diameter: 2'-0"

EAST ABUTMENT PILE DATA

Type: HP 12x84
Nominal Required Bearing: 67 Kips (Set in Rock)
Factored Resistance Available: 388 Kips
Estimated Pile Length: 28 Feet
No. Production Piles: 4
No. of Test Piles: 1
Estimated Top of Rock El.: 725.00'
Rock Socket Depth: 4'-0" (min.)
Rock Socket Diameter: 2'-0"



REVISION	DATE	BY	REMARKS
Δ	10/28/2024	RB	CHANGES PER IDOT REVIEW

DESIGNED	RB
DRAWN	RDA
REVIEWED	SAB
APPROVED	SAB

CITY OF STERLING
E. 2ND ST. RECONSTRUCTION
2024



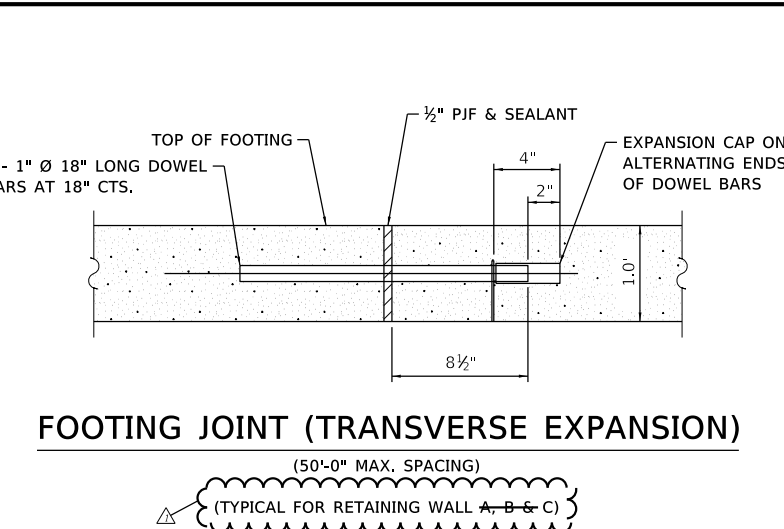
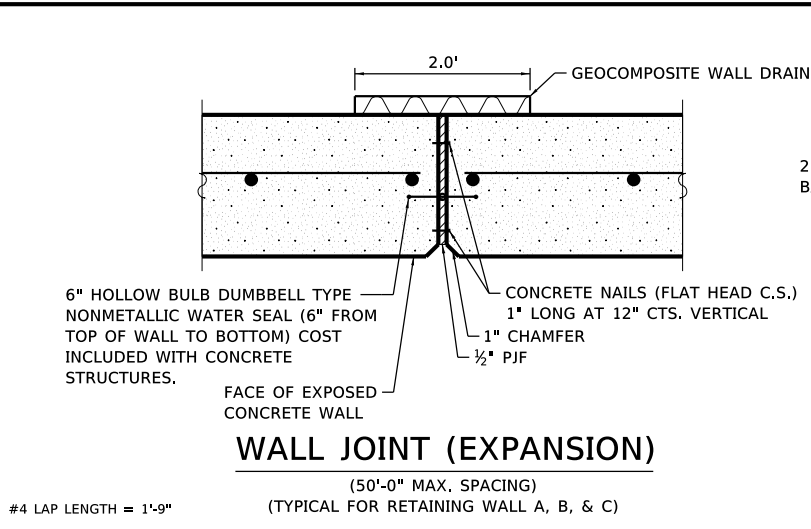
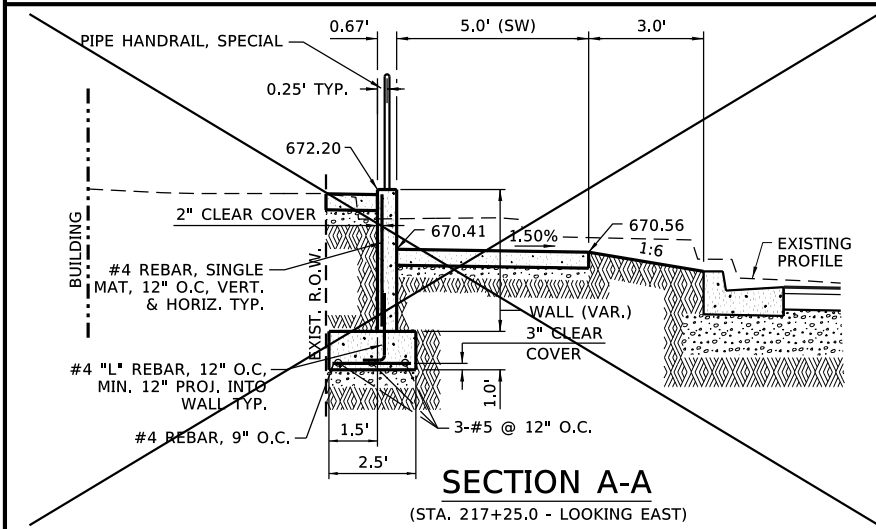
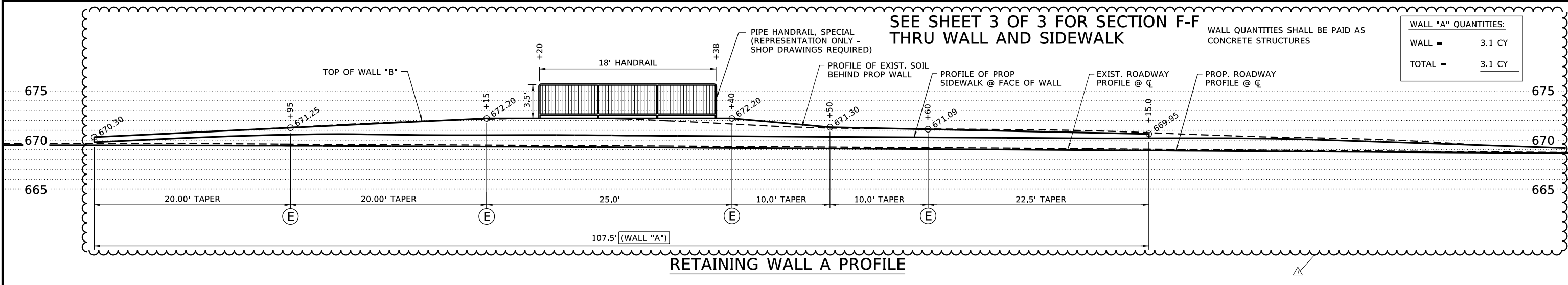
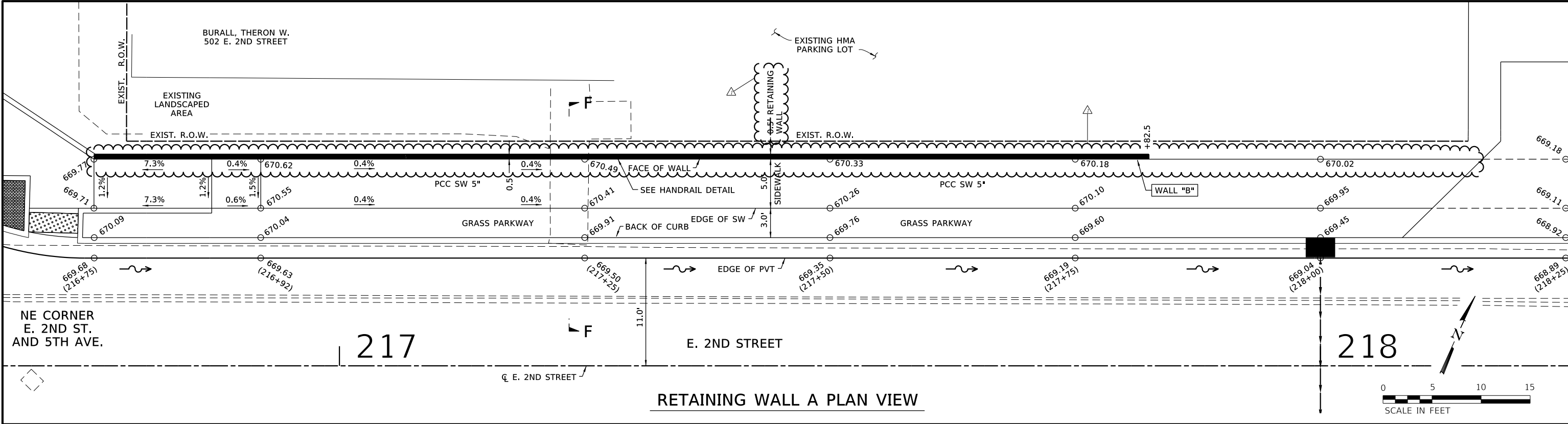
WILLET & HOFMANN
& ASSOCIATES INC
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 815-284-3381 DESIGN FIRM: #184-000918

ABUTMENT DETAILS
PEDESTRIAN BRIDGE OVER IL RTE 40 (1ST AVENUE)
STRUCTURAL SHEET 3 OF 6 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5557	17-00152-00-BT	WHITESIDE	182	92
WHA# 1254Z17		CONTRACT NO. 85743		
		ILLINOIS FED. AID PROJECT		

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FILE - S:\PROJECTS\2017\1254217-STRL\DESIGN\CAD-SHEETS\1254217-Retaining Wall Details.dgn



WALL "A" QUANTITIES:	
WALL =	3.1 CY
TOTAL =	3.1 CY

- LEGEND**
- (T) DESIGNATES TRANSVERSE EXPANSION JOINT IN FOOTING
 - (E) DENOTES EXPANSION JOINT IN WALL

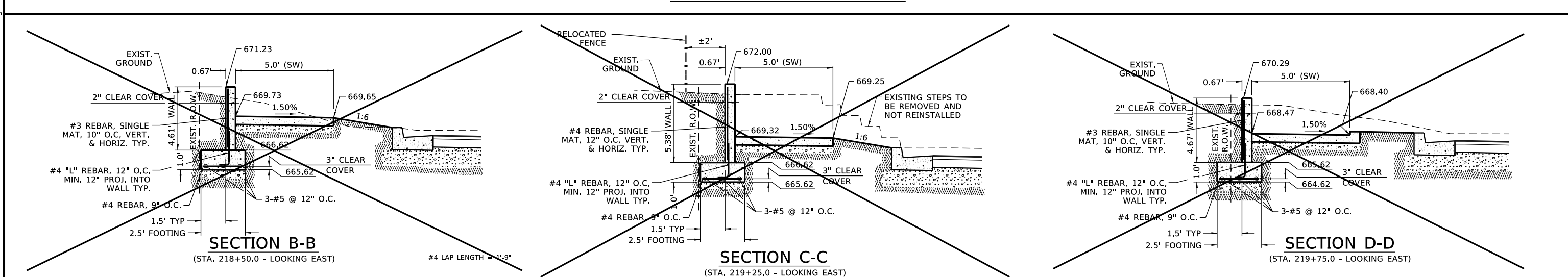
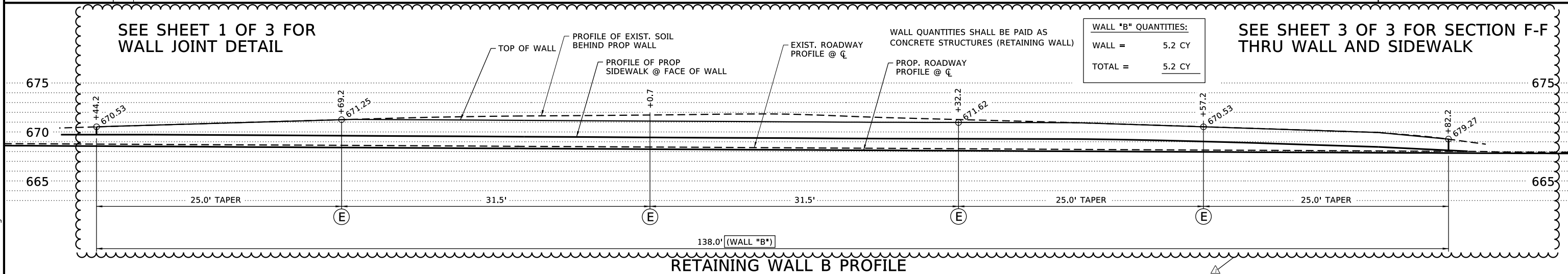
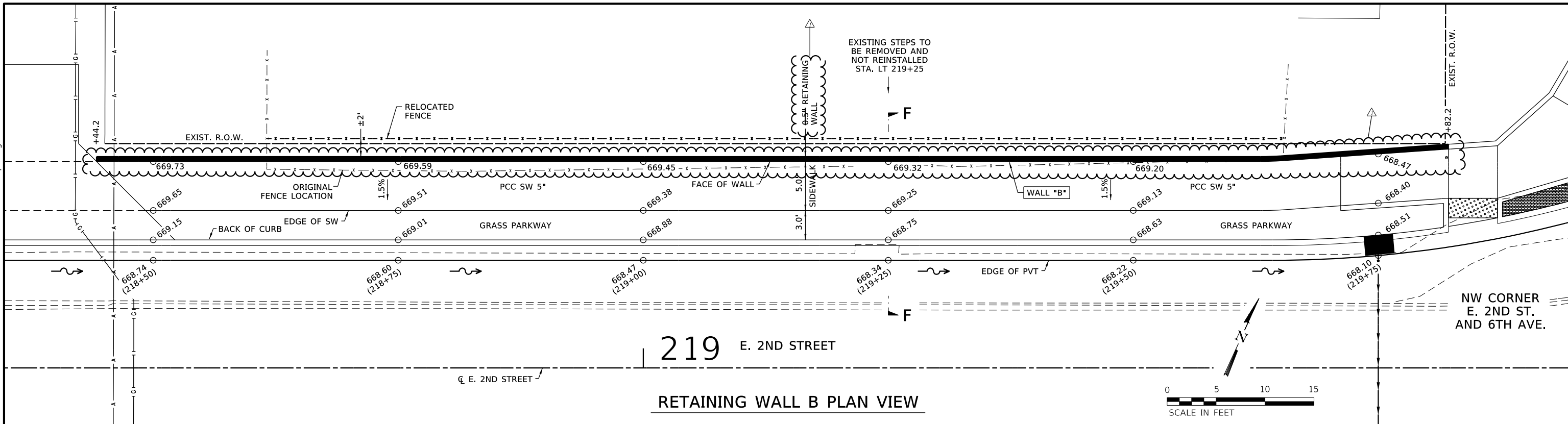
REVISION	DATE	BY	REMARKS
1	10/28/2024	RB	CHANGES PER IDOT REVIEW
DESIGNED	LGN		
DRAWN	DLB		
REVIEWED	LGN		
APPROVED	GFS		

CITY OF STERLING
E. 2ND ST. RECONSTRUCTION
2024

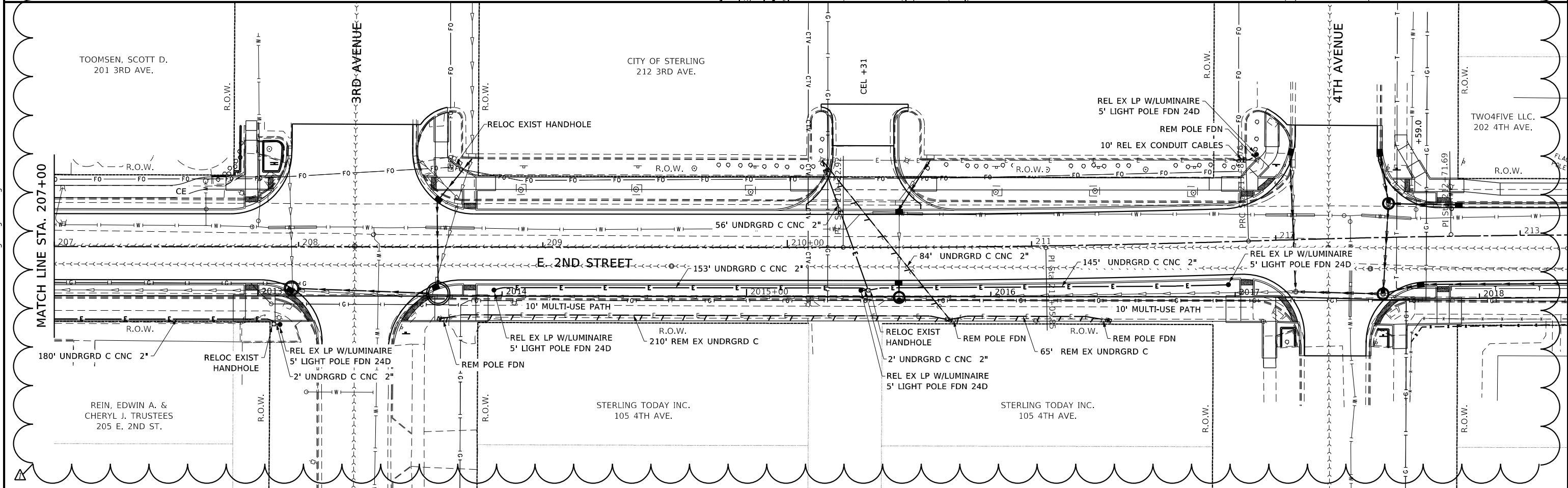
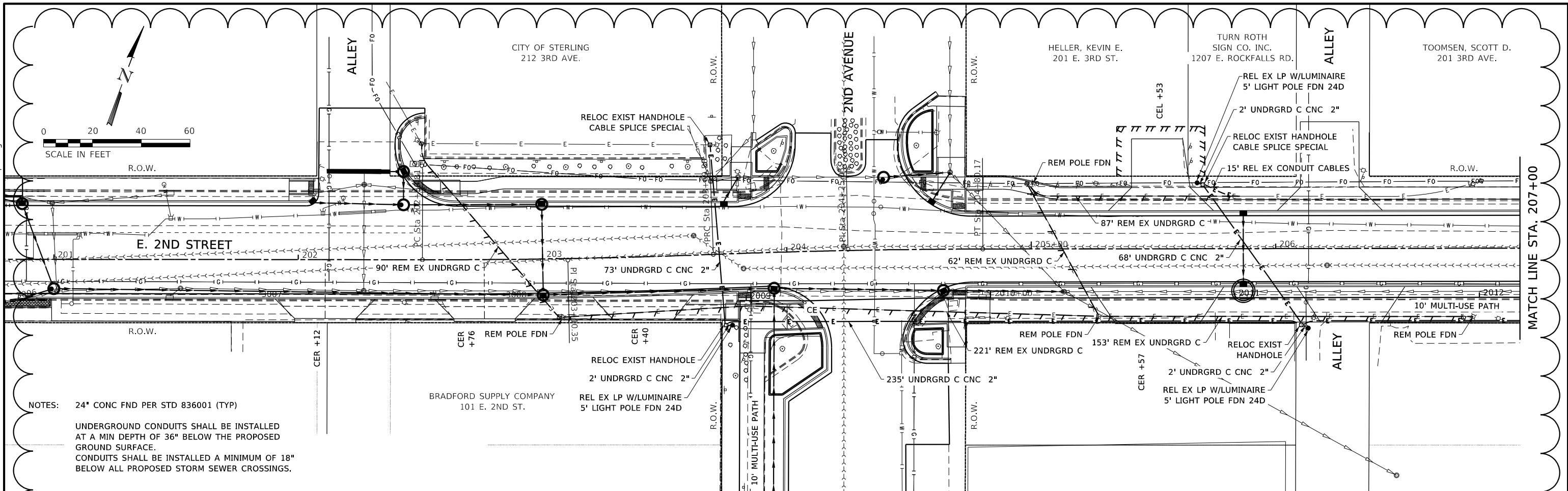
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RETAINING WALL DETAILS
SHEET 1 OF 3

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5557	17-00152-00-BT	WHITESIDE	182	99
WHA# 1254217		CONTRACT NO. 85743		
ILLINOIS FED. AID PROJECT				



REVISION	DATE	BY	REMARKS	DESIGNED	LGN	 CITY OF STERLING E. 2ND ST. RECONSTRUCTION 2024	 WILLETT HOFMANN & ASSOCIATES INC. ENGINEERING ARCHITECTURE LAND SURVEYING 809 EAST 2ND STREET, DIXON, IL 61021-0367 T: 815-284-3391 DESIGN FIRM: #184-000918	RETAINING WALL DETAILS SHEET 2 OF 3	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
△	10/28/2024	RB	CHANGES PER IDOT REVIEW	DRAWN	DLB				5557	17-00152-00-BT	WHITESIDE	182	100
				REVIEWED	LGN					WHA# 1254Z17		CONTRACT NO. 85743	
				APPROVED	GFS							ILLINOIS	FED. AID PROJECT



REVISION	DATE	BY	REMARKS	DESIGNED	LGN	 WILLETT HOFMANN & ASSOCIATES INC. ENGINEERING ARCHITECTURE LAND SURVEYING 809 EAST 2ND STREET, DIXON, IL 61021-0367 T: 815-284-3381 DESIGN FIRM: # 84-000918	LIGHTING PLAN E. 2ND ST.				F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Δ	10/28/2024	LGN	ADDED LIGHTING SHEET	DRAWN	DLB		E. 2ND ST. RECONSTRUCTION 2024				5557	17-00152-00-BT	WHITESIDE	182	182A
				REVIEWED	LGN						WHA** 1254Z17		CONTRACT NO. 85743		
				APPROVED	GFS						ILLINOIS FED. AID PROJECT				
							SHEET 1 OF 1								