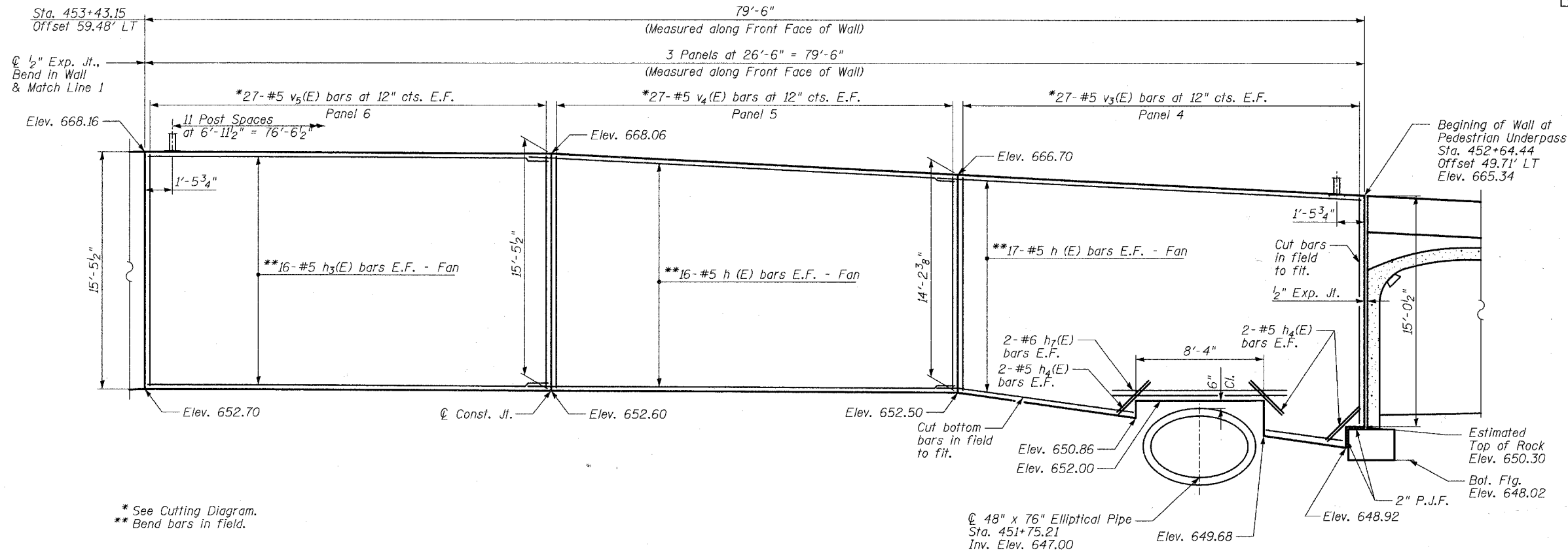


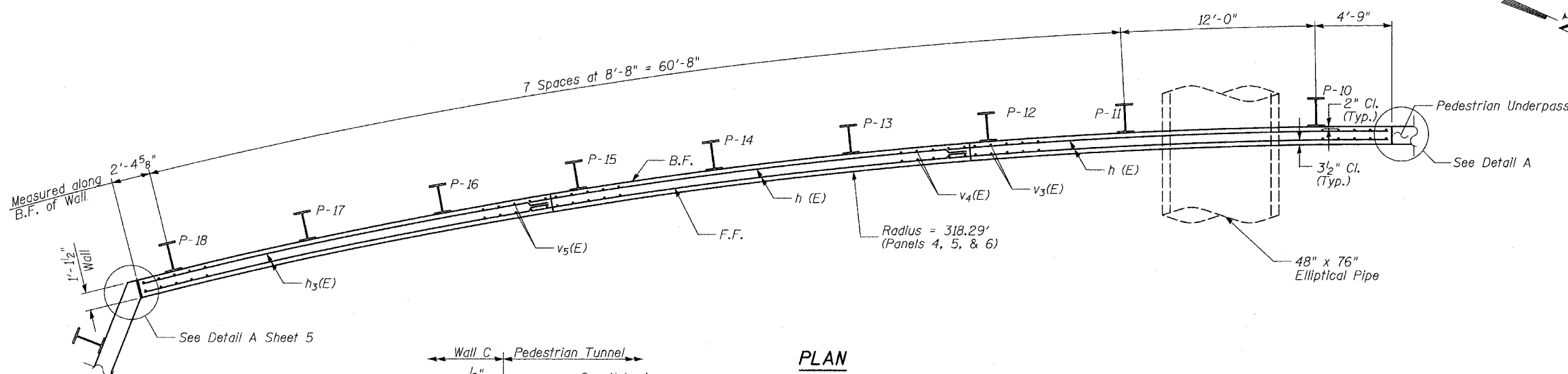
F.A.U. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	•	DUPAGE	563	401
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
• 00-00114-00-PV		CONTRACT NO. 63024		

SHEET NO. - 4
13 - SHEETS



* See Cutting Diagram.
** Bend bars in field.

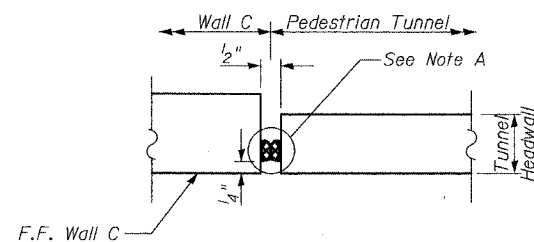
ELEVATION
(Looking At Front Face)



LAP SPLICES

Bar	Lap
#5	2'-2"

PLAN



DETAIL A
(Exaggerated for clarity)

Note A:
Preformed Joint Seal (6" from top of wall to top of tunnel footing). Cast included with Concrete Structures. See Special Provisions for details.

NOTES:

1. B.F. denotes Back Face.
2. E.F. denotes Each Face.
3. F.F. denotes Front Face.
4. Work this sheet with Sheets 3 & 5 of 13.
5. Pile spacing measured along back face of wall.
6. Offsets are measured from the NB Washington St. to the front face of wall.
7. See Sheet 8 of 13 for limits of architectural finish.
8. See Sheet 11 of 13 for railing details.

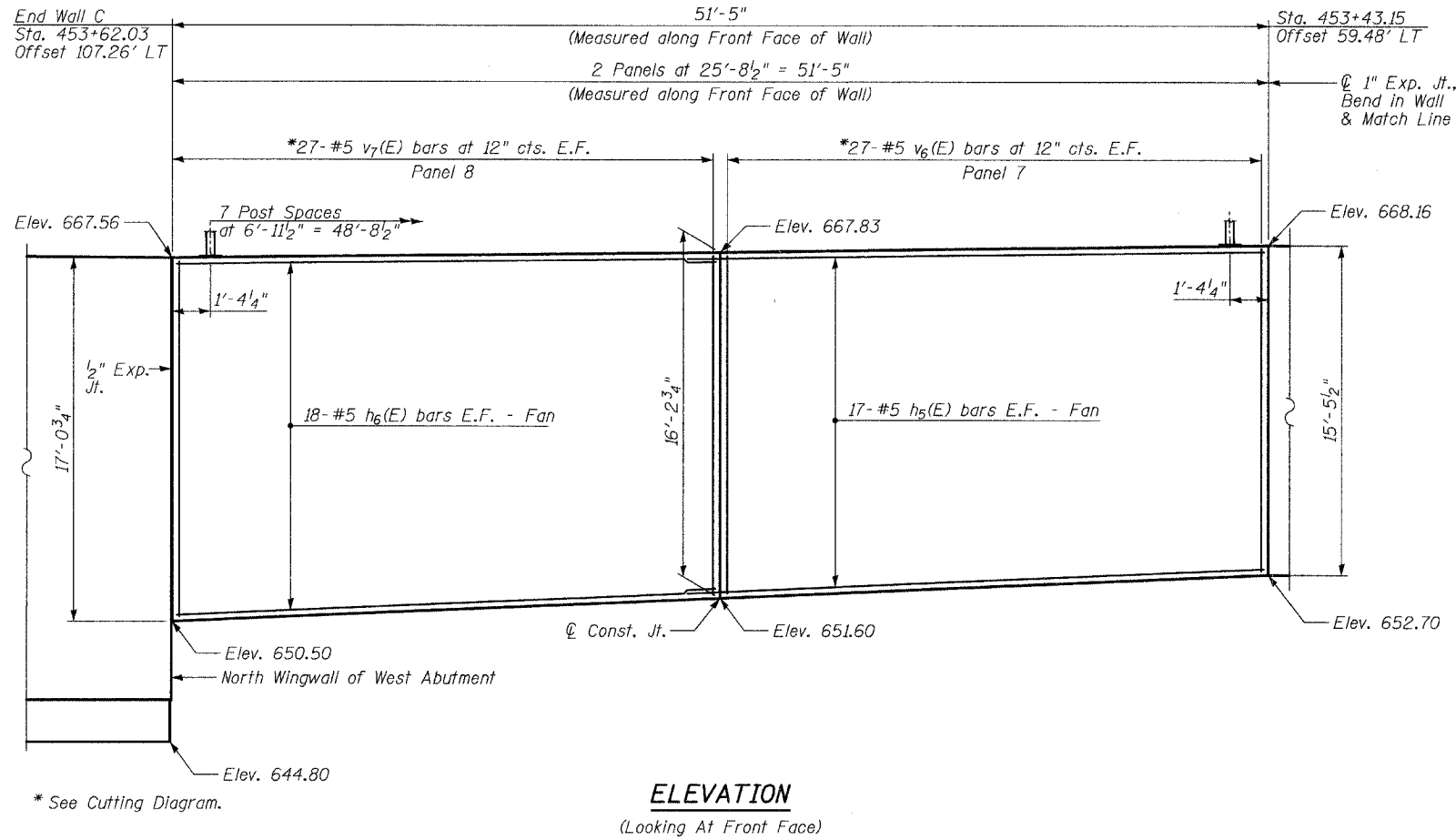
REVISIONS	
NAME	DATE

**WALL C
PLAN & ELEVATION
STA. 452+64.44 TO STA. 453+43.15**

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY

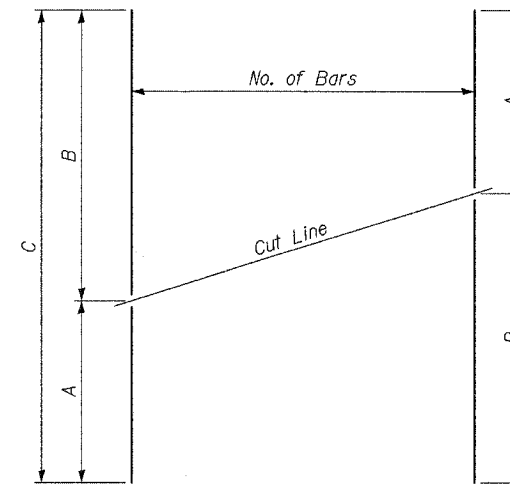
TYLIN INTERNATIONAL

DESIGNED	- TB
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP



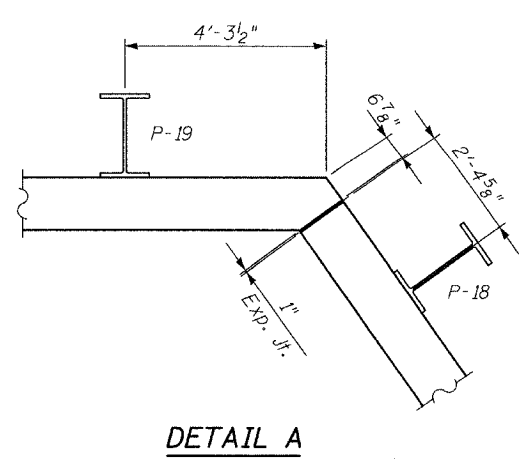
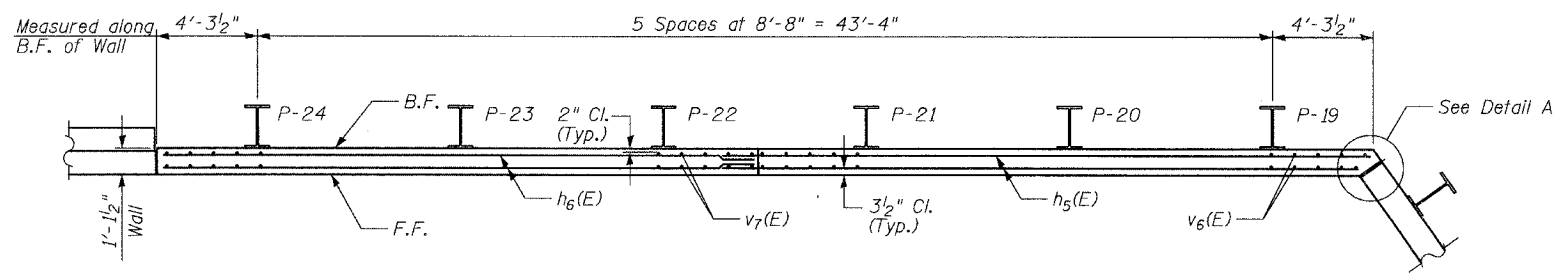
BAR TABLE SCHEDULE

Bar	No. of Sets Req'd	No. of Bars Per Set	A	B	C
v(E)	1	29	4'-3"	8'-2"	12'-5"
v ₁ (E)	1	29	8'-2"	11'-9"	19'-11"
v ₂ (E)	1	29	11'-9"	15'-4"	27'-1"
v ₃ (E)	1	27	16'-2"	13'-11"	30'-1"
v ₄ (E)	1	27	13'-11"	15'-2"	29'-1"
v ₅ (E)	1	27	15'-2"	15'-11"	31'-1"
v ₆ (E)	1	27	15'-11"	16'-9"	32'-8"
v ₇ (E)	1	27			



SERIES OF BAR CUTTING DIAGRAM

See table for dimensions.
Make all cuts normal to bar axis



NOTES:

- B.F. denotes Back Face.
- E.F. denotes Each Face.
- F.F. denotes Front Face.
- Work this sheet with Sheets 3 & 4 of 13.
- Pile spacing measured along back face of wall.
- Offsets are measured from the ⊘ NB Washington St. to the front face of wall.
- See Sheet 8 of 13 for limits of architectural finish.
- See Sheet 11 of 13 for railing details.

LAP SPLICES

Bar	Lap
#5	2'-2"

**WALL C
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	86	#5	28'-10"	
h ₁ (E)	26	#5	30'-3"	
h ₂ (E)	32	#5	27'-9"	
h ₃ (E)	32	#5	26'-2"	
h ₄ (E)	16	#5	3'-0"	
h ₅ (E)	34	#5	27'-11"	
h ₆ (E)	36	#5	25'-4"	
h ₇ (E)	4	#6	11'-4"	
v(E)	29	#4	12'-5"	
v ₁ (E)	29	#4	19'-11"	
v ₂ (E)	29	#4	27'-1"	
v ₃ (E)	27	#5	30'-1"	
v ₄ (E)	27	#5	29'-1"	
v ₅ (E)	54	#5	15'-1"	
v ₆ (E)	27	#5	31'-1"	
v ₇ (E)	27	#5	32'-8"	
Structure Excavation	CU YD		359	
* Rock Excavation for Structures	CU YD		3	
Concrete Structures	CU YD		121	
Protective Coat	SQ YD		83	
Form Liner Textured Surface	SQ YD		288	
Stud Shear Connectors	EACH		304	
Untreated Timber Lagging	SQ FT		2,078	
Reinforcement Bars, Epoxy Coated	LB		12,730	
Furnishing Soldier Piles (HP Section)	FT		128	
Furnishing Soldier Piles (W Section)	FT		321	
Geocomposite Wall Drain	SQ YD		231	
Pipe Underdrains for Structures, 4"	FT		228	
Drilling and Setting Soldier Piles (in Soil)	CU FT		1,792	
Drilling and Setting Soldier Piles (in Rock)	CU FT		96.3	
Parapet Railing, Special	FT		216	
Anti-Graffiti Coating	SQ FT		2,592	

* Applicable at locations where rock excavation is necessary to place underdrains and concrete facing.

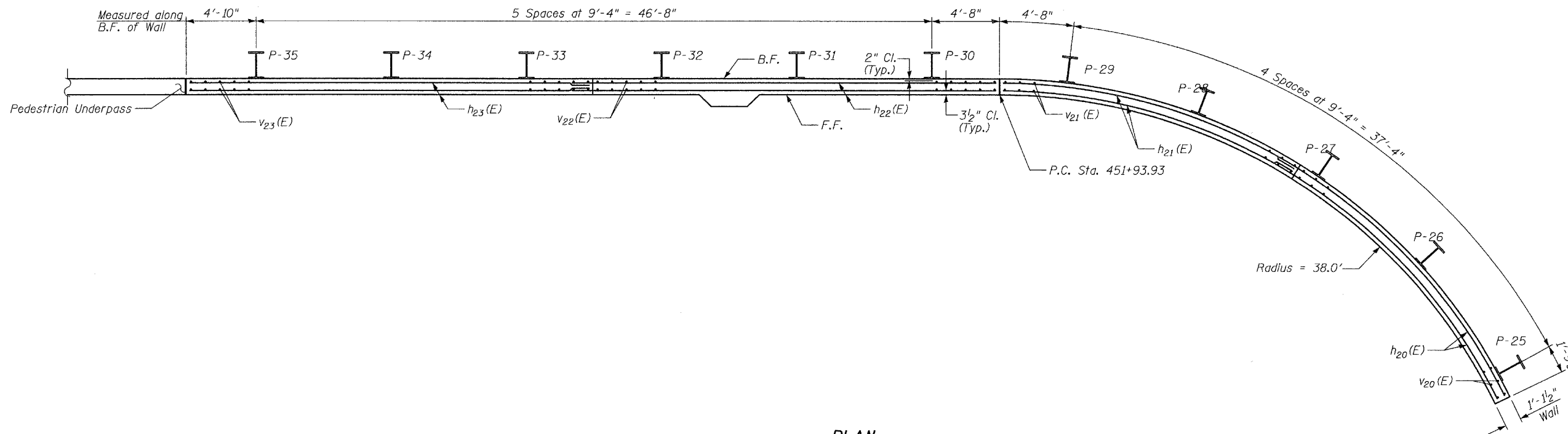
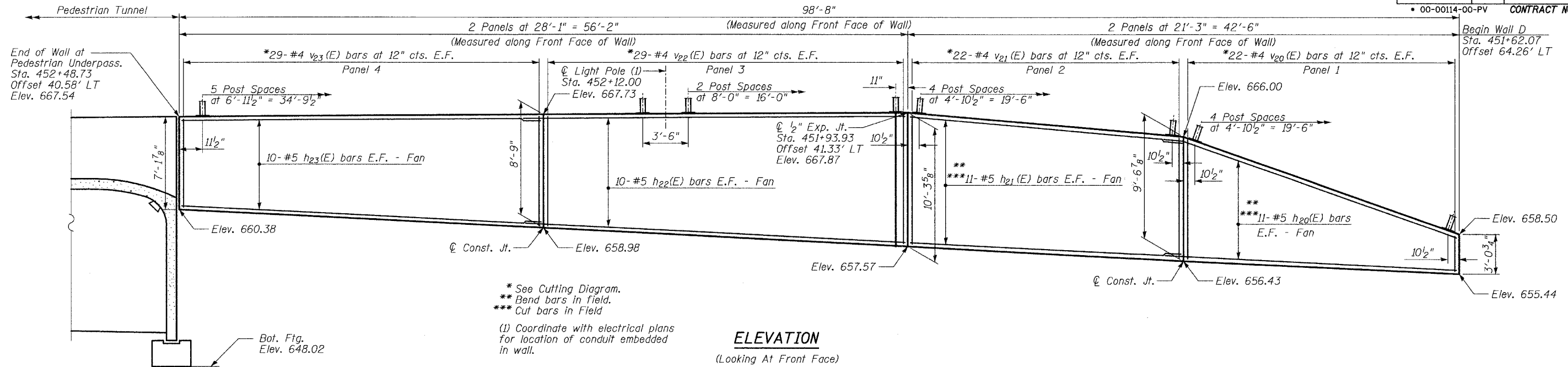
TYLIN INTERNATIONAL

DESIGNED	- TB
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP

REVISIONS	
NAME	DATE

**WALL C
PLAN & ELEVATION
STA. 453+43.15 TO STA. 453+62.03**

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY



LAP SPLICES

Bar	Lap
#5	2'-2"

TYLIN INTERNATIONAL

DESIGNED	- TB
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP

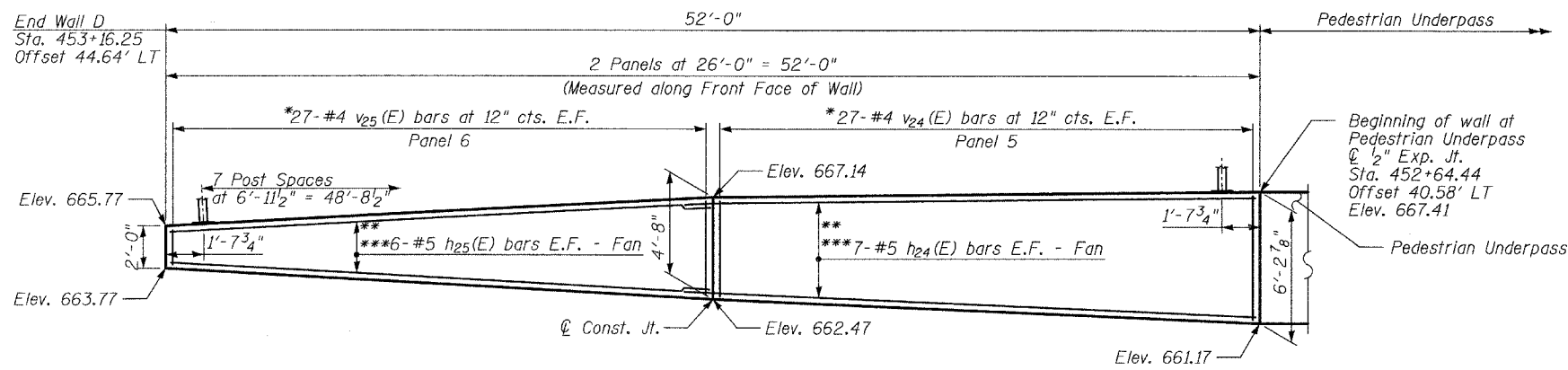
- NOTES:**
- B.F. denotes Back Face.
 - E.F. denotes Each Face.
 - F.F. denotes Front Face.
 - Work this sheet with Sheets 7 of 13.
 - Pile spacing measured along back face of wall.
 - Offsets are measured from the @ NB Washington St. to the front face of wall.
 - See Sheet 7 of 13 for Light Pole Details.
 - See Sheet 8 of 13 for limits of architectural finish.
 - See Sheet 11 of 13 for railing details.

REVISIONS

NAME	DATE

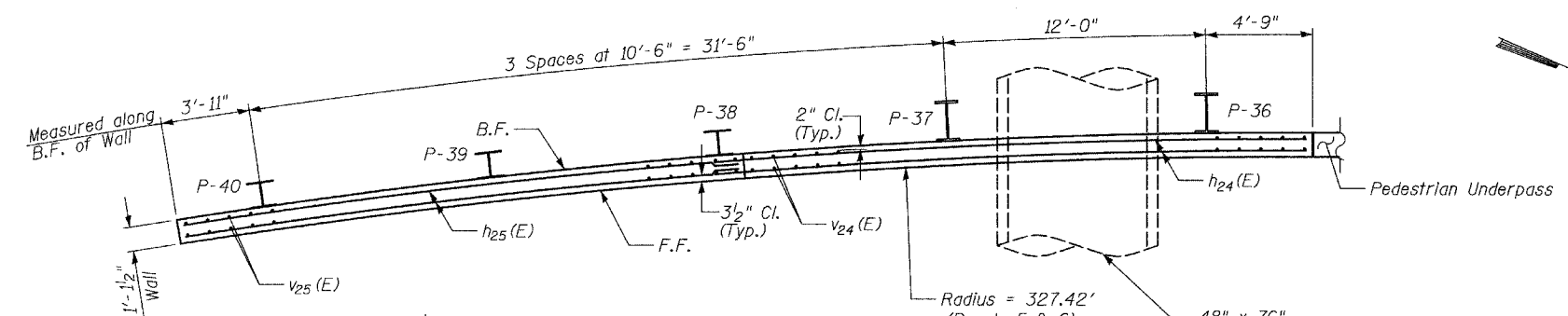
WALL D
PLAN & ELEVATION
STA. 451+62.07 TO STA. 452.48.73

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY

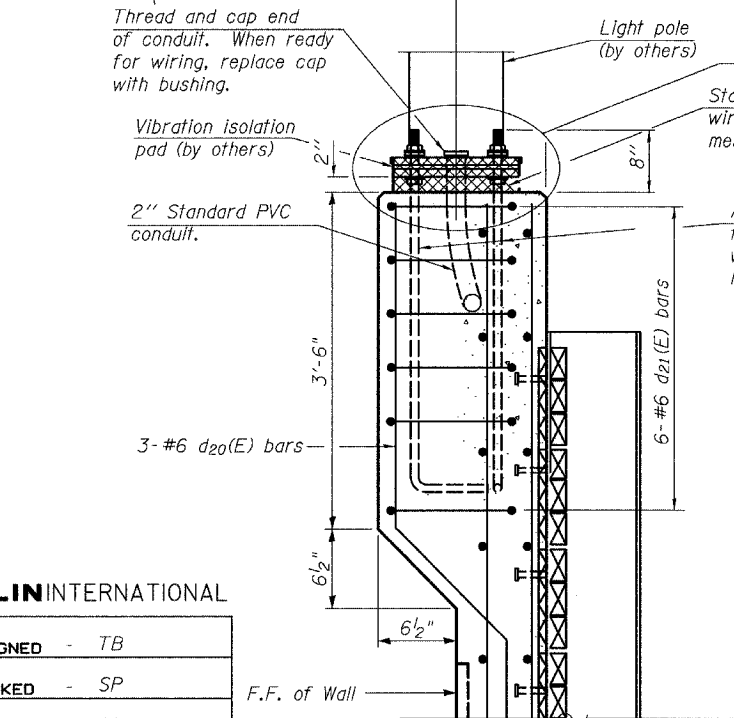


* See Cutting Diagram.
** Bend bars in field.
*** Cut bars in field.

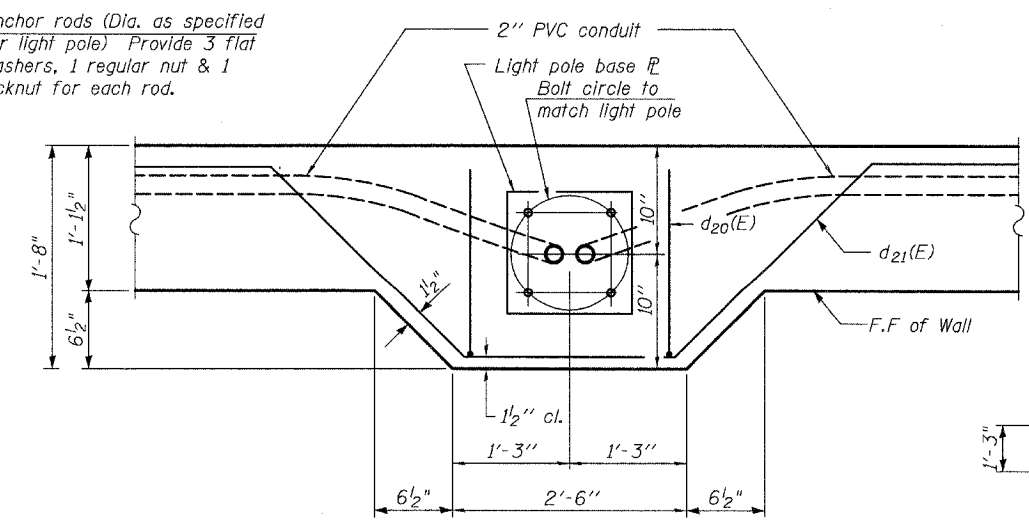
ELEVATION
(Looking At Front Face)



PLAN



SECTION

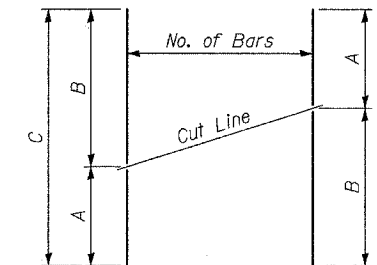


LIGHT POLE DETAILS

PLAN Note: Cost of anchor rods is included with Concrete Structures.

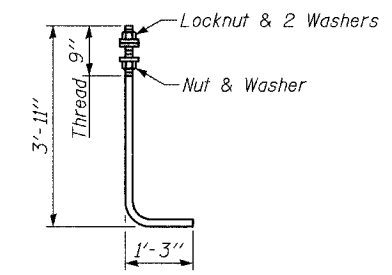
BAR TABLE SCHEDULE

Bar	No. of Sets Req'd	No. of Bars Per Set	A	B	C
v20(E)	1	22	2'-9"	9'-3"	12'-0"
v21(E)	1	22	9'-3"	10'-0"	19'-3"
v22(E)	1	29	10'-0"	8'-6"	18'-6"
v23(E)	1	29	8'-6"	6'-10"	15'-4"
v24(E)	1	27	5'-11"	4'-6"	10'-5"
v25(E)	1	27	4'-6"	1'-9"	6'-3"



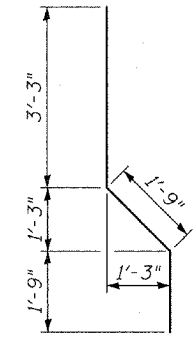
SERIES OF BAR CUTTING DIAGRAM

See table for dimensions.
Make all cuts normal to bar axis

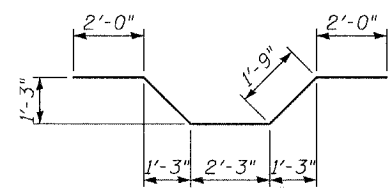


ANCHOR ROD

Diameter as specified for light poles.
(ASTM F 1554 Grade 105)



BAR d20(E)



BAR d21(E)

WALL D
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d20(E)	3	#6	6'-9"	
d21(E)	6	#6	10'-0"	
h20(E)	22	#5	23'-6"	
h21(E)	22	#5	20'-11"	
h22(E)	20	#5	30'-3"	
h23(E)	20	#5	27'-3"	
h24(E)	14	#5	28'-3"	
h25(E)	12	#5	25'-9"	
v20(E)	22	#4	12'-0"	
v21(E)	22	#4	19'-3"	
v22(E)	29	#4	18'-6"	
v23(E)	29	#4	15'-4"	
v24(E)	27	#4	10'-5"	
v25(E)	27	#4	6'-3"	
Structure Excavation		CU YD	115	
Rock Excavation for Structures		CU YD	5	
Concrete Structures		CU YD	45	
Protective Coat		SQ YD	28	
Form Liner Textured Surface		SQ YD	96	
Stud Shear Connectors		EACH	156	
Untreated Timber Lagging		SQ FT	818	
Reinforcement Bars, Epoxy Coated		LB	4,490	
Furnishing Soldier Piles (HP Section)		FT	36	
Furnishing Soldier Piles (W Section)		FT	294	
Geocomposite Wall Drain		SQ YD	91	
Pipe Underdrains for Structures, 4"		FT	182	
Drilling and Setting Soldier Piles (in Soil)		CU FT	1,158	
Drilling and Setting Soldier Piles (in Rock)		CU FT	558	
Bicycle Railing, Special		FT	151	
Anti-Graffiti Coating		SQ FT	864	

NOTES:

- B.F. denotes Back Face.
- E.F. denotes Each Face.
- F.F. denotes Front Face.
- Work this sheet with Sheets 6 of 13.
- Pile spacing measured along back face of wall.
- Offsets are measured from the NB Washington St. to the front face of wall.
- See Sheet 8 of 13 for limits of architectural finish.
- See Sheet 11 of 13 for railing details.

LAP SPLICES

Bar	Lap
#5	2'-2"

REVISIONS	
NAME	DATE

WALL D
PLAN & ELEVATION
STA. 452+64.44 TO STA. 453+16.25

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY

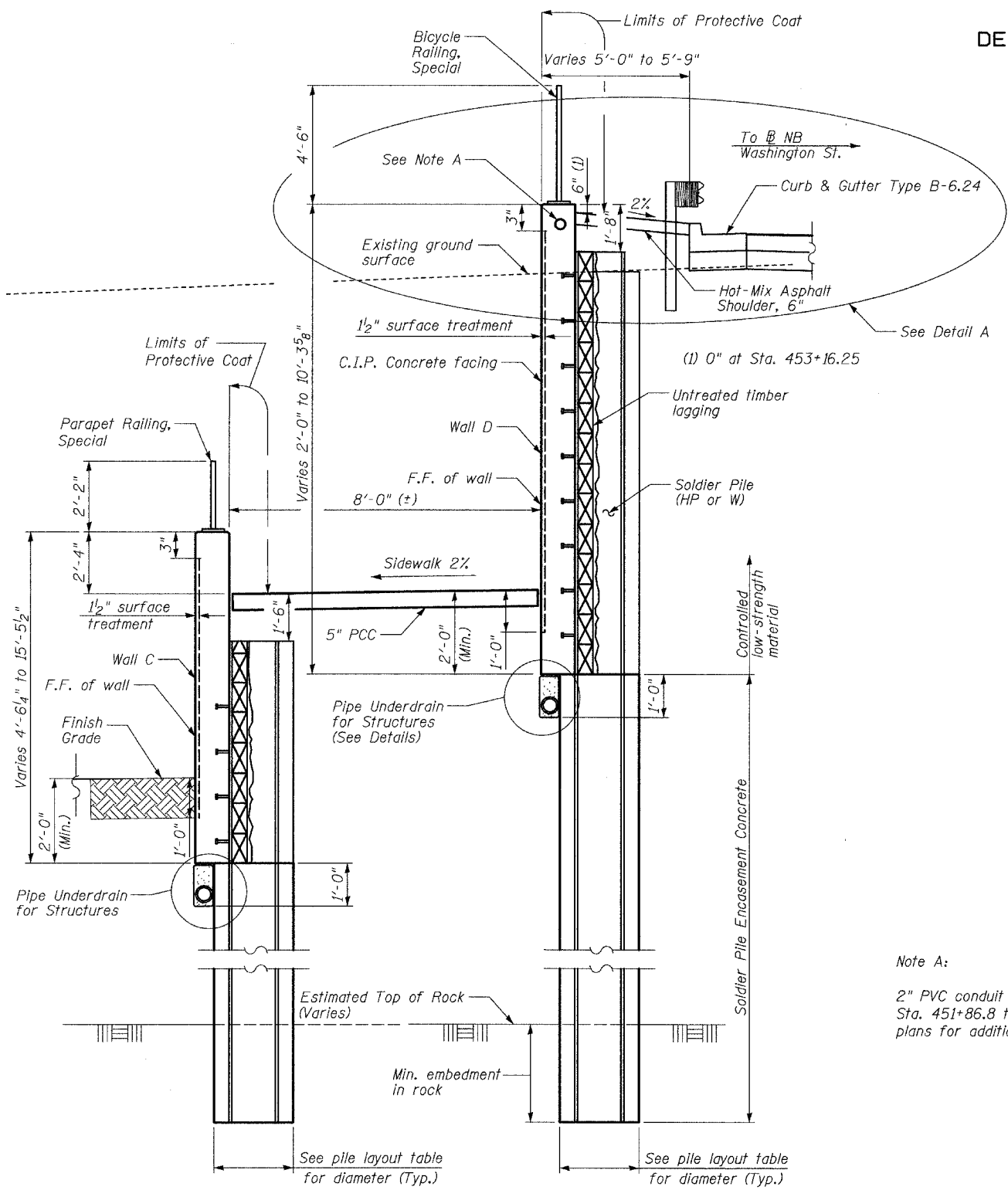
TYLIN INTERNATIONAL

DESIGNED	- TB
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.U. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552		DUPAGE	563	405
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		00-00114-00-PV	CONTRACT NO. 63024	

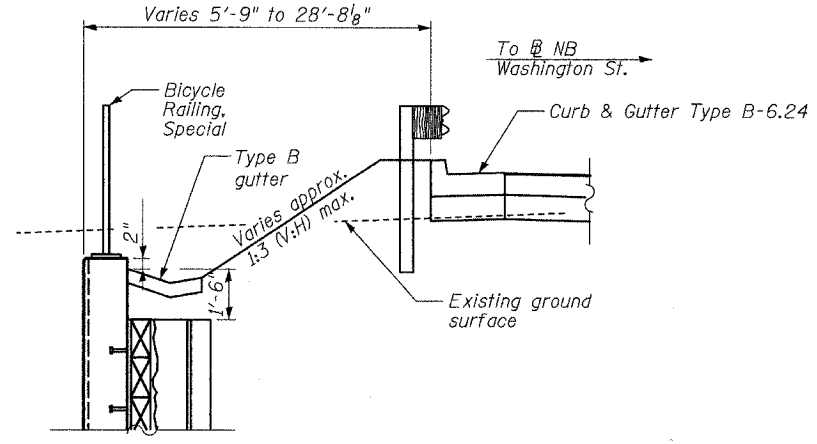
SHEET NO. - 8
13 - SHEETS



SECTION THRU WALLS C & D
Looking South
Valid Sta. 451+62.07 to Sta. 453+16.25

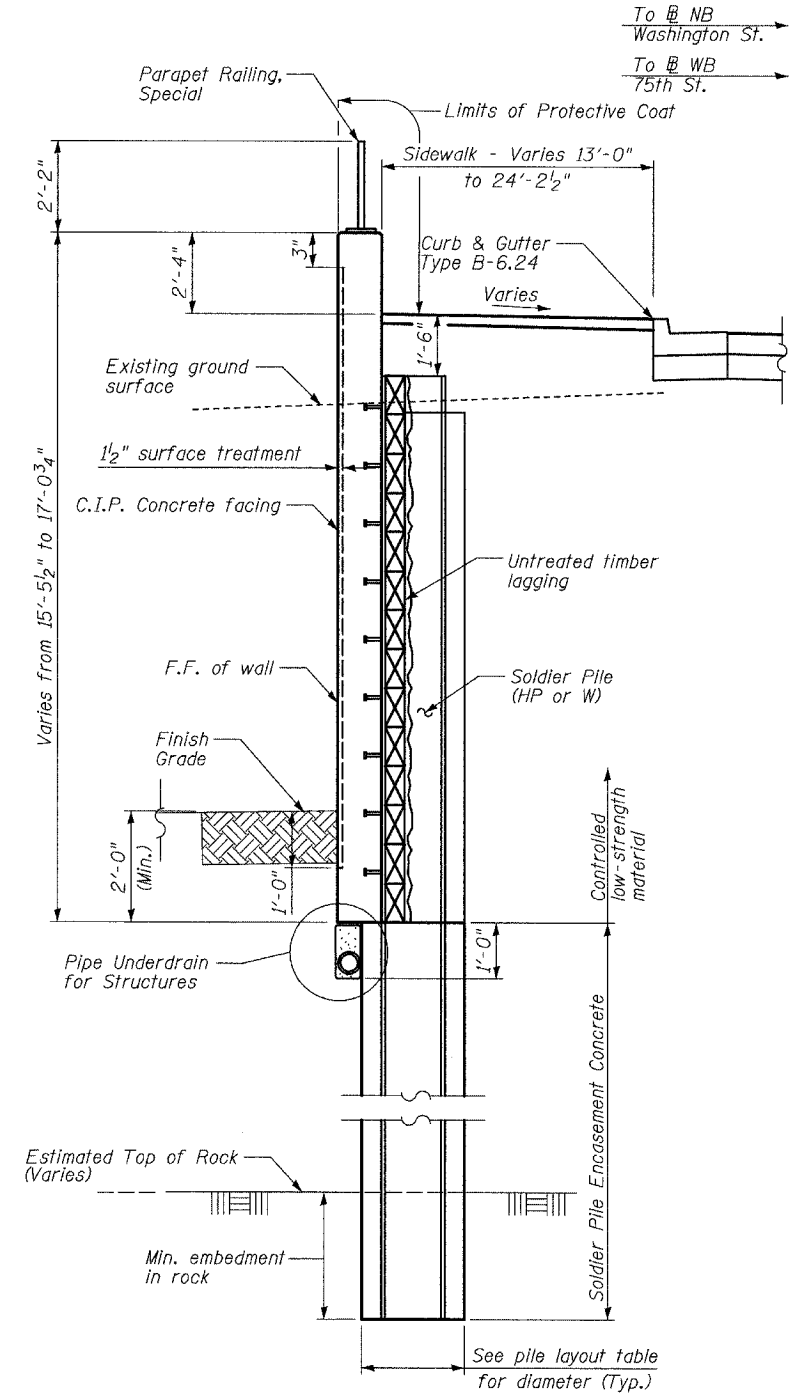
TYLIN INTERNATIONAL

DESIGNED	- TB
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP



DETAIL A
Looking South
Valid Sta. 451+62.07 to Sta. 451+93.93

Note A:
2" PVC conduit embedded in wall, between Sta. 451+86.8 to Sta. 452+19.0. See Electrical plans for additional details.

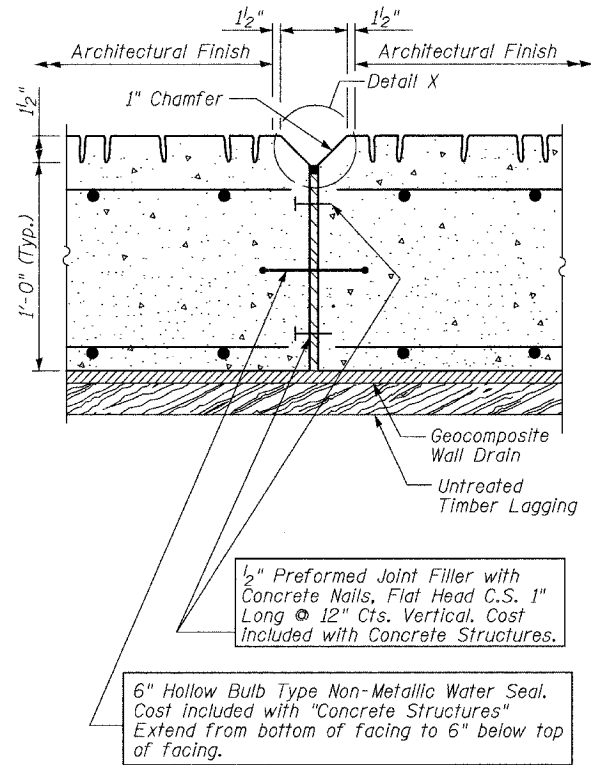


SECTION THRU WALL C
Valid Sta. 453+16.25 to Sta. 453+81.86

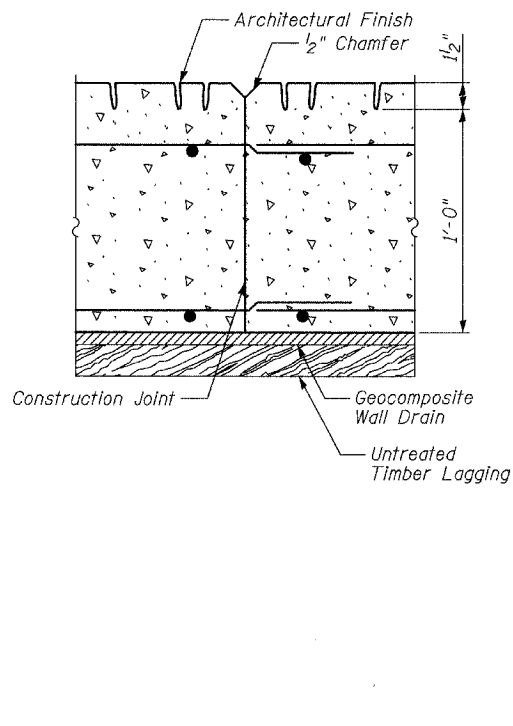
REVISIONS	
NAME	DATE

**WALLS C & D
WALL DETAILS**

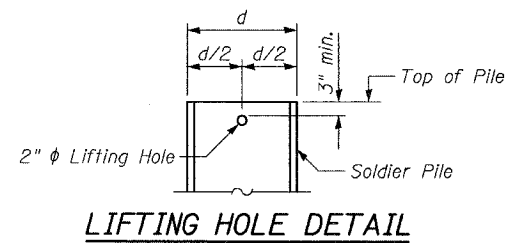
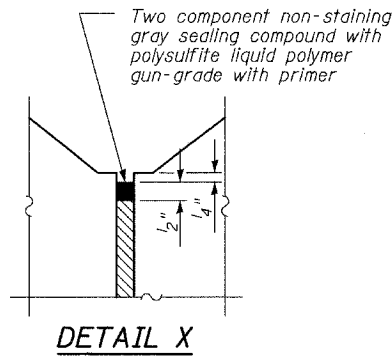
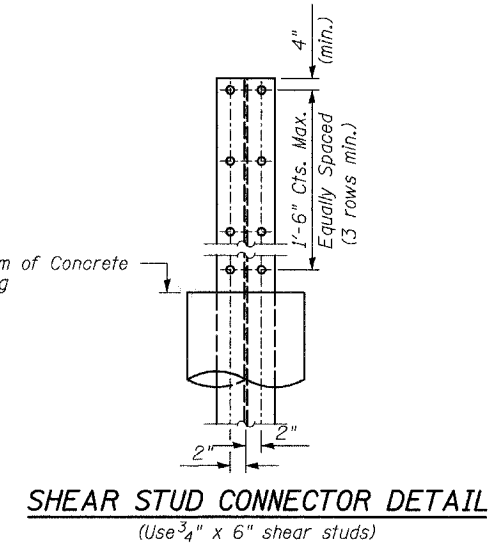
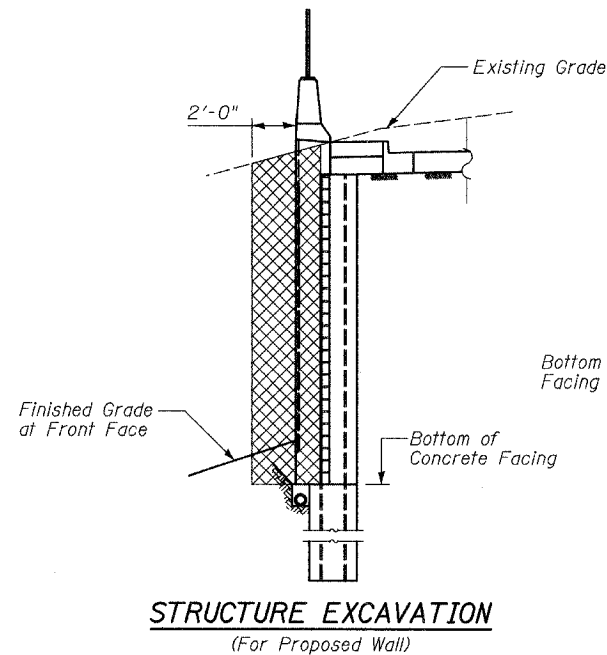
WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY



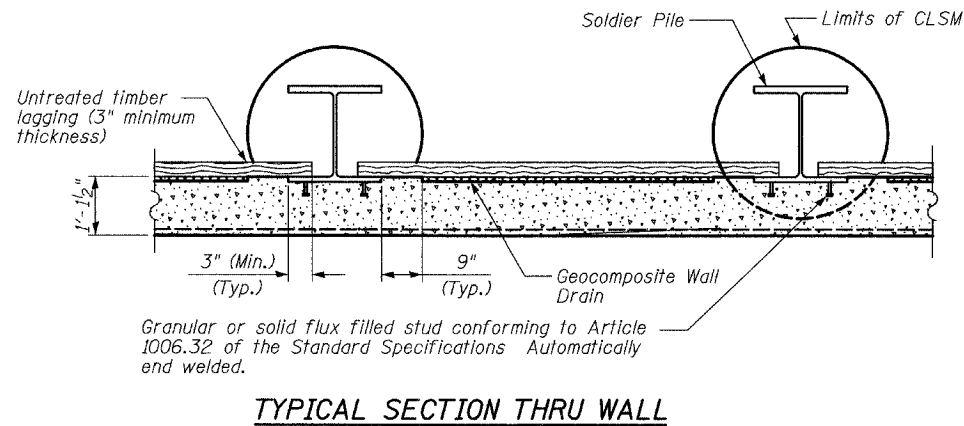
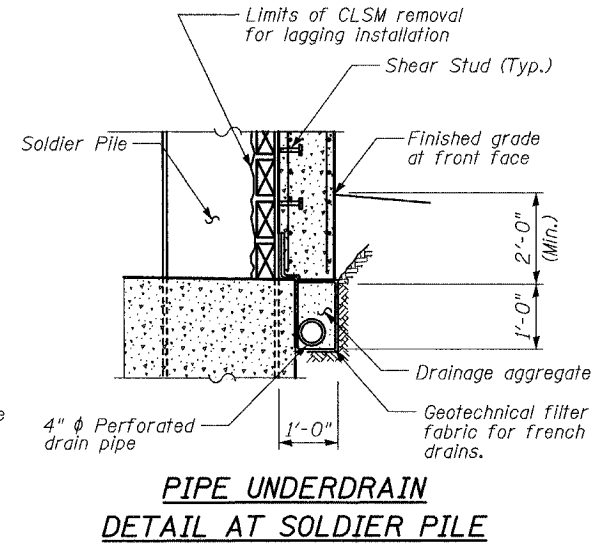
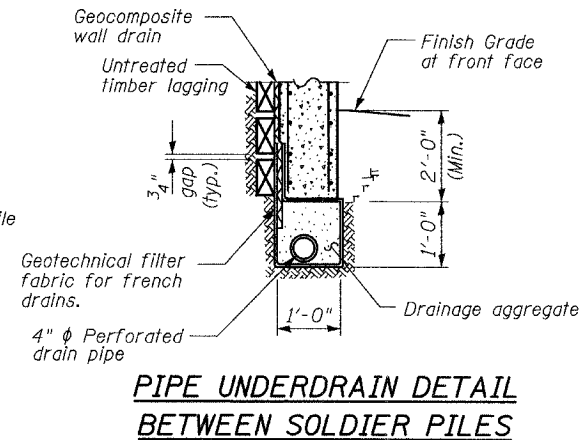
EXPANSION JOINT DETAIL



CONSTRUCTION JOINT DETAIL



Lifting hole to be provided if necessary. Cost included with "Furnishing Soldier Piles (W-Section) or (HP-Section).



TYPICAL SECTION THRU WALL

TYLIN INTERNATIONAL

DESIGNED	- TB
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP

NOTES:

- The geocomposite wall drain shall be constructed according to Section 591 of the Standard Specifications.
- Stud shear connectors shall be 3/4" φ x 6" granular or solid flux filled headed studs, automatically end welded to the front flange of the soldier piles.

REVISIONS	
NAME	DATE

**WALLS C AND D
MISCELLANEOUS DETAILS**

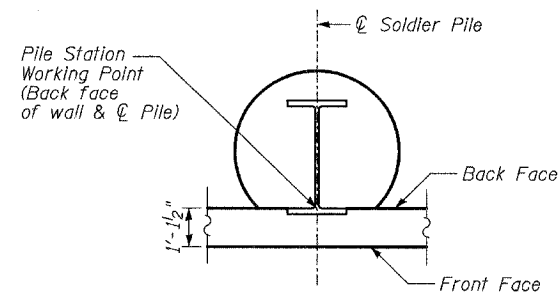
WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY

PILE LAYOUT - WALL C

Pile	Station at Working Point	Offset	Top of Pile Elev.	Pile Tip Elev.	Pile Length (ft.)	Pile Type	Estimated Top of Rock Elev.	Pile Embedment in Soil (ft.)	Min. Embedment in Rock (ft.)	Soldier Pile Encasement diameter (in.)
P-1	451+72.37	61.31' Lt	656.35	646.93	9'-5"	HP14x89	652.00	4.52'	5.00'	30"
P-2	451+80.84	53.34' Lt	657.09	646.92	10'-2"	HP14x89	652.00	4.88'	5.00'	30"
P-3	451+91.70	49.53' Lt	657.82	646.99	10'-10"	HP14x89	652.00	6.56'	5.00'	30"
P-4	451+98.72	49.18' Lt	658.15	644.15	14'-0"	HP14x89	651.71	8.45'	7.50'	30"
P-5	452+07.78	48.93' Lt	658.62	643.62	15'-0"	HP14x89	651.14	9.05'	7.50'	30"
P-6	452+16.85	48.75' Lt	659.09	643.01	16'-1"	HP14x89	650.57	10.26'	7.50'	30"
P-7	452+25.92	48.63' Lt	659.56	642.73	16'-10"	HP14x89	650.30	12.05'	7.50'	30"
P-8	452+34.99	48.59' Lt	660.03	642.78	17'-3"	HP14x89	650.30	12.67'	7.50'	30"
P-9	452+44.33	48.58' Lt	660.50	642.75	17'-9"	HP14x89	650.30	13.88'	7.50'	30"
P-10	452+69.19	48.61' Lt	661.46	642.30	19'-2"	W21x147	651.30	16.42'	9.00'	30"
P-11	452+81.18	49.00' Lt	661.35	642.27	19'-1"	W21x147	651.30	16.38'	9.00'	30"
P-12	452+89.83	49.56' Lt	661.27	642.27	19'-0"	W21x147	651.30	16.26'	9.00'	30"
P-13	452+98.46	50.35' Lt	661.19	642.27	18'-11"	W21x147	651.30	14.20'	9.00'	30"
P-14	453+07.07	51.38' Lt	661.11	642.27	18'-10"	W21x147	651.30	16.10'	9.00'	30"
P-15	453+15.64	52.64' Lt	661.02	642.27	18'-9"	W21x147	651.30	16.02'	9.00'	30"
P-16	453+24.18	54.13' Lt	660.94	642.53	18'-5"	W21x147	651.57	15.46'	9.00'	30"
P-17	453+32.67	55.86' Lt	660.86	642.86	18'-0"	W21x147	651.89	15.86'	9.00'	30"
P-18	453+41.11	57.81' Lt	660.78	643.20	17'-7"	W21x147	652.22	15.78'	9.00'	30"
P-19	453+45.60	62.53' Lt	665.78	642.95	22'-10"	W21x147	652.02	15.46'	9.00'	30"
P-20	453+48.78	70.59' Lt	666.23	642.31	23'-11"	W21x147	651.38	9.44'	9.00'	30"
P-21	453+51.96	78.66' Lt	666.67	641.67	25'-0"	W21x147	650.74	8.72'	9.00'	30"
P-22	453+55.14	86.72' Lt	667.12	641.03	26'-1"	W21x147	650.10	16.23'	9.00'	30"
P-23	453+58.32	94.78' Lt	667.56	640.39	27'-2"	W21x147	649.46	7.26'	9.00'	30"
P-24	453+61.50	102.84' Lt	668.01	639.76	28'-3"	W21x147	648.82	6.54'	9.00'	30"

PILE LAYOUT - WALL D

Pile	Station at Working Point	Offset	Top of Pile Elev.	Pile Tip Elev.	Pile Length (ft.)	Pile Type	Estimated Top of Rock Elev.	Pile Embedment in Soil (ft.)	Min. Embedment in Rock (ft.)	Soldier Pile Encasement diameter (in.)
P-25	451+61.77	62.22' Lt	657.45	642.95	14'-6"	W21x147	652.00	3.06'	9.00'	30"
P-26	451+66.50	54.33' Lt	660.98	642.65	18'-4"	W21x147	651.96	3.60'	9.00'	30"
P-27	451+72.94	47.87' Lt	664.51	642.43	22'-1"	W21x147	651.72	6.66'	9.00'	30"
P-28	451+80.72	43.21' Lt	665.26	642.17	23'-1"	W21x147	651.50	9.57'	9.00'	30"
P-29	451+89.39	40.65' Lt	666.14	641.97	24'-2"	W21x147	651.25	9.93'	9.00'	30"
P-30	451+98.42	40.06' Lt	666.18	641.85	24'-4"	W21x147	651.00	10.30'	9.00'	30"
P-31	452+07.46	39.81' Lt	666.13	641.63	24'-6"	W21x147	650.88	10.04'	9.00'	30"
P-32	452+16.51	39.63' Lt	666.09	641.34	24'-9"	W21x147	650.65	9.53'	9.00'	30"
P-33	452+25.56	39.51' Lt	666.03	641.28	24'-9"	W21x147	650.30	8.75'	9.00'	30"
P-34	452+34.62	39.46' Lt	665.97	641.22	24'-9"	W21x147	650.30	8.49'	9.00'	30"
P-35	452+43.88	39.46' Lt	665.91	641.24	24'-8"	W21x147	650.30	7.96'	9.00'	30"
P-36	452+69.29	39.49' Lt	665.69	643.44	22'-3"	W21x147	650.30	6.24'	7.00'	30"
P-37	452+81.13	39.86' Lt	665.57	643.90	21'-8"	W21x147	650.48	5.98'	7.00'	30"
P-38	452+91.60	40.55' Lt	665.41	652.32	13'-1"	HP14x89	651.30	4.83'	0.00'	30"
P-39	453+02.05	41.57' Lt	664.85	652.94	11'-11"	HP14x89	651.35	4.69'	0.00'	30"
P-40	453+12.46	42.92' Lt	664.30	653.55	10'-9"	HP14x89	651.75	3.55'	0.00'	30"



SOLDIER PILE WORKING POINT

TYLINT INTERNATIONAL

DESIGNED	- TB
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP

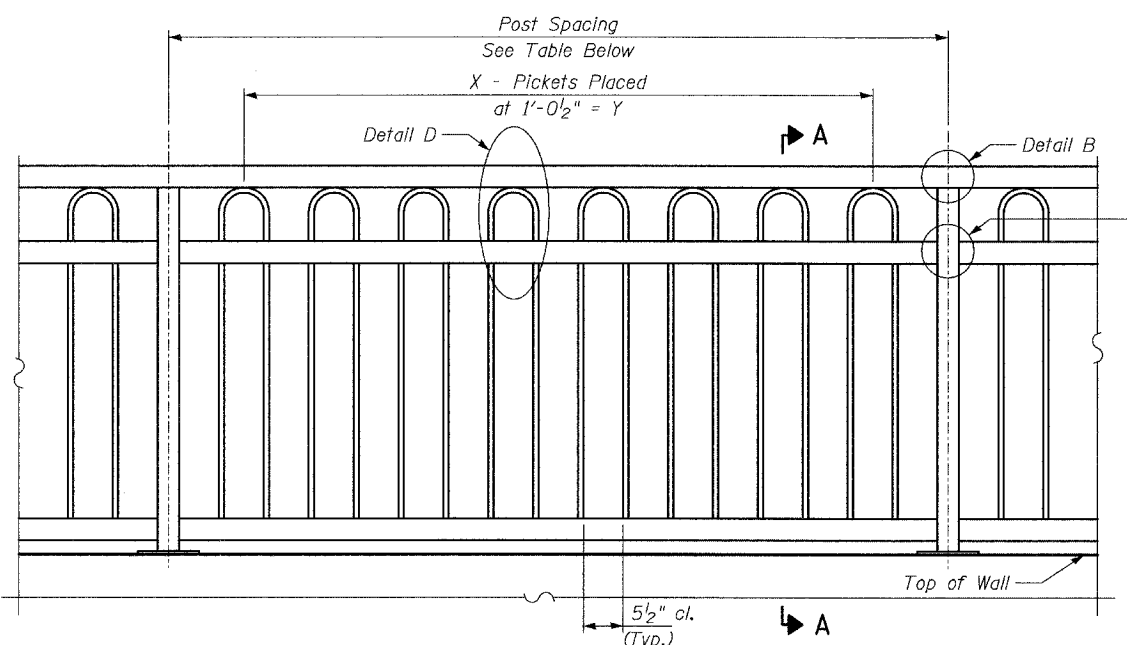
REVISIONS	
NAME	DATE

WALLS C AND D PILE DETAILS

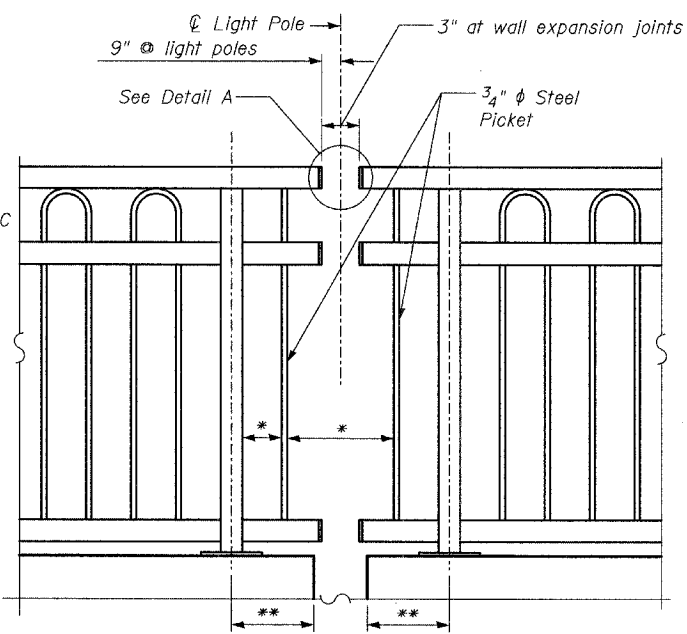
WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY

NOTES:

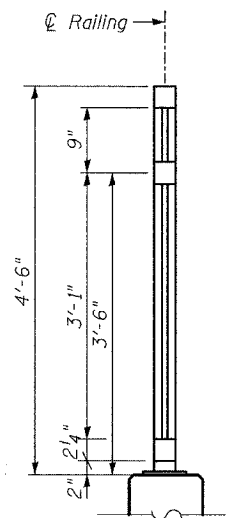
- Railing shall be in accordance with Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for Bicycle Railing, Special or Parapet Railing, Special.
- Hollow Structural Steel Tubing shall conform to the requirements of ASTM Designation of 500, Grade B, Structural Steel Tubing. Anchor bolts shall conform to ASTM A307 unless noted otherwise.
- All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36.
- The bicycle railing and parapet railing shall be powder coated and the color shall be black.
- The exterior steel surface shall be blast cleaned to Steel Structures Painting Council Surface Preparation Specification No. 6 (SSPC-SP6) requirements using cast steel abrasives conforming to the Society of Automotive Engineers (SAE) recommended Practice J827. The blast method used is a recirculating, closed cycle centrifugal wheel system with abrasive conforming to SAE Shot Number S280.
- All exterior surfaces shall be coated with a Urethane or Triglycidyl Isocyanurate (TGIC) Polyester Powder to a minimum film thickness of 0.002". The coating shall be electrostatically applied and cured in a gas fired convection oven by heating the steel substrate to a minimum of 350 degrees Fahrenheit and a maximum of 400 degrees Fahrenheit. The thermosetting powder resin shall provide both intercoat as well as substrate fusion adhesion that meets 5A or 5B classifications of ASTM D3359.
- Ship railing to the site in a manner to prevent damage to the powder coating.



ELEVATION - TYPICAL SECTION



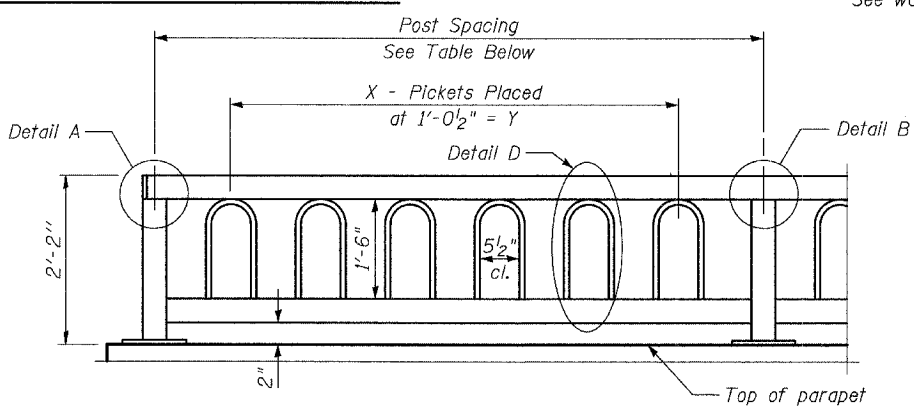
BICYCLE RAILING



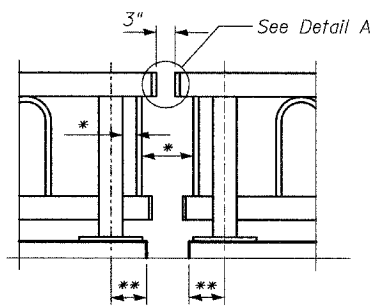
SECTION A-A

RAILING LAYOUT **

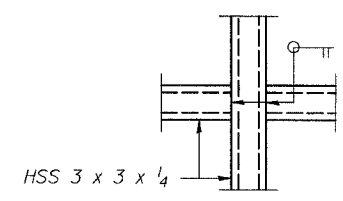
Post Spacing	Picket Layout	
	X	Y
4'-10 1/2"	4	3'-1 1/2"
5'-11"	5	4'-2"
6'-11 1/2"	6	5'-2 1/2"
8'-0"	7	6'-3"
9'-0 1/2"	8	7'-3 1/2"



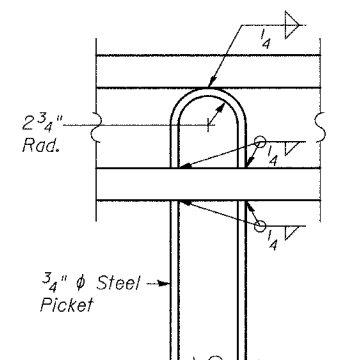
PARAPET RAILING ELEVATION



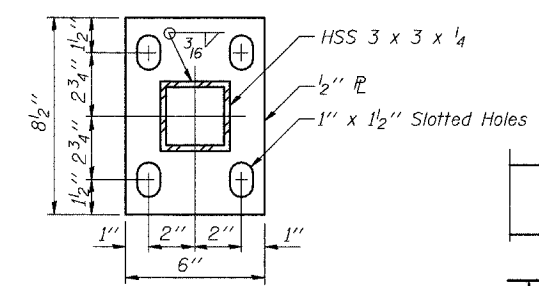
PARAPET RAILING ELEVATION AT EXPANSION JOINT



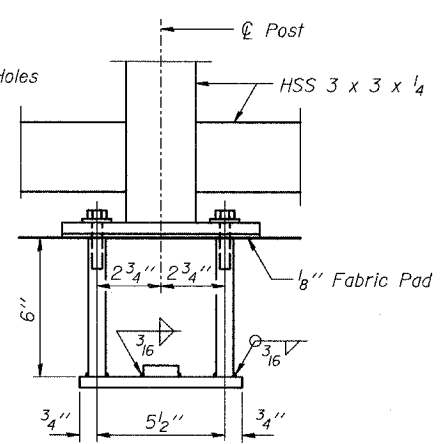
DETAIL C



DETAIL D

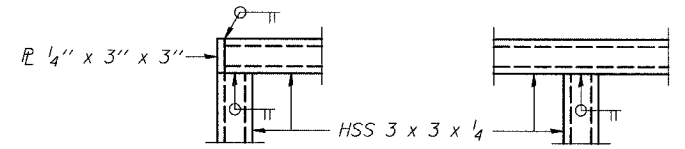
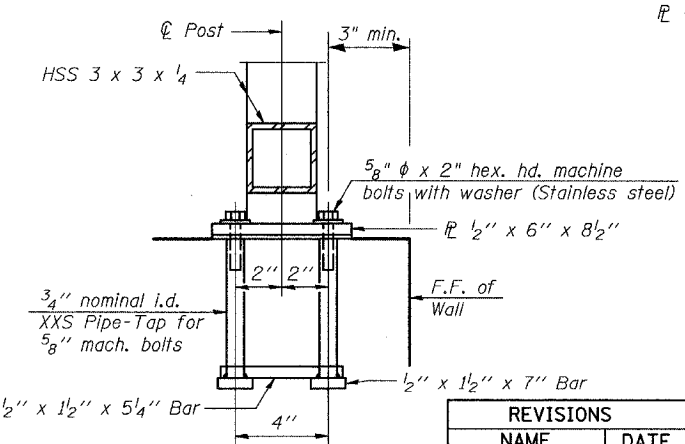


BASE PL



TYPICAL ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



DETAIL A

DETAIL B

BILL OF MATERIAL

Item	Unit	Quantity
Bicycle Railing	Foot	151
Parapet Railing	Foot	216

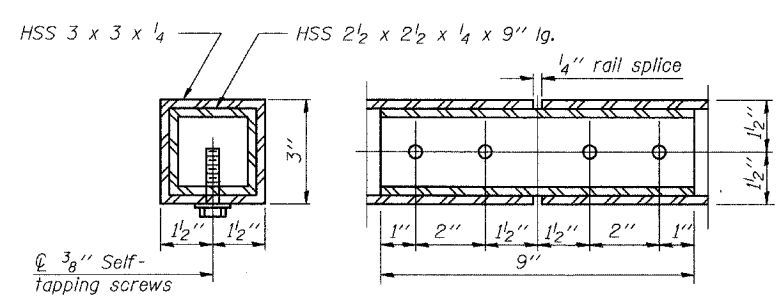
REVISIONS	
NAME	DATE

WALLS C AND D RAILING DETAILS

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY

TYLIN INTERNATIONAL

DESIGNED	- TB
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP



TYPICAL RAIL SPLICE DETAILS



O'BRIEN & ASSOCIATES, INC.
CONSULTING ENGINEERS
1235 E. DAVIS ST., ARLINGTON HTS., IL 60005
(847)398-1441 • FAX (847) 398-2376

STRUCTURE FOUNDATION BORING LOG

Project: Supplemental Phase 2 Geotechnical Investigation For The Proposed 75th Street and Washington Street Intersection Improvements OBA Job No.: 07546
 Location: Washington Street & 75th Street, Naperville, Illinois Date: 10/29/2007
 County: Cook Bored By: RH
 Client: T.Y. Lin International Checked By: DOB

BORING No.: <u>RW-07-05</u>	DEPTH (ft)	BLOW (ft)	UCS (tsf)	M	Surface Water Elev.: <u>n/a</u>	Groundwater Elevation: <u>n/a</u> WD	Groundwater Elevation: <u>n/a</u> AB	After Hours:	DEPT						
									H	S	Qu	T			
4.0' TOPSOIL-black	665.5	AS	-	23											
CLAY-brown-very stiff (A-6) Fill	662.3	6													
		8													
		6	3.5P	15											
		4													
		13													
SAND, GRAVEL & FRACTURED ROCK-brown-medium dense to very dense (A-1)		-5	13	NP	14										
		50/6'													
				NP	8										
Possible cobbles or boulders from -6.0' to -12.5'.															
		34													
		50/2'													
		-10		NP	5										
		50/3'													
	653.3			NP	10										
Drillers Observation: Fractured rock	652.3														
Silurian System, Niagara Series Dolomite RUN 1 (-13.5' to -23.5')															
		-15													
Porous & weathered with rust staining & some chert nodules to -22.2', becoming fine grained & light gray with horizontal bedding. Numerous horizontal fractures throughout. No vugs or vertical fractures encountered.															
Recovery=100.0% R.Q.D.=55.5%															
		-20													
	642.3														
		-25													

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator) ST-Shelby Tube Sample VS-Vane Shear Test The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%) NR-No Recovery



O'BRIEN & ASSOCIATES, INC.
CONSULTING ENGINEERS
1235 E. DAVIS ST., ARLINGTON HTS., IL 60005
(847)398-1441 • FAX (847) 398-2376

SOIL BORING LOG

DATE July 18, 2002

LOGGED BY RH

OBA JOB No. 01252

ROUTE xx DESCRIPTION 75th Street and Washington Street Intersection Improvements
 SECTION xx LOCATION Naperville, Illinois
 COUNTY DuPage DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. <u>xx</u>	Station <u>xx</u>	DEPTH (ft)	BLOW (ft)	UCS (tsf)	M	Surface Water Elev. <u>n/a</u>	Stream Bed Elev. <u>n/a</u>	Groundwater Elevation:	First Encounter <u>Dry</u>	Upon Completion <u>n/a</u>	After <u>xx</u> Hrs. <u>xx</u> ft	DEPT			
												H	S	Qu	T
BORING NO. <u>RW-1</u>	Station <u>451+30</u> Washington Street														
	Offset <u>74'</u> Left														
	Ground Surface Elev. <u>663.0</u>	(ft)	(/ft)	(tsf)	(%)										
SILTY SAND, GRAVEL & STONE-black-medium dense (FIII)							...continued								
		5					642.0								
		5					End of Boring @ -21.0'								
		6	NP	14			Hollow Stem Augers to -11.0'								
							NX Bit Rock Coring to Completion								
		30													
		32													
		-5	46	NP	3										
FRACTURED STONE & GRAVEL-brown-very dense (A-1-a)															
		32													
		34													
		40		NP	5										
		39													
		32													
		-10	43	NP	10										
Run 1 (-11.0' to -16.0')															
Silurian System, NIAGARAN Series, Racine Formation Dolomite															
Well weathered with dark rust staining & numerous horizontal fractures throughout. Very porous with some large chert replacement nodules.															
RECOVERY = 100 % ROD = 64. %															
		-15													
Run 2 (-16.0' to -21.0')															
Silurian System, NIAGARAN Series, Racine Formation Dolomite															
Weathered with rust staining & chert nodules to -16.5' becoming light gray & fine grained with horizontal bedding.															
Horizontal fractures @ -16.5', -16.9', -17.5', -18.1', -18.4', -18.8', -19.2' & -20.1'.															
RECOVERY = 90 % ROD = 80 %															
		-20													

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator) ST-Shelby Tube Sample VS-Vane Shear Test The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%) NR-No Recovery

F.A.U. ROUTE NO.	DIRECTION	COUNTY	SHEET NO.	TOTAL SHEETS
2552	*	DUPAGE	563	409
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	
* 00-00114-00-PV		CONTRACT NO. 63024		

TYLIN INTERNATIONAL

DESIGNED	-
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP

REVISIONS	
NAME	DATE

BORING LOGS - 1

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY



O'BRIEN & ASSOCIATES, INC.
CONSULTING ENGINEERS
1235 E. DAVIS ST., ARLINGTON HTS., IL 60005
(847) 398-1441 • FAX (847) 398-2376

STRUCTURE FOUNDATION BORING LOG

Page 1 of 1

Project: Geotechnical Investigation For The Proposed Washington Street Pedestrian Underpass OBA Job No.: 04303
Location: Washington Street & 75th Street, Naperville, Illinois Date: December 15, 06
County: Cook Bored By: RJ
Client: T.Y. Lin International Checked By: DOB

Boring No.: TB-2	Station: 56+16	Offset: Centerline	Ground Surface Elevation: 666.3	(ft)	1/6'	Qu (tsf)	(%)	Surface Water Elev.: n/a				Groundwater Elevation: Dry WD				Groundwater Elevation: n/a AB				After	Hours:
								(ft)	1/6'	(tsf)	(%)	(ft)	1/6'	(tsf)	(%)	(ft)	1/6'	(tsf)	(%)		
SAND & GRAVEL with Stone (Fill)																					
SILTY CLAY-trace sand & gravel-brown & gray-hard (CL) Fill																					
SILTY CLAY-trace sand & gravel-brown-stiff (CL) Wet																					
SAND, GRAVEL & Cobbles-dense to very dense (GP)																					
SILTY CLAY-dark brown (A-6) Fill, Wet																					
CLAY LOAM-dark brown-soft (A-4/A-6) Fill																					
Run 1 (-16.0' to -20.5') Light brown with rust staining. Horizontal bedding with some chert nodules. Horizontal fractures @ -16.4', -16.75', -17.4', -18.0', -18.6', -19.1', -19.4' & -19.75'. Recovery=88.9% RQD=60.0%																					
End of Boring @ -20.5'. Hollow Stem Augers to -16.0' Rotary Drilling to Completion CME-75 Automatic Hammer																					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery



O'BRIEN & ASSOCIATES, INC.
CONSULTING ENGINEERS
1235 E. DAVIS ST., ARLINGTON HTS., IL 60005
(847) 398-1441 • FAX (847) 398-2376

SOIL BORING LOG

PAGE 1 of 1

DATE July 2, 2002

LOGGED BY RH

OBA JOB No. 01252

ROUTE xx DESCRIPTION 75th Street and Washington Street Intersection Improvement
SECTION xx LOCATION Naperville, Illinois
COUNTY DuPage DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

Struct. No. xx	Station xx	Boring No. S-1	Station 250+45 75th Street	Offset 58' Left	Ground Surface Elev. 663.8	(ft)	1/6'	Qu (tsf)	(%)	Surface Water Elev. n/a				Stream Bed Elev. n/a				Groundwater Elevation:				After xx	Hrs.
										(ft)	1/6'	(tsf)	(%)	(ft)	1/6'	(tsf)	(%)	(ft)	1/6'	(tsf)	(%)		
SANDY TOPSOIL with GRAVEL and STONE-dark brown (Fill)																							
CRUSHED STONE with CLAY-medium dense (Fill)																							
SILTY CLAY-dark brown (A-6) Fill, Wet																							
CLAY LOAM-dark brown-soft (A-4/A-6) Fill																							
Run 1 (-16.0' to -21.0') Silurian System, NIAGARAN Series, Racine Formation Dolomite Lightly weathered with rust staining to -19.0'. Horizontal bedding with some chert replacement nodules. Horizontal fractures @ -16.7, -16.8, -17.1, -17.4 & -18.0. Weathered horizontal fracture zone from -18.0 to -18.8. Horizontal fractures @ -19.6, -20.0 & -20.3																							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
NR-No Recovery AS-Auger Sample

F.A.U. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	DUPAGE		563	410

ILLINOIS FEDERAL PROJECT - CONTRACT NO. 63024

SHEET NO. - 13

13 - SHEETS

TYLIN INTERNATIONAL

DESIGNED	-
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP

REVISIONS	
NAME	DATE

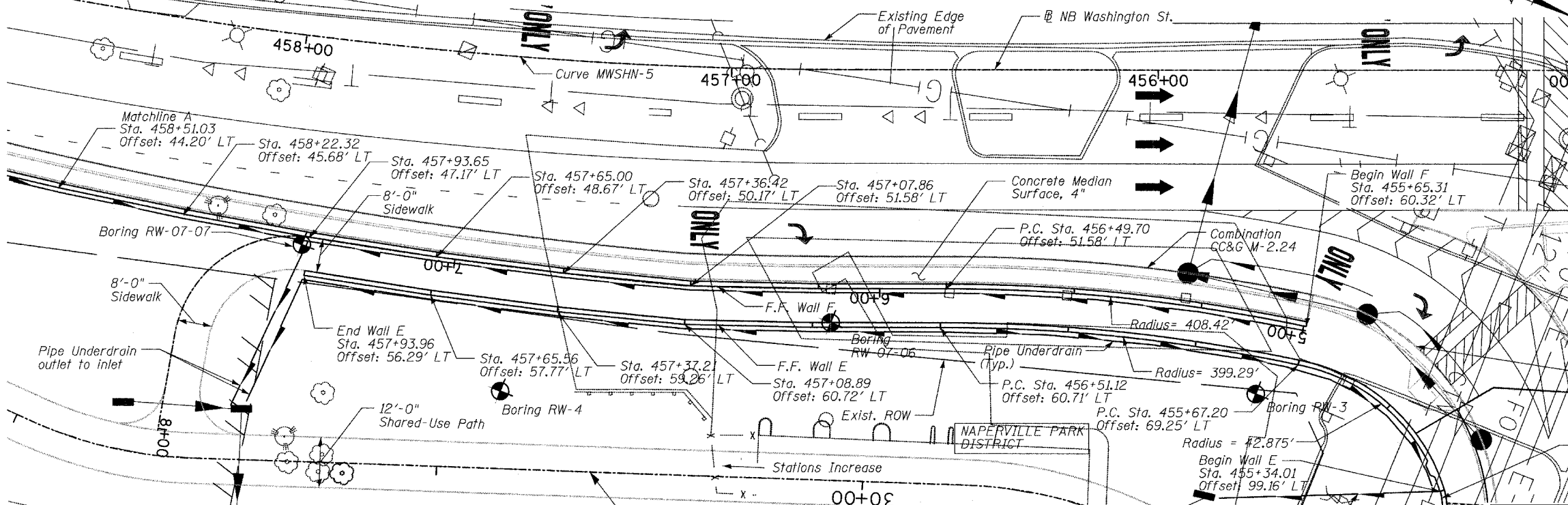
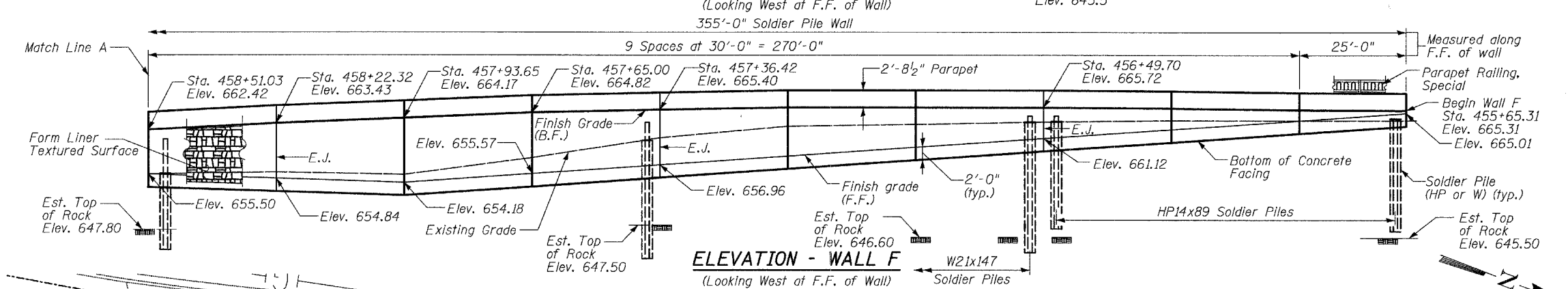
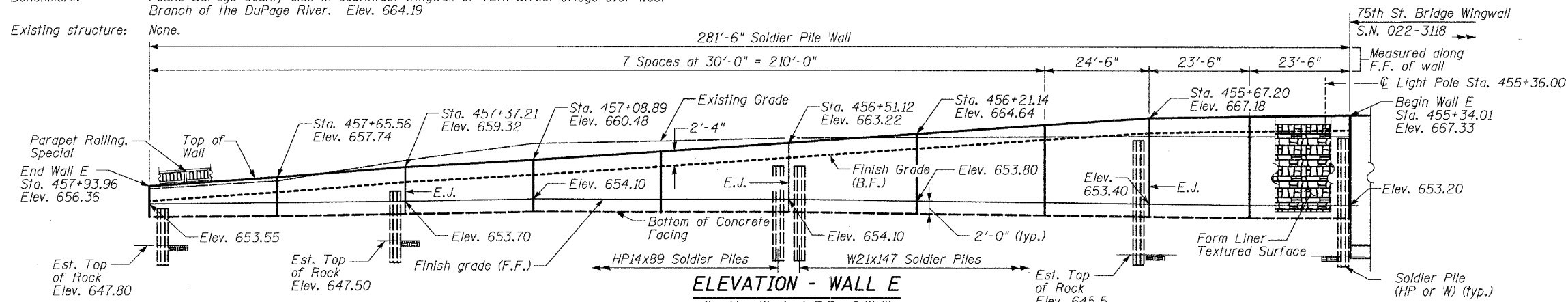
BORING LOGS - 2

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY

Benchmark: Found DuPage County disk in southwest wingwall of 75th Street bridge over West Branch of the DuPage River. Elev. 664.19

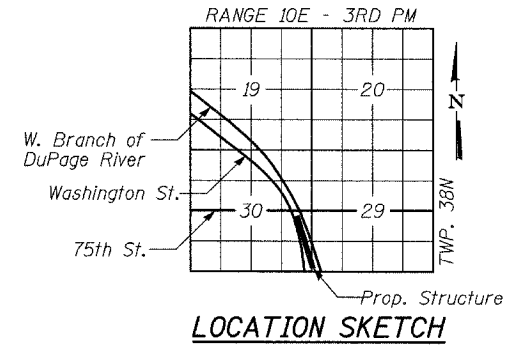
Existing structure: None.

FAU ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO. - 1
2552		DUPAGE	563	30 - SHEETS
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		
00-00114-00-PV		CONTRACT NO. 63024		



Signed: *[Signature]*
Spiros Pantazis, S.E., II, Lic. No. 081-006448 Expires 11-30-2008. For drawings 1 thru 30
Date: 4/11/08

I certify that to the best of my knowledge, information and belief, this bridge 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 Standard Specifications of Highway Bridges".



TYLIN INTERNATIONAL

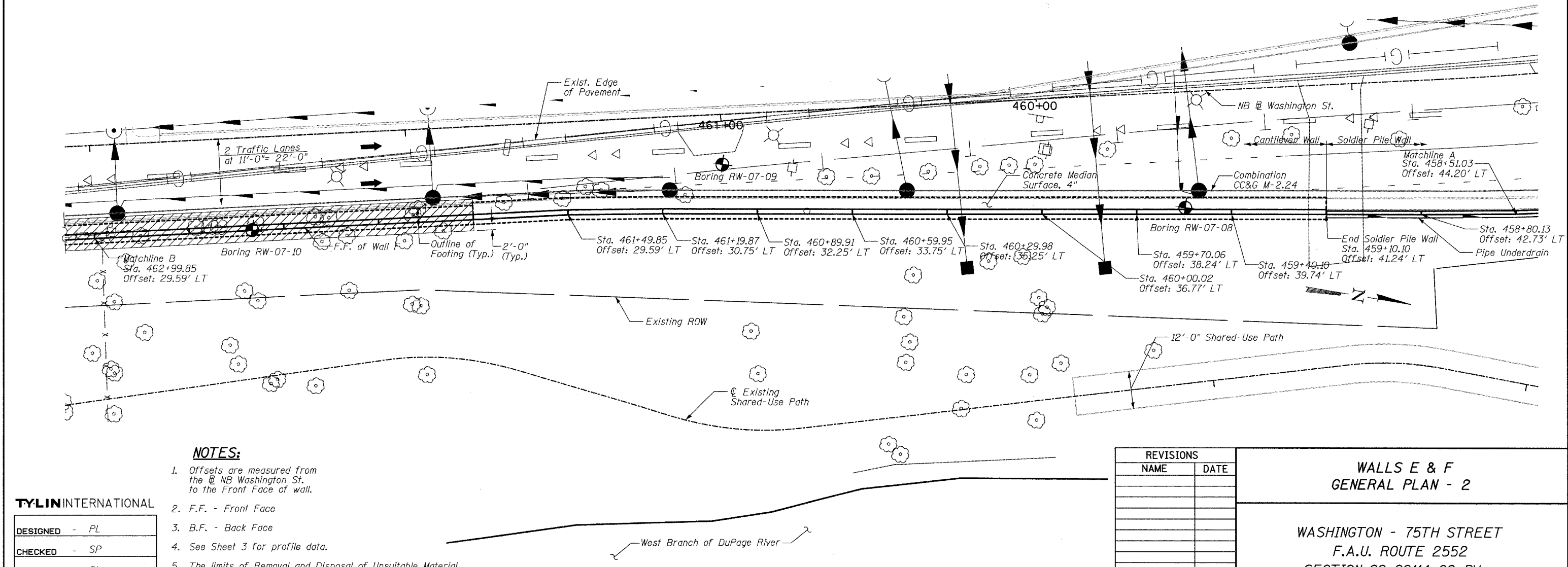
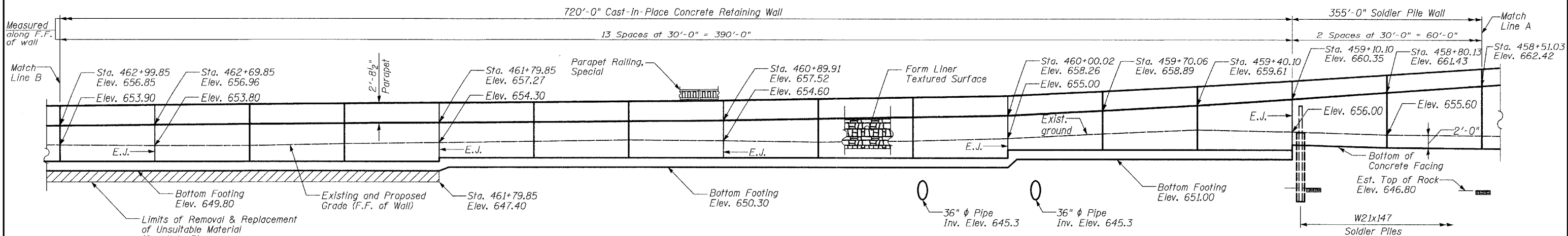
DESIGNED	- PL
CHECKED	- SP
DRAWN	- PL
CHECKED	- SP

PLAN

REVISIONS	NAME	DATE

**WALLS E & F
GENERAL PLAN - 1**

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY



- NOTES:**
- Offsets are measured from the @ NB Washington St. to the Front Face of wall.
 - F.F. - Front Face
 - B.F. - Back Face
 - See Sheet 3 for profile data.
 - The limits of Removal and Disposal of Unsuitable Material and replacement with Porous Granular Embankment are based on the soil borings and may be modified as directed by the Engineer for variable subsurface conditions encountered in the field.

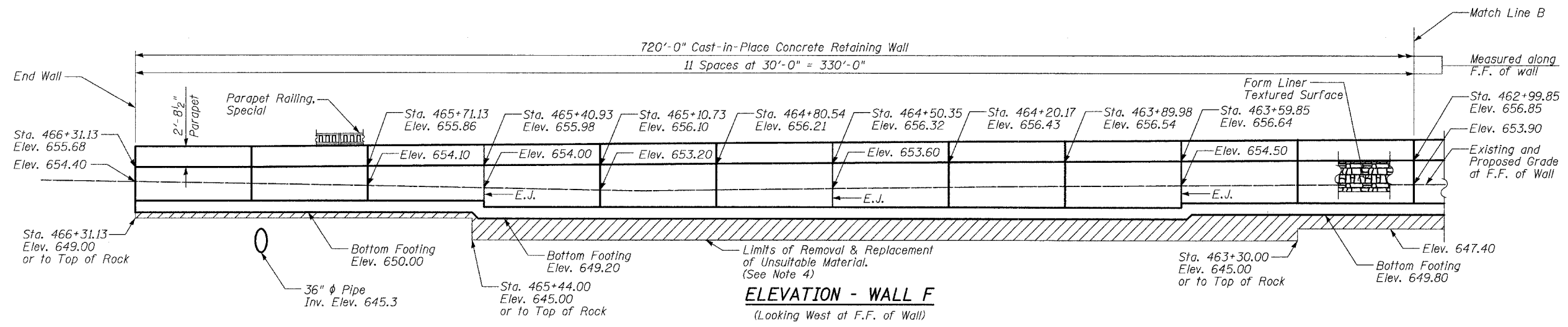
TYLIN INTERNATIONAL

DESIGNED	- PL
CHECKED	- SP
DRAWN	- PL
CHECKED	- SP

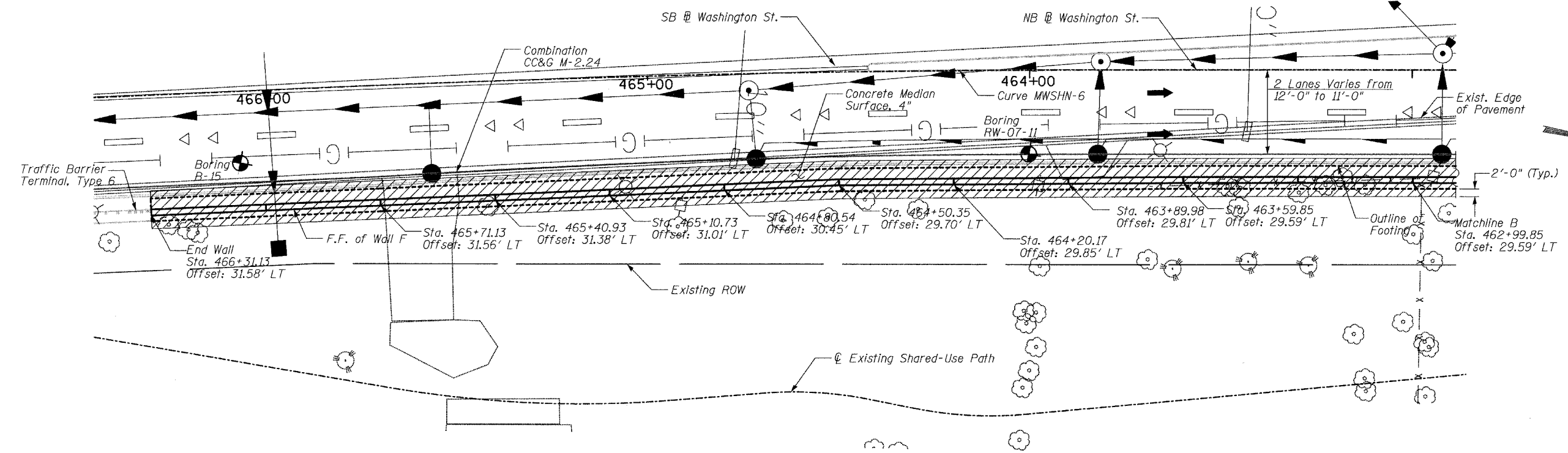
REVISIONS	
NAME	DATE

**WALLS E & F
GENERAL PLAN - 2**

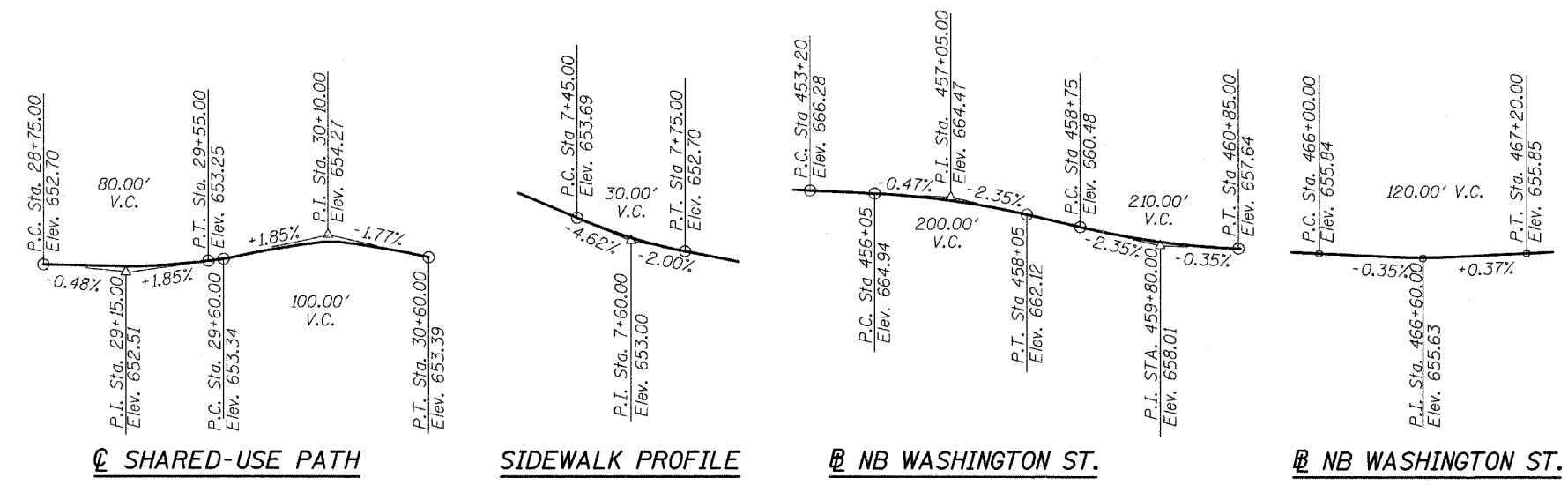
WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY



Prop. Curve MWSHN-6
 PI Sta. 464+71.22
 $\Delta = 2^\circ 26' 56''$ (LT)
 $D = 1^\circ 12' 22''$
 $T = 101.53'$
 $R = 4,750.00'$
 $L = 203.03'$
 $E = 1.08'$
 PC Sta. 463+69.69
 PT Sta. 465+72.72
 $SE = 2.0\%$
 Begin SE Trans Sta. 462+66.69
 Begin Full SE Sta. 463+90.69
 End Full SE Trans Sta. 465+51.72
 End SE Trans Sta. 466+75.72



- NOTES:**
- Offsets are measured from the @ NB Washington St. to the Front Face of wall.
 - F.F. - Front Face
 - B.F. - Back Face
 - The limits of Removal and Disposal of Unsuitable Material and replacement with Porous Granular Embankment are based on the soil borings and may be modified as directed by the Engineer for variable subsurface conditions encountered in the field.



TYLIN INTERNATIONAL

DESIGNED	- PL
CHECKED	- SP
DRAWN	- PL
CHECKED	- SP

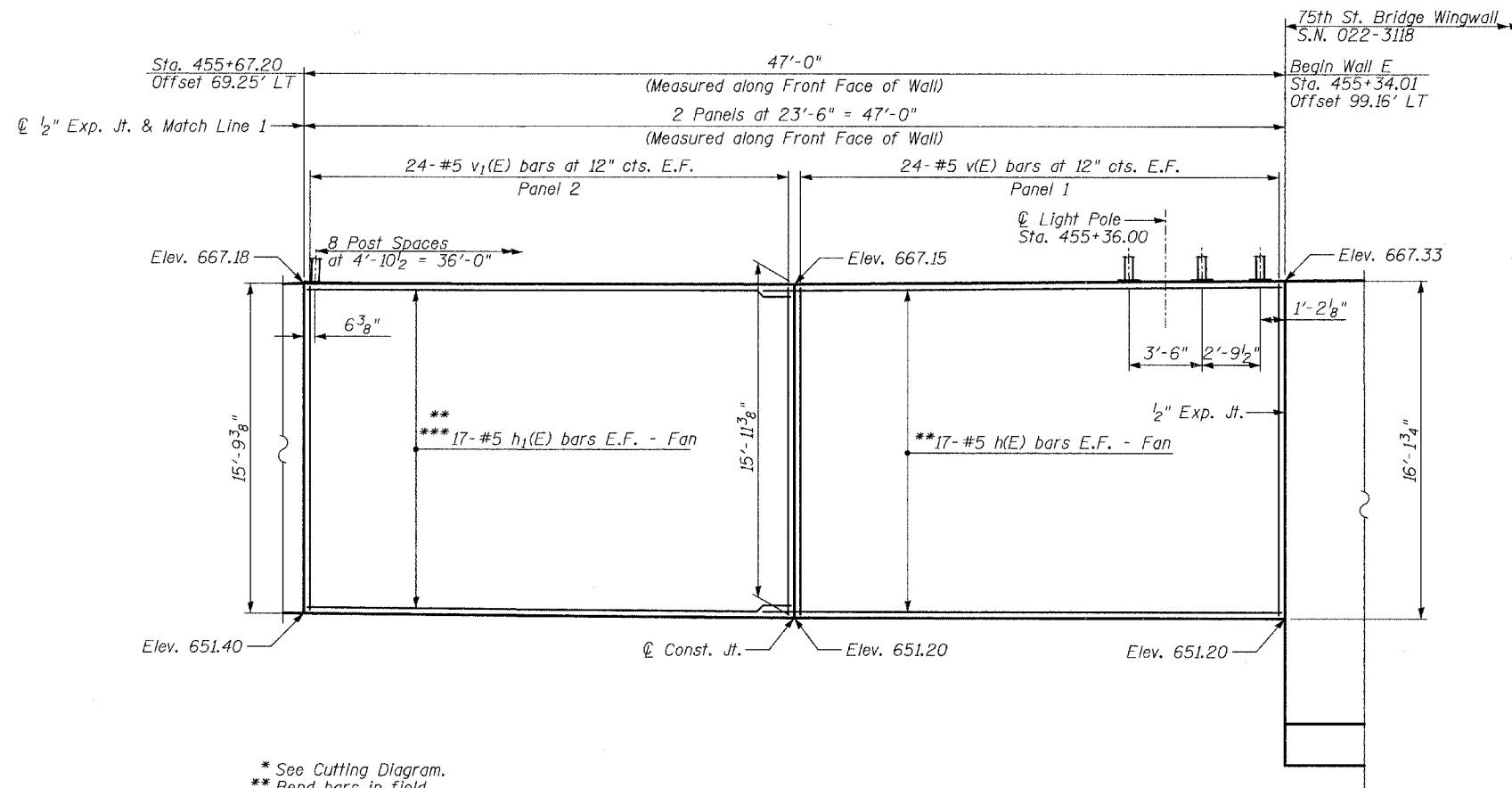
REVISIONS	
NAME	DATE

WALLS E & F
GENERAL PLAN - 3

WASHINGTON - 75TH STREET
 F.A.U. ROUTE 2552
 SECTION 00-00114-00-PV
 DUPAGE COUNTY

F.A.U. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552		DUPAGE	563	415
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
	00-00114-00-PV	CONTRACT NO. 63024		

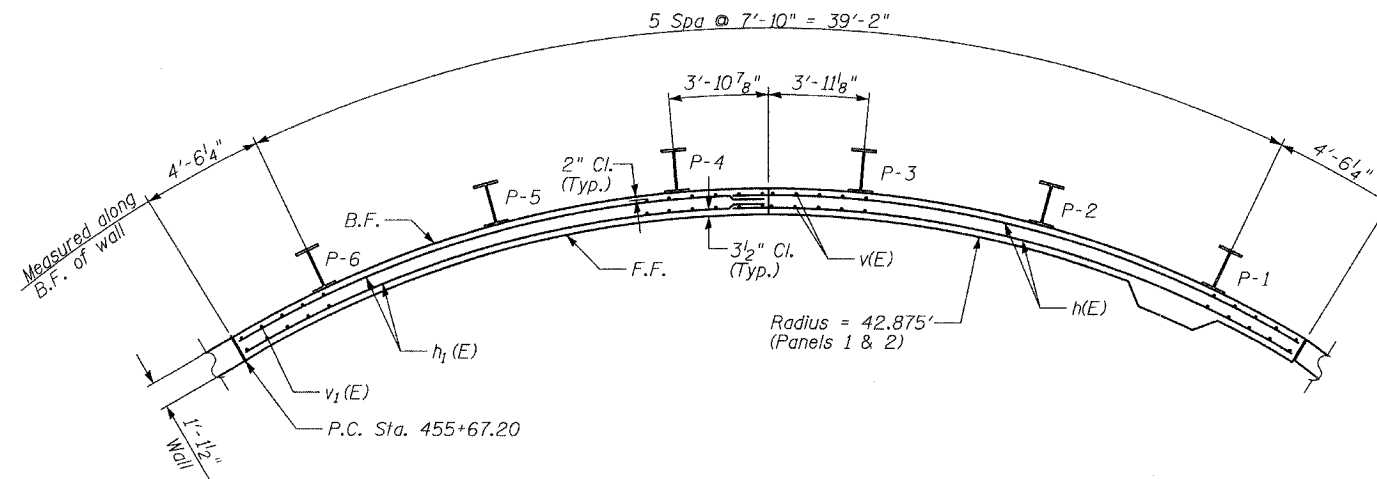
SHEET NO. - 5
30 - SHEETS



* See Cutting Diagram.
** Bend bars in field.
*** Cut Bars in Field

ELEVATION

(Looking At Front Face)



PLAN

NOTES:

1. B.F. denotes Back Face.
2. E.F. denotes Each Face.
3. F.F. denotes Front Face.
4. Work this sheet with Sheets 6 thru 8 of 30.
5. Pile spacing measured along back face of wall.
6. Offsets are measured from the NB Washington St. to the front face of wall.
7. See Sheet 8 for Light Pole Details.
8. See Sheet 13 for details and limits of architectural finish.
9. See Sheet 25 for railing details.

LAP SPLICES

Bar	Lap
#5	2'-2"

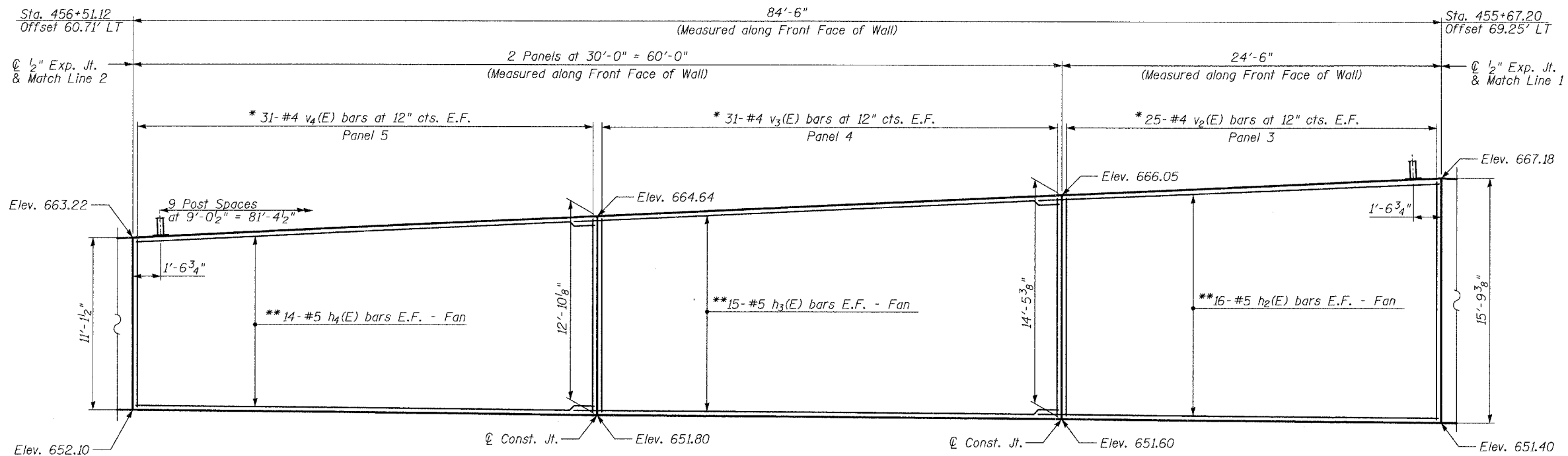
TYLIN INTERNATIONAL

DESIGNED	- DE
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP

REVISIONS	
NAME	DATE

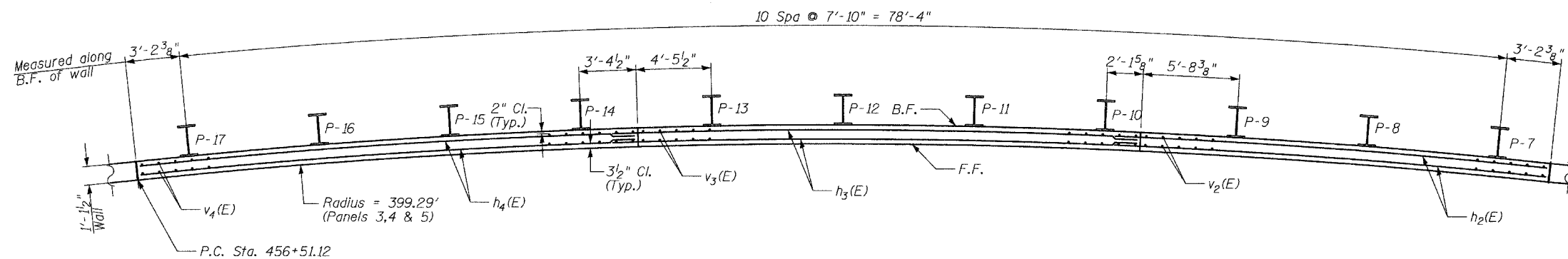
**WALL E - SOLDIER PILE
PLAN & ELEVATION
STA. 455+34.01 TO STA. 455+67.20**

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY



ELEVATION
(Looking At Front Face)

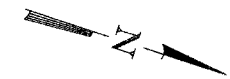
* See Cutting Diagram.
** Bend bars in field.



PLAN

NOTES:

1. B.F. denotes Back Face.
2. E.F. denotes Each Face.
3. F.F. denotes Front Face.
4. Work this sheet with Sheets 5 thru 8 of 30.
5. Pile spacing measured along back face of wall.
6. Offsets are measured from the @ NB Washington St. to the front face of wall.
7. See Sheet 13 for details and limits of architectural finish.
8. See Sheet 25 for railing details.



LAP SPLICES

Bar	Lap
#5	2'-2"

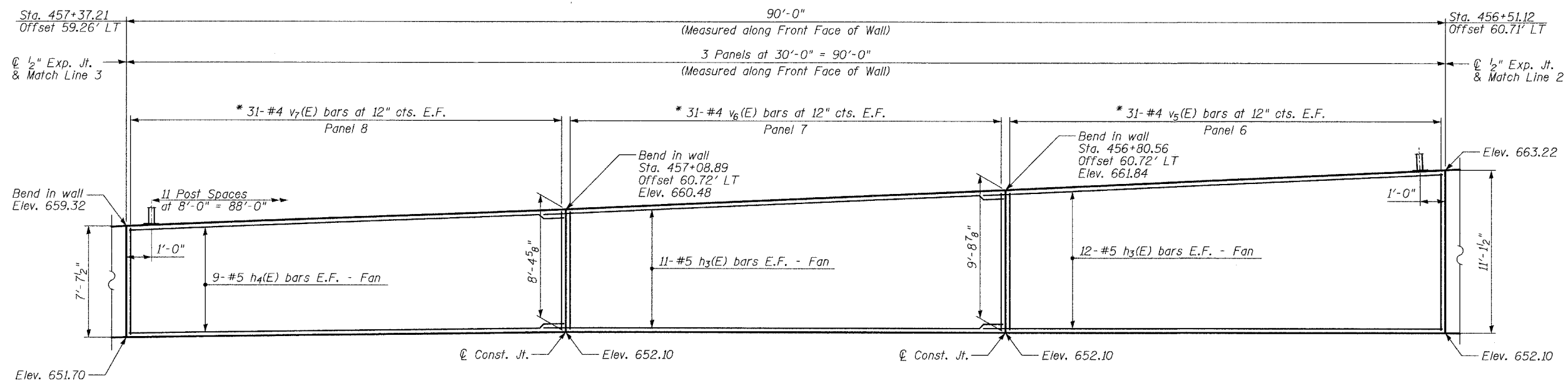
TYLIN INTERNATIONAL

DESIGNED	- DE
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP

REVISIONS	
NAME	DATE

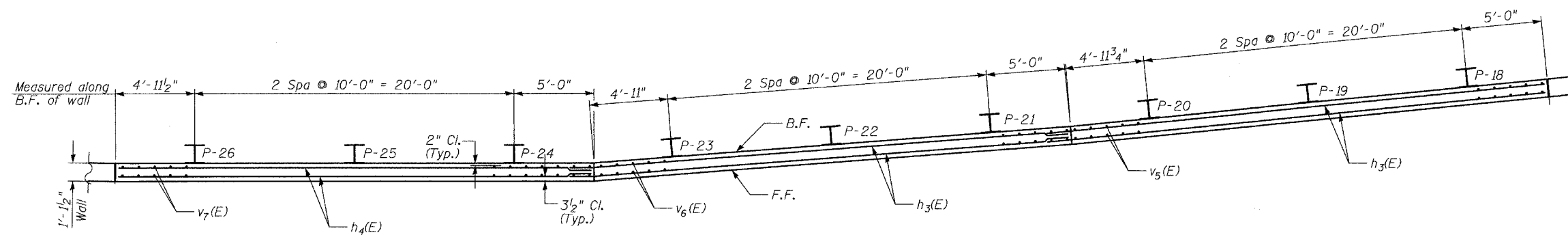
**WALL E - SOLDIER PILE
PLAN & ELEVATION
STA. 455+67.20 TO STA. 456+51.12**

**WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY**



* See Cutting Diagram.

ELEVATION
(Looking At Front Face)



LAP SPLICES

Bar	Lap
#5	2'-2"

PLAN

TYLIN INTERNATIONAL

DESIGNED	- DE
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP

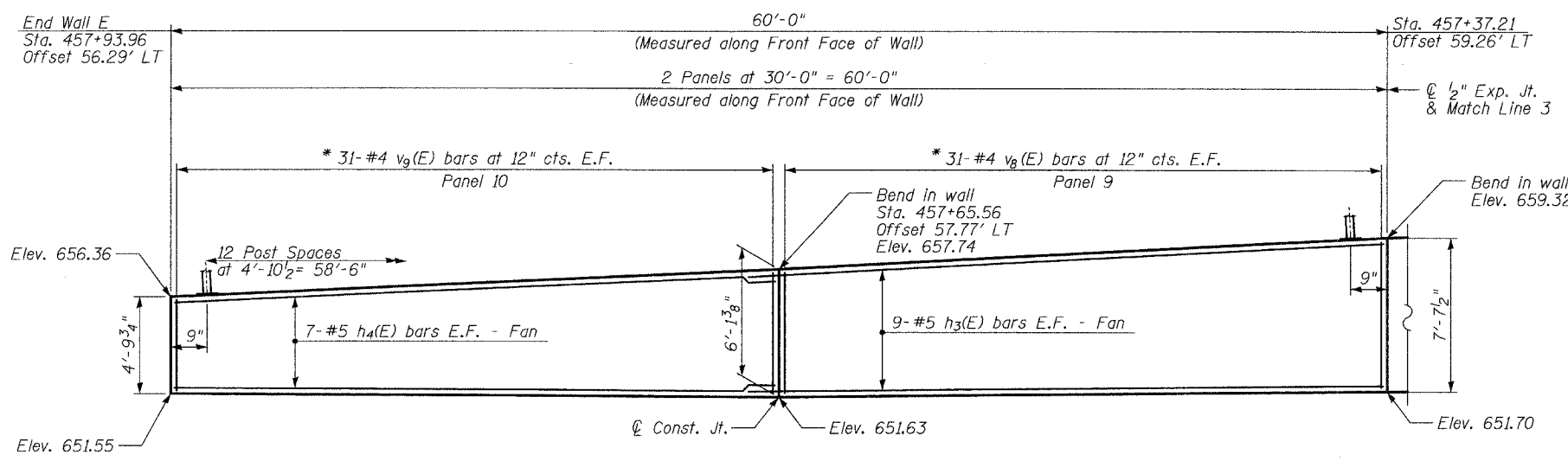
NOTES:

1. B.F. denotes Back Face.
2. E.F. denotes Each Face.
3. F.F. denotes Front Face.
4. Work this sheet with Sheets 5 thru 8 of 30.
5. Pile spacing measured along back face of wall.
6. Offsets are measured from the NB Washington St. to the front face of wall.
7. See Sheet 13 for details and limits of architectural finish.
8. See Sheet 25 for railing details.

REVISIONS	
NAME	DATE

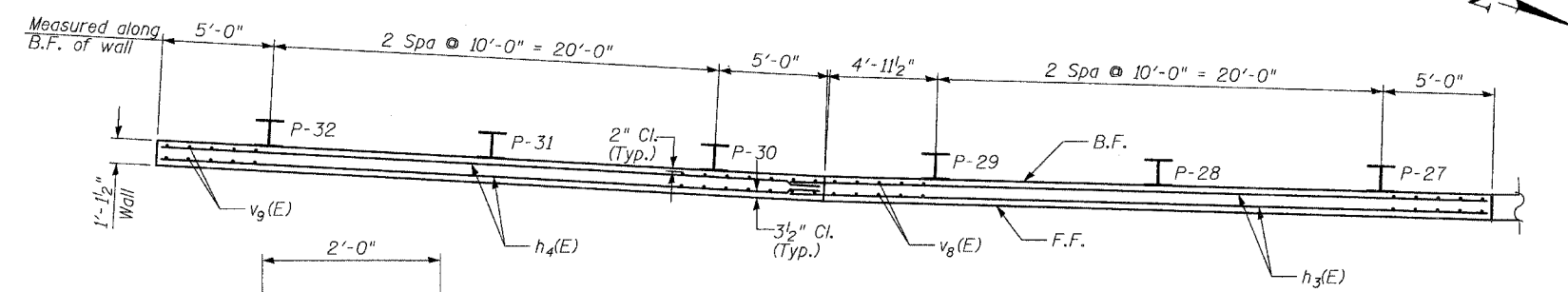
**WALL E - SOLDIER PILE
PLAN & ELEVATION
STA. 456+51.12 TO STA. 457+37.21**

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY

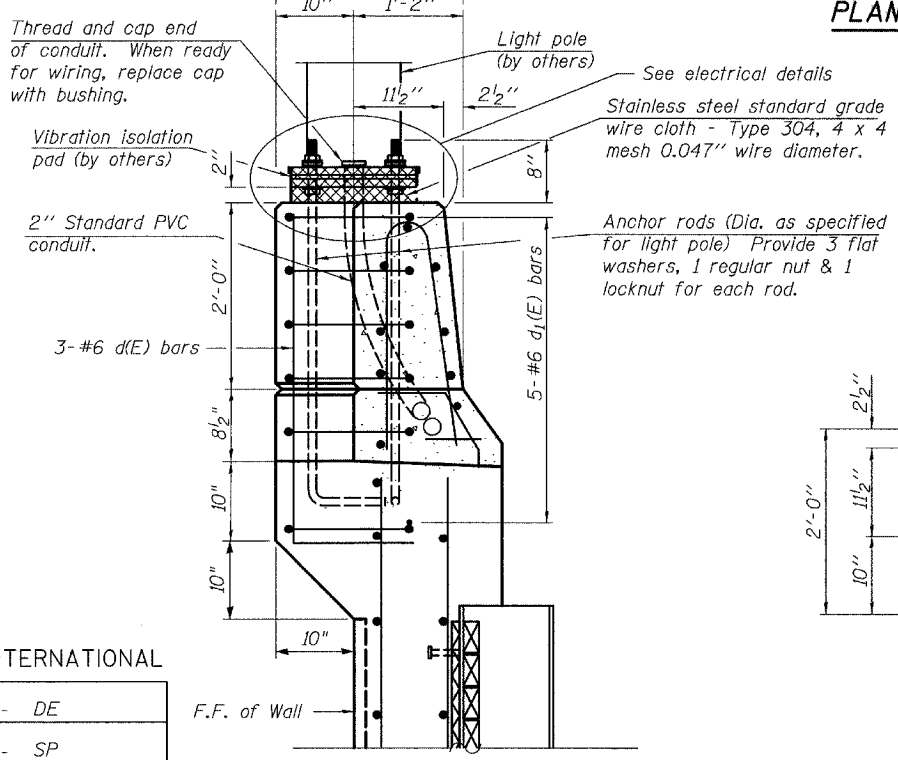


ELEVATION
(Looking At Front Face)

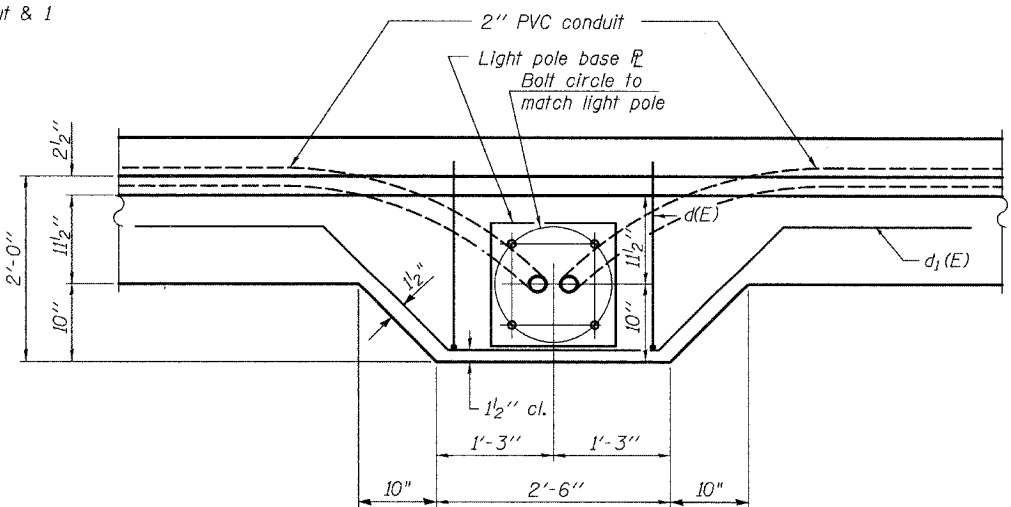
* See Cutting Diagram.



PLAN

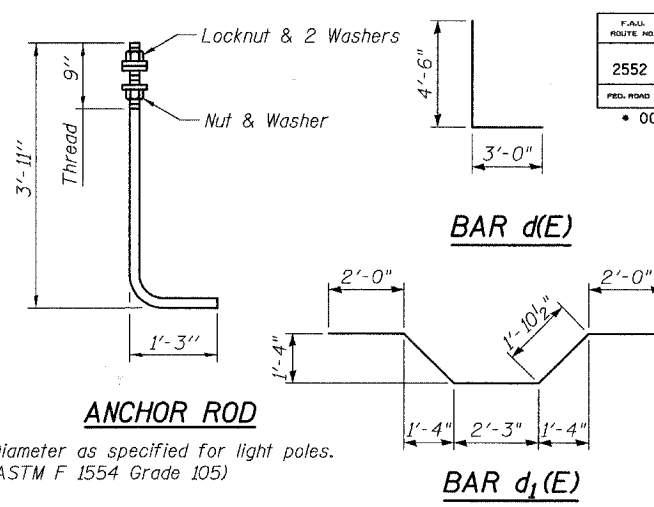


SECTION



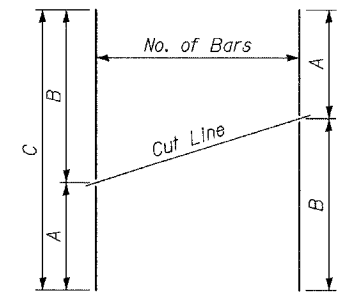
PLAN
LIGHT POLE DETAILS

Note:
Cost of anchor rods is included with Concrete Structures.



ANCHOR ROD

Diameter as specified for light poles. (ASTM F 1554 Grade 105)



SERIES OF BAR CUTTING DIAGRAM

See table for dimensions. Make all cuts normal to bar axis

BAR TABLE SCHEDULE

Bar	No. of Sets Req'd	No. of Bars Per Set	A	B	C
v ₂ (E)	1	25	15'-6"	14'-2"	29'-8"
v ₃ (E)	1	31	14'-2"	12'-7"	26'-9"
v ₄ (E)	1	31	12'-7"	10'-10"	23'-5"
v ₅ (E)	1	31	10'-10"	9'-5"	20'-3"
v ₆ (E)	1	31	9'-5"	8'-1"	17'-6"
v ₇ (E)	1	31	8'-1"	7'-4"	15'-5"
v ₈ (E)	1	31	7'-4"	5'-10"	13'-2"
v ₉ (E)	1	31	5'-10"	4'-6"	10'-4"

WALL E
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	3	#6	5'-0"	L
d ₁ (E)	5	#6	10'-0"	
h(E)	34	#5	26'-4"	
h ₁ (E)	34	#5	24'-4"	
h ₂ (E)	32	#5	32'-4"	
h ₃ (E)	94	#5	29'-9"	
h ₄ (E)	60	#5	29'-9"	
v(E)	48	#5	15'-9"	
v ₁ (E)	48	#5	15'-7"	
v ₂ (E)	25	#4	29'-8"	
v ₃ (E)	31	#4	26'-9"	
v ₄ (E)	31	#4	23'-5"	
v ₅ (E)	31	#4	20'-3"	
v ₆ (E)	31	#4	17'-6"	
v ₇ (E)	31	#4	15'-5"	
v ₈ (E)	31	#4	13'-2"	
v ₉ (E)	31	#4	10'-4"	

Structure Excavation	CU YD	339
Concrete Structures	CU YD	129
Protective Coat	SQ YD	109
Stud Shear Connectors	EACH	390
Untreated Timber Lagging	SQ FT	2,005
Reinforcement Bars, Epoxy Coated	POUND	12,450
Parapet Railing, Special	FOOT	282
Furnishing Soldier Piles (HP Section)	FOOT	231
Furnishing Soldier Piles (W Section)	FOOT	434
Geocomposite Wall Drain	SQ YD	223
Pipe Underdrains for Structures, 4"	FOOT	374
Drilling and Setting Soldier Piles (in Soil)	FOOT	2,505
Drilling and Setting Soldier Piles (in Rock)	FOOT	1,237
Form Liner Textured Surface	SQ YD	298
Anti-Graffiti Coating	SQ FT	2,682

NOTES:

1. B.F. denotes Back Face.
2. E.F. denotes Each Face.
3. F.F. denotes Front Face.
4. Work this sheet with Sheets 5 thru 7 of 30.
5. Pile spacing measured along back face of wall.
6. Offsets are measured from the @ NB Washington St. to the front face of wall.
7. See Sheet 13 for details and limits of architectural finish.
8. See Sheet 25 for railing details.

LAP SPLICES

Bar	Lap
#5	2'-2"

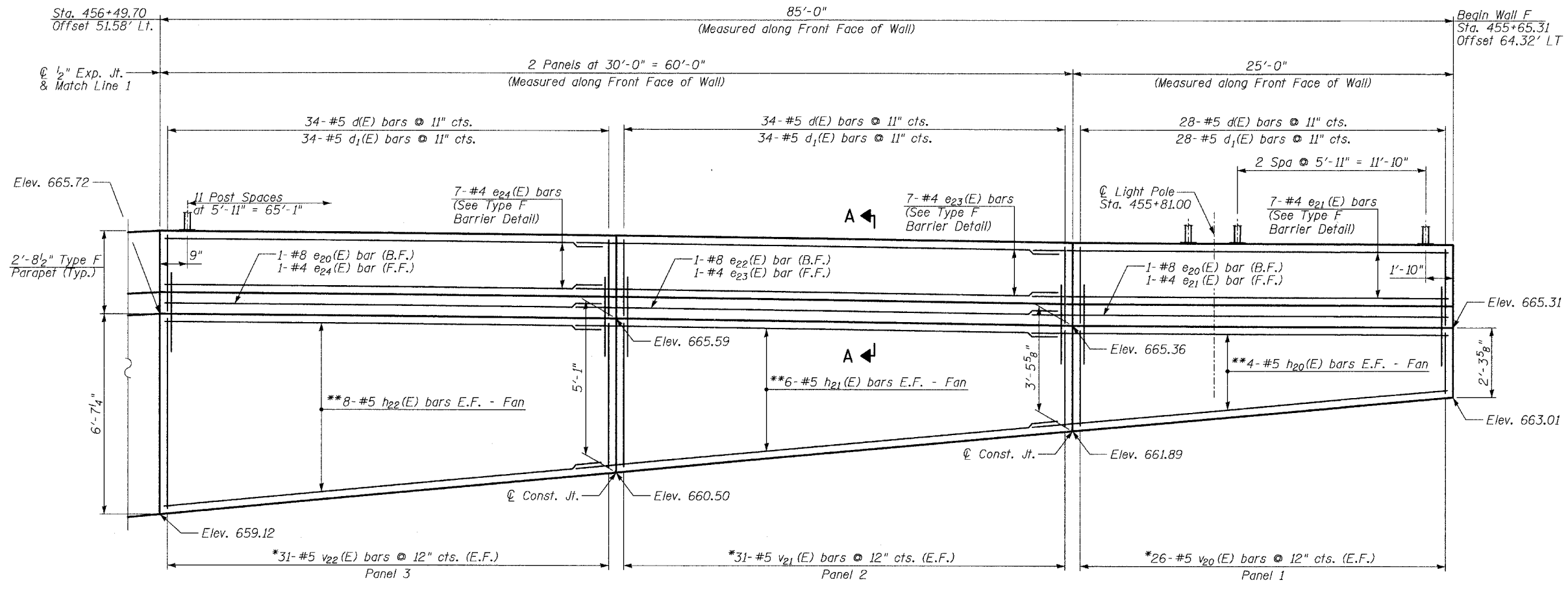
TYLIN INTERNATIONAL

DESIGNED	- DE
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP

REVISIONS	
NAME	DATE

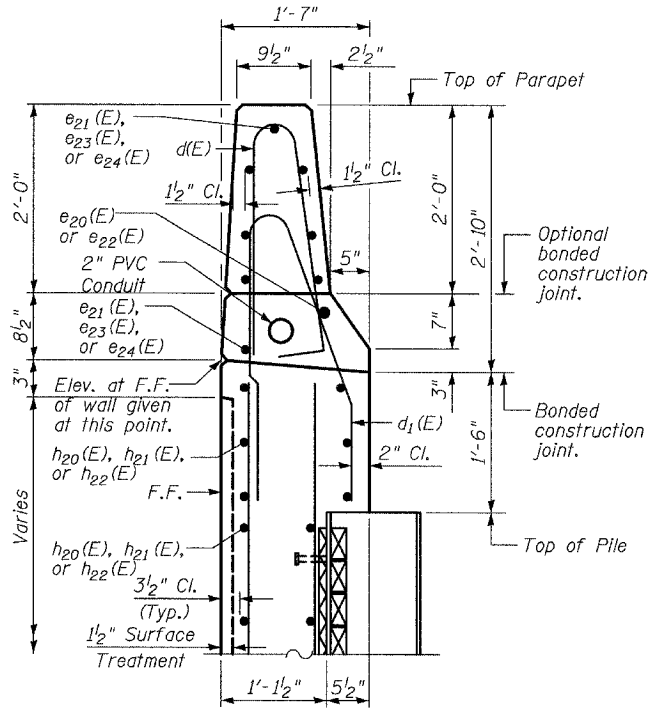
WALL E - SOLDIER PILE
PLAN & ELEVATION
STA. 457+37.21 TO STA. 457+93.96

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY

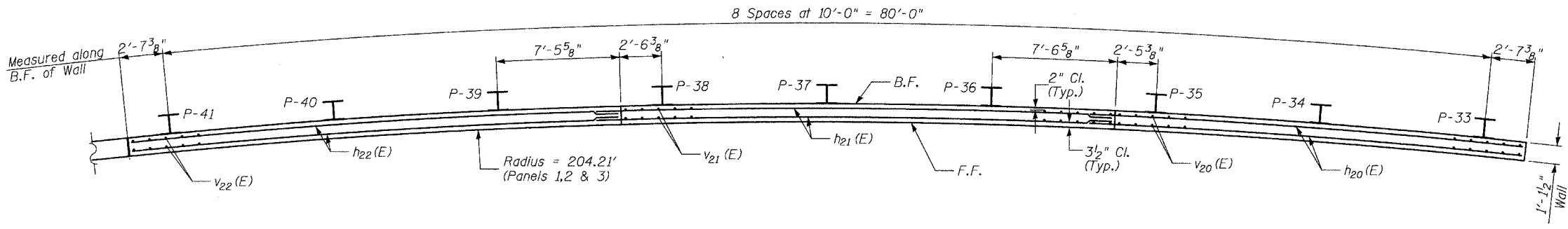


ELEVATION
(Looking At Front Face)

* See Cutting Diagram.
** Bend bars in field.



SECTION A-A
TYPE F BARRIER DETAIL
(Railing not shown)



PLAN
(Parapet Not Shown For Clarity)

LAP SPLICES

Bar	Lap
#4	1'-8"
#5	2'-2"
#8	4'-6"

TYLIN INTERNATIONAL

DESIGNED	- PL
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP

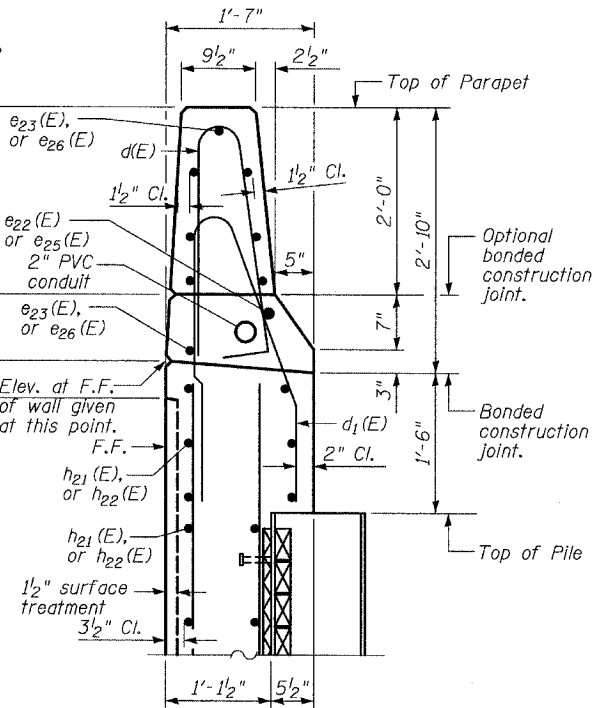
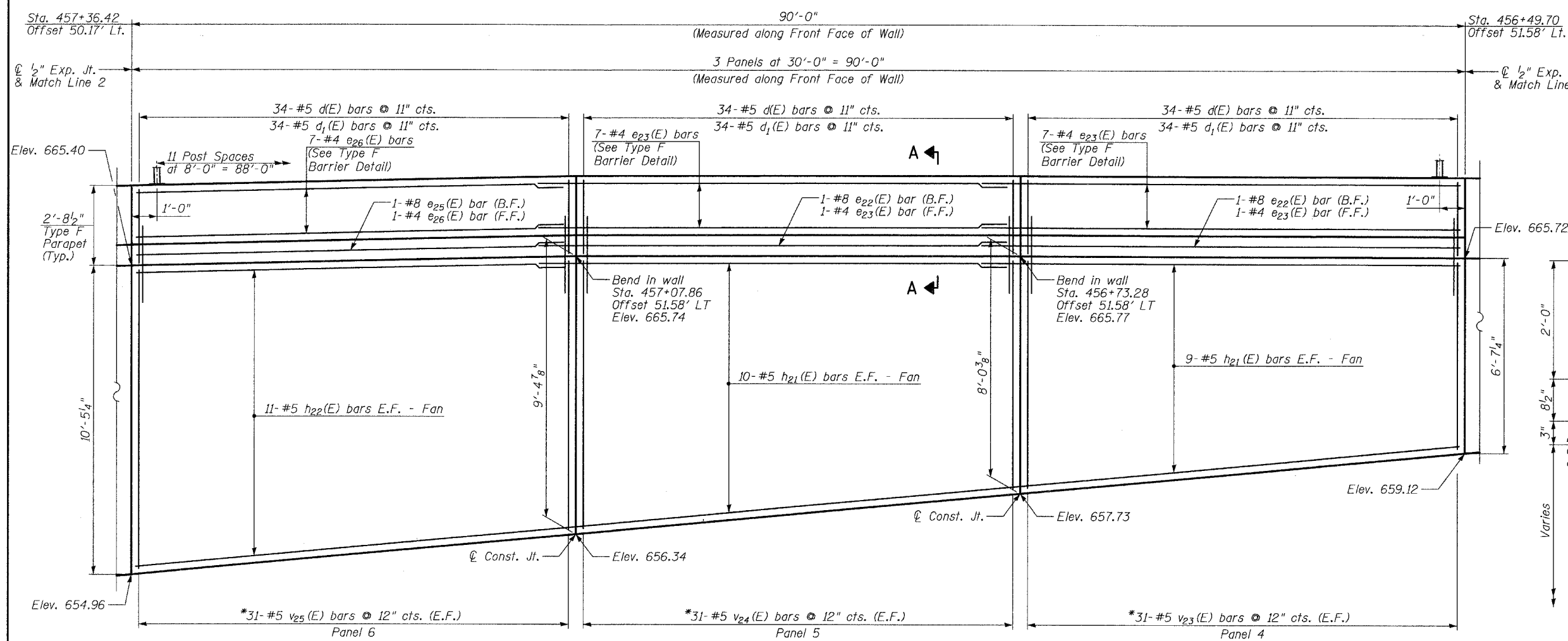
NOTES:

1. B.F. denotes Back Face.
2. E.F. denotes Each Face.
3. F.F. denotes Front Face.
4. Work this sheet with Sheets 10 thru 12 of 30.
5. Pile spacing measured along back face of wall.
6. Offsets are measured from the NB Washington St. to the front face of wall.
7. See Sheet 13 for details and limits of architectural finish.
8. See Sheet 25 for railing details.

REVISIONS	
NAME	DATE

**WALL F - SOLDIER PILE
PLAN & ELEVATION
STA. 455+65.31 TO STA. 456+49.70**

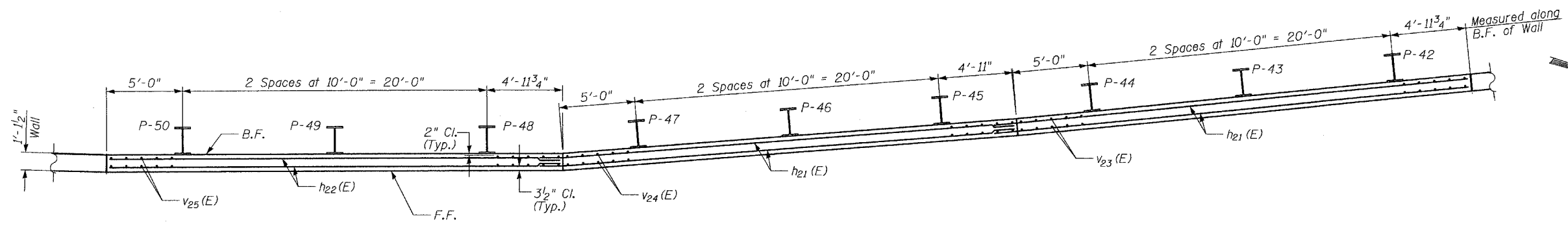
WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY



ELEVATION
(Looking At Front Face)

SECTION A-A
TYPE F BARRIER DETAIL
(Railing not shown)

* See Cutting Diagram.



LAP SPLICES

Bar	Lap
#4	1'-8"
#5	2'-2"
#8	4'-6"

PLAN
(Parapet Not Shown For Clarity)

NOTES:

1. B.F. denotes Back Face.
2. E.F. denotes Each Face.
3. F.F. denotes Front Face.
4. Work this sheet with Sheets 9 thru 12 of 30.
5. Pile spacing measured along back face of wall.
6. Offsets are measured from the @ NB Washington St. to the front face of wall.
7. See Sheet 13 for details and limits of architectural finish.
8. See Sheet 25 for railing details.

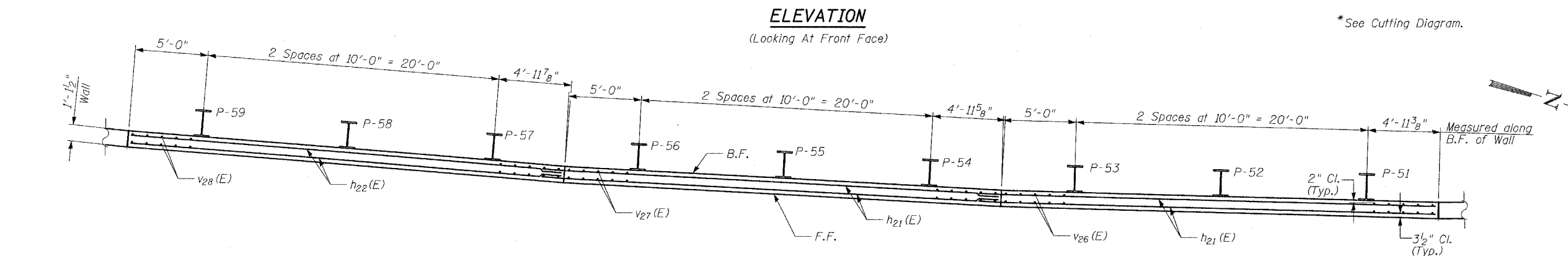
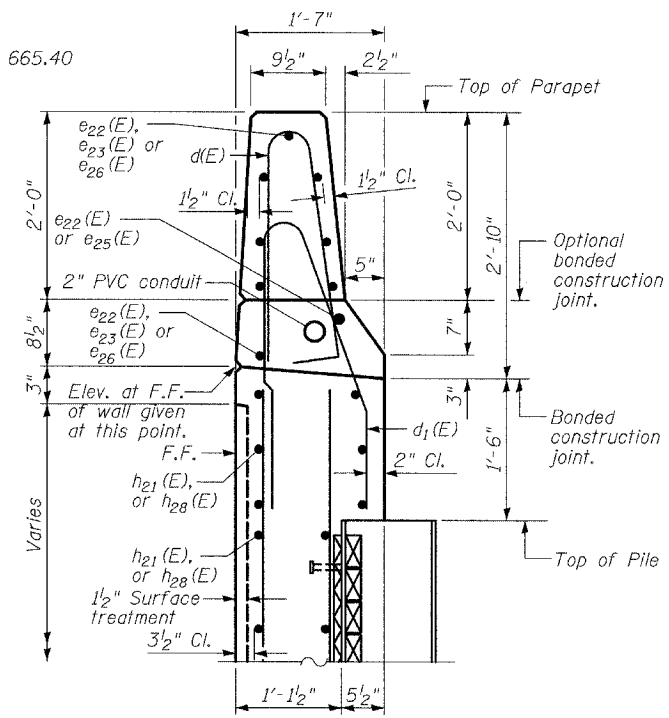
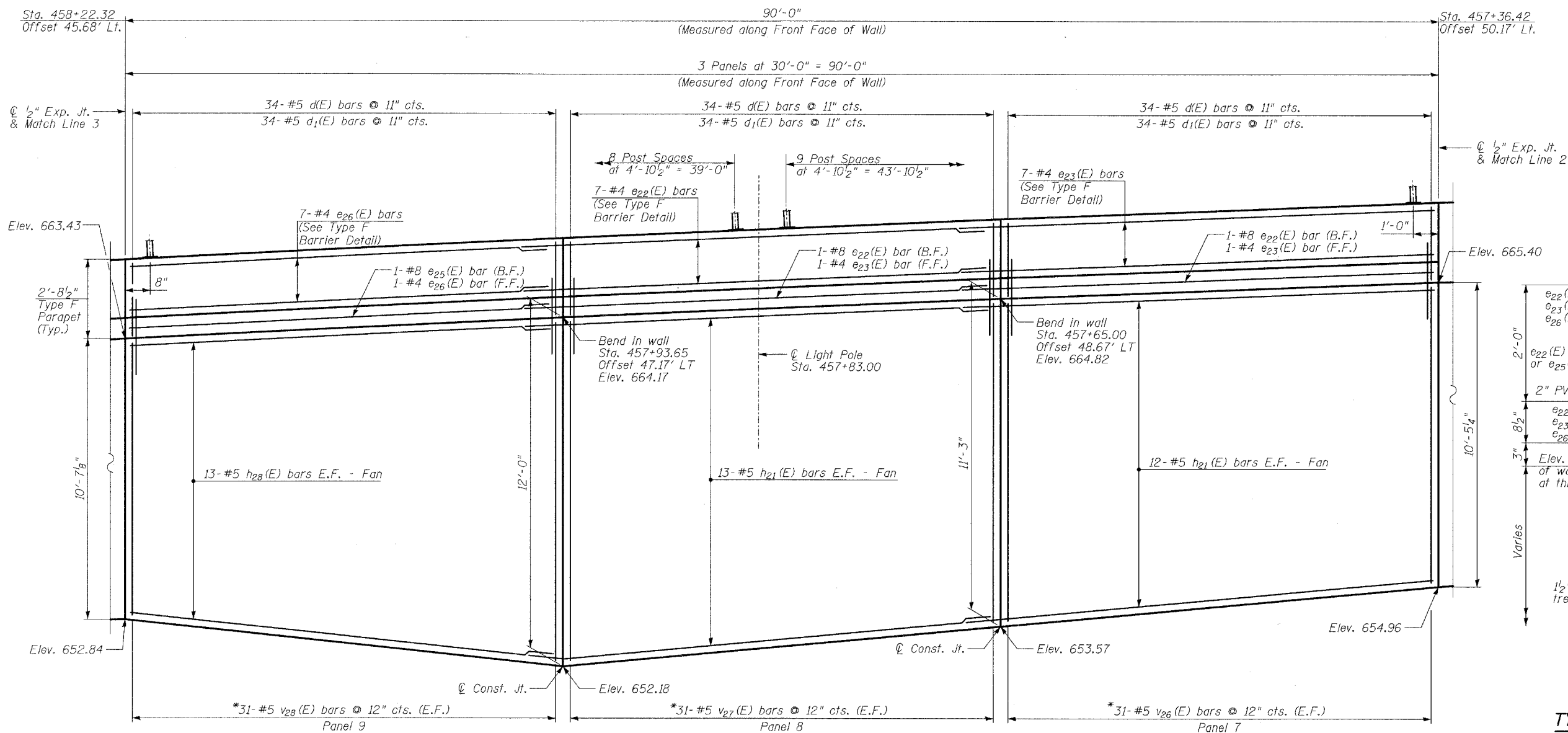
REVISIONS	
NAME	DATE

**WALL F - SOLDIER PILE
PLAN & ELEVATION
STA. 456+49.70 TO STA. 457+36.42**

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY

TYLINT INTERNATIONAL

DESIGNED	- PL
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP



LAP SPLICES

Bar	Lap
#4	1'-8"
#5	2'-2"
#8	4'-6"

TYLIN INTERNATIONAL

DESIGNED	-
CHECKED	- SP
DRAWN	- PL
CHECKED	- SP
	TB

PLAN
(Parapet Not Shown For Clarity)

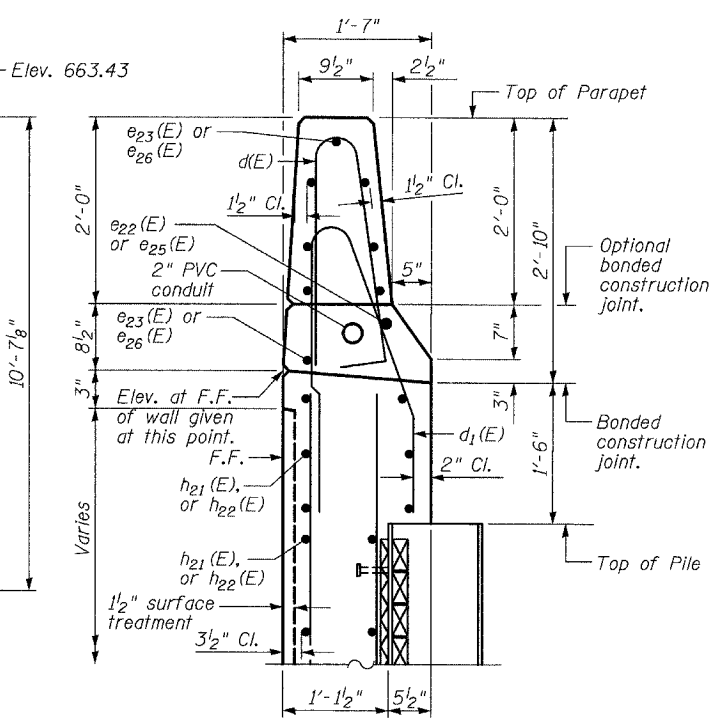
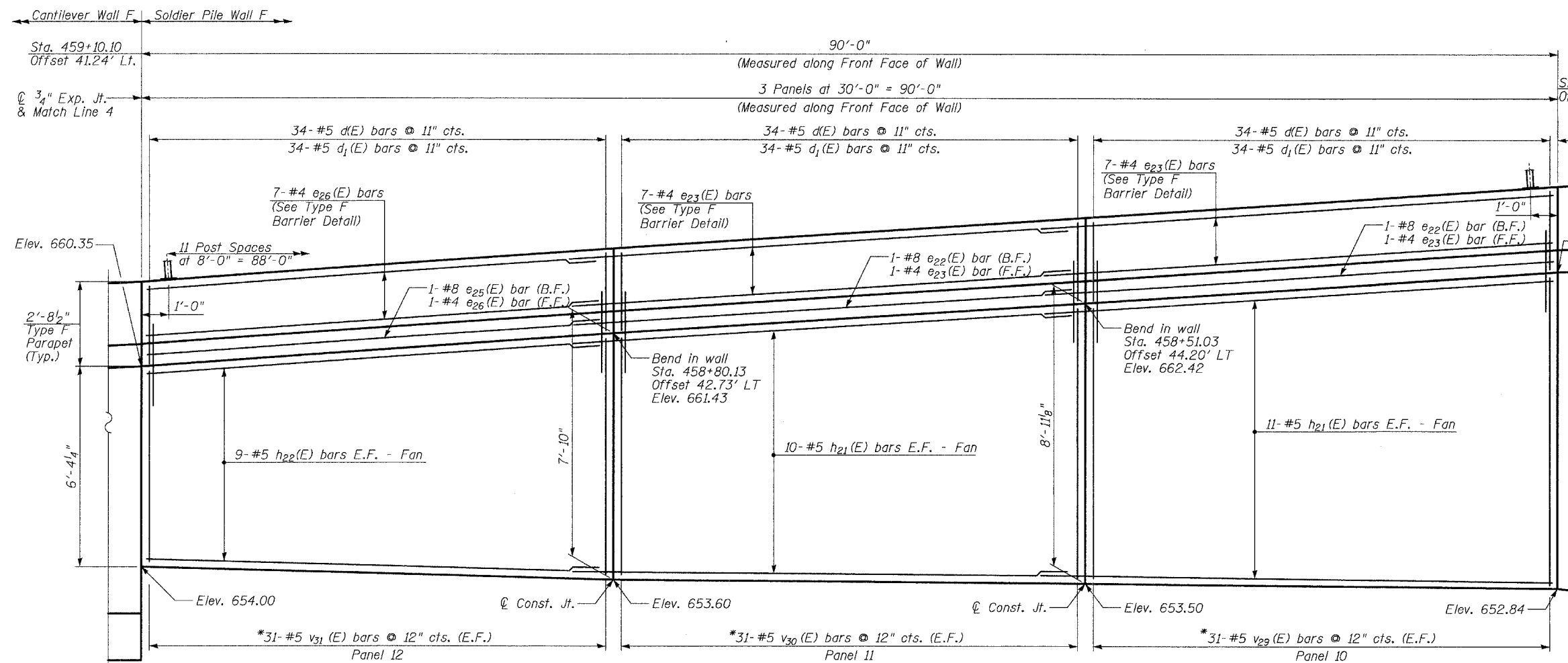
- NOTES:
1. B.F. denotes Back Face.
 2. E.F. denotes Each Face.
 3. F.F. denotes Front Face.
 4. Work this sheet with Sheets 9 thru 12 of 30.
 5. Pile spacing measured along back face of wall.
 6. Offsets are measured from the NB Washington St. to the front face of wall.
 7. See Sheet 13 for details and limits of architectural finish.
 8. See Sheet 25 for railing details.

REVISIONS

NAME	DATE

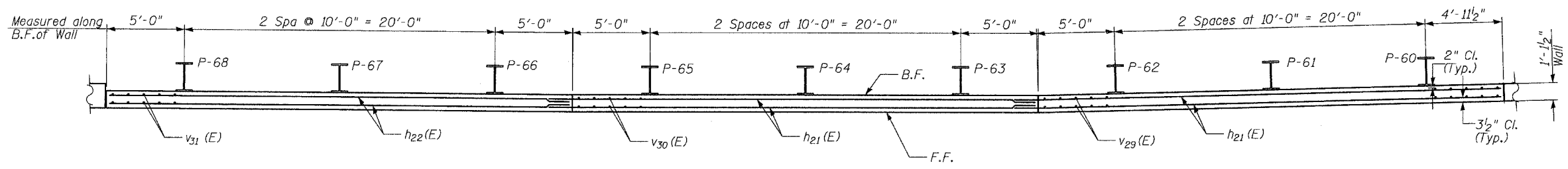
WALL F - SOLDIER PILE
PLAN & ELEVATION
STA. 457+36.42 TO STA. 458+22.32

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY



ELEVATION
(Looking At Front Face)

SECTION A-A
TYPE F BARRIER DETAIL
(Railing not shown)



PLAN
(Parapet Not Shown For Clarity)

LAP SPLICES

Bar	Lap
#4	1'-8"
#5	2'-2"
#8	4'-6"

NOTES:

1. B.F. denotes Back Face.
2. E.F. denotes Each Face.
3. F.F. denotes Front Face.
4. Work this sheet with Sheets 9 thru 11 of 30.
5. Pile spacing measured along back face of wall.
6. Offsets are measured from the @ NB Washington St. to the front face of wall.
7. See Sheet 13 for details and limits of architectural finish.
8. See Sheet 25 for railing details.
9. See Sheet 14 for Bill of Material.

REVISIONS	
NAME	DATE

WALL F - SOLDIER PILE
PLAN & ELEVATION
STA. 458+22.32 TO STA. 459+10.10

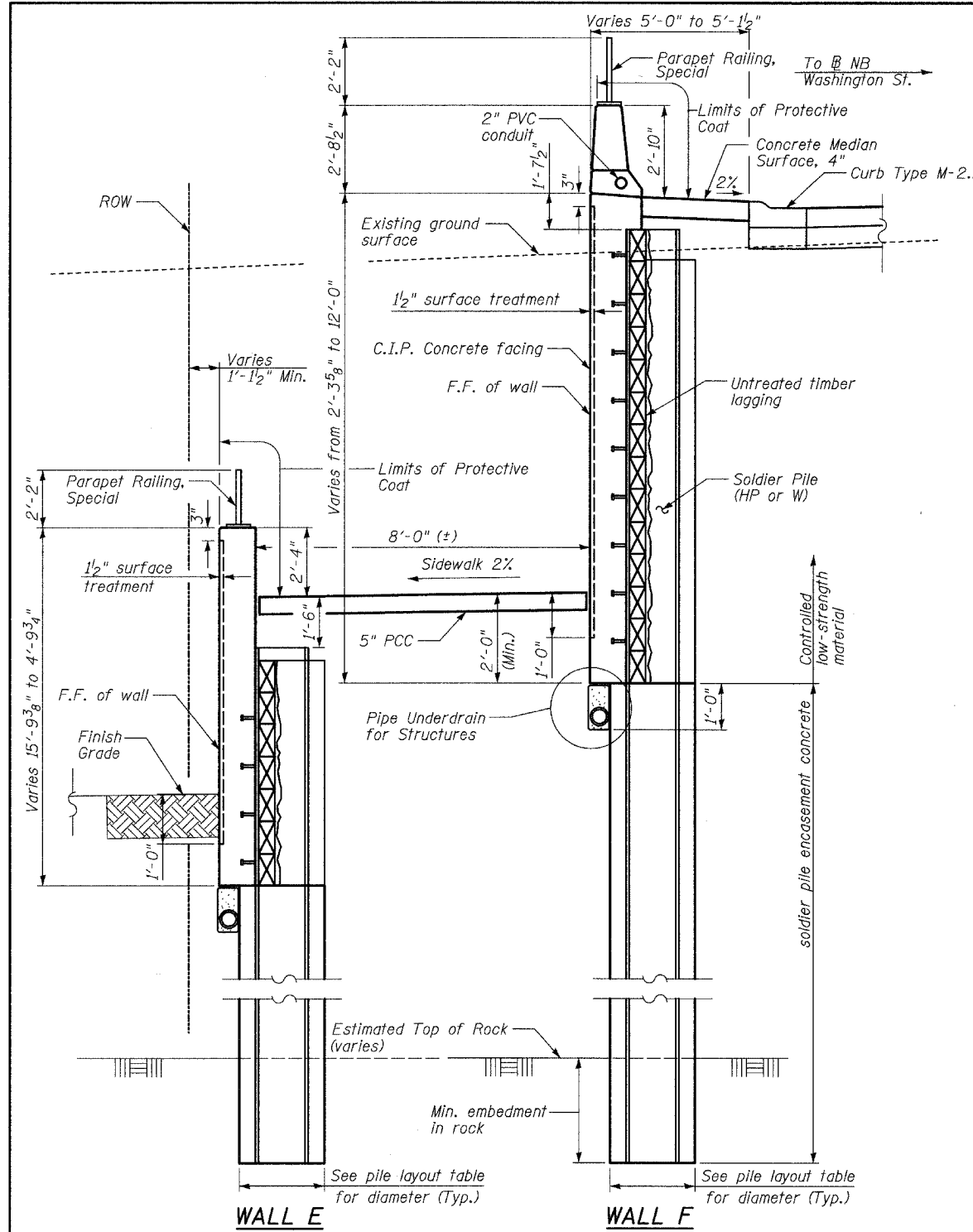
WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY

TYLINTERNATIONAL

DESIGNED	- PL
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP

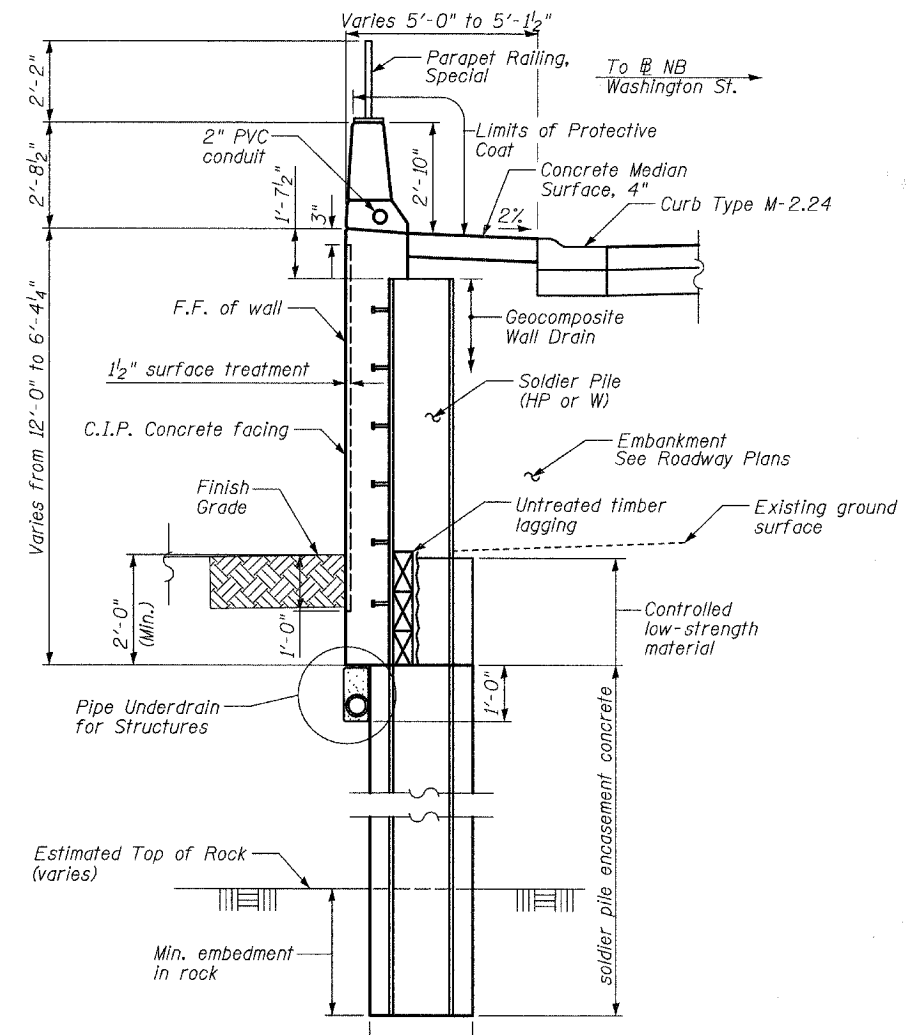
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

Note A:
2" PVC conduit embedded in wall, between Sta. 455+34.01 to Sta. 455+58.2. See Electrical Plans for additional details.

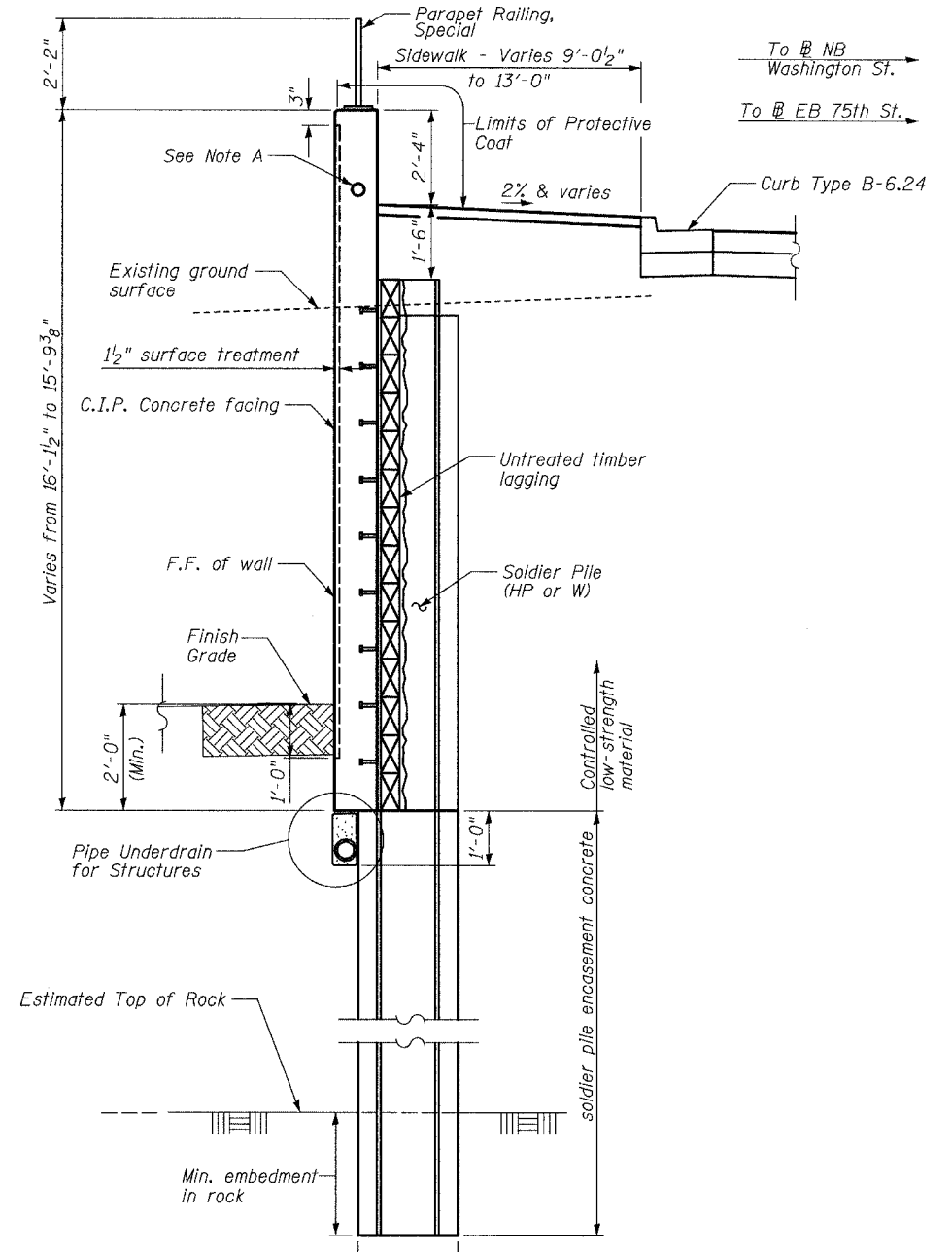


WALL E
Valid Sta. 455+67.20 to Sta. 457+93.96
(Details similar to Wall F)

WALL F
Valid Sta. 455+65.31 to Sta. 457+93.65



WALL F
Valid Sta. 457+93.65 to Sta. 459+10.09



WALL E
Valid Sta. 455+34.01 to Sta. 455+67.20

TYLIN INTERNATIONAL

DESIGNED	- PL
CHECKED	- SP
DRAWN	- PL
CHECKED	- SP

REVISIONS	
NAME	DATE

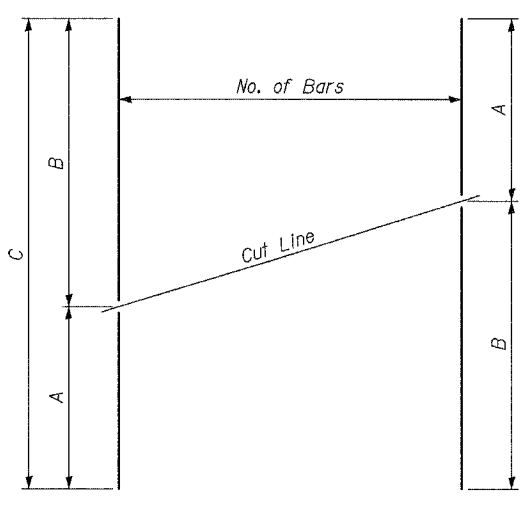
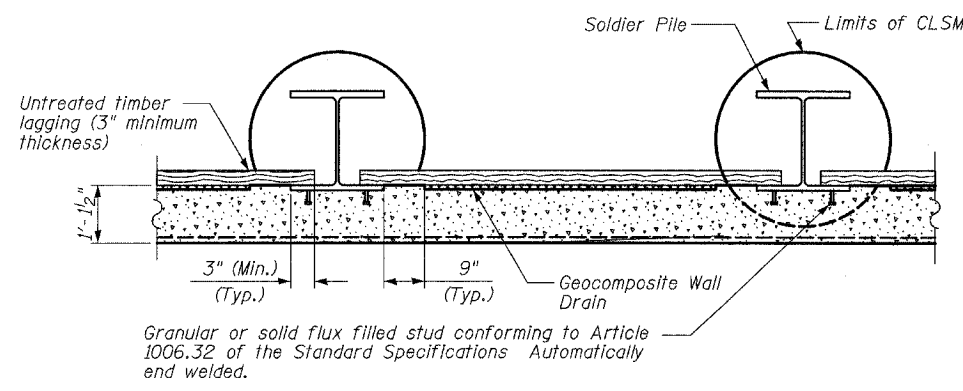
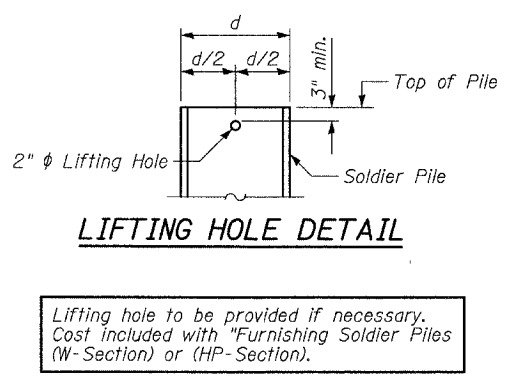
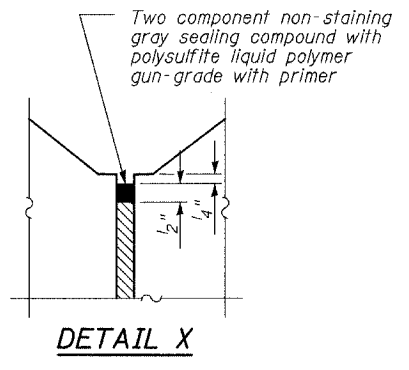
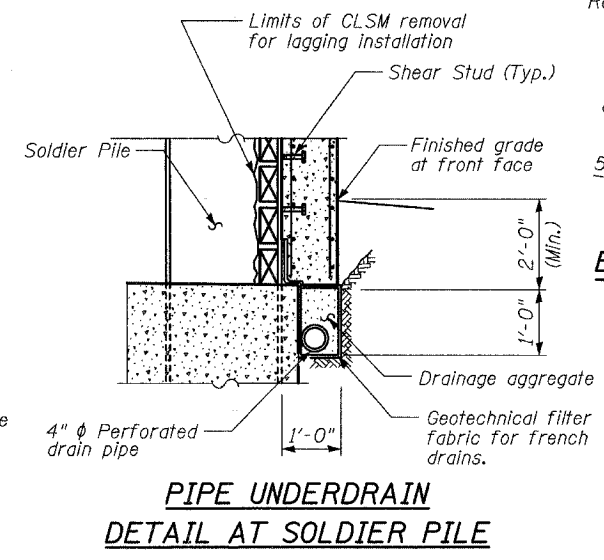
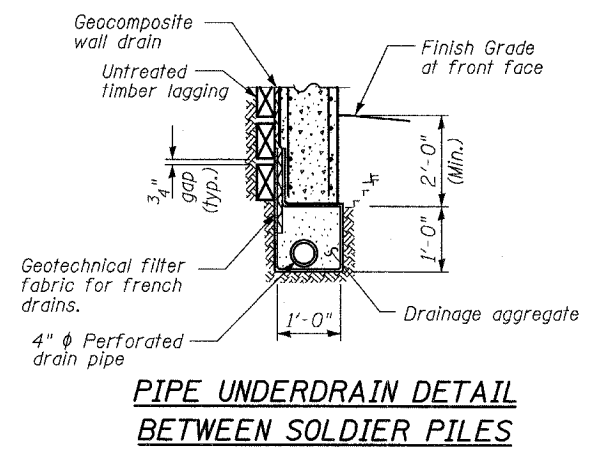
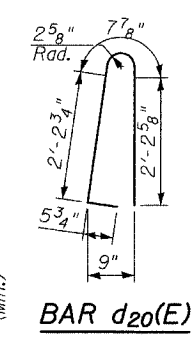
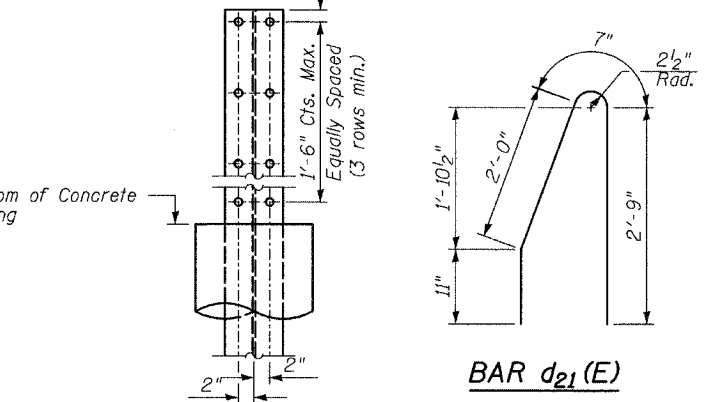
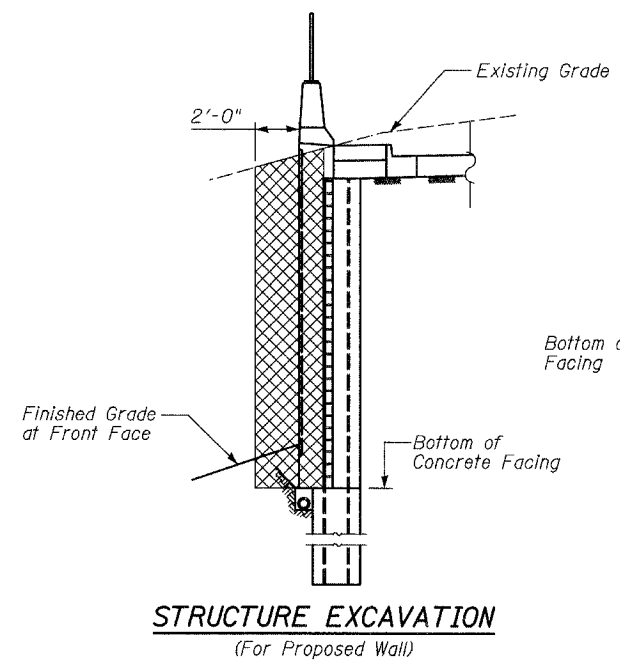
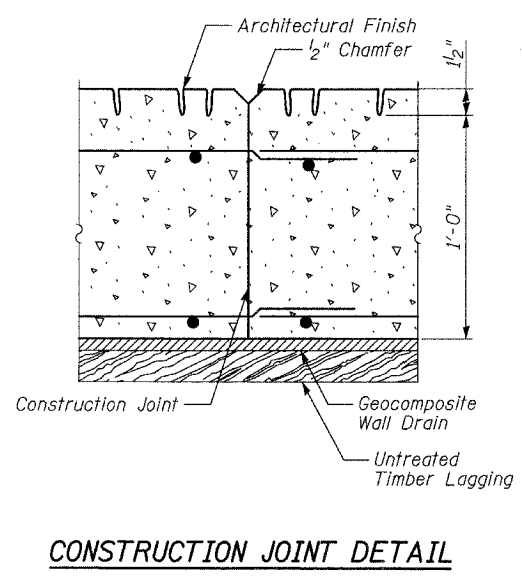
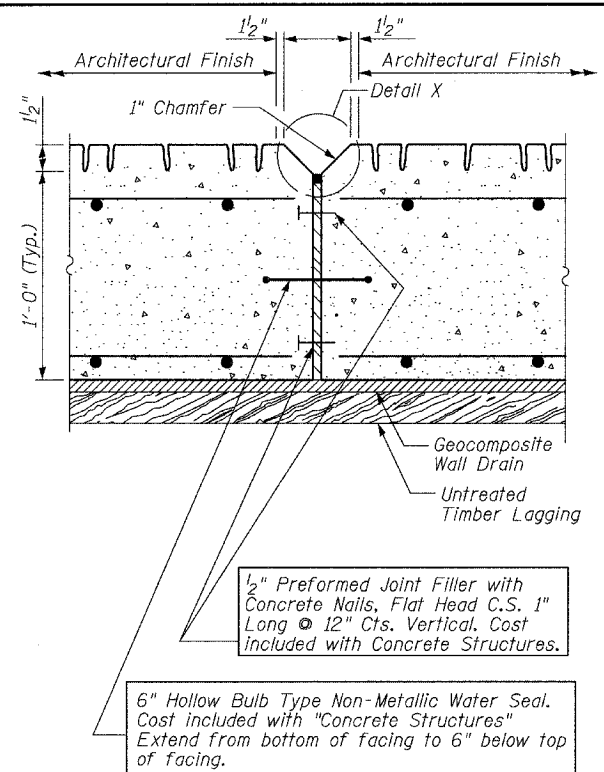
**WALLS E & F - SOLDIER PILE
WALL DETAILS**

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY

* 00-00114-00-PV CONTRACT NO. 63024
WALL F SOLDIER PILE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d ₂₀ (E)	402	#5	5'-7"	
d ₂₁ (E)	402	#5	6'-3"	
e ₂₀ (E)	2	#8	29'-9"	—
e ₂₁ (E)	8	#4	26'-9"	—
e ₂₂ (E)	7	#8	34'-8"	—
e ₂₃ (E)	56	#4	31'-9"	—
e ₂₄ (E)	8	#4	29'-9"	—
e ₂₅ (E)	3	#8	29'-8"	—
e ₂₆ (E)	24	#4	29'-8"	—
h ₂₀ (E)	8	#5	27'-3"	—
h ₂₁ (E)	142	#5	32'-3"	—
h ₂₂ (E)	82	#5	29'-9"	—
v ₂₀ (E)	26	#5	5'-2"	—
v ₂₁ (E)	31	#5	8'-0"	—
v ₂₂ (E)	31	#5	11'-2"	—
v ₂₃ (E)	31	#5	14'-1"	—
v ₂₄ (E)	31	#5	16'-10"	—
v ₂₅ (E)	31	#5	19'-3"	—
v ₂₆ (E)	31	#5	21'-2"	—
v ₂₇ (E)	31	#5	22'-8"	—
v ₂₈ (E)	31	#5	22'-0"	—
v ₂₉ (E)	31	#5	19'-0"	—
v ₃₀ (E)	31	#5	16'-2"	—
v ₃₁ (E)	31	#5	16'-3"	—

Structure Excavation	CU YD	151
Concrete Structures	CU YD	161
Protective Coat	SQ YD	146
Stud Shear Connectors	EACH	386
Untreated Timber Lagging	SQ FT	1,428
Reinforcement Bars, Epoxy Coated	POUND	21,700
Parapet Railing, Special	FOOT	355
Furnishing Soldier Piles (HP Section)	FOOT	141
Furnishing Soldier Piles (W Section)	FOOT	652
Geocomposite Wall Drain	SQ YD	263
Pipe Underdrains for Structures, 4"	FOOT	399
Drilling and Setting Soldier Piles (in Soil)	FOOT	2,189
Drilling and Setting Soldier Piles (in Rock)	FOOT	1,201
Form Liner Textured Surface	SQ YD	268
Anti-Graffiti Coating	SQ FT	2,412



BAR TABLE SCHEDULE

Bar	No. of Sets Req'd	No. of Bars Per Set	A	B	C
v ₂₀ (E)	1	26	2'-0"	3'-2"	5'-2"
v ₂₁ (E)	1	31	3'-2"	4'-10"	8'-0"
v ₂₂ (E)	1	31	4'-10"	6'-4"	11'-2"
v ₂₃ (E)	1	31	6'-4"	7'-9"	14'-1"
v ₂₄ (E)	1	31	7'-9"	9'-1"	16'-10"
v ₂₅ (E)	1	31	9'-1"	10'-2"	19'-3"
v ₂₆ (E)	1	31	10'-2"	11'-0"	21'-2"
v ₂₇ (E)	1	31	11'-0"	11'-8"	22'-8"
v ₂₈ (E)	1	31	11'-8"	10'-4"	22'-0"
v ₂₉ (E)	1	31	10'-4"	8'-8"	19'-0"
v ₃₀ (E)	1	31	8'-8"	7'-6"	16'-2"
v ₃₁ (E)	1	31	7'-6"	8'-9"	16'-3"

REVISIONS	
NAME	DATE

WALLS E AND F - SOLDIER PILE MISCELLANEOUS DETAILS

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY

TYLIN INTERNATIONAL

DESIGNED	- PL
CHECKED	- SP
DRAWN	- PL
CHECKED	- SP

- NOTES:**
- The geocomposite wall drain shall be constructed according to Section 591 of the Standard Specifications.
 - Stud shear connectors shall be 3/4" φ x 6" granular or solid flux filled headed studs, automatically end welded to the front flange of the soldier piles.

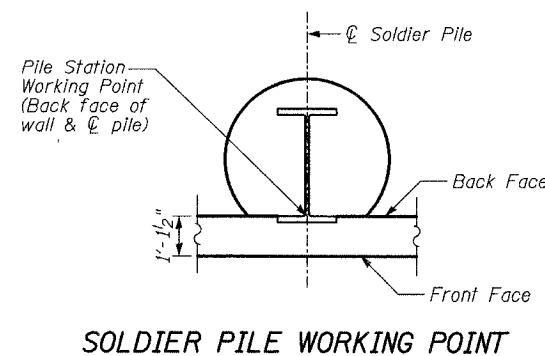
See table for dimensions.
Make all cuts normal to bar axis

PILE LAYOUT - WALL E

Pile	Station at Working Point	Offset	Top of Pile Elev.	Pile Tip Elev.	Pile Length (ft.)	Pile Type	Estimated Top of Rock Elev.	Pile Embedment in Soil (ft.)	Min. Embedment in Rock (ft.)	Soldier Pile Encasement diameter (in.)
P-1	455+34.44	94.58' Lt	663.46	636.46	27'-0"	W21x147	645.50	16.13'	9.00'	30"
P-2	455+38.06	87.64' Lt	663.40	636.49	26'-11"	W21x147	645.50	16.10'	9.00'	30"
P-3	455.42.85	81.46' Lt	663.34	636.43	26'-11"	W21x147	645.50	16.04'	9.00'	30"
P-4	455+48.66	76.22' Lt	663.32	636.49	26'-10"	W21x147	645.50	15.95'	9.00'	30"
P-5	455+55.31	72.09' Lt	663.33	636.42	26'-11"	W21x147	645.50	15.92'	9.00'	30"
P-6	455+62.58	69.21' Lt	663.34	636.43	26'-11"	W21x147	645.50	15.86'	9.00'	30"
P-7	455+70.11	67.50' Lt	663.20	636.45	26'-9"	W21x147	645.50	15.78'	9.00'	30"
P-8	455+77.80	66.03' Lt	662.84	636.42	26'-5"	W21x147	645.50	15.61'	9.00'	30"
P-9	455+85.52	64.70' Lt	662.48	636.48	26'-0"	W21x147	645.50	15.18'	9.00'	30"
P-10	455+93.27	63.53' Lt	662.12	636.45	25'-8"	W21x147	645.50	14.45'	9.00'	30"
P-11	456+01.03	62.51' Lt	661.75	636.50	25'-3"	W21x147	645.50	14.33'	9.00'	30"
P-12	456+08.82	61.64' Lt	661.38	636.46	24'-11"	W21x147	645.50	13.91'	9.00'	30"
P-13	456+16.62	60.92' Lt	661.01	636.42	24'-7"	W21x147	645.50	13.49'	9.00'	30"
P-14	456+24.43	60.36' Lt	660.64	636.55	24'-1"	W21x147	645.63	12.84'	9.00'	30"
P-15	456+32.25	59.95' Lt	660.27	636.85	23'-5"	W21x147	645.92	12.63'	9.00'	30"
P-16	456+40.08	59.69' Lt	659.90	637.15	22'-9"	W21x147	646.20	12.19'	9.00'	30"
P-17	456+47.91	59.59' Lt	659.53	637.44	22'-1"	W21x147	646.49	11.74'	9.00'	30"
P-18	456+56.12	59.58' Lt	659.16	639.07	20'-1"	HP14x89	646.60	11.12'	7.50'	30"
P-19	456+66.12	59.57' Lt	658.70	639.03	19'-8"	HP14x89	646.60	10.89'	7.50'	30"
P-20	456+75.83	59.57' Lt	658.24	639.07	19'-2"	HP14x89	646.60	10.43'	7.50'	30"
P-21	456+85.27	59.54' Lt	657.78	639.03	18'-9"	HP14x89	646.60	9.74'	7.50'	30"
P-22	456+94.72	59.49' Lt	657.33	639.08	18'-3"	HP14x89	646.60	9.51'	7.50'	30"
P-23	457+04.17	59.54' Lt	656.88	639.04	17'-10"	HP14x89	646.60	9.06'	7.50'	30"
P-24	457+13.54	59.30' Lt	656.46	639.29	17'-2"	HP14x89	646.80	8.38'	7.50'	30"
P-25	457+22.99	58.77' Lt	656.07	639.65	16'-5"	HP14x89	647.20	8.26'	7.50'	30"
P-26	457+32.44	58.32' Lt	655.68	640.09	15'-7"	HP14x89	647.60	8.00'	7.50'	30"
P-27	457+41.88	57.83' Lt	655.22	642.72	12'-6"	HP14x89	647.80	7.62'	5.00'	30"
P-28	457+51.33	57.29' Lt	654.69	642.78	11'-11"	HP14x89	647.80	7.36'	5.00'	30"
P-29	457+60.80	56.84' Lt	654.17	642.75	11'-5"	HP14x89	647.80	6.86'	5.00'	30"
P-30	457+70.23	56.35' Lt	653.67	642.76	10'-11"	HP14x89	647.80	6.11'	5.00'	30"
P-31	457+79.70	55.81' Lt	653.21	642.80	10'-5"	HP14x89	647.80	5.89'	5.00'	30"
P-32	457+89.18	55.36' Lt	652.76	642.76	10'-0"	HP14x89	647.80	5.46'	5.00'	30"

PILE LAYOUT - WALL F

Pile	Station at Working Point	Offset	Top of Pile Elev.	Pile Tip Elev.	Pile Length (ft.)	Pile Type	Estimated Top of Rock Elev.	Pile Embedment in Soil (ft.)	Min. Embedment in Rock (ft.)	Soldier Pile Encasement diameter (in.)
P-33	455+67.64	58.69' Lt	663.69	650.11	13'-7"	HP14x89	645.50	2.42'	0.00'	30"
P-34	455+77.46	56.82' Lt	663.71	649.63	14'-1"	HP14x89	645.50	2.89'	0.00'	30"
P-35	455+87.32	55.18' Lt	663.73	649.23	14'-6"	HP14x89	645.50	3.36'	0.00'	30"
P-36	455+97.23	53.79' Lt	663.79	648.71	15'-1"	HP14x89	645.50	3.88'	0.00'	30"
P-37	456+07.16	52.64' Lt	663.87	648.28	15'-7"	HP14x89	645.50	4.42'	0.00'	30"
P-38	456+17.12	51.73' Lt	663.94	647.86	16'-1"	HP14x89	645.50	4.96'	0.00'	30"
P-39	456+27.10	51.06' Lt	663.99	647.33	16'-8"	HP14x89	645.78	5.47'	0.00'	30"
P-40	456+37.09	50.64' Lt	664.04	646.87	17'-2"	HP14x89	646.15	5.97'	0.00'	30"
P-41	456+47.08	50.46' Lt	664.08	646.42	17'-8"	HP14x89	646.51	6.48'	0.00'	30"
P-42	456+54.68	50.45' Lt	664.10	638.02	26'-1"	W21x147	646.60	6.84'	8.50'	30"
P-43	456+64.68	50.44' Lt	664.12	638.03	26'-1"	W21x147	646.60	7.32'	8.50'	30"
P-44	456+74.50	50.44' Lt	664.13	638.05	26'-1"	W21x147	646.60	7.80'	8.50'	30"
P-45	456+83.96	50.40' Lt	664.14	638.05	26'-1"	W21x147	646.60	8.26'	8.50'	30"
P-46	456+93.49	50.35' Lt	664.13	638.04	26'-1"	W21x147	646.60	8.71'	8.50'	30"
P-47	457+03.03	50.40' Lt	664.12	638.03	26'-1"	W21x147	646.60	9.16'	8.50'	30"
P-48	457+12.54	50.17' Lt	664.06	638.06	26'-0"	W21x147	646.60	9.57'	8.50'	30"
P-49	457+22.06	49.65' Lt	663.94	638.03	25'-11"	W21x147	646.60	9.92'	8.50'	30"
P-50	457+31.60	49.23' Lt	663.83	638.08	25'-9"	W21x147	646.60	10.27'	8.50'	30"
P-51	457+41.08	48.74' Lt	663.68	636.76	26'-11"	W21x147	646.80	10.58'	10.00'	30"
P-52	457+50.62	48.19' Lt	663.49	637.16	26'-4"	W21x147	647.20	10.85'	10.00'	30"
P-53	457+60.17	47.74' Lt	663.30	637.55	25'-9"	W21x147	647.60	11.12'	10.00'	30"
P-54	457+69.69	47.24' Lt	663.09	637.76	25'-4"	W21x147	647.80	11.37'	10.00'	30"
P-55	457+79.24	46.69' Lt	662.87	637.79	25'-1"	W21x147	647.80	11.62'	10.00'	30"
P-56	457+88.79	46.24' Lt	662.65	637.74	24'-11"	W21x147	647.80	11.86'	10.00'	30"
P-57	457+98.34	45.74' Lt	662.42	637.75	24'-8"	W21x147	647.80	11.59'	10.00'	30"
P-58	458+07.90	45.20' Lt	662.17	637.76	24'-5"	W21x147	647.80	10.81'	10.00'	30"
P-59	458+17.48	44.75' Lt	661.93	637.76	24'-2"	W21x147	647.80	10.02'	10.00'	30"
P-60	458+27.01	44.26' Lt	661.64	639.22	22'-5"	W21x147	647.80	9.51'	8.50'	30"
P-61	458+36.59	43.71' Lt	661.30	639.22	22'-1"	W21x147	647.80	9.28'	8.50'	30"
P-62	458+46.17	43.27' Lt	660.97	639.22	21'-9"	W21x147	647.80	9.04'	8.50'	30"
P-63	458+55.75	42.78' Lt	660.63	639.30	21'-4"	W21x147	647.80	8.74'	8.50'	30"
P-64	458+65.34	42.25' Lt	660.30	639.22	21'-1"	W21x147	647.80	8.38'	8.50'	30"
P-65	458+75.06	41.81' Lt	659.97	639.22	20'-9"	W21x147	647.80	8.01'	8.50'	30"
P-66	458+85.05	41.36' Lt	659.62	639.21	20'-5"	W21x147	647.73	7.58'	8.50'	30"
P-67	458+95.04	40.86' Lt	659.26	639.10	20'-2"	W21x147	647.60	7.09'	8.50'	30"
P-68	459+05.02	40.37' Lt	658.90	638.90	20'-0"	W21x147	647.47	6.60'	8.50'	30"



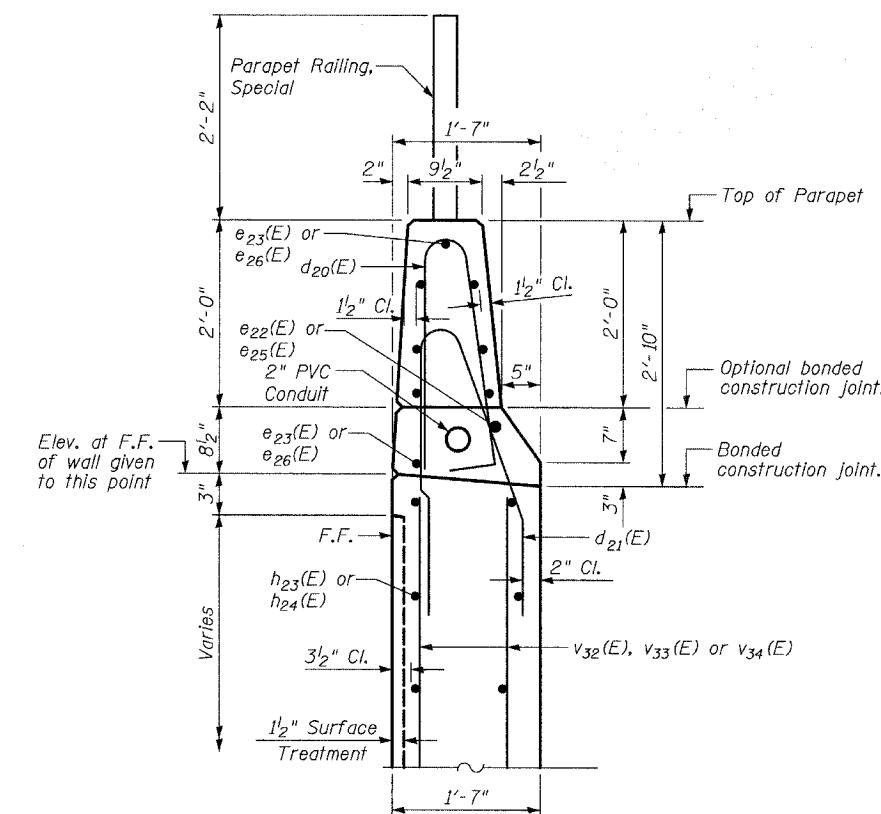
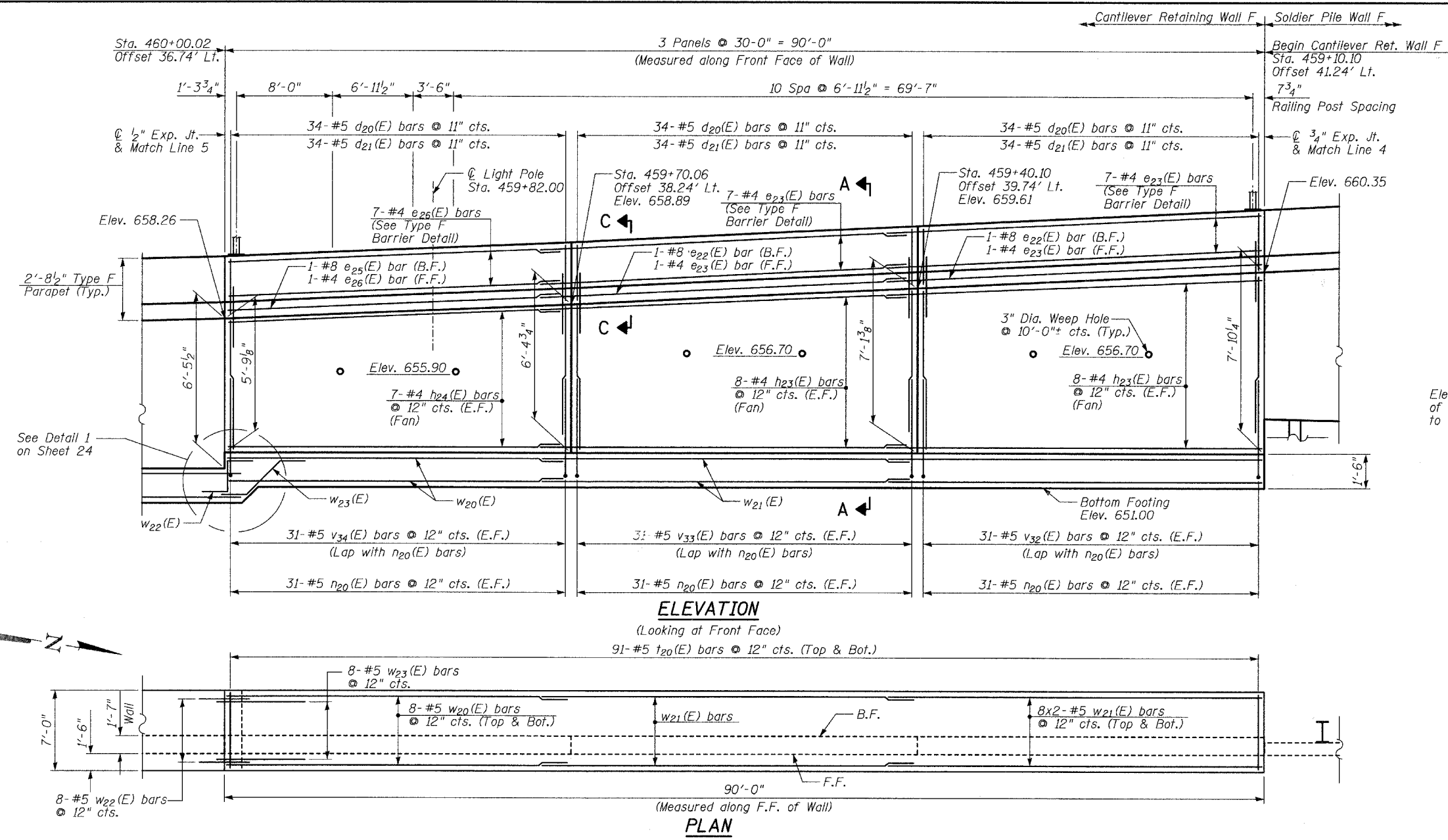
SOLDIER PILE WORKING POINT

TYLIN INTERNATIONAL

DESIGNED	-	PL
CHECKED	-	SP
DRAWN	-	PL
CHECKED	-	SP

REVISIONS		WALLS E AND F - SOLDIER PILE PILE DETAILS
NAME	DATE	

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY

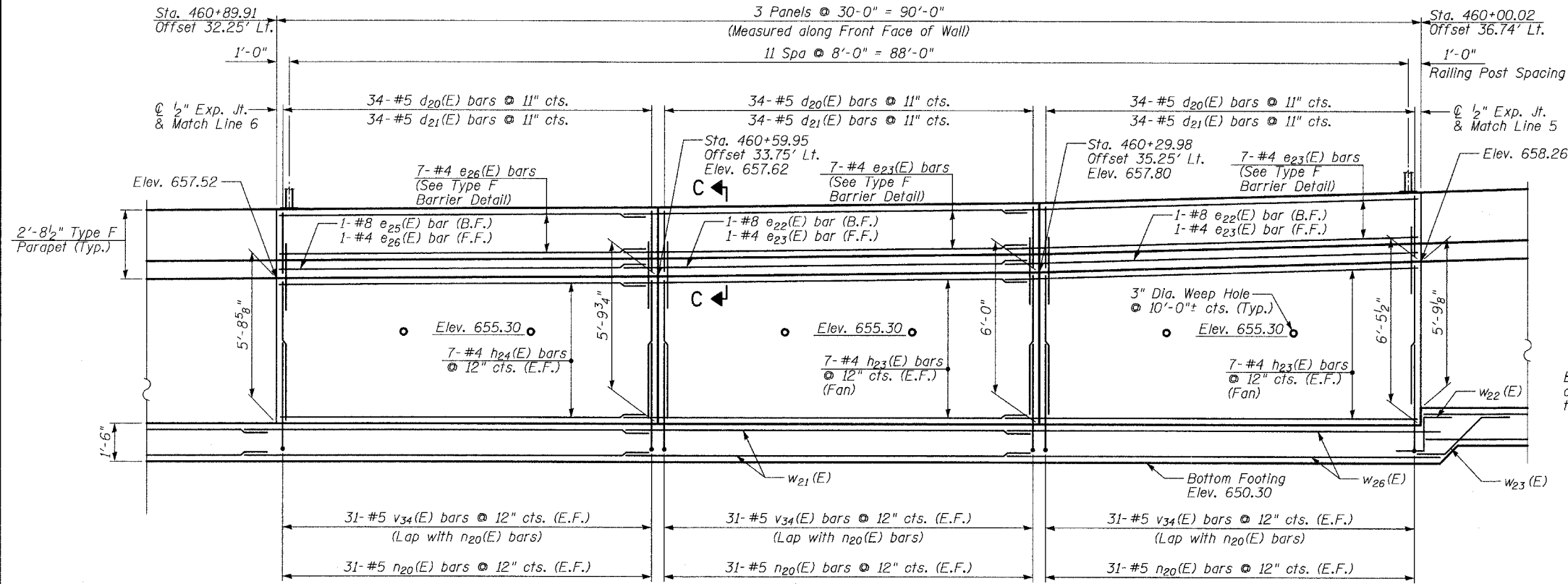


- NOTES:**
1. B.F. denotes Back Face.
 2. E.F. denotes Each Face.
 3. F.F. denotes Front Face.
 4. Work this sheet with Sheets 17 thru 23 of 30.
 5. Offsets measured from NB Washington St. to the front face of wall.
 6. See Sheet 22 for Light Pole Details.
 7. See Sheet 24 for Section A-A, details and limits of architectural finish.
 8. See Sheet 25 for railing details.
- LAP SPLICES**
- | Bar | Lap |
|-----|-------|
| #4 | 1'-8" |
| #5 | 2'-2" |
| #8 | 4'-6" |

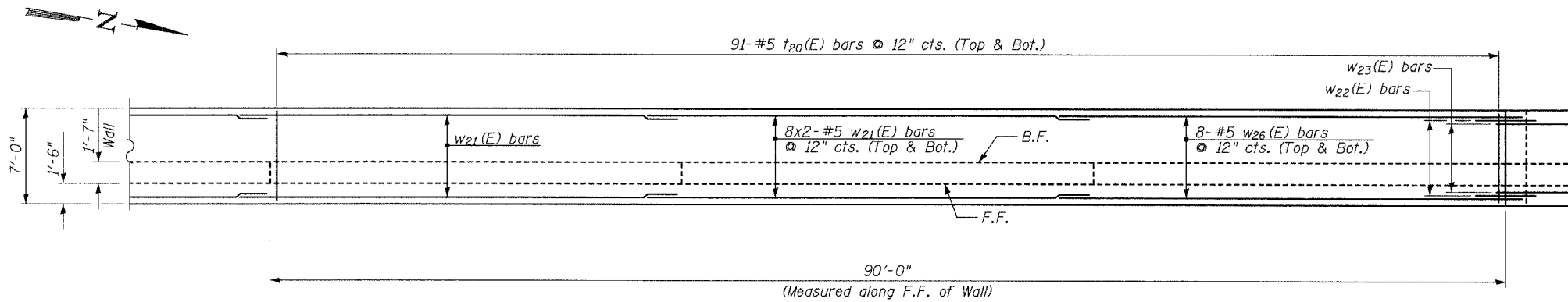
TYLIN INTERNATIONAL

DESIGNED	- DE
CHECKED	- SP
DRAWN	- DE
CHECKED	- SP

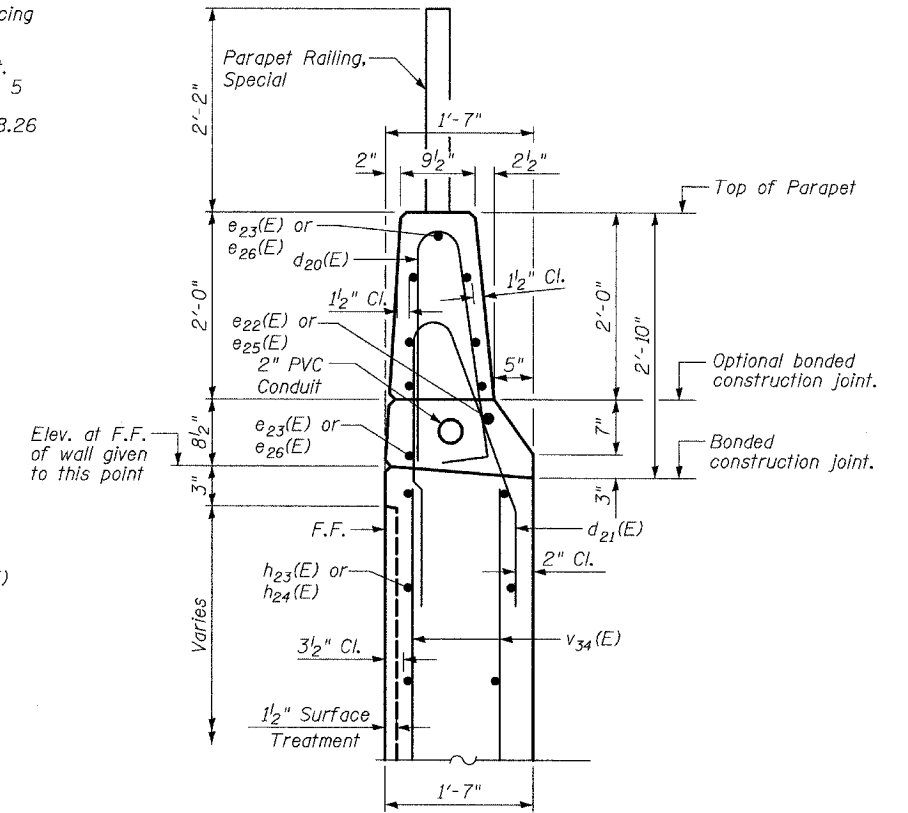
REVISIONS		WALL F- CANTILEVER WALL PLAN & ELEVATION STA. 459+10.10 TO STA. 460+00.02
NAME	DATE	
		WASHINGTON - 75TH STREET F.A.U. ROUTE 2552 SECTION 00-00114-00-PV DUPAGE COUNTY



ELEVATION
(Looking at Front Face)



PLAN



SECTION C-C
TYPE F BARRIER DETAIL

NOTES:

1. B.F. denotes Back Face.
2. E.F. denotes Each Face.
3. F.F. denotes Front Face.
4. Work this sheet with Sheets 16 thru 23 of 30.
5. Offsets measured from NB Washington St. to the front face of wall.
6. See Sheet 24 for details and limits of architectural finish.
7. See Sheet 25 for railing details.

TYLIN INTERNATIONAL

DESIGNED	- DE
CHECKED	- SP
DRAWN	- DE
CHECKED	- SP

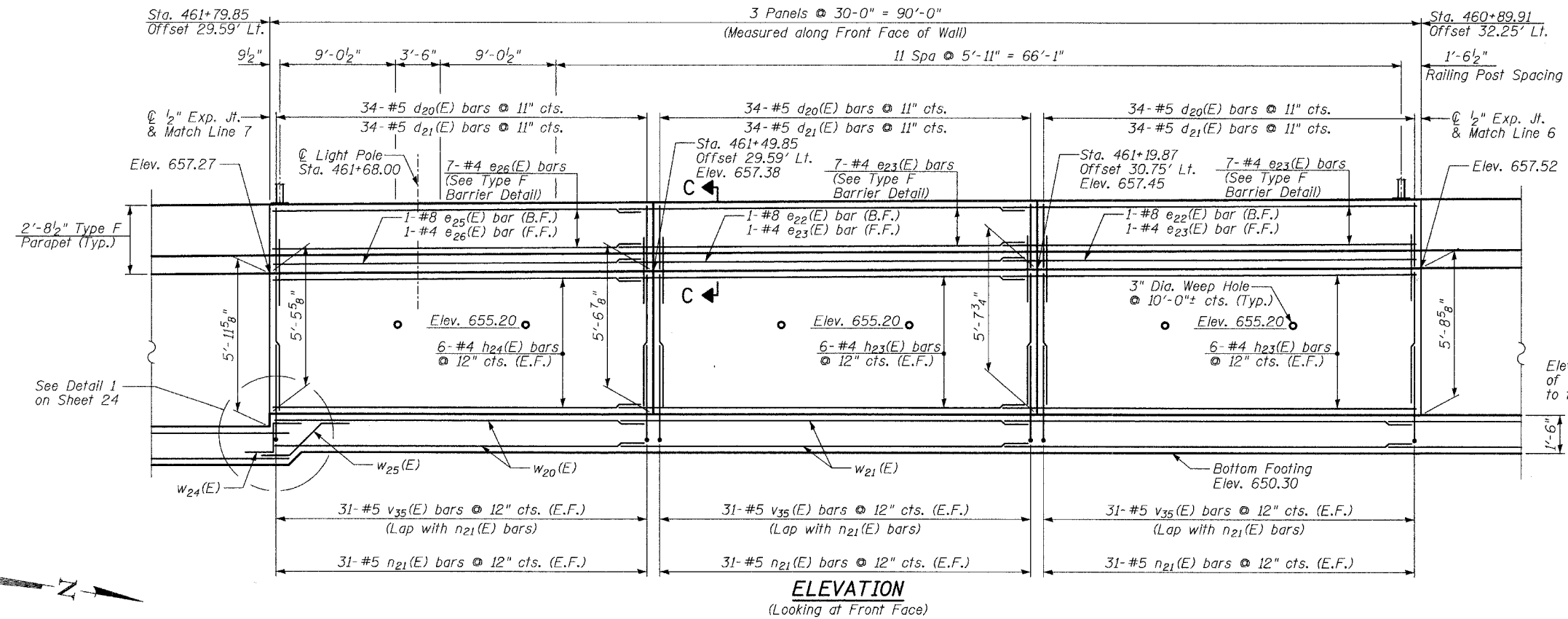
LAP SPLICES

Bar	Lap
#4	1'-8"
#5	2'-2"
#8	4'-6"

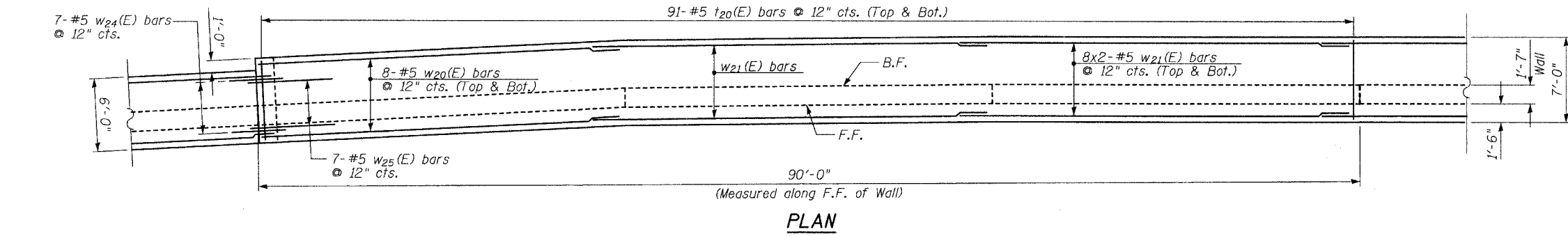
REVISIONS	
NAME	DATE

WALL F- CANTILEVER WALL
PLAN & ELEVATION
STA. 460+00.02 TO STA. 460+89.91

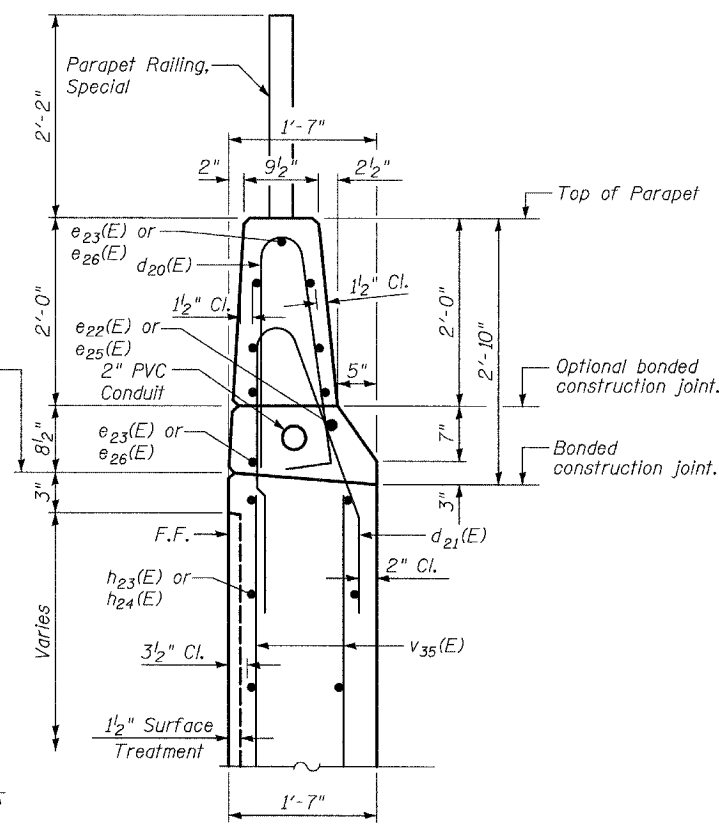
WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY



ELEVATION
(Looking at Front Face)



PLAN
(Measured along F.F. of Wall)



SECTION C-C
TYPE F BARRIER DETAIL

NOTES:

1. B.F. denotes Back Face.
2. E.F. denotes Each Face.
3. F.F. denotes Front Face.
4. Work this sheet with Sheets 16 thru 23 of 30.
5. Offsets measured from NB Washington St. to the front face of wall.
6. See Sheet 22 for Light Pole Details.
7. See Sheet 24 for details and limits of architectural finish.
8. See Sheet 25 for railing details.

LAP SPLICES

Bar	Lap
#4	1'-8"
#5	2'-2"
#8	4'-6"

TYLIN INTERNATIONAL

DESIGNED	- DE
CHECKED	- SP
DRAWN	- DE
CHECKED	- SP

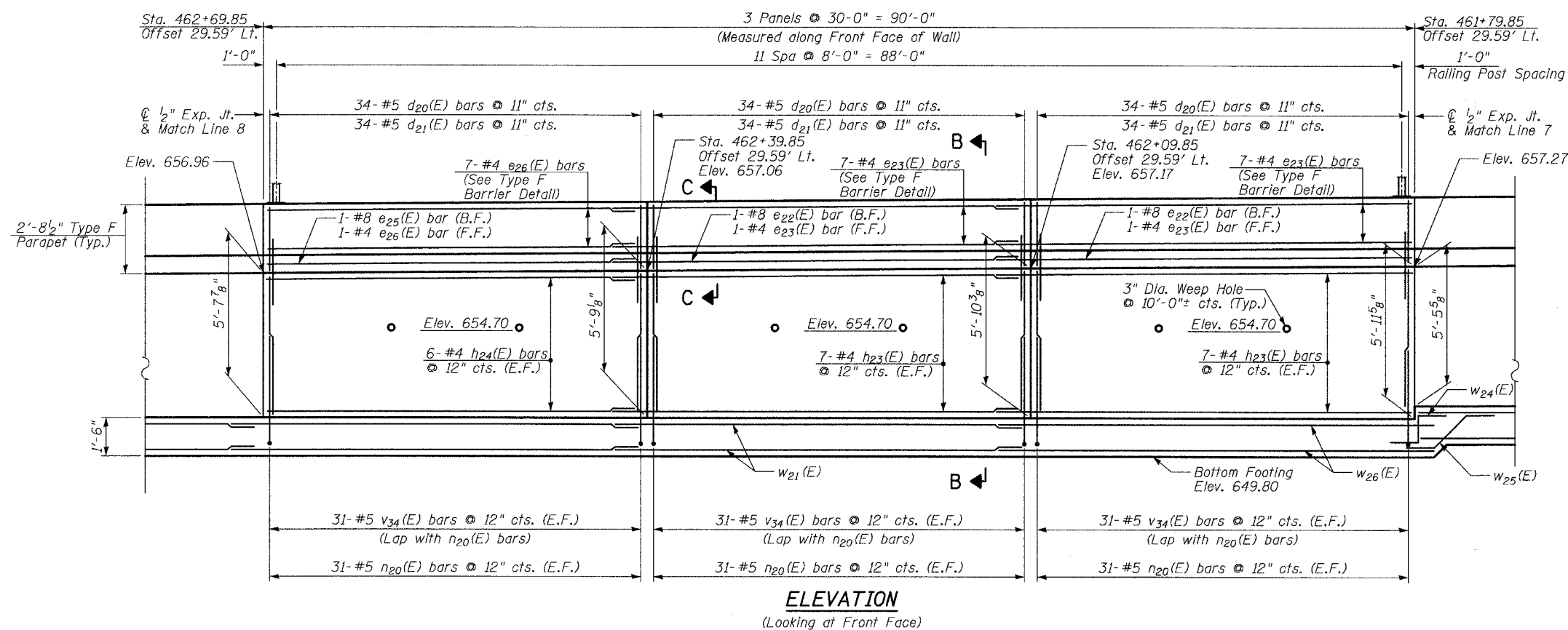
REVISIONS	
NAME	DATE

WALL F- CANTILEVER WALL
PLAN & ELEVATION
STA. 460+89.91 TO STA. 461+79.85

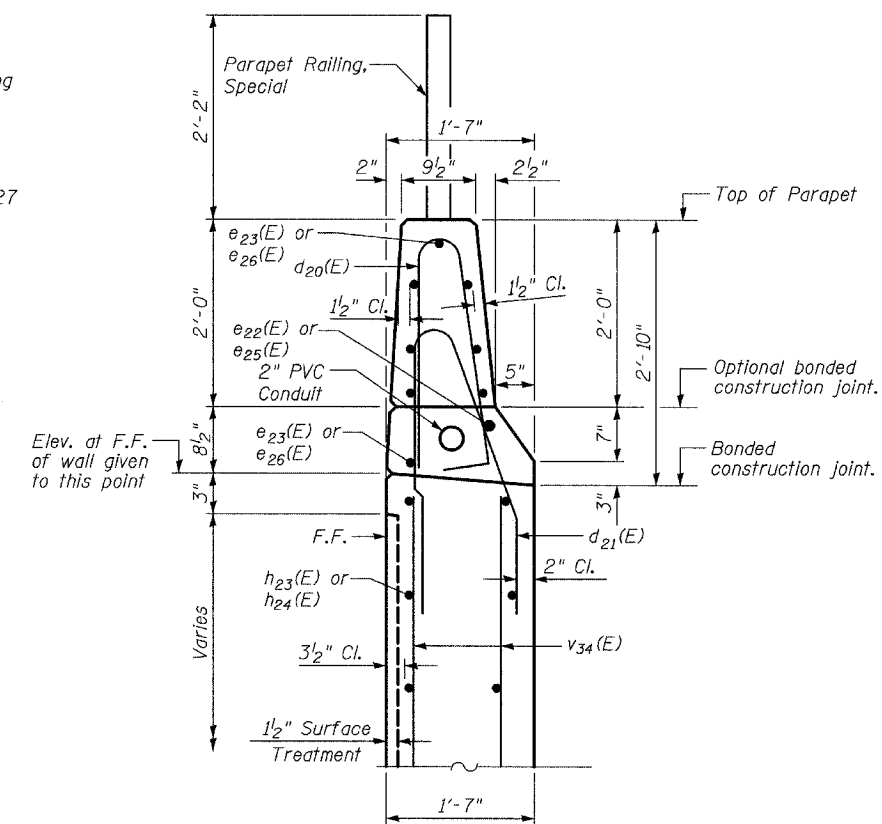
WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY

F.A.U. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	*	DUPAGE	563	429
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		00-00114-00-PV	CONTRACT NO. 63024	

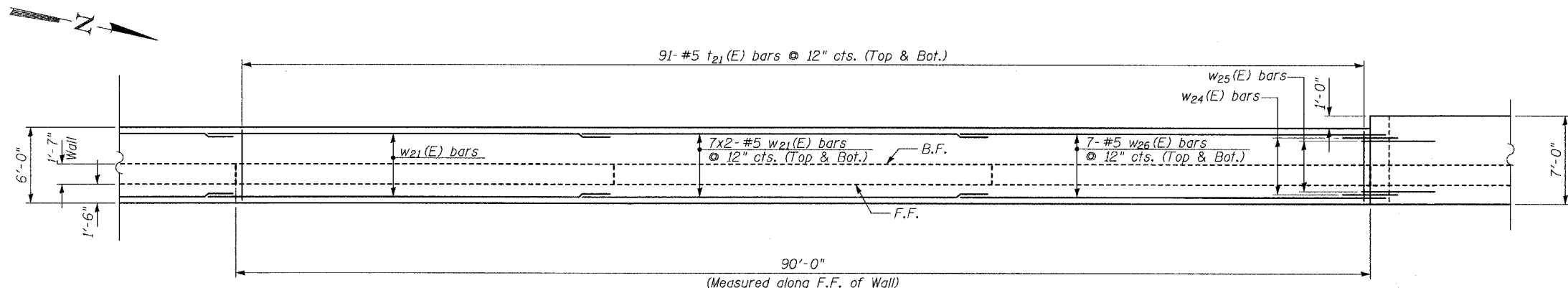
SHEET NO. - 19
30 - SHEETS



ELEVATION
(Looking at Front Face)



SECTION C-C
TYPE F BARRIER DETAIL



PLAN

- NOTES:**
1. B.F. denotes Back Face.
 2. E.F. denotes Each Face.
 3. F.F. denotes Front Face.
 4. Work this sheet with Sheets 16 thru 23 of 30.
 5. Offsets measured from NB Washington St. to the front face of wall.
 6. See Sheet 24 for Section B-B, details and limits of architectural finish.
 7. See Sheet 25 for railing details.

TYLIN INTERNATIONAL

DESIGNED	- DE
CHECKED	- SP
DRAWN	- DE
CHECKED	- SP

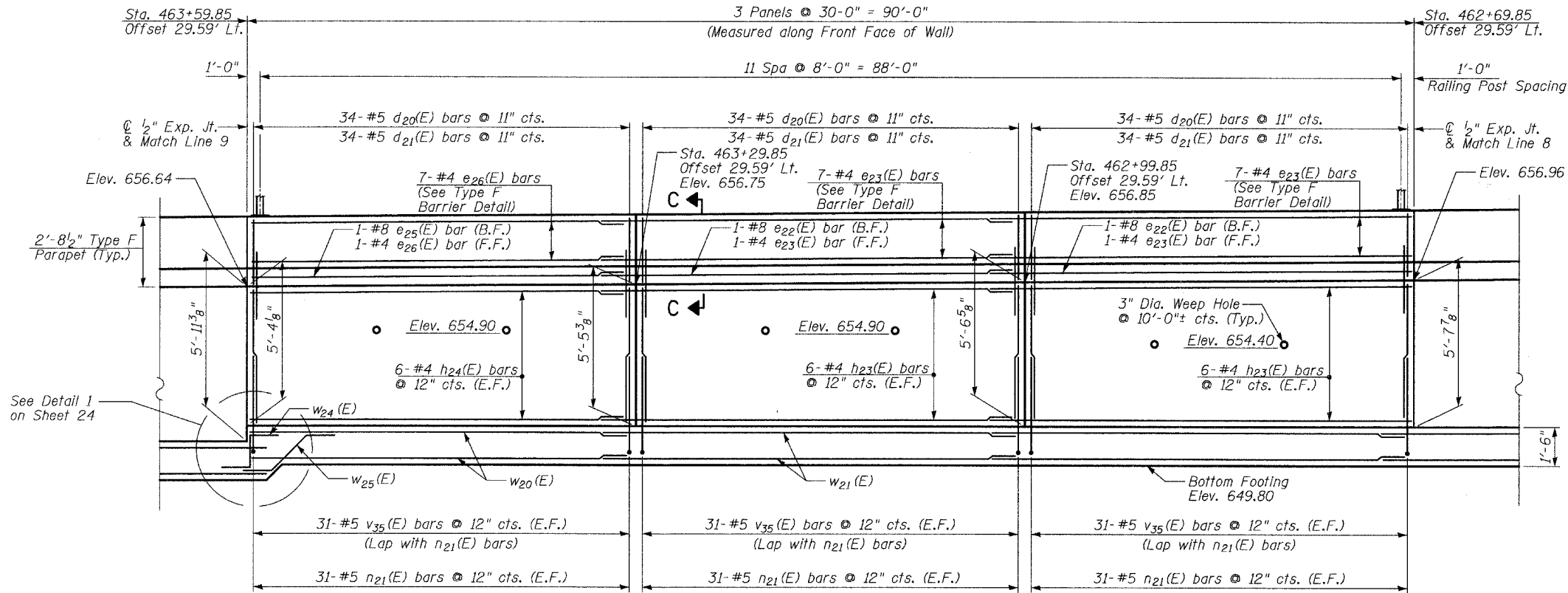
LAP SPLICES

Bar	Lap
#4	1'-8"
#5	2'-2"
#8	4'-6"

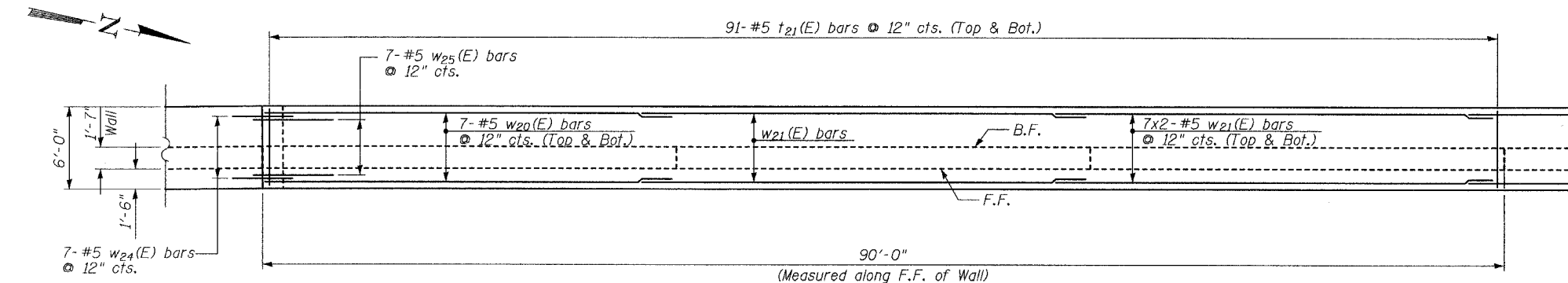
REVISIONS	
NAME	DATE

WALL F- CANTILEVER WALL
PLAN & ELEVATION
STA. 461+79.85 TO STA. 462+69.85

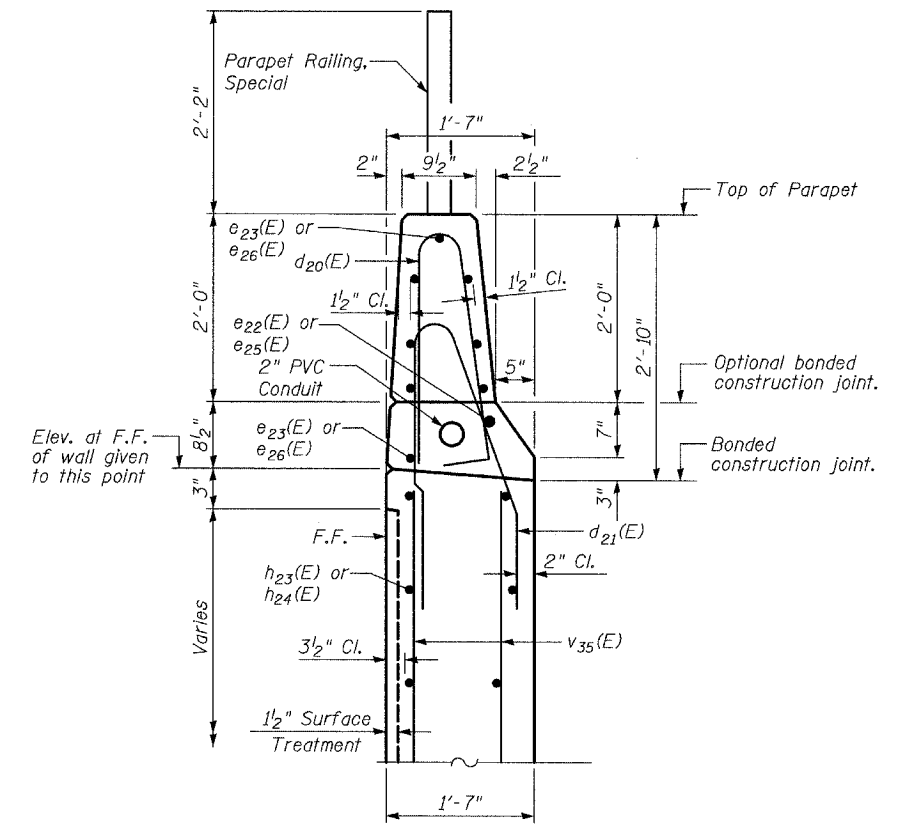
WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY



ELEVATION
(Looking at Front Face)



PLAN



SECTION C-C
TYPE F BARRIER DETAIL

NOTES:

1. B.F. denotes Back Face.
2. E.F. denotes Each Face.
3. F.F. denotes Front Face.
4. Work this sheet with Sheets 16 thru 23 of 30.
5. Offsets measured from NB Washington St. to the front face of wall.
6. See Sheet 24 for details and limits of architectural finish.
7. See Sheet 25 for railing details.

TYLIN INTERNATIONAL

DESIGNED	- DE
CHECKED	- SP
DRAWN	- DE
CHECKED	- SP

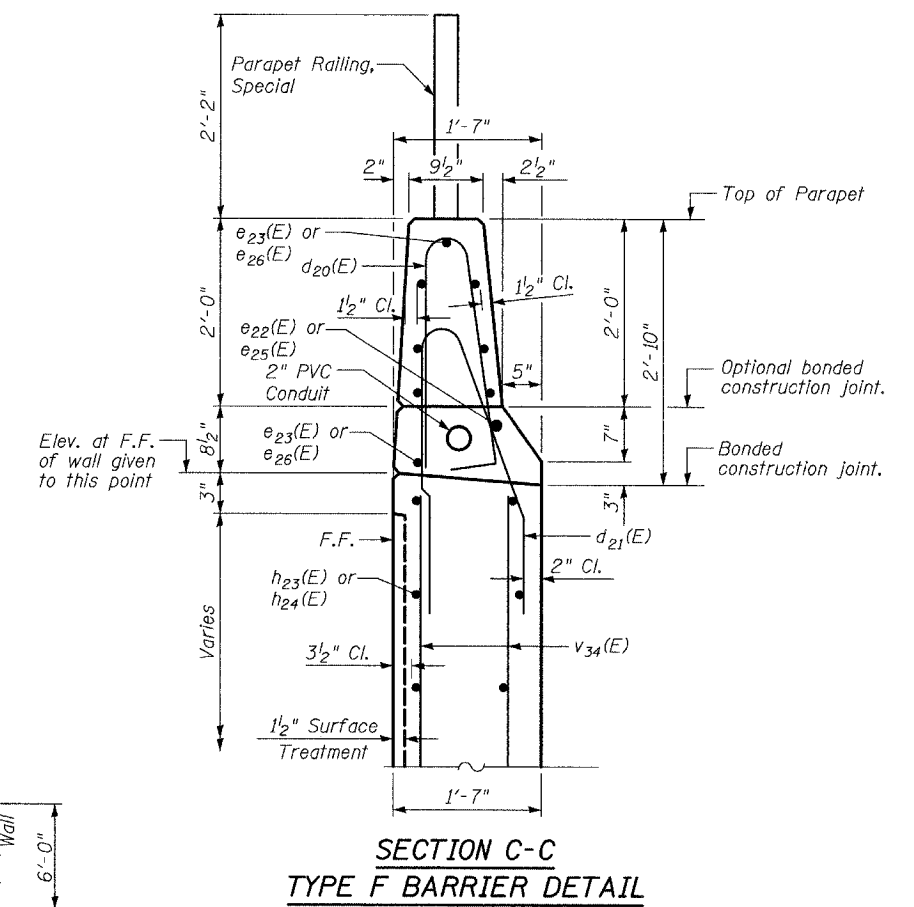
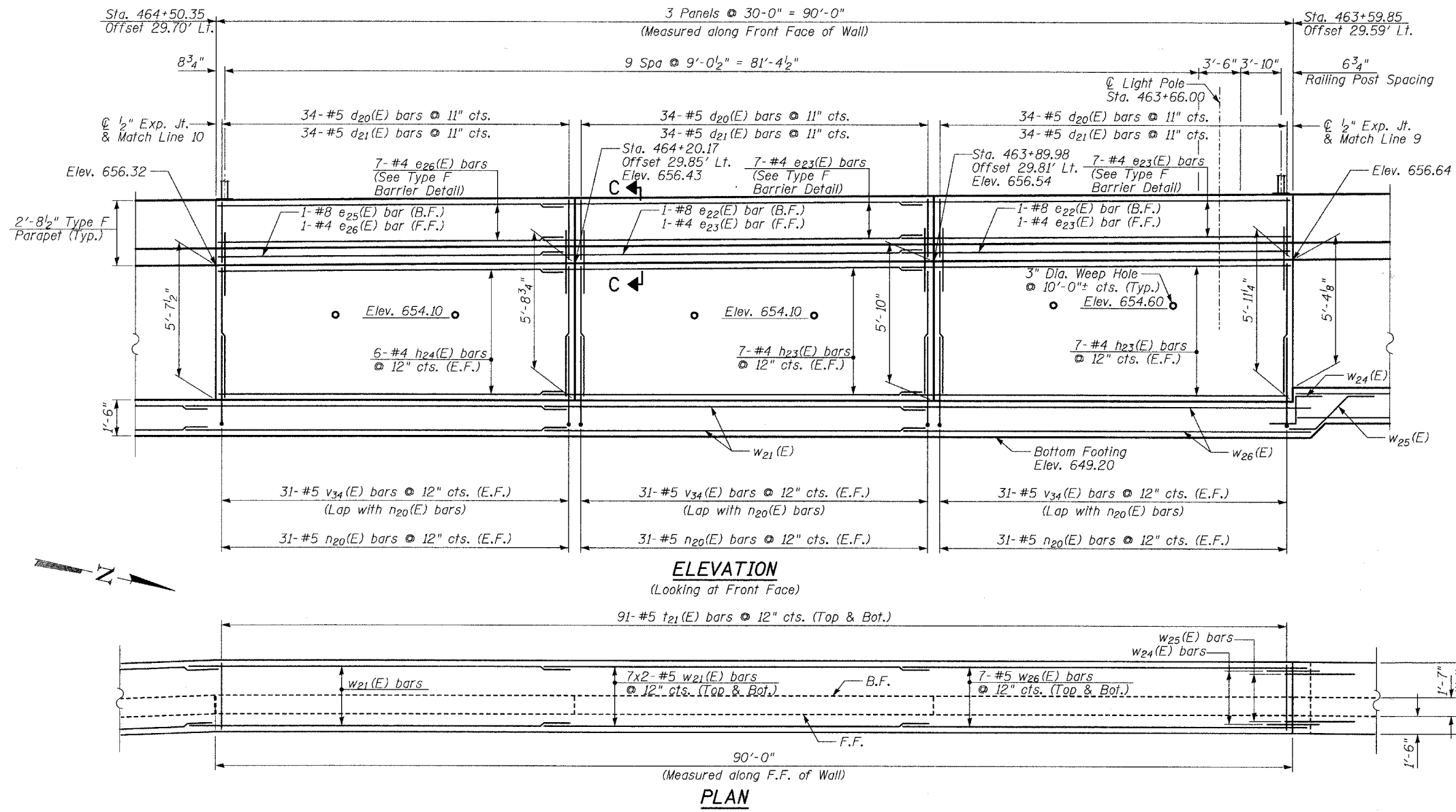
LAP SPLICES

Bar	Lap
#4	1'-8"
#5	2'-2"
#8	4'-6"

REVISIONS	
NAME	DATE

WALL F- CANTILEVER WALL
PLAN & ELEVATION
STA. 462+69.85 TO STA. 463+59.85

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY



- NOTES:**
1. B.F. denotes Back Face.
 2. E.F. denotes Each Face.
 3. F.F. denotes Front Face.
 4. Work this sheet with Sheets 16 thru 23 of 30.
 5. Offsets measured from NB Washington St. to the front face of wall.
 6. See Sheet 22 for Light Pole Details.
 7. See Sheet 24 for details and limits of architectural finish.
 8. See Sheet 25 for railing details.

LAP SPLICES

Bar	Lap
#4	1'-8"
#5	2'-2"
#8	4'-6"

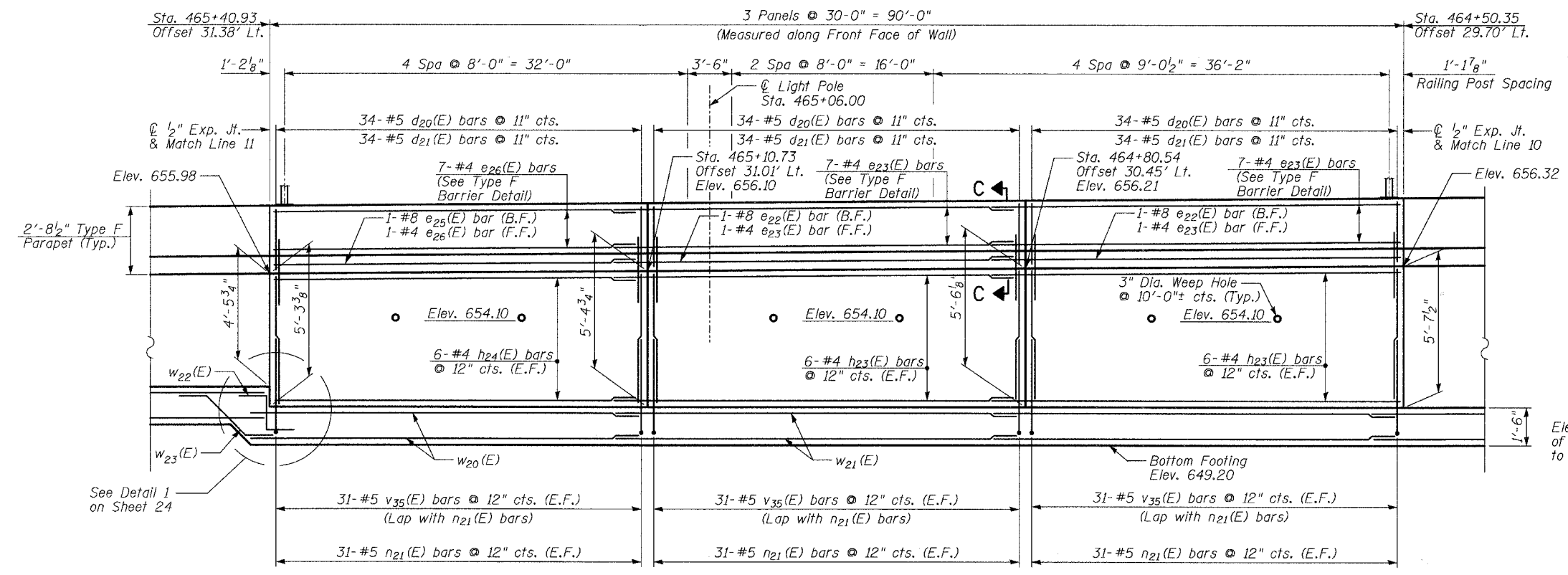
TYLIN INTERNATIONAL

DESIGNED	- DE
CHECKED	- SP
DRAWN	- DE
CHECKED	- SP

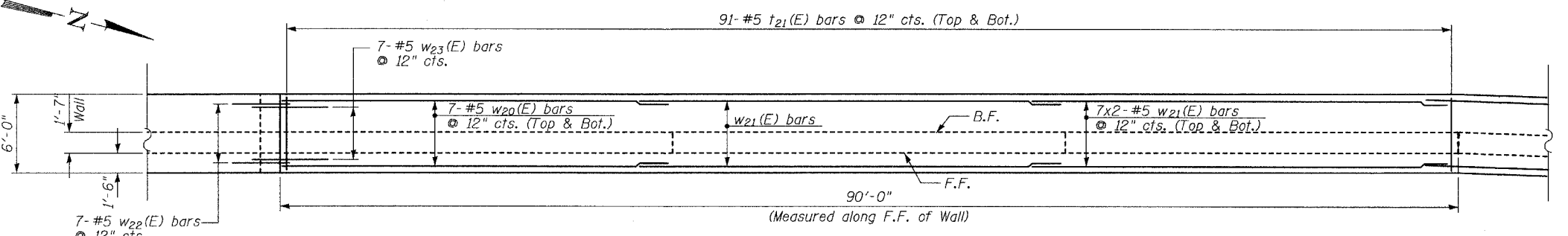
REVISIONS	
NAME	DATE

WALL F- CANTILEVER WALL
PLAN & ELEVATION
STA. 463+59.85 TO STA. 464+50.35

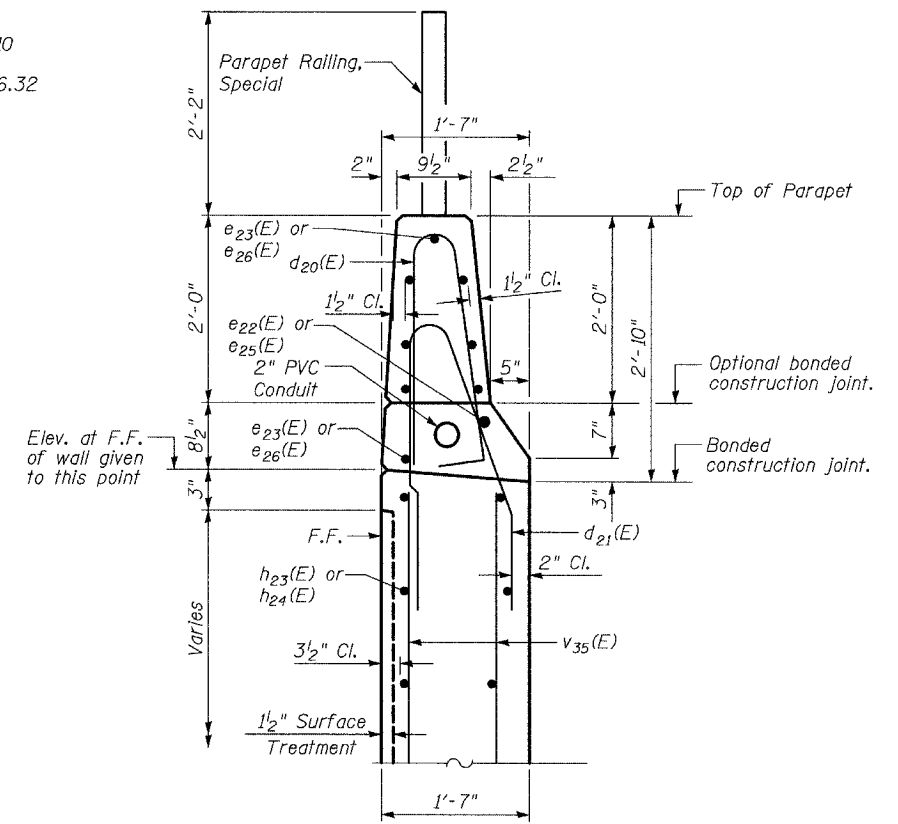
WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY



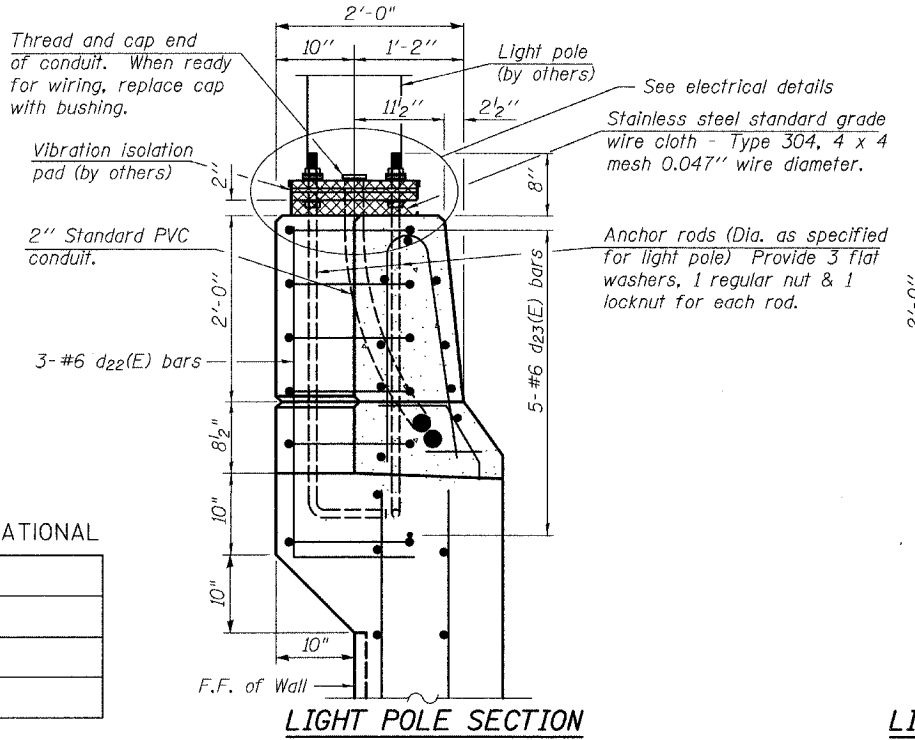
ELEVATION
(Looking at Front Face)



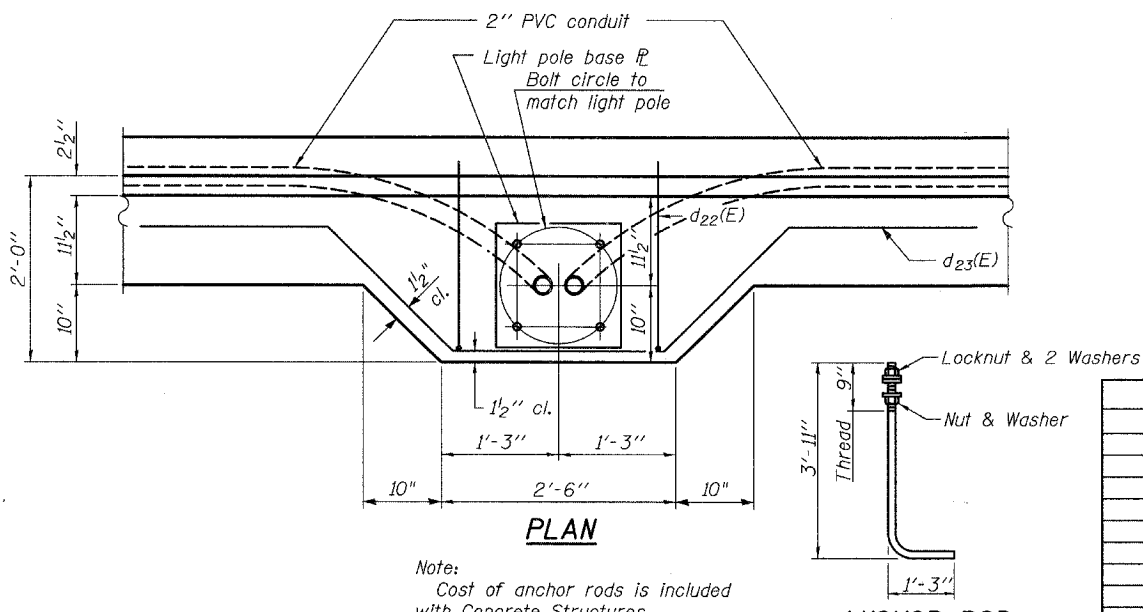
PLAN



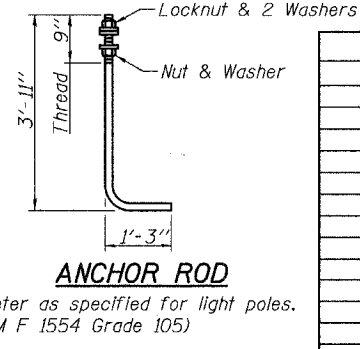
SECTION C-C
TYPE F BARRIER DETAIL



LIGHT POLE SECTION



LIGHT POLE DETAILS



ANCHOR ROD

NOTES:

1. B.F. denotes Back Face.
2. E.F. denotes Each Face.
3. F.F. denotes Front Face.
4. Work this sheet with Sheets 16 thru 23 of 30.
5. Offsets measured from NB Washington St. to the front face of wall.
6. See Sheet 24 for details and limits of architectural finish.
7. See Sheet 25 for railing details.

LAP SPLICES

Bar	Lap
#4	1'-8"
#5	2'-2"
#8	4'-6"

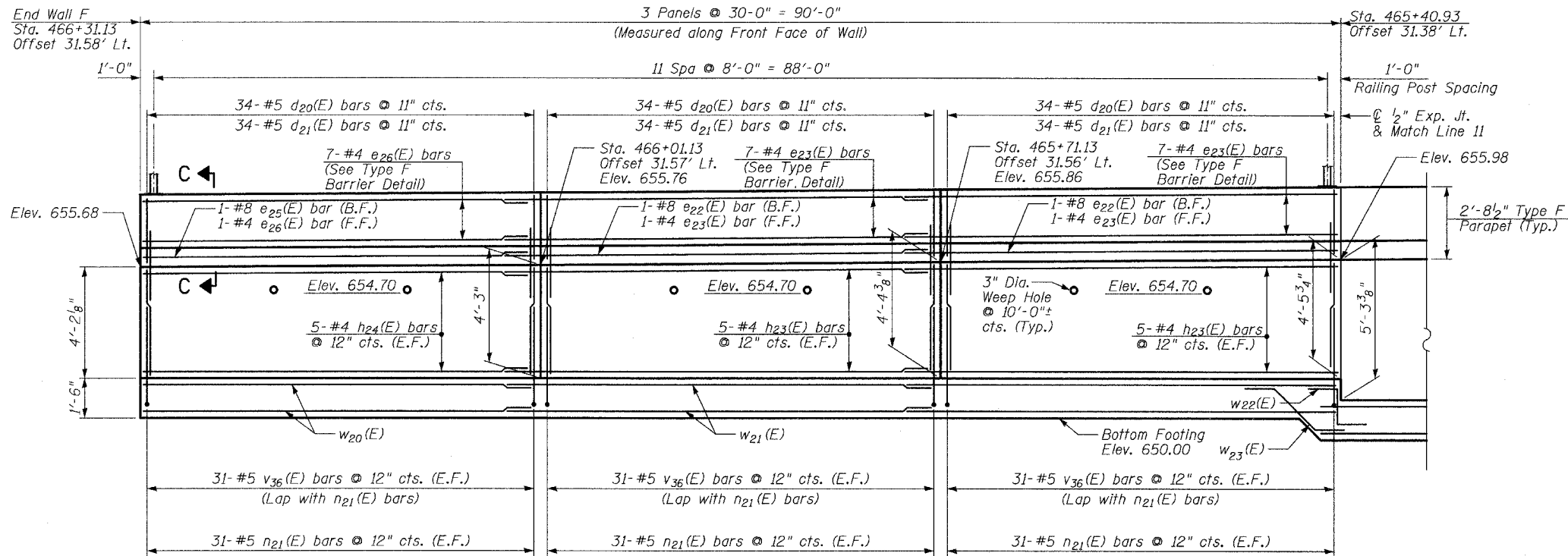
REVISIONS	
NAME	DATE

**WALL F- CANTILEVER WALL
PLAN & ELEVATION
STA. 464+50.35 TO STA. 465+40.93**

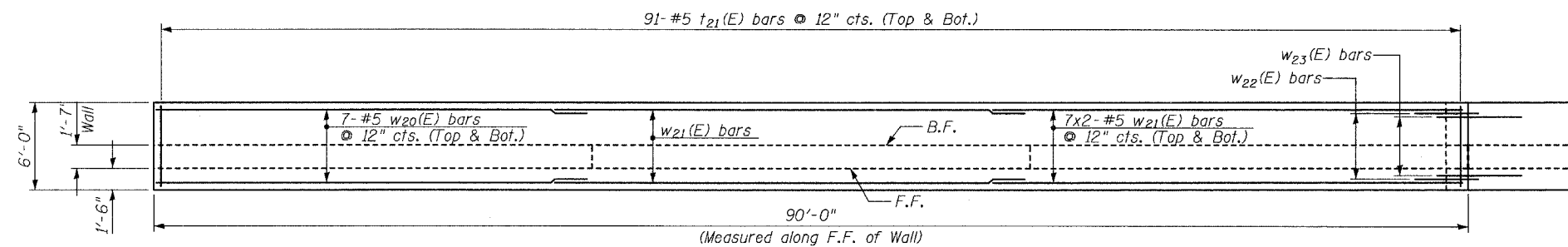
**WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY**

TYLIN INTERNATIONAL

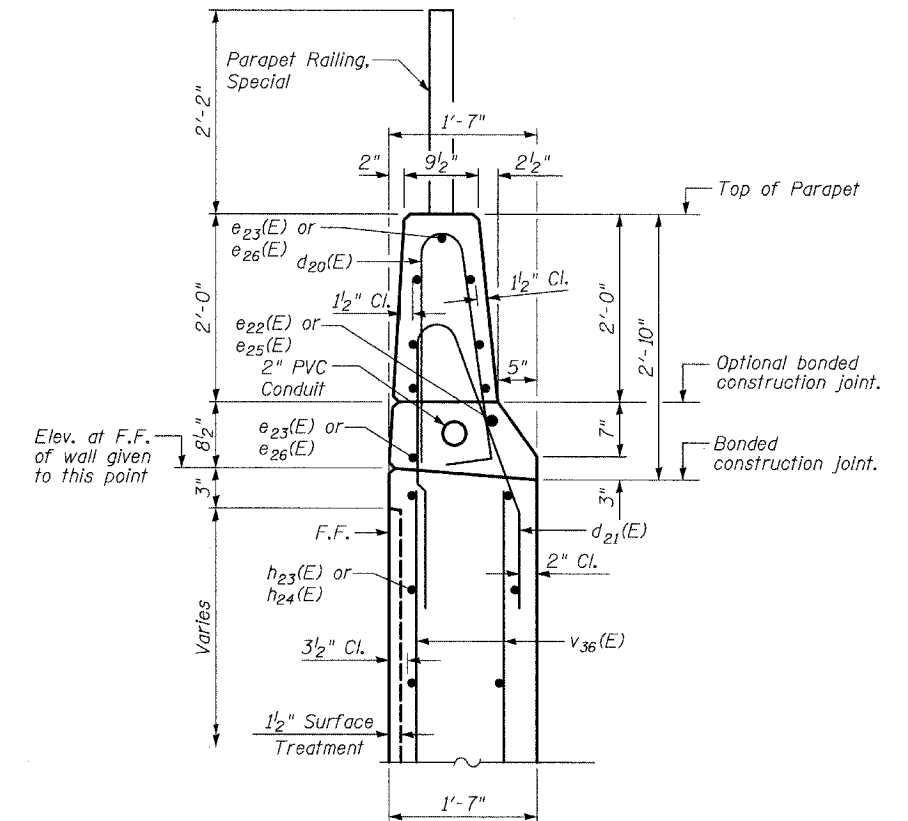
DESIGNED	- DE
CHECKED	- SP
DRAWN	- DE
CHECKED	- SP



ELEVATION
(Looking at Front Face)



PLAN



SECTION C-C
TYPE F BARRIER DETAIL

NOTES:

1. B.F. denotes Back Face.
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3. F.F. denotes Front Face.
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5. Offsets measured from NB Washington St. to the front face of wall.
6. See Sheet 24 for details and limits of architectural finish.
7. See Sheet 25 for railing details.

TYLIN INTERNATIONAL

DESIGNED	- DE
CHECKED	- SP
DRAWN	- DE
CHECKED	- SP

LAP SPLICES

Bar	Lap
#4	1'-8"
#5	2'-2"
#8	4'-6"

REVISIONS	
NAME	DATE

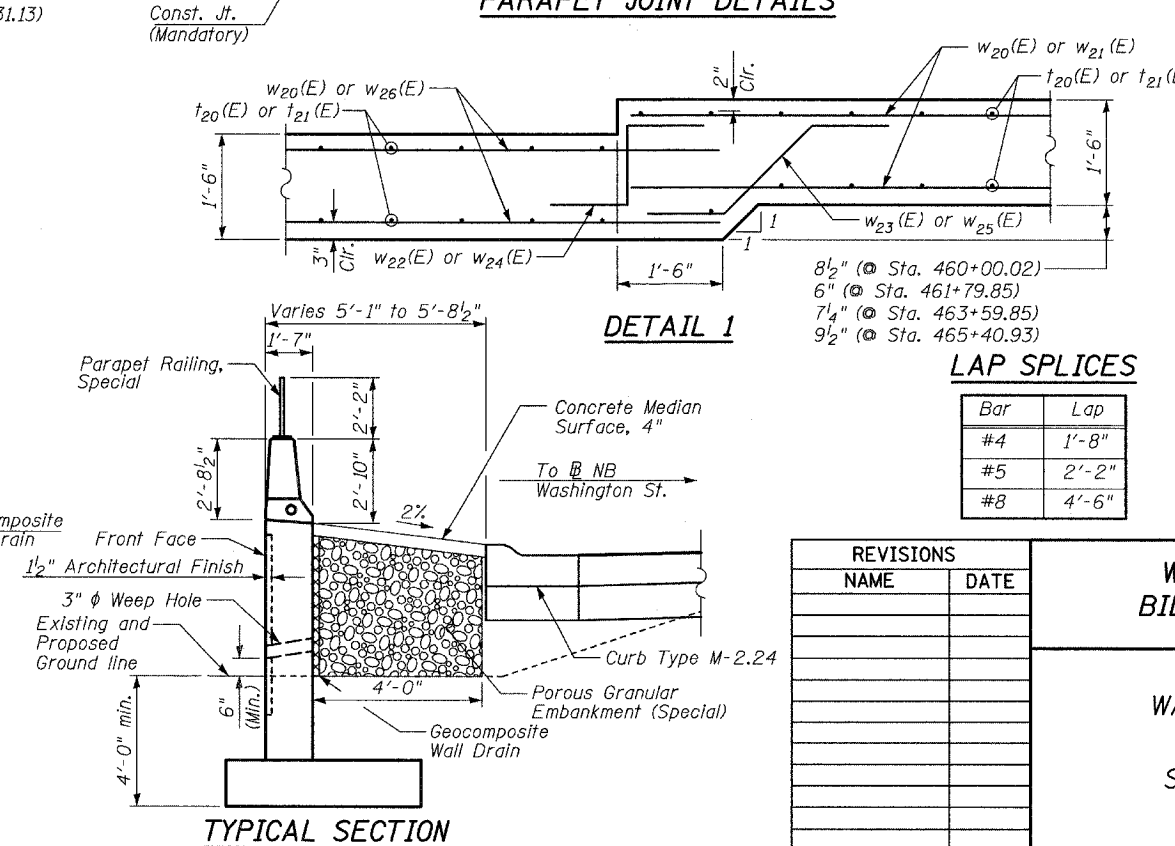
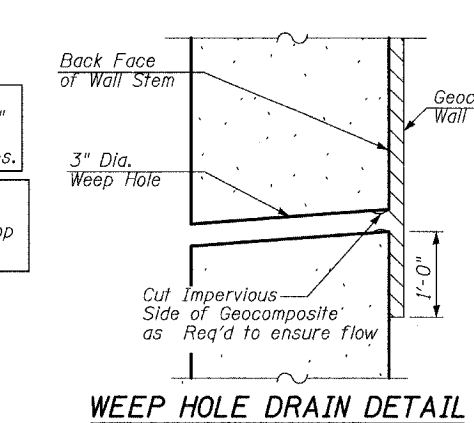
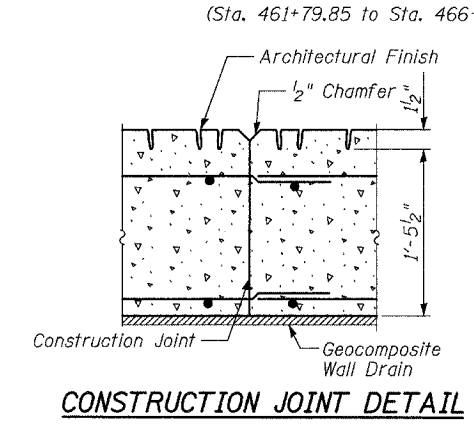
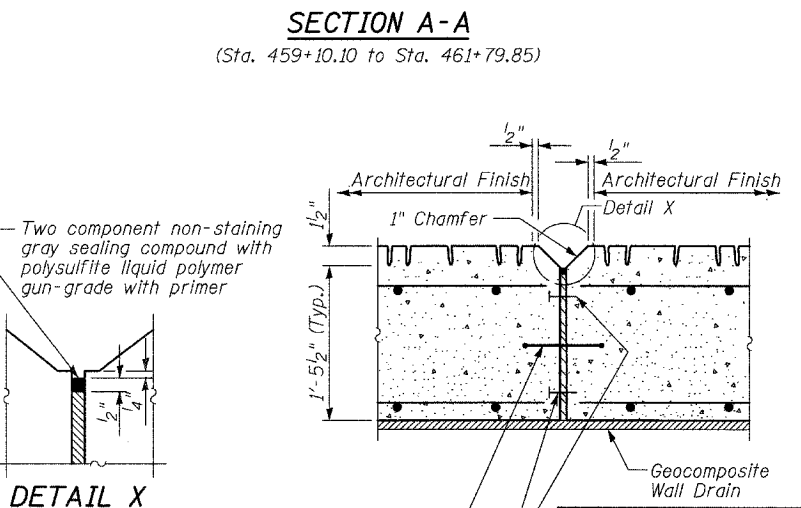
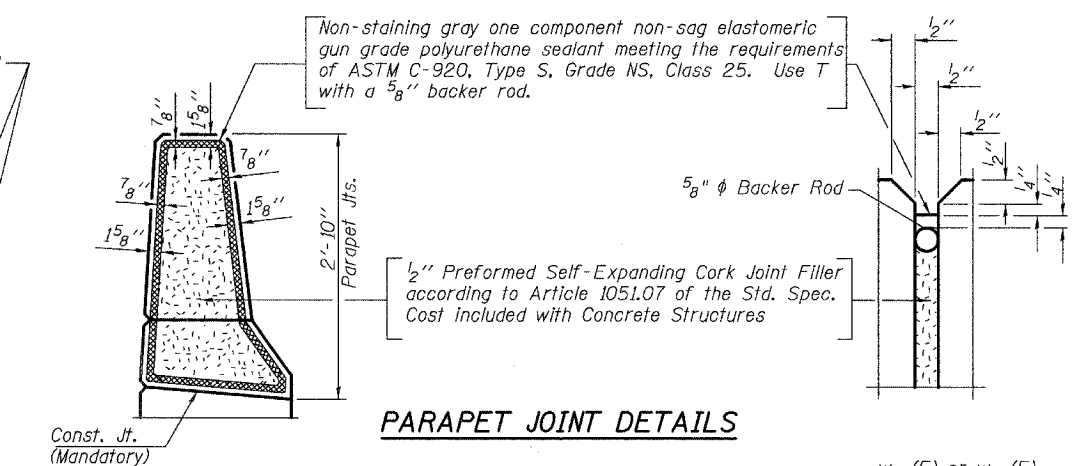
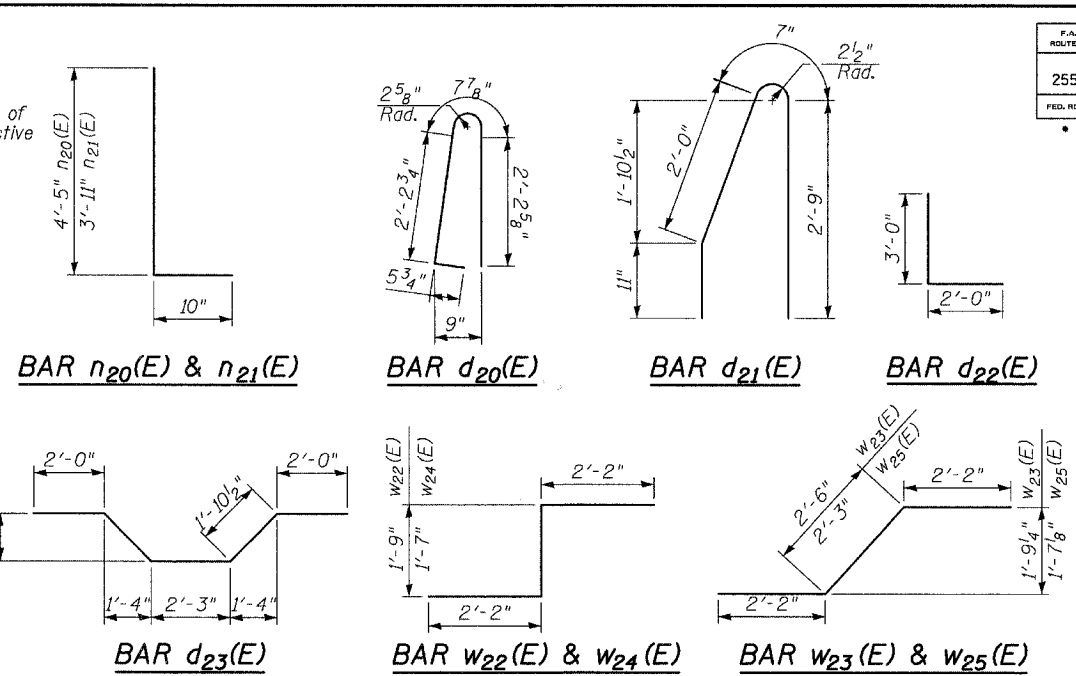
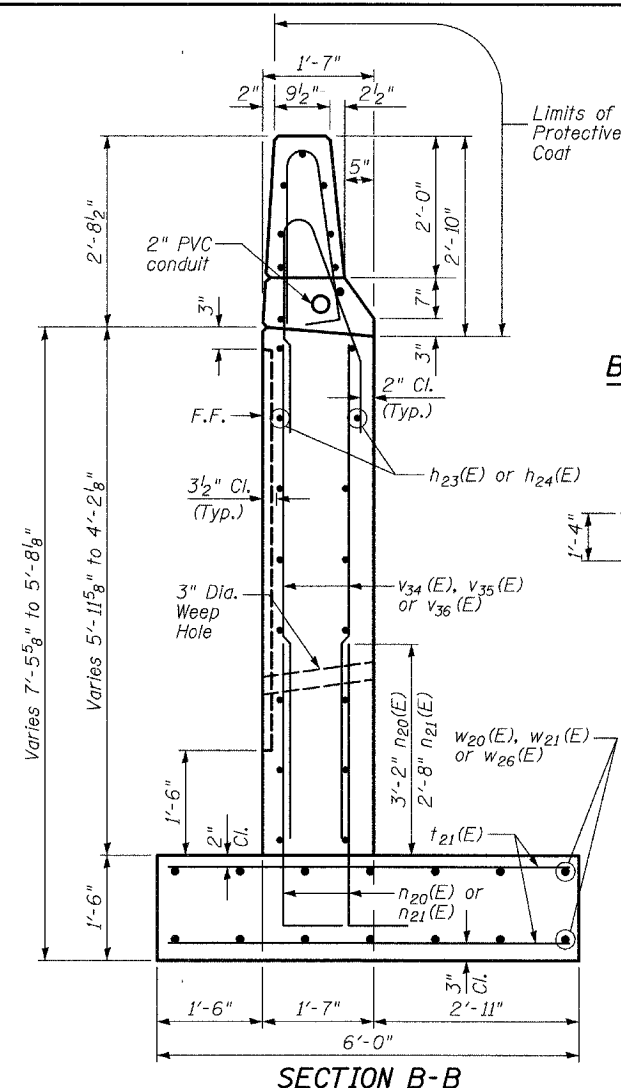
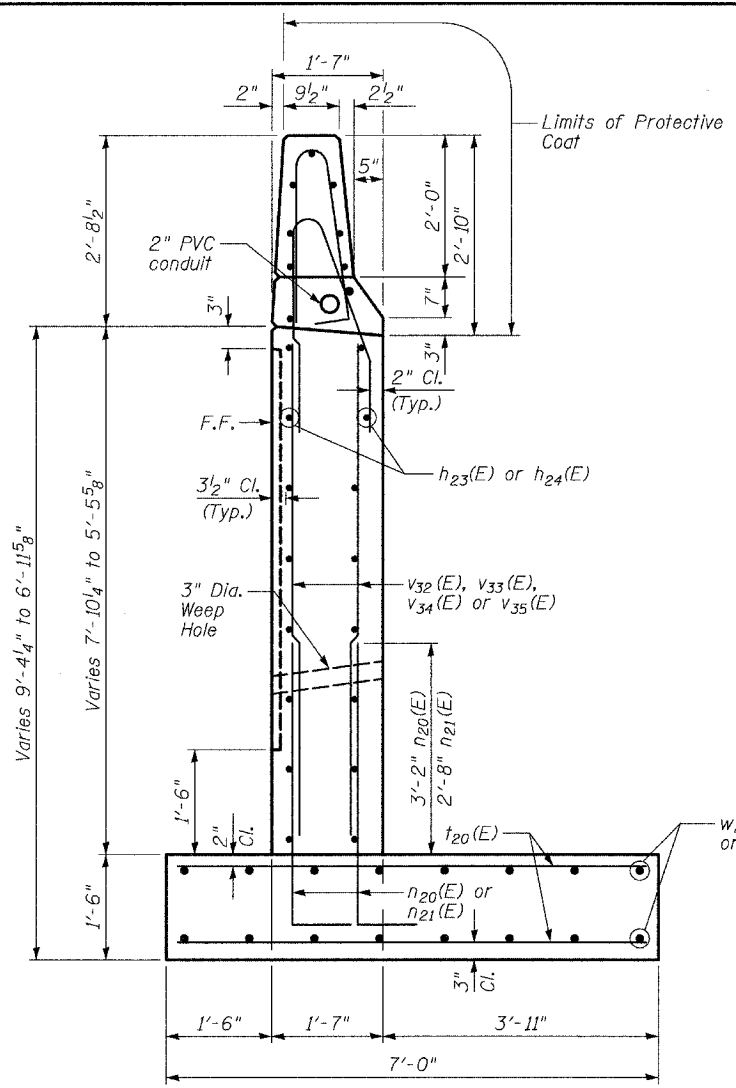
WALL F- CANTILEVER WALL
PLAN & ELEVATION
STA. 465+40.93 TO STA. 466+31.13

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY

WALL F CANTILEVER WALL BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d ₂₀ (E)	816	#5	5'-7"	
d ₂₁ (E)	816	#5	6'-3"	
d ₂₂ (E)	12	#6	5'-0"	
d ₂₃ (E)	20	#6	10'-0"	
h ₂₂ (E)	16	#8	34'-8"	
h ₂₃ (E)	128	#4	31'-9"	
h ₂₅ (E)	8	#8	29'-8"	
h ₂₆ (E)	64	#4	29'-8"	
h ₂₃ (E)	208	#4	31'-8"	
h ₂₄ (E)	98	#4	29'-8"	
n ₂₀ (E)	744	#5	5'-3"	
n ₂₁ (E)	744	#5	4'-9"	
t ₂₀ (E)	546	#5	6'-8"	
t ₂₁ (E)	910	#5	5'-8"	
v ₃₂ (E)	62	#5	6'-9"	
v ₃₃ (E)	62	#5	6'-0"	
v ₃₄ (E)	620	#5	5'-5"	
v ₃₅ (E)	558	#5	5'-1"	
v ₃₆ (E)	186	#5	3'-10"	
w ₂₀ (E)	74	#5	29'-8"	
w ₂₁ (E)	236	#5	32'-2"	
w ₂₂ (E)	15	#5	6'-1"	
w ₂₃ (E)	15	#5	6'-10"	
w ₂₄ (E)	14	#5	5'-11"	
w ₂₅ (E)	14	#5	6'-7"	
w ₂₆ (E)	22	#5	33'-8"	
Removal and Disposal of Unsuitable Material	CU YD		309	
* Porous Granular Embankment, Special	CU YD		380	
Structure Excavation	CU YD		1,265	
Concrete Structures	CU YD		583	
Protective Coat	SQ YD		295	
Reinforcement Bars, Epoxy Coated	POUND		59,240	
Parapet Railing, Special	FOOT		720	
Geocomposite Wall Drain	SQ YD		225	
Form Liner Textured Surface	SQ YD		323	
Anti-Graffiti Coating	SQ FT		2,907	

* Includes amount necessary for replacement of Unsuitable Material



LAP SPLICES

Bar	Lap
#4	1'-8"
#5	2'-2"
#8	4'-6"

REVISIONS

NAME	DATE

WALL F- CANTILEVER WALL BILL OF MATERIAL & DETAILS

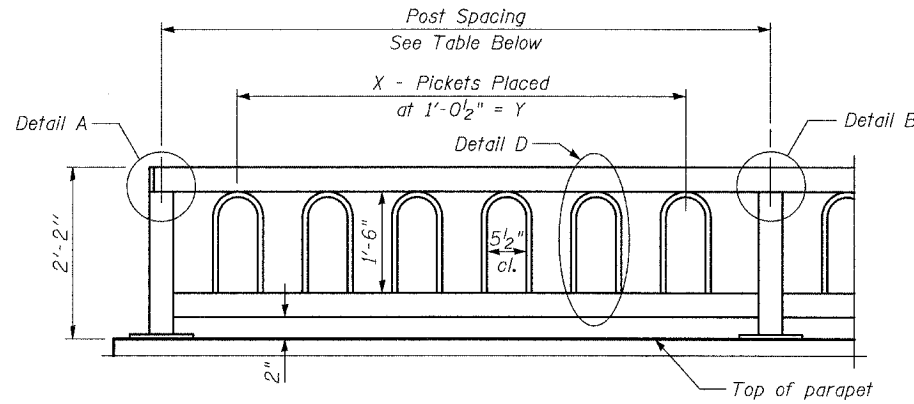
WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY

TYLIN INTERNATIONAL

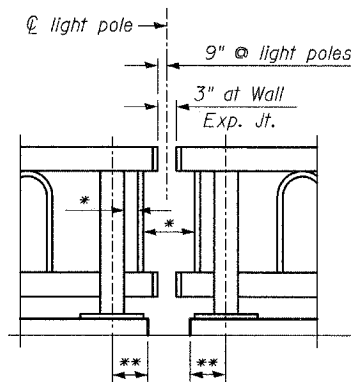
DESIGNED	- DE
CHECKED	- SP
DRAWN	- DE
CHECKED	- SP

NOTES:

- Railing shall be in accordance with Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for Bicycle Railing, Special or Parapet Railing, Special.
- Hollow Structural Steel Tubing shall conform to the requirements of ASTM Designation of 500, Grade B, Structural Steel Tubing. Anchor bolts shall conform to ASTM A307 unless noted otherwise.
- All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36.
- The parapet railing shall be powder coated and the color shall be black.
- The exterior steel surface shall be blast cleaned to Steel Structures Painting Council Surface Preparation Specification No. 6 (SSPC-SP6) requirements using cast steel abrasives conforming to the Society of Automotive Engineers (SAE) recommended Practice J827. The blast method used is a recirculating, closed cycle centrifugal wheel system with abrasive conforming to SAE Shot Number S280.
- All exterior surfaces shall be coated with a Urethane or Triglycidyl Isocyanurate (TGIC) Polyester Powder to a minimum film thickness of 0.002". The coating shall be electrostatically applied and cured in a gas fired convection oven by heating the steel substrate to a minimum of 350 degrees Fahrenheit and a maximum of 400 degrees Fahrenheit. The thermosetting powder resin shall provide both intercoat as well as substrate fusion adhesion that meets 5A or 5B classifications of ASTM D3359.
- Ship railing to the site in a manner to prevent damage to the powder coating.



PARAPET RAILING ELEVATION

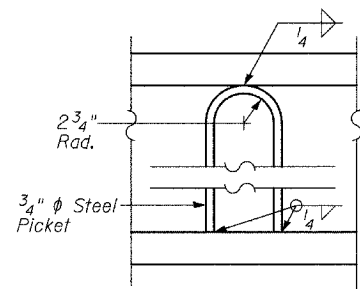


PARAPET RAILING ELEVATION AT EXPANSION JOINT

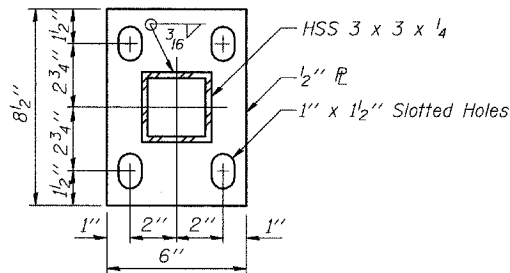
PARAPET RAILING LAYOUT **

Post Spacing	Picket Layout	
	X	Y
2'-9 1/2"	2	1'-0 1/2"
3'-10"	3	2'-1"
4'-10 1/2"	4	3'-1 1/2"
5'-11"	5	4'-2"
6'-11 1/2"	6	5'-2 1/2"
8'-0"	7	6'-3"
9'-0 1/2"	8	7'-3 1/2"

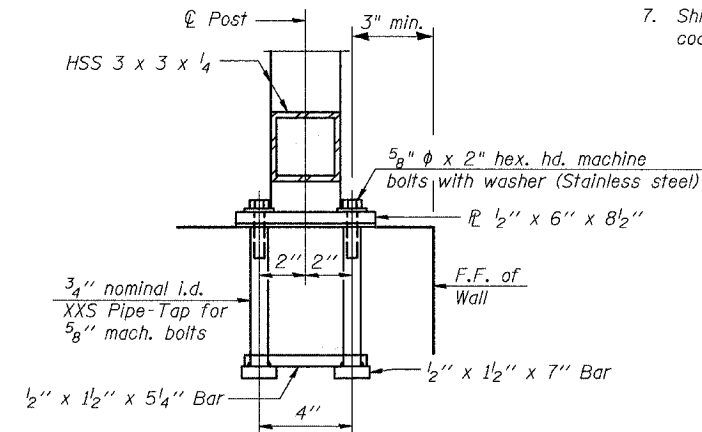
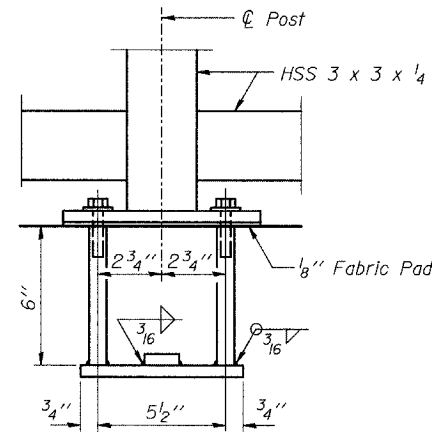
* Max Spacing is 6". Rail Fabricator shall add pickets as necessary (Not necessary at Light Pole locations)
 ** See wall plan and elevation sheets for dimensions



DETAIL D



BASE P

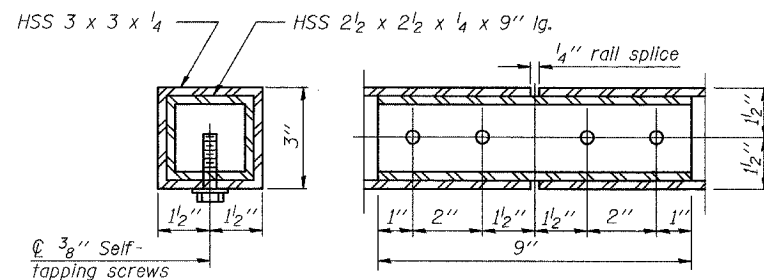


TYPICAL ANCHOR BOLT DETAILS

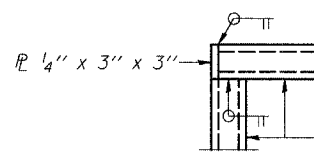
In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

BILL OF MATERIAL

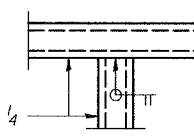
Item	Unit	Quantity
Parapet Railing, Special	Foot	1,357



TYPICAL RAIL SPLICE DETAILS



DETAIL A



DETAIL B

TYLIN INTERNATIONAL

DESIGNED	- TB
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP

REVISIONS	
NAME	DATE

WALLS E AND F RAILING DETAILS

WASHINGTON - 75TH STREET
 F.A.U. ROUTE 2552
 SECTION 00-00114-00-PV
 DUPAGE COUNTY



O'BRIEN & ASSOCIATES, INC.
CONSULTING ENGINEERS
1235 E. DAVIS ST./ARLINGTON HTS., IL 60005
(847)398-1441 • FAX(847) 398-2378

STRUCTURE FOUNDATION BORING LOG

Project: Supplemental Phase 2 Geotechnical Investigation For The Proposed 75th Street and Washington Street Intersection Improvements OBA Job No.: 07546
Location: Washington Street & 75th Street, Naperville, Illinois Date: 10/30-31/07
County: Cook Bored By: RH
Client: T.Y. Lin International Checked By: DOB

BORING No.:	DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	M (ft)	Soil Description	Surface Water Elev.:	Groundwater Elevation:	Groundwater Elevation:	After Hours:
RW-07-06					7.0' CONCRETE, 5.0' SAND & GRAVEL	n/a	n/a WD	n/a AB	
	663.6				CLAY-brown & gray-stiff to very stiff (A-6) Fill				
	662.6	4			TOPSOIL-black				
	658.1	5	1.75P	14	SAND & GRAVEL-brown-medium dense (A-1)				
	655.6	10	2.25P	33	SAND, GRAVEL & FRACTURED ROCK-brown (A-1)				
	650.1	16	NP	12	Drillers Observation: Apparent bedrock.				
	646.6				Silurian System, Niagaran Series Dolomite RUN 1 (-18.0' to -28.0')				
					Light gray & fine grained with horizontal bedding. Slightly porous & weathered with rust staining from -23.6' to -25.75'. Numerous horizontal fractures throughout. No vugs, chert nodules or vertical fractures encountered.				
					Recovery=99.0% R.Q.D.=68.5%				
	635.6				End of Boring @ -28.0' Hollow Stem Augers to -10.0' Rotary Drilling to Completion CME-Automatic Hammer				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery



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STRUCTURE FOUNDATION BORING LOG

Project: Supplemental Phase 2 Geotechnical Investigation For The Proposed 75th Street and Washington Street Intersection Improvements OBA Job No.: 07546
Location: Washington Street & 75th Street, Naperville, Illinois Date: 11/1/2007
County: Cook Bored By: RH
Client: T.Y. Lin International Checked By: DOB

BORING No.:	DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	M (ft)	Soil Description	Surface Water Elev.:	Groundwater Elevation:	Groundwater Elevation:	After Hours:
RW-07-07					2.0' TOPSOIL-black	n/a	n/a WD	n/a AB	
	655.8				CLAY-dark brown to black-hard (A-6)				
	652.8	6	4.5+P	21	SAND, GRAVEL & FRACTURED ROCK-brown-medium dense to very dense (A-1)				
	647.8	12	NP	14	Drillers Observation: Apparent bedrock.				
	646.8				Silurian System, Niagaran Series Dolomite RUN 1 (-9.0' to -19.0')				
					Light gray & fine grained with horizontal bedding. Slightly porous & weathered with rust staining from -13.3' to -15.6'. Numerous horizontal fractures throughout. No vugs, chert nodules or vertical fractures encountered.				
					Recovery=100.0% R.Q.D.=54.0%				
	636.8				End of Boring @ -19.0' Hollow Stem Augers to -7.5' Rotary Drilling to Completion CME-Automatic Hammer				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

TYLINTERNATIONAL

DESIGNED	-
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP

REVISIONS	
NAME	DATE

BORING LOGS - 2

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY



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CONSULTING ENGINEERS
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STRUCTURE FOUNDATION BORING LOG

Project: Supplemental Phase 2 Geotechnical Investigation For The Proposed 75th Street and Washington Street Intersection Improvements OBA Job No.: 07546
 Location: Washington Street & 75th Street, Naperville, Illinois Date: 10/30/2007
 County: Cook Bored By: RH
 Client: T.Y. Lin International Checked By: DOB

BORING No.: RW-07-08	Station: 459+55 (Washington Street)	Offset: 37.0' Left	Ground Surface Elevation: 655.4	2.0' TOPSOIL-black	D E P T H (ft)	B L O W (6")	U C S (tsf)	M O I S T (%)	Surface Water Elev.: n/a	Groundwater Elevation: Dry WD	Groundwater Elevation: Dry AB	After Hours:	D E P T H (ft)	B L O W (6")	U C S (tsf)	M O I S T (%)	
																	AS
			651.4	CLAYEY GRAVEL & STONE- brown & black-very dense Fill	6	10											
			649.4	CLAY-dark brown-hard (A-6)	7	14	4.25P	23									
			647.4	SILTY LOAM-brown & gray- very dense (A-4)	9	15		NP	13								
			645.9	Drillers Observation: Apparent bedrock.													
			-10	End of Boring @ -9.5' Hollow Stem Augers CME-Automatic Hammer													
			-15														
			-20														
			-25														

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
 NR-No Recovery



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STRUCTURE FOUNDATION BORING LOG

Project: Supplemental Phase 2 Geotechnical Investigation For The Proposed 75th Street and Washington Street Intersection Improvements OBA Job No.: 07546
 Location: Washington Street & 75th Street, Naperville, Illinois Date: 10/30/2007
 County: Cook Bored By: RH
 Client: T.Y. Lin International Checked By: DOB

BORING No.: RW-07-09	Station: 461+00 (Washington Street)	Offset: 16.0' Left	Ground Surface Elevation: 654.8	TOPSOIL-black	D E P T H (ft)	B L O W (6")	U C S (tsf)	M O I S T (%)	Surface Water Elev.: n/a	Groundwater Elevation: Dry WD	Groundwater Elevation: Dry AB	After Hours:	D E P T H (ft)	B L O W (6")	U C S (tsf)	M O I S T (%)	
																	AS
			651.8	CLAY-brown-hard (A-6) Wet	4	8											
			649.8	FRACTURED ROCK-brown- very dense (A-1)	7	8	4.0P	26									
			647.3	Possible cobbles or boulders.													
			646.3	Drillers Observation: Apparent bedrock.													
			-10	End of Boring @ -8.5' Hollow Stem Augers CME-Automatic Hammer													
			-15														
			-20														
			-25														

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
 NR-No Recovery

TYLIN INTERNATIONAL

DESIGNED	-
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP

REVISIONS	
NAME	DATE

BORING LOGS - 3

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY



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STRUCTURE FOUNDATION
BORING LOG

Page: 1 of 1

Project: Supplemental Phase 2 Geotechnical Investigation For The Proposed 75th Street and Washington Street Intersection Improvements OBA Job No.: 07546
Location: Washington Street & 75th Street, Naperville, Illinois Date: 10/30/2007
County: Cook Bored By: RH
Client: T.Y. Lin International Checked By: DOB

BORING No.:	DEPTH (ft)	BLOWS	UCS (tsf)	M	Surface Water Elev.:	DEPTH (ft)	BLOWS	UCS (tsf)	M
RW-07-10					n/a				
Station: 462+50 (Washington Street)					Groundwater Elevation: 646.9 WD				
Offset: 29.5' Left					Groundwater Elevation: 647.9 AB				
Ground Surface Elevation: 652.9					After Hours:				
TOPSOIL-black	AS	-	30						
	4								
	5								
650.4	6	-	25						
SAND-brown-loose (A-3)	2								
	2								
	-5	2	NP	18		-30			
647.4									
SAND, GRAVEL & FRACTURED ROCK-brown-very dense (A-1)	10								
	50/5'								
Possible cobbles or boulders.			NP	7					
644.9									
SILTY SAND, GRAVEL & FRACTURED ROCK-brown-very dense (A-2)	24								
	40								
	-10	50/2'	NP	15		-35			
Possible cobbles or boulders.									
641.4									
50/1'									
Drillers Observation: Apparent bedrock.				NR					
639.9									
End of Boring @ -13.0' Hollow Stem Augers CME-Automatic Hammer									
	-15					-40			
	-20					-45			
	-25					-50			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery



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STRUCTURE FOUNDATION
BORING LOG

Page: 1 of 1

Project: Supplemental Phase 2 Geotechnical Investigation For The Proposed 75th Street and Washington Street Intersection Improvements OBA Job No.: 07546
Location: Washington Street & 75th Street, Naperville, Illinois Date: 10/30/2007
County: Cook Bored By: RH
Client: T.Y. Lin International Checked By: DOB

BORING No.:	DEPTH (ft)	BLOWS	UCS (tsf)	M	Surface Water Elev.:	DEPTH (ft)	BLOWS	UCS (tsf)	M
RW-07-11					n/a				
Station: 464+00 (Washington Street)					Groundwater Elevation: 645.8 WD				
Offset: 22.0' Left					Groundwater Elevation: 643.3 AB				
Ground Surface Elevation: 653.3					After Hours:				
653.2									
1.0' TOPSOIL-black	AS	-	5						
	15								
	16								
650.3	8	NP	5						
SAND, GRAVEL & CRUSHED STONE-medium dense (Fill)									
	4								
	6								
	-5	6	4.5P	29		-30			
647.8									
TOPSOIL-black	2								
	2								
	7	0.75P	60						
645.3									
ORGANIC CLAY-black-medium stiff (A-7)									
	14								
	18								
	-10	30	NP	10		-35			
642.3									
FRACTURED ROCK-dense (A-1)									
Possible cobbles or boulders.									
640.3									
Drillers Observation: Apparent bedrock.									
End of Boring @ -13.0' Hollow Stem Augers CME-Automatic Hammer									
	-15					-40			
	-20					-45			
	-25					-50			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

F.A.U. ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
2552	*	DUPAGE	563	439

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT-
* 00-00114-00-PV CONTRACT NO. 63024

SHEET NO. - 29
30 - SHEETS

TYLIN INTERNATIONAL

DESIGNED	-
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP

REVISIONS	
NAME	DATE

BORING LOGS - 4

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY



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SOIL BORING LOG

PAGE 1 of 1
DATE July 1-2, 2002
LOGGED BY RH
OBA JOB No. 01252

ROUTE xx DESCRIPTION 75th Street and Washington Street Intersection Improvements
SECTION xx LOCATION Naperville, Illinois
COUNTY DuPage DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. xx Station xx
BORING NO. S-2 Station 250+88 75th Street
Offset 40' Right
Ground Surface Elev. 663.4

DEPTH (ft) (6")	B L O W S (ft) (6")	U C S Qu (tsf) (%)	M O I S T (tsf) (%)	Surface Water Elev. n/a	Stream Bed Elev. n/a	DEPTH (ft) (6")	B L O W S Qu (tsf) (%)	M O I S T (tsf) (%)
				Groundwater Elevation:				
				First Encounter <u>649.1</u>				
				Upon Completion <u>n/a</u>				
				After <u>xx</u> Hrs. <u>xx</u> ft				

SANDY TOPSOIL w/ GRAVEL and STONE (FIII)				throughout. Fine grained with horizontal bedding. Horizontal fractures @ -18.4' & -19.2'. Vertical fracture from -19.2' to -20.0'. Horizontal fractures @ -20.9', -21.5', -21.9' & -23.0'.	ROCK CORE RUN1
CLAYEY SAND-stone and crushed concrete-medium dense (FIII)	15	14	10 NP 1	RECOVERY = 100 % RQD = 86 %	
CLAY LOAM-dark brown-loose A-4 (FIII)	3	2	2 NP 22	Run 2 (-23.5' to -28.5') Silurian System, NIAGARAN Series, Racine Formation Dolomite Lightly weathered with rust staining to -24.8'. Horizontal fractures @ -24.2', -24.5' & -25.5'. Horizontal fracture zone from -26.3' to -26.5'. Horizontal fractures at -27.0', -27.2' & -27.5'.	ROCK CORE RUN2
SILTY CLAY-dark brown-stiff (A-4/A-6) Wet	2	3	5 L75P 30	RECOVERY = 100 % RQD = 88 %	
	15	22		End of Boring @ -28.5' Hollow Stem Augers to -18.0' NX Bit Rock Coring to Completion	
	-10	50/5	NP 4		
	11	20			
FRACTURED STONE-brown-dense to very dense (A-1-a)	21	21	NP 15		
	28	17			
	-15	16	NP 17		
	50/1"				
			NR		
Run 1 (-18.0' to -23.5') Silurian System, NIAGARAN Series, Racine Formation Dolomite Lightly weathered with rust staining					ROCK CORE RUN1

The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
NR-No Recovery

TYLIN INTERNATIONAL

DESIGNED	-
CHECKED	- SP
DRAWN	- TB
CHECKED	- SP

LOG OF BORING NO. B-15

CLIENT T.Y. Lin International/Bascor		STATION AND OFFSET-WASHINGTON STREET Station: 466+10 Offset: 9' Left	
PROJECT LOCATION 75th Street and Washington Street Naperville, Illinois		PROJECT DESCRIPTION Subsurface Investigation for the 75th Street and Washington Street Intersection Improvements	

DEPTH (ft.) BELOW GROUND SURFACE	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DISTANCE	SAMPLE RECOVERY	DESCRIPTION OF MATERIAL	UNIT DRY WT. LBS./FT. ³	UNCONFINED COMPRESSIVE STRENGTH TONS/FT. ²							
							1	2	3	4	5	6+		
					GROUND SURFACE ELEVATION 655.2									
1	GS	AS			15.0" ASPHALT									
2	GS	AS			CRUSHED STONE (FIII)									
3	SS				SANDY LOAM-brown-medium dense (A-2-6) FIII									
5.0					Possible Boulder or Bedrock									
4	SS					648.2								
					END OF BORING									
10.0														

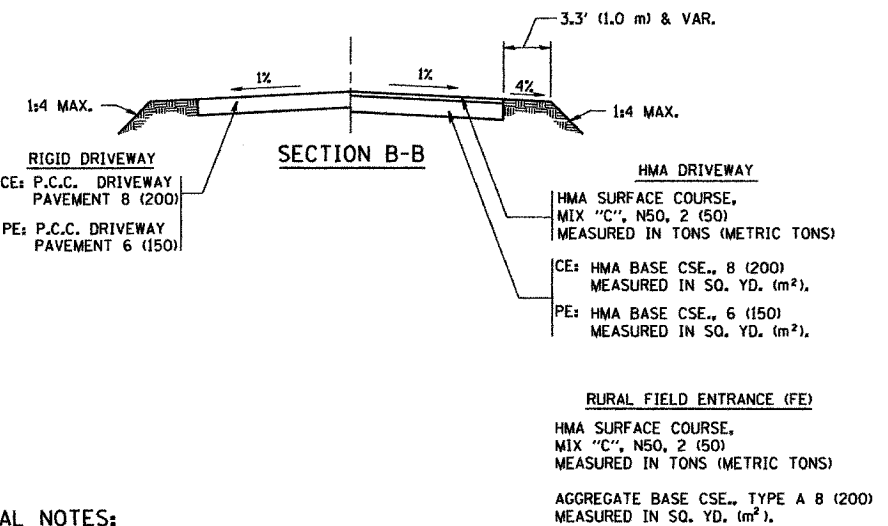
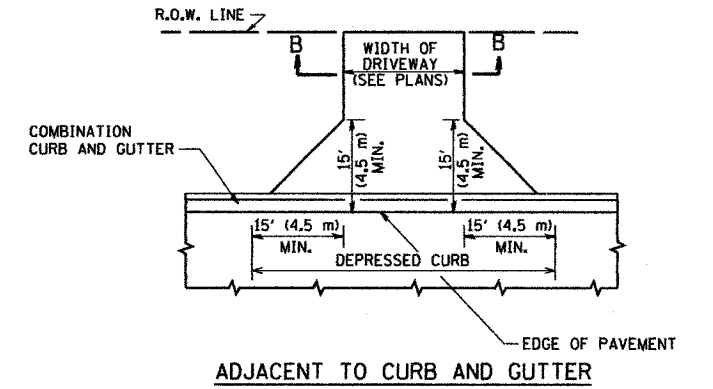
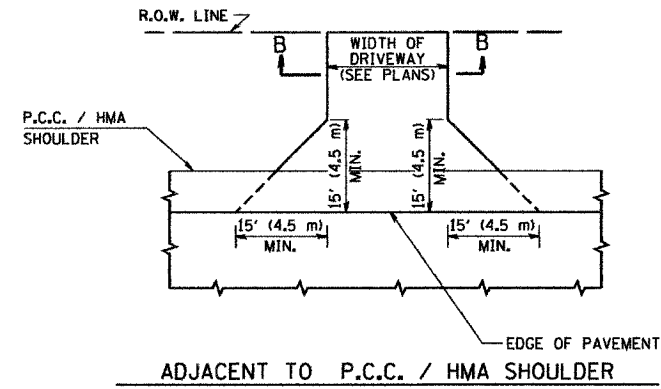
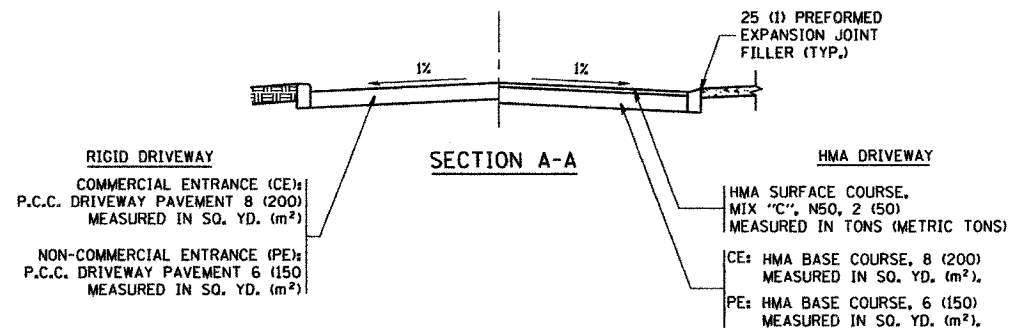
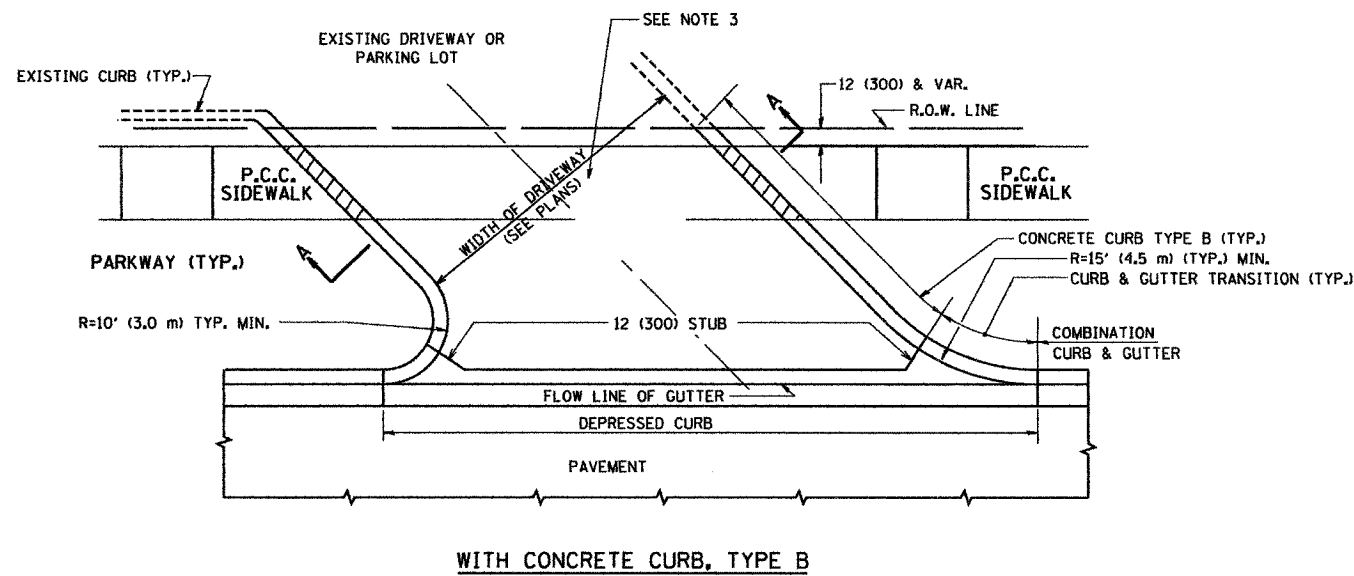
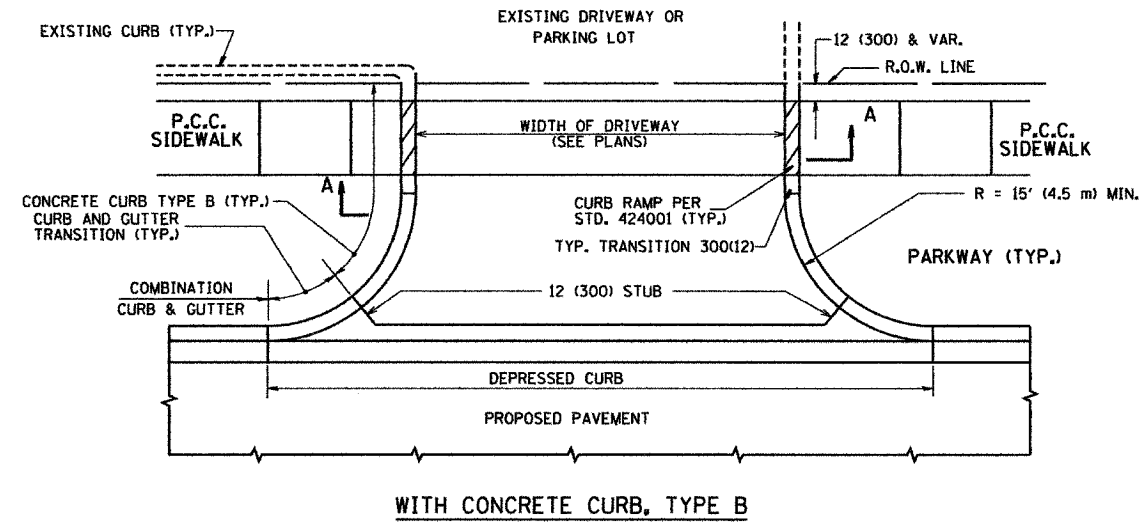
WATER LEVEL OBSERVATIONS		<p>O'BRIEN & ASSOCIATES, INC. CONSULTING ENGINEERS 1235 E. DAVIS ST./ARLINGTON HTS., IL 60005 (847)398-1441 • FAX(847) 398-2376</p>	BORING STARTED June 4, 2002	
W.L.	Dry WD		BORING COMPLETED June 4, 2002	
W.L.	Dry AB		RIG D-25	FOREMAN RH
W.L.			DRAWN RWC	APPROVED DOB
W.L.			JOB No. 01252	SHEET 10F 1

© O'BRIEN & ASSOCIATES, INC.

REVISIONS	
NAME	DATE

BORING LOGS - 5

WASHINGTON - 75TH STREET
F.A.U. ROUTE 2552
SECTION 00-00114-00-PV
DUPAGE COUNTY



GENERAL NOTES:

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

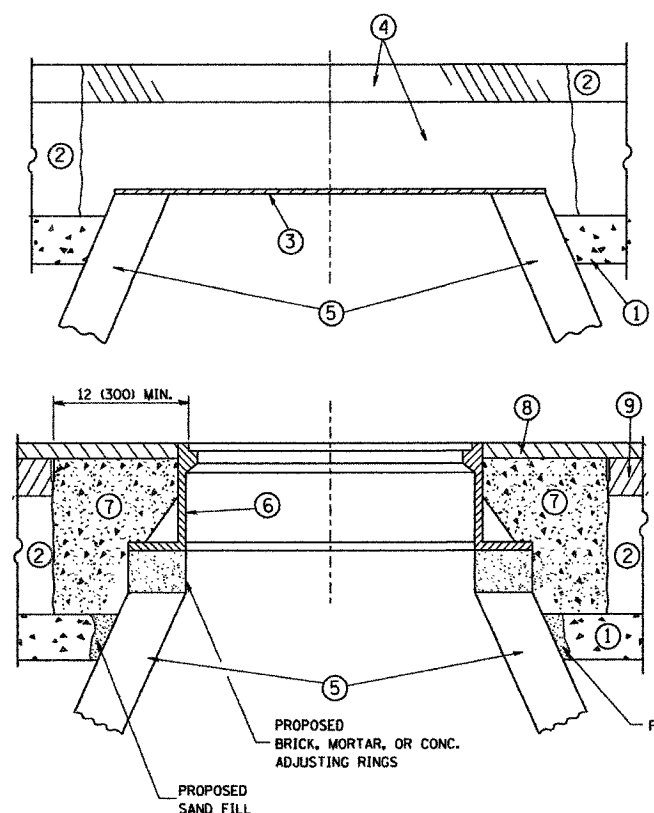
THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

FILE NAME = W:\distcd\22x34\bd01.dgn	USER NAME = gegljanobt	DESIGNED - R. SHAH	REVISED - T. HOLTZ 04-08-97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m)	F.A. RTE. =	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01	REVISED - P. LOFLUER 04-15-03			01-2014-00-Bv	DUPAGE	503	441	
PLOT DATE = 1/4/2008	DATE - 11-04-95	REVISED - R. BORO 01-01-07				BD0156-07 (BD-01)				
						FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				



CONSTRUCTION PROCEDURES

- STAGE 1 (BEFORE PAVEMENT MILLING)**
- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
 - B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
 - C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
 - D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.
- STAGE 2 (AFTER PAVEMENT MILLING)**
- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
 - B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
 - C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS S1 CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

LEGEND

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS S1 CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

NOTES:

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL" NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

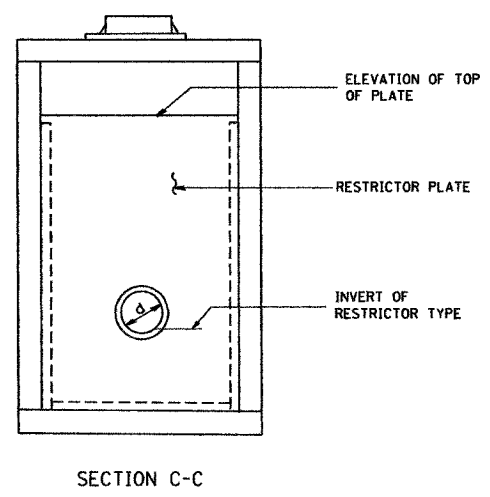
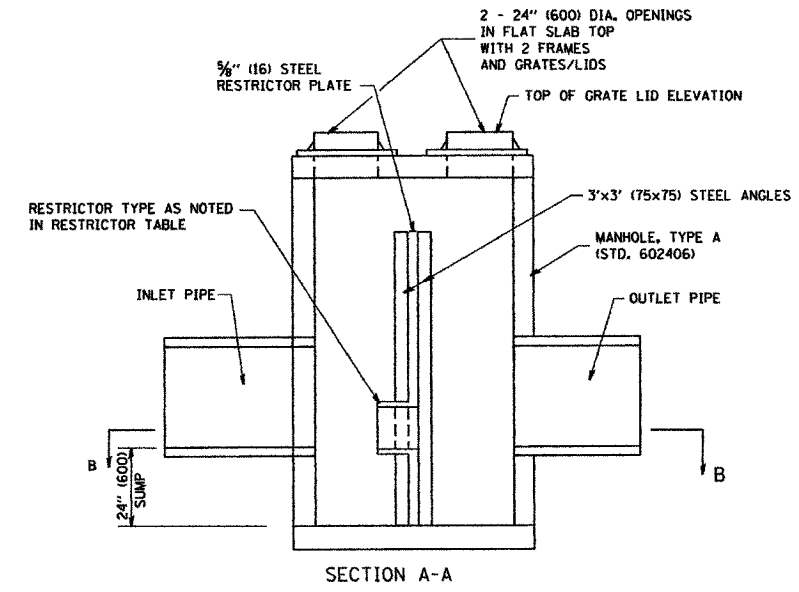
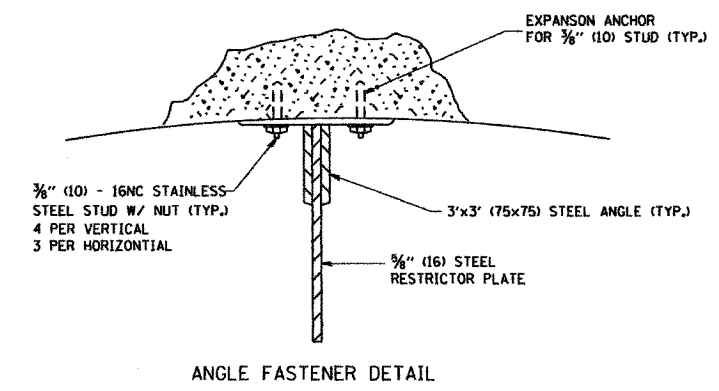
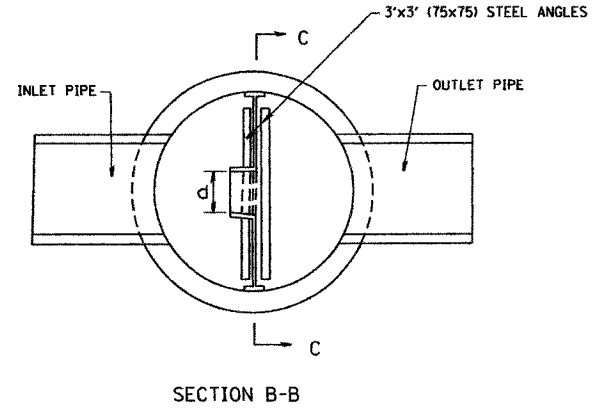
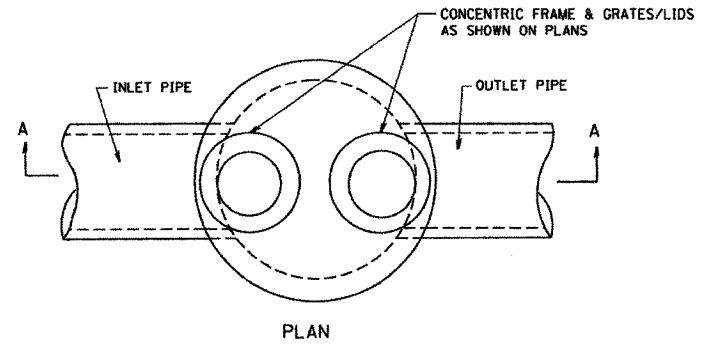
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

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		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - R. WIEDEMAN 05-14-04
	PLOT DATE = 1/4/2008	DATE - 10-25-94	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

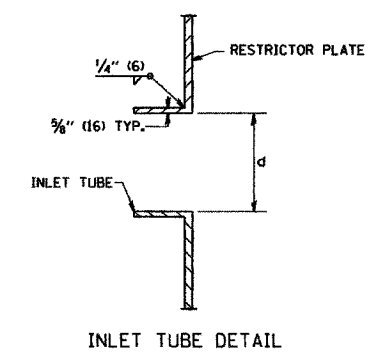
DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BD600-03 (BD-8)		503	442
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO.	

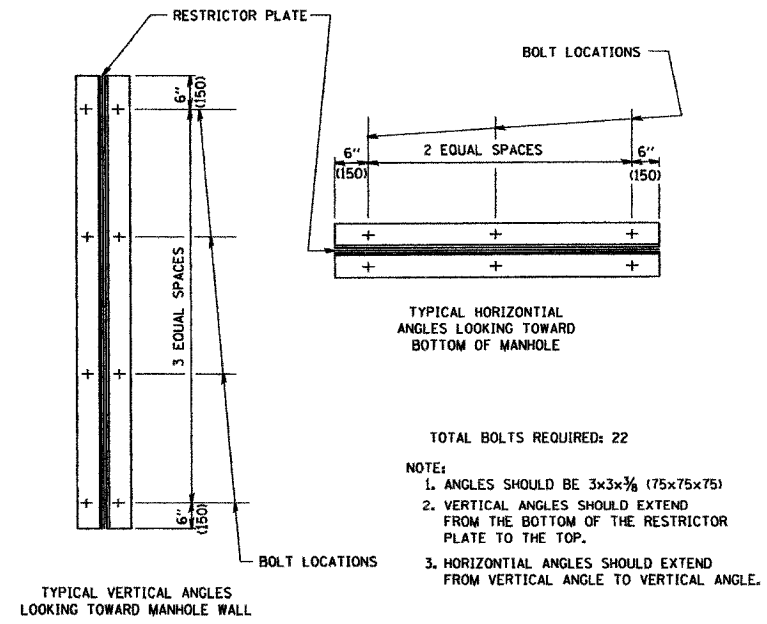


NOTES:

- ALL STEEL ANGLES AND PLATES TO BE GALVANIZED AFTER FABRICATION.
- ALL RESTRICTOR PLATES, ANGLES AND HARDWARE TO BE INCLUDED IN THE COST OF THE MANHOLE.
- BASIS OF PAYMENT: "MANHOLES, TYPE A, 6 FT. (1.8 m)-DIAMETER, TYPE I FRAME, CLOSED LID, RESTRICTOR PLATE" EACH



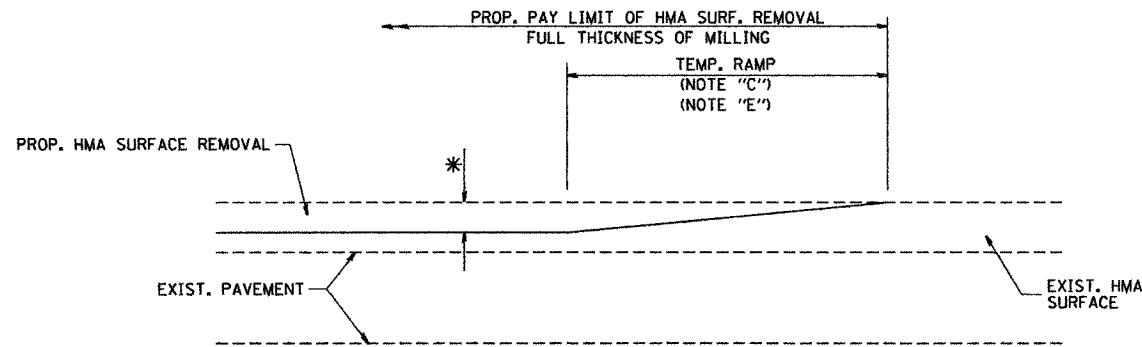
STATION	MANHOLE DIAMETER	FRAME AND GRATE	RESTRICTOR TYPE	INSIDE RESTRICTOR TYPE DIAMETER in. (mm) (d)	INVERT OF RESTRICTOR TYPE	ELEVATION OF TOP OF PLATE OVERFLOW



RESTRICTOR TYPE					
1	2	3	4	5	6
RE-ENTRANT TUBE	SHARP EDGED	SQUARE EDGED	RE-ENTRANT TUBE	SQUARE EDGED	ROUNDED
LENGTH: 1/2 TO 1 DIA.		STREAM CLEARS SIDES	LENGTH: 2-1/2 DIA.	LENGTH: 2-1/2 DIA.	
C=.52	C=.61	C=.61	C=.73	C=.82	C=.98

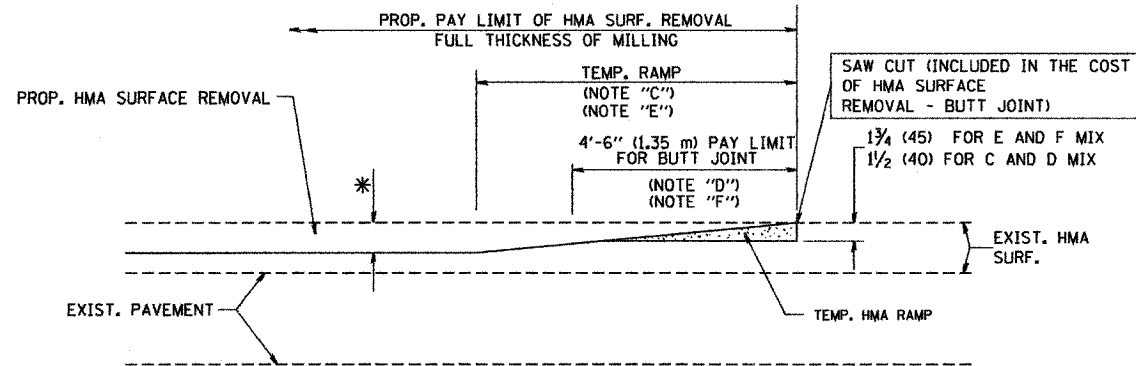
VALUES OF "C" FOR CIRCULAR AND SQUARE ORIFICES

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.



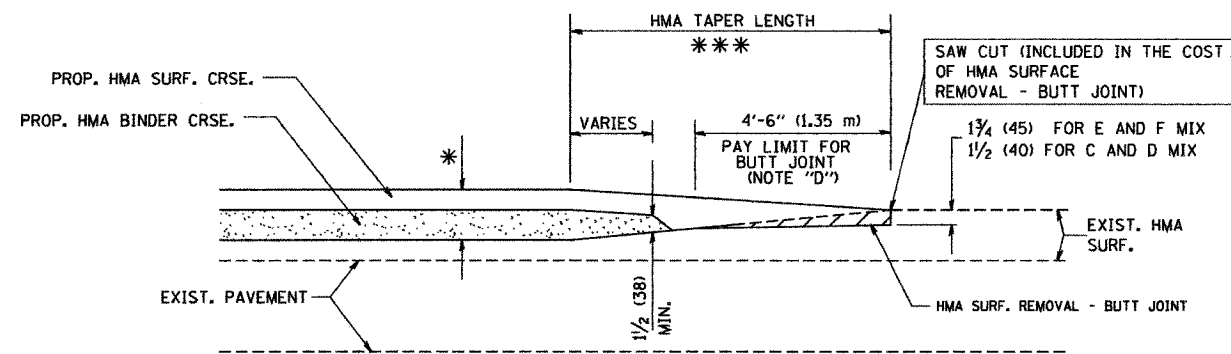
MILLED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

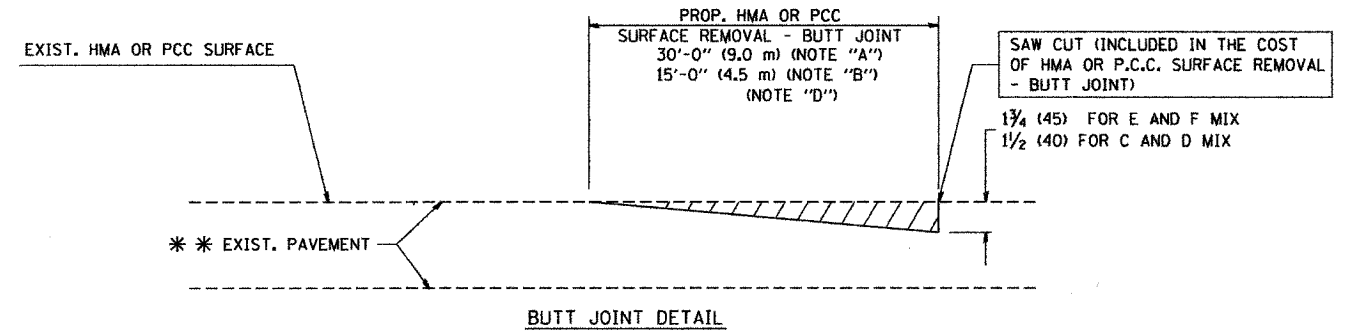


HMA CONSTRUCTED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

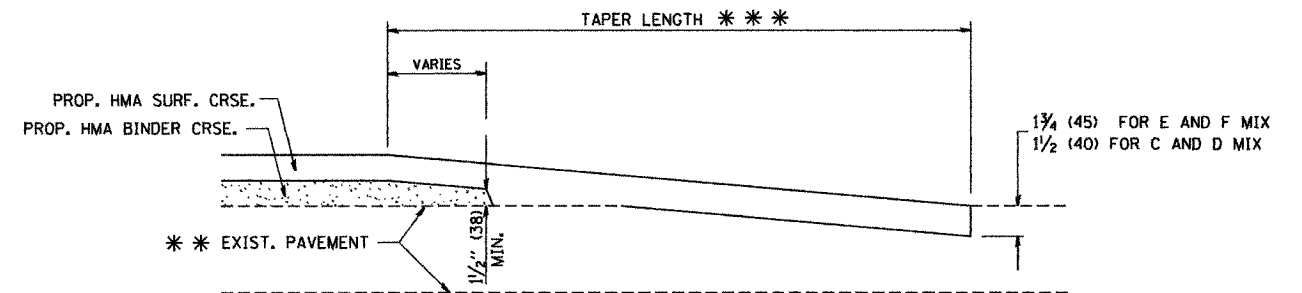
OPTION 2
TYPICAL TEMPORARY RAMP



BUTT JOINT AND
HMA TAPER
TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER
FOR RESURFACING ONLY

*** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- *** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =
M:\distetd\22x34\bd32.dgn

USER NAME = goglienobt
PLOT SCALE = 50.0000' / IN.
PLOT DATE = 1/4/2008

DESIGNED - M. DE YONG
DRAWN -
CHECKED -
DATE - 06-13-90

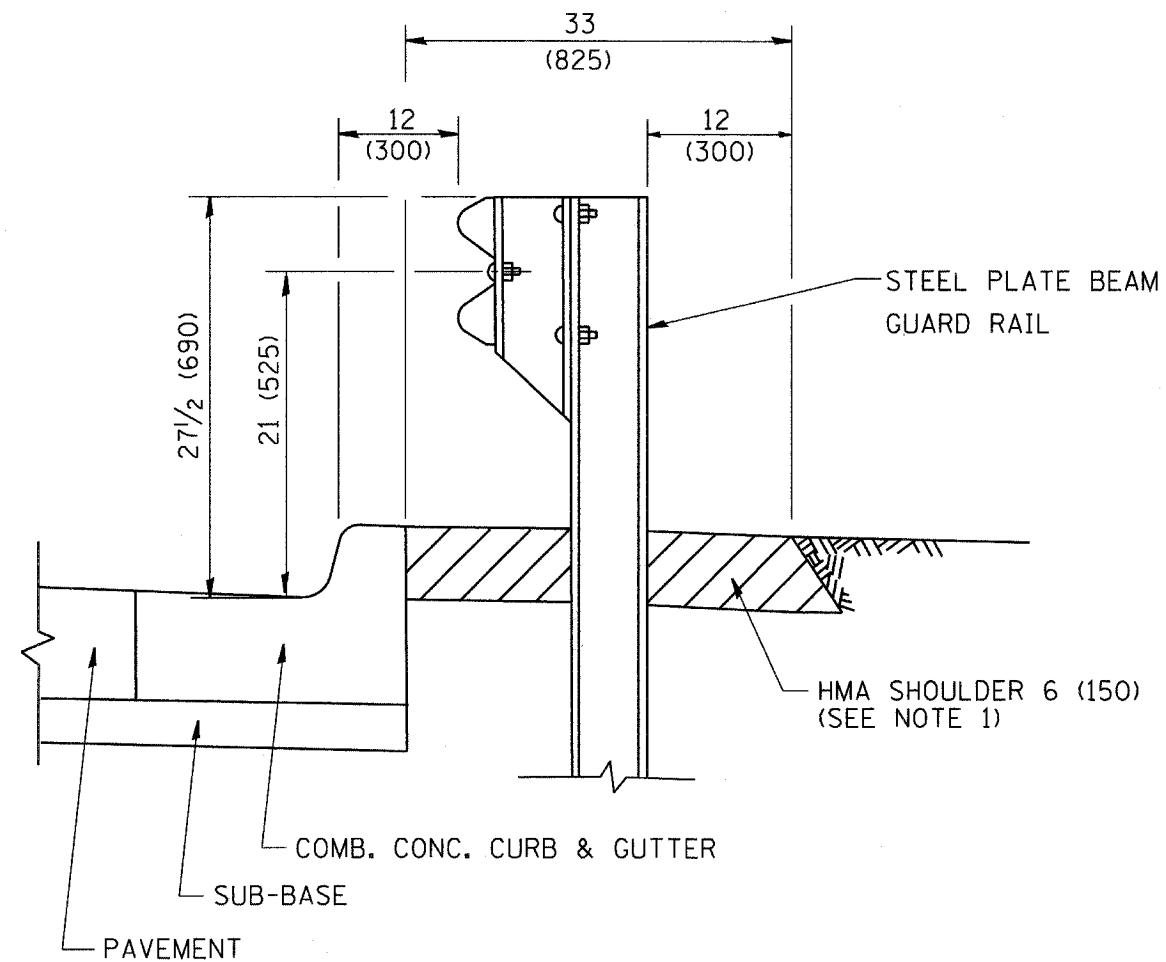
REVISED - R. SHAH 10-25-94
REVISED - A. ABBAS 03-21-97
REVISED - M. GOMEZ 04-06-01
REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND
HMA TAPER DETAILS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
00-001-001V	DUPAGE	Essex	445	445
BD400-05 BD32			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

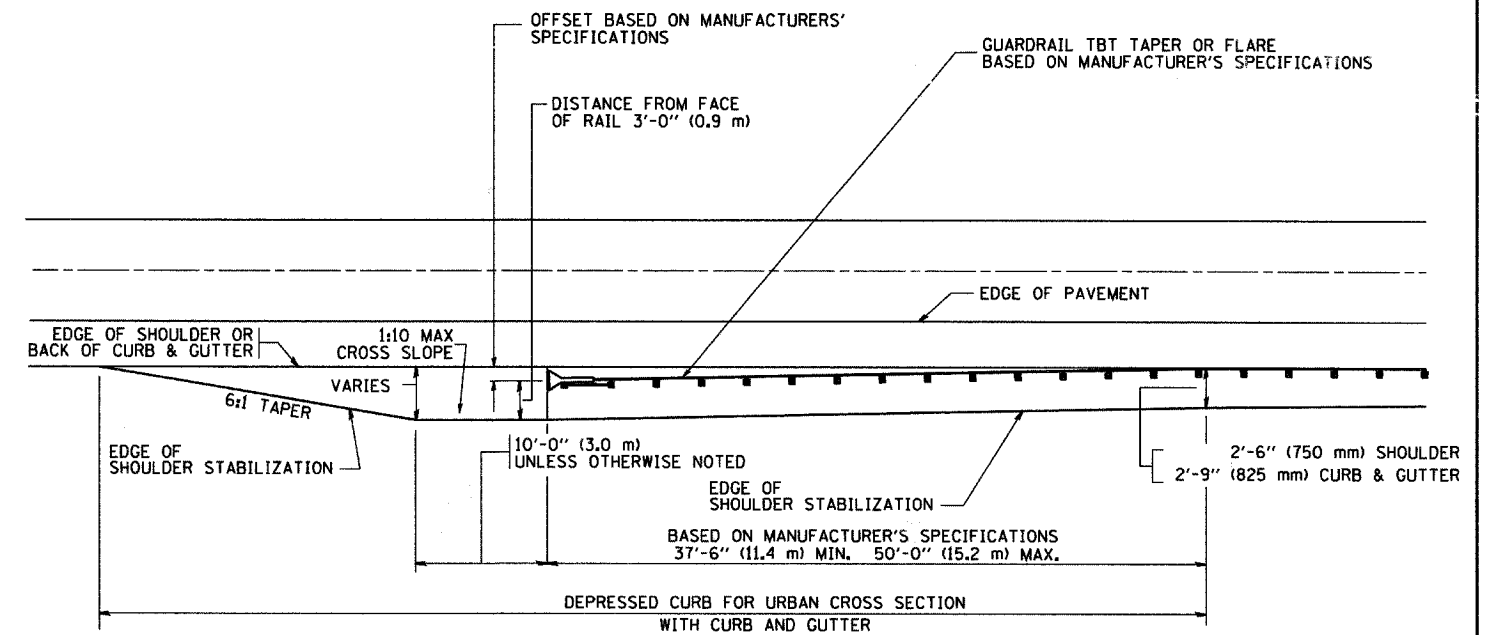


- NOTES: 1. THE HMA SHOULDER SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL
2. GUARD RAIL MAY BE PLACED AT THE BACK OF CURB WHEN DIRECTED BY THE ENGINEER.

BASIS OF PAYMENT: HMA SHOULDER 6 (150) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SHOULDER 6" (150 mm)".

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

**DETAILS FOR STEEL PLATE BEAM
GUARD RAIL ADJACENT TO CURB AND GUTTER
[FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]**



STABILIZATION AT TBT TY. 1 SPL.

TBT = TRAFFIC BARRIER TERMINAL
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\dststd\22x34\bd34.dgn	USER NAME = gaglianobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 02-23-95
		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000 / IN.	CHECKED -	REVISED - E. GOMEZ 08-28-00
	PLOT DATE = 1/4/2008	DATE - 09-22-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT
TO CURB AND GUTTER STABILIZATION AT TBT TY 1 SPL.**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

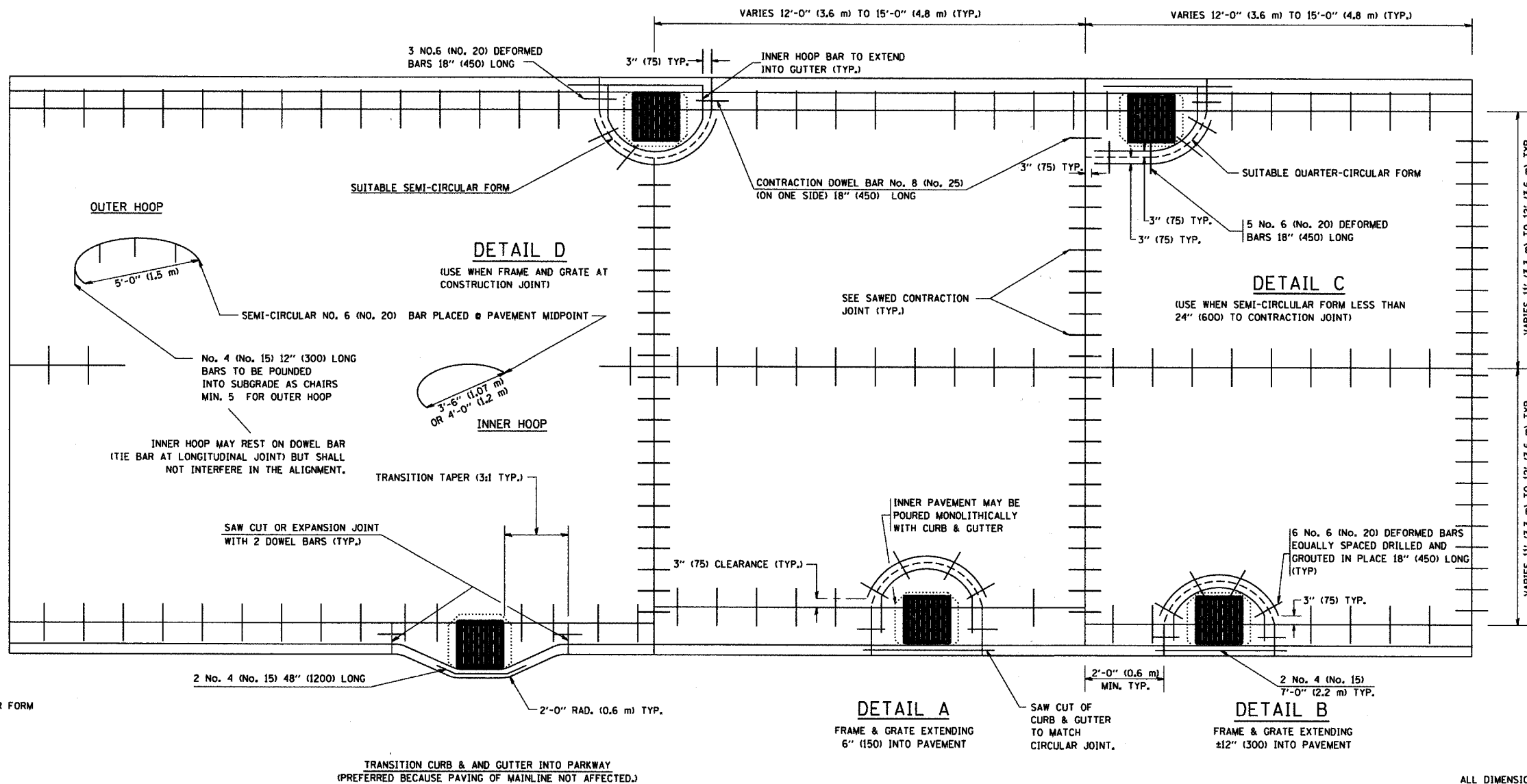
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	00-0014-00-PV		563	446
BD600-10 (BD 34)		CONTRACT NO.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FRAME EXTENSION INTO PAVEMENT	INNER HOOP REINFORCEMENT DIAMETER	SEMI CIRCULAR FORM DIAMETER	OUTER HOOP REINFORCEMENT DIAMETER
UP TO 8" (200)	3'-6" (1.1 m)	4'-0" (1.2 m)	5'-0" (1.5 m)
> 8" (200) TO 14" (360)	4'-0" (1.2 m)	4'-6" (1.4 m)	5'-0" (1.5 m)

DESIGNER NOTE:
THIS DETAIL IS TO BE USED
WHEN THE GUTTER FLAG IS
LESS THAN 24"

NOTES :

- THE ROUNDOUT AND ADDED REINFORCEMENT WILL NOT BE PAID SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE PAVEMENT.
- TRANSVERSE JOINTS MAY BE MOVED TO ACCOMMODATE ROUNDOUT, EDGE OF CIRCULAR JOINT SHALL BE MINIMUM 12" (300) FROM TRANSVERSE JOINT. RELOCATED TRANSVERSE JOINT SHALL BE CONTINUOUS FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT.
- SEMI-CIRCULAR FORM SHALL BE REMOVED PRIOR TO DRILL AND GROUT OF TIE BARS.
- ALL REINFORCED BARS SHALL BE EPOXY COATED.
- DRILL AND GROUT IS PREFERRED, HOWEVER TIE BARS CAN BE POURED IN PLACE IF CLEARANCE IS PROVIDED TO OUTER EDGE OF FRAME. MINIMUM 2" (50) CLEARANCE.
- WOOD SHIMS SHALL BE USED TO ADJUST ALL FRAMES. AFTER ADJUSTING MORTAR HAS CURED, THE WOOD SHIMS SHALL BE REMOVED AND THE VOIDS UNDER THE FRAMES FILLED WITH NON SHRINK GROUT.
- HOOP REINFORCEMENT SHALL BE ONE PIECE CONSTRUCTION.
- CIRCULAR FRAMES AND GRATES MAY BE SUBSTITUTED.
- CURB DOWELS MUST BE PLACED LEVEL & TRUE TO ALLOW CONTRACTION MOVEMENT.

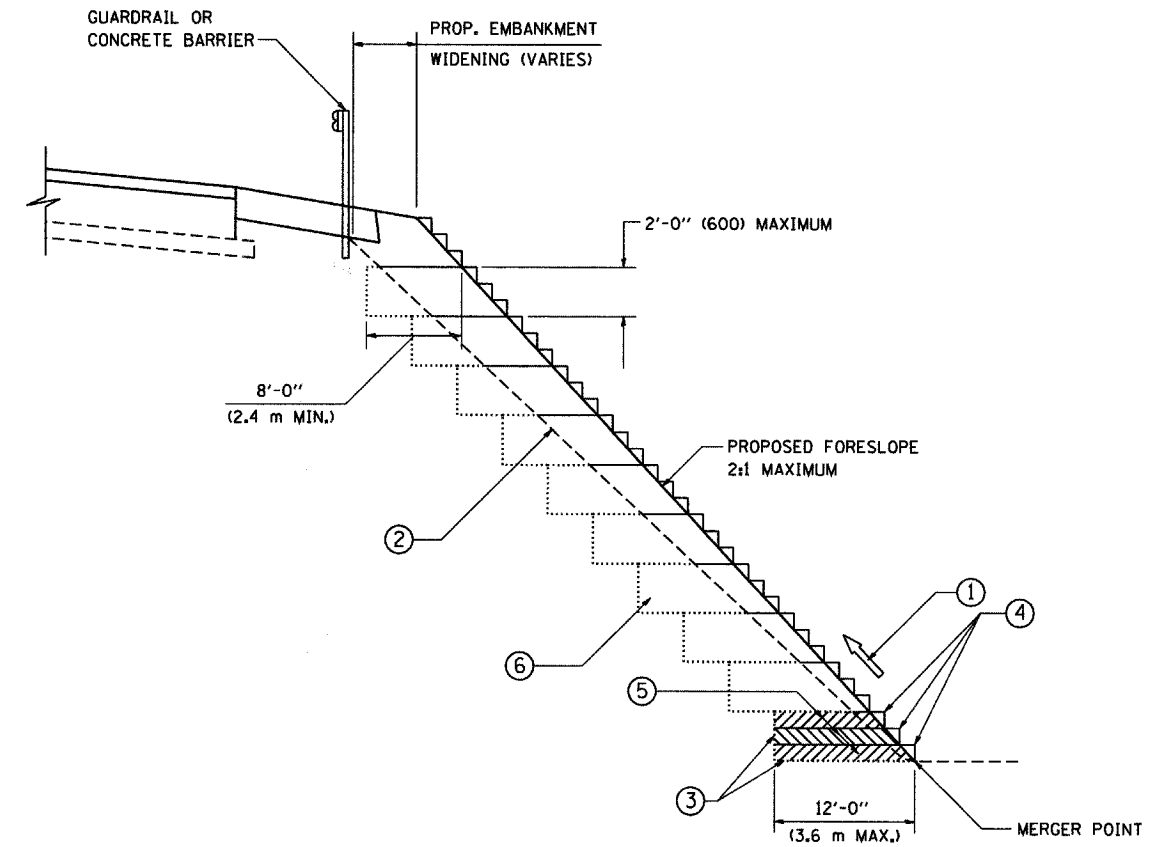


LEGEND:

- CASTING
- SUITABLE SEMI-CIRCULAR FORM

ALL DIMENSIONS ARE IN INCHES
(MILLIMETERS) UNLESS OTHERWISE NOTED

FILE NAME = W:\data\22x34\bd48.dgn	USER NAME = gajienobt	DESIGNED - A. ABBAS	REVISED - T. MATOUSEK 08-28-00	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PCC PAVEMENT ROUNDOUTS AT CURB AND GUTTER	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50,0000 / IN.	DRAWN - TOM MATOUSEK	REVISED - T. MATOUSEK 10-02-00			06-0014-00 - PV	DUPAGE	563	447	
PLOT DATE = 1/4/2008	DATE - 01-04-99	CHECKED - A. ABBAS	REVISED - T. MATOUSEK 04-25-02	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	CONTRACT NO.		
						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



TYPICAL BENCHING DETAIL
FOR EMBANKMENT

NOTES:

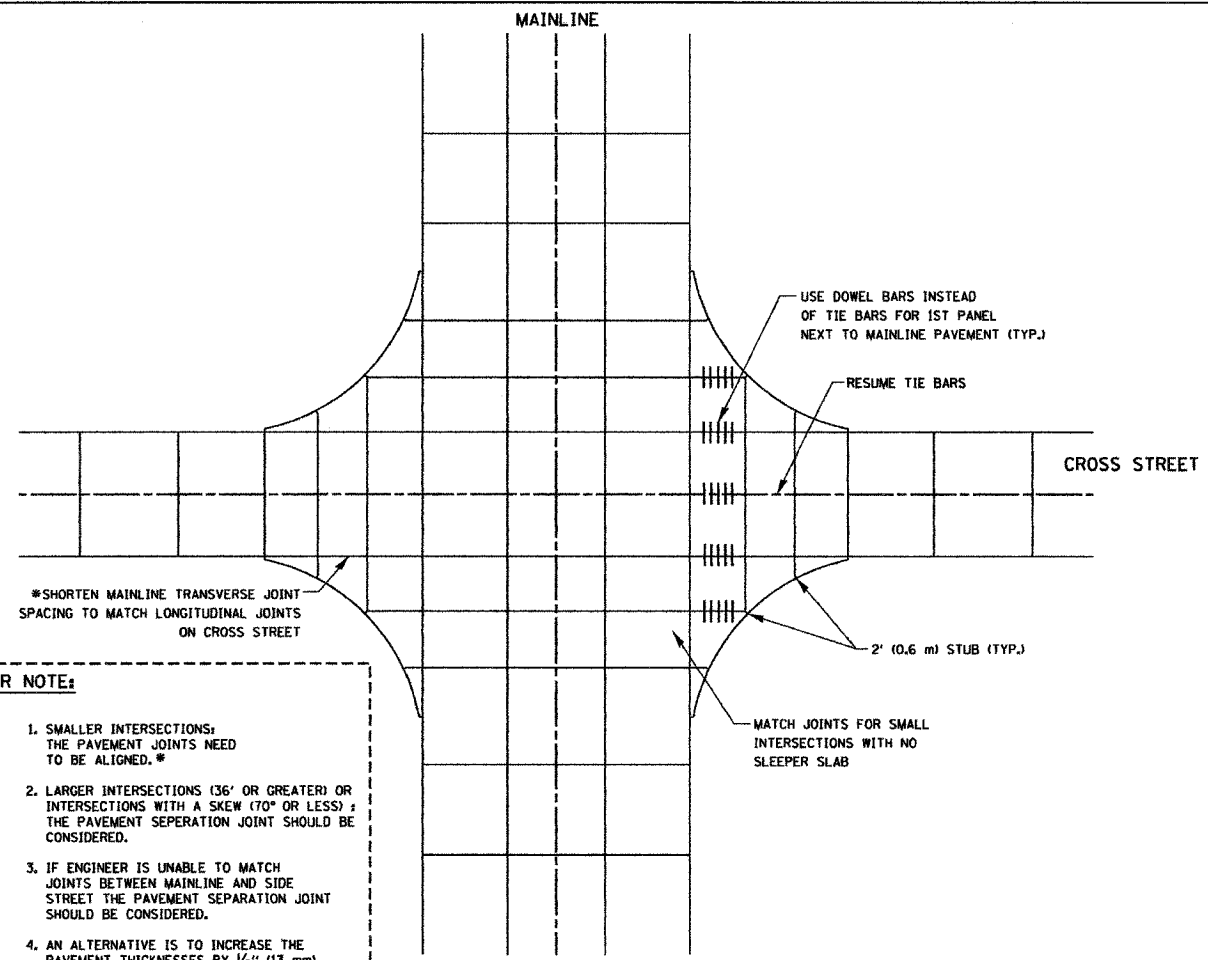
- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.

FILE NAME = W:\diststd\22x34\bd51.dgn	USER NAME = gaglionobt	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BENCHING DETAIL FOR EMBANKMENT WIDENING			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.0000' / IN.	CHECKED - S.E.B.	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	00-CO14-00-PV	DUPAGE	563	448
PLOT DATE = 1/4/2008	DATE = 06-16-04	REVISED -						BD-51		CONTRACT NO.		
								FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

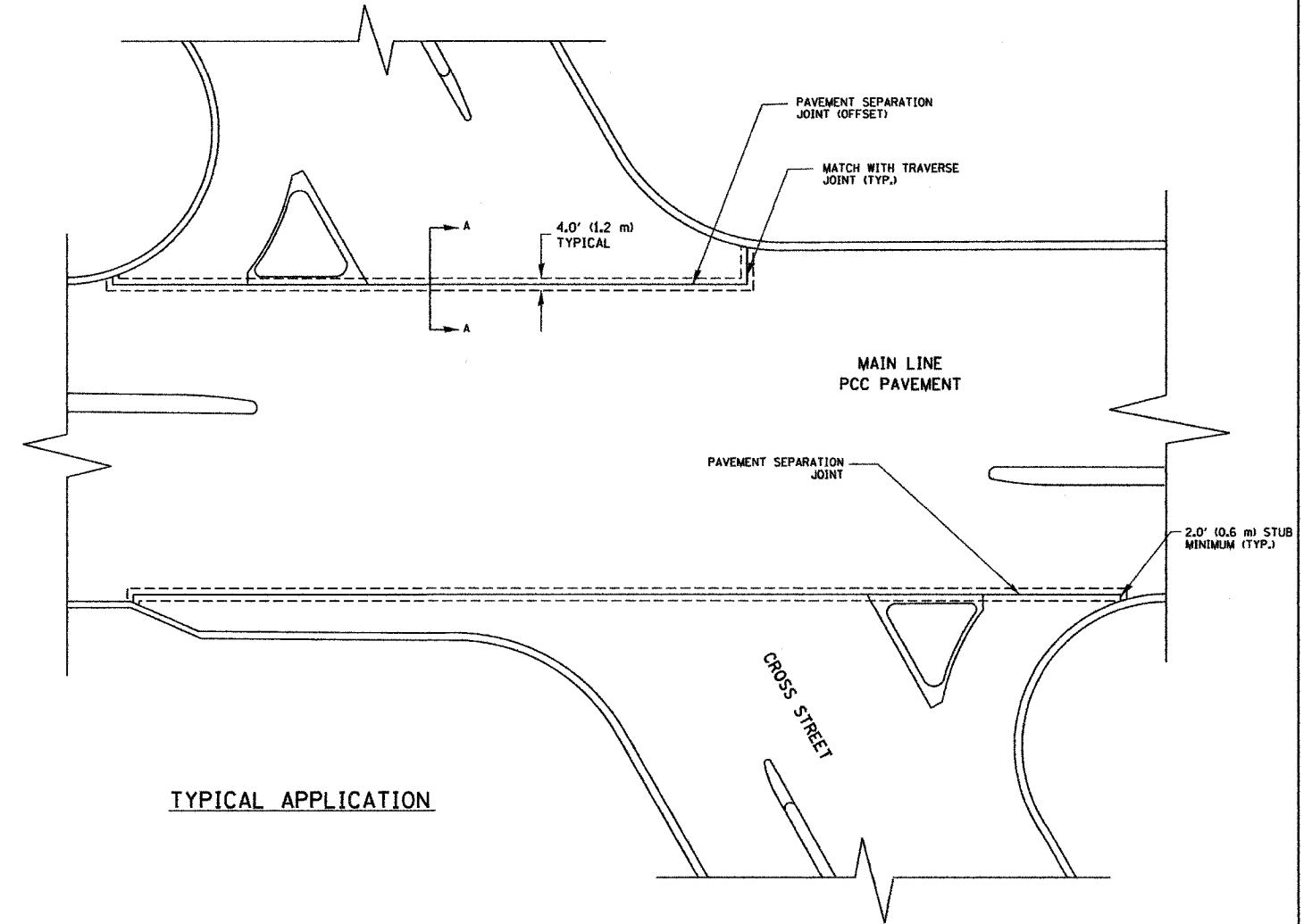
F. A. ETC.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.	TO STA.			
ILL. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

THE USE OF
CROSS STREET PAVEMENT SEPARATION JOINTS
FOR SKEWED OR LARGE INTERSECTIONS
WHERE JOINTS MAY NOT MATCH

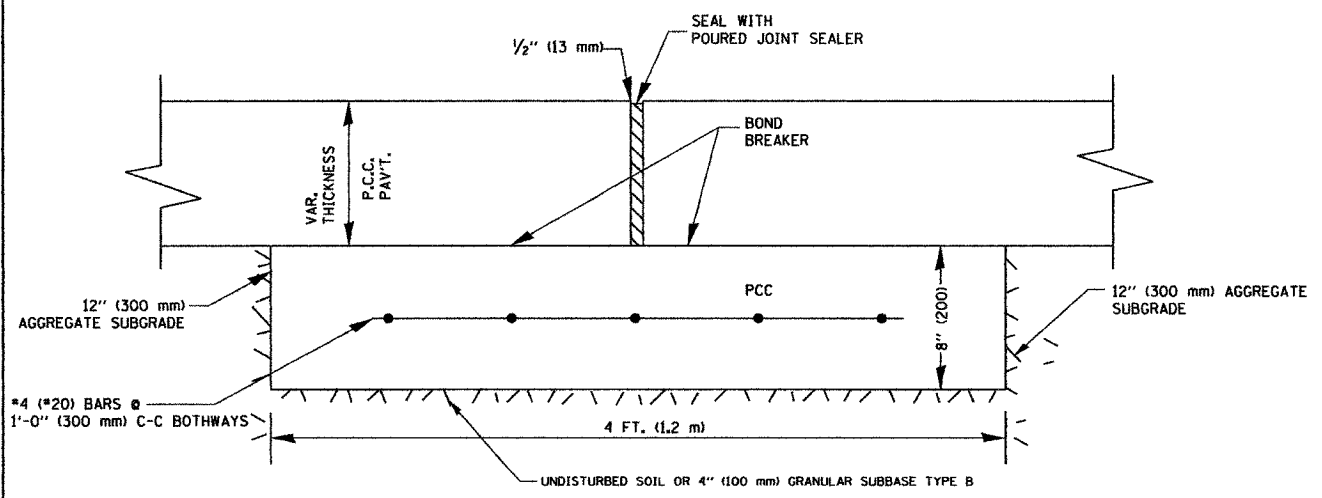


- DESIGNER NOTE:**
1. SMALLER INTERSECTIONS: THE PAVEMENT JOINTS NEED TO BE ALIGNED.*
 2. LARGER INTERSECTIONS (36' OR GREATER) OR INTERSECTIONS WITH A SKEW (70° OR LESS); THE PAVEMENT SEPARATION JOINT SHOULD BE CONSIDERED.
 3. IF ENGINEER IS UNABLE TO MATCH JOINTS BETWEEN MAINLINE AND SIDE STREET THE PAVEMENT SEPARATION JOINT SHOULD BE CONSIDERED.
 4. AN ALTERNATIVE IS TO INCREASE THE PAVEMENT THICKNESSES BY 1/2" (13 mm) FOR THE LENGTH OF THE AFFECTED PANELS AT THE INTERSECTION.
 5. FOR LARGE INTERSECTIONS (6 LANES OR MORE) WHERE JOINTS CAN BE MATCHED, USE #8 (25) DOWEL BARS INSTEAD OF #8 (25) TIE BARS AT EDGE OF MAINLINE PAVEMENT WHEN NO PAVEMENT SEPARATION JOINTS USED.

PLAN



TYPICAL APPLICATION



PROPOSED SECTION A-A

- NOTE:**
1. JOINT FILLER SHALL CONSIST OF A SHEET OF 1/2" (13 mm) BITUMINOUS PREFORMED FIBER JOINT FILLER CONFORMING TO ARTICLE 1051.03 OF THE STANDARD SPECIFICATIONS.
 2. THE JOINT SHALL BE SEALED WITH A HOT POUR JOINT SEALER CONFORMING TO ARTICLE 1050.02 OF THE STANDARD SPECIFICATIONS.
 3. A SINGLE LAYER OF FELT ROOFING PAPER SHALL SERVE AS A BOND BREAKER.
 4. JOINT SHALL CONTINUE THROUGH COMBINATION CURB & GUTTER OR PCC SHOULDER.
 5. PAVEMENT SEPARATION JOINT IS TO BE PAID FOR AS "SLEEPER SLAB" AND IS TO BE MEASURED IN PLACE BY THE LINEAL FOOT.
 6. BOND BREAKER AND 1/2" (13 mm) JOINT AND FILLER SHALL BE INCIDENTAL TO THE PAY ITEM "SLEEPER SLAB".

REVISIONS	
NAME	DATE

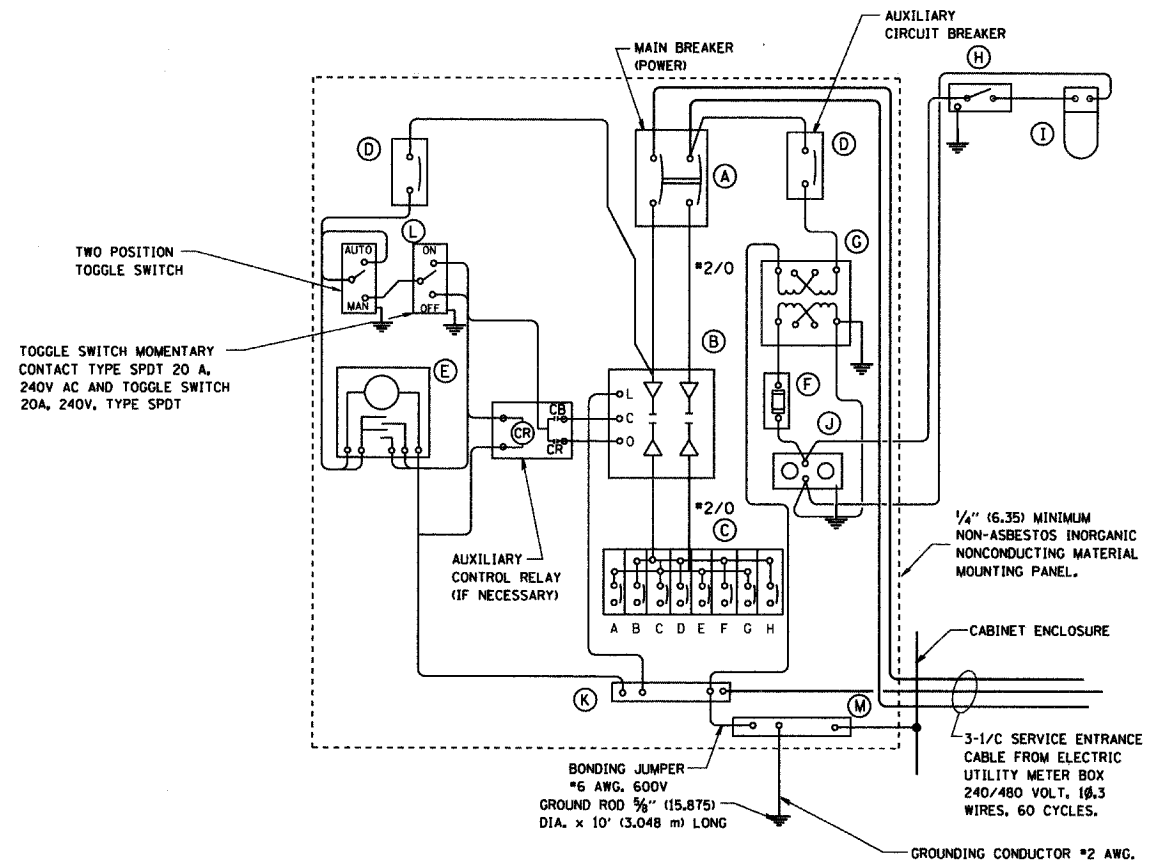
ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAIL OF PAVEMENT SEPARATION JOINT FOR JOINTED PCC PAVEMENTS AT INTERSECTIONS

SCALE: NONE
DATE 12/27/2006

DRAWN BY:
CHECKED BY:

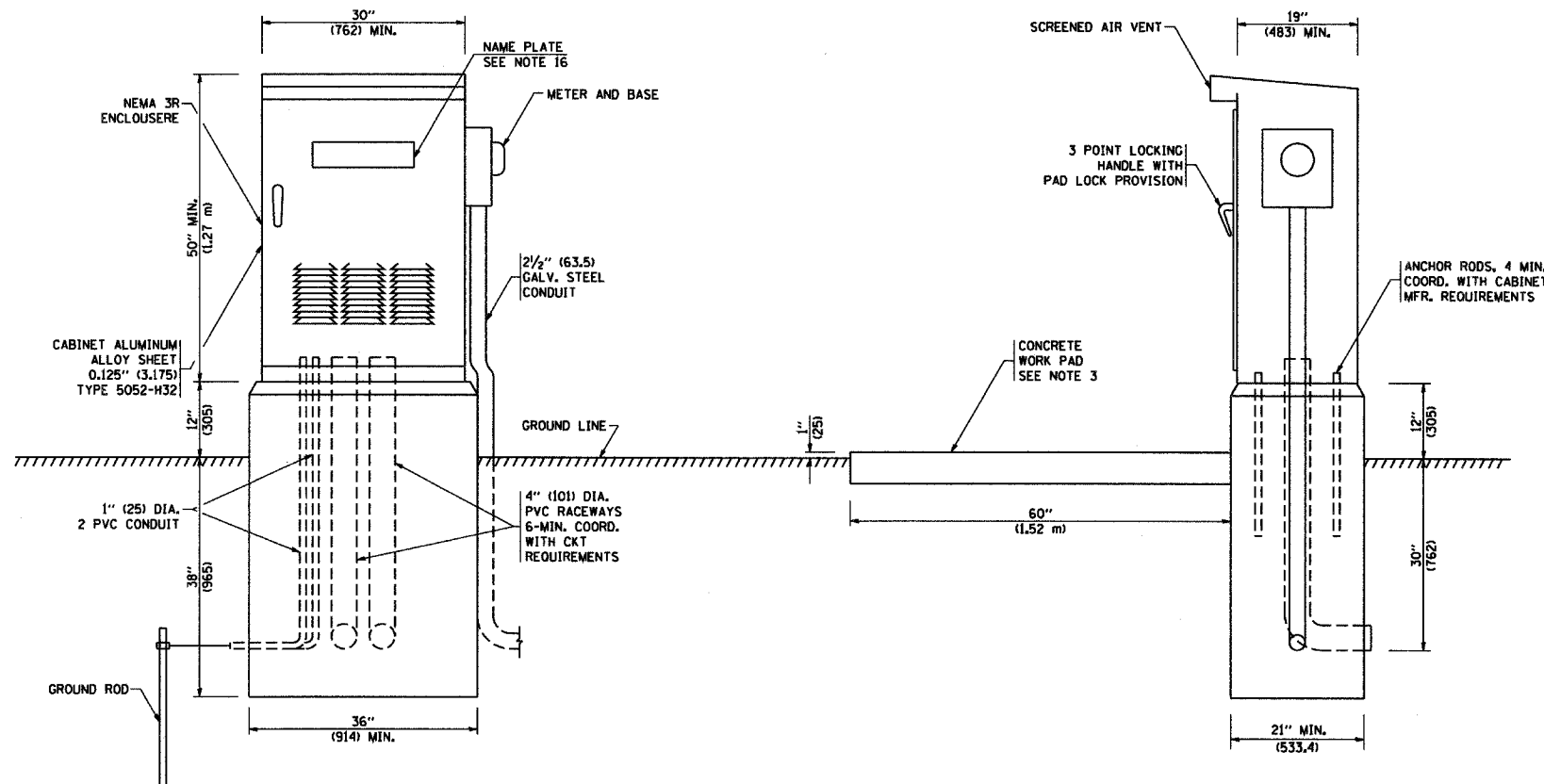
12/27/2006
c:\projects\122706\122706.dwg



PANEL WIRING DIAGRAM

PANEL EQUIPMENT

BILL OF MATERIAL		
ITEM	QUANTITY	DESCRIPTION
A	1	MAIN CIRCUIT BREAKER, 2 POLE, 600 VOLT 100 AMP. FRAME, 100 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-22000 AMP. AT 480 VOLT.
B	1	REMOTE CONTROL SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, 100 AMP., 600 VOLTS CONTROL CIRCUIT 240 VOLT.
C	8	CIRCUIT BREAKERS, 1 POLE, 100AMP. FRAME, 50 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-10,000 AMP. AT 240 V.
D	2	CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 240 V., 100 AMP. FRAME, 15 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-5000 AMP. AT 240 V.
E	1	ASTRONOMIC MICROPROCESSOR-BASED 2-CHANNEL CONTROLLER [TIME SWITCH].
F	1	20 A., 120 V. FUSE.
G	1	1.5 KVA, SINGLE PHASE, ENCAPSULATED TRANSFORMER 240 X 480 / 120 X 240 VOLT, 60 Hz.
H	1	SPST 20A SWITCH ON DOOR, TO TURN LIGHT ON WHEN DOOR IS OPEN.
I	1	INCANDESCENT LIGHTING FIXTURE ENCLOSED AND GASKETED WITH 60 WATT, 120 V. LAMP.
J	1	20 A., 120 V., DUPLEX RECEPTACLE, GFCI.
K	1	COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
L	1	TOGGLE SWITCHES MOUNTED IN 4" (101.6) X 4" (101.6 mm) BOX.
M	1	COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND SPARE LUGS



NOTES:

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- FOUNDATION SIZE SHALL BE COORDINATED WITH CABINET SIZE AND MFR.
- IN FRONT OF CONTROL CABINET DOOR, REMOVE VEGETATION AND 2" (50.8 mm) TOP SOIL, LEVEL THE AREA AND ON TOP, PLACE LENGTH WISE PARALLEL TO CONTROL CABINET, A CONCRETE PAD 36" (914.4 mm) X 60" (1828.8 mm) X 4" (101 mm) MIN. SIZE. THE COST OF LABOR AND MATERIALS ARE INCLUDED IN THE COST OF THE CONTROLLER.
- DOOR SHALL BE CONSTRUCTED FROM SAME TYPE OF MATERIAL AND THICKNESS AS CABINET.
- DOOR SHALL BE EQUIPPED WITH THREE POINT LATCHING MECHANISM WITH NYLON ROLLERS AT TOP THE BOTTOM.
- DOOR HINGE SHALL BE A HEAVY GAUGE CONTINUOUS HINGE WITH A 1/4" (6.35 mm) DIA. STAINLESS STEEL HINGE PIN.
- ALL EXTERNAL HARDWARE SHALL BE STAINLESS STEEL.
- CONTROL WIRING TO BE #12 AWG, 600V, TYPE "SIS" GRAY SWITCH BOARD WIRE, STRANDED COPPER.
- METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET, NEAR TO THE SERVICE POLE.
- CABINETS SHALL BE PRIMED AND PAINTED AS SPECIFIED.
- THE HEADS OF CONNECTORS SCREWS SHALL BE PAINTED WHITE FOR NEUTRAL BAR CONNECTION AND GREEN FOR GROUND BAR CONNECTORS.
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED.
R = RED BL = BLUE W = WHITE
B = BLACK Y = YELLOW G = GREEN
- PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL CABINET.
- ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
- THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL "ENCLOSED INDUSTRIAL CONTROL PANEL".
- 12" (304.8) X 16" (406.4 mm) STAINLESS STEEL EXTERIOR NAMEPLATE SHALL BE ENGRAVED TO "STATE OF ILLINOIS LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED.

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	DATE -	REVISED -

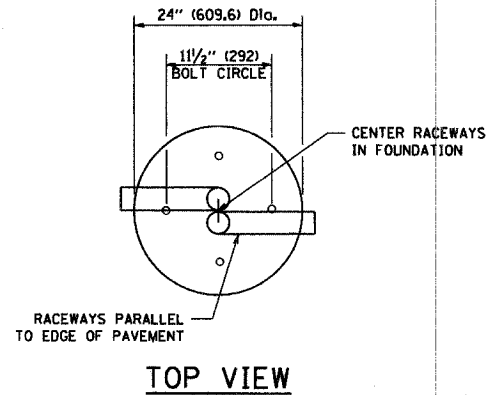
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LIGHTING CONTROLLER SINGLE DOOR	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS
STA.	TO STA.

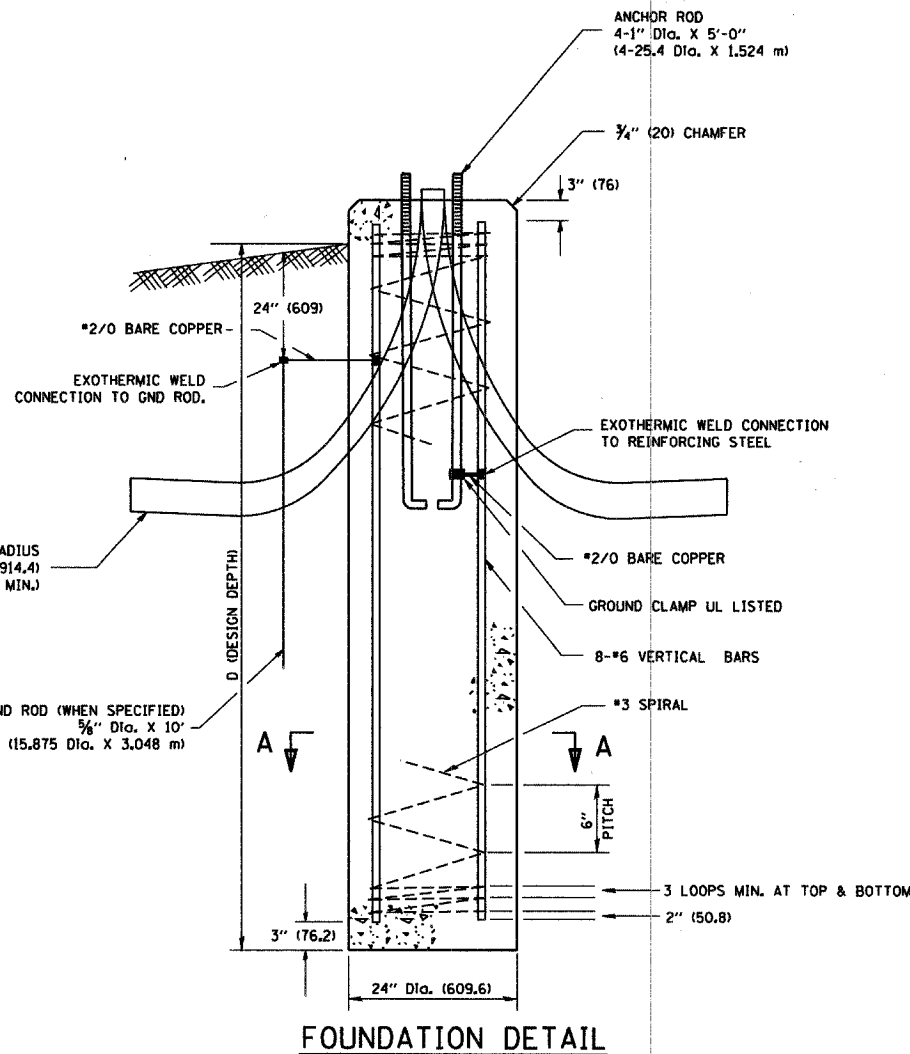
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BE-215		CONTRACT NO.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

LIGHT POLE FOUNDATION DEPTH TABLE
30 FT. (9.144 m) TO 35 FT. (10.668 m) MOUNTING HEIGHT

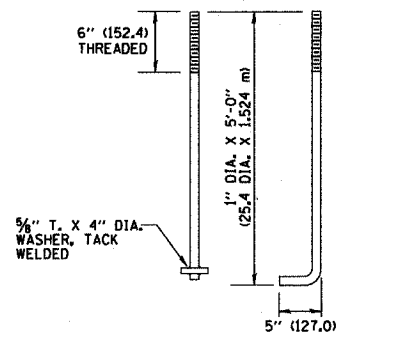
SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Qu = 0.375 TON/SQ. FT.	11'-0" (3.35 m)	12'-8" (3.85 m)
MEDIUM CLAY Qu = 0.75 TON/SQ.FT	9'-0" (2.74 m)	14'-10" (4.52 m)
STIFF CLAY Qu = 1.50 TON/SQ. FT.	7'-6" (2.29 m)	8'-7" (2.61 m)
LOOSE SAND φ = 34°	9'-6" (2.90 m)	10'-7" (3.22 m)
MEDIUM SAND φ = 37.5°	9'-0" (2.74 m)	9'-10" (2.99 m)
DENSE SAND φ = 40°	8'-3" (2.51 m)	9'-7" (2.91 m)



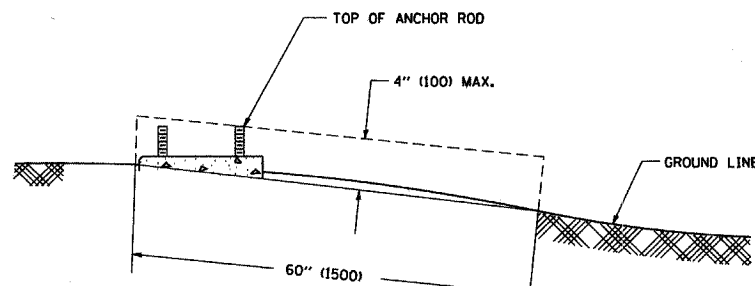
TOP VIEW



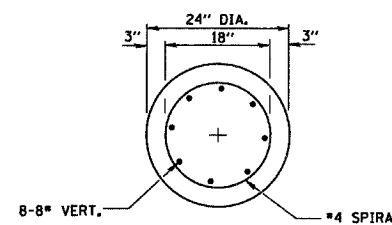
FOUNDATION DETAIL



ANCHOR BOLT DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A

NOTES

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 4 IN. (100 mm) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM(6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.

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 PLOT DATE = 1/4/2008

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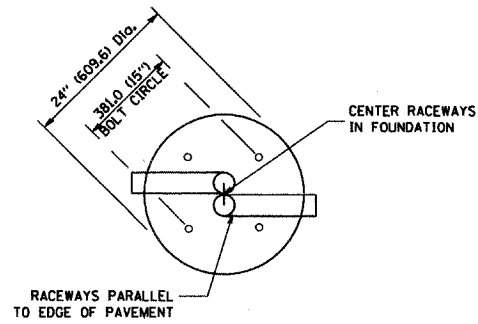
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHT POLE FOUNDATION
30' (9.144 m) TO 35' (10.668 m) M.H. 11 1/2" (292 mm) BOLT CIRCLE
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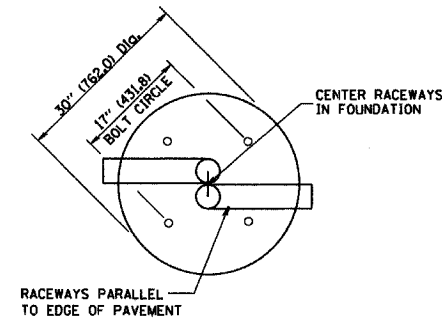
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BE-300		CONTRACT NO.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

LIGHT POLE FOUNDATION DEPTH TABLE
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Qu = 0.375 TON/SO. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY Qu = 0.75 TON/SO. FT.	9'-6" (2.93 m)	10'-9" (3.23 m)
STIFF CLAY Qu = 1.50 TON/SO. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND φ = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND φ = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND φ = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)



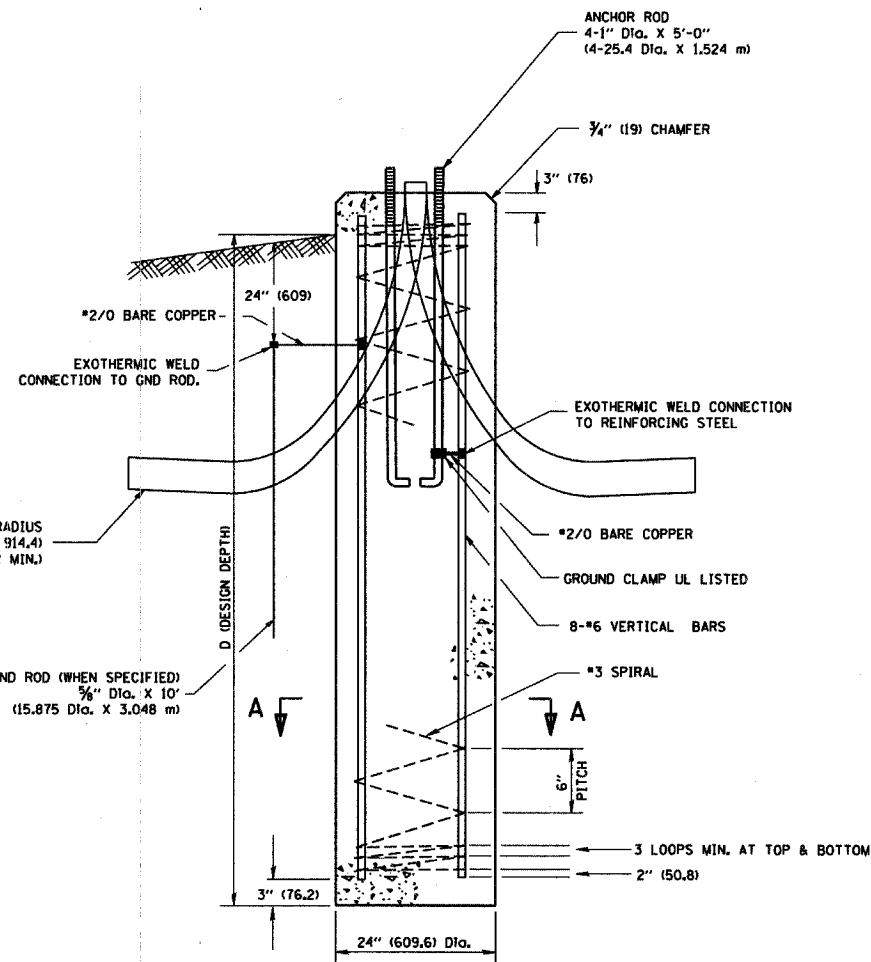
TOP VIEW



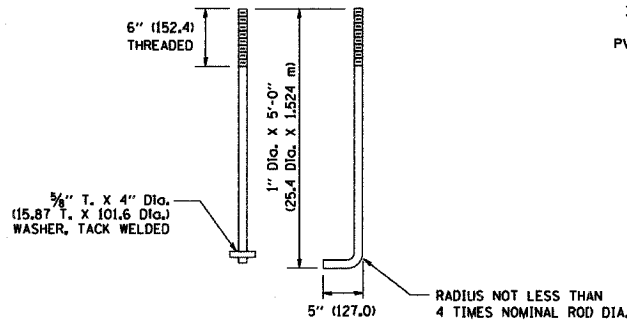
TOP VIEW

NOTES

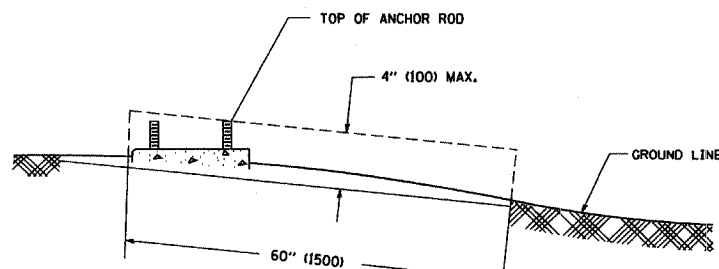
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM(6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.



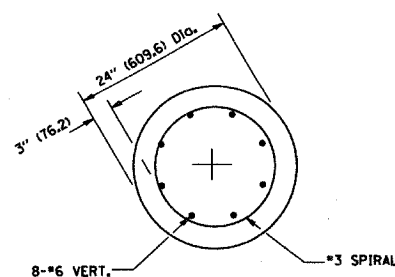
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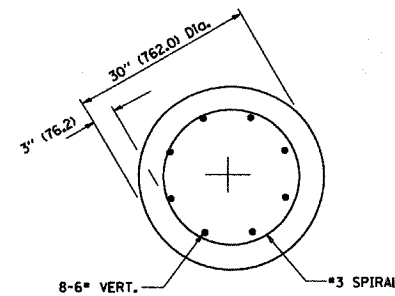
ANCHOR ROD DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

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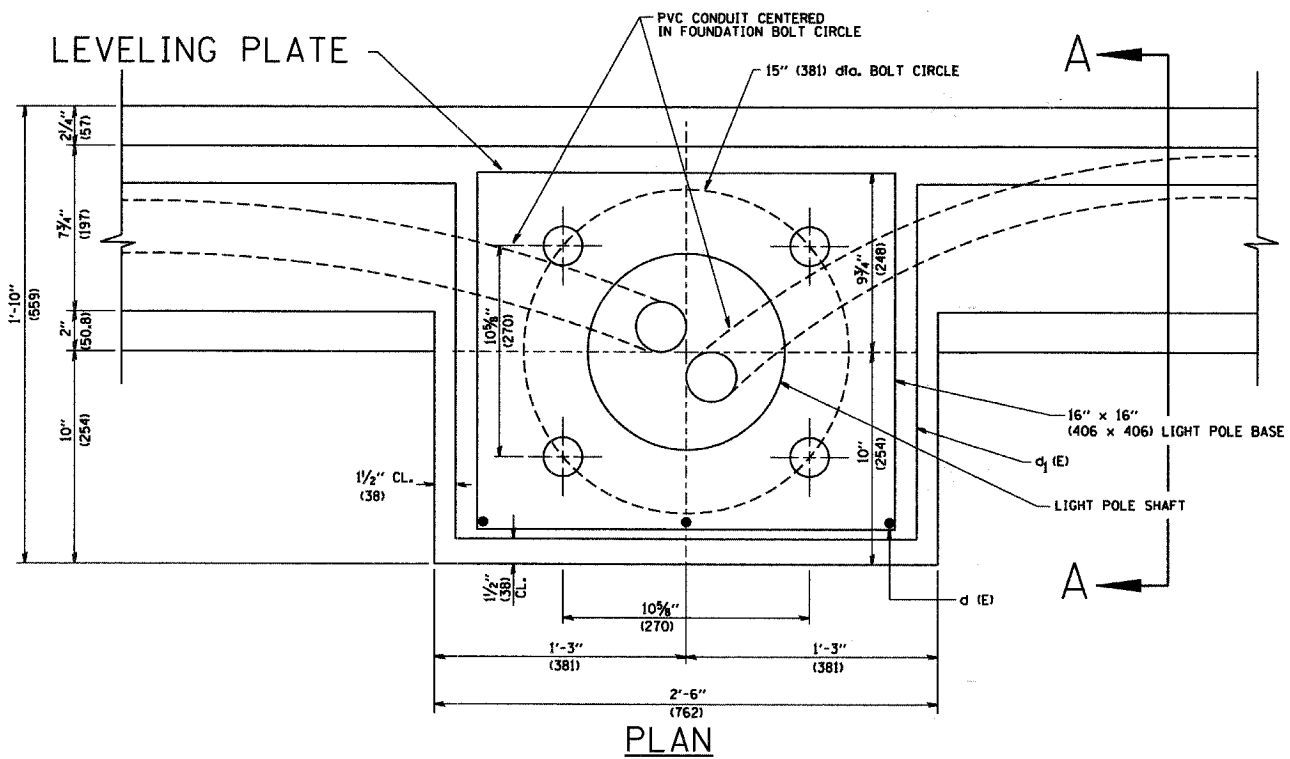
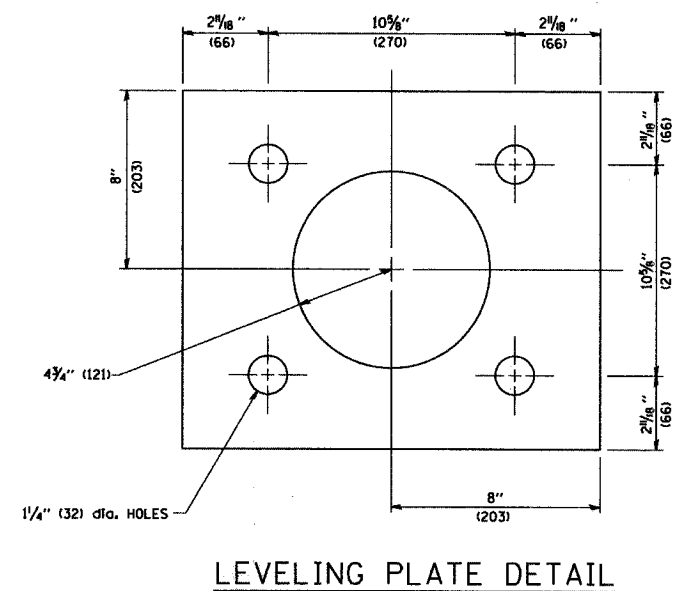
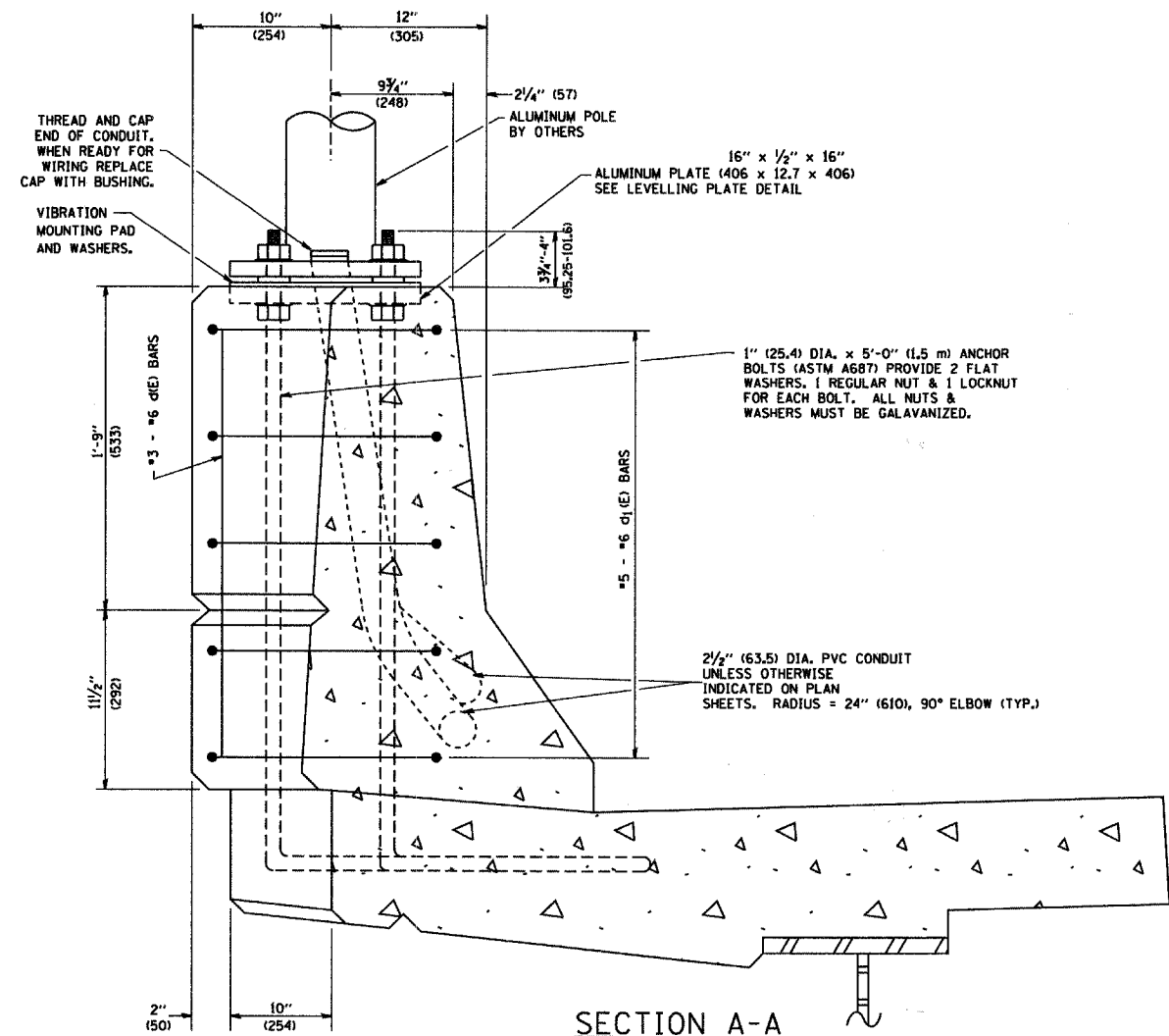
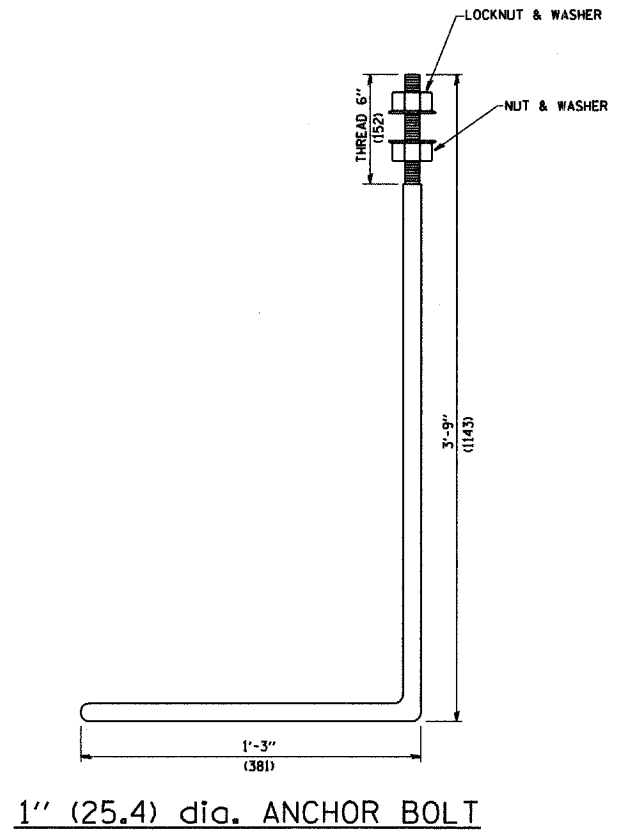
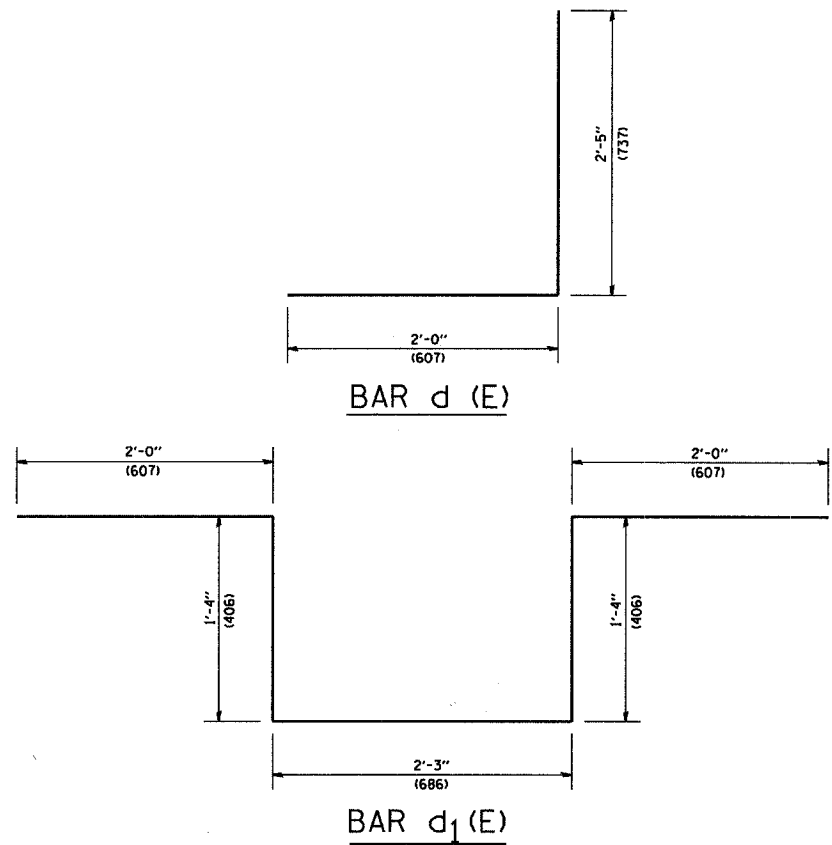
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

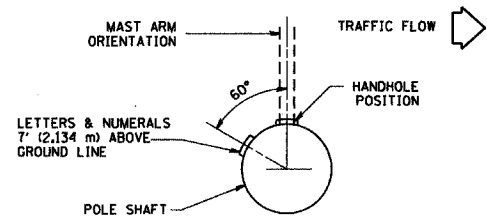
LIGHT POLE FOUNDATION
40' (12.192 m) TO 47 1/2' (14.478 m) M.H. 15" (381 mm) BOLT CIRCLE
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	00-0014-00-PV	DURAGE	569	452
BE-301			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

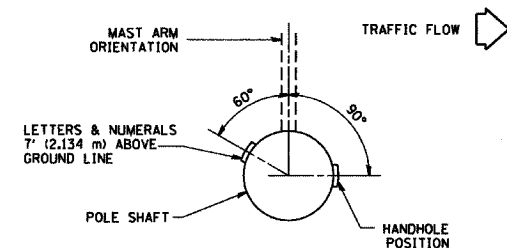


- NOTES
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
 2. LEVEL LIGHT POLE PLATES, USING THE FLANGE NUTS, PRIOR TO POURING THE PARAPET WALL. THE TOP OF THE PLATE SHALL BE AT THE SAME ELEVATION AS THE FINISHED CONCRETE PARAPET.
 3. THE COST OF ANCHOR BOLTS, CONDUIT, LEVELLING PLATE AND FOUNDATION IS INCLUDED IN THE COST OF THE BRIDGE STRUCTURE.

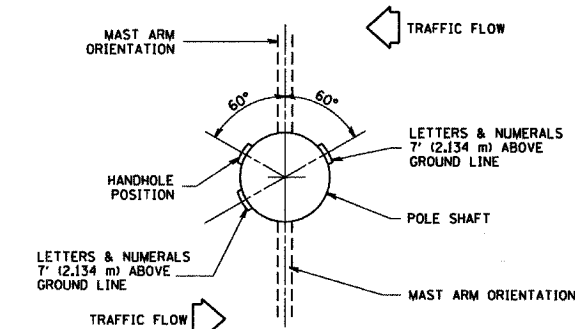
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	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	00-0014-00-PV	DUPAGE	503	453
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		DATE -	REVISED -						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			



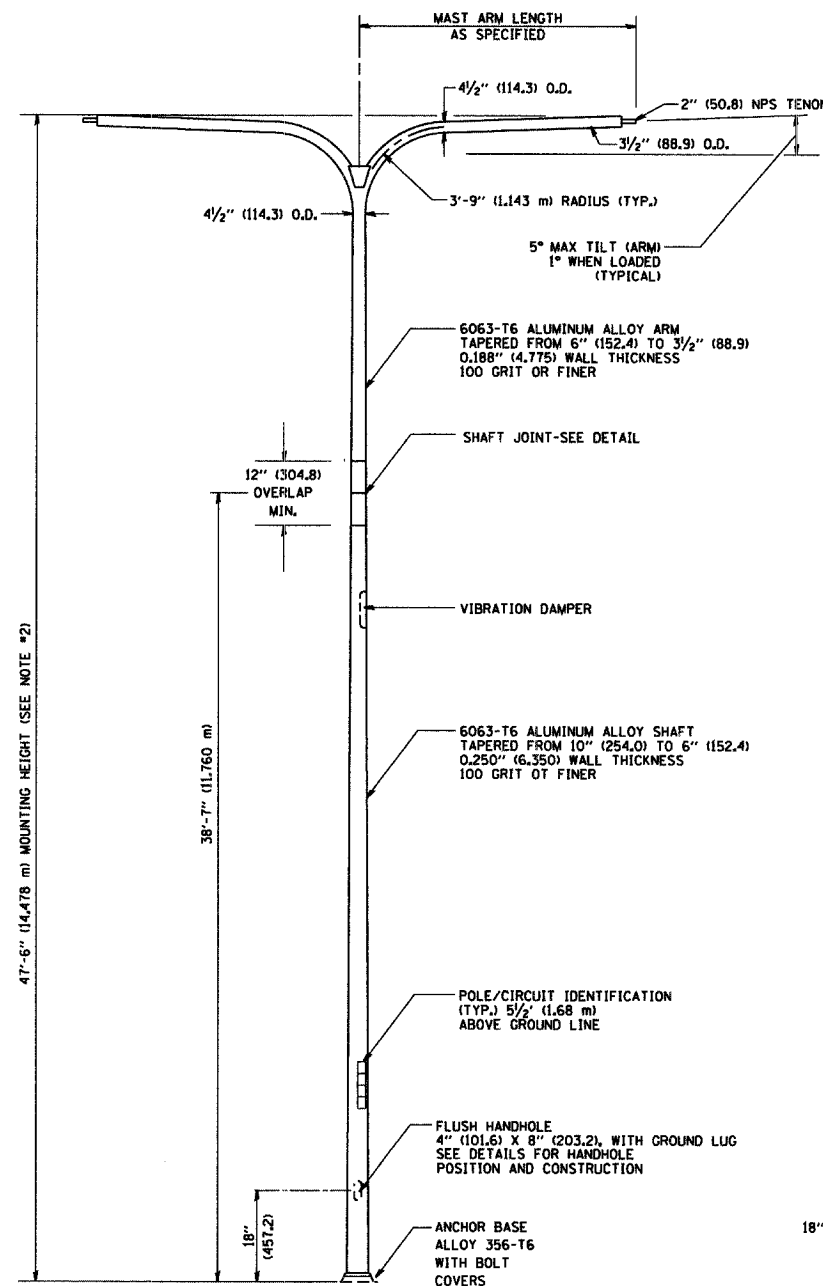
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL



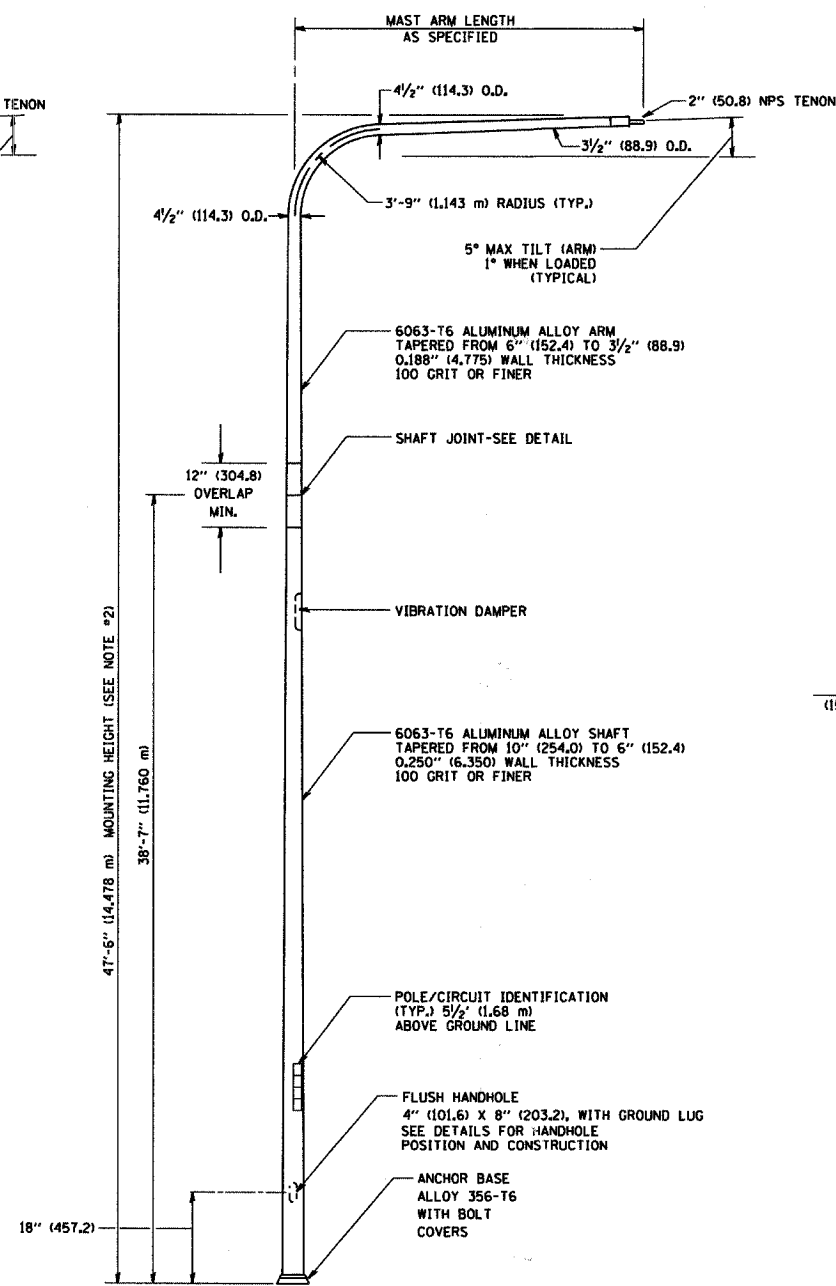
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES



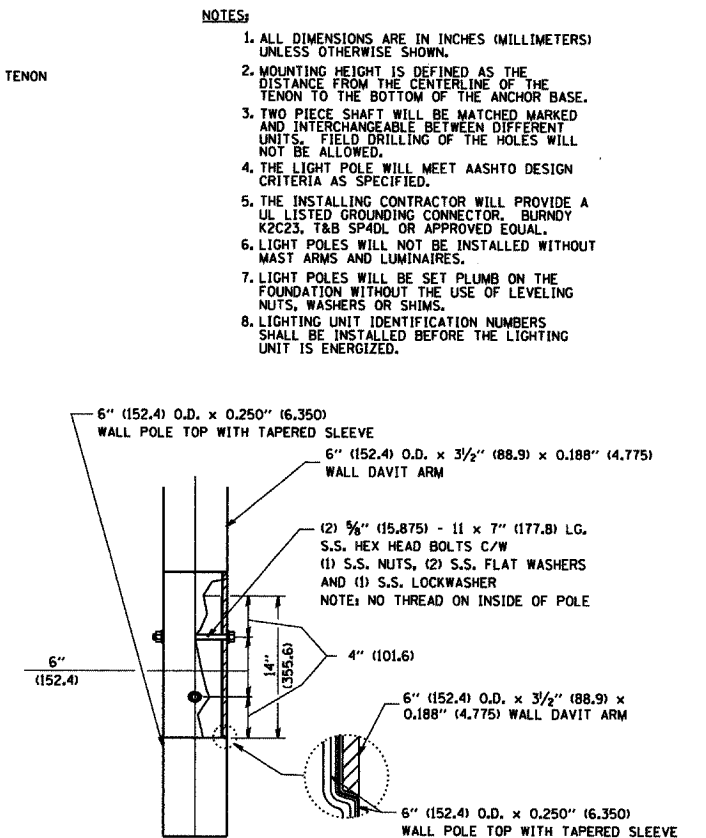
POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES



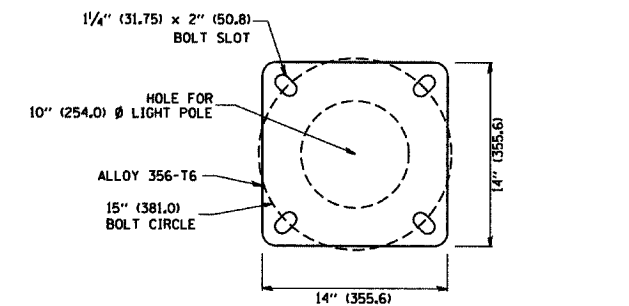
TWIN ARM POLE



SINGLE ARM POLE

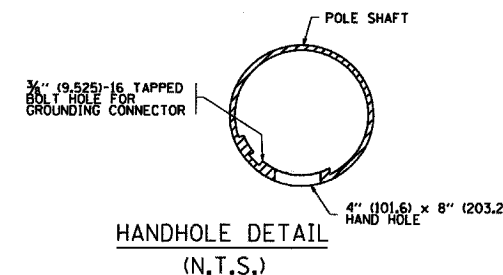


DAVIT ARM CONNECTION [14" (355.6) OVERLAP SHOWN]



LIGHT POLE BASE PLATE DETAIL

(FOR POLE MOUNTED ON 15 INCH (381.0) BOLT CIRCLE FOUNDATION)



HANDHOLE DETAIL (N.T.S.)

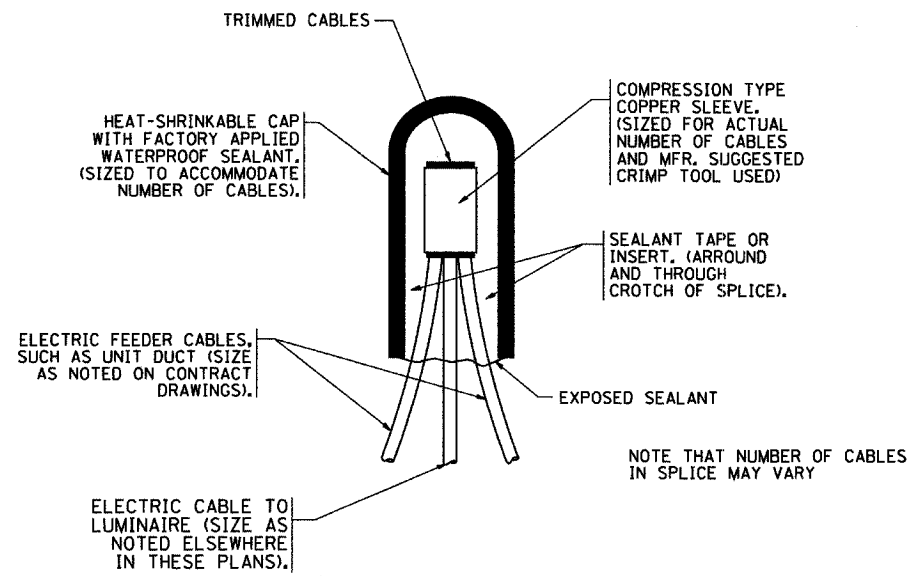
- NOTES:
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
 2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
 3. TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
 4. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
 5. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR, BURNDY K2C3, T&B SPADL OR APPROVED EQUAL.
 6. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
 7. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
 8. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.

FILE NAME = W:\d\statd\22x34\ba418.dgn	USER NAME = goglianobt	DESIGNED -	REVISED - D. DREW 04-02-92
		DRAWN - LEY	REVISED - D. DREW 05-07-92
		CHECKED -	REVISED - R. TOMSONS 09-06-00
		DATE -	REVISED - R. TOMSONS 09-02-03

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

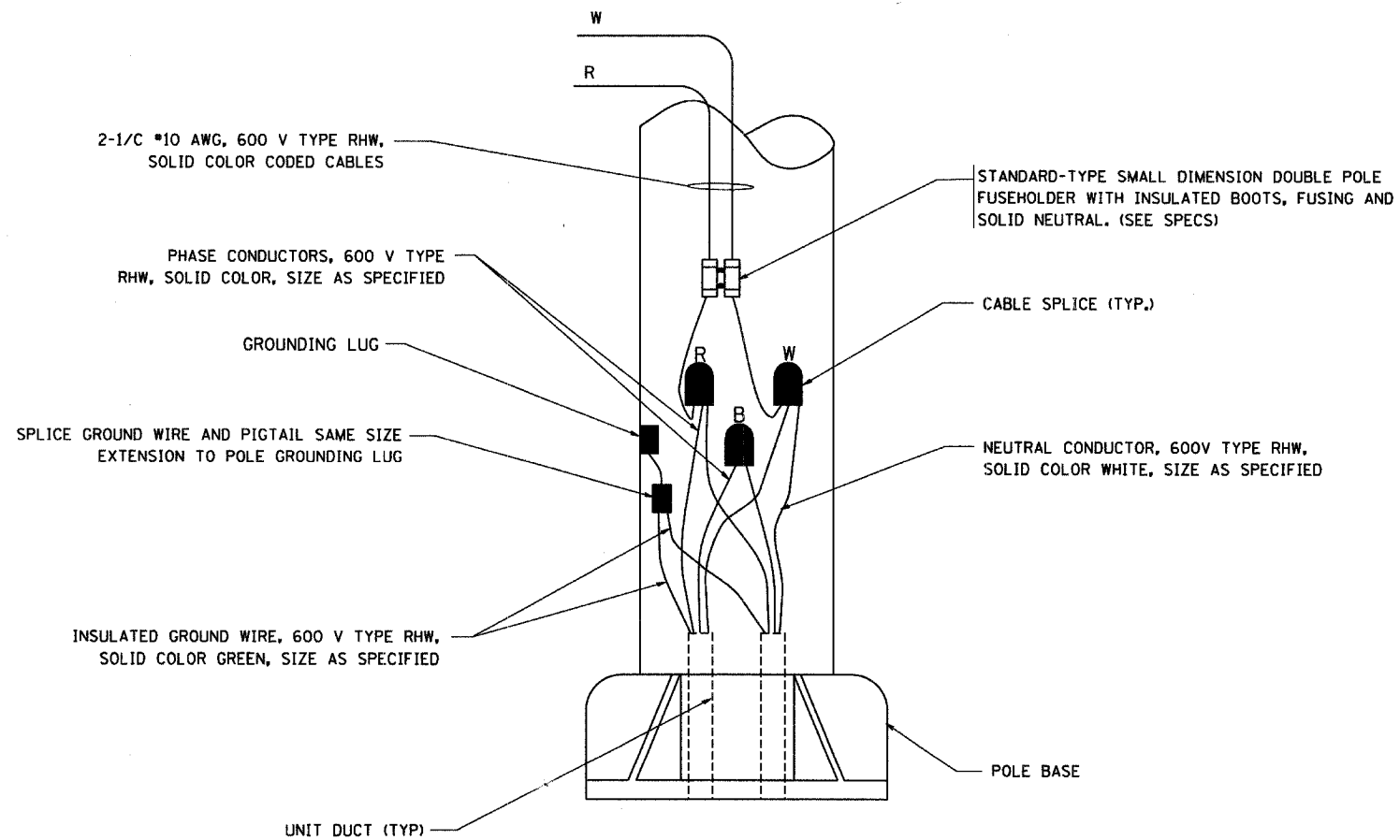
DAVIT LIGHT POLE		
47'-6" (14.478 m) MOUNTING HEIGHT		
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	00-0014-00-PV	DUPAGE	563	454
CONTRACT NO.			BE-410	
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				



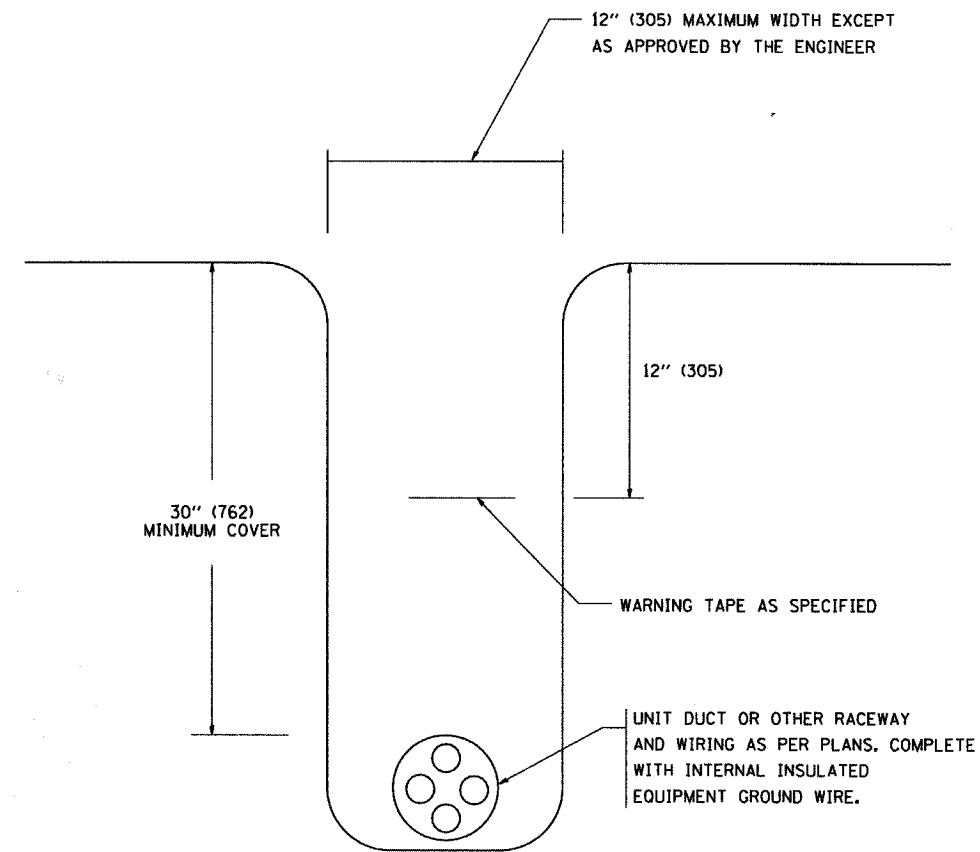
TYPICAL SPLICE DETAIL

N.T.S.



POLE WIRING DETAIL

N.T.S.



TYPICAL WIRING IN TRENCH DETAIL

N.T.S.

FILE NAME = W:\distatd\22x34\be702.dgn

USER NAME = geglionobt	DESIGNED -	REVISED - 08-08-03
PLOT SCALE = 50,000' / IN.	DRAWN -	REVISED -
PLOT DATE = 1/4/2008	CHECKED -	REVISED -
	DATE -	REVISED -

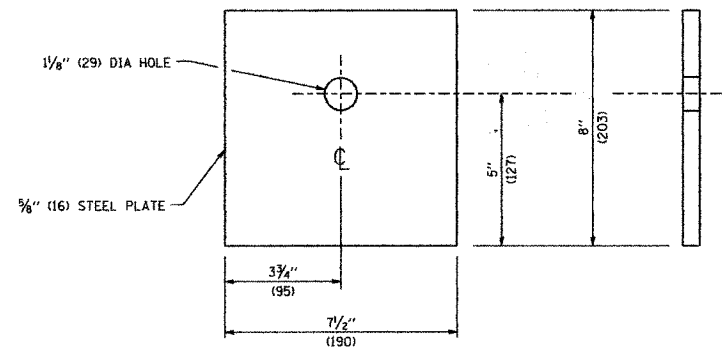
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISC. ELECTRICAL DETAILS
SHEET A

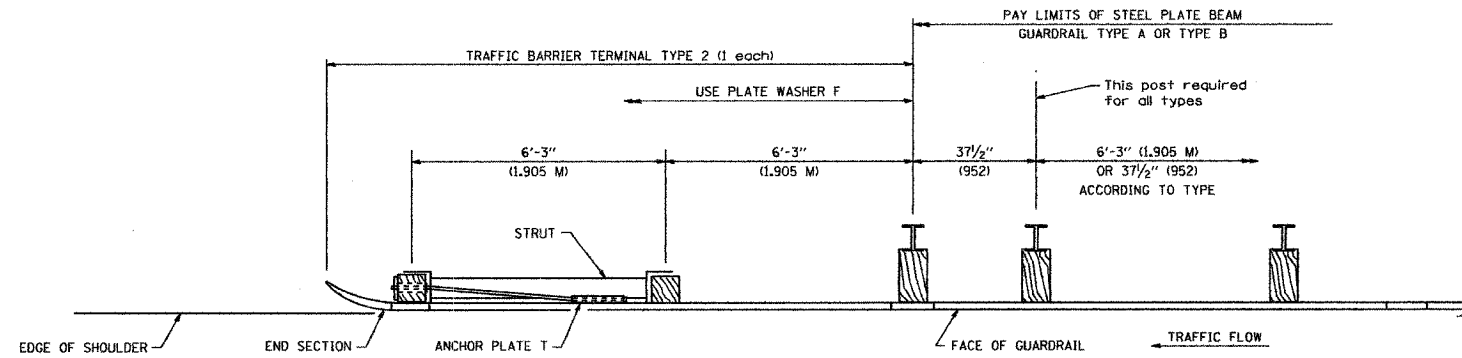
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BE-702		CONTRACT NO.		
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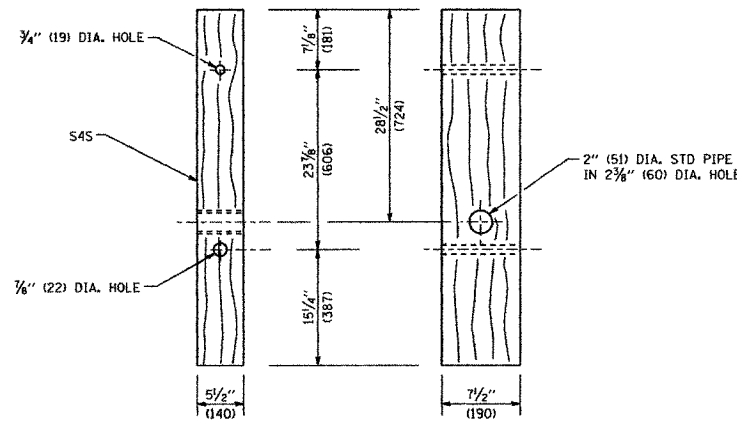
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STA. TO STA.		ILLINOIS FED. AID PROJECT		



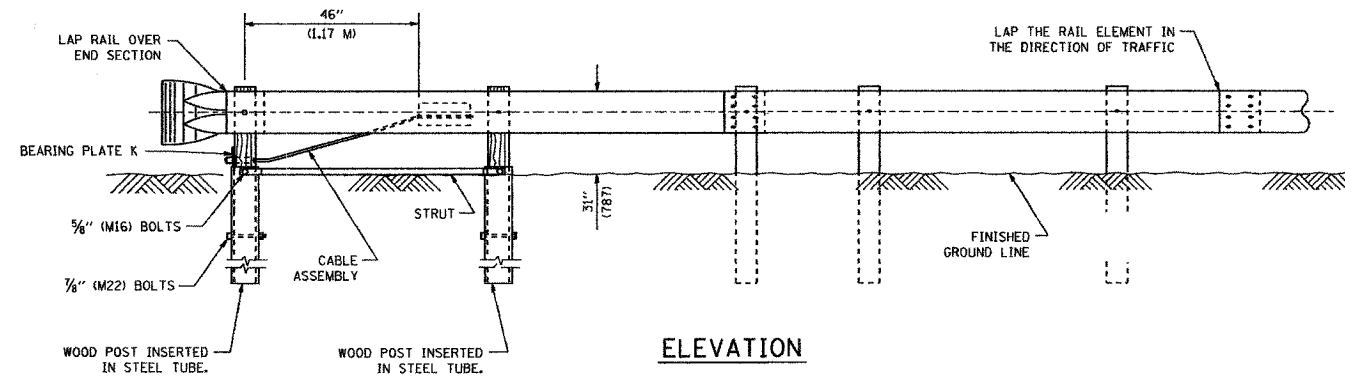
BEARING PLATE K



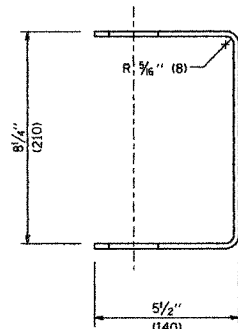
PLAN



WOOD POST

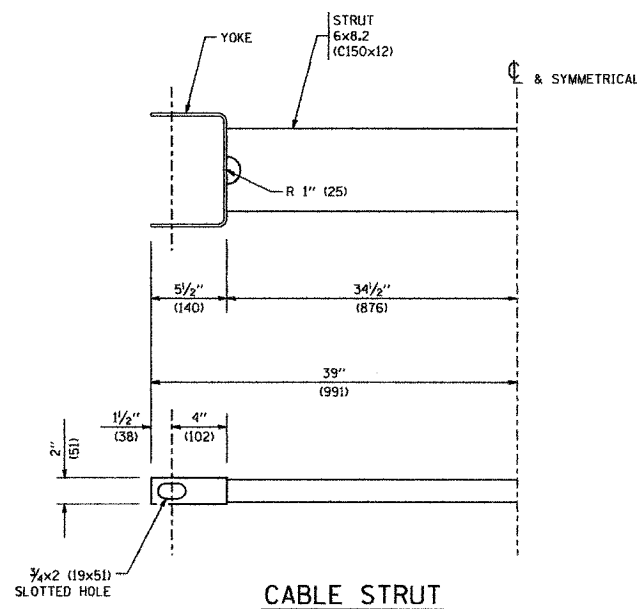


ELEVATION

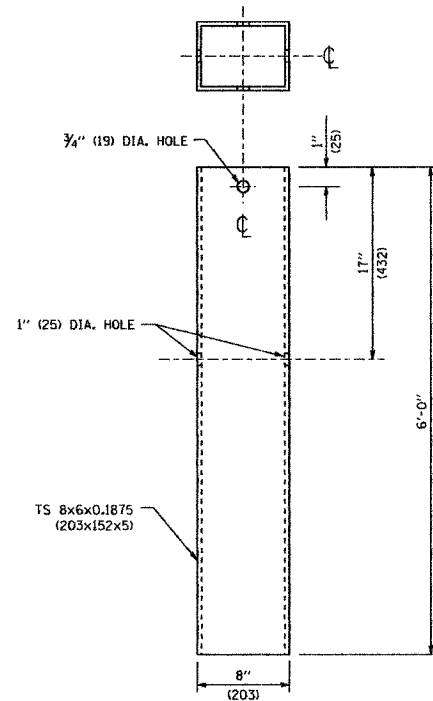


YOKE

3/8" (5) THICK STEEL



CABLE STRUT



STEEL TUBE

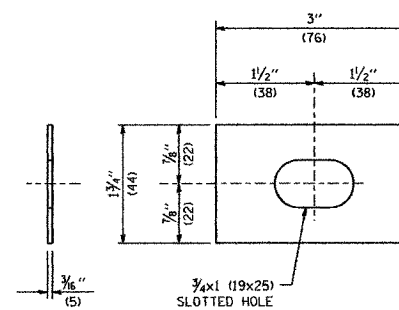


PLATE WASHER F

GENERAL NOTES

SEE STANDARD 630001 FOR DETAILS OF GUARDRAIL NOT SHOWN.

THE BEARING PLATE K SHALL BE HELD IN POSITION BY (2) TWO EIGHT PENNY NAILS DRIVEN INTO THE POST AND BENT OVER THE TOP OF THE PLATE.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

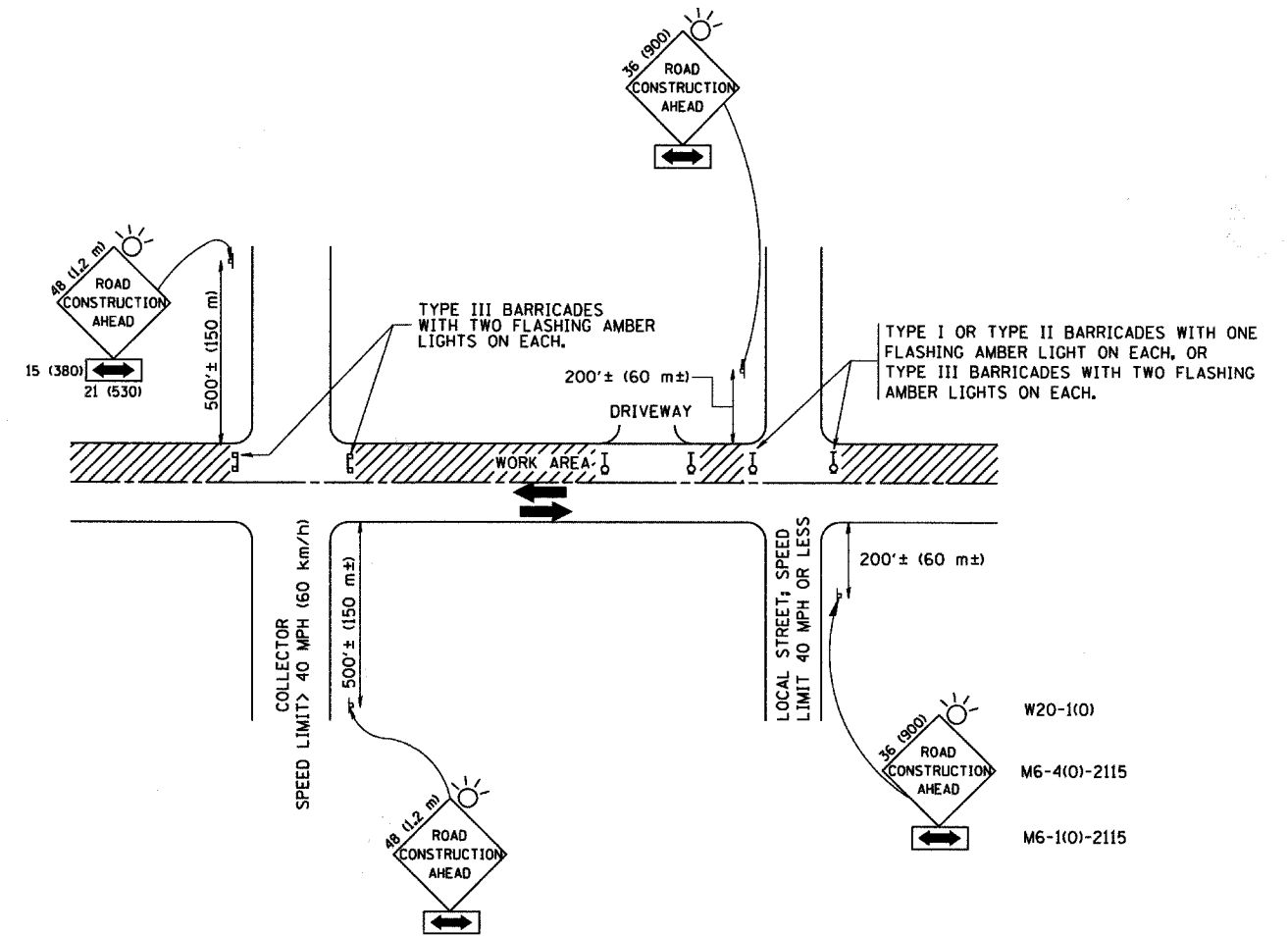
TRAFFIC BARRIER TERMINAL, TYPE 2

SCALE: NONE

DRAWN BY

CHECKED BY

BD-TRAFBARTEMTYPE2



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

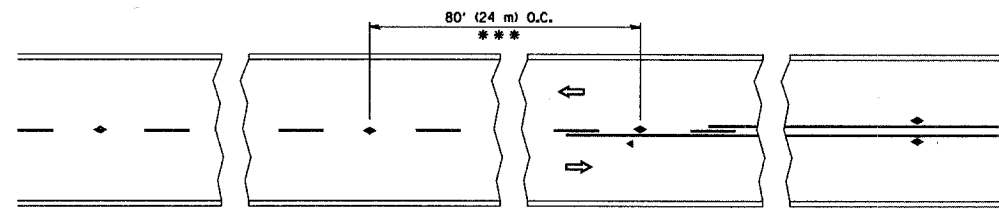
D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME = M:\diststd\22x34\to18.dgn	USER NAME = gaglianobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
		PLOT SCALE = 50,000' / IN.	REVISED - A. HOUSEH 10-15-96
		PLOT DATE = 1/4/2008	REVISED - T. RAMMACHER 01-06-00
		CHECKED -	
		DATE - 06-89	

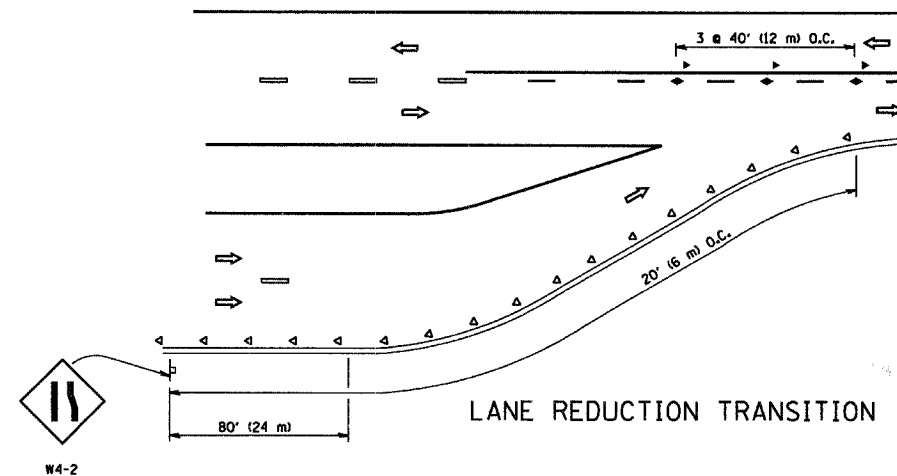
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	00-0014-00-PV	DUPAGE	563 / 57
				TC-10	CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						

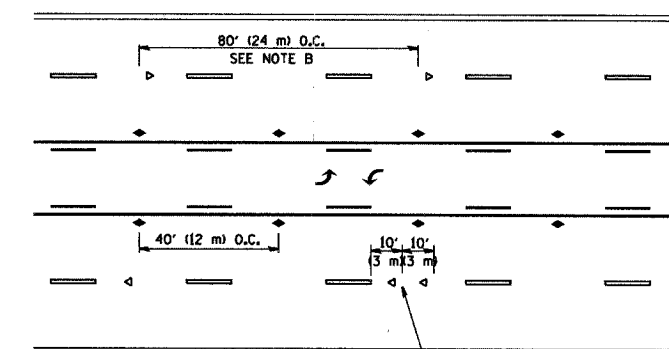


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

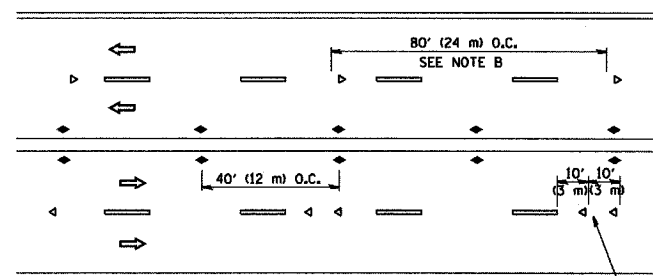
TWO-LANE/TWO-WAY



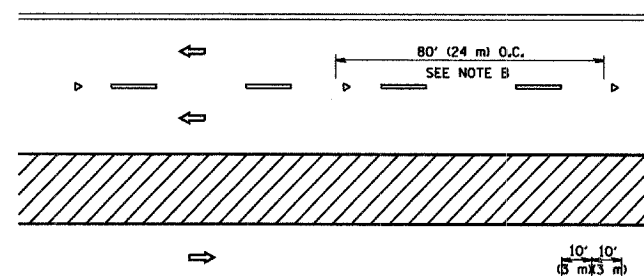
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

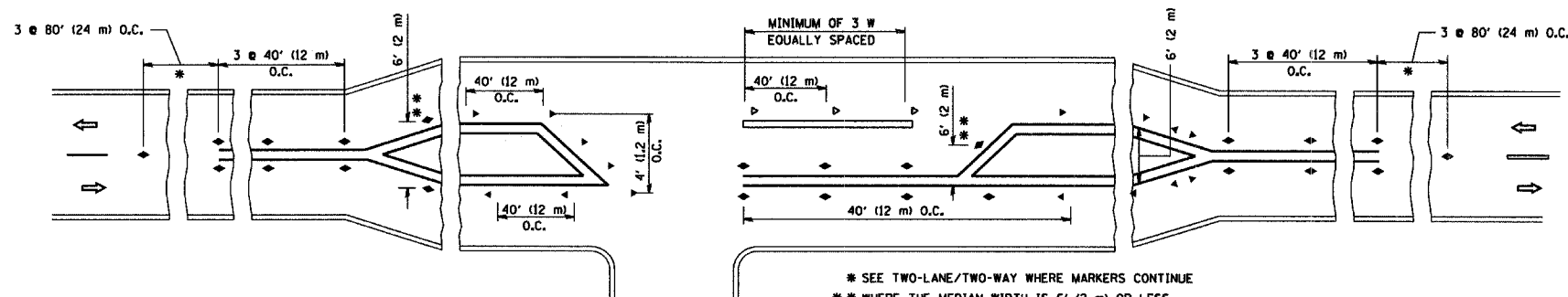
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

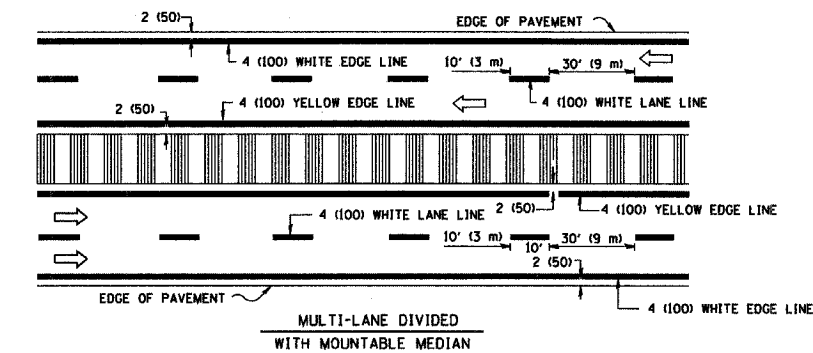
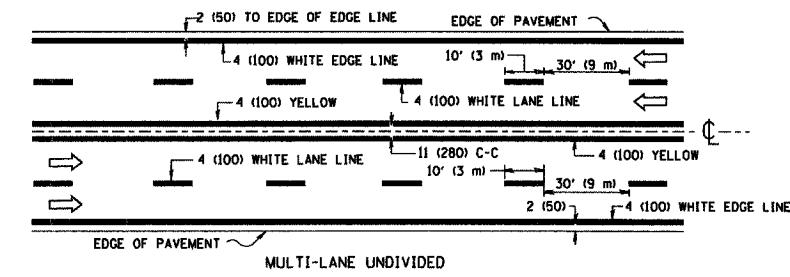
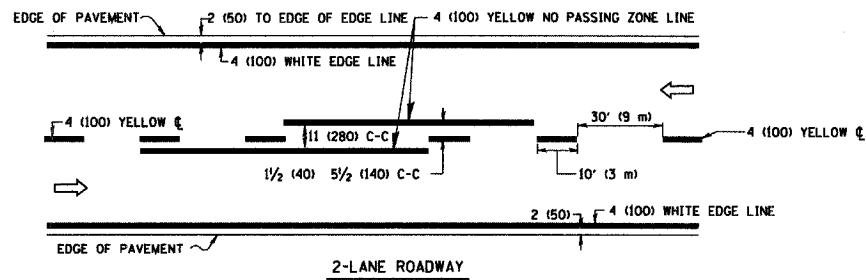
All dimensions are in inches (millimeters) unless otherwise shown.

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		DRAWN -	REVISED - T. RAMMACHER 03-12-99
		CHECKED -	REVISED - T. RAMMACHER 01-06-00
		DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

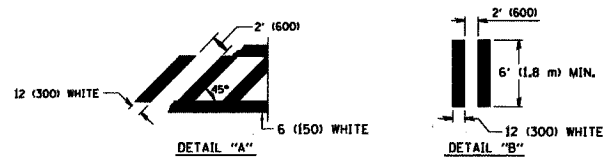
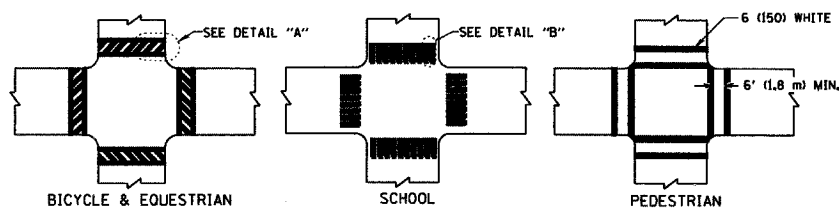
TYPICAL APPLICATIONS	
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS
STA. TO STA.	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-11			CONTRACT NO.	
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				

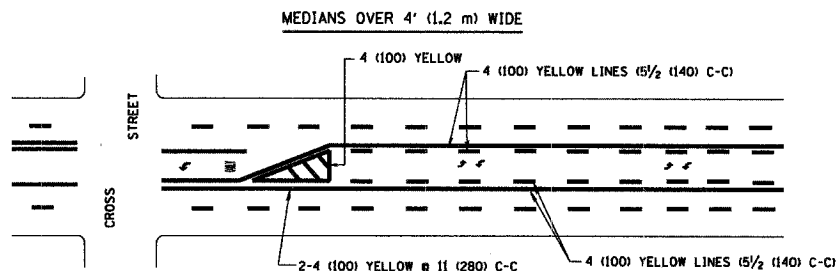
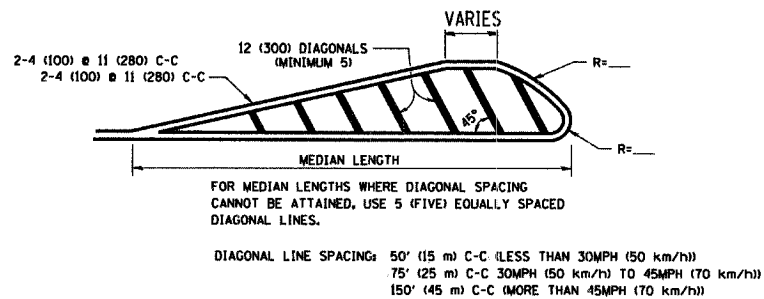
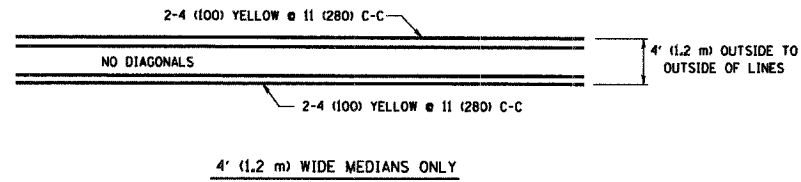


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

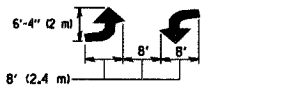
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

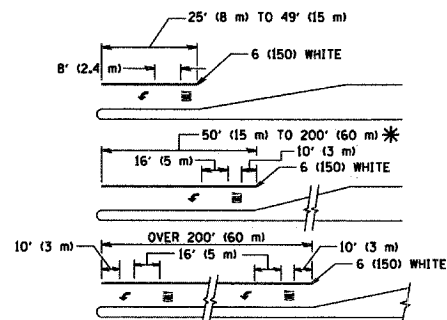


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

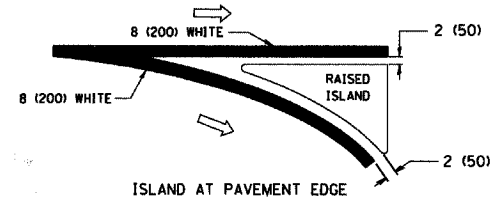
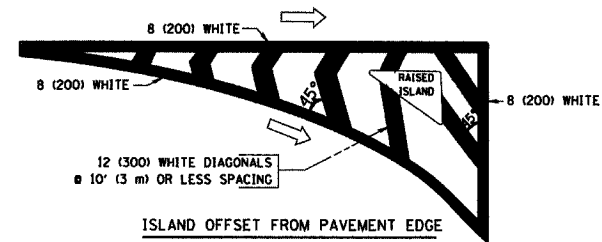
TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) AREA = 20.8 SQ. FT. (1.9 m²)
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

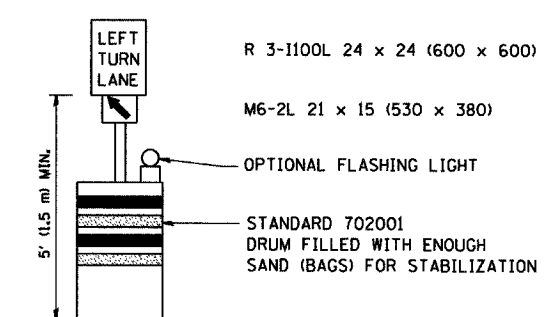
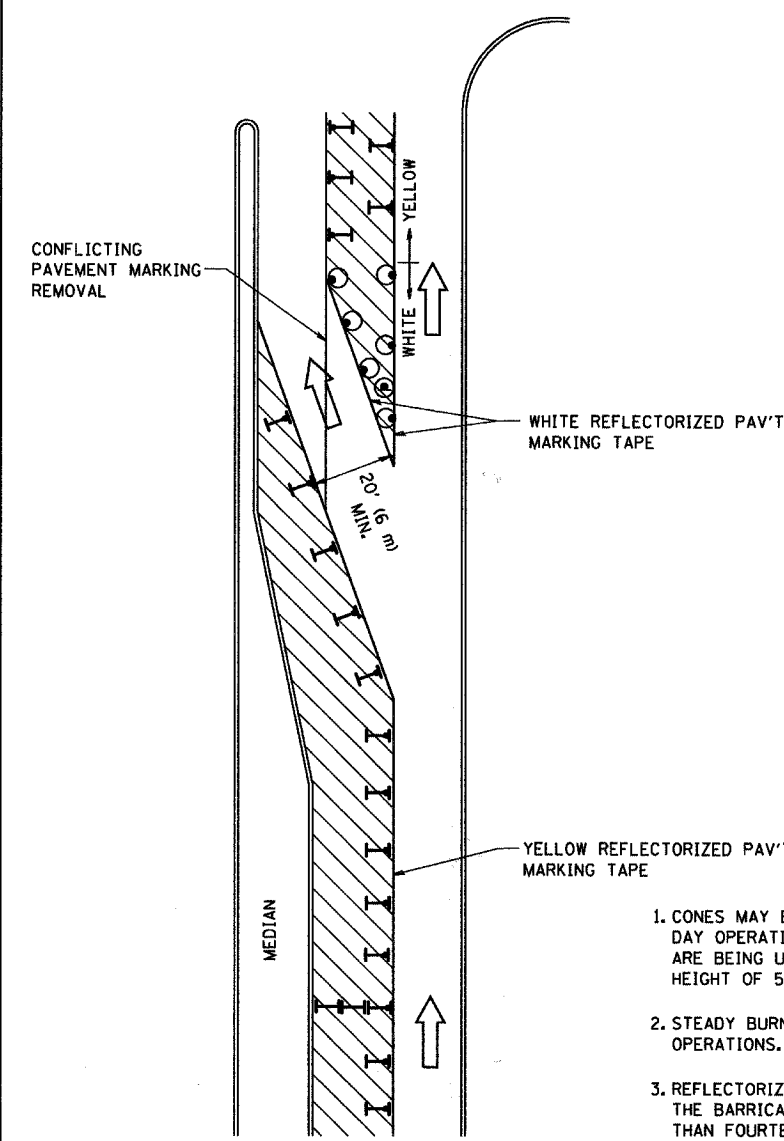


TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" 15' (4.5 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF "RR" = 3.6 SQ. FT. (0.33 m ²) EACH "X" = 54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

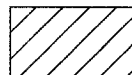





All dimensions are in inches (millimeters) unless otherwise shown.



GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM BT 725 IS REQUIRED.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

LEGEND

-  WORK AREA
-  LANE OPEN TO TRAFFIC
-  TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
-  DRUM WITH STEADY BURN LIGHT
-  DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
-  TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

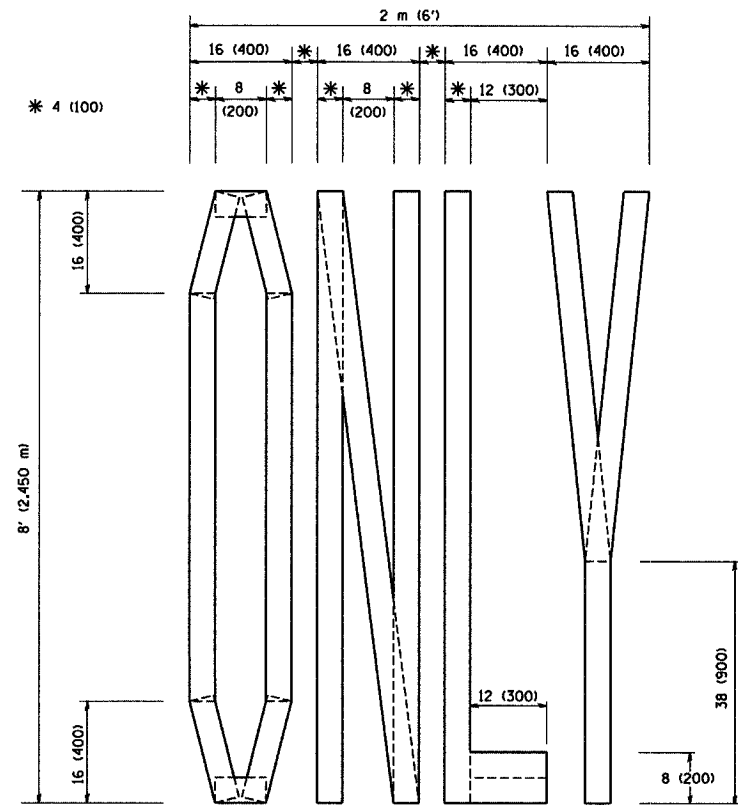
All dimensions are in inches (millimeters) unless otherwise shown.

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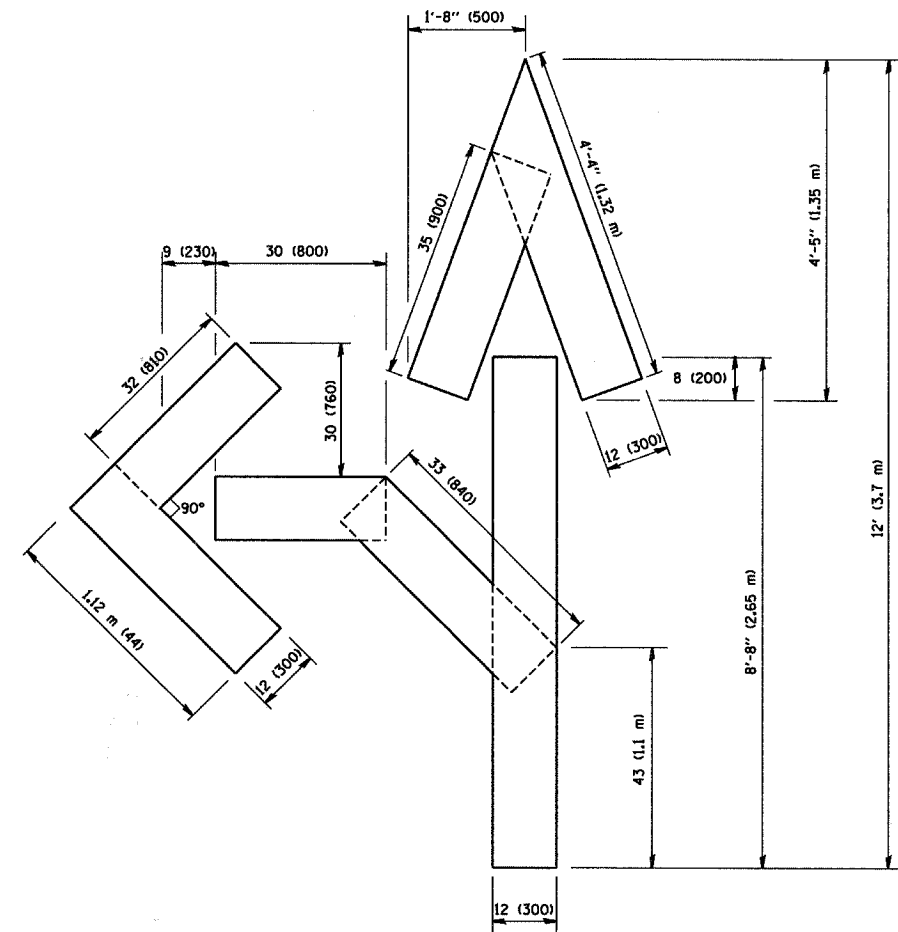
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

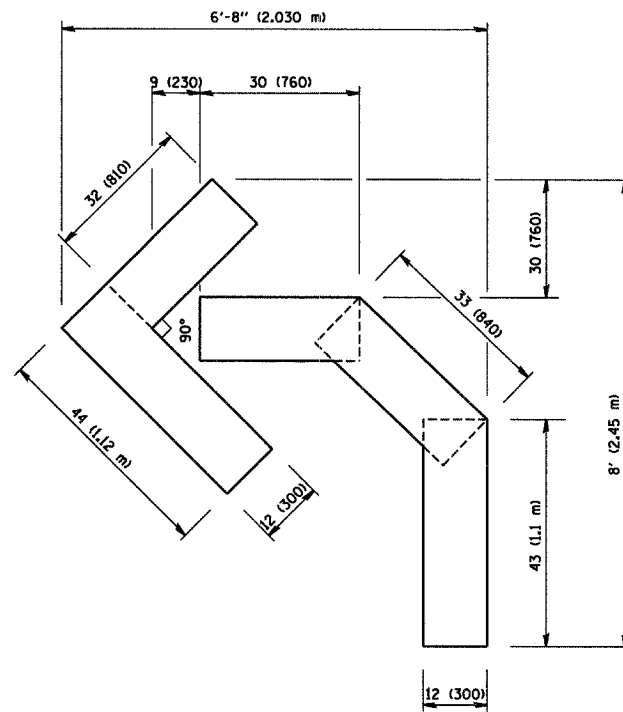
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	00-0014-00-PV	DuPage	563	460
TC-14			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



QUANTITY
 4 (100) LINE = 64.1 ft. (19.7 m)
 21.1 sq. ft. (1.97 sq. m)



QUANTITY
 4 (100) LINE = 82.5 ft. (25.3 m)
 27.5 sq. ft. (2.53 sq. m)



QUANTITY
 4 (100) LINE = 45.5 ft. (13.9 m)
 15.2 sq. ft. (1.39 sq. m)

All dimensions are in inches (millimeters) unless otherwise shown.

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		DRAWN -	REVISED -T. RAMMACHER 11-04-97
	PLOT SCALE = 50.0000 "/ IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98
	PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

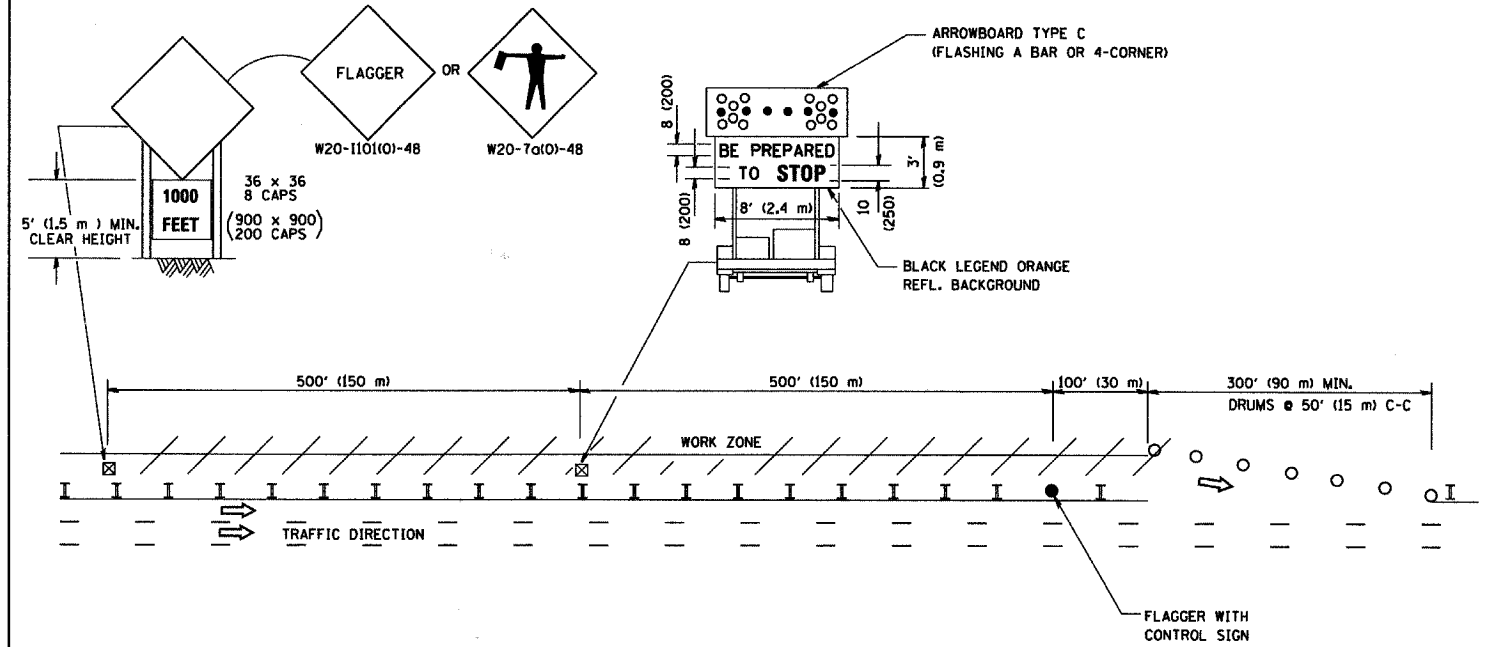
PAVEMENT MARKING LETTERS AND SYMBOLS
 FOR TRAFFIC STAGING

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

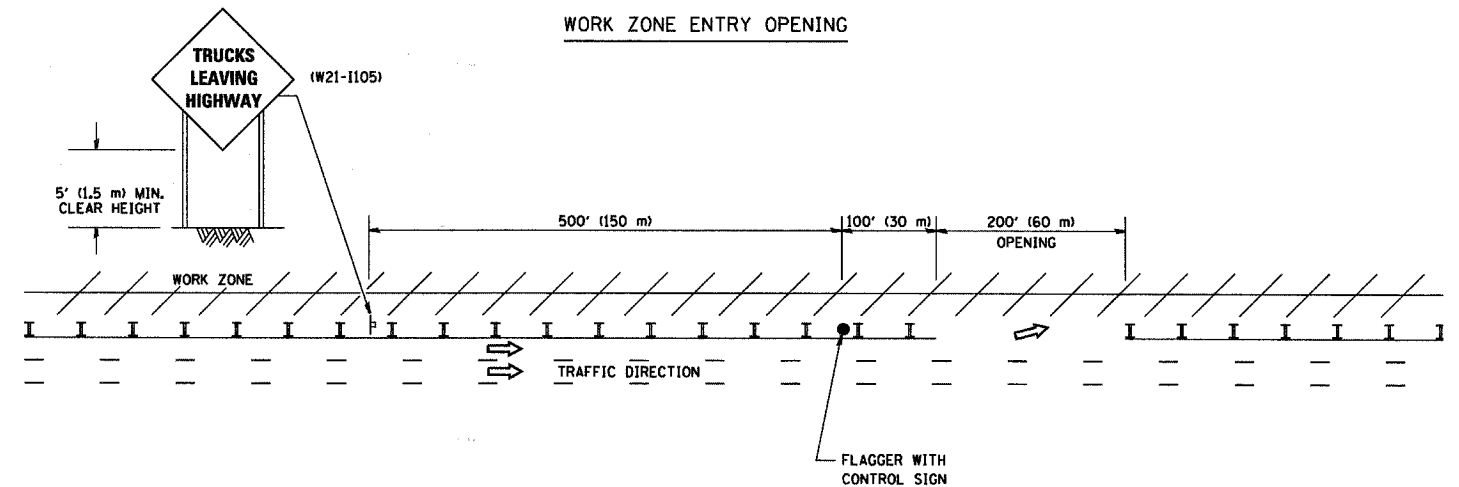
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TC-16			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. The Arrowboard, the Flagger Ahead trailer mounted sign, and the Trucks Leaving Highway sign shall be removed or turned away from traffic and the exit and entry openings shall be closed when the flagging operation ceases.
2. Work Zone Exit Openings should be a minimum of one half mile apart.
3. Exiting the work zone at any place other than at a Work Zone Exit Opening will be prohibited.
4. All vehicles shall enter the work zone at entry openings, using their turn signals to warn motorists

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

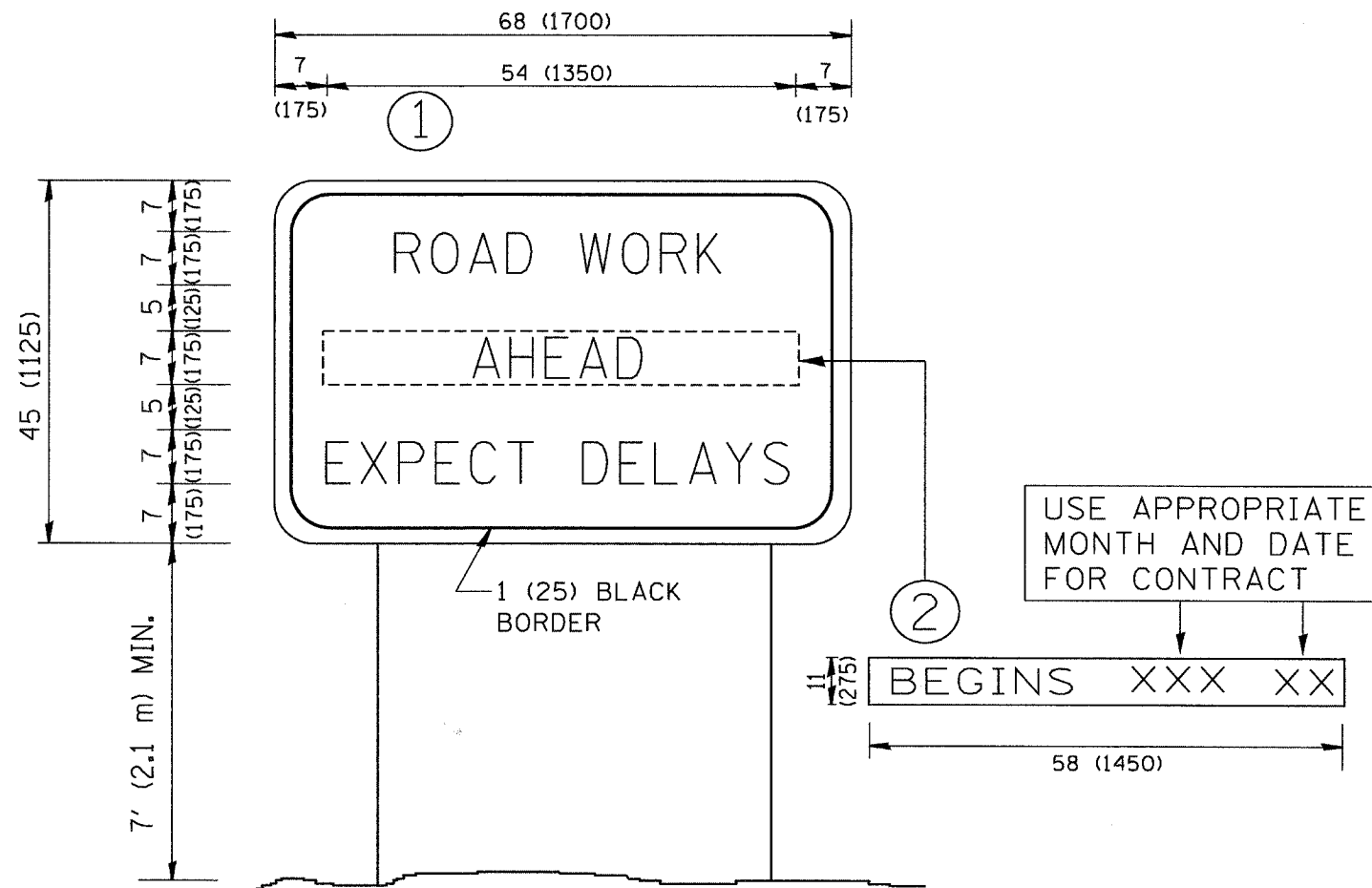
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	PLOT DATE = 1/4/2008	CHECKED -	REVISED - J.A.F. 02-06
		DATE -	REVISED - S.P.B. 01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGNING FOR FLAGGING OPERATIONS
AT WORK ZONE OPENINGS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	02-0014-00-RV	DUPAGE	563	462
TC-18		CONTRACT NO.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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		PLOT DATE = 1/4/2008	REVISED - C. JUCIUS 01-31-07		SHEET NO. 1 OF 1 SHEETS	TC-22	CONTRACT NO.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT										



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

NOTES:

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE
 PLACED BACK-TO-BACK; ONE WITH A RIGHT HAND ARROW (SHOWN)
 SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY
 AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE
 FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

FILE NAME = W:\diststd\22x34\to26.dgn	USER NAME = gogliorobt	DESIGNED -	REVISED - C. JUCIUS 02-15-07
		DRAWN -	REVISED -
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

DRIVEWAY ENTRANCE SIGNING

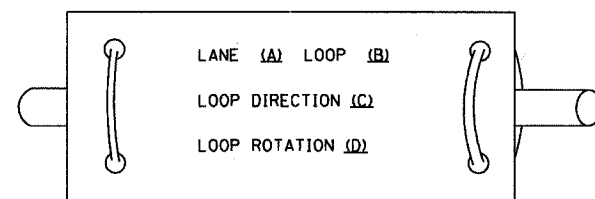
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TC-26			CONTRACT NO.	
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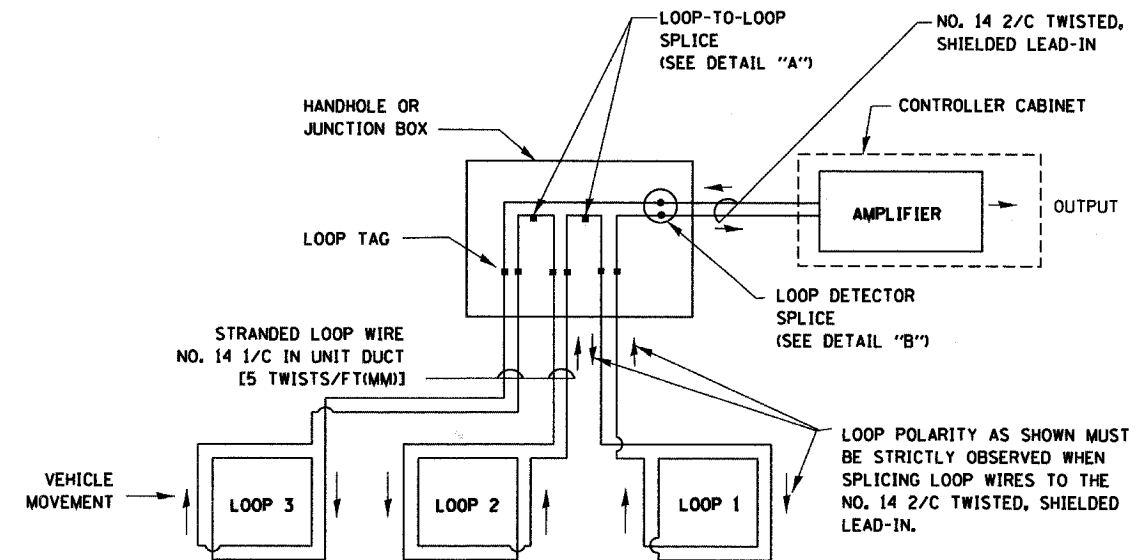
LOOP DETECTOR NOTES

- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVESHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

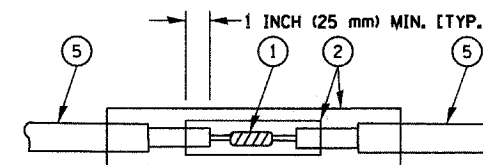


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

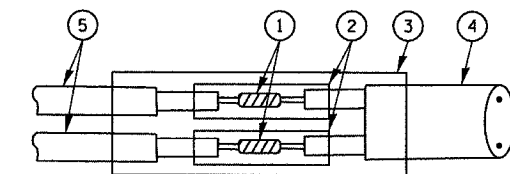


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm), IF IN CONCRETE. THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

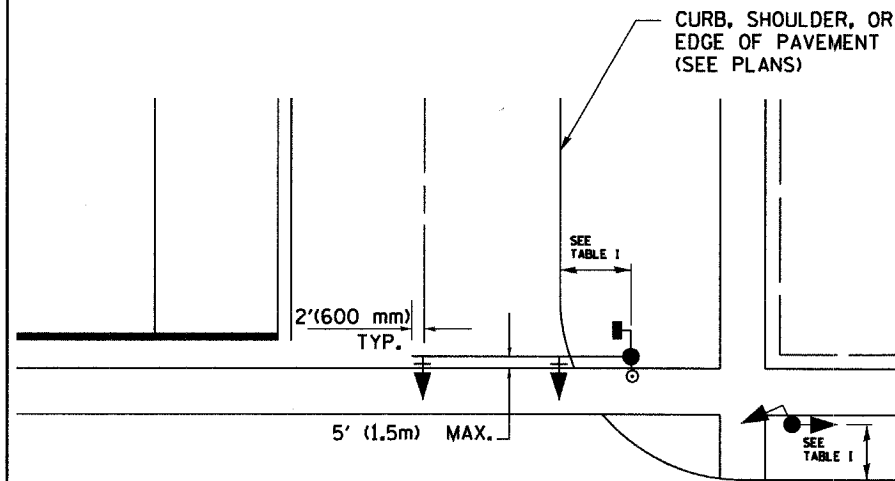
LOOP DETECTOR SPLICE

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

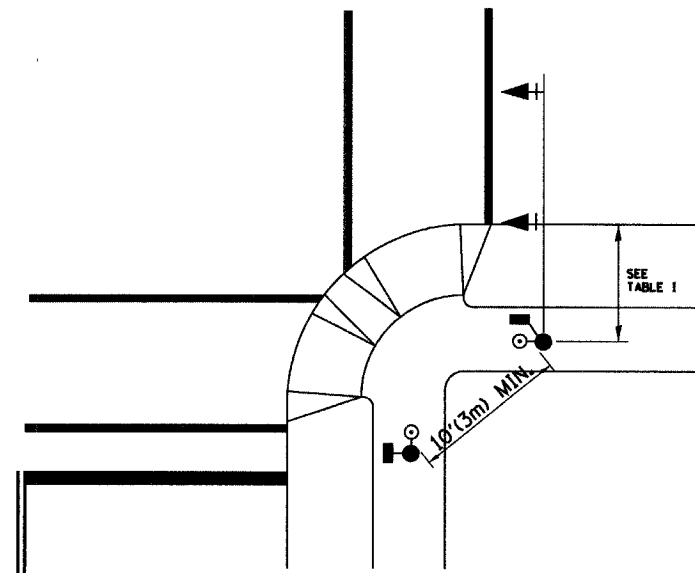
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						SCALE: NONE	SHEET NO. 1 OF 4 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT		

TRAFFIC SIGNAL MAST ARM AND POST

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA, INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



PEDESTRIAN SIGNAL PUSHBUTTON



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

NOTES:

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.
 AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.
 PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:
 A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL-WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
 B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
 C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
 D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
 E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK.
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

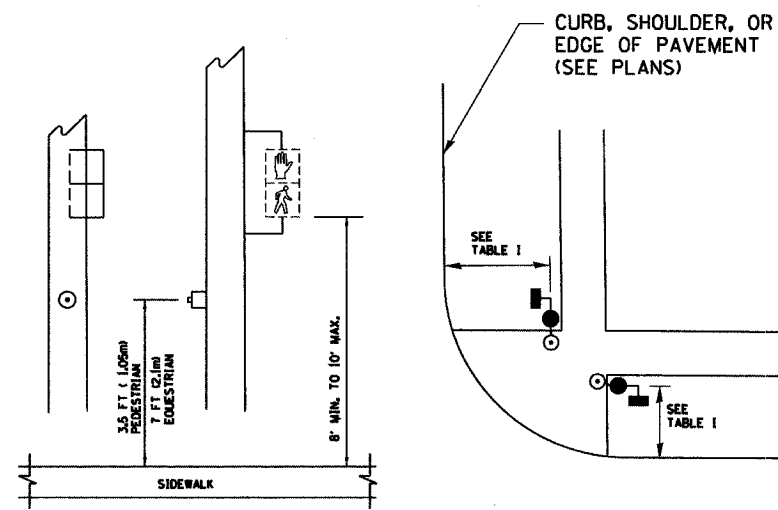


TABLE I

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

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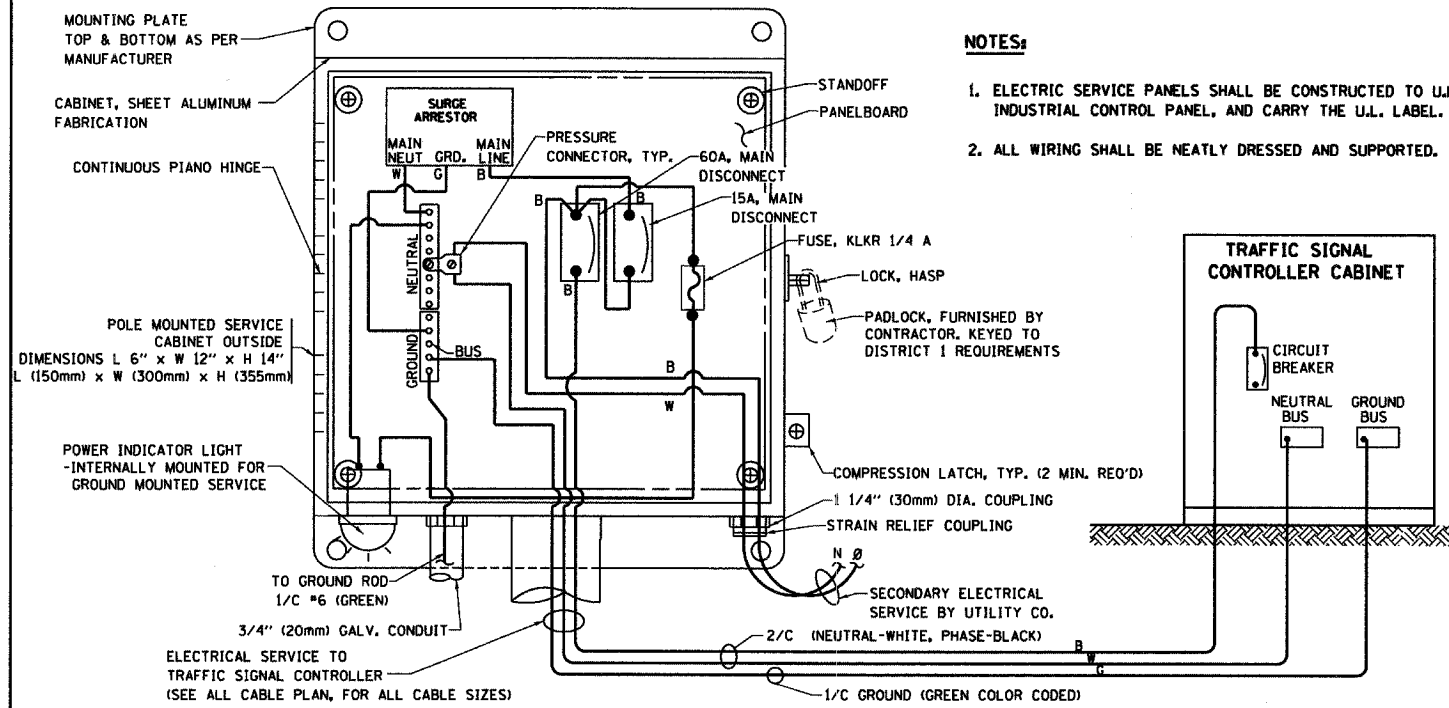
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 DRAWN - R.W.P.
 CHECKED - D.A.Z.
 DATE -

REVISED - BUR. TRAFFIC 01-01-02
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 REVISED -

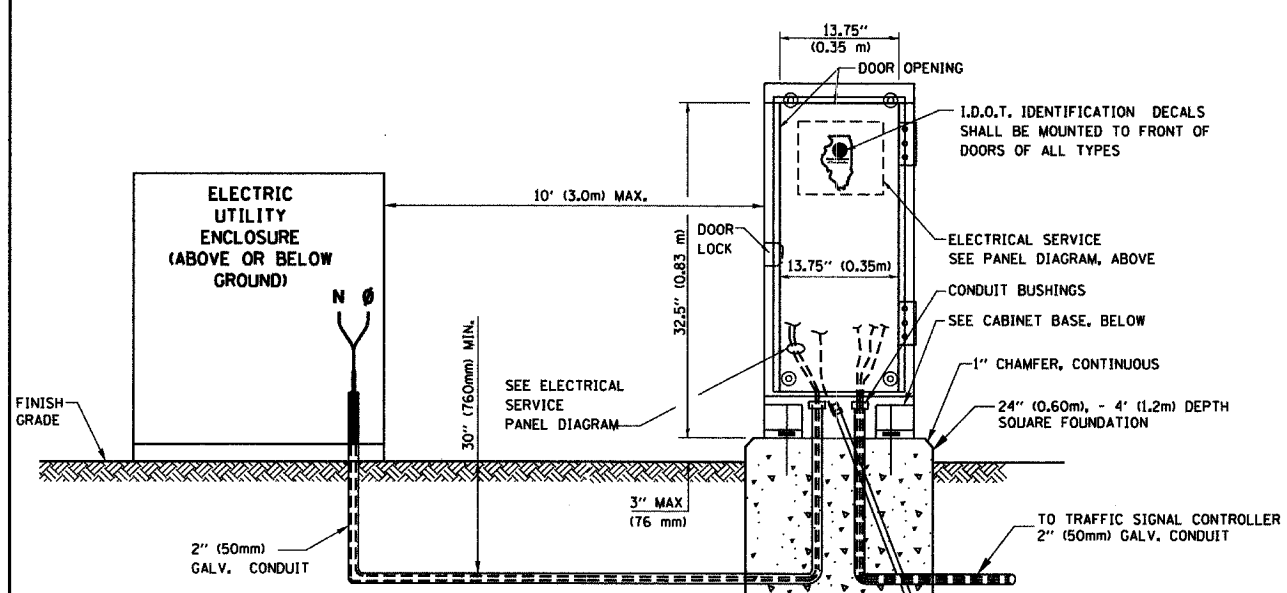
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE
 STANDARD TRAFFIC SIGNAL DESIGN DETAILS**
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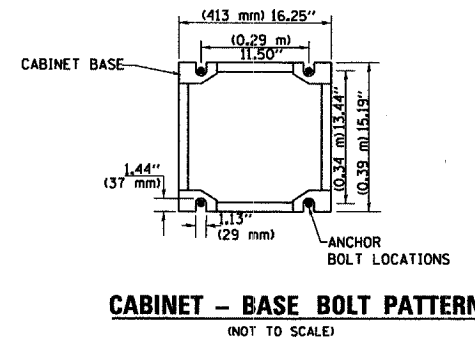
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FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



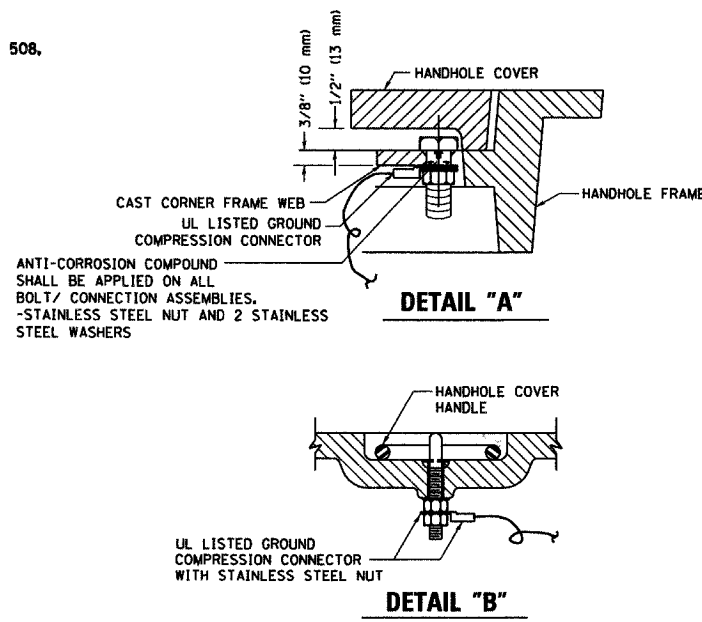
ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)



SERVICE INSTALLATION GROUND MOUNT
 (NOT TO SCALE)

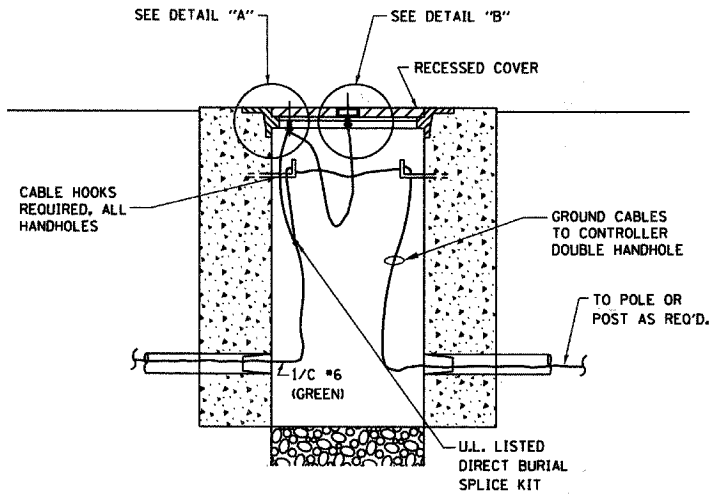


CABINET - BASE BOLT PATTERN
 (NOT TO SCALE)

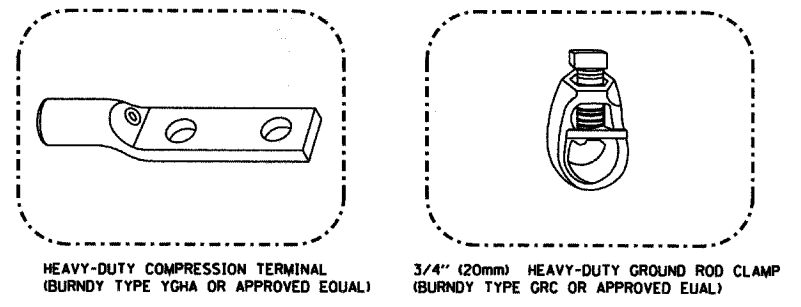


NOTES:
GROUNDING SYSTEM

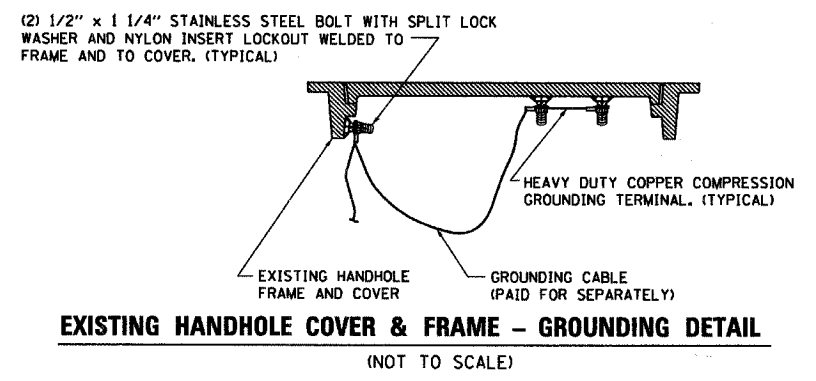
1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



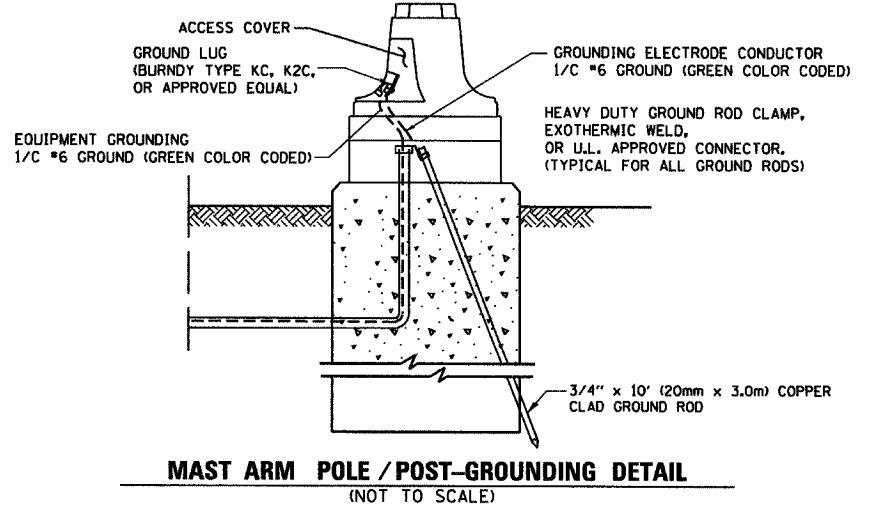
HANDHOLE COVER & FRAME - GROUNDING DETAIL
 (NOT TO SCALE)



- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
 - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.

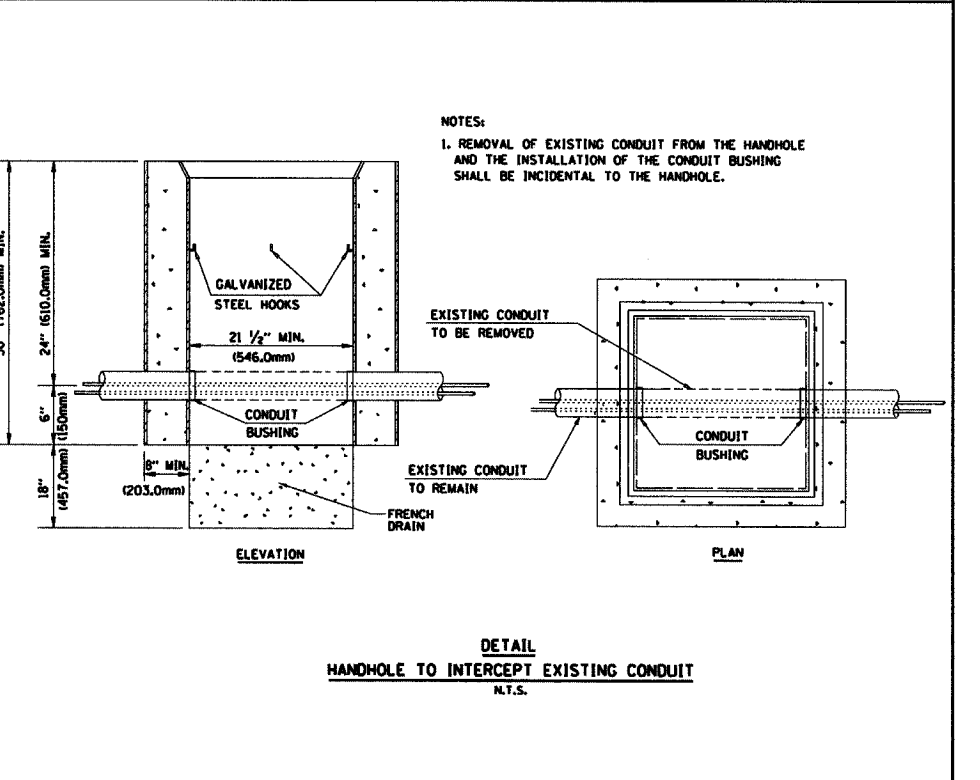
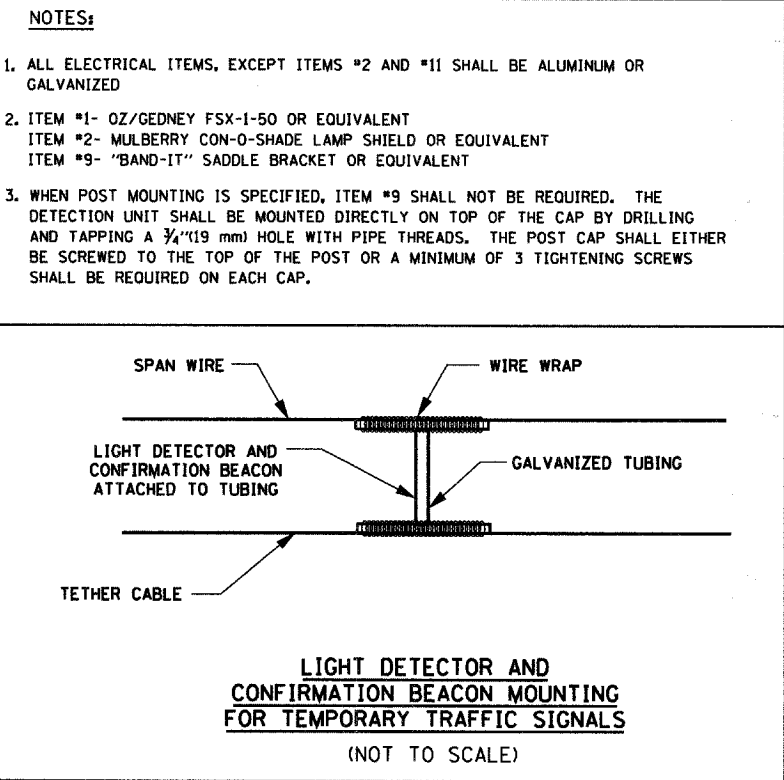
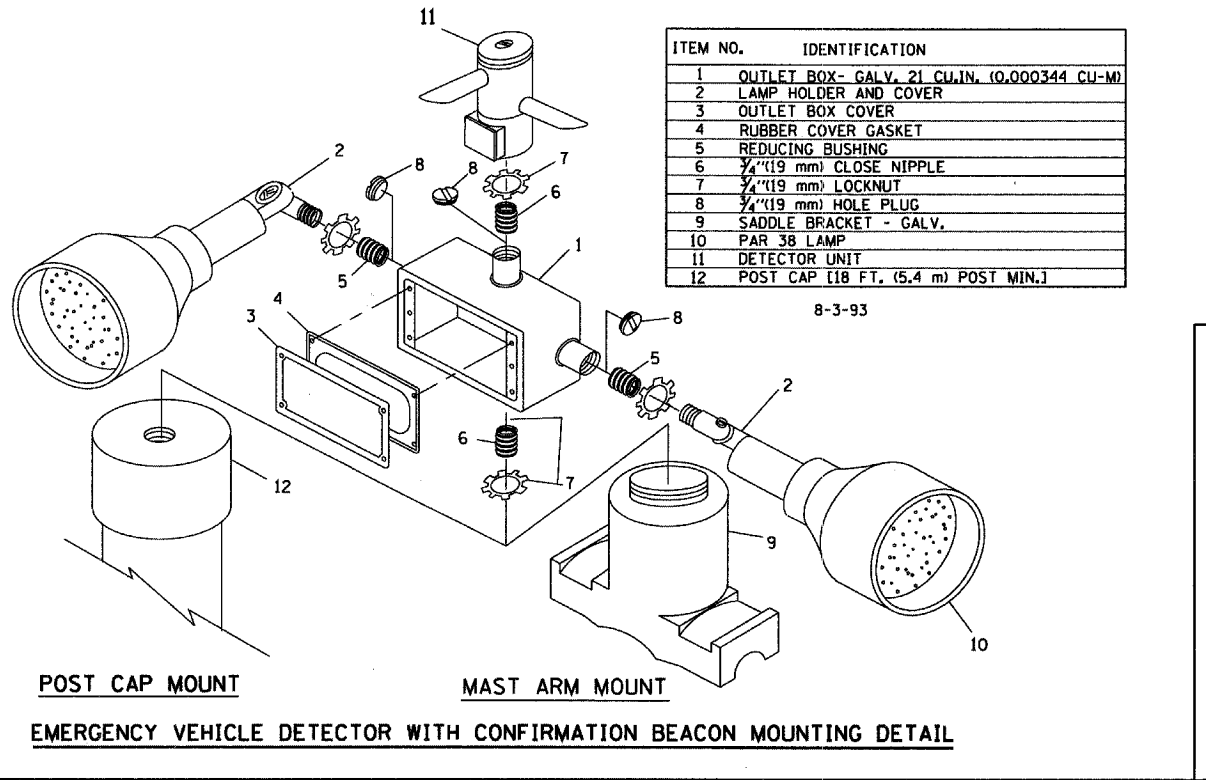
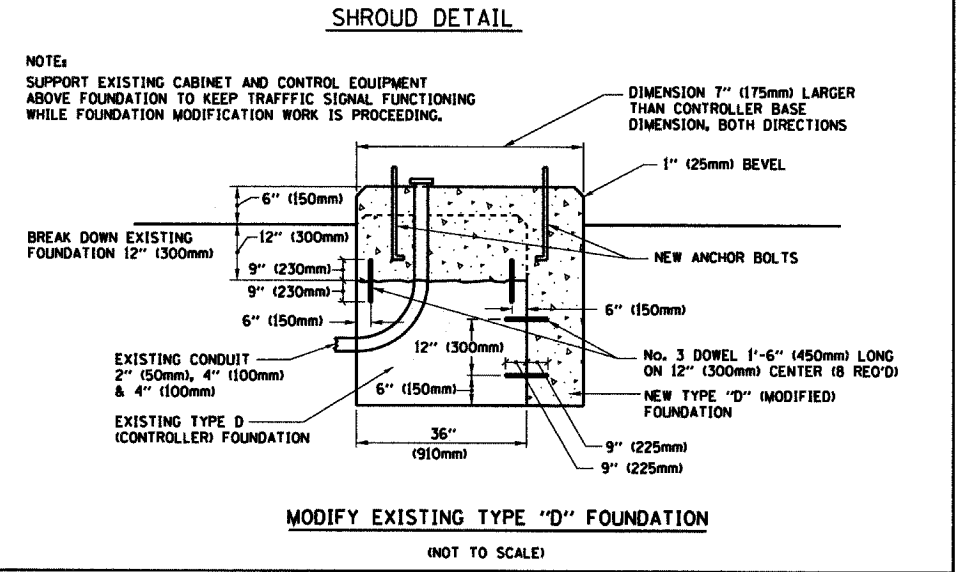
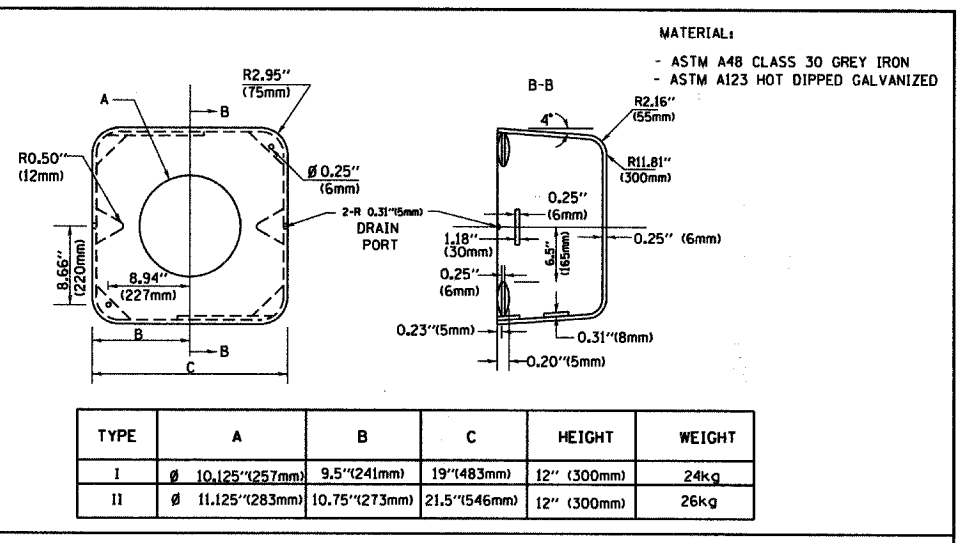
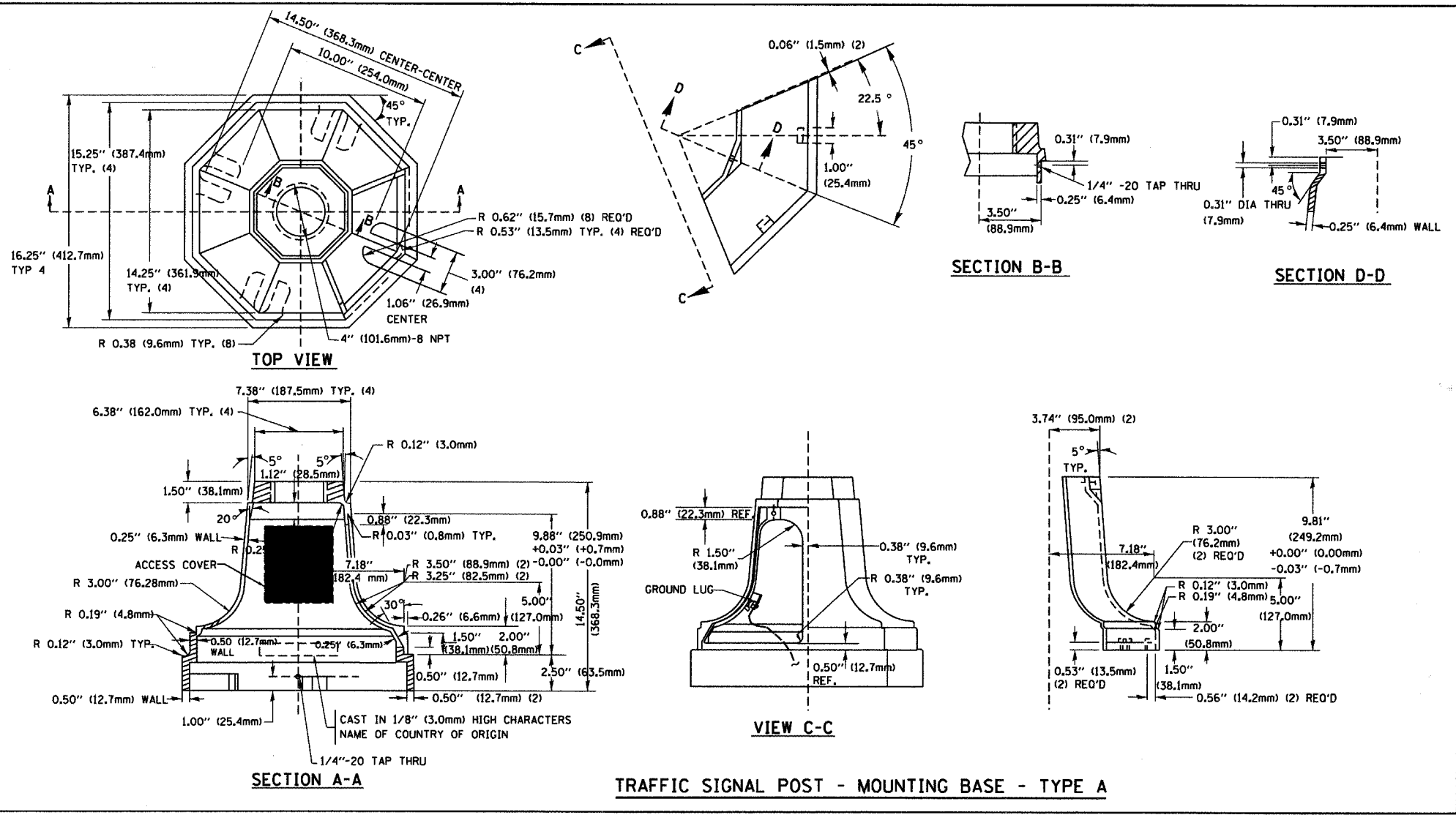


EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL
 (NOT TO SCALE)



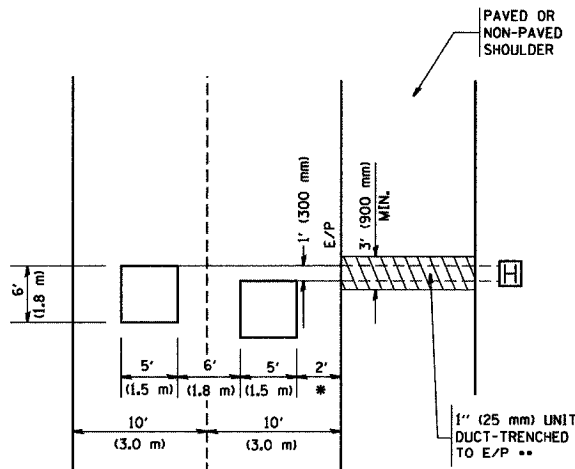
MAST ARM POLE / POST-GROUNDING DETAIL
 (NOT TO SCALE)

FILE NAME = W:\distatd\22x34\ts05.dgn	USER NAME = gagienobt	DESIGNED - D.A.D.	REVISED - 03-15-01	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN - R.W.P.	REVISED - BUR. TRAFFIC 01-01-02		SCALE: NONE	SHEET NO. 3 OF 4 SHEETS	STA.	TO STA.	00-0014-00-PV	DARABE	503	468	
		CHECKED - D.A.Z.	REVISED -						TS-05				
		DATE - 05-30-00	REVISED -						FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER.

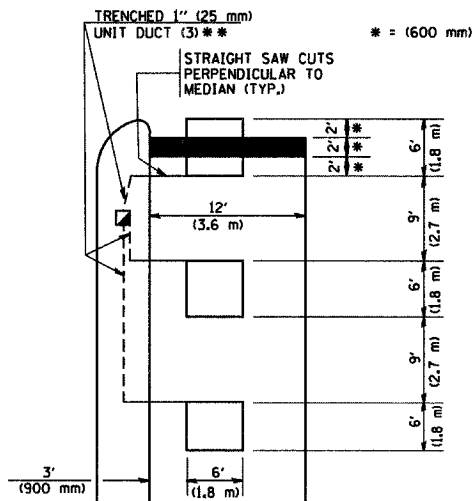


* = (600 mm)

** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

**LEFT TURN LANES WITH MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)**

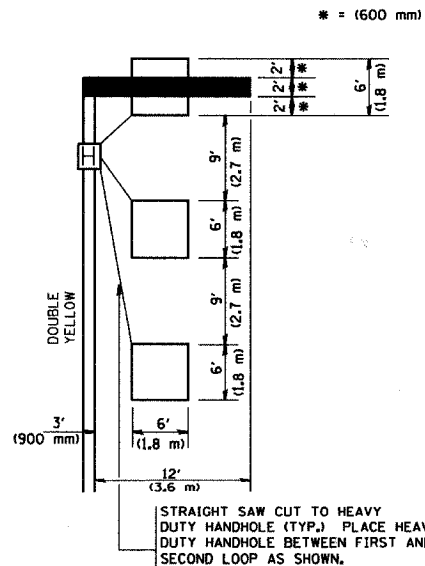
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.



** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

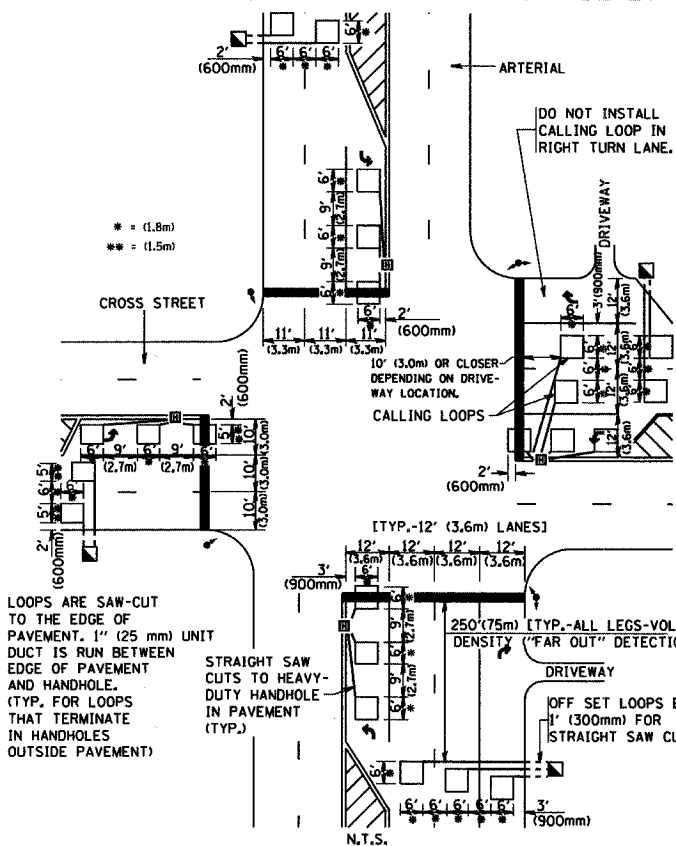
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)**



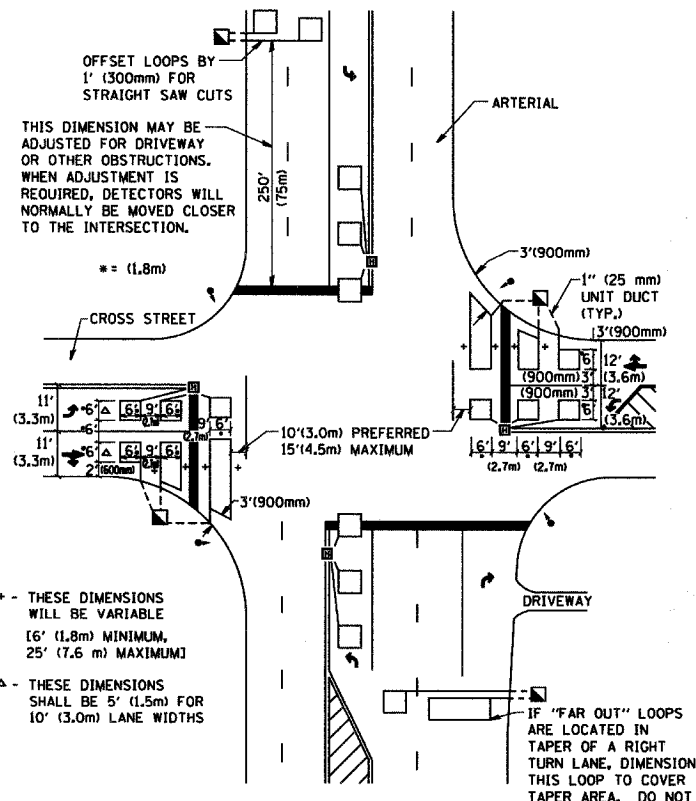
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-VOLUME DENSITY ("FAR OUT" DETECTION)**



**DETAIL 1
N.T.S.**

**ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)**



**DETAIL 2
N.T.S.**

NOTES:

VEHICLES LOOP DETECTORS

- * ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATELY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- * ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- * EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- * WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
- * WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DIMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

NOTE:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

FILE NAME = W:\dist1\22x34\ts07.dgn	USER NAME = gaglianob	DESIGNED - DRAWN -	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING		F.A. RTE. *	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 50,000 / IN.	CHECKED - R.K.F.	REVISED -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	00-0014-00-PJ	DuPage	505	470
PLOT DATE = 1/4/2008	DATE -	REVISED -	REVISED -		TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		CONTRACT NO.			

EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1		5			8			8			11			11			14			18			18			22			22			26			26			PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	CLEAR TO NORMAL SEQUENCE
	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	1W	1X	1Y	1Z	1AA	1BB	1CC	1DD	1EE	1FF	2	3									
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2 OR 3	1C	2	1E	1F	3	1H	2	1K	1L	3	2	1P	1Q	3	2 OR 3	1T	1U	2	1W	3	1Y	1Z	2	1BB	3	1DD	1EE	2	3											
MAIN STREET END MAST ARM AND FAR LEFT SIGNALS	R ←Y	R	R	R	R	R	G ←G	G ←Y	G ←G	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇						
MAIN STREET FAR RIGHT SIGNAL	R	R	R	R	R	R	G	G	G	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇					
MAIN STREET END MAST ARM AND FAR LEFT SIGNALS	R ←Y	G ←G	G ←Y	G ←G	Y	R	R	R	R	R	R	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇				
MAIN STREET FAR RIGHT SIGNAL	R	G	G	G	Y	R	R	R	R	R	R	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇				
CROSS STREET END MAST ARM AND FAR LEFT SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G ←G	Y	R	G ←G	G ←Y	G	Y	R	G	R	G	R	G	◇						
CROSS STREET FAR RIGHT SIGNAL	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇				
CROSS STREET END MAST ARM AND FAR LEFT SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G ←Y	G ←G	Y	R	G ←G	G ←Y	R	R	R	R	G	Y	R	G	R	G	◇		
CROSS STREET FAR RIGHT SIGNAL	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	G	R	R	R	R	R	G	Y	R	G	R	G	◇		
PEDESTRIAN SIGNALS CROSSING CROSS STREET ON NORTHSIDE OF MAIN STREET	H	FH	H	FH	H	H	H	H	H	H	H	FH	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	◇			
PEDESTRIAN SIGNALS CROSSING CROSS STREET ON SOUTHSIDE OF MAIN STREET	H	H	H	H	H	H	FH	H	FH	H	H	FH	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	◇			
PEDESTRIAN SIGNALS CROSSING MAIN STREET ON EASTSIDE OF CROSS STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	FH	H	H	FH	H	H	H	H	H	H	FH	H	H	FH	H	H	FH	H	H	H	◇				
PEDESTRIAN SIGNALS CROSSING MAIN STREET ON WESTSIDE OF CROSS STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	FH	H	H	FH	H	FH	H	H	FH	H	H	FH	H	H	H	◇				

◇ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY INTERVAL AFTER EMERGENCY VEHICLE 2 OR 3 IS TERMINATED.



PROPOSED SEQUENCE OF OPERATION

MOVEMENT	1 + 5				1 + 6			2 + 5			2 + 6			3 + 7			3 + 8			4 + 7			4 + 8			F L A S H							
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13A	13B	14	15	16	17	18	19	20A	20B	21	22	23		24A	24B	25	26	27	28A	28B
CHANGE TO		1+6	2+5	2+6	⊕	⊕	2+6	⊕	⊕	2+6			3+7 3+8 4+7 4+8		1+5 1+6 2+5 2+6 4+8	3+8	4+7	⊕	⊕	1+5 1+6 2+5 2+6	4+8	⊕	⊕	1+5 1+6 2+5 2+6	4+8								
MAIN STREET END MAST ARM AND FAR LEFT SIGNALS E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
MAIN STREET FAR RIGHT SIGNAL E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
MAIN STREET END MAST ARM AND FAR LEFT SIGNALS W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
MAIN STREET FAR RIGHT SIGNAL W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
CROSS STREET END MAST ARM AND FAR LEFT SIGNALS S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
CROSS STREET FAR RIGHT SIGNAL S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
CROSS STREET END MAST ARM AND FAR LEFT SIGNALS N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
CROSS STREET FAR RIGHT SIGNAL N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
PEDESTRIAN SIGNALS CROSSING CROSS STREET ON NORTHSIDE OF MAIN STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
PEDESTRIAN SIGNALS CROSSING CROSS STREET ON SOUTHSIDE OF MAIN STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
PEDESTRIAN SIGNALS CROSSING MAIN STREET ON EASTSIDE OF CROSS STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
PEDESTRIAN SIGNALS CROSSING MAIN STREET ON WESTSIDE OF CROSS STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H

- TO APPEAR ONLY UPON PUSHBUTTON ACTIVATION
- FLASHING "FH" IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.
- ⊕ THIS "⊕" OR FLASHING "FH" INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE "⊕" OR FLASHING "FH" INTERVALS. "⊕" AND FLASHING "FH" TIMINGS TO BE SET ONLY ON PHASES WHERE "⊕" AND FLASHING "FH" ARE INDICATED IN THE SEQUENCE OF OPERATION.

P = ILLUMINATED PERSON = WALK
 FH = ILLUMINATED FLASHING HAND = FLASHING DON'T WALK
 H = ILLUMINATED SOLID HAND = DON'T WALK

PHASE 2+6 SHALL BE PLACED ON RECALL.

NLT = "NO LEFT TURN" OR 
 NRT = "NO RIGHT TURN" OR 

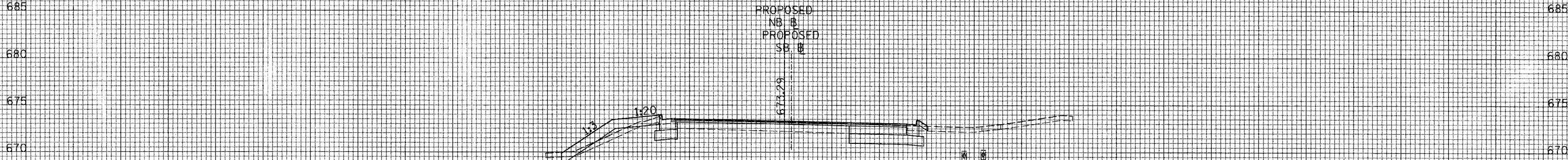
PROPOSED RAILROAD PREEMPTION SEQUENCE OF OPERATION

	PREEMPTION SEQUENCE																PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	PREEMPTOR NUMBER 2								
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1	5	8	11	14	18	22	26																			
CHANGE FROM EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER																	2	3									
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	2	3	4	5	CLEAR TO NORMAL SEQUENCE					
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2	1C	2	1E	2	1G	2	2	1K	2	2	1N	2	1Q	2	1S	2	3	4	5							
MAIN STREET END MAST ARM AND FAR LEFT SIGNALS E/B	R	Y	R	R	R	Y	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	Δ					
MAIN STREET FAR RIGHT SIGNAL E/B	R	Y	R	R	R	Y	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	Δ					
MAIN STREET END MAST ARM AND FAR LEFT SIGNALS W/B	R	Y	R	Y	R	Y	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	Δ					
MAIN STREET FAR RIGHT SIGNAL W/B	R	R	R	Y	R	Y	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	Δ					
CROSS STREET END MAST ARM AND FAR LEFT SIGNALS S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	Δ					
CROSS STREET FAR RIGHT SIGNAL S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	Δ					
CROSS STREET END MAST ARM AND FAR LEFT SIGNALS N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	Δ					
CROSS STREET FAR RIGHT SIGNAL N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	Δ					
PEDESTRIAN SIGNALS CROSSING CROSS STREET ON NORTHSIDE OF MAIN STREET	H	FH	H	H	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	Δ					
PEDESTRIAN SIGNALS CROSSING CROSS STREET ON SOUTHSIDE OF MAIN STREET	H	H	H	FH	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	Δ					
PEDESTRIAN SIGNALS CROSSING MAIN STREET ON EASTSIDE OF CROSS STREET	H	H	H	H	H	H	H	H	FH	H	H	FH	H	H	H	H	H	H	H	H	H	Δ					
PEDESTRIAN SIGNALS CROSSING MAIN STREET ON WESTSIDE OF CROSS STREET	H	H	H	H	H	H	H	H	FH	FH	H	H	H	H	H	H	H	H	H	H	H	Δ					
INTERNALLY ILLUMINATED NRT SIGNS	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	Δ					
INTERNALLY ILLUMINATED NLT SIGNS	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	Δ					

Δ RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 5 IS TERMINATED.

HOLD

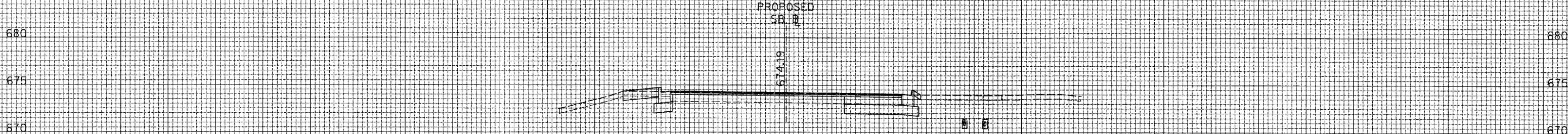
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EARTHWORK QUANTITIES (SF)

PGE	=	0.00
EXCAVATION	=	25.75
UNSUITABLE	=	9.46
EMBANKMENT	=	1.33

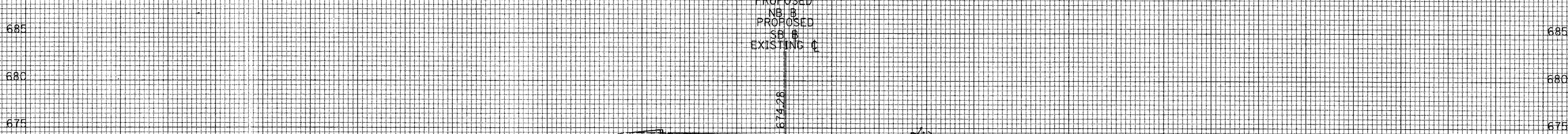
685 680 675 670



EARTHWORK QUANTITIES (SF)

PGE	=	0.00
EXCAVATION	=	26.43
UNSUITABLE	=	6.91
EMBANKMENT	=	0.00

690 685 680 675 670



EARTHWORK QUANTITIES (SF)

PGE	=	0.00
EXCAVATION	=	26.98
UNSUITABLE	=	6.40
EMBANKMENT	=	0.00

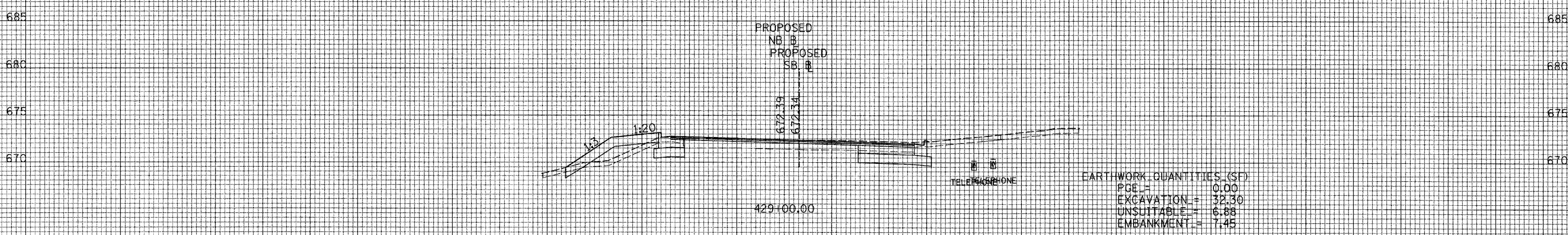
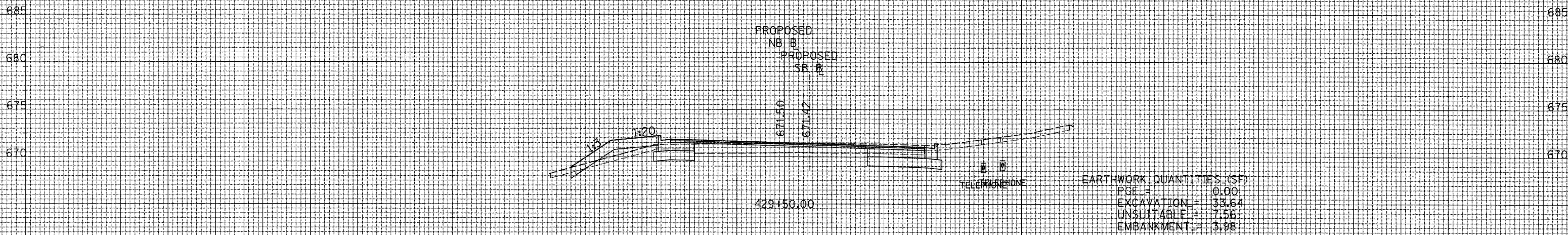
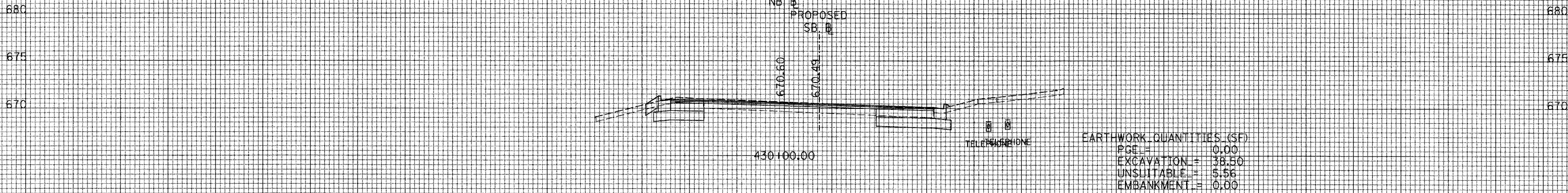
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SURVEYED AREAS CHECKED
 SURVEY TEMPLATE AREAS CHECKED
 NOTE BOOK NO.

SURVEYED AREAS CHECKED
 SURVEY TEMPLATE AREAS CHECKED
 NOTE BOOK NO.

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



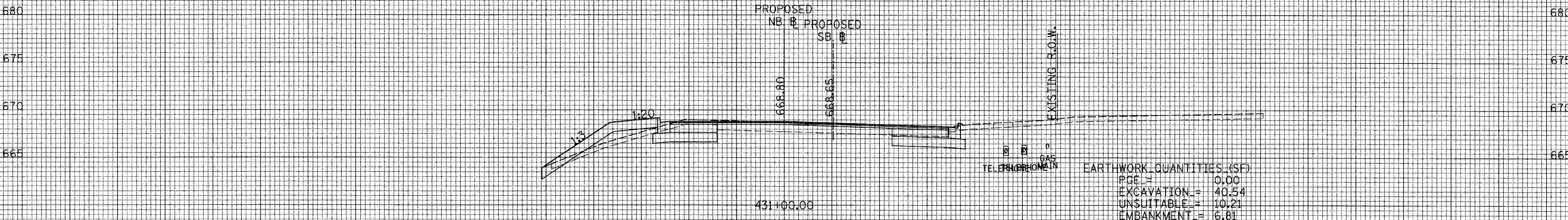
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

HORIZONTAL SCALE 10' 0 10' 20'
 VERTICAL SCALE 5' 0 5' 10'

SURVEYED
 SURVEY
 NOTE BOOK
 NO.

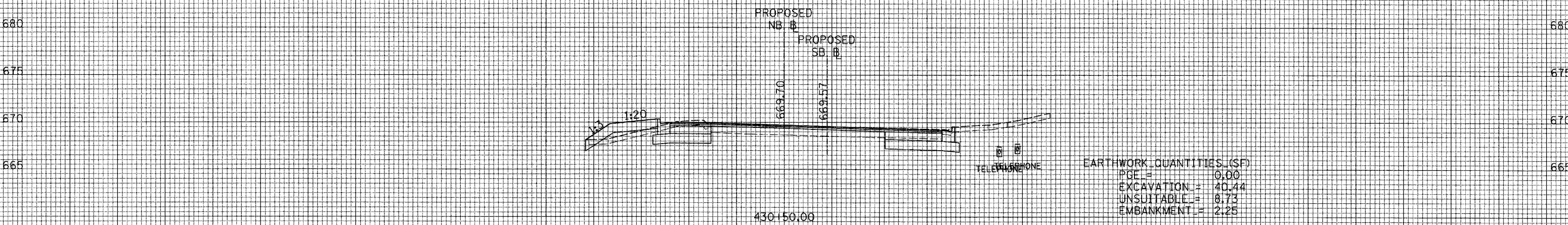
CONTRACT NO. 63024		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552		00-00114-00-PV	DuPage	563	475	
STA.		TO STA.				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT			

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



EARTHWORK QUANTITIES (SF)

PGE	=	0.00
EXCAVATION	=	40.54
UNSUITABLE	=	10.21
EMBANKMENT	=	6.81



EARTHWORK QUANTITIES (SF)

PGE	=	0.00
EXCAVATION	=	40.44
UNSUITABLE	=	8.73
EMBANKMENT	=	2.25

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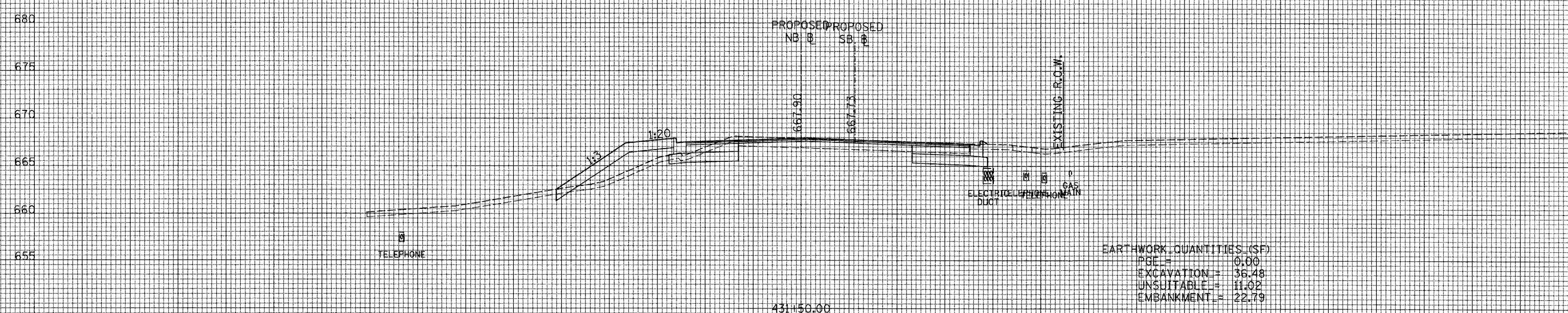
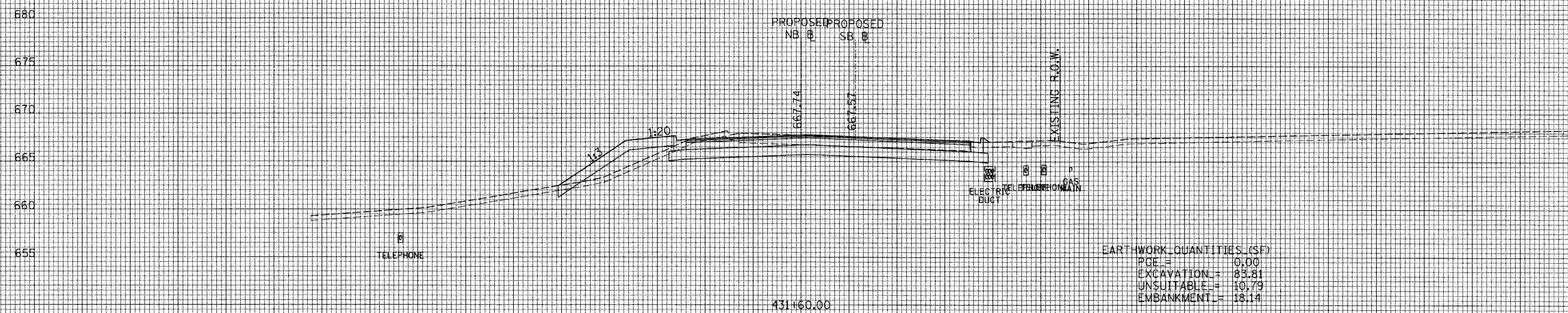
PLOTTED
TEMPLATE
AREAS
CHECKED

SURVEY
NOTE BOOK
NO.

PLOTTED
TEMPLATE
AREAS
CHECKED

SURVEY
NOTE BOOK
NO.

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

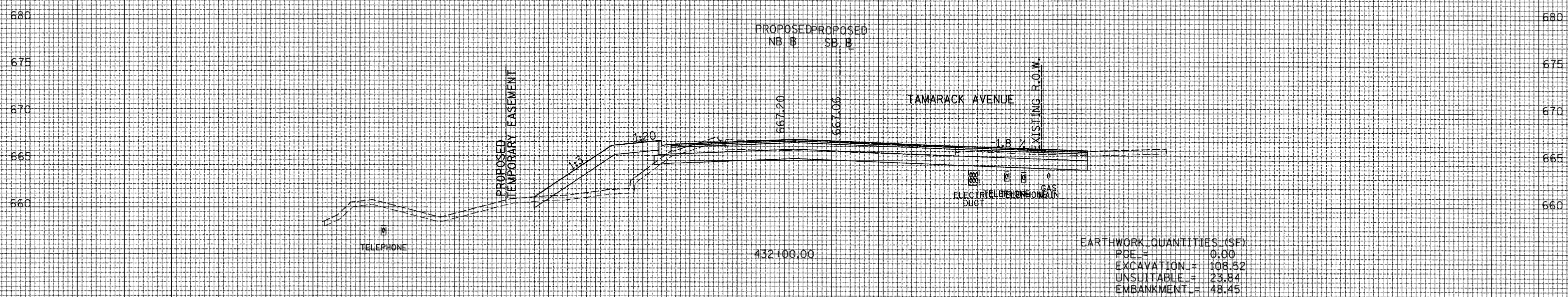
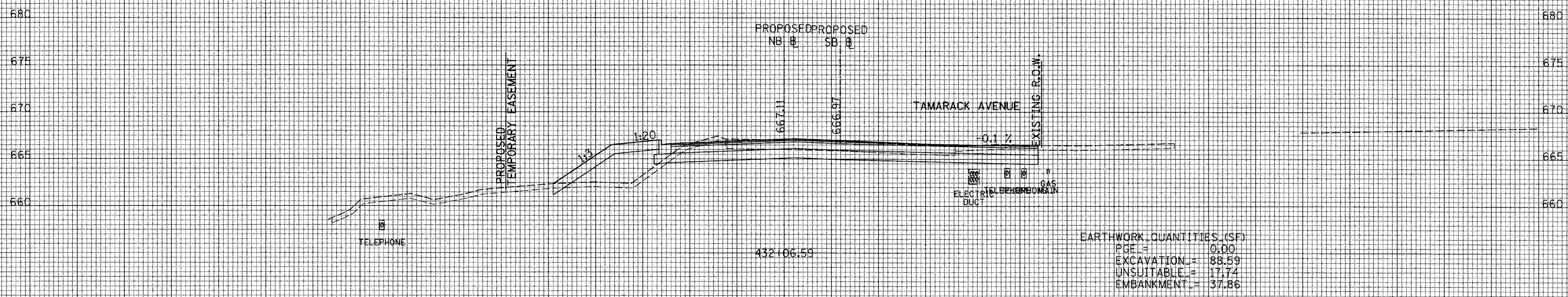


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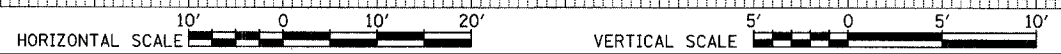
HORIZONTAL SCALE 10' 0 10' 20'

VERTICAL SCALE 5' 0 5' 10'

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



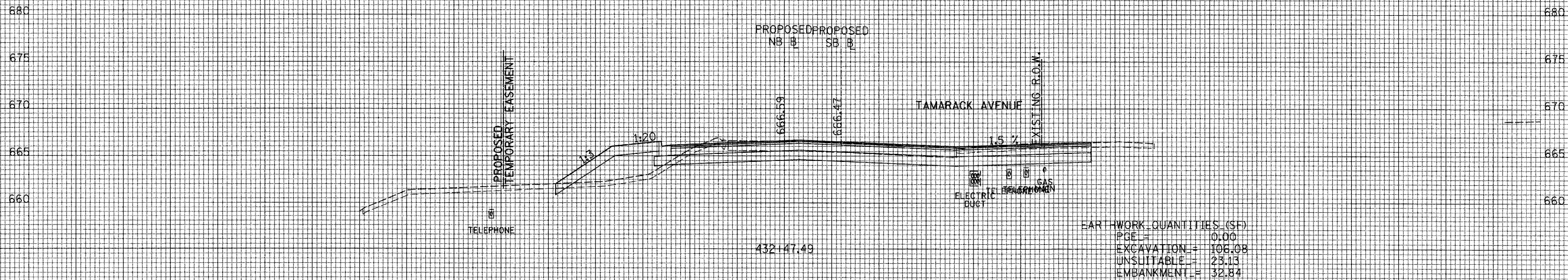
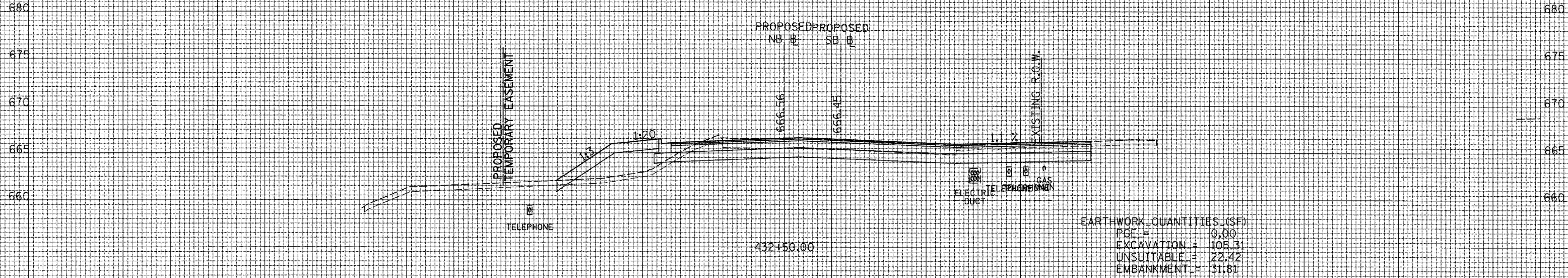
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



SURVEY PLOTTED TEMPLATE AREAS CHECKED
 NOTE BOOK NO.
 SURVEY PLOTTED TEMPLATE AREAS CHECKED
 NOTE BOOK NO.

CONTRACT NO. 63024		F.A. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	00-00114-00-PV	DuPage		563	478
STA.		TO STA.			
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

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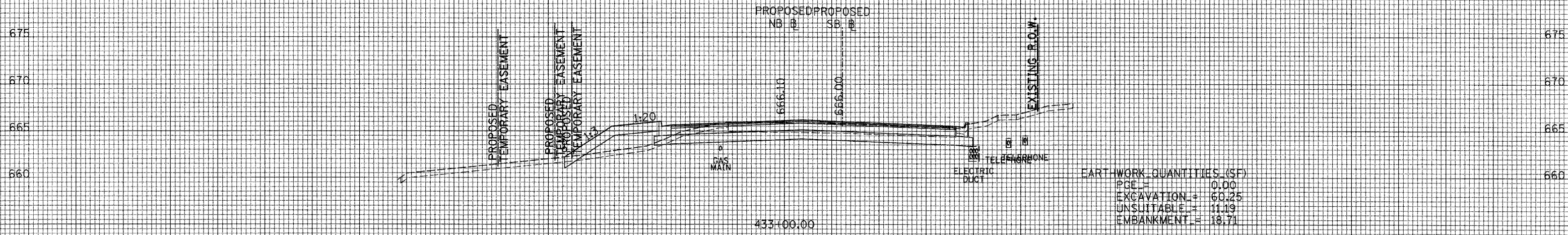
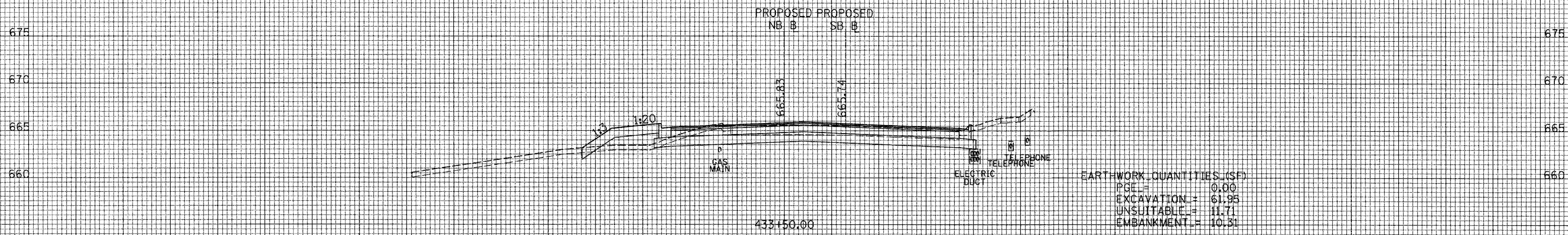
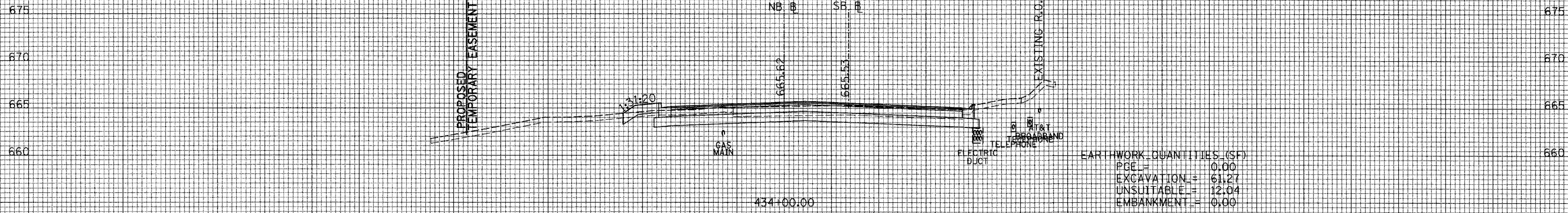


150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

HORIZONTAL SCALE 10' 0 10' 20'

VERTICAL SCALE 5' 0 5' 10'

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



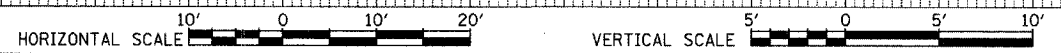
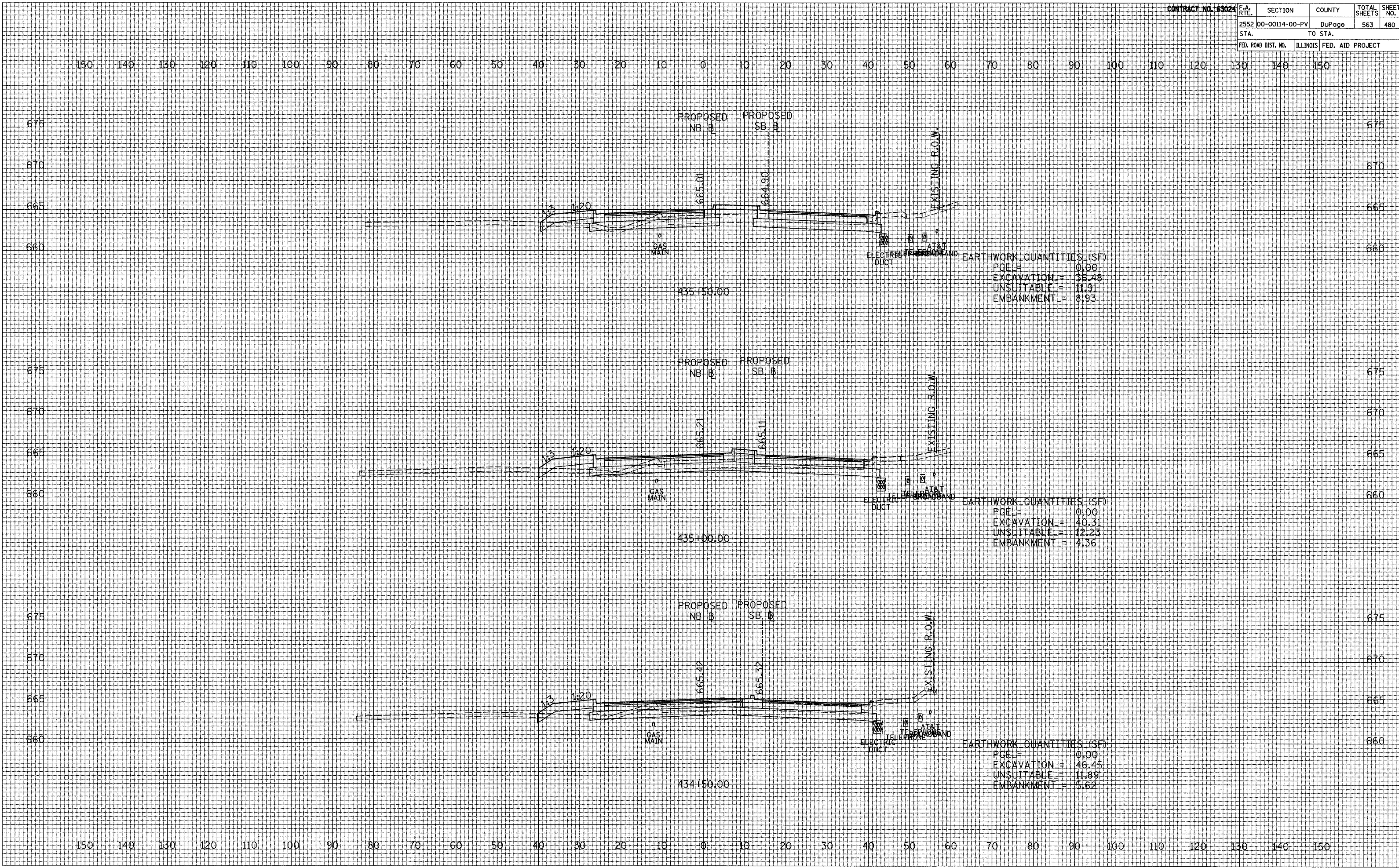
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

HORIZONTAL SCALE 10' 0 10' 20'
 VERTICAL SCALE 5' 0 5' 10'

CONTRACT NO. 63024	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	00-00114-00-PV	DUPAGE	ILLINOIS	563	480
STA.	TO STA.		FED. AID PROJECT		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT			

SURVEYED
 SURVEY
 NOTE BOOK
 NO.

SURVEYED
 SURVEY
 NOTE BOOK
 NO.



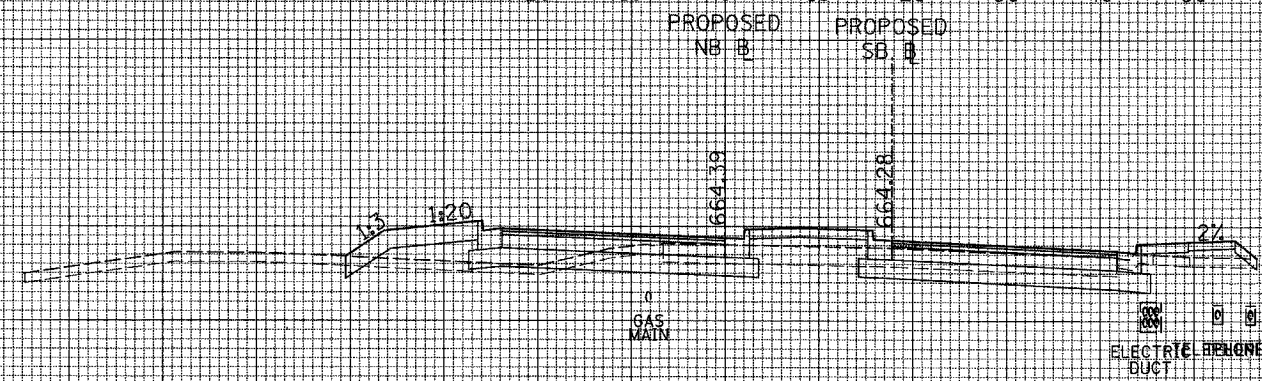
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675 675

670 670

665 665

660 660



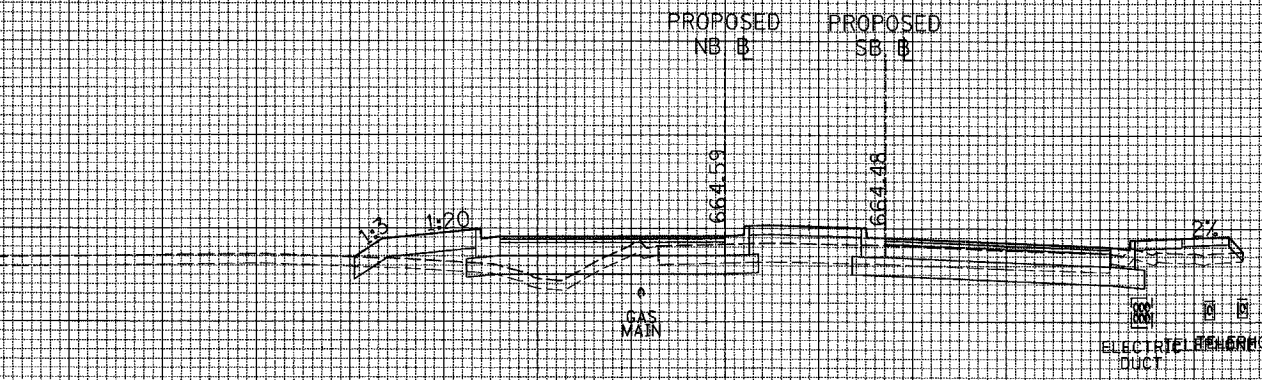
EARTHWORK QUANTITIES (SF)
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 EMBANKMENT = 16.50

675 675

670 670

665 665

660 660



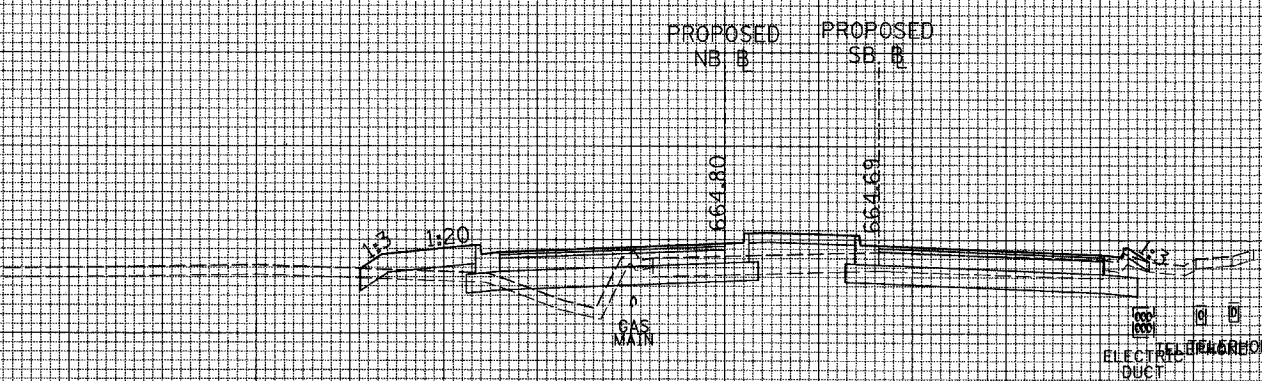
EARTHWORK QUANTITIES (SF)
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 EXCAVATION = 34.36
 UNSUITABLE = 10.21
 EMBANKMENT = 13.64

675 675

670 670

665 665

660 660



EARTHWORK QUANTITIES (SF)
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 UNSUITABLE = 9.99
 EMBANKMENT = 13.33

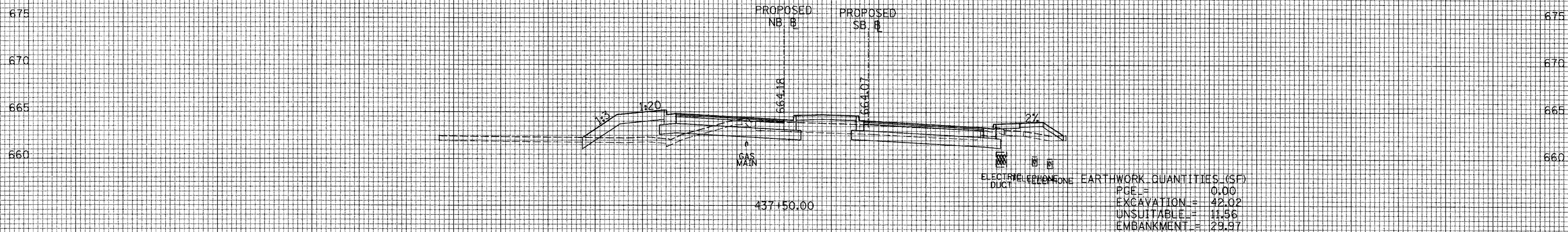
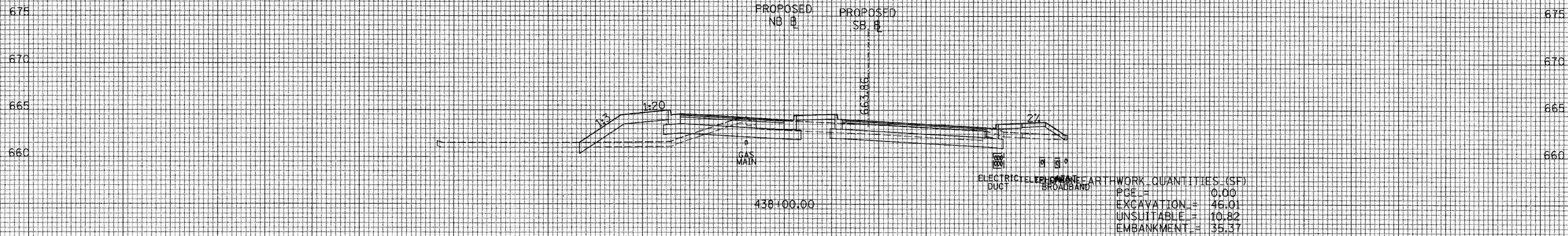
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HORIZONTAL SCALE 10' 0 10' 20'

VERTICAL SCALE 5' 0 5' 10'

CONTRACT NO. 63024		F.A. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	00-00114-00-PV	DuPage		563	482
STA.	TO STA.		ILLINOIS FED. AID PROJECT		
FED. ROAD DIST. NO.					

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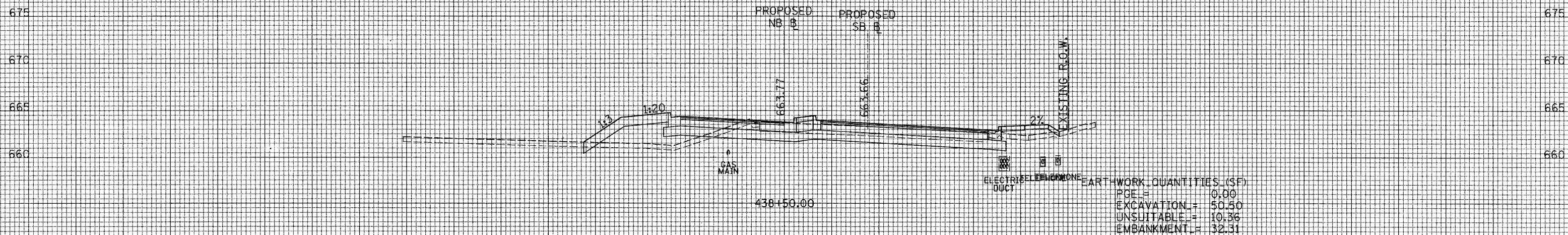
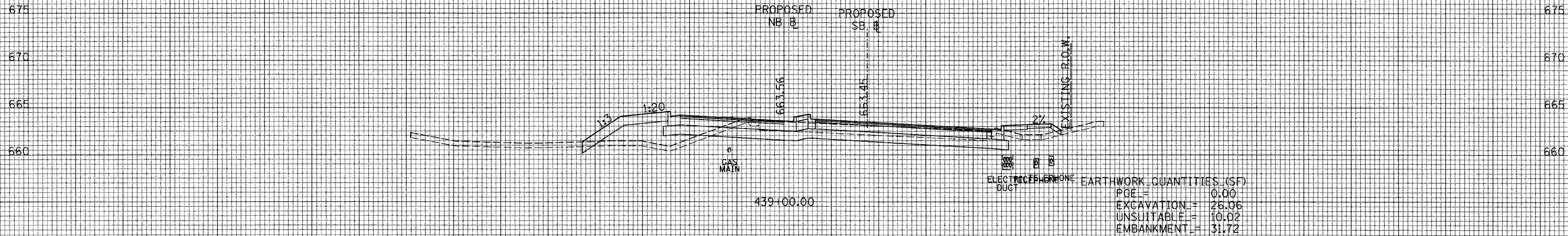


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CONTRACT NO. 63024	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	00-00114-00-PV	DuPage		563	483
STA.	TO STA.		ILLINOIS FED. AID PROJECT		
FED. ROAD DIST. NO.					

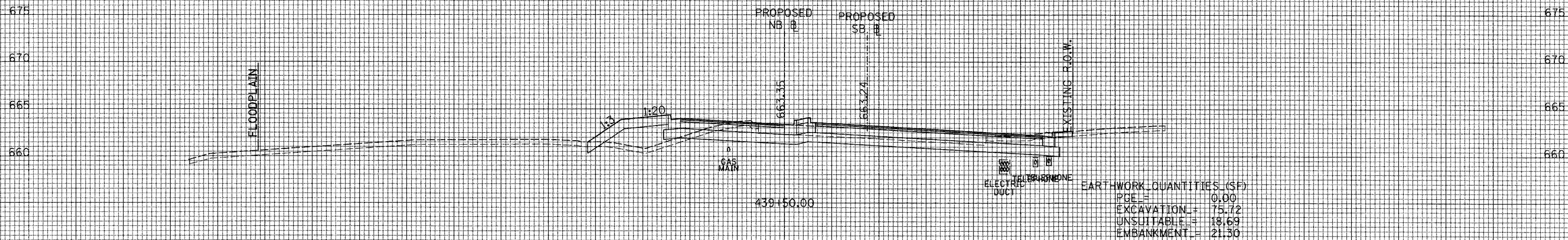
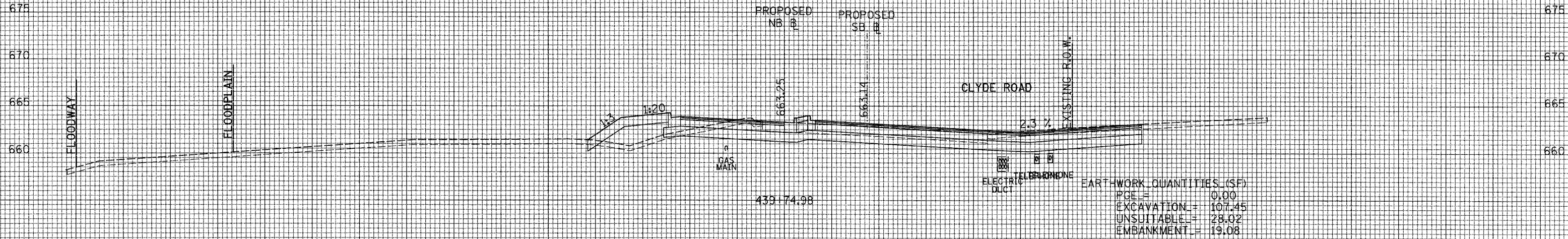
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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

HORIZONTAL SCALE 10' 0 10' 20'
VERTICAL SCALE 5' 0 5' 10'

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

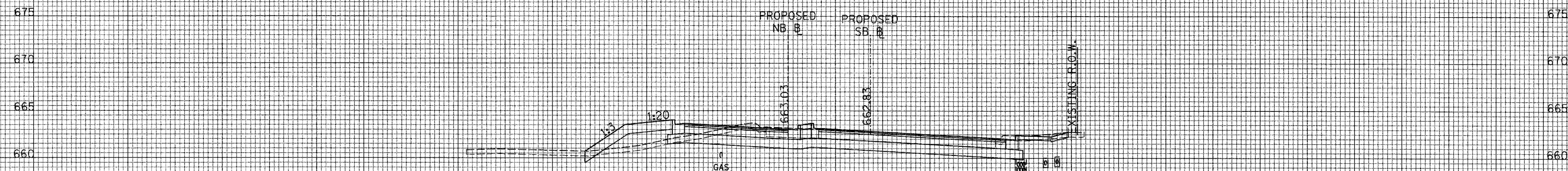


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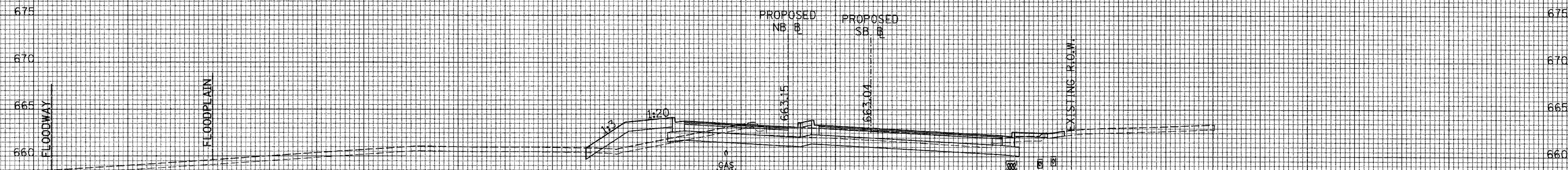
HORIZONTAL SCALE 10' 0 10' 20'
 VERTICAL SCALE 5' 0 5' 10'

CONTRACT NO. 63024		F.A. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	00-00114-00-PV	DuPage		563	485
STA.	TO STA.				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT			

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



EARTHWORK QUANTITIES (SF)
 PGE = 0.00
 EXCAVATION = 83.03
 UNSUITABLE = 18.04
 EMBANKMENT = 14.52



EARTHWORK QUANTITIES (SF)
 PGE = 0.00
 EXCAVATION = 63.78
 UNSUITABLE = 14.77
 EMBANKMENT = 17.61

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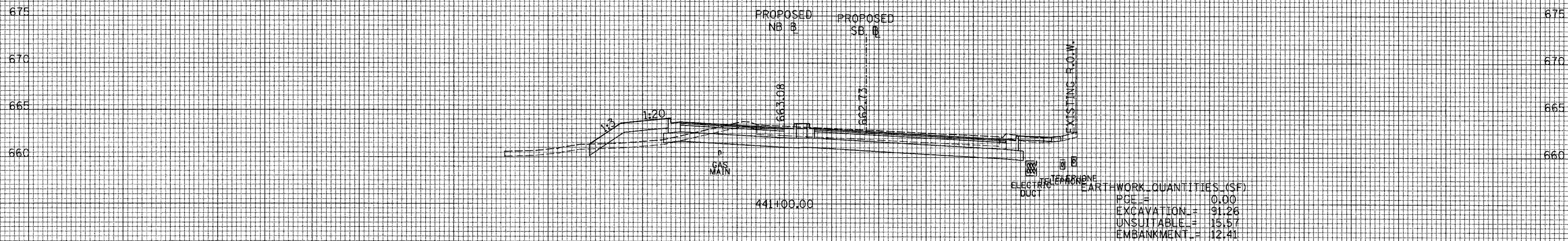
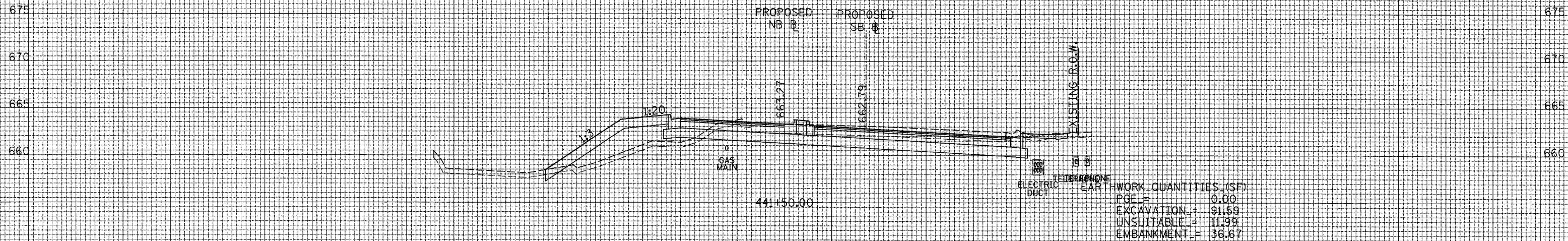


SURVEYED SURVEYED
 NOTE BOOK TEMPLATE
 AREAS AREAS
 CHECKED CHECKED
 NO. NO.

SURVEYED SURVEYED
 NOTE BOOK TEMPLATE
 AREAS AREAS
 CHECKED CHECKED
 NO. NO.

CONTRACT NO. 63024		F.A. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	00-00114-00-PV	DuPage		563	486
STA.	TO STA.		ILLINOIS FED. AID PROJECT		
FED. ROAD DIST. NO.					

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

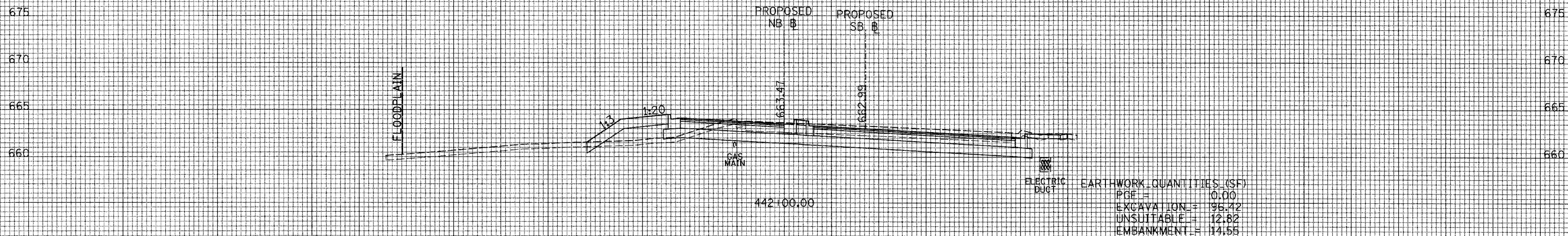
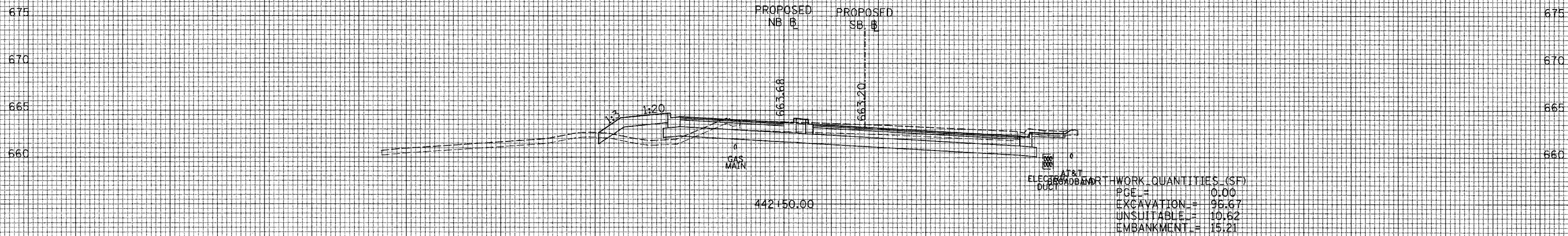
HORIZONTAL SCALE 10' 0 10' 20'

VERTICAL SCALE 5' 0 5' 10'

SURVEYED
 SURVEY BOOK NO.
 TEMPLATE AREAS CHECKED
 AREAS CHECKED

SURVEYED
 SURVEY BOOK NO.
 TEMPLATE AREAS CHECKED
 AREAS CHECKED

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FLOODPLAIN

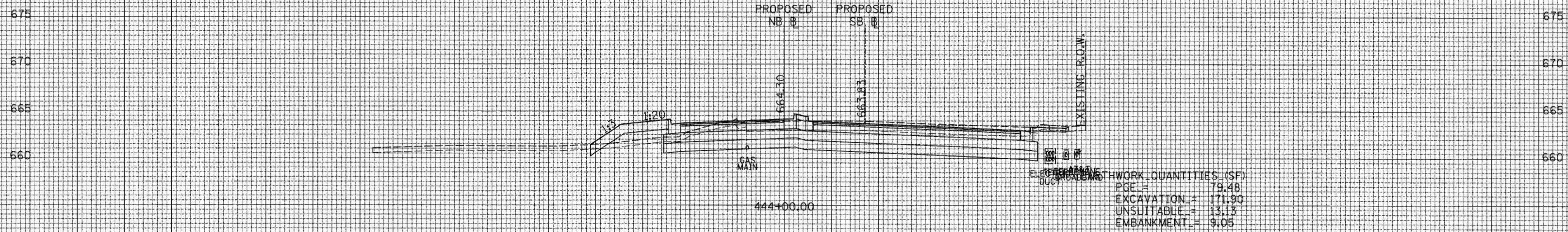
HORIZONTAL SCALE 10' 0 10' 20'

VERTICAL SCALE 5' 0 5' 10'

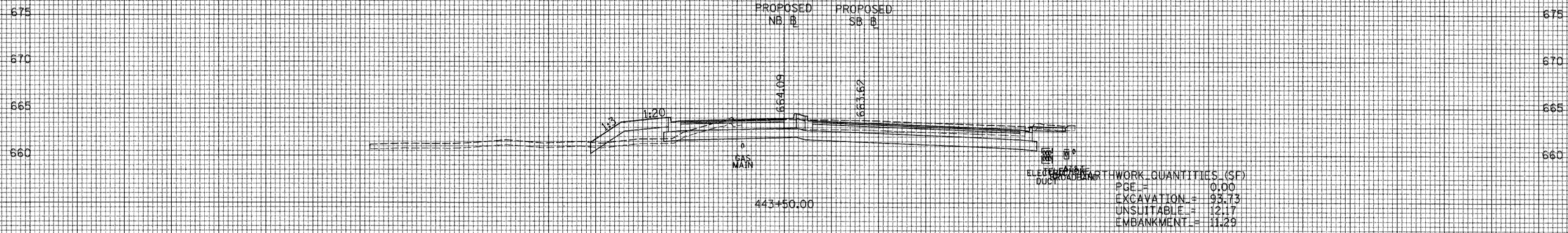
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TEMPLATE
AREAS CHECKED

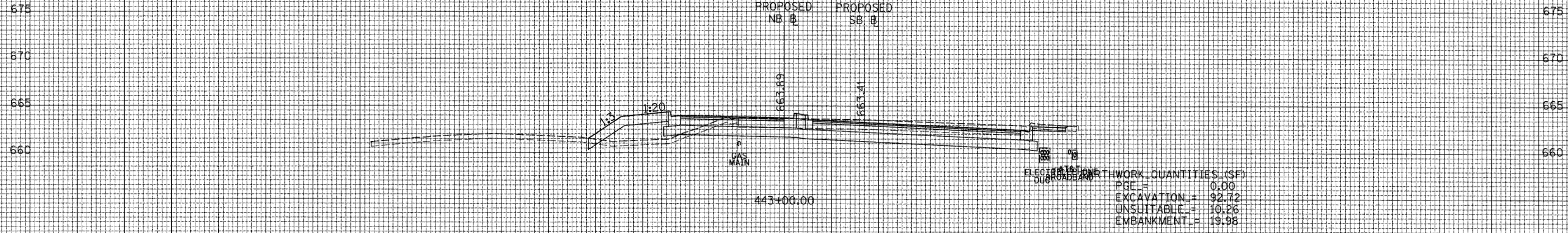
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WORK QUANTITIES (SF)
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 UNSUITABLE = 13.13
 EMBANKMENT = 9.05

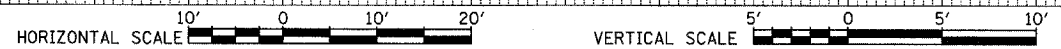


WORK QUANTITIES (SF)
 PGE = 0.00
 EXCAVATION = 93.73
 UNSUITABLE = 12.17
 EMBANKMENT = 11.29



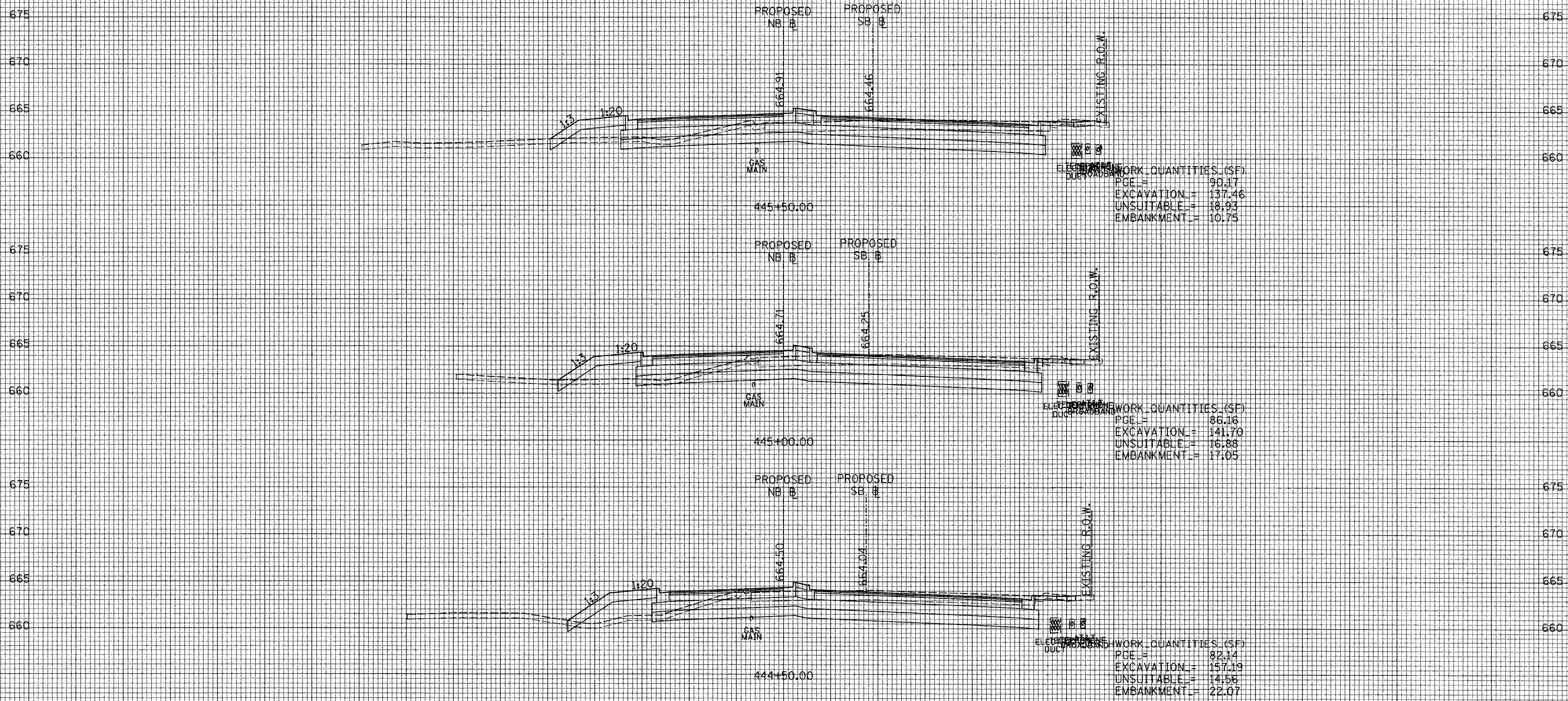
WORK QUANTITIES (SF)
 PGE = 0.00
 EXCAVATION = 92.72
 UNSUITABLE = 10.26
 EMBANKMENT = 19.98

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



SURVEY PLOTTED TEMPLATE AREAS CHECKED NO.
 SURVEY PLOTTED TEMPLATE AREAS CHECKED NO.

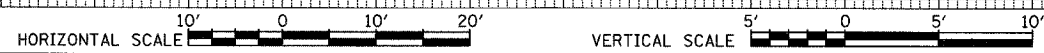
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SURVEYED
TEMP. DATE
NOTE BOOK
AREAS CHECKED

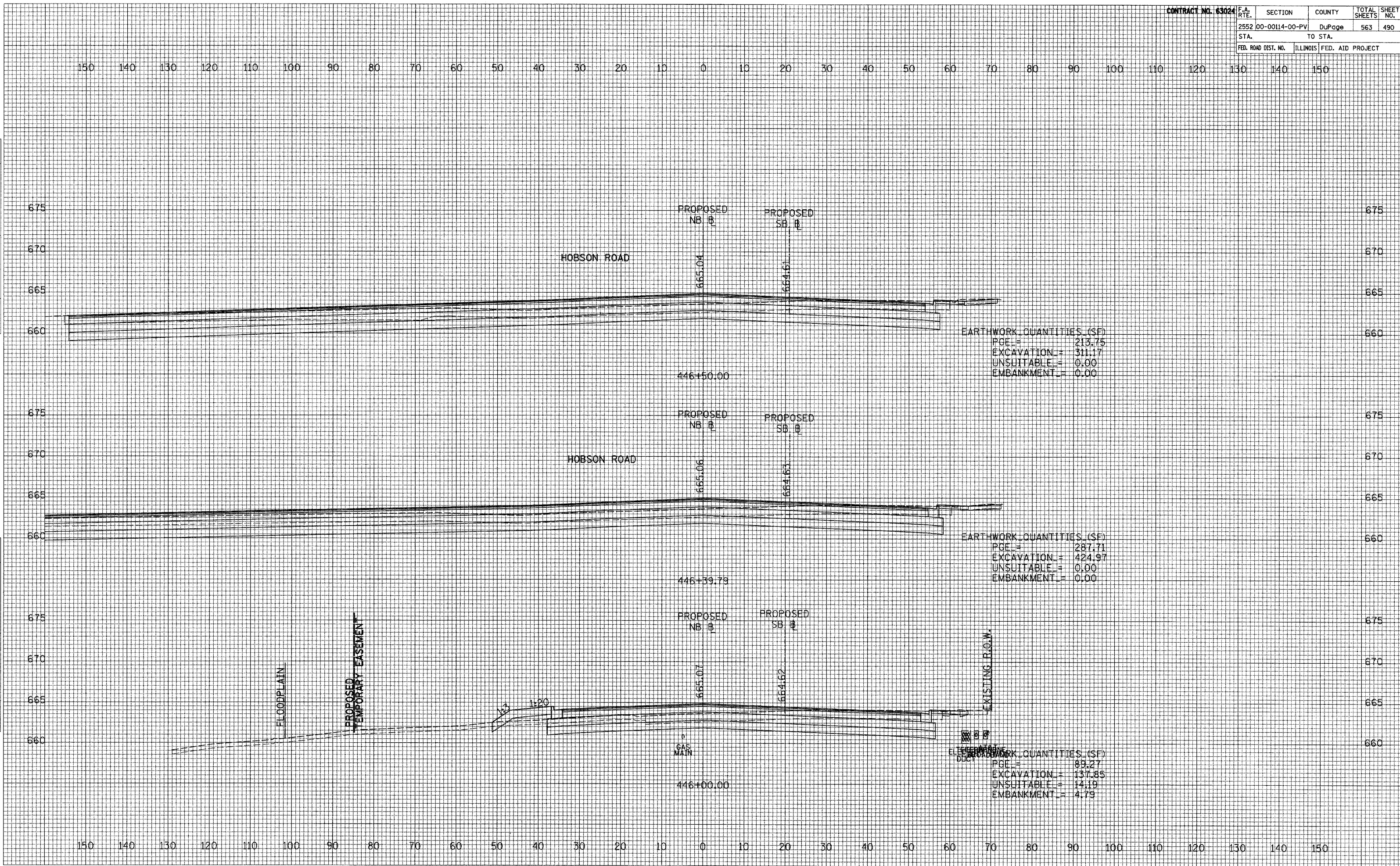
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TEMP. DATE
NOTE BOOK
AREAS CHECKED

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



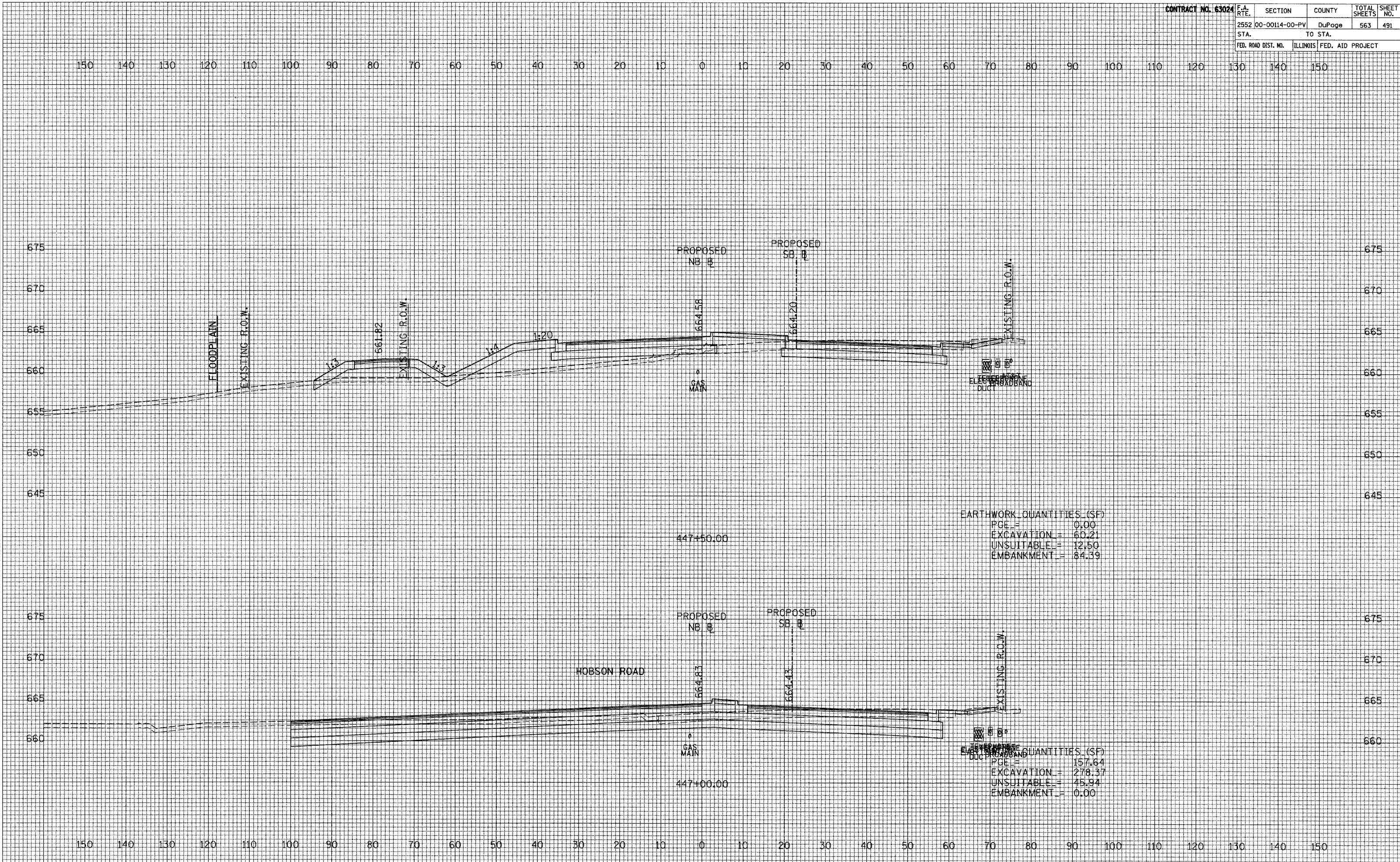
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 DATE
 AREAS
 CHECKED
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SURVEYED
 PLOTTED
 DATE
 AREAS
 CHECKED
 NO.



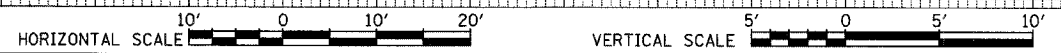
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 AREAS CHECKED
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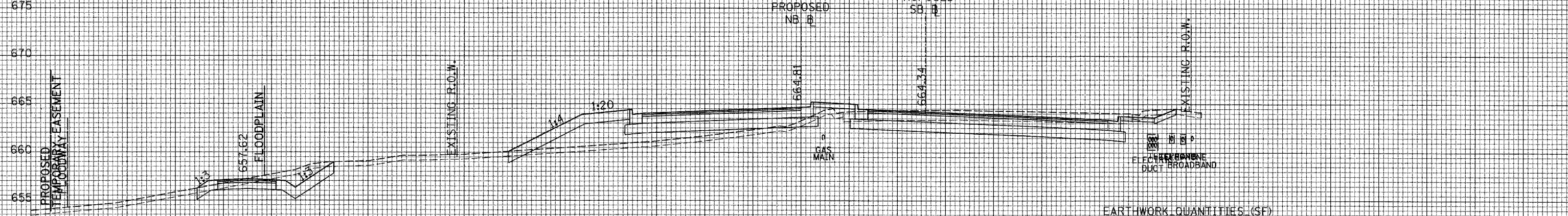


EARTHWORK QUANTITIES (SF)
 PCF = 0.00
 EXCAVATION = 60.21
 UNSUITABLE = 12.50
 EMBANKMENT = 84.39

EARTHWORK QUANTITIES (SF)
 PCF = 157.64
 EXCAVATION = 278.37
 UNSUITABLE = 45.94
 EMBANKMENT = 0.00

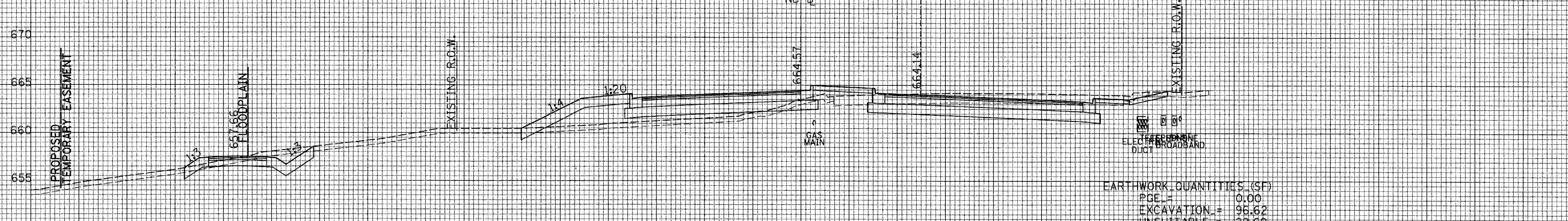


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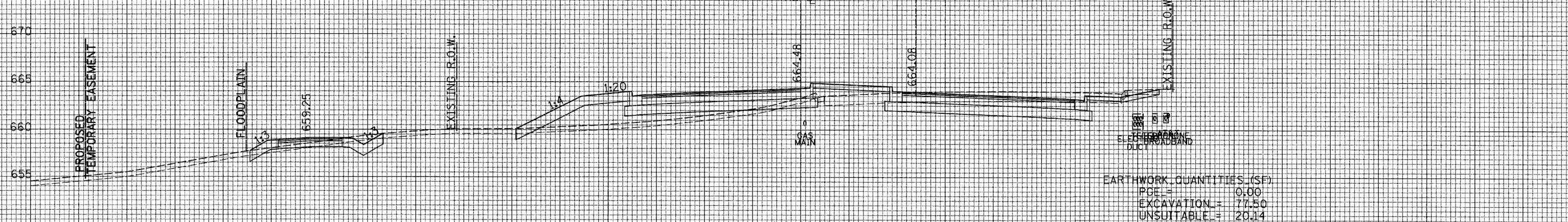
EARTHWORK QUANTITIES (SF)
 PGE = 0.00
 EXCAVATION = 112.86
 UNSUITABLE = 22.70
 EMBANKMENT = 51.41

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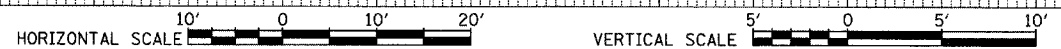
EARTHWORK QUANTITIES (SF)
 PGE = 0.00
 EXCAVATION = 96.62
 UNSUITABLE = 22.69
 EMBANKMENT = 39.94

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



EARTHWORK QUANTITIES (SF)
 PGE = 0.00
 EXCAVATION = 77.50
 UNSUITABLE = 20.14
 EMBANKMENT = 49.23

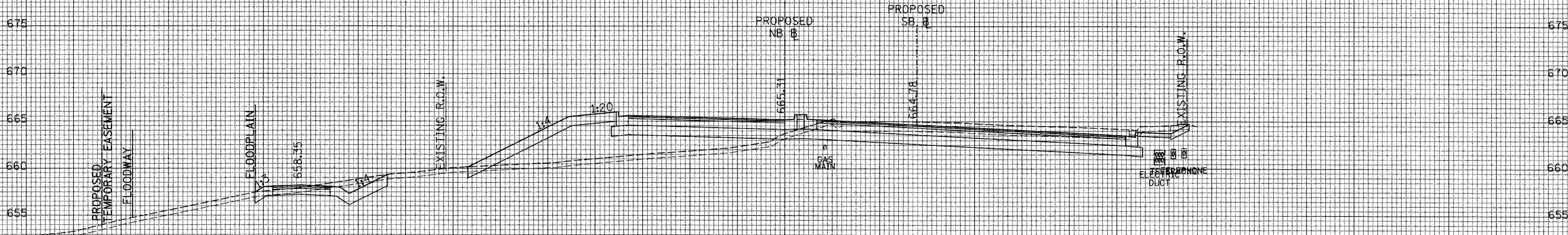
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SURVEY
 NOTE BOOK
 NO.

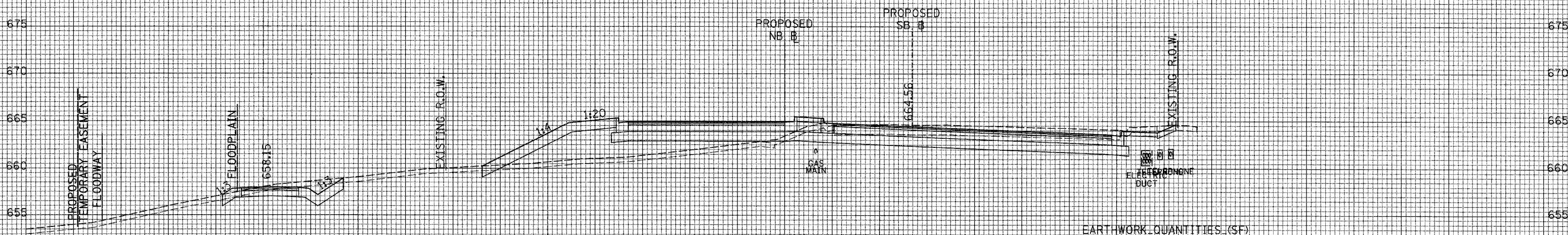
PLOTTED
 TEMPLATE
 AREAS
 CHECKED

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



EARTHWORK QUANTITIES (SF)

PGE	=	0.00
EXCAVATION	=	133.35
UNSUITABLE	=	27.98
EMBANKMENT	=	112.08



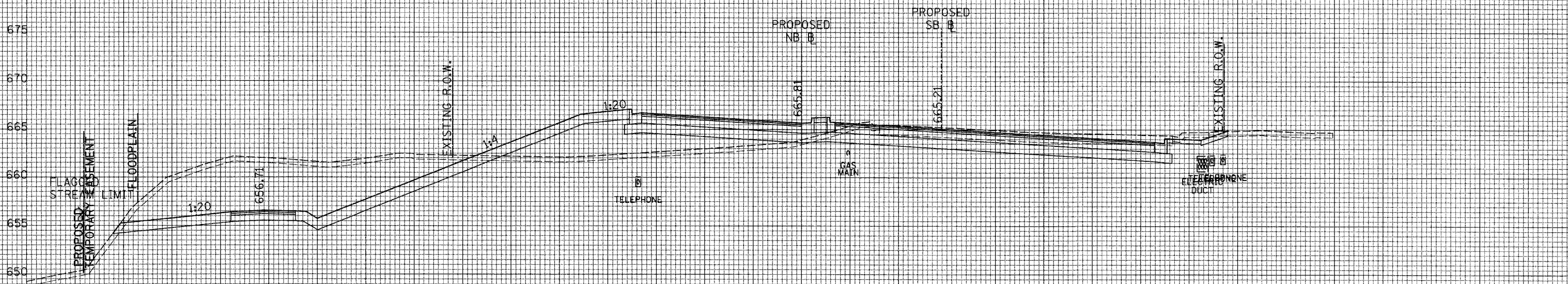
EARTHWORK QUANTITIES (SF)

PGE	=	0.00
EXCAVATION	=	121.87
UNSUITABLE	=	25.63
EMBANKMENT	=	76.13

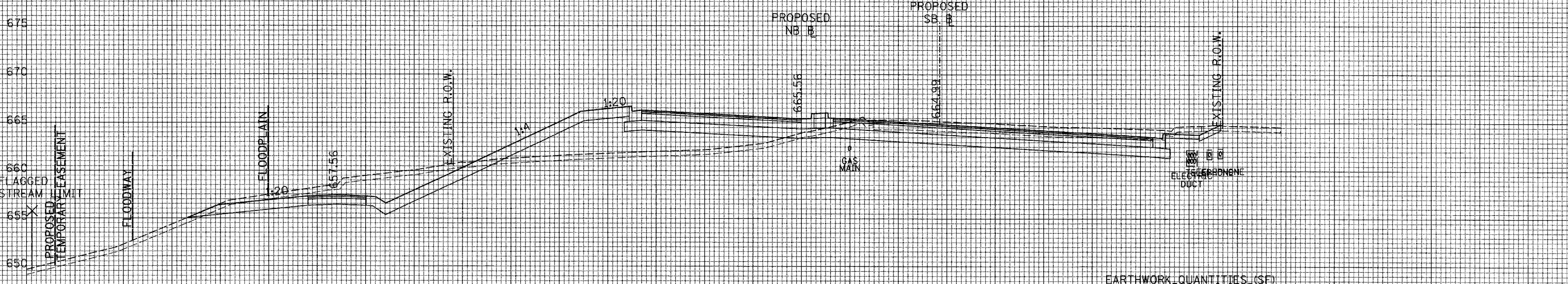
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HORIZONTAL SCALE 10' 0 10' 20'
VERTICAL SCALE 5' 0 5' 10'

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



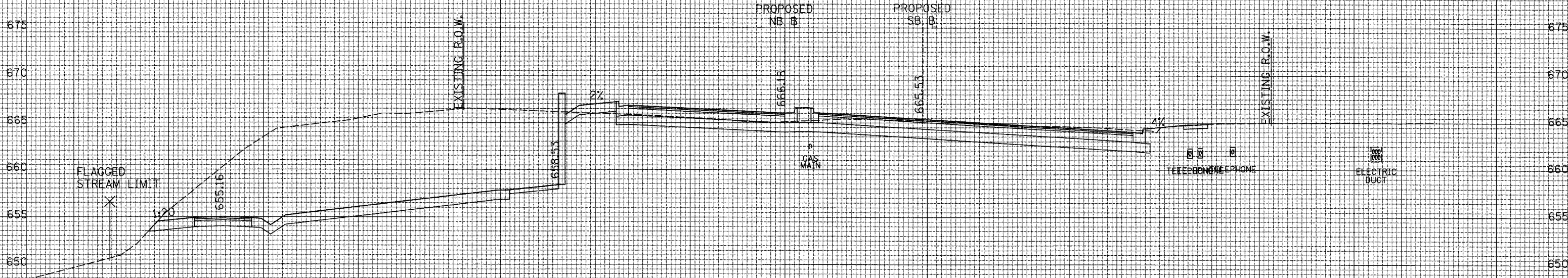
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 EXCAVATION = 431.11
 UNSUITABLE = 54.68
 EMBANKMENT = 100.76



EARTHWORK QUANTITIES (SF)
 PGE = 0.00
 EXCAVATION = 209.16
 UNSUITABLE = 45.00
 EMBANKMENT = 109.72

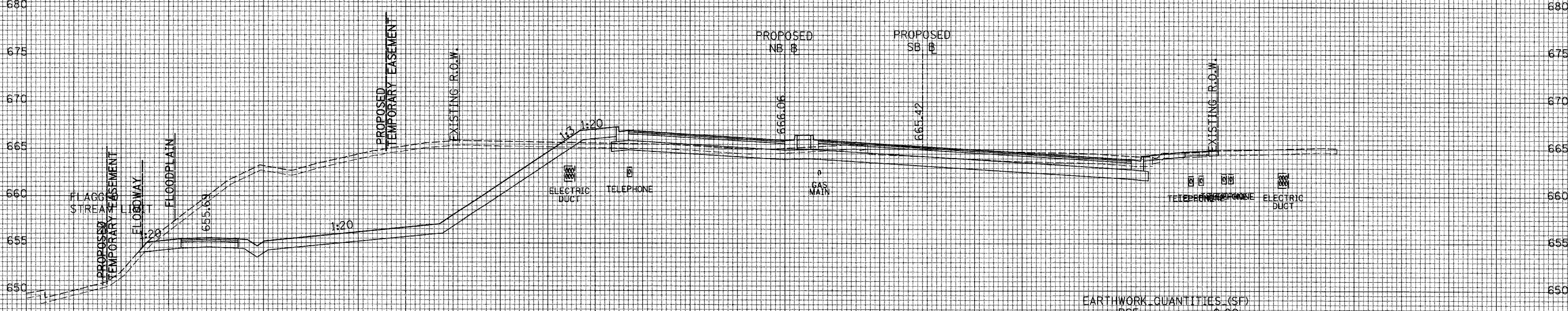
HORIZONTAL SCALE 10' 0 10' 20'
 VERTICAL SCALE 5' 0 5' 10'

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



EARTHWORK QUANTITIES (SF)
 PGE = 0.00
 EXCAVATION = 936.61
 UNSUITABLE = 0.00
 EMBANKMENT = 1.72

451+75.00



EARTHWORK QUANTITIES (SF)
 PGE = 0.00
 EXCAVATION = 667.39
 UNSUITABLE = 80.20
 EMBANKMENT = 3.53

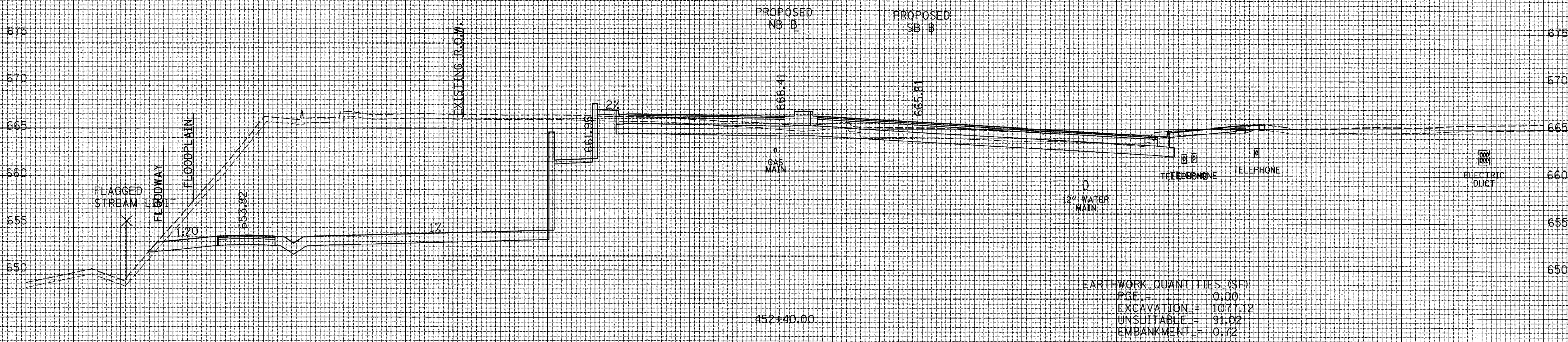
451+50.00

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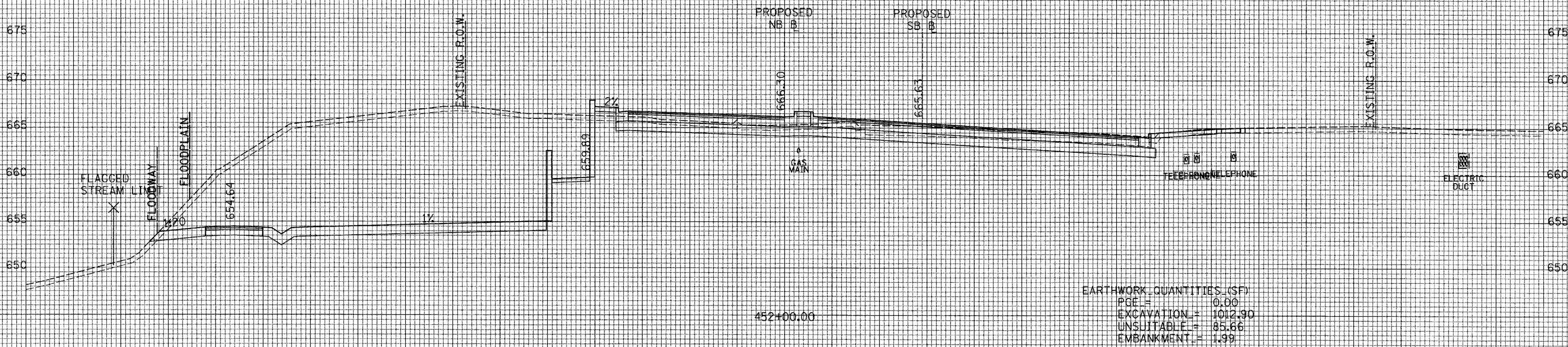
HORIZONTAL SCALE 10' 0 10' 20'
 VERTICAL SCALE 5' 0 5' 10'

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	00-00114-00-PV	DuPage	563	496
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



EARTHWORK QUANTITIES (SF)
PGE = 0.00
EXCAVATION = 1077.12
UNSUITABLE = 91.02
EMBANKMENT = 0.72

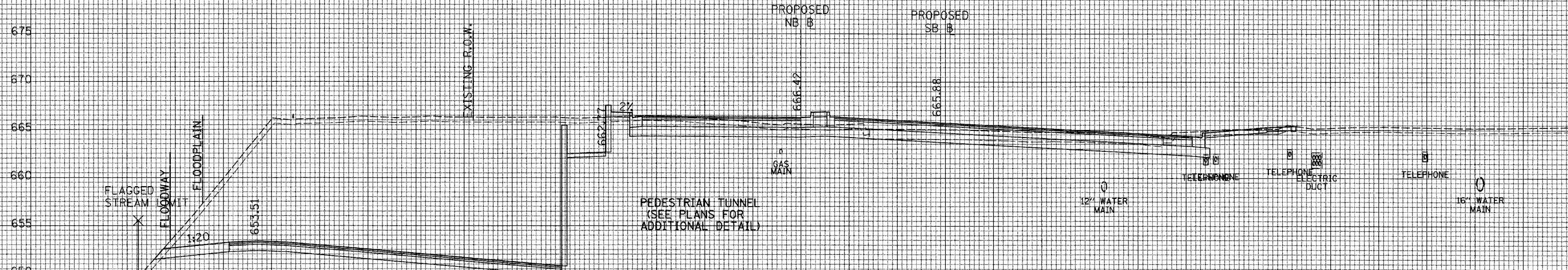


EARTHWORK QUANTITIES (SF)
PGE = 0.00
EXCAVATION = 1012.90
UNSUITABLE = 85.66
EMBANKMENT = 1.99

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

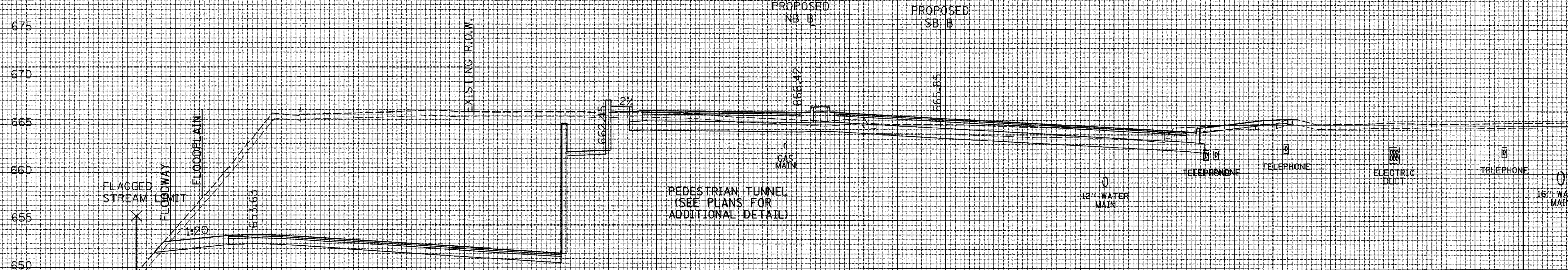
HORIZONTAL SCALE 10' 0 10' 20'
VERTICAL SCALE 5' 0 5' 10'

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



EARTHWORK QUANTITIES (SF)
 PGE = 0.00
 EXCAVATION = 1184.02
 UNSUITABLE = 91.53
 EMBANKMENT = 0.00

452+56.58

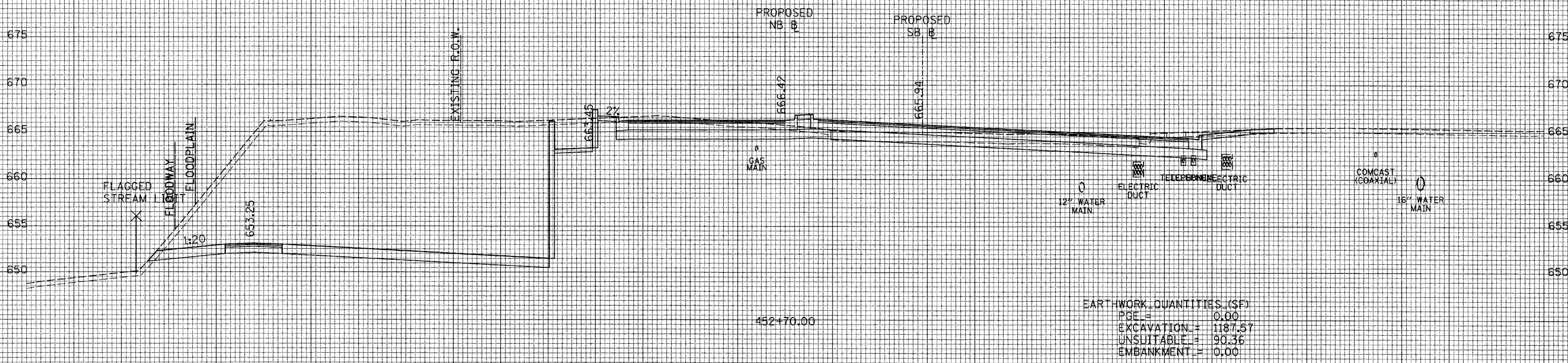
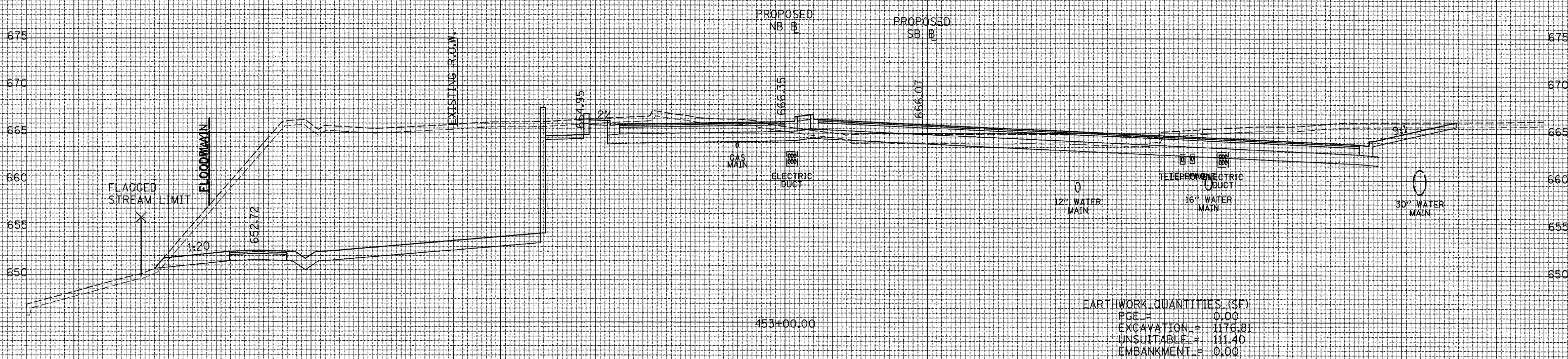


EARTHWORK QUANTITIES (SF)
 PGE = 0.00
 EXCAVATION = 1154.88
 UNSUITABLE = 89.89
 EMBANKMENT = 0.27

452+50.00

SURVEY PLOTTED TEMPLATE AREAS CHECKED
 NOTE BOOK NO.
 SURVEY PLOTTED TEMPLATE AREAS CHECKED
 NOTE BOOK NO.

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

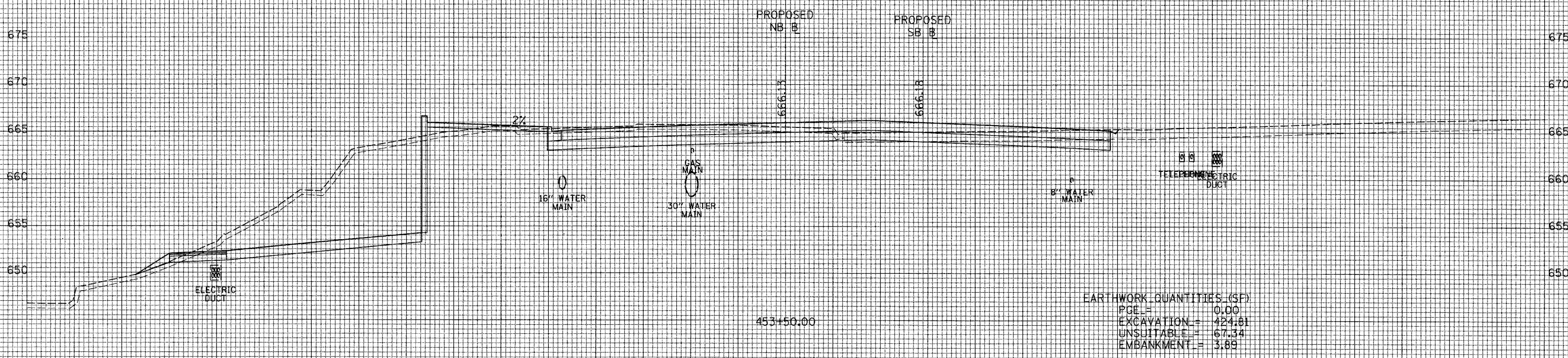
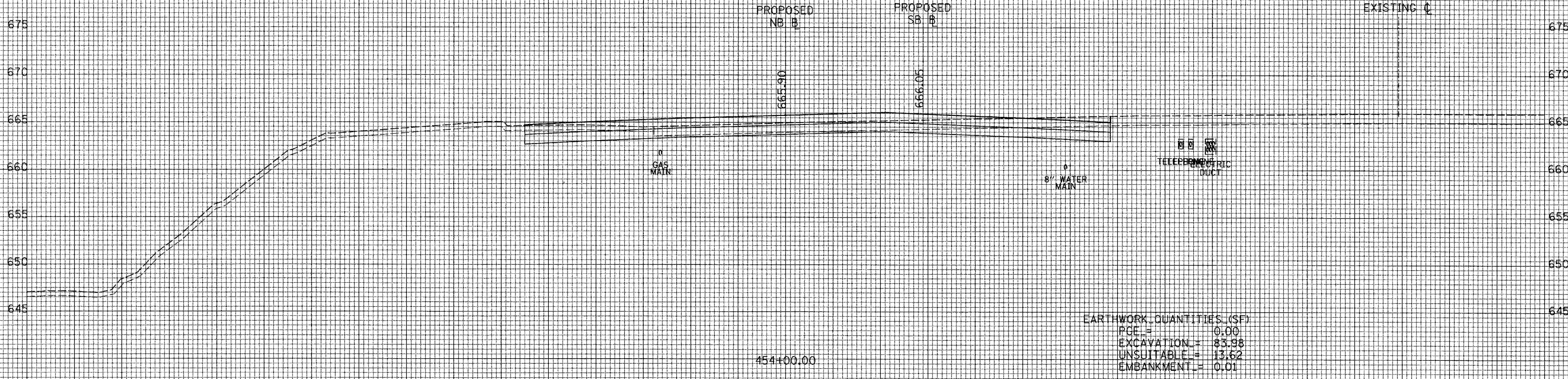
HORIZONTAL SCALE 10' 0 10' 20'

VERTICAL SCALE 5' 0 5' 10'

SURVEYED
SURVEY
NOTE BOOK
NO.

SURVEYED
SURVEY
NOTE BOOK
NO.

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



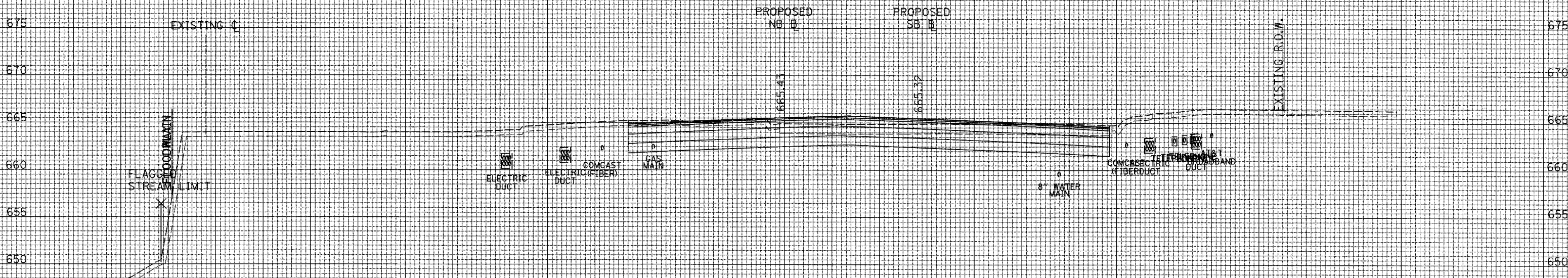
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HORIZONTAL SCALE 10' 0 10' 20'

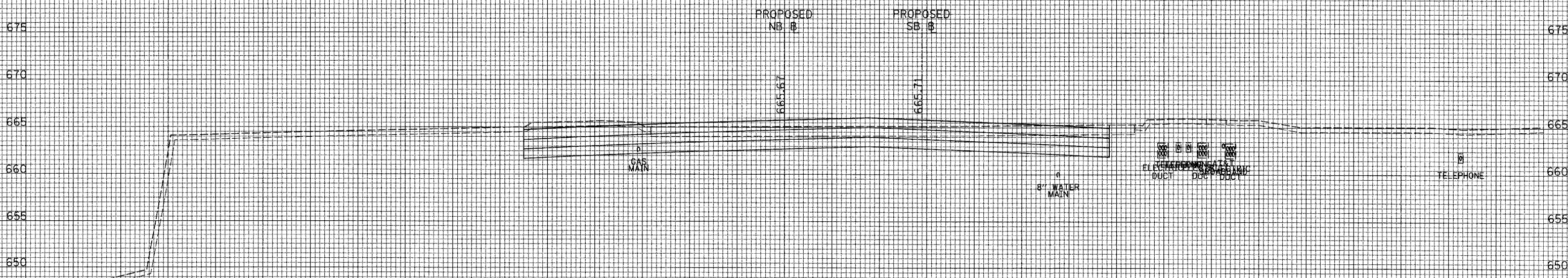
VERTICAL SCALE 5' 0 5' 10'

CONTRACT NO. 63024		F.A. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	00-00114-00-PV	DuPage		563	500
STA.	TO STA.				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT			

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



EARTHWORK QUANTITIES (SF)
 PGE = 100.88
 EXCAVATION = 192.82
 UNSUITABLE = 16.27
 EMBANKMENT = 0.00



EARTHWORK QUANTITIES (SF)
 PGE = 123.78
 EXCAVATION = 234.12
 UNSUITABLE = 13.65
 EMBANKMENT = 0.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

HORIZONTAL SCALE 10' 0 10' 20'

VERTICAL SCALE 5' 0 5' 10'