

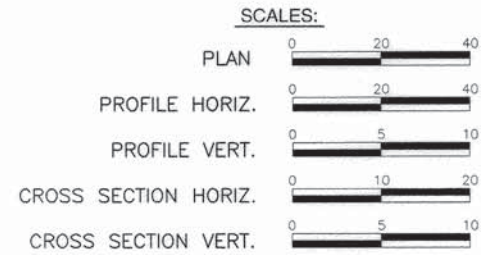
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PLANS FOR PROPOSED
LOCAL AGENCY PROJECT**

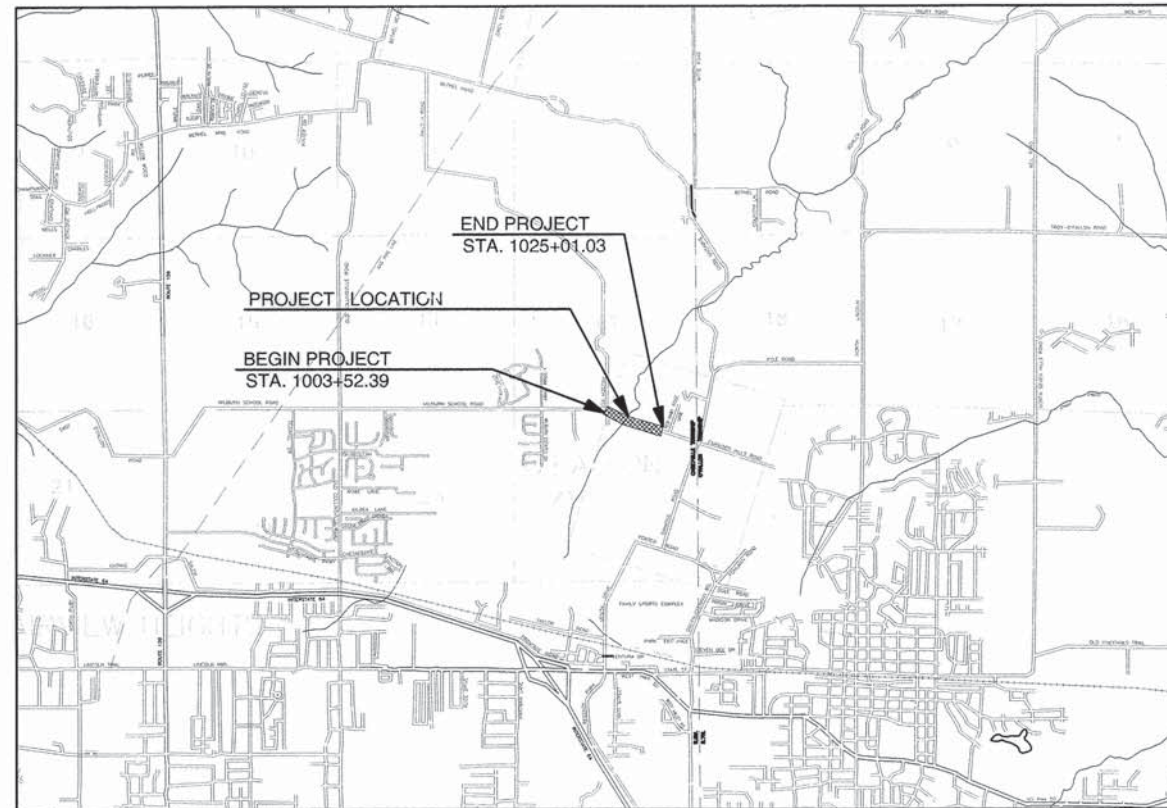
FAU ROUTE 9148 (MILBURN SCHOOL ROAD)
SECTION 13-00059-06-SW
PROJECT NO. CMM-5011(408)
CITY OF O'FALLON, ILLINOIS
ST. CLAIR COUNTY
JOB NO. C-98-314-14
CMAQ PROGRAM

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
9148	13-00059-06-SW	ST. CLAIR	20	1
FEDERAL AID PROJECT			CONTRACT 97609	

- INDEX OF SHEETS**
- COVER SHEET
 - GENERAL NOTES, HIGHWAY STANDARDS COMMITMENTS & UTILITIES
 - SUMMARY OF QUANTITIES
 - TYPICAL SECTIONS
 - CONSTRUCTION SCHEDULES
 - 9. SIDEWALK PLAN AND PROFILE
 - TRAFFIC CONTROL PLAN
 - 15. STRUCTURAL PLANS
 - WOOD FENCE DETAILS
 - MISCELLANEOUS DETAILS
 - 20. CROSS SECTIONS



MILBURN SCHOOL ROAD
ROADWAY DESIGNATION: URBAN LOCAL COLLECTOR
DESIGN SPEED: 35 M.P.H.
ADT: CURRENT (2014) 4,850
20-YEAR (2034) 11,000
SU = 2.0%



LOCATION MAP
NOT TO SCALE

MILBURN SCHOOL ROAD - STA. 1003+52.39 TO 1025+01.03
NET LENGTH OF IMPROVEMENT 2149 FT. = 0.407 MILES



ILLINOIS
DEPARTMENT OF
TRANSPORTATION

APPROVED: 12/10/15 DATE
Angie A. Abraham
MAYOR, CITY OF O'FALLON

PASSED: 1/2/16 DATE
[Signature]
DISTRICT EIGHT ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
BASED ON LIMITED
REVIEW: 4/2/16 DATE
[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION FIVE ENGINEER

PRINTED BY AUTHORITY OF THE STATE OF ILLINOIS

HOLD IT ! CALL BEFORE YOU DIG !
Phone J.U.L.I.E.



The owner would like to remind you that underground utility facilities can be damaged by shovel blades or other digging equipment. You can prevent damage or possible personal danger by phoning 800/892-0123 at least 48 hours before you dig. That's the toll-free number for "J.U.L.I.E.", which stands for Joint Utilities Location Information for Excavators.

If there are any pipes, cables, lines or mains in the excavation area, utility personnel will be out to mark the facilities so you can work around them.

Underground Cable

Toll Free 800/892-0123



[Signature]
12/11/15
Date of Signing
11/30/17
Date of License Expiration



PREPARED BY:
RHUTASEL and ASSOCIATES, INC.
CONSULTING ENGINEERS • LAND SURVEYORS

CORPORATE OFFICE: 4 INDUSTRIAL DRIVE, FREDERICK, ILLINOIS 62243, (618) 539-3178
REGIONAL OFFICE: 201 SOUTH LOCUST STREET, CENTRALIA, ILLINOIS 62801, (618) 532-1992

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
9148	13-00059-06-SW	ST. CLAIR	20	2
FEDERAL AID PROJECT		CONTRACT 97609		

GENERAL NOTES

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2016.

ALL AREAS DISTURBED FOR ANY REASON WITHIN THE CONSTRUCTION LIMITS SHALL BE SEEDED WITH CLASS 1 SEEDING. NUTRIENTS SHALL CONFORM TO ARTICLE 250.04. ALL AREAS OUTSIDE THE CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE ENGINEER AND AT CONTRACTOR'S OWN EXPENSE.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

"ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT THE BEGINNING AND END OF THE PROJECT PLUS THE INTERSECTING SIDE ROADS AND WILL BE INCLUDED IN THE TRAFFIC CONTROL PAY ITEMS. ALL CONSTRUCTION SIGNS SHALL BE FLUORESCENT ORANGE IN COLOR, 48".

EXISTING UTILITIES SHOWN ARE LOCATED FROM SURFACE OBSERVATIONS OR INFORMATION PROVIDED BY THE RESPECTIVE UTILITIES AND MUST BE CONSIDERED APPROXIMATE. THERE MAY BE OTHERS, THE EXACT LOCATION OF WHICH ARE UNKNOWN AND NOT SHOWN. THE CONTRACTOR WILL BE RESPONSIBLE FOR NOTIFYING THE RESPECTIVE UTILITIES BEFORE WORK IS BEGUN. FIELD MARKINGS OF UNDERGROUND UTILITIES MAY BE OBTAINED BY PROVIDING A MINIMUM OF 48 HOURS ADVANCE NOTICE THROUGH THE J.U.L.I.E. SYSTEM BY CALLING 1-800-892-0123 OR BY DIRECT CONTACT WITH NON-MEMBERS OF J.U.L.I.E.

IF ASH TREES ARE REMOVED ON THE PROJECT, THE CONTRACTOR SHALL BECOME FAMILIAR WITH AND COMPLY WITH MEASURES SPECIFIED BY THE ILLINOIS DEPARTMENT OF AGRICULTURE (IDOA) TO PREVENT THE SPREAD OF THE EMERALD ASH BORER. THE IDOA INFORMATION FOR ASH TREE REMOVAL CAN BE FOUND ON THE IDOA WEBSITE AT WWW.AGR.STATE.IL.US/EAB.

THE CONTRACTOR SHALL BENCH THE PROPOSED EMBANKMENT INTO THE EXISTING SLOPES TO THE SATISFACTION OF THE ENGINEER.

THE EXACT LOCATIONS OF SIGNS AND BOLLARDS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE CONTRACTOR IS ADVISED THAT WORK ON SEPARATE CONTRACTS MAY BE UNDERWAY IN THE VICINITY OF THIS PROJECT. CONTRACTOR SHALL, THEREFORE, COOPERATE WITH THE CITY OF O'FALLON PERSONNEL AND OTHER CONTRACTORS IN THE PHASING AND PERFORMANCE OF HIS WORK, SO AS NOT TO DELAY, INTERRUPT OR HINDER THE PROGRESS OR COMPLETION OF THE WORK BEING PERFORMED BY OTHER CONTRACTORS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED TO THIS CONTRACTOR FOR COMPLIANCE WITH THE ABOVE REQUIREMENTS NOR ANY DELAYS OR INCONVENIENCES RESULTING FROM THE ACTIVITIES OF THE OTHER CONTRACTORS.

FACTORS USED FOR QUANTITY CALCULATIONS ARE AS FOLLOWS:

SEEDING
 NITROGEN FERTILIZER NUTRIENT 90 LBS/ACRE
 PHOSPHORUS FERTILIZER NUTRIENT 90 LBS/ACRE
 POTASSIUM FERTILIZER NUTRIENT 90 LBS/ACRE
 MULCH 2 TONS/ACRE

SAW-CUTTING SHALL BE CONSIDERED INCIDENTAL TO THE REMOVAL ITEM INVOLVED.

APPLICABLE IDOT HIGHWAY STANDARDS:

280001-07
 515001-03
 701501-06
 701502-06
 701901-04

COMMITMENTS

NONE

UTILITY TYPE	NAME OF UTILITY	PHONE NUMBER	CONTACT NAME
ELECTRIC	AMEREN IP	618-236-4351	JASON KLEIN
GAS	AMEREN UE	618-346-1279	JASON KLEIN
WATER	CITY OF O'FALLON	618-624-4500	HEIDE BELL
TELEPHONE	AT&T	618-346-6422	JASON LEHDE
CABLE	CHARTER COMMUNICATIONS	618-779-4179	GARRY WARREN
SANITARY SEWER	CASEYVILLE TOWNSHIP	618-632-2414	JOSEPH HOGG

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
9148	13-00059-06-SW	ST. CLAIR	20	3
FEDERAL AID PROJECT		CONTRACT 97609		

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	12
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	45
20200100	EARTH EXCAVATION	CU YD	154
20300100	CHANNEL EXCAVATION	CU YD	200
20400800	FURNISH EXCAVATION	CU YD	102
25000100	SEEDING, CLASS 1	ACRE	0.10
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	9
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	9
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	9
25100115	MULCH, METHOD 2	ACRE	0.10
25100630	EROSION CONTROL BLANKET	SQ YD	120
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	10
28000400	PERIMETER EROSION BARRIER	FOOT	105
28000500	INLET AND PIPE PROTECTION	EACH	1
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	80
42400100	PORTLAND CEMENT CONCRETE SIDEWALK, 4 INCH	SQ FT	11,721
42400300	PORTLAND CEMENT CONCRETE SIDEWALK, 6 INCH	SQ FT	228
50200100	STRUCTURE EXCAVATION	CU YD	31
50300225	CONCRETE STRUCTURES	CU YD	9.6
50300280	CONCRETE ENCASEMENT	CU YD	1.4
50800105	REINFORCEMENT BARS	POUND	1,640
* 50901730	BRIDGE FENCE RAILING	FOOT	44
51201400	FURNISHING STEEL PILES HP 10X42	FOOT	72
51202305	DRIVING PILES	FOOT	72
51204650	PILE SHOES	EACH	4
51500100	NAME PLATES	EACH	1
58700300	CONCRETE SEALER	SQ FT	152
67100100	MOBILIZATION	L SUM	1
* XX000882	WOOD FENCE	FOOT	70
X0322508	PEDESTRIAN TRUSS SUPERSTRUCTURE	SQ FT	832
X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	30
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1
Z0004002	BOLLARDS	EACH	4

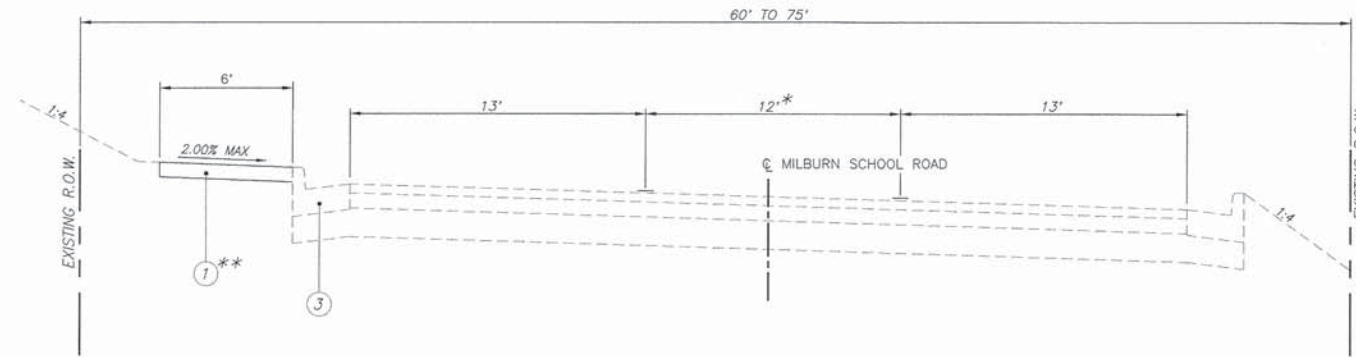
* - SPECIALTY ITEMS

LEGEND

- ① PROPOSED PCC SIDEWALK, 4"
- ② PROPOSED PCC SIDEWALK, 6"
- ③ EXISTING CONCRETE CURB AND GUTTER, TYPE B6.24
- ④ EXISTING STEEL PLATE BEAM GUARDRAIL

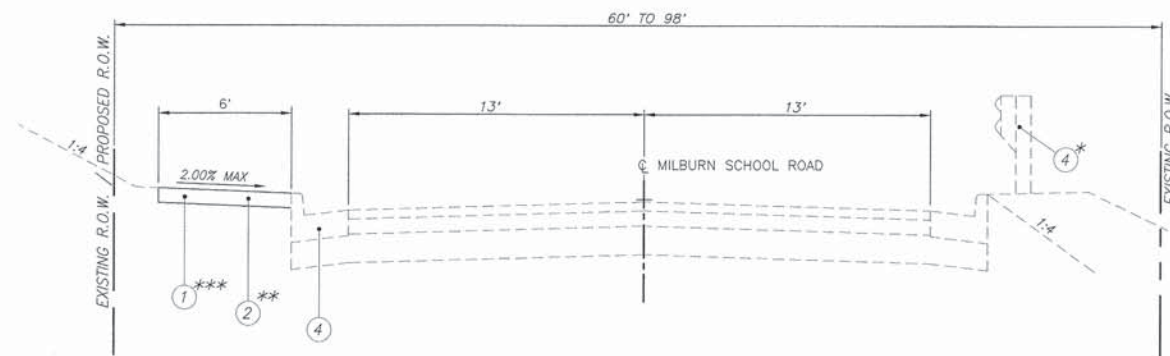
MILBURN SCHOOL ROAD TYPICAL SECTIONS

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
9148	13-00059-06-SW	ST. CLAIR	20	4
FEDERAL AID PROJECT		CONTRACT 97609		



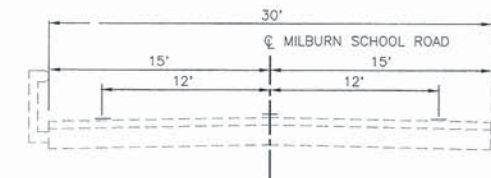
PROPOSED TYPICAL SUPERELEVATION SECTION

N.T.S.
 MILBURN SCHOOL ROAD
 STA. 1002+66.81 TO STA. 1006+57.70
 * - 12' TO 0' STA. 1004+06.39 TO 1006+46.39
 ** - BEGIN STA. 1003+52.39 LT.



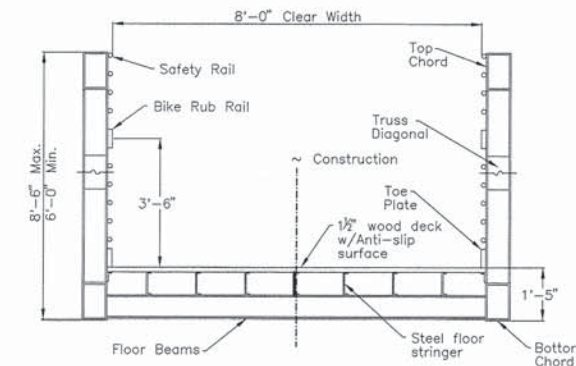
PROPOSED TYPICAL 2-LANE SECTION

N.T.S.
 MILBURN SCHOOL ROAD
 STA. 1006+57.70 TO 1008+59.84 & STA. 1009+54.09 TO 1017+60.00
 (SEE BRIDGE TYPICAL FOR SECTION OVER EXISTING STRUCTURE)
 * - STA. 1008+05.72 TO 1009+96.47 LT. & STA. 1008+20.12 TO 1010+07.86 RT.
 ** - STA. 1008+30.25 TO 1008+40.91 LT. & STA. 1009+43.58 TO 1009+54.24 LT.
 *** - OMISSION STA. 1011+16.6 TO 1011+59.6 LT.



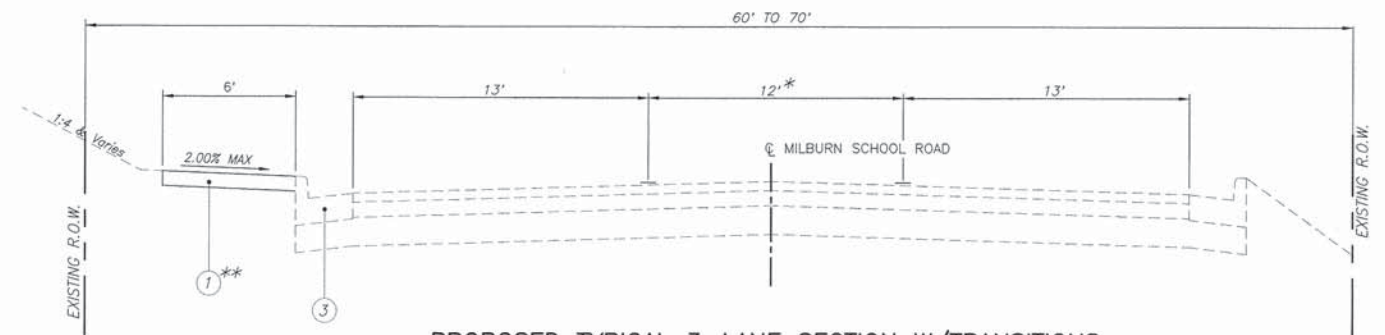
EXISTING TYPICAL SECTION OVER EXISTING BRIDGE

N.T.S.
 SN 082-4124
 MILBURN SCHOOL ROAD
 STA. 1008+59.84 TO 1009+54.09



PROPOSED TYPICAL SECTION PEDESTRIAN BRIDGE

N.T.S.
 MILBURN SCHOOL ROAD
 STA. 1008+40.25 TO 1009+44.25



PROPOSED TYPICAL 3-LANE SECTION W/TRANSITIONS

N.T.S.
 MILBURN SCHOOL ROAD
 STA. 1017+60.00 TO 1026+00.00
 * - 0' TO 12' STA. 1017+60.00 TO 1020+00.00
 ** - END STA. 1025+01.03 LT. AND OMISSION STA. 1021+29.6 TO 1021+65.6 LT.

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
9148	13-00059-06-SW	ST. CLAIR	20	5
FEDERAL AID PROJECT		CONTRACT 97609		

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (25%)	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD
1003+52 TO 1007+50 LT	30	23	0	+ 23
1007+75 TO 1008+30.25 LT	18	14	2	+ 12
1009+43.58 TO 1011+00 LT	3	2	216	- 214
1011+00 TO 1025+01 LT	103	77	0	+ 77
TOTAL	154	116	218	- 102

WOOD FENCE SCHEDULE

LOCATION	WOOD FENCE
	FOOT
STA. 1009+61 TO 1010+31, LT.	70
TOTAL	70

EROSION CONTROL SCHEDULE

STATION	EROSION CONTROL BLANKET	PERIMETER EROSION BARRIER	INLET AND PIPE PROTECTION	STONE DUMPED RIPRAP CLASS A4
	SQ YD	FOOT	EACH	TON
1008+40, LT			1	80
1009+35 TO 1010+40, LT	120			
1009+35 TO 1010+40, LT		105		
TOTAL	120	105	1	80

SIDEWALK SCHEDULE

LOCATION	PCC SIDEWALK, 4"	PCC SIDEWALK, 6"
	SQ FT	SQ FT
STA. 1003+52.39 TO 1008+30.25, LT.	2,975	
STA. 1008+30.25 TO 1008+40.91, LT.		114
STA. 1009+43.58 TO 1009+54.24, LT.		114
STA. 1009+54.24 TO 1011+16.60, LT.	950	
STA. 1011+59.62 TO 1021+28.35, LT.	5,760	
STA. 1021+64.51 TO 1025+01.03, LT.	2,036	
TOTAL	11,721	228

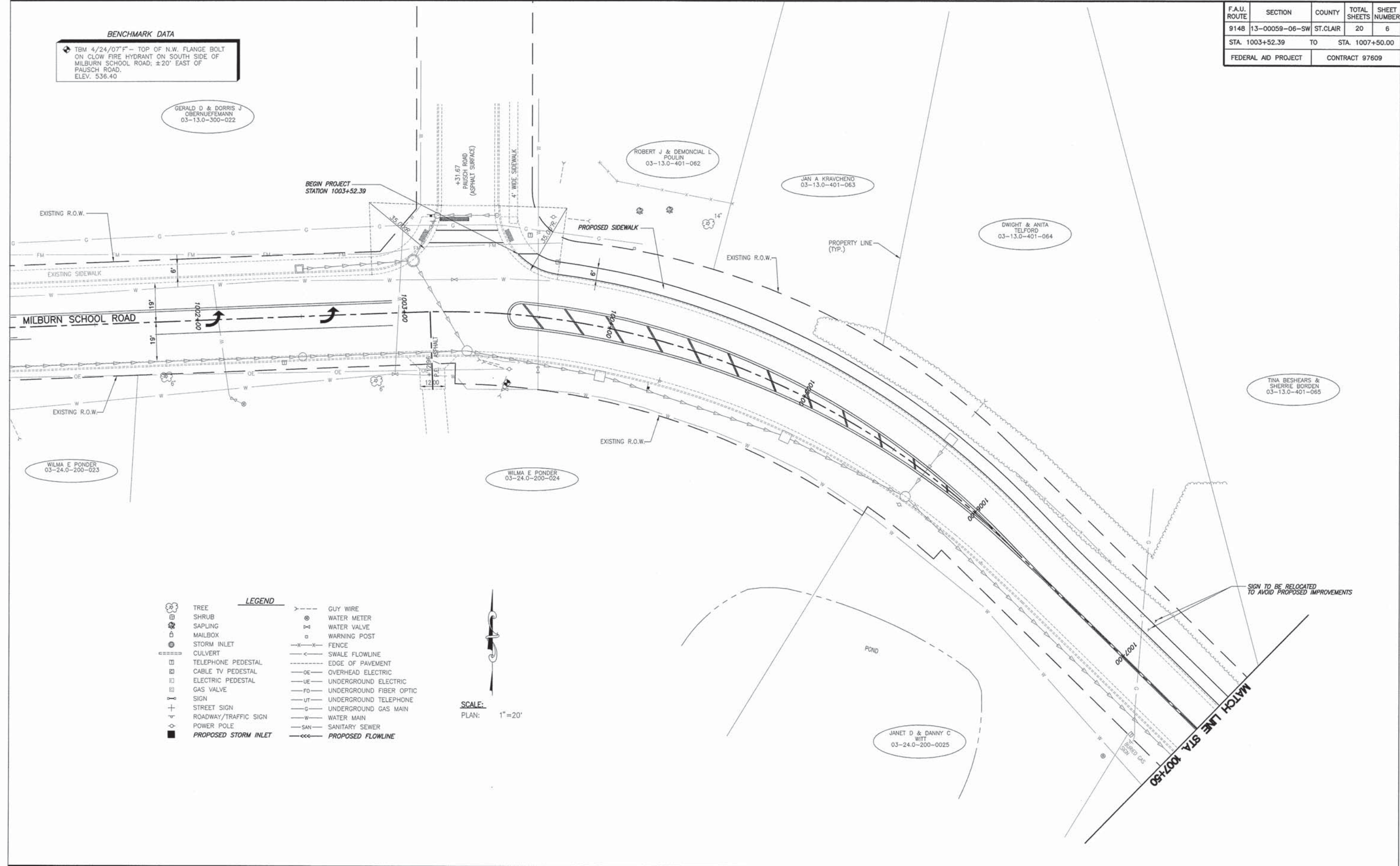
SEEDING SCHEDULE

STATION	SEEDING CLASS 1	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	MULCH METHOD 2	TEMPORARY EROSION CONTROL SEEDING
	ACRE	POUND	POUND	POUND	ACRE	POUND
1003+52 TO 1008+41 LT	0.02	1.8	1.8	1.8	0.02	2
1009+43 TO 1025+01 LT	0.08	7.2	7.2	7.2	0.08	8
TOTAL	0.10	9.0	9.0	9.0	0.10	10

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
9148	13-00059-06-SW	ST. CLAIR	20	6
STA. 1003+52.39		TO	STA. 1007+50.00	
FEDERAL AID PROJECT			CONTRACT 97609	

BENCHMARK DATA

◆ TBM 4/24/07" F - TOP OF N.W. FLANGE BOLT ON CLOW FIRE HYDRANT ON SOUTH SIDE OF MILBURN SCHOOL ROAD; ±20' EAST OF PAUSCH ROAD, ELEV. 536.40



LEGEND

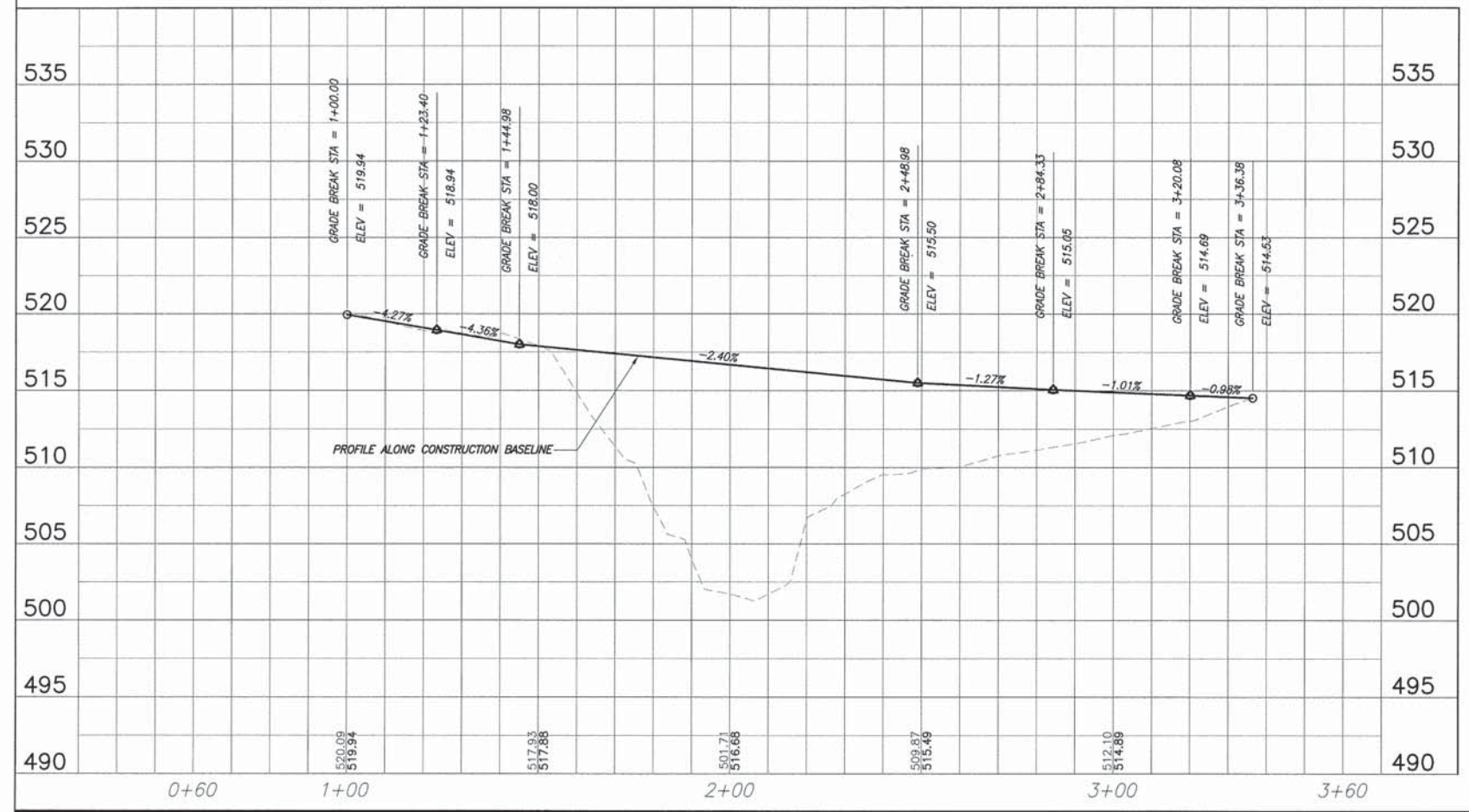
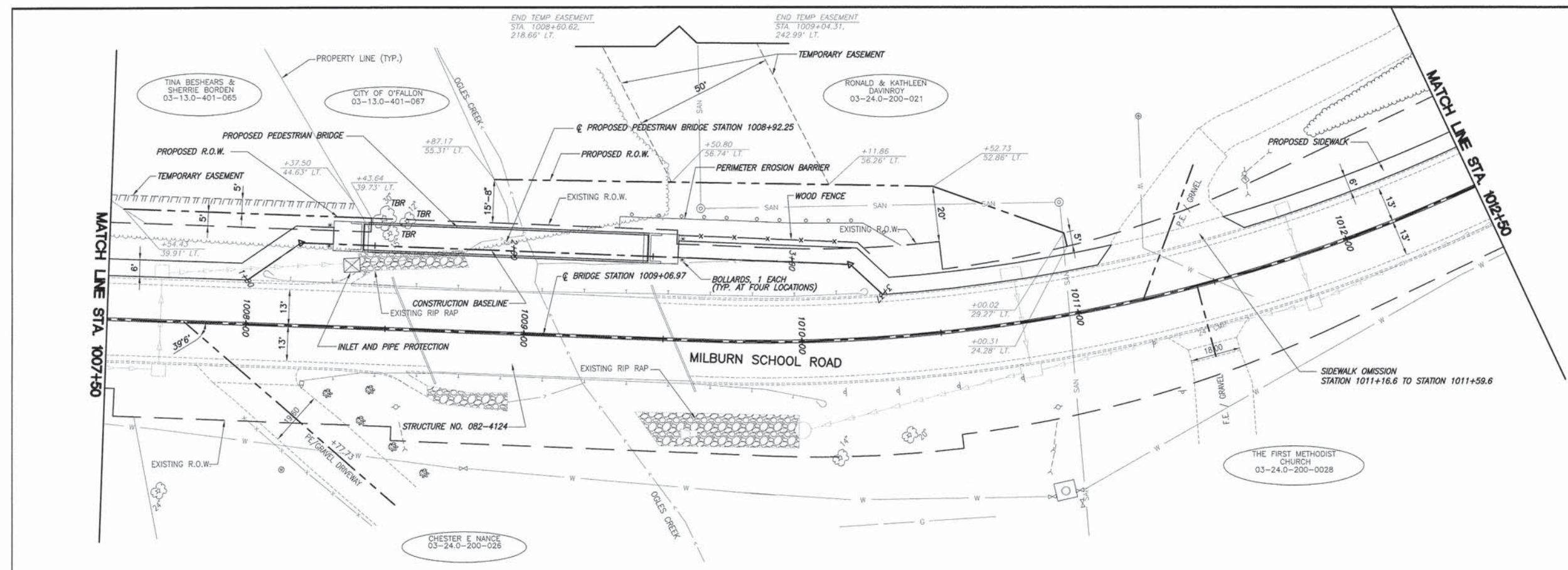
☼ TREE	— GUY WIRE
☼ SHRUB	⊙ WATER METER
☼ SAPLING	⊙ WATER VALVE
☼ MAILBOX	⊙ WARNING POST
⊙ STORM INLET	-X-X- FENCE
⊙ CULVERT	— SWALE FLOWLINE
⊙ TELEPHONE PEDESTAL	— EDGE OF PAVEMENT
⊙ CABLE TV PEDESTAL	—OE- OVERHEAD ELECTRIC
⊙ ELECTRIC PEDESTAL	—UE- UNDERGROUND ELECTRIC
⊙ GAS VALVE	—FO- UNDERGROUND FIBER OPTIC
⊙ SIGN	—UT- UNDERGROUND TELEPHONE
⊙ STREET SIGN	—G- UNDERGROUND GAS MAIN
⊙ ROADWAY/TRAFFIC SIGN	—W- WATER MAIN
⊙ POWER POLE	—SAN- SANITARY SEWER
■ PROPOSED STORM INLET	— PROPOSED FLOWLINE



SIDEWALK PLAN MILBURN SCHOOL ROAD SIDEWALK AND PEDESTRIAN BRIDGE ST. CLAIR COUNTY, ILLINOIS

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F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
9148	13-00059-06-SW	ST. CLAIR	20	7
STA. 1007+50.00		TO	STA. 1012+50.00	
FEDERAL AID PROJECT		CONTRACT 97609		



LEGEND

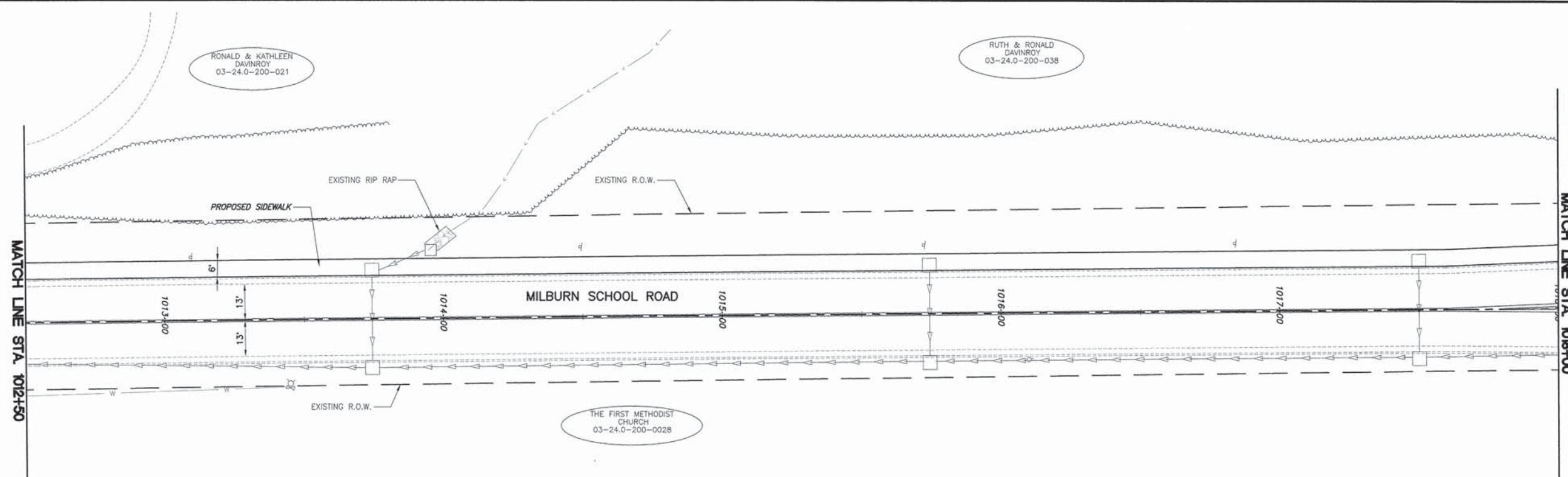
	TREE		GUY WIRE
	SHRUB		WATER METER
	SAPLING		WATER VALVE
	MAILBOX		WARNING POST
	STORM INLET		FENCE
	CULVERT		SWALE FLOWLINE
	TELEPHONE PEDESTAL		EDGE OF PAVEMENT
	CABLE TV PEDESTAL		OVERHEAD ELECTRIC
	ELECTRIC PEDESTAL		UNDERGROUND ELECTRIC
	GAS VALVE		UNDERGROUND FIBER OPTIC
	SIGN		UNDERGROUND TELEPHONE
	STREET SIGN		UNDERGROUND GAS MAIN
	ROADWAY/TRAFFIC SIGN		WATER MAIN
	POWER POLE		SANITARY SEWER
	PROPOSED STORM INLET		PROPOSED FLOWLINE



SCALE:
 PLAN: 1"=20'
 PROFILE: 1"=20' HORIZ.
 1"=5' VERT.

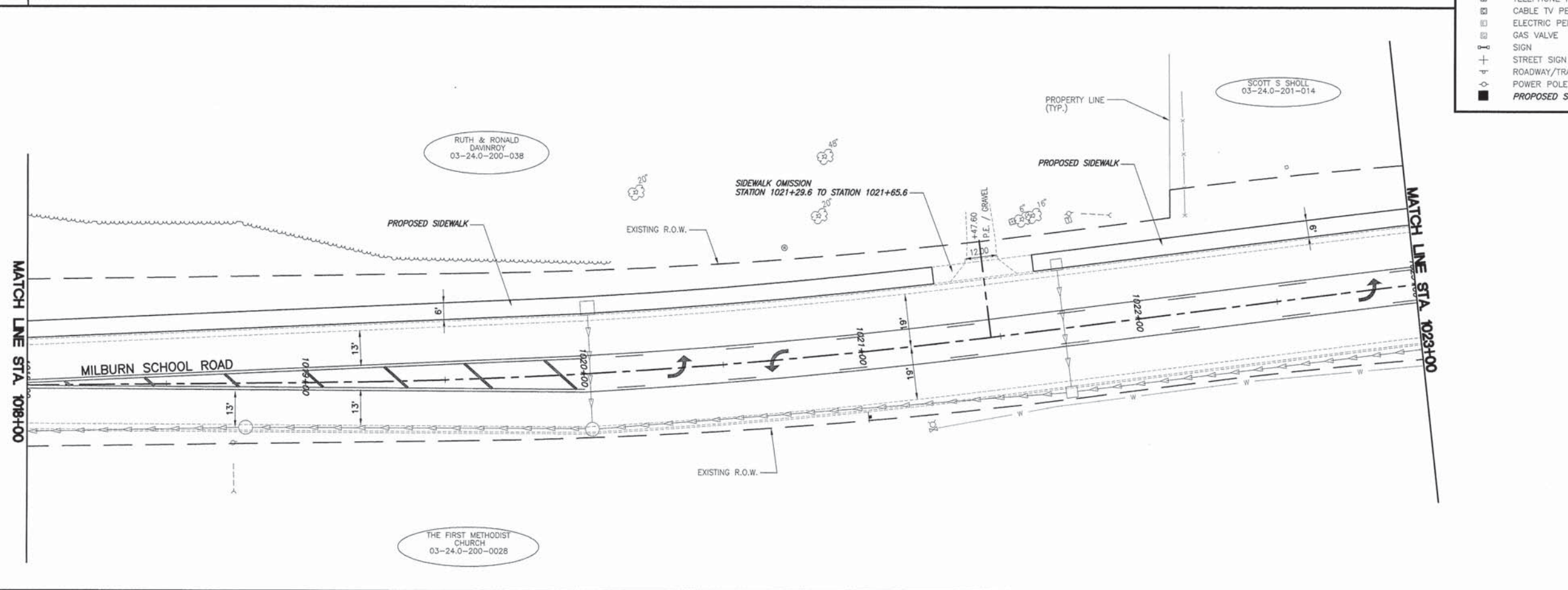
SIDEWALK PLAN AND PROFILE MILBURN SCHOOL ROAD SIDEWALK AND PEDESTRIAN BRIDGE ST. CLAIR COUNTY, ILLINOIS

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
9148	13-00059-06-SW	ST. CLAIR	20	8
STA. 1012+50.00		TO STA. 1023+00.00		
FEDERAL AID PROJECT			CONTRACT 97809	



LEGEND

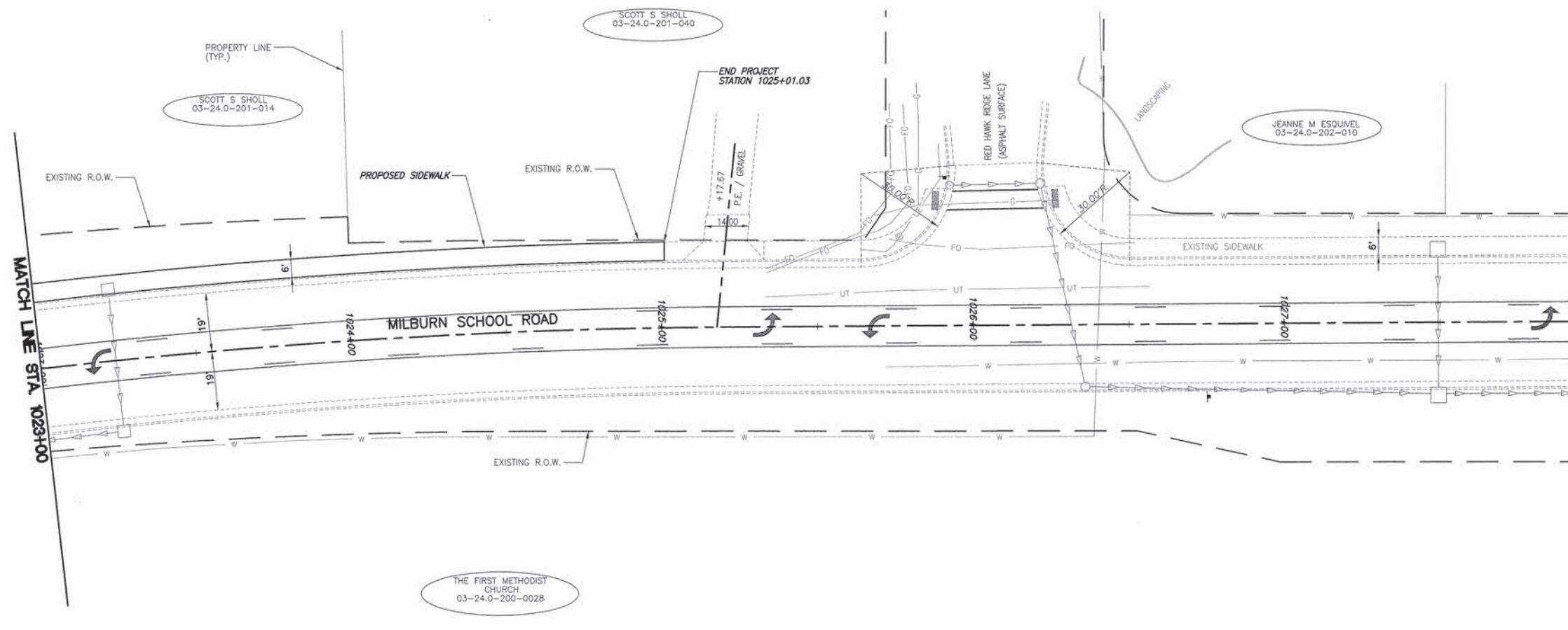
(Tree symbol)	TREE	(Dashed line symbol)	GUY WIRE
(Shrub symbol)	SHRUB	(Circle with cross symbol)	WATER METER
(Sapling symbol)	SAPLING	(Circle with cross symbol)	WATER VALVE
(Mailbox symbol)	MAILBOX	(Square symbol)	WARNING POST
(Storm inlet symbol)	STORM INLET	(X-X symbol)	FENCE
(Culvert symbol)	CULVERT	(Line with arrow symbol)	SWALE FLOWLINE
(Telephone pedestal symbol)	TELEPHONE PEDESTAL	(Dashed line symbol)	EDGE OF PAVEMENT
(Cable TV pedestal symbol)	CABLE TV PEDESTAL	(Line with 'O' symbol)	OVERHEAD ELECTRIC
(Electric pedestal symbol)	ELECTRIC PEDESTAL	(Line with 'U' symbol)	UNDERGROUND ELECTRIC
(Gas valve symbol)	GAS VALVE	(Line with 'F' symbol)	UNDERGROUND FIBER OPTIC
(Sign symbol)	SIGN	(Line with 'T' symbol)	UNDERGROUND TELEPHONE
(Street sign symbol)	STREET SIGN	(Line with 'G' symbol)	UNDERGROUND GAS MAIN
(Roadway/Traffic sign symbol)	ROADWAY/TRAFFIC SIGN	(Line with 'W' symbol)	WATER MAIN
(Power pole symbol)	POWER POLE	(Line with 'S' symbol)	SANITARY SEWER
(Proposed storm inlet symbol)	PROPOSED STORM INLET	(Line with arrow symbol)	PROPOSED FLOWLINE



SIDEWALK PLAN MILBURN SCHOOL ROAD SIDEWALK AND PEDESTRIAN BRIDGE ST. CLAIR COUNTY, ILLINOIS

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F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
9148	13-00059-06-SW	ST. CLAIR	20	9
STA. 1023+00.00		TO	STA. 1025+01.03	
FEDERAL AID PROJECT			CONTRACT 97609	

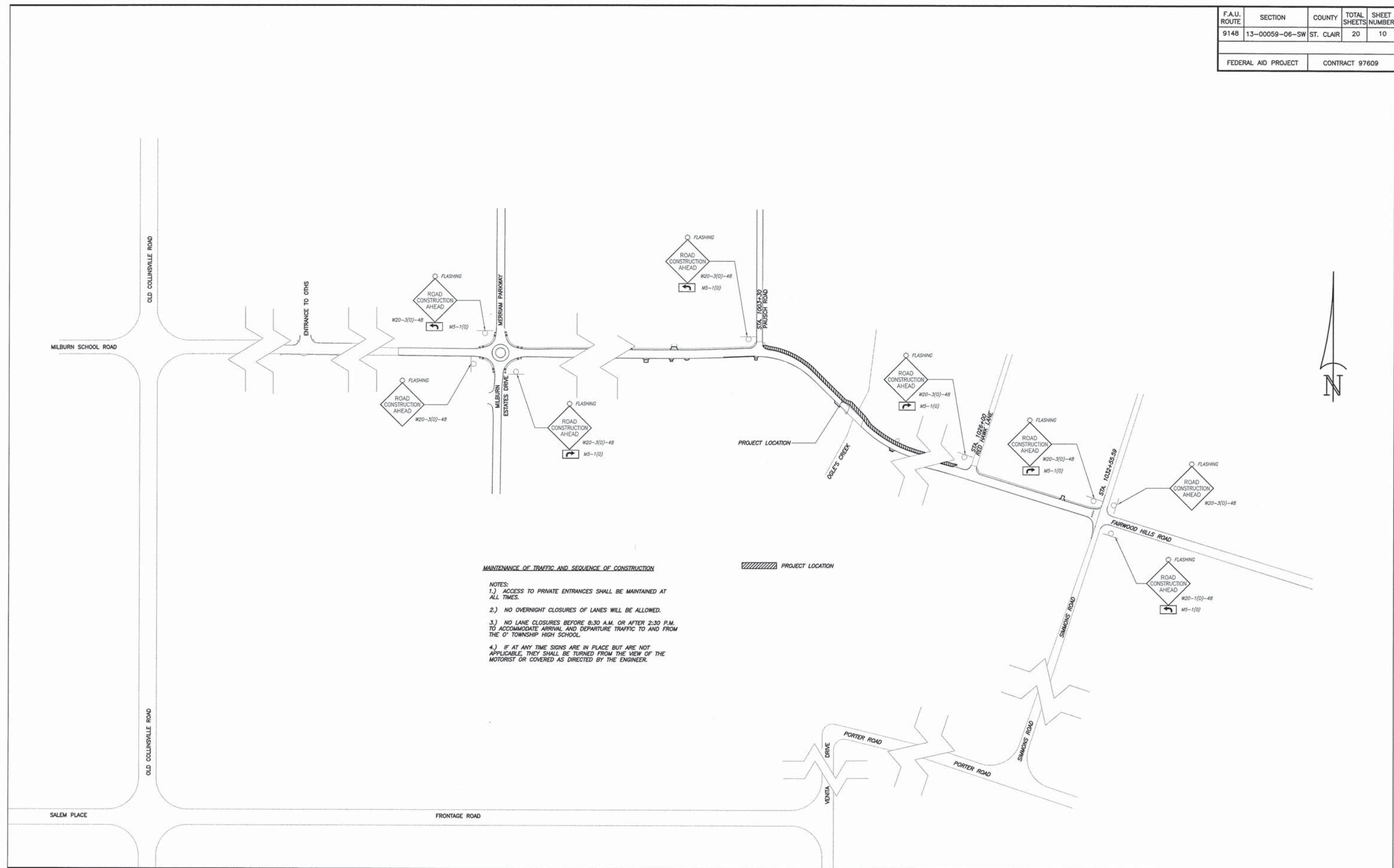


LEGEND

	TREE		GUY WIRE
	SHRUB		WATER METER
	SAPLING		WATER VALVE
	MAILBOX		WARNING POST
	STORM INLET		FENCE
	CULVERT		SWALE FLOWLINE
	TELEPHONE PEDESTAL		EDGE OF PAVEMENT
	CABLE TV PEDESTAL		OVERHEAD ELECTRIC
	ELECTRIC PEDESTAL		UNDERGROUND ELECTRIC
	GAS VALVE		UNDERGROUND FIBER OPTIC
	SIGN		UNDERGROUND TELEPHONE
	STREET SIGN		UNDERGROUND GAS MAIN
	ROADWAY/TRAFFIC SIGN		WATER MAIN
	POWER POLE		SANITARY SEWER
	PROPOSED STORM INLET		PROPOSED FLOWLINE

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F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
9148	13-00059-06-SW	ST. CLAIR	20	10
FEDERAL AID PROJECT		CONTRACT 97609		



MAINTENANCE OF TRAFFIC AND SEQUENCE OF CONSTRUCTION

- NOTES:**
- 1.) ACCESS TO PRIVATE ENTRANCES SHALL BE MAINTAINED AT ALL TIMES.
 - 2.) NO OVERNIGHT CLOSURES OF LANES WILL BE ALLOWED.
 - 3.) NO LANE CLOSURES BEFORE 8:30 A.M. OR AFTER 2:30 P.M. TO ACCOMMODATE ARRIVAL AND DEPARTURE TRAFFIC TO AND FROM THE O' TOWNSHIP HIGH SCHOOL.
 - 4.) IF AT ANY TIME SIGNS ARE IN PLACE BUT ARE NOT APPLICABLE, THEY SHALL BE TURNED FROM THE VIEW OF THE MOTORIST OR COVERED AS DIRECTED BY THE ENGINEER.

Existing Structure: None.

BILL OF MATERIALS (BRIDGE ONLY)

ITEM	UNIT	TOTAL
Channel Excavation	Cu Yd	200
Stone Dumped Riprap, Class A4	Ton	80
P.C.C. Sidewalk, 6 inch	Sq Ft	228
Structure Excavation	Cu Yd	31
Concrete Structures	Cu Yd	9.6
Concrete Encasement	Cu Yd	1.4
Reinforcement Bars	Pound	1640
Bridge Fence Railing	Foot	44
Furnishing Steel Piles HPI0x42	Foot	72
Driving Piles	Foot	72
Pile Shoes	Each	4
Name Plates	Each	1
Concrete Sealer	Sq Ft	152
Pedestrian Truss Superstructure	Sq Ft	832
Granular Backfill for Structures	Cu Yd	30

GENERAL NOTES

Rhutasel and Associates, Inc. design includes substructure elements only. Abutment design and details are based on assumed typical reactions and dimensions. Contractor shall verify that final design and details are compatible with the selected superstructure prior to construction. The assumed Unfactored Bridge Reactions at each bearing are as follows:
 Vert. Dead Load (Each Bearing): 10,700 lbs. (4 per span)
 Vert. Uniform Live Load (Each Bearing): 18,300 lbs. (4 per span)
 Vert. Vehicle Live Load (Each Bearing): 5,000 lbs. (4 per span)

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ ". Adjustment shall be made with by grinding the surface or by shimming the bearing. Two $\frac{1}{8}$ " adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

Structural steel shall be fabricated using ASTM A500 Grade C cold-formed welded and rectangular tubing (Fy=50,000 psi) and/or high strength, low alloy, atmospheric corrosion resistant ASTM A847 cold-formed welded square and rectangular tubing (Fy=50,000 psi) and/or ASTM A588, ASTM A242, ASTM A572, ASTM A606 (Fy=50,000 psi) and/or ASTM A36 (Fy=36,000 psi) plate and structural steel shapes. Splice plates, if required, shall be ASTM A588.

The Prefabricated Pedestrian Truss Superstructure and Bridge Fence Railing shall be painted. The Organic Zinc Rich Primer/Epoxy/Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat shall be black, Munsell No. N1. See Section 506 of the Standard Specifications.

Channel excavation shall be excavated as shown within the limits of the proposed bridge, then tapered to the existing channel at the ROW line on the north side of the bridge. The channel on the south side of the bridge shall be tapered to the existing channel below the existing Milburn School Road bridge.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

No field welding is permitted except as specified in the contract documents.

See Special Provisions for Soil Borings Logs.

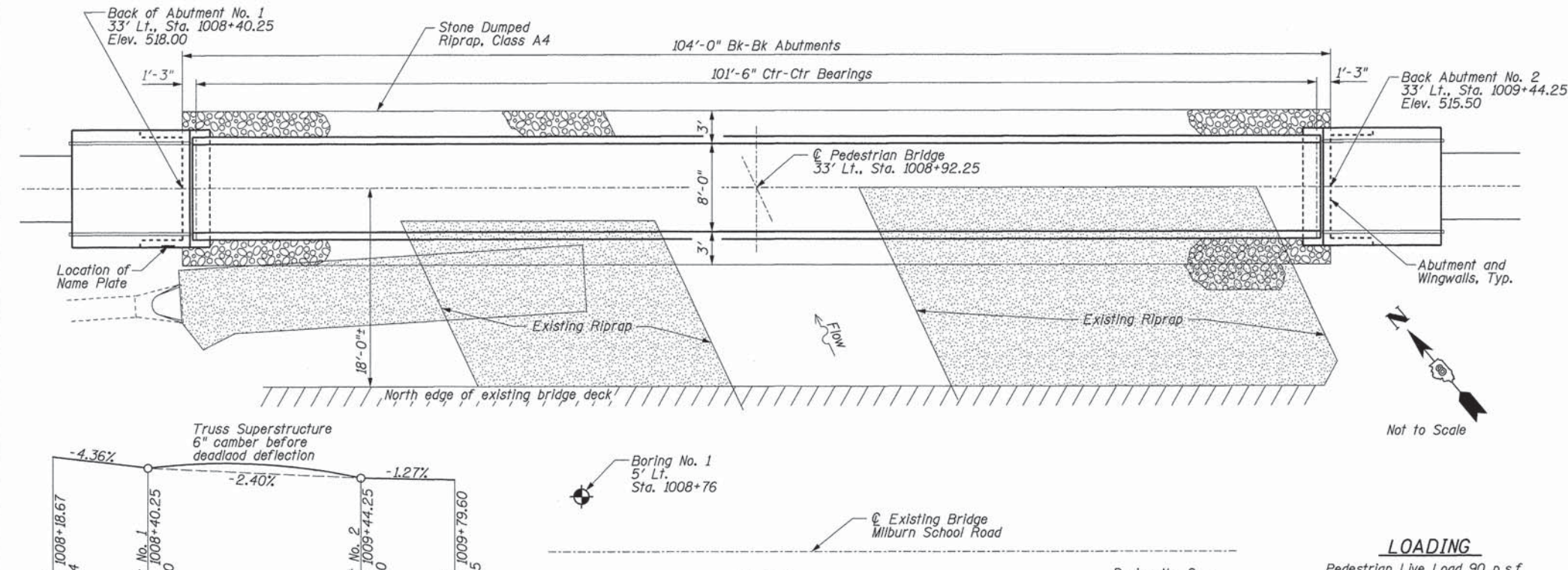
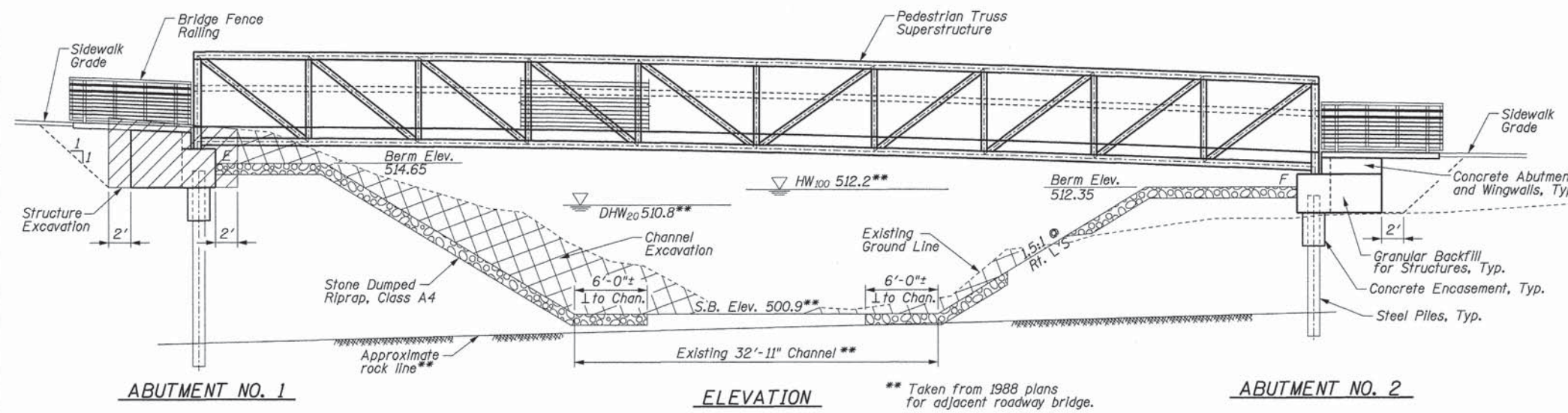


William D. Lueking 10/15/2015

William D. Lueking
 Centralia, Illinois
 Illinois Licensed Structural
 Engineer No. 081-004341
 Expires Nov. 30, 2016

This Structural Seal covers only the substructure elements of the Pedestrian Truss Superstructure.

A separate Structural Seal will be provided by the Pedestrian Truss Superstructure Manufacturer.



PROFILE GRADE LINE
 (Along Centerline of Sidewalk)

WATERWAY INFORMATION

Drainage Area = 6.0 sq. mi.

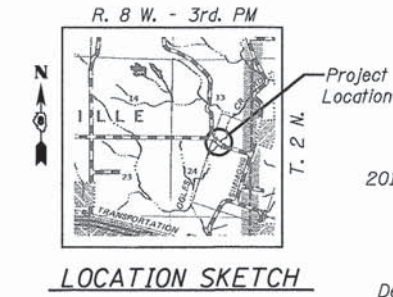
Flood Yr.	Freq.	Q	Opening Sq. Ft.	Nat. H.W.E.	Head - Ft.	Headwater El.
		C.F.S.	Exist. Prop.	Exist. Prop.	Exist. Prop.	Exist. Prop.
Design	20	2107*	444*	-	510.8*	-
Base	100	2960*	531*	-	512.2*	0.4*

* Data from adjacent roadway hydraulic report for Existing Structure No. 082-4124 approved July 1, 1988.

NAME PLATE

33' LT., STATION 1008 + 92.25
 SEC. 13-00059-06-SW BUILT 201
 CITY OF O'FALLON
 ST. CLAIR COUNTY
 LOADING H5 TRUCK
 STRUCTURE NO. 082-P003

See State Standard 515001 for details. Locate on Front Face of SW Wingwall



LOCATION SKETCH

LOADING
 Pedestrian Live Load 90 p.s.f
 Vehicle Live Load = H5 Truck

DESIGN STRESSES
FIELD UNITS
 $f_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

DESIGN SPECIFICATIONS
 LRFD Guide Specifications for the Design of Pedestrian Bridges (December 2009)
 2010 (4th ed.) AASHTO LRFD Bridge Design Specifications

SEISMIC DATA
 Seismic Performance Zone (SPZ) = 2
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.247g
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.566g
 Soil Site Classification = D

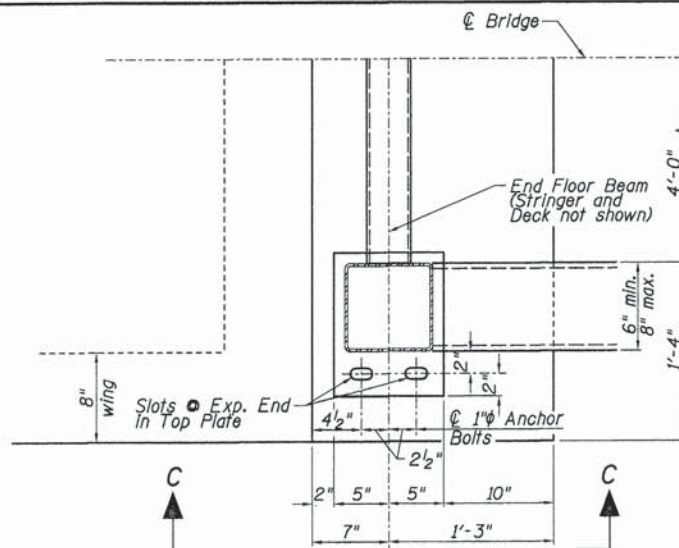
RHUTASEL and ASSOCIATES, INC.
 CONSULTING ENGINEERS • LAND SURVEYORS
 CENTRALIA, ILLINOIS
 ILLINOIS DESIGN FIRM LICENSE NO. 184-000287

DESIGNED - BLT	REVISED -
CHECKED - WDL	REVISED -
DRAWN - JN	REVISED -
DATE - 10/14/2015	REVISED -

CITY OF O'FALLON
ST. CLAIR COUNTY, ILLINOIS

GENERAL PLAN AND ELEVATION
MILBURN SCHOOL ROAD
 BRIDGE SHEET NO. 1 OF 5 SHEETS

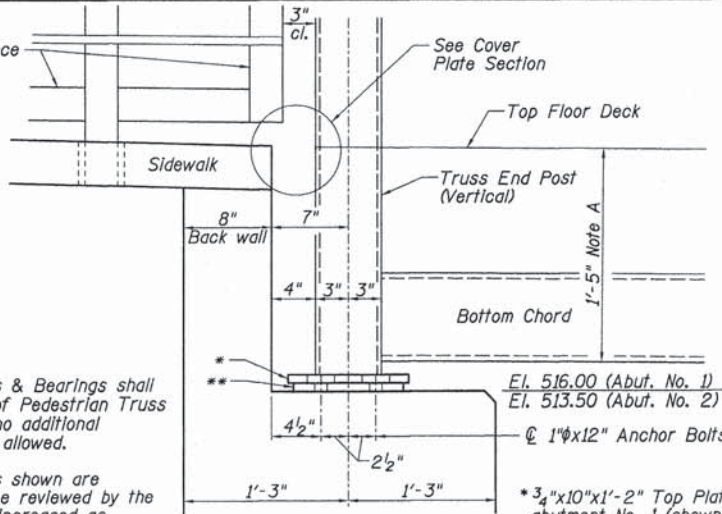
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 27	13-00059-06-SW	ST. CLAIR	20	11
RAAI JOB NO. 40314			ILLINOIS FED. AID PROJECT	



PARTIAL PLAN - BEARING SEAT
(Abutment No. 1 Shown)

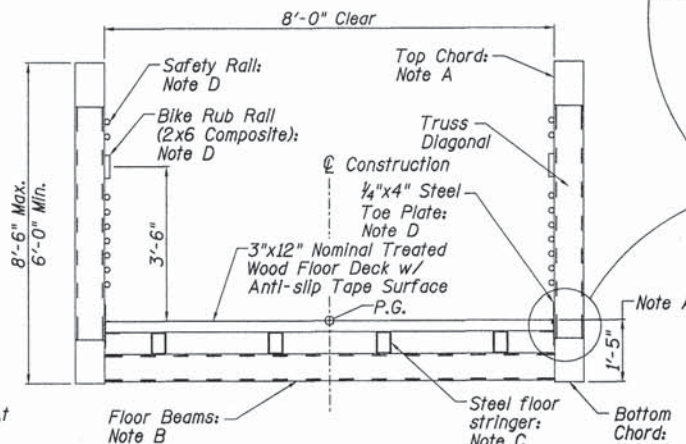
Note:
Cost of Anchor Bolts & Bearings shall be included in cost of Pedestrian Truss Superstructure and no additional compensation will be allowed.

Size of Anchor Bolts shown are minimums and shall be reviewed by the Truss Designer and increased as required.



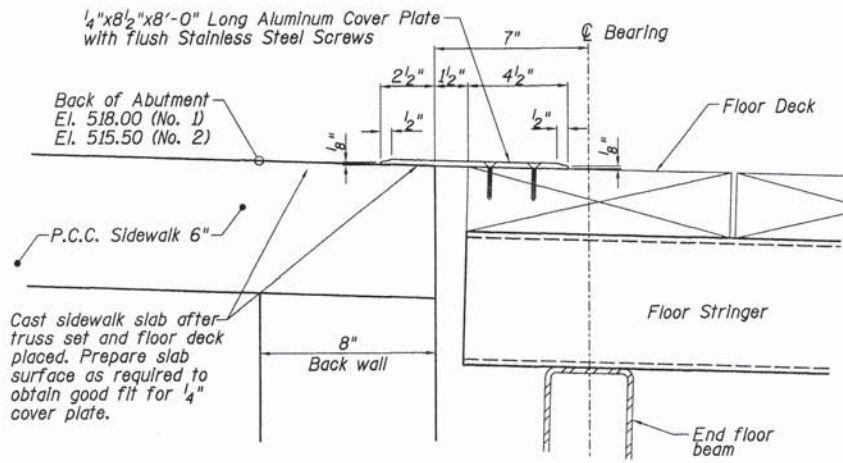
SECTION C-C
(Abutment No. 1 Shown)

El. 516.00 (Abut. No. 1)
El. 513.50 (Abut. No. 2)
1" x 12" Anchor Bolts
3/4" x 10" x 1'-2" Top Plate at Exp. abutment No. 1 (shown), weld to Truss end post. Provide welded stainless steel plate on bottom side and 1/8" x 2 1/2" slots.
3/4" x 9" x 1'-2" Bottom plate with bonded teflon on top side and 1/8" holes at Exp. Abut. No. 1 (shown). At Fixed Abut. No 2, provide 1/2" x 10" x 1'-2" Bottom Plate with 1/8" holes. Weld to Truss End Post.

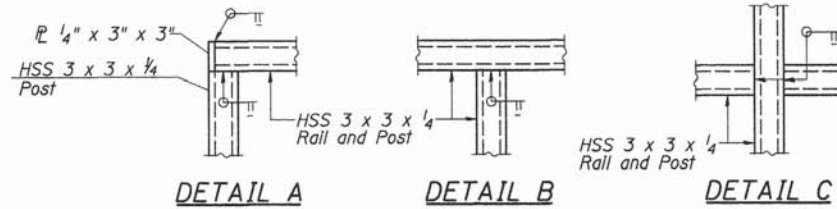


TYPICAL SECTION

- NOTES**
- A: Truss Manufacturer to use maximum of 1'-5" for Structure depth (deck and stringers and floor beams). Provide 8" maximum width, 6" minimum width truss chord members.
 - B: Truss Manufacturer to design floor beams as required to carry stringers and provide stability for truss members.
 - C: Truss Manufacturer to design steel stringers to support floor deck HSS tubes shown, other steel sections selected by truss manufacturer may be used. At face of truss, provide angle and secondary member to support end of floor deck. See detail.
 - D: Truss Manufacturer to provide secondary supports for safety rail, rub rail and toe plate as required between truss elements.



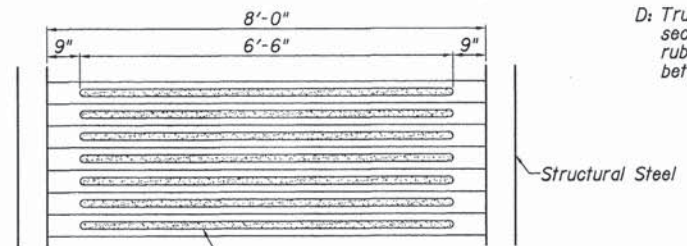
COVER PLATE - SECTION



DETAIL A

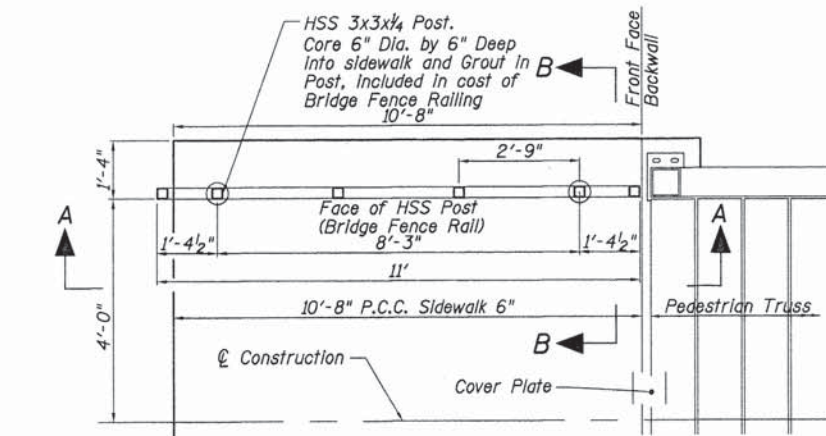
DETAIL B

DETAIL C

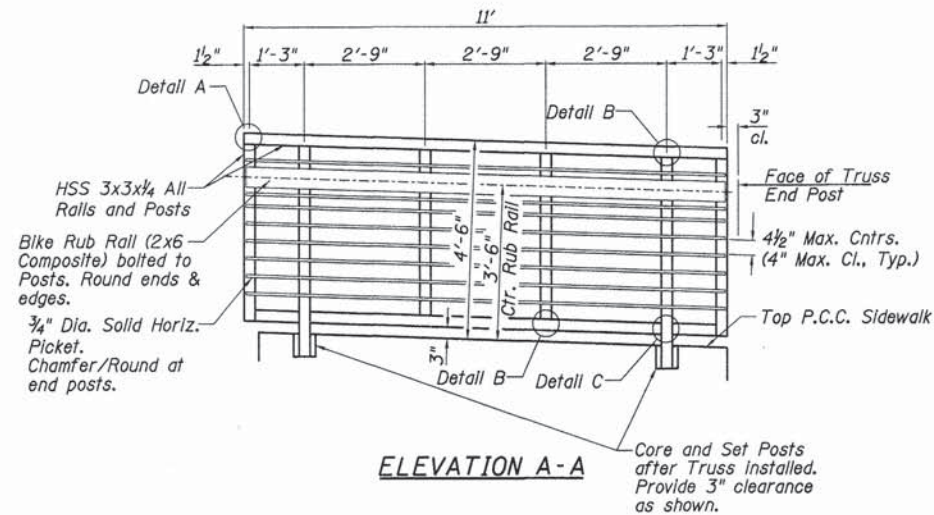


PARTIAL PLAN ANTI-SLIP TAPE

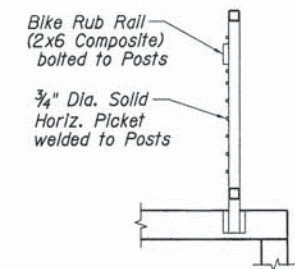
Anti-slip Tape - 2" wide by 6'-6" long (Typ.) Center on each deck board, Round ends of tape before installing



PLAN - BRIDGE FENCE RAILING



ELEVATION A-A

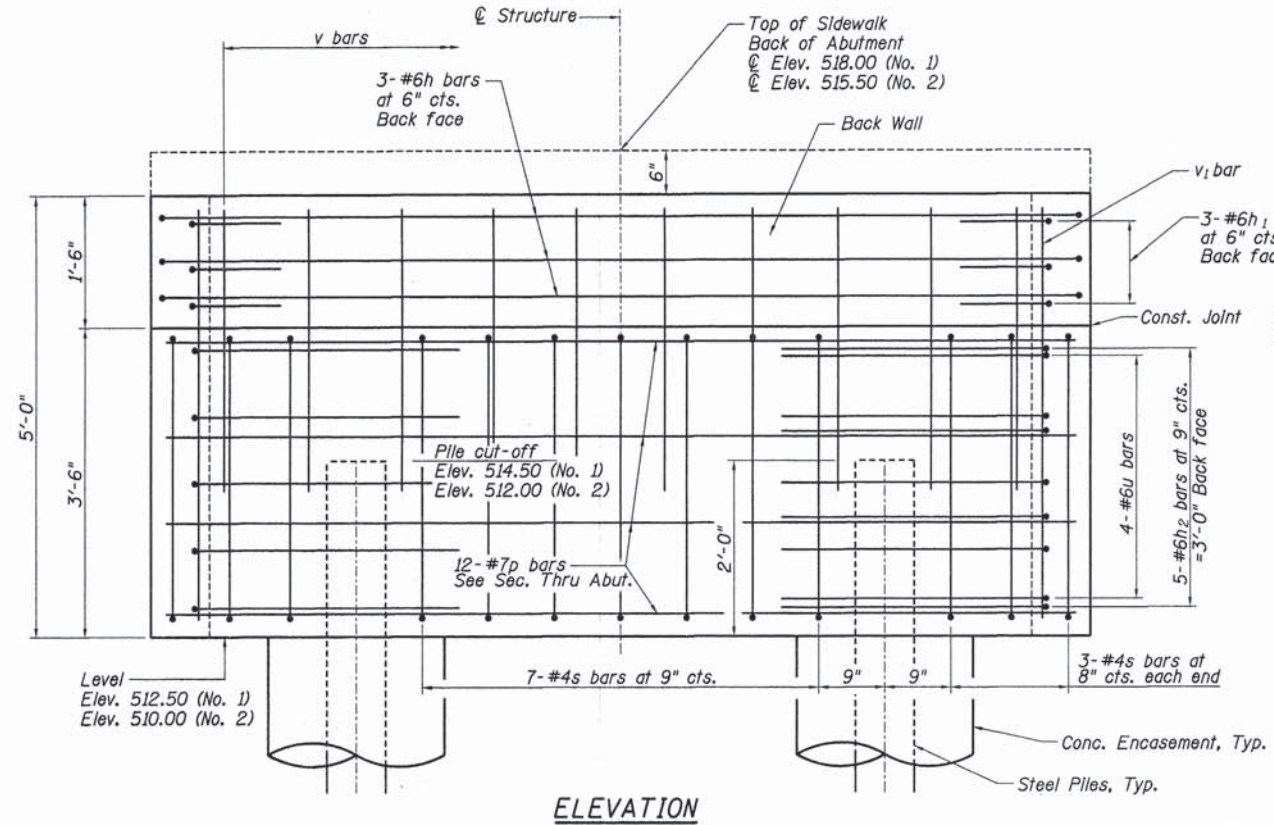


SECTION B-B

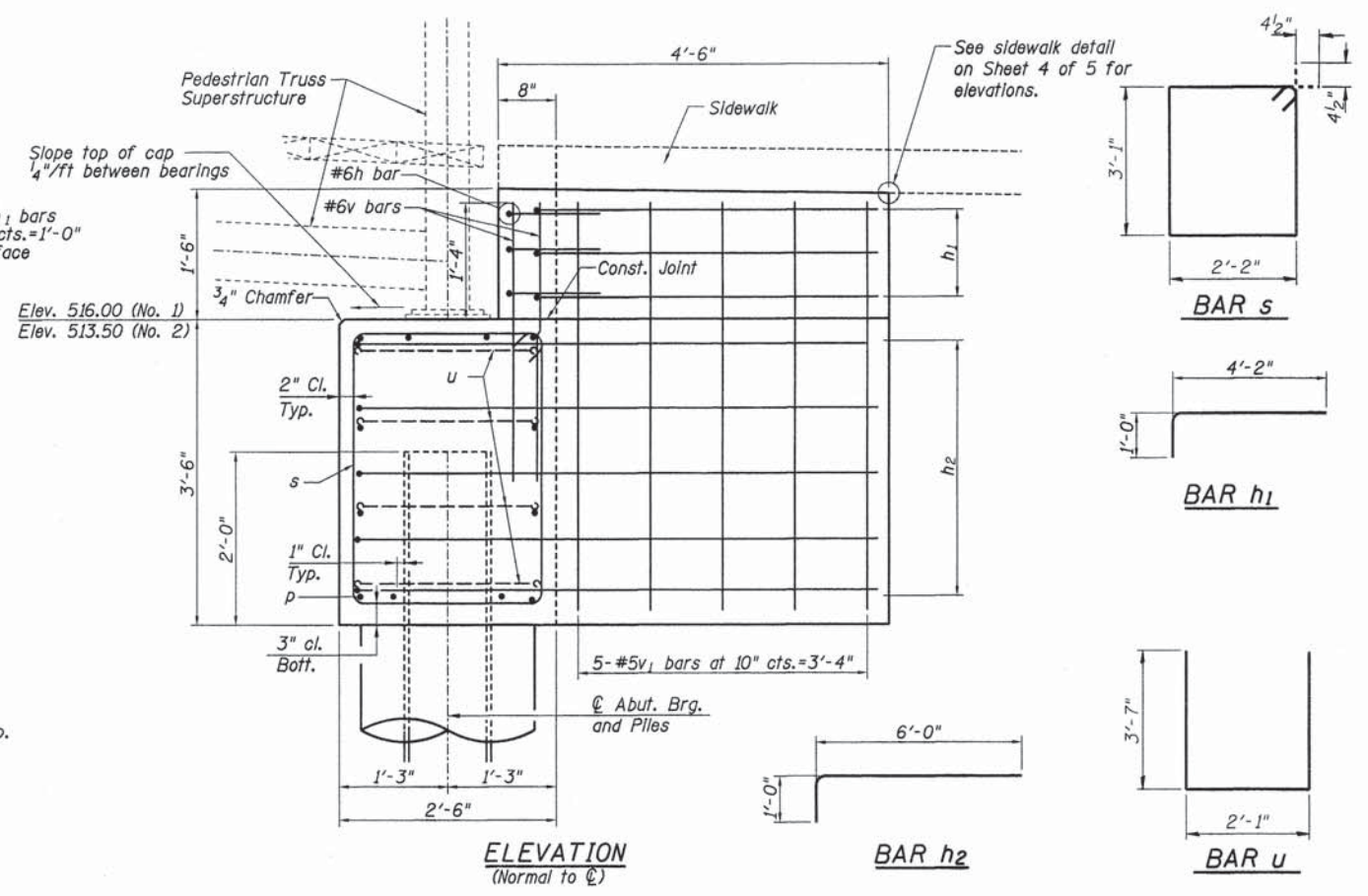
BILL OF MATERIAL

Item	Unit	Quantity
Bridge Fence Railing	Foot	44
Pedestrian Truss Superstructure	Sq Ft	832

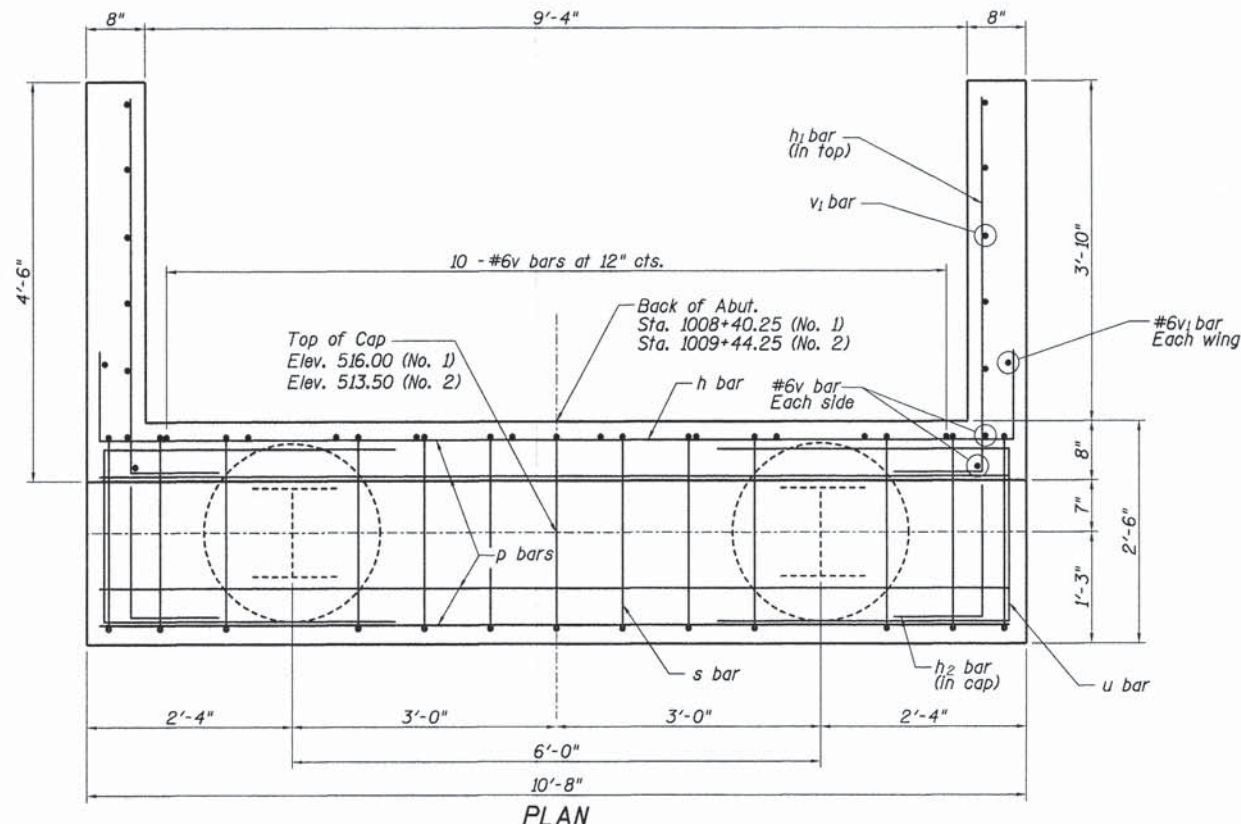
See Bridge Sheet 4 of 5 for additional PCC Sidewalk details and Bill of Materials.



ELEVATION



ELEVATION
(Normal to $\text{\textcircled{C}}$)



PLAN

PILE DATA
ABUTMENT NO. 1

Type: Steel HP10x42
 Nominal Required Bearing: 335 kips
 Factored Resistance Available: 184 kips
 Estimated Length: 18'/pile
 No. Production Piles w/Pile Shoes: 2
 No. Test Piles w/Pile Shoes: 0

PILE DATA
ABUTMENT NO. 2

Type: Steel HP10x42
 Nominal Required Bearing: 335 kips
 Factored Resistance Available: 184 kips
 Estimated Length: 18'/pile
 No. Production Piles w/Pile Shoes: 2
 No. Test Piles w/Pile Shoes: 0

GENERAL NOTES

- Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60 (IL Modified).
- All exposed edges shall have standard $\frac{3}{4}$ " chamfer, unless otherwise noted or as directed by the Engineer.
- All clearances between rebar and form surface shall be 2", unless otherwise noted.
- Space reinforcement in cap to miss anchor bolts.
- The Steel H-piles shall be according to AASHTO M270 Grade 50.
- Concrete sealer shall be applied to beam seat and front face of backwall and all exposed surfaces of closed abutment and wingwalls.
- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
- All plates shall be ASTM A36 (Fy=36ksi).

BILL OF MATERIAL
FOR ONE ABUTMENT

Bar	No.	Size	Length	Shape
h	3	#6	12'-3"	┌┐
h1	6	#6	5'-2"	┌┐
h2	10	#6	7'-0"	┌┐
p	12	#7	10'-3"	—
s	13	#4	11'-3"	┌┐
u	8	#6	9'-3"	┌┐
v	14	#6	3'-3"	—
v1	12	#6	4'-7"	—
Concrete Structures Cu. Yd. 4.8				
Concrete Encasement Cu Yd 0.7				
Reinforcement Bars Pound 820				
Furnishing Steel Abut. 1 36				
Piles, HP10x42 Foot Abut. 2 36				
Driving Piles Foot Abut. 1 36				
Pile Shoes Each Abut. 2 36				
Concrete Sealer Sq Ft 76				

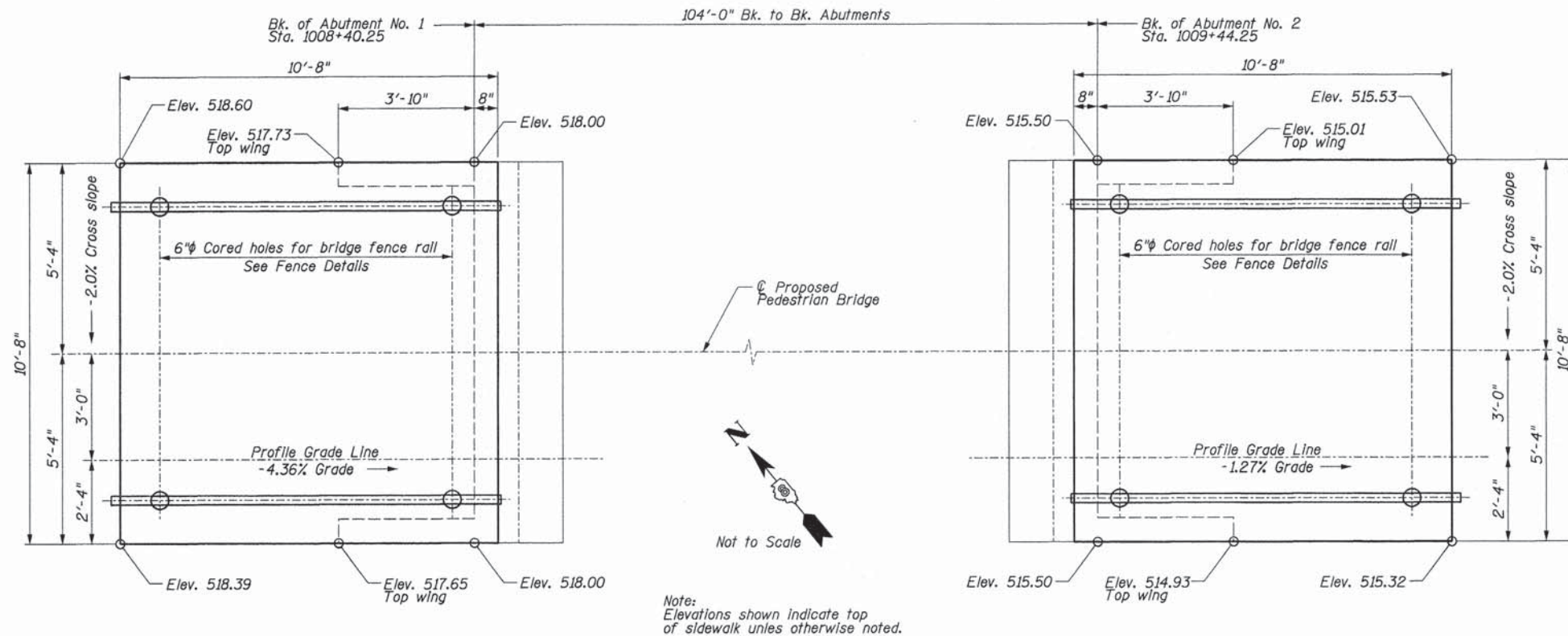
RHUTASEL and ASSOCIATES, INC.
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DESIGNED - BLT	REVISED -
CHECKED - WDL	REVISED -
DRAWN - JN	REVISED -
DATE - 10/14/2015	REVISED -

CITY OF O'FALLON
ST. CLAIR COUNTY, ILLINOIS

ABUTMENT DETAILS
MILBURN SCHOOL ROAD
BRIDGE SHEET NO. 3 OF 5 SHEETS

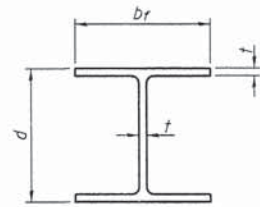
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 27	13-00059-06-SW	ST. CLAIR	20	13
CONTRACT NO. 97609				
RAAI JOB NO. 40314 ILLINOIS FED. AID PROJECT				



PARTIAL PLAN
P.C.C. Sidewalk, 6"

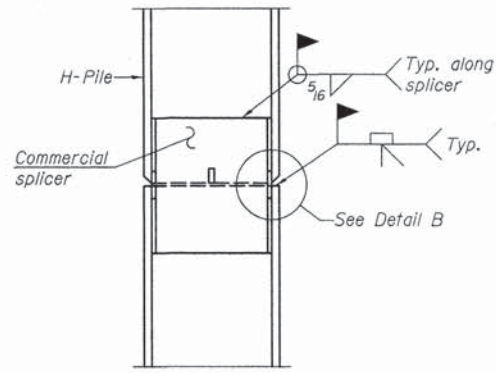
BILL OF MATERIAL

Item	Unit	Quantity
P.C.C. Sidewalk, 6"	Sq Ft	228

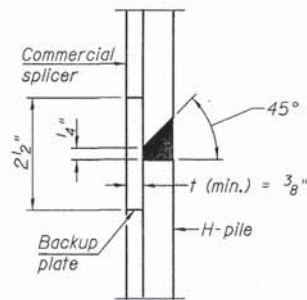


STEEL PILE TABLE

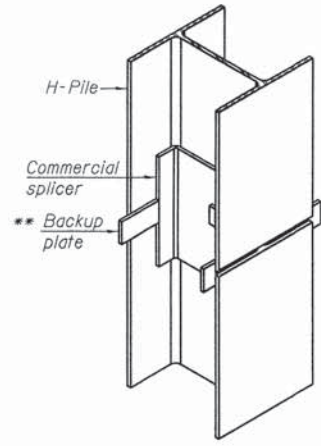
Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION

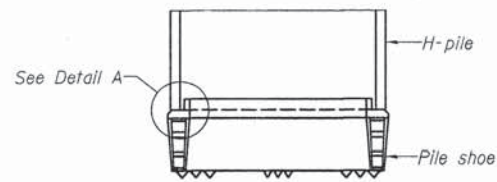


DETAIL "B"

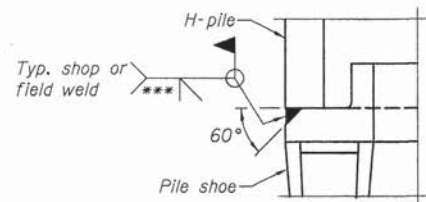


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE

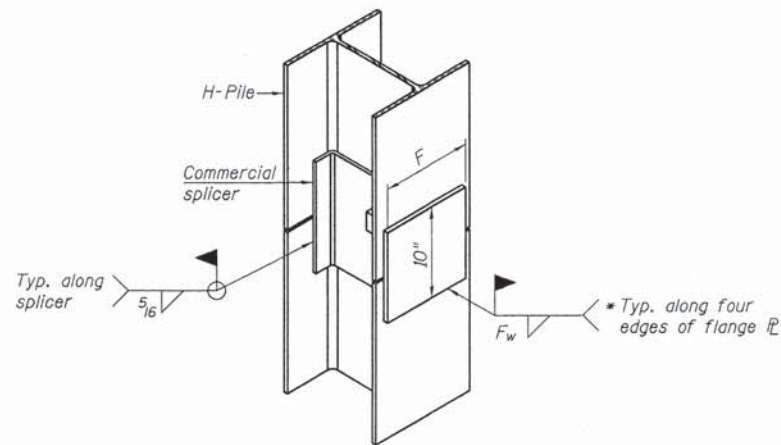


ELEVATION



DETAIL A

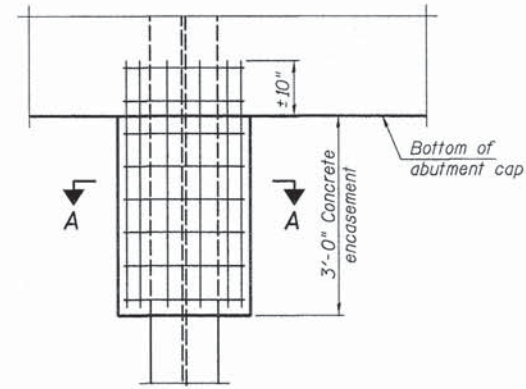
H-PILE SHOE ATTACHMENT



ISOMETRIC VIEW

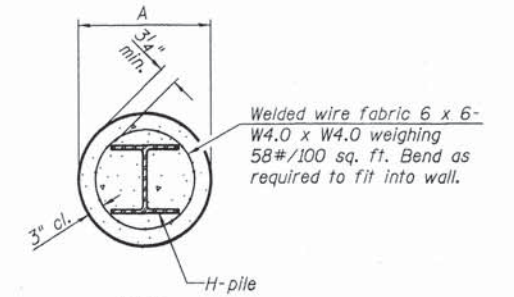
WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).



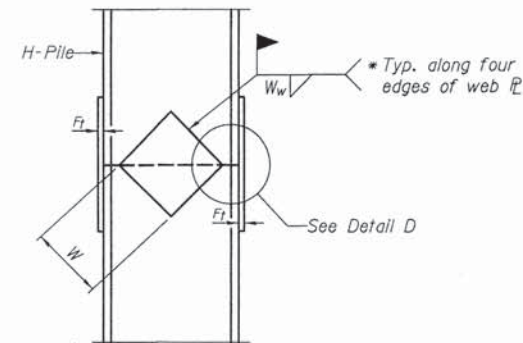
ELEVATION

PILE ENCASEMENT

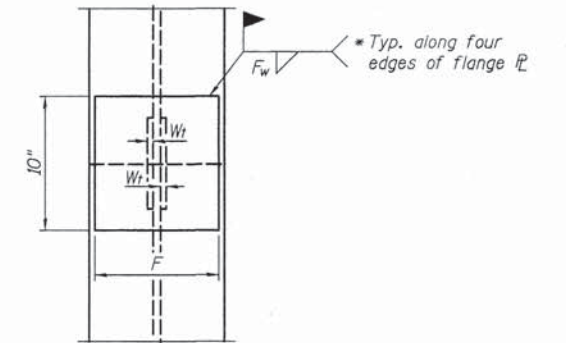


SECTION A-A

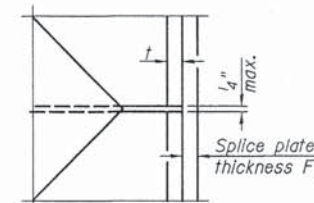
Note:
Forms for encasement may be omitted when soil conditions permit.



ELEVATION



END VIEW



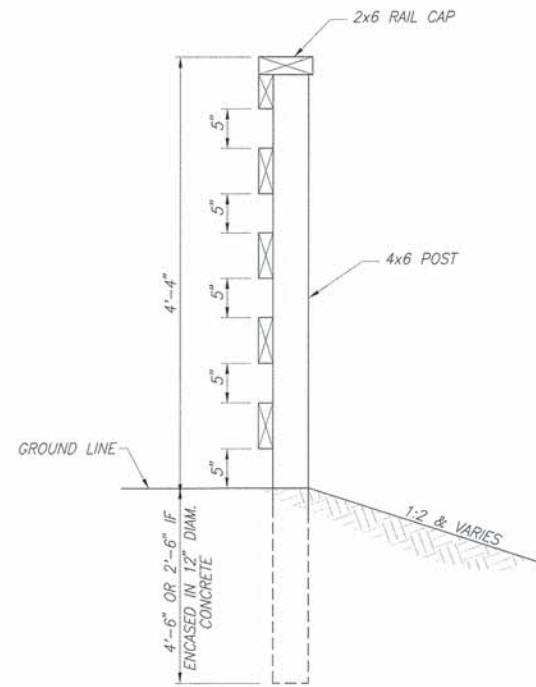
DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 1/2"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 1/2"	1/2"
x89	12 1/2"	3/4"	1 1/16"	7 3/4"	5 1/2"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 1/2"	1/2"
HP 12x84	10"	7/8"	1 1/16"	6 1/2"	5 1/2"	1/2"
x74	10"	7/8"	1 1/16"	6 1/2"	5 1/2"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

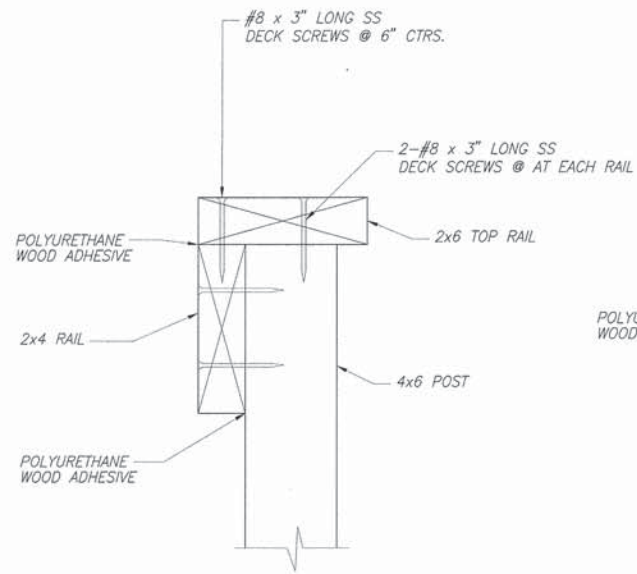
Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
9148	13-00059-06-SW	ST. CLAIR	20	16
FEDERAL AID PROJECT		CONTRACT 97609		



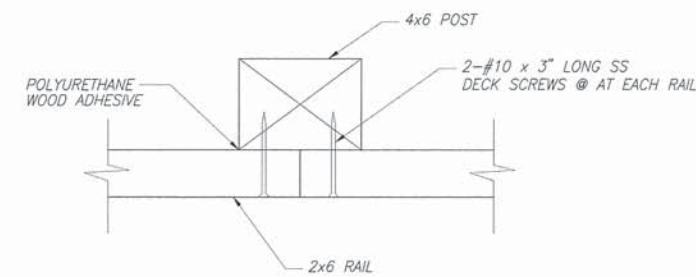
SECTION B-B

N.T.S.



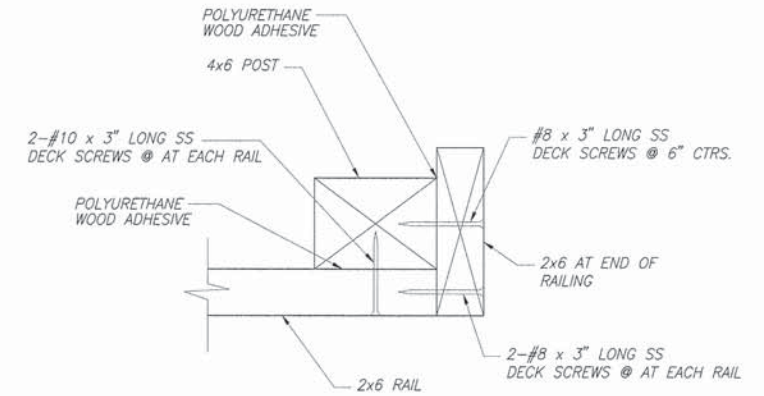
SECTION C-C

N.T.S.



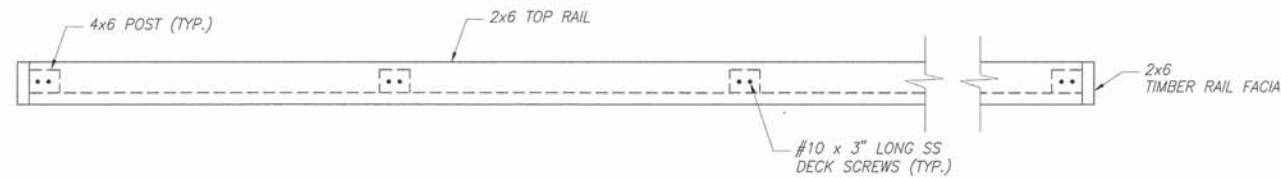
SECTION D-D

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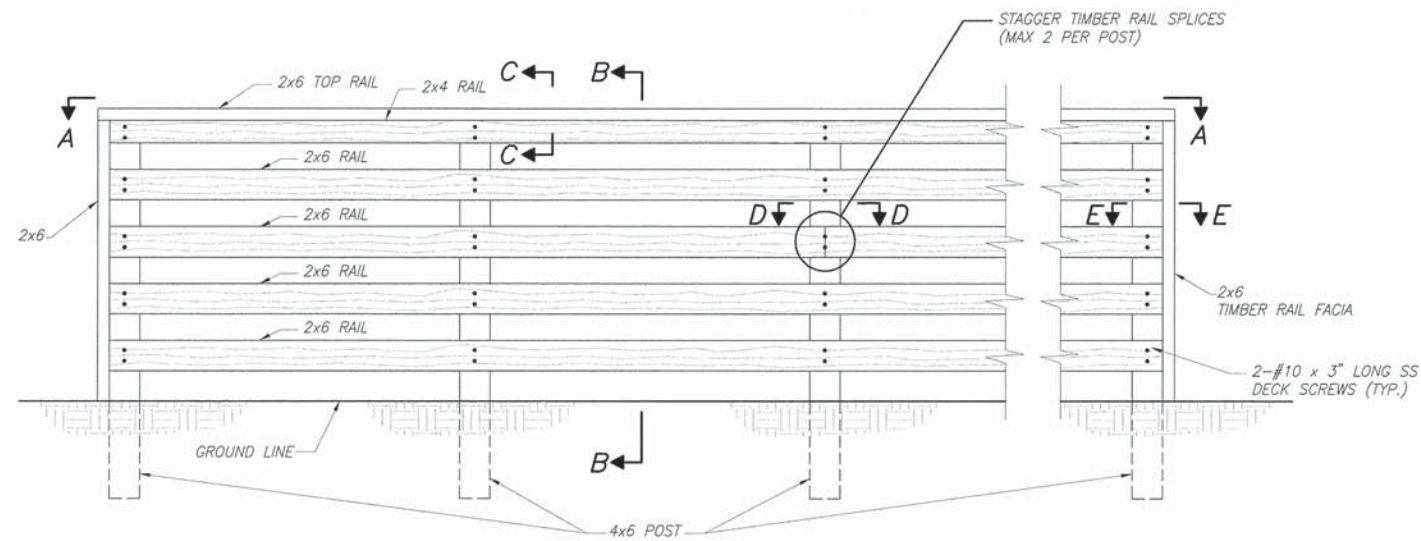
SECTION E-E

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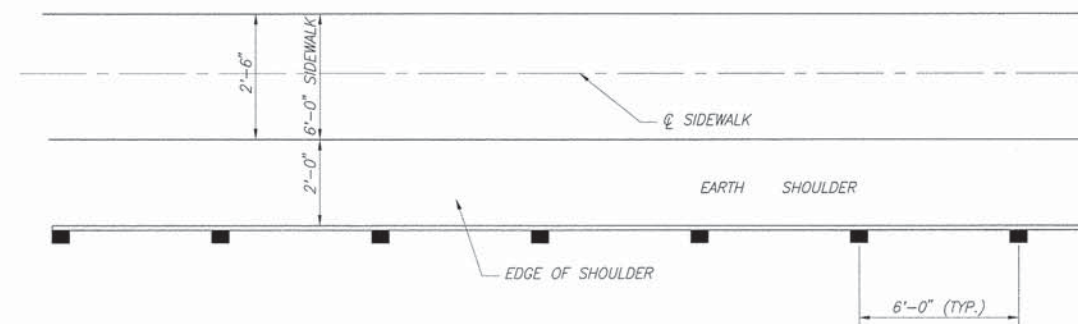
SECTION A-A

N.T.S.



WOOD FENCE DETAIL

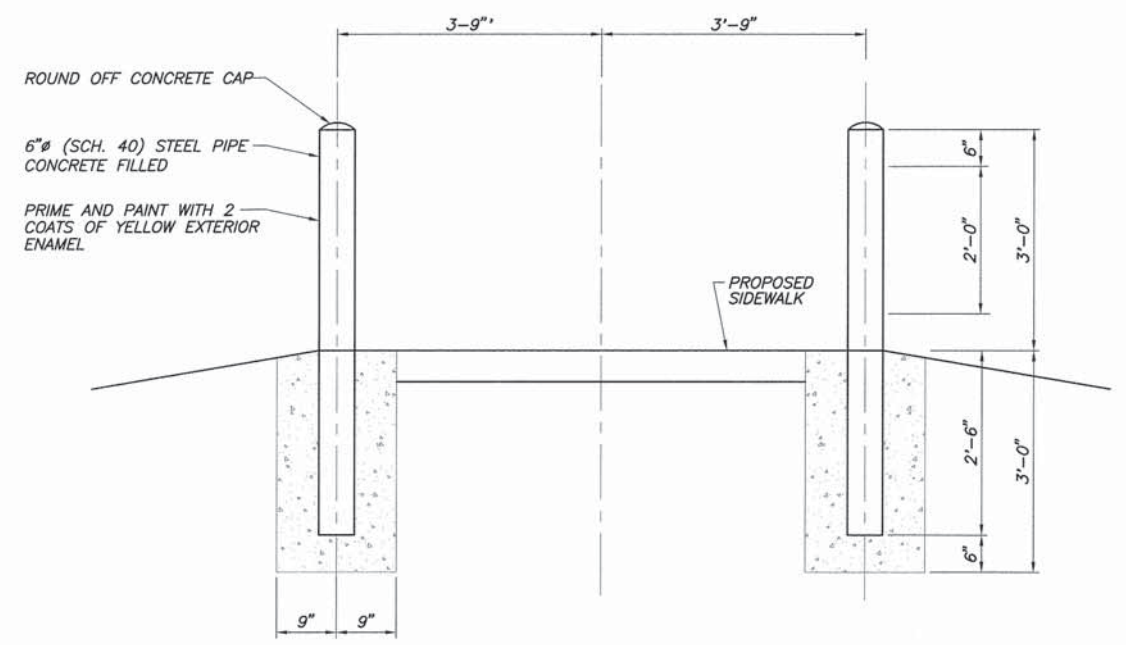
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PLAN

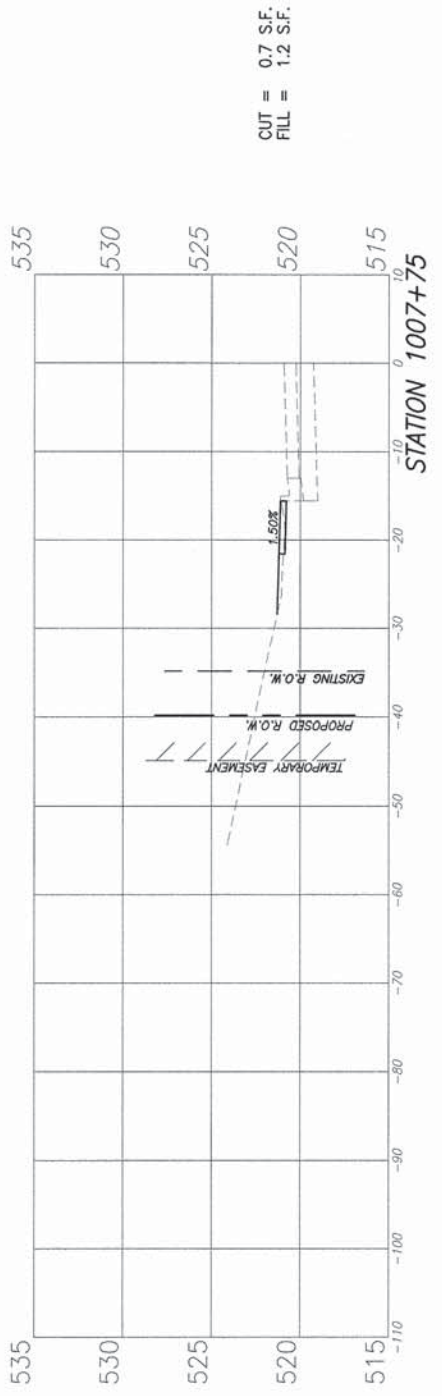
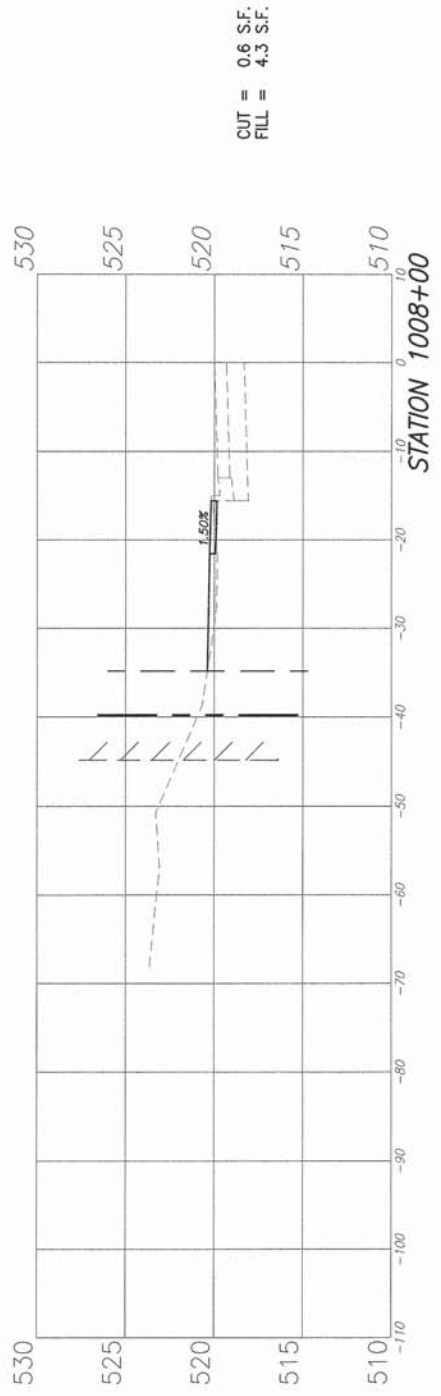
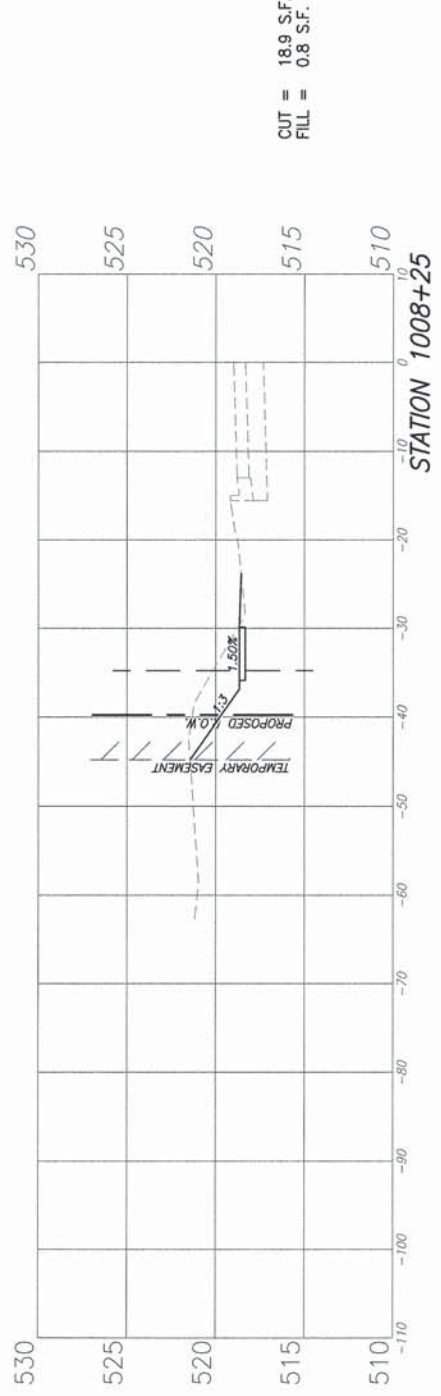
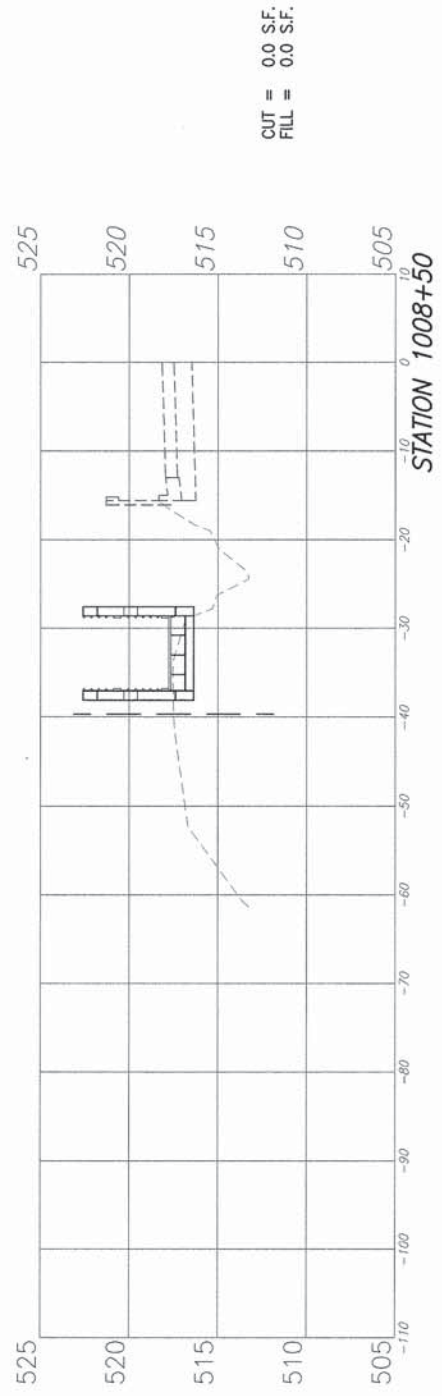
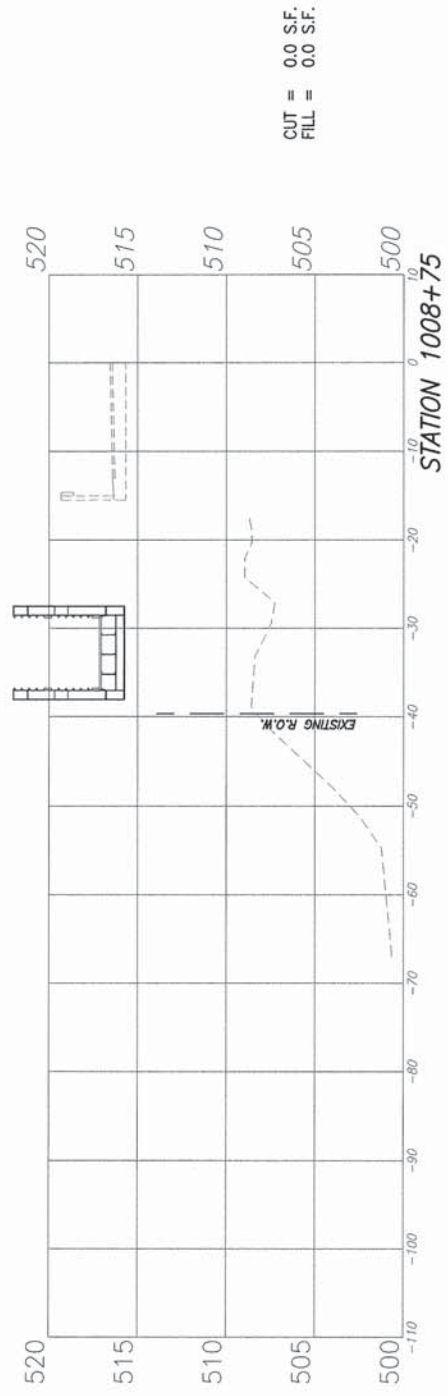
N.T.S.

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
9148	13-00059-06-SW	ST. CLAIR	20	17
FEDERAL AID PROJECT		CONTRACT 97609		

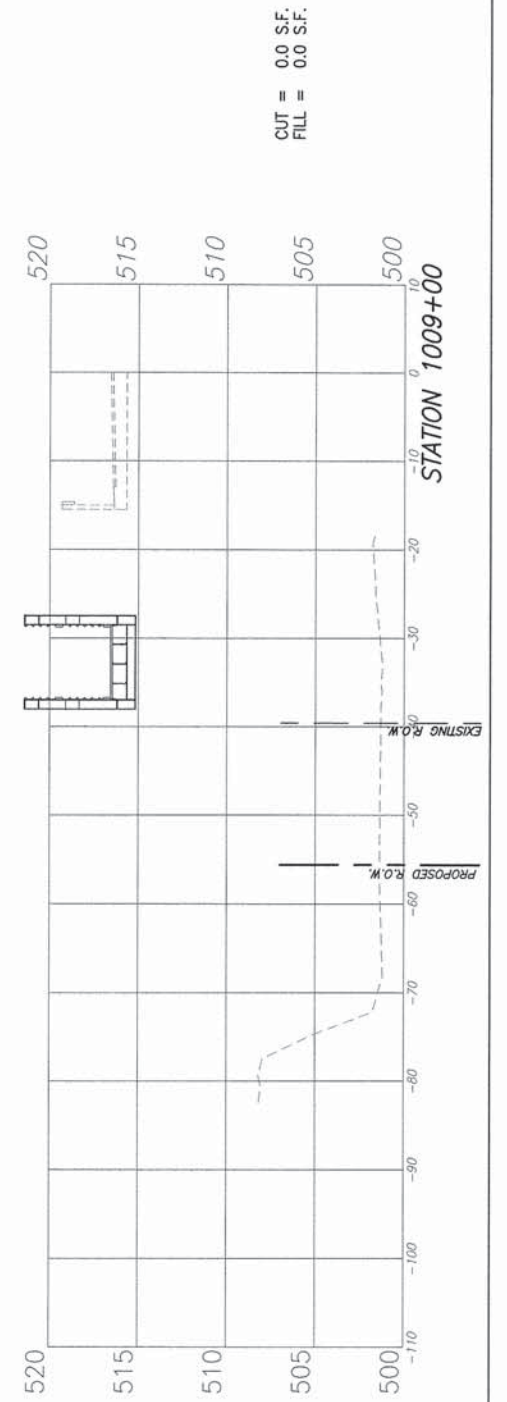
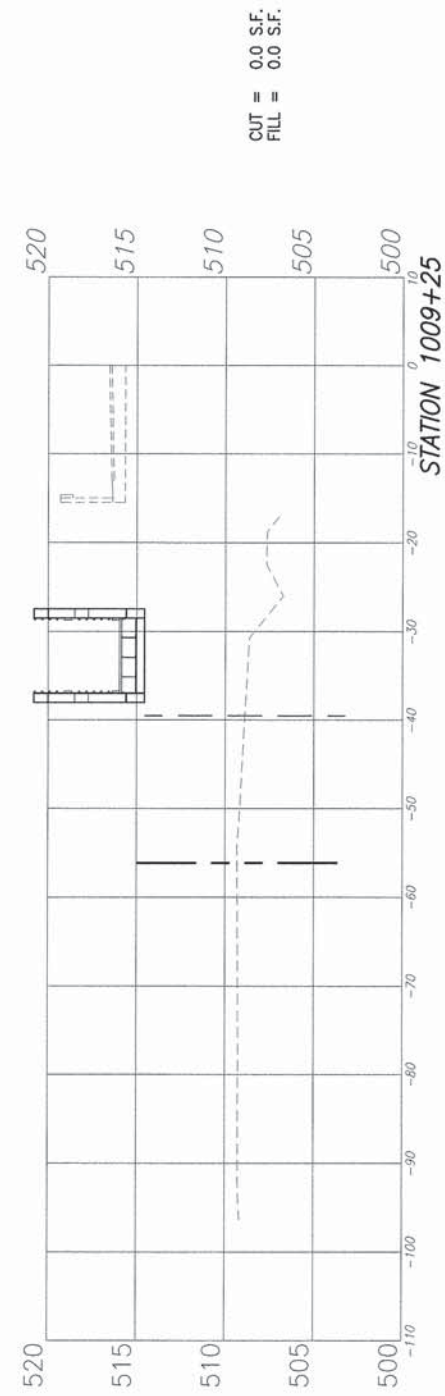
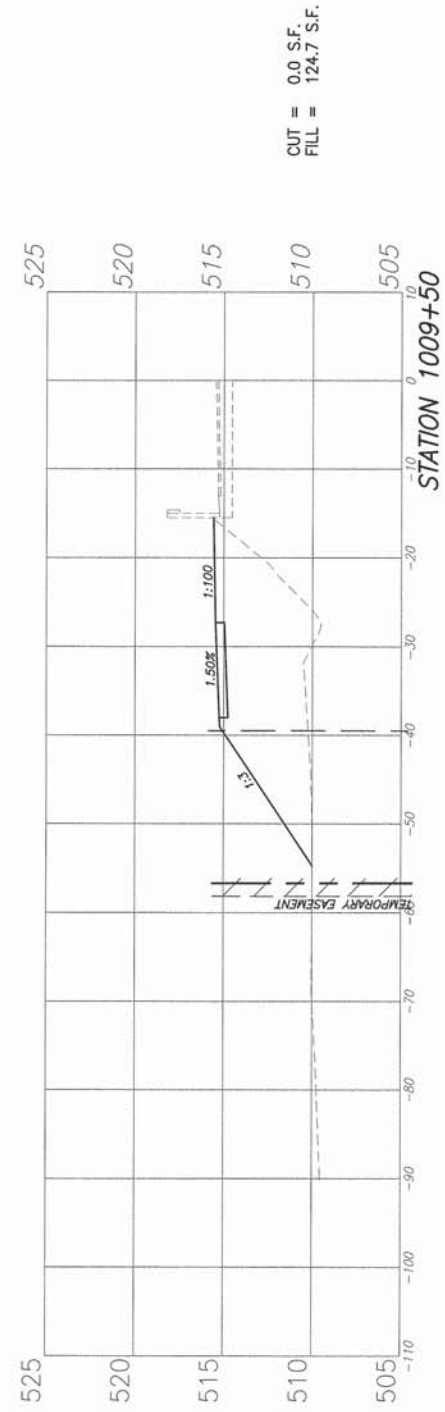
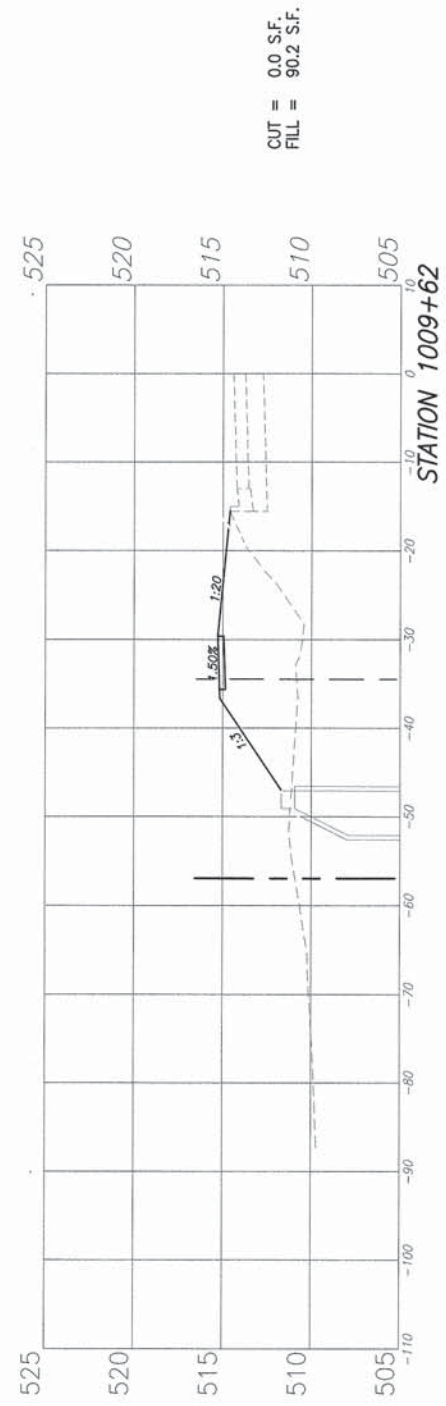
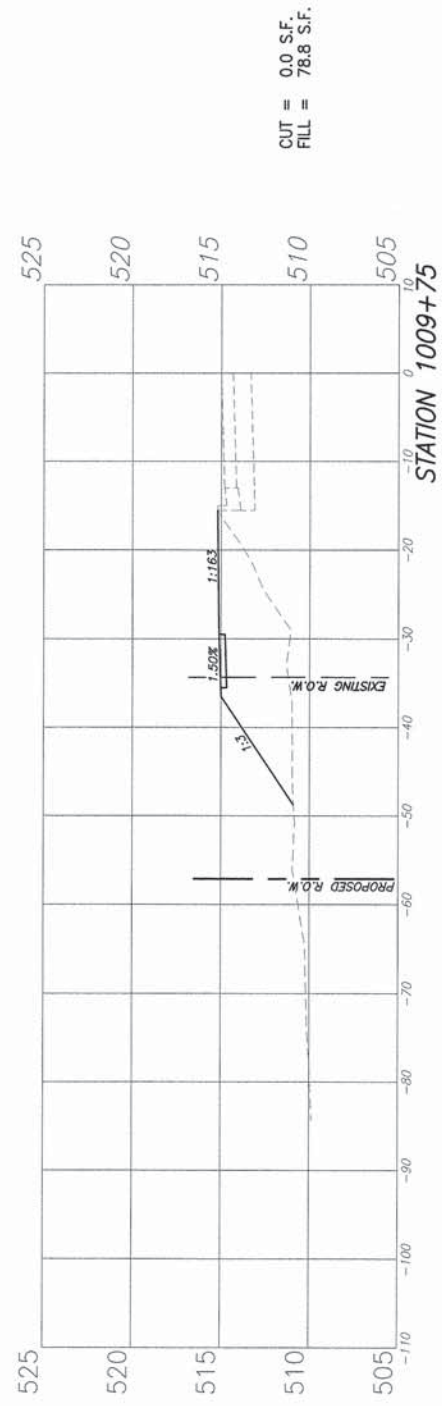


BOLLARD DETAIL
N.T.S.

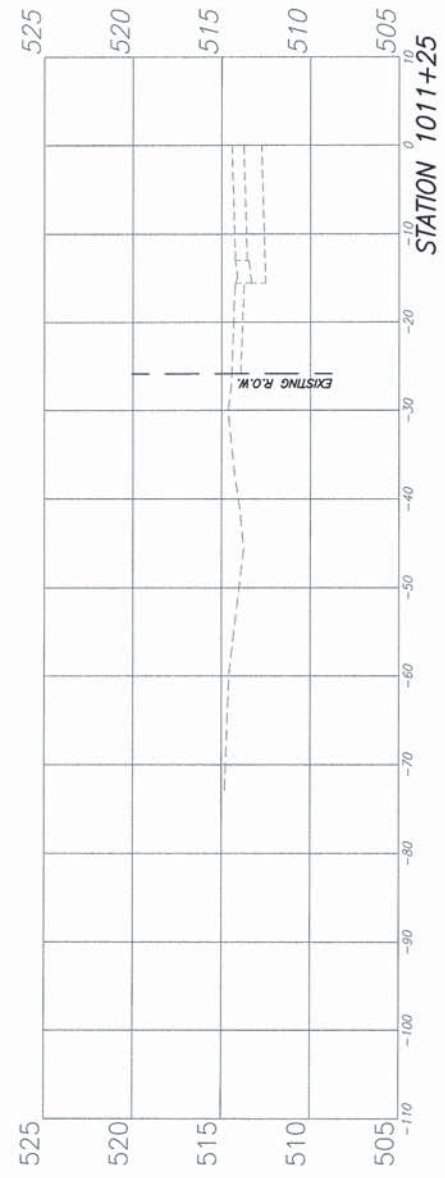
F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
9148	13-00059-06-SW	ST. CLAIR	20	18
FEDERAL AID PROJECT		CONTRACT 97609		



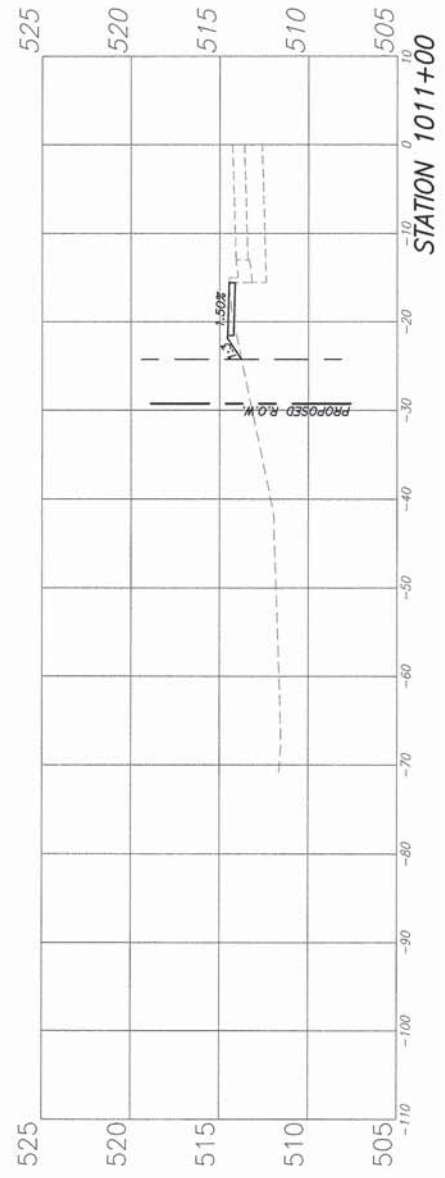
F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
9148	13-00059-06-SW	ST. CLAIR	20	19
FEDERAL AID PROJECT		CONTRACT 97609		



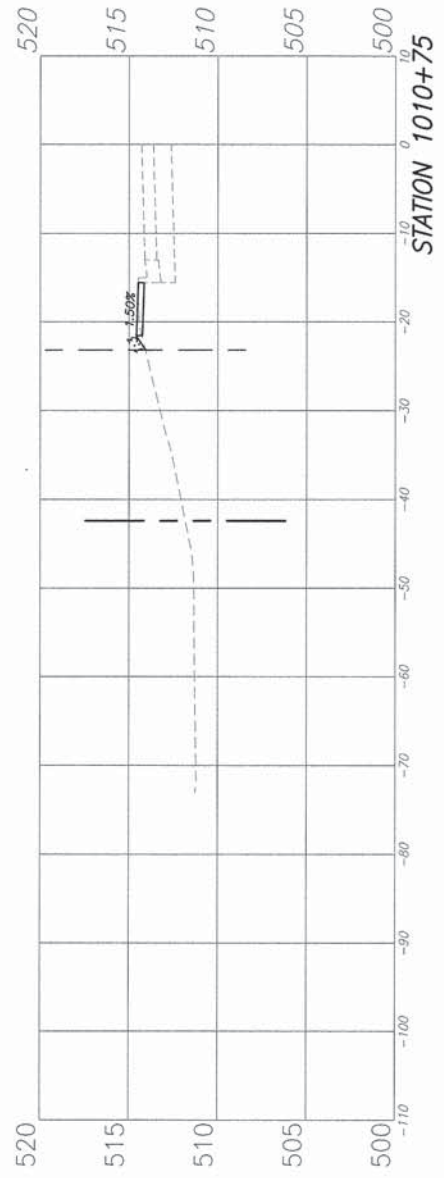
F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
9148	13-00059-06-SW	ST. CLAIR	20	20
FEDERAL AID PROJECT		CONTRACT 97609		



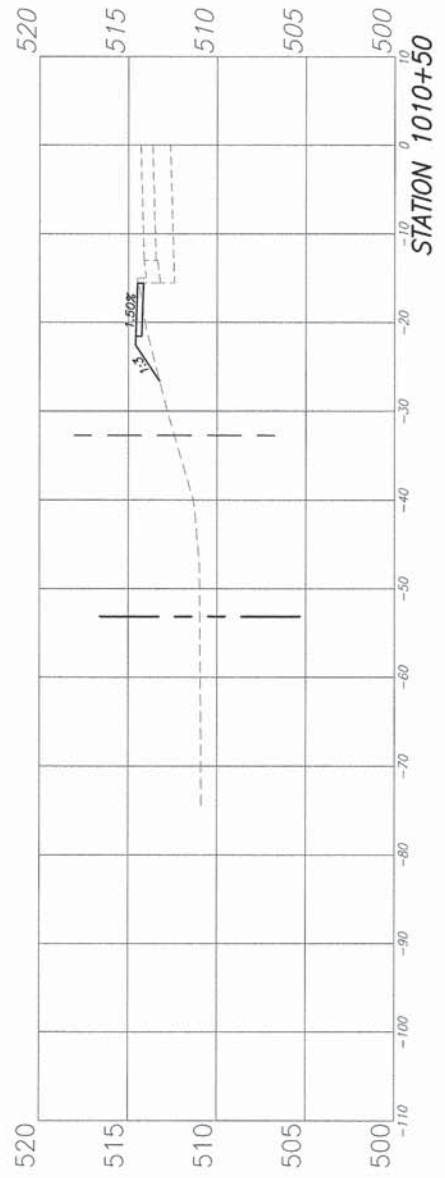
CUT = 0.9 S.F.
FILL = 0.9 S.F.



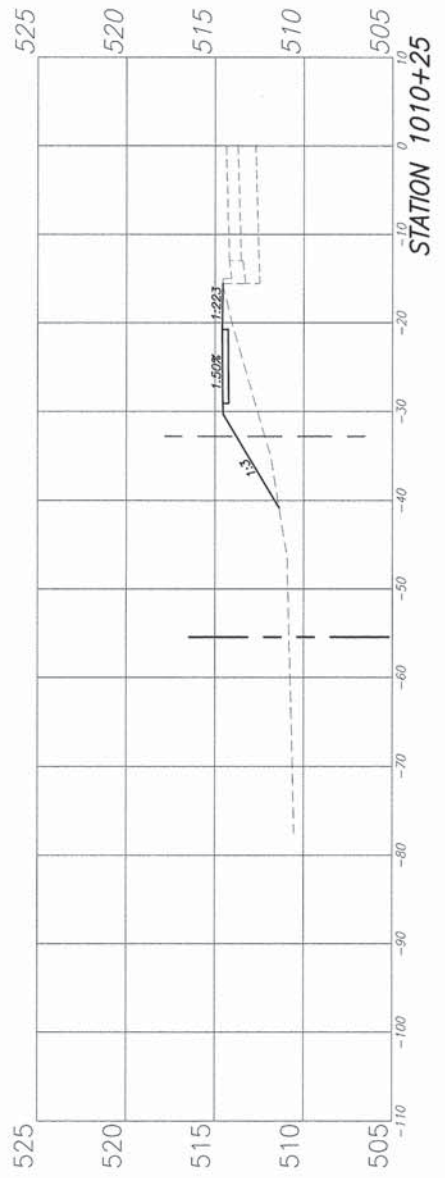
CUT = 1.4 S.F.
FILL = 0.3 S.F.



CUT = 0.4 S.F.
FILL = 3.1 S.F.



CUT = 0.0 S.F.
FILL = 25.2 S.F.



CUT = 0.0 S.F.
FILL = 53.3 S.F.

