

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION**

www.dot.state.pa.us

Engineering District 10-0
2550 Oakland Avenue P.O. Box 429
Indiana, Pennsylvania 15701



**DOCUMENT
FOLDER**

August 14, 2007

**ARMSTRONG COUNTY
WEST KITTANNING BOROUGH
APPLEWOLD BOROUGH and
EAST FRANKLIN TOWNSHIP
SR 1038, SECTION 150
(DOT No. 869-352J)
PUC NO. A-00122496**

DOCKETED
OCT 18 2007

RECEIVED
2007 AUG 20 AM 8:57
SECTION 150 BUREAU

Mr. David C. Hart, P.E., Manager
Rail Safety Division
Pennsylvania Public Utility Commission
P.O. Box 3265
Harrisburg, PA 17105-3265

PA PUBLIC UTILITY COMMISSION

AUG 16 2007

**BUREAU OF TRANSPORTATION & SAFETY
RAIL SAFETY DIVISION**

Dear Mr. Hart:

The Department of Transportation has amicably settled the right-of-way claim with the Buffalo and Pittsburgh Railroad, Inc. and has amicably settled and/or condemned the one (1) remaining private property claim as identified on the Drawings Authorizing Acquisition of Right-Of-Way for West Kittanning Bridge State Route 1038, Section 150 R/W in Armstrong County consisting of sheets 1 through 17 of 17 total sheets as recorded in the Armstrong County Recorder of Deeds Office in Highway Book No. 3, page 167 on August 7, 2007.

The Department of Transportation respectfully request that the Public Utility Commission not proceed with the appropriation of right-of-way as originally requested. However, the Department is still in agreement with the subject matters of this application discussed and agreed to at the field conference held on June 1, 2007.

Attached are the following:

- Three (3) copies of the Agreement of Sale and Deed of Easement between the Department of Transportation and Buffalo and Pittsburgh Railroad, Inc. for the Commission's review and approval;
- Three (3) copies of revised and rerecorded Drawings Authorizing Acquisition of Right-Of-Way for Pine Creek Bridge State Route 0028, Section 153 in Armstrong County consisting of sheets 1 through 17 of 17 total sheets;

In addition, the Department of Transportation hereby avers that a complete set of the aforesaid revised and rerecorded Drawings Authorizing Acquisition of Right-Of-Way for West Kittanning Bridge State Route 1038, Section 150 R/W in Armstrong County consisting of sheets 1 through 17 of 17 total sheets are being sent to the following parties of record for examination simultaneously with this submission to the Public Utility Commission in accordance with the requirements of 52 Pa. Code § 1.54, by first class mail, postage prepaid:

**ARMSTRONG COUNTY
WEST KITTANNING BOROUGH
APPLEWOLD BOROUGH and
EAST FRANKLIN TOWNSHIP
SR 1038, SECTION 150
(DOT No. 869-352J)
PUC NO. A-00122496**

Gary C. Fawver, P.E., Chief
Utilities and Right-of-Way Section
Bureau of Design, PennDOT
PO Box 3362
Harrisburg, PA 17105-3362

Joseph P. Dubovi, III, P.E., District Executive
Engineering District 10-0
Pennsylvania Department of Transportation
2550 Oakland Avenue, P.O. Box 429
Indiana, PA 15701-0429
Attn: Lawrence M. Cernansky, P.E.

Honorable Patricia L. Kirkpatrick, Chairman
Armstrong County Commissioners
450 East Market Street
Courthouse Administrative Bldg.
Courthouse Complex
Kittanning, PA 16201

Mr. David C. Baer, VP/Chief Engineer
Buffalo & Pittsburgh Railroad, Inc.
P.O. Box 477
201 North Penn St
Punxsutawney, Pa 15767

The Honorable John Myers, Mayor
Kittanning Borough
611 North McKean Street
Kittanning, PA 16201

The Honorable Bernie Bowser, Jr., Mayor
West Kittanning Borough
316 Bluff Street
Kittanning, PA 16201

**ARMSTRONG COUNTY
WEST KITTANNING BOROUGH
APPLEWOLD BOROUGH and
EAST FRANKLIN TOWNSHIP
SR 1038, SECTION 150
(DOT No. 869-352J)
PUC NO. A-00122496**

The Honorable Gretchen N. Dosch, Mayor
Applewold Borough
224 Allegheny Avenue
Kittanning, PA 16201

Mr. Berry Peters, Chairman
East Franklin Township
198 South Street
Kittanning, PA 16201

Gilbert Devine, Team Leader Real Estate
Allegheny Power System
800 Cabin Hill Dr.
Greensburg, Pa 15601

Daniel Piser, Engineering Supervisor
Alltel Pennsylvania, Inc.
4792 Old William Penn Highway
Export, Pa 15632

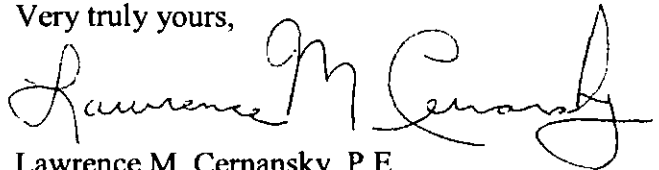
Lira Pridgen, Engineering Supervisor
Dominion Peoples
432 Hyde Park Road
Leechburg, PA 15656

Gary Kresic, Project Coordinator
Adelphia Cable Communications
One Adelphia Drive.
Blairsville, Pa 15717

Corey S. Heller, Manager
West Hills Area Water Pollution Control Authority
Linde Road
RD #7 Box 3
Kittanning, Pa 16214

**ARMSTRONG COUNTY
WEST KITTANNING BOROUGH
APPLEWOLD BOROUGH and
EAST FRANKLIN TOWNSHIP
SR 1038, SECTION 150
(DOT No. 869-352J)
PUC NO. A-00122496**

Very truly yours,

A handwritten signature in black ink, appearing to read "Lawrence M. Cernansky". The signature is fluid and cursive, with a large initial "L" and "M".

Lawrence M. Cernansky, P.E.
District Grade Crossing Engineering
Engineering District 10-0
Department Of Transportation

Attachments

A-00122496

RW-352A (9/06) (Modified 6/07) **COMMONWEALTH OF PENNSYLVANIA**
DEPARTMENT OF TRANSPORTATION



ROW OFFICE PROJ. NO.	100144
COUNTY	ARMSTRONG
S.R. - SECTION	SR 01038 SECTION 150
MUNICIPALITY	APPLEWOLD BOROUGH AND EAST FRANKLIN TOWNSHIP
PARCEL NO.	5
CLAIM NO.	0300435000
CLAIMANT	BUFFALO & PITTSBURGH RAILROAD, INC

AGREEMENT OF SALE
(Aerial Easement)
(Quitclaim)

THIS AGREEMENT, made July 3, 2007

by BUFFALO & PITTSBURGH RAILROAD, INC. a corporation organized and existing under the laws of the State of Delaware, with an address of 1200-C Scottsville Road, Suite 200, Rochester, New York 14624,

owner(s) of property affected by the construction or improvement of the above mentioned highway, its heirs, executors, administrators, successors, and/or assigns, hereinafter, whether singular or plural, called the SELLER, and the Commonwealth of Pennsylvania, Department of Transportation, hereinafter called the COMMONWEALTH,

WITNESSETH:

WHEREAS the COMMONWEALTH intends to file a plan in the Recorder of Deeds Office of the aforesaid County indicating its authorization to condemn an aerial easement from the aforesaid property; and

WHEREAS the Parties hereto have agreed that, in lieu of condemnation, the SELLER will "quitclaim" to the COMMONWEALTH an aerial easement as designated on the attached plot plan.

NOW, THEREFORE, in consideration of the sum of One and 00/100 Dollars (\$ 1.00) and other good and valuable consideration, the SELLER hereby release and quitclaim to the COMMONWEALTH, and the COMMONWEALTH agrees to purchase an aerial easement, which includes a surface easement for the accommodation of piers and other appurtenances and a temporary construction easement, between Stations 1953+71 and 1957+01 as shown on the plot plan attached hereto and made a part hereof, said easement to be taken from the premises conveyed or devised to the SELLER by Deed of The Pittsburg & Shawmut Railroad Company dated 4-26-1996 recorded in record book 1585 page 300 and by a Certificate of Merger dated 1-1-2004 recorded in record book 2803 page 223, together with the improvements, hereditaments, and appurtenances to the said easement, if any, except those which may be agreed to be retained by the SELLER, free and clear of all liens, charges, delinquent taxes, and assessments, and of all leases and encumbrances which the SELLER has the right to terminate or remove. And the SELLER will warrant generally the property interests to be conveyed.

All expenses of examination of the title and preparation and recording of the deed of easement shall be paid by the COMMONWEALTH. Payment of the purchase price shall be made within ninety (90) days of the date of this agreement.

Loss or damage to the property by fire or other casualty shall be at the risk of the SELLER until possession of the property has been delivered to the COMMONWEALTH. The SELLER may continue to insure the property after possession has been delivered until title has passed to the COMMONWEALTH. If any building(s) are being acquired by the COMMONWEALTH under this agreement, any insurance policy(ies) on such building(s) shall be amended to provide for payment thereunder (by means of a standard mortgage clause) to the COMMONWEALTH of the amount paid to the SELLER under this agreement.

The COMMONWEALTH and its agents and contractors shall have the right to enter upon the land covered by the easement to be conveyed for making studies, surveys, tests, soundings, and appraisals.

DOCUMENT
FOLDER

DOCKETED
OCT 18 2007

PA PUBLIC UTILITY COMMISSION

AUG 16 2007

BUREAU OF TRANSPORTATION & SAFETY
RAIL SAFETY DIVISION

The GRANTOR does further agree that, subject to item 6 below, the following limitations shall be imposed upon use of the surface land within the aerial easement, which limitations shall run with the land:

1. No use shall be made of the land which shall endanger the structure of the highway, or the health, safety, or welfare of the traveling public.
2. No flammable, explosive, dangerous, or hazardous material shall be used, placed, or stored on the land.
3. No buildings or other facilities shall be constructed on the land without prior authorization of the Department of Transportation. If and when such authorization is granted, the plans of the building and construction methods shall be subject to the approval of the Department of Transportation.
4. No interference shall be made with the right of the Department of Transportation to enter upon the land for the purposes of inspection, maintenance, repair, reconstruction, or alteration of the structure or other appurtenances.
5. Any substantial change in land use to be made subsequent to the execution of the easement shall be subject to the approval of the Department of Transportation.
6. Notwithstanding items 1 through 5 above, in no event shall this deed of Aerial Easement or the limitations set forth in items 1 through 5 above be construed as limiting or interfering in any way with the present and future operation, use, maintenance, repair, renewal, change, addition, betterment or alteration of the railroad and its supporting facilities.

The SELLER does further remise, release, quitclaim, and forever discharge the COMMONWEALTH or any agency or political subdivision thereof, or its or their employees or representatives, of and from all suits, damages, claims and demands which the SELLER might have otherwise been entitled to assert under the provisions of the Eminent Domain Code, 26 Pa.C.S. § 101 et seq., for or on account of any injury to or destruction of the aforesaid property of the SELLER through or by reason of the aforesaid utility relocation, except damages, if any, under Section 710 (Limited Reimbursement of Appraisal, Attorney, and Engineering Fees) and Section 711 (Payment on Account of Increased Mortgage Costs) of the Eminent Domain Code; provided, however, that if relocation of a residence or business or farm operation is involved, this release shall likewise not apply to damages, if any, under Section 902 (Moving Expenses) and/or Section 903 and/or 904 (Replacement Housing) of the Eminent Domain Code.

The SELLER does further indemnify the COMMONWEALTH against any claim made by any lessee of the aforesaid property who has not entered into a Settlement Agreement with the COMMONWEALTH.

The Parties have executed or caused to be executed these presents, intending to be legally bound thereby.

INDIVIDUALS

ENTITIES*

SELLER:

Buffalo & Pittsburgh Railroad, Inc.

(Name of Entity)

BY:

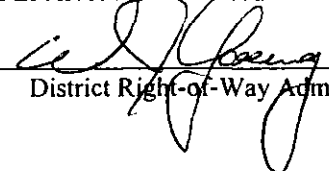

David J. Collins, President

BY: _____

* Use this block for a corporation, partnership, LLC, government entity, school district, church, trust, club, association, POA, attorney-in-fact, executor, administrator or any other entity. See R/W Manual Section 3.06.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

BY:


District Right-of-Way Administrator

A-00122496

Prepared By: Allen R. Simmons, Real Estate Specialist
Commonwealth of Pennsylvania
Department of Transportation

Return To: William J. Young, Right-of-Way Administrator, District 10-0
P O Box 429
Indiana PA 15701

Site Location: County Tax Map Numbers 130.00-06-01 & 130.00-06-01.002

RW-365 (11/06) (Modified 6/07) **COMMONWEALTH OF PENNSYLVANIA**
DEPARTMENT OF TRANSPORTATION



ROW OFFICE PROJ. NO.	100144
COUNTY	ARMSTRONG
S.R. - SECTION	SR 1038 SECTION 150
MUNICIPALITY	Applewold Borough & East Franklin Township
PARCEL NO.	5
CLAIM NO.	0300435000
CLAIMANT	BUFFALO & PITTSBURGH RAILROAD, INC

DEED OF EASEMENT
(No Monetary Consideration)
(Quitclaim)

THIS INDENTURE, made *July 3, 2007* by BUFFALO & PITTSBURGH RAILROAD, INC. a corporation organized and existing under the laws of the State of Delaware, with an address of 1200-C Scottsville Road, Suite 200, Rochester, New York 14624, owner(s) of property affected by the construction or improvement of the above mentioned State Route, its heirs, executors, administrators, successors, and/or assigns, hereinafter, whether singular or plural, called the GRANTOR, and the Commonwealth of Pennsylvania, Department of Transportation, hereinafter called the COMMONWEALTH,

WITNESSETH:

WHEREAS the COMMONWEALTH intends to file a plan in the Recorder of Deeds Office of the aforesaid County indicating its authorization to condemn property for the above highway from the aforesaid property; and

WHEREAS the parties hereto have agreed that, in lieu of condemnation, the GRANTOR will "quitclaim" to the COMMONWEALTH an easement for highway purposes unlimited in vertical dimension and such lesser estate(s) as designated, if any, from the property or portion thereof required by the COMMONWEALTH,

NOW, THEREFORE, in consideration of the benefits to the property of the GRANTOR, the GRANTOR does hereby "quitclaim" to the COMMONWEALTH an easement for highway purposes unlimited in vertical dimension from that portion of the aforesaid property designated as required right-of-way on the plot plan attached hereto and made a part hereof; and those areas, if any, designated as required for other than right-of-way in the easement(s) identified by the plot plan.

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DOCKETED
OCT 18 2007

BEING all or a portion of the same property conveyed or devised to the GRANTOR by deed of The Pittsburg & Shawmut Railroad Company, dated April 26, 1996 and recorded in record book 1585 page 300 and by a Certificate of Merger dated 1-1-2004 recorded in record book 2803 page 223. This conveyance contains 4,315 sq ft of Required Right-of-Way, 11,454 sq ft of Required Drainage Easement, 64872 sq ft of Temporary construction Easement and 3,975 sq ft of Required Anchor Easement together with the improvements, hereditaments and appurtenances thereto and the GRANTOR releases and quitclaims the property hereby conveyed.

Reserving, however, to the GRANTOR the right to deep mine minerals and remove gas and oil within the areas hereunder acquired from a minimum depth to be determined by the COMMONWEALTH, from mine shafts or by means of wells located off the right-of-way.

The GRANTOR does further remise, release, quitclaim and forever discharge the COMMONWEALTH or any agency or political subdivision thereof or its or their employees or representatives of and from all suits, damages, claims and demands which the GRANTOR might otherwise have been entitled to assert under the provisions of the Eminent Domain Code, 26 Pa.C.S. § 101 et seq., for or on account of this conveyance and any injury to or destruction of the aforesaid property of the GRANTOR through or by reason of the aforesaid highway construction or improvement, except damages, if any, under Section 710 (Limited Reimbursement of Appraisal, Attorney and Engineering Fees) and Section 711 (Payment on Account of Increased Mortgage Costs) of the Eminent Domain Code; provided, however, that if relocation of a residence or business or farm operation is involved, this release shall likewise not apply to damages, if any, under Section 902 (Moving Expenses) and/or Section 903 and/or 904 (Replacement Housing) of the Eminent Domain Code.

The GRANTOR does acknowledge that they have been fully informed by the COMMONWEALTH of their right to the payment of just compensation for the taking of the herein described easement(s) and that they do hereby waive such right.

Certificate of Residence

I hereby certify the Grantee's precise residence to be:

2550 Oakland Avenue, Indiana, Pa. 15701

Witness my hand this _____ day of _____, _____

Agent for the Commonwealth of Pennsylvania
Department of Transportation

A-00122496

2

*** INCLUDES 1060 SF OF AERIAL EASEMENT
 *** INCLUDES 1060 SF OF REQUIRED DRAINAGE EASEMENT

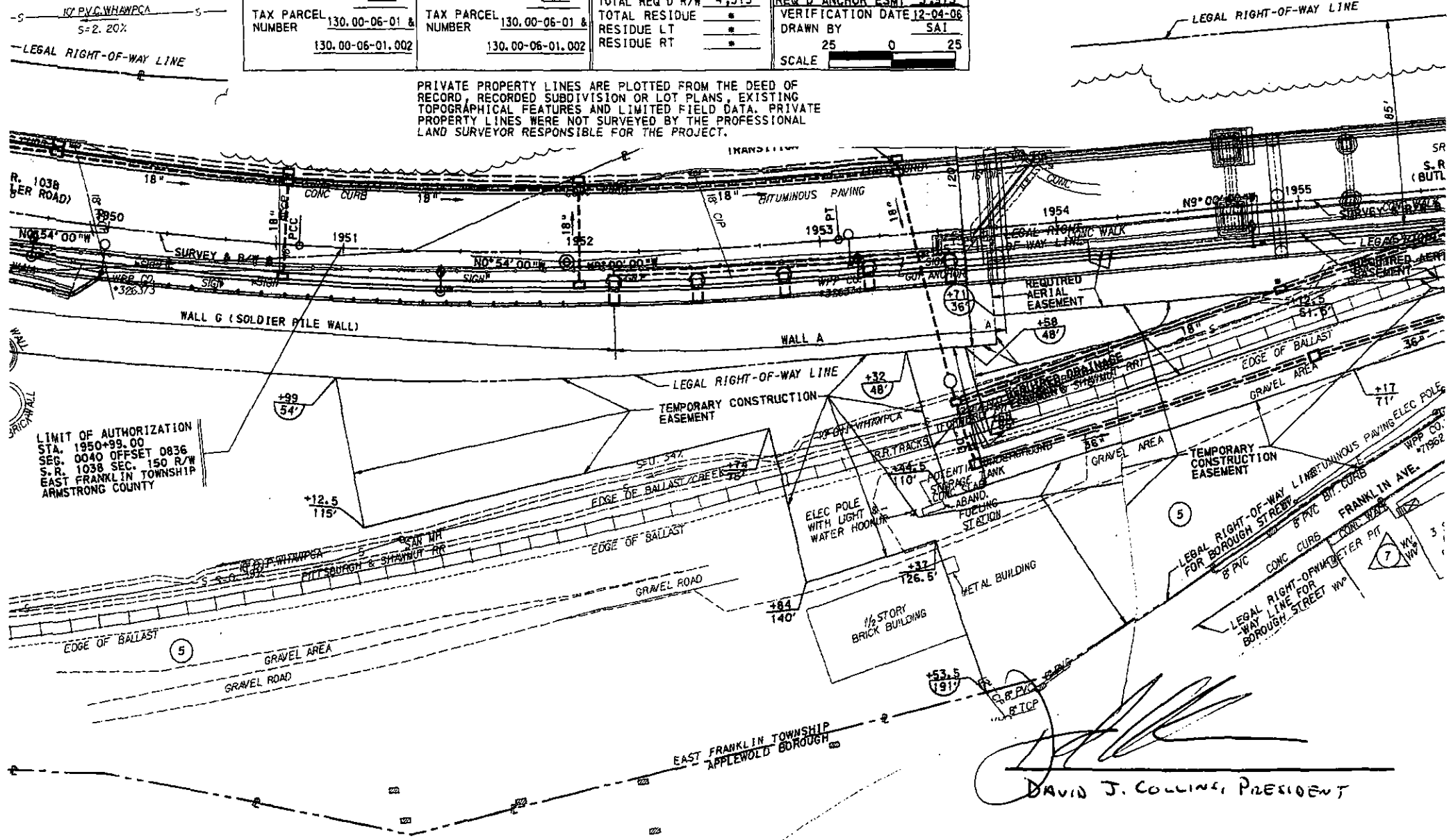
5 RIGHT-OF-WAY CLAIM INFORMATION
 COMMONWEALTH OF PENNSYLVANIA-DEPARTMENT OF TRANSPORTATION
 STATE RTE. 1038 SEC. NO. 150 R/W EAST FRANKLIN TWP. ARMSTRONG COUNTY
 PARCEL NO. 5 SHEET NO. 8, 9 & 10 CLAIM NO. 0300435000
 PROPERTY OWNER(S) BUFFALO & PITTSBURGH RAILROAD, INC. BY MERGER WITH
 PITTSBURGH & SHAWMUT RAILROAD, INC.

PAGE 1 of 3

GRANTOR(S) THE PITTSBURGH & SHAWMUT RAILROAD COMPANY

DEED BOOK		DEED BOOK		AREAS		REQUIRED AREA	
2803	223	1585	300	DEED	*	RIGHT OF WAY	4,315
DATE OF DEED	1-01-04	DATE OF DEED	4-26-96	CALCULATED	—	REQ'D DRGE ESMT	**11,454
DATE OF RECORD	5-06-04	DATE OF RECORD	6-20-96	EXCEPTION	—	TEMP CONSTR ESMT	64,872
CONSIDERATION	—	CONSIDERATION	—	LEGAL R/W	*	REQ'D AERIAL ESMT	***7,837
TAX PARCEL NUMBER	130.00-06-01 & 130.00-06-01.002	TAX PARCEL NUMBER	130.00-06-01 & 130.00-06-01.002	EFFECTIVE	*	REQ'D ANCHOR ESMT	3,975
				TOTAL REQ'D R/W	4,315	VERIFICATION DATE	12-04-06
				TOTAL RESIDUE	*	DRAWN BY	SAI
				RESIDUE LT	*	SCALE	25 0 25
				RESIDUE RT	*		

PRIVATE PROPERTY LINES ARE PLOTTED FROM THE DEED OF RECORD, RECORDED SUBDIVISION OR LOT PLANS, EXISTING TOPOGRAPHICAL FEATURES AND LIMITED FIELD DATA. PRIVATE PROPERTY LINES WERE NOT SURVEYED BY THE PROFESSIONAL LAND SURVEYOR RESPONSIBLE FOR THE PROJECT.



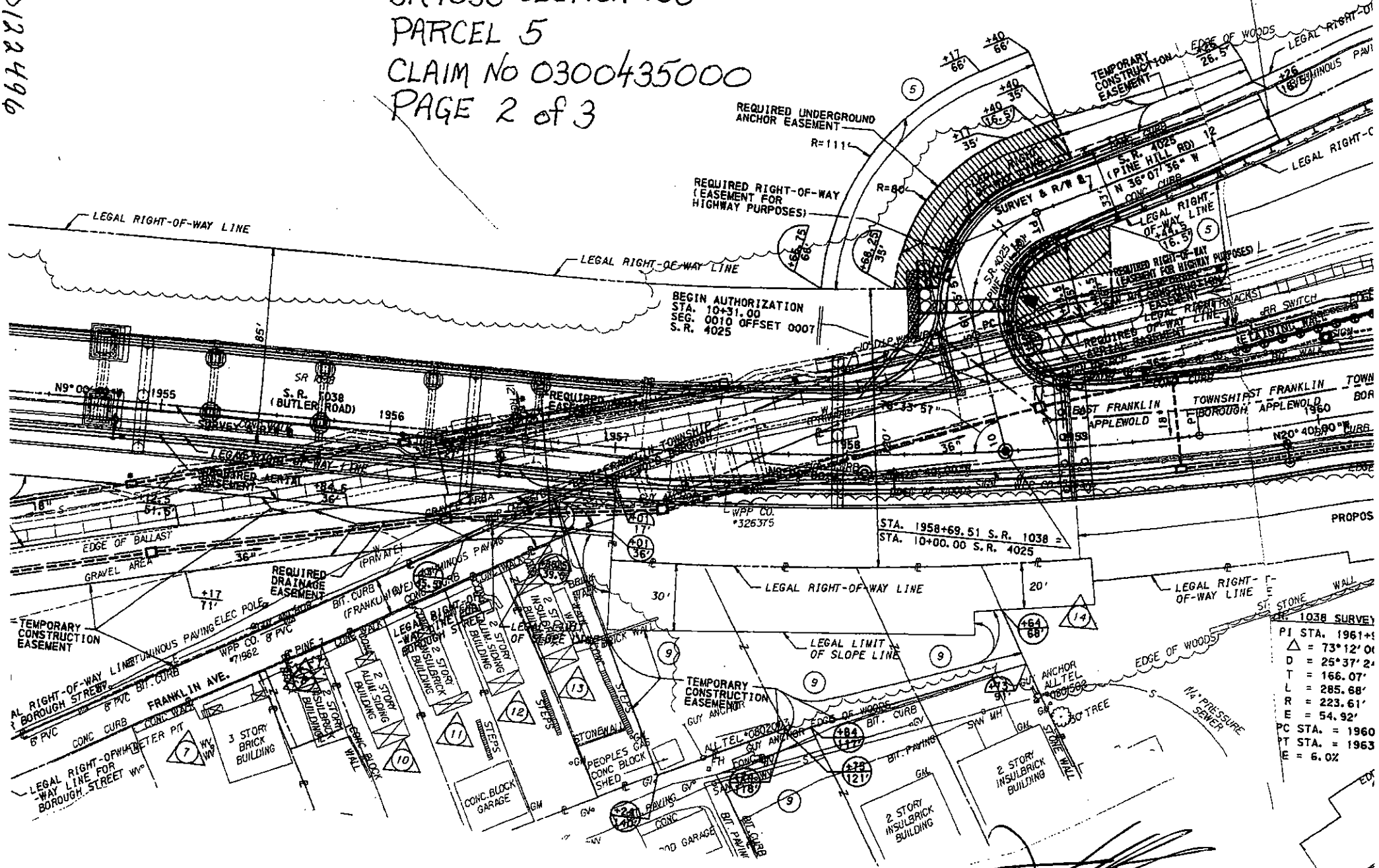
LIMIT OF AUTHORIZATION
 STA. 1950+99.00
 SEC. 0040 OFFSET 0836
 S.R. 1038 SEC. 150 R/W
 EAST FRANKLIN TOWNSHIP
 ARMSTRONG COUNTY

DAVID J. COLLINS, PRESIDENT

END AUTHORIZATION
 STA. 12+26.00
 SEG. 0010 OFFSET 0202
 S.R. 4025

ARMSTRONG COUNTY
 SR 1038 SECTION 150
 PARCEL 5
 CLAIM No 0300435000
 PAGE 2 of 3

A-00122496

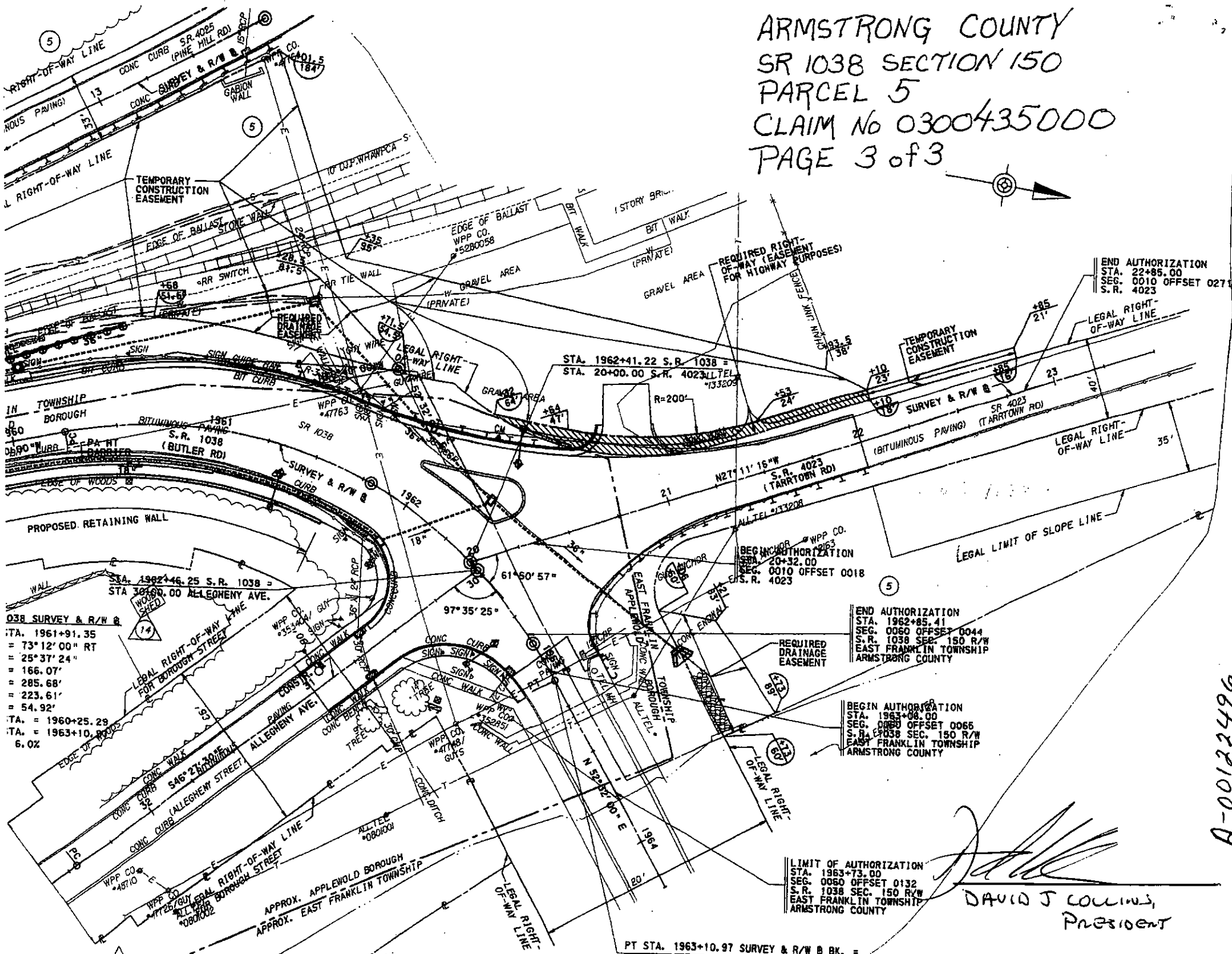


1038 SURVEY

PI STA.	1961+8
Δ	= 73° 12' 0"
D	= 25° 37' 2"
T	= 166.07'
L	= 285.68'
R	= 223.61'
E	= 54.92'
PC STA.	= 1960
PT STA.	= 1963
E	= 6.02'

David J. Collins
 DAVID J. COLLINS, PRESIDENT

ARMSTRONG COUNTY
 SR 1038 SECTION 150
 PARCEL 5
 CLAIM No 0300435000
 PAGE 3 of 3



038 SURVEY & R/W &
 STA. 1961+91.35
 = 73° 12' 00" RT
 = 25° 37' 24"
 = 166.07'
 = 285.68'
 = 223.61'
 = 54.92'
 STA. = 1960+25.29
 STA. = 1963+10.00
 6.0%

END AUTHORIZATION
 STA. 1962+85.41
 SEG. 0060 OFFSET 0044
 S. R. 1038 SEC. 150 R/W
 EAST FRANKLIN TOWNSHIP
 ARMSTRONG COUNTY

BEGIN AUTHORIZATION
 STA. 1963+08.00
 SEG. 0060 OFFSET 0066
 S. R. 1038 SEC. 150 R/W
 EAST FRANKLIN TOWNSHIP
 ARMSTRONG COUNTY

LIMIT OF AUTHORIZATION
 STA. 1963+73.00
 SEG. 0060 OFFSET 0132
 S. R. 1038 SEC. 150 R/W
 EAST FRANKLIN TOWNSHIP
 ARMSTRONG COUNTY

David J. Collins
 DAVID J COLLINS,
 President

A-00122496

PT STA. 1963+10.97 SURVEY & R/W & BK. =

A-00122496

Prepared By: Allen R. Simmons, Real Estate Specialist,
Commonwealth of Pennsylvania
Department of Transportation

Return To: W. J. Young, Right-of-Way Administrator, District 10-0
P O Box 429
Indiana PA 15701-0429

Site Location: County Map Number 130.00-06-01 and 130.00-06-01.002

DOCKETED
OCT 18 2007

**DOCUMENT
FOLDER**

RW-352 (4/07) (Modified 6/07)

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION**



ROW OFFICE PROJ. NO.	100144
COUNTY	ARMSTRONG
S.R. - SECTION	SR 1038 SECTION 150
MUNICIPALITY	Appewold Borough & East Franklin Township
PARCEL NO.	5
CLAIM NO.	0300435000
CLAIMANT	BUFFALO & PITTSBURGH RAILROAD, INC

**DEED OF EASEMENT
(Aerial Easement)
(Quitclaim)**

Made on *July 3, 2007*

By BUFFALO & PITTSBURGH RAILROAD, INC. a corporation organized and existing under the laws of the State of Delaware, with an address of 1200-C Scottsville Road, Suite 200, Rochester, New York 14624,

owner(s) of property affected by the construction or improvement of the above mentioned highway, its heirs, executors, administrators, successors, and/or assigns, hereinafter, whether singular or plural, called the GRANTOR, and the Commonwealth of Pennsylvania, Department of Transportation, hereinafter called the COMMONWEALTH,

WITNESSETH:

WHEREAS the COMMONWEALTH intends to record a plan in the Recorder of Deeds Office of the aforesaid County indicating its authorization to condemn an aerial easement from the aforesaid property; and

WHEREAS the Parties hereto have agreed that, in lieu of condemnation, the GRANTOR will "quitclaim" to the COMMONWEALTH an aerial easement from the aforesaid property,

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration, the GRANTOR does hereby "quitclaim" to the COMMONWEALTH an aerial easement, which includes a surface easement for the accommodation of piers and other appurtenances and a temporary construction easement, between Stations 1953+71 and 1957+01 as shown on the plot plan attached hereto and made a part hereof, said easement to be taken from the premises conveyed or devised to the GRANTOR by deed of The Pittsburg & Shawmut Railroad Company dated 4-26-1996 recorded in record book 1585 page 300 and by a Certificate of Merger dated 1-1-2004 recorded in record book 2803 page 223, together with the improvements, hereditaments, and appurtenances to the said easement, if any, except those which may have been agreed to be retained by the GRANTOR.

The GRANTOR does further agree that, subject to item 6 below, the following limitations shall be imposed upon use of the surface land within the aerial easement, which limitations shall run with the land:

1. No use shall be made of the land which shall endanger the structure of the highway, or the health, safety, or welfare of the traveling public.
2. No flammable, explosive, dangerous, or hazardous material shall be used, placed, or stored on the land.
3. No buildings or other facilities shall be constructed on the land without prior authorization of the Department of Transportation. If and when such authorization is granted, the plans of the building and construction methods shall be subject to the approval of the Department of Transportation.
4. No interference shall be made with the right of the Department of Transportation to enter upon the land for the purposes of inspection, maintenance, repair, reconstruction, or alteration of the structure or other appurtenances.
5. Any substantial change in land use to be made subsequent to the execution of the easement shall be subject to the approval of the Department of Transportation.
6. Notwithstanding items 1 through 5 above, in no event shall this deed of Aerial Easement or the limitations set forth in items 1 through 5 above be construed as limiting or interfering in any way with the present and future operation, use, maintenance, repair, renewal, change, addition, betterment or alteration of the railroad and its supporting facilities.

The GRANTOR does further remise, release, quitclaim, and forever discharge the COMMONWEALTH or any agency or political subdivision thereof, or its or their employees or representatives, of and from all suits, damages, claims, and demands which the GRANTOR might otherwise have been entitled to assert under the provisions of the Eminent Domain Code, 26 Pa.C.S. § 101 et seq. , for or on account of any injury to or destruction of the aforesaid property of the GRANTOR through or by reason of the aforesaid highway construction or improvement, except damages, if any, under Section 710 (Limited Reimbursement of Appraisal, Attorney, and Engineering Fees) and 711 (Payment on Account of Increased Mortgage Costs) of the Eminent Domain Code; provided, however, that if relocation of a residence or business or farm operation is involved, this release shall likewise not apply to damages, if any, under Section 902 (Moving Expenses) and/or Section 903 and/or 904 (Replacement Housing) of the Eminent Domain Code.

The GRANTOR does further indemnify the COMMONWEALTH against any claim by any lessee of the aforesaid property who has not entered into a Settlement Agreement with the COMMONWEALTH.

Certificate of Residence

I hereby certify the Grantee's precise residence to be:

2550 Oakland Avenue, Indiana, Pa. 15701

Witness my hand this _____ day of _____, _____

Agent for the Commonwealth of Pennsylvania
Department of Transportation

The GRANTOR has executed or caused to be executed these presents, intending to be legally bound thereby.

INDIVIDUALS

ENTITIES*

GRANTOR:

Buffalo & Pittsburgh Railroad, Inc.
(Name of Entity)

BY: [Signature]
David J. Collins, President

BY: _____

* Use this block for a corporation, partnership, LLC, government entity, school district, church, trust, club, association, POA, attorney-in-fact, executor, administrator or any other entity. See R/W Manual Section 3.06.

INDIVIDUAL

ENTITY

STATE OF _____
COUNTY OF _____

On this _____ day of _____, 20____,
before me, _____,
the undersigned officer, personally appeared _____
_____, known to me
(or satisfactorily proven) to be the person(s) whose
name(s) _____ subscribed to the within instrument,
and acknowledged that _____ executed the
instrument for the purposes contained in it.

In witness whereof, I hereto set my hand and official
seal.

[Signature]

[Title]

[Seal]

STATE OF New York
COUNTY OF Monroe

On this 3rd day of July, 2007,
before me, David J. Collins, the undersigned
officer, personally appeared David J. Collins
_____, who acknowledged self
to be the President [title] of
Buffalo Pittsburgh RR [name of entity],
and that as such President
_____, [title], being authorized to do so,
executed the foregoing instrument for the purposes
contained in it by signing on behalf of the entity as
President [title].

In witness whereof, I hereto set my hand and official seal.

Janet R. Hartman [Signature]
Notary [Title]

[Seal]

JANET R. HARTMAN
Notary Public, State of New York
Qualified in Livingston County
My Commission Expires December 31, 2010

APPROVED AS TO FORM AND LEGALITY:

For Chief Counsel

Deputy General Counsel

Deputy Attorney General

PA PUBLIC UTILITY COMMISSION

AUG 16 2007

BUREAU OF TRANSPORTATION & SAFETY
RAIL SAFETY DIVISION

FEDERAL PROJECT NO. 8120-X101-016							
FCB	DISTRICT 10-0	COUNTY	TOWNSHIP	BOROUGH	ROUTE	SECTION	TOTAL SHEETS
		ARMSTRONG	EAST FRANKLIN	APPLEWOLD WEST KITTANNING	1038	150 R/W	17
SYS	S. R. or W. O.	SPUR	PHA	SECTION	DIST.	CO.	
5	01038	0	6	150	10	1	MPMS NO. 23900

S. R. 01038 FORMERLY KNOWN AS L. R. 69 & 251

COMMONWEALTH OF PENNSYLVANIA



DEPARTMENT OF TRANSPORTATION

DRAWINGS AUTHORIZING ACQUISITION

OF
RIGHT-OF-WAY
FOR

WEST KITTANNING BRIDGE

STATE ROUTE 1038 SECTION 150 R/W

IN ARMSTRONG COUNTY

FROM STA. 1950+99.00 TO STA. 1963+73.00 LENGTH 1253.41 FT. 0.237 MI.
FROM SEG. 0040 OFFSET 0836 TO SEG. 0060 OFFSET 0132

THIS PLAN PREPARED PURSUANT TO SECTION 2003(e) OF THE ADMINISTRATIVE CODE, AS AMENDED, 71 P.S. SECTION 513(e) AND SECTION 302(b)(3) OF THE EMINENT DOMAIN CODE, 26 Pa.C.S. SECTION 302(b)(3).

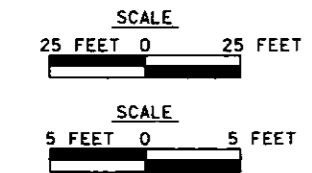
THE PUBLIC UTILITY COMMISSION SHALL APPROPRIATE PROPERTY IN APPLICATION DOCKET NO. 2 BETWEEN STATION 1950+99.00 AND STATION 1962+85.41 AND STATION 1963+06.00 AND STATION 1963+73.00 PURSUANT TO THE PROVISIONS OF SECTION 2702 (b) OF THE ACT OF JULY 1, 1978, P.L. 598, NO. 116 (66 P.S. 2702).

* A - 00122496

DOCUMENT FOLDER

DOCKETED

OCT 18 2007



DESIGN DESIGNATION

HIGHWAY CLASSIFICATION - URBAN PRINCIPAL ARTERIAL
 DESIGN SPEED - 40 MPH
 PAVEMENT WIDTH - VARIES 36'-0" TO 48'-0"
 SHOULDER WIDTH - 2'-8" CURBED

TRAFFIC DATA

CURRENT A. D. T. - 16,582 (2007)
 DESIGN YEAR A. D. T. - 24,640 (2027)
 D. H. V. - 2605
 D - 55
 T - 3%

<p>RECORDED IN THE OFFICE FOR THE RECORDING OF DEEDS, ETC. IN <u>ARMSTRONG</u> COUNTY, PA.</p> <p>IN <u>Highway Plan</u> BOOK <u>23</u> PAGE <u>167</u></p> <p>WITNESS MY HAND AND SEAL OF OFFICE</p> <p><i>[Signature]</i> RECORDER</p>	<p>COMMONWEALTH OF PENNSYLVANIA COUNTY OF DAUPHIN SS</p> <p>BEFORE ME, A NOTARY PUBLIC, PERSONALLY CAME <u>Anna D. Bielec</u> SECRETARY OF TRANSPORTATION, WHO ACKNOWLEDGED THE WITHIN PLAN, COMPRISING <u>17</u> SEPARATE SHEETS, TO BE AN OFFICIAL PLAN OF THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION AND DESIRED THAT THE SAME BE RECORDED AS SUCH.</p> <p>WITNESS MY HAND AND NOTARIAL SEAL <u>5/15/07</u></p> <p><i>[Signature]</i> NOTARY PUBLIC City of Harrisburg, Dauphin County My Commission Expires Jan. 6, 2011</p>	<p>PREPARED BY: SAI Consulting Engineers 1200 Pine Avenue, Suite 200, Pittsburgh, PA 15222-4211</p> <p><i>[Signature]</i> REGISTERED SURVEYOR</p> <p><i>[Signature]</i> ENGINEER</p> <p>DATE: <u>12/1/06</u></p>	<p>RECOMMENDED DATE: <u>12/11/06</u> <i>[Signature]</i> DISTRICT EXECUTIVE</p> <p>RECOMMENDED DATE: <u>5/15/07</u> <i>[Signature]</i> DEPUTY SECRETARY</p> <p>APPROVED DATE: <u>5/15/07</u> <i>[Signature]</i> SECRETARY OF TRANSPORTATION (ON BEHALF OF THE GOVERNOR AS WELL AS HIMSELF)</p>
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PLOTTED: 11/16/07

2007 AUG - 7 1:07
REVERLY ELAYTON, CASE I I A
RECORDING OFFICER

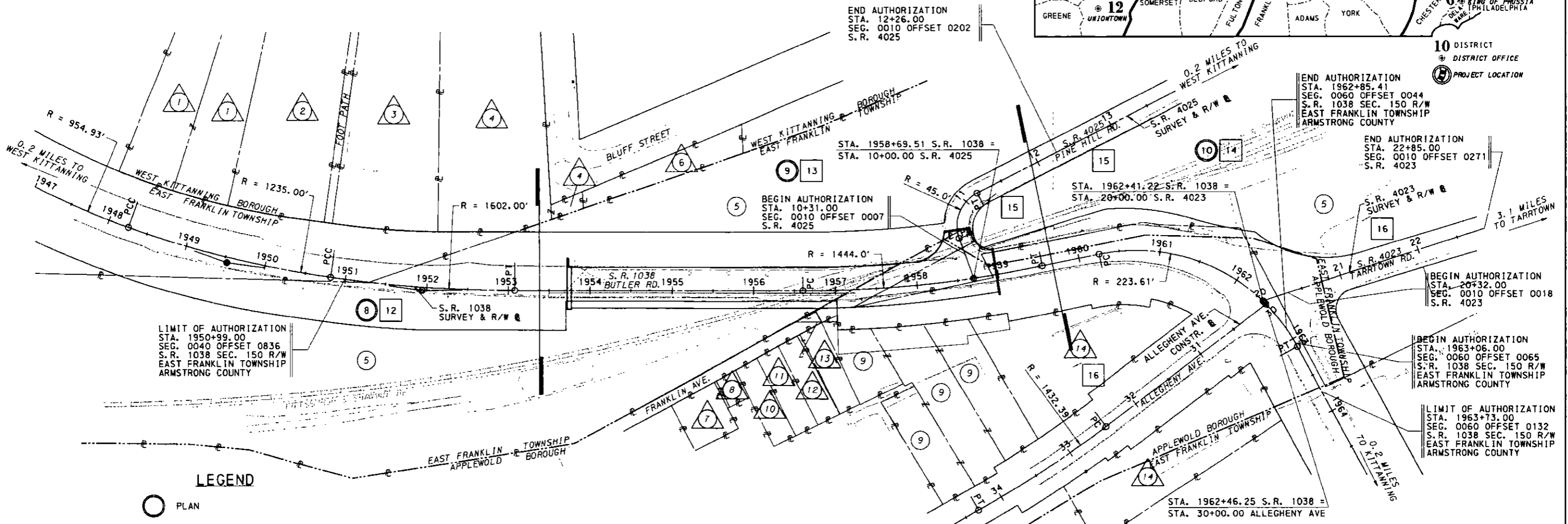
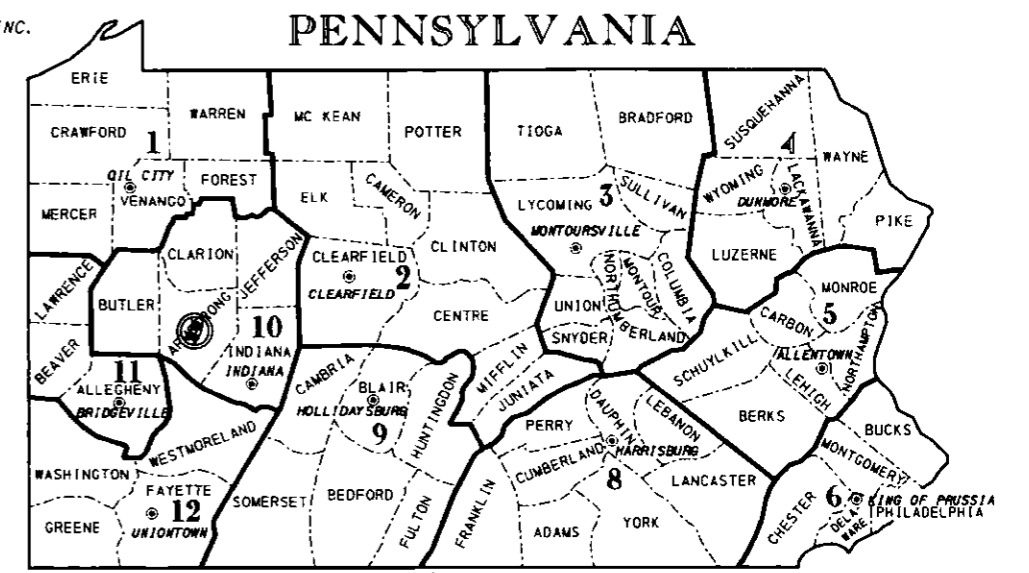
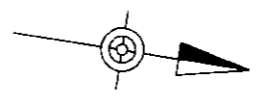
A-00122496

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
10-0	ARMSTRONG	1038	150 R/W	2 OF 17
EAST FRANKLIN TWP., WEST KITTANNING & APPLEWOLD BORO.'S				
REVISION NUMBER	REVISIONS	DATE	BY	

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DESCRIPTION	SHEET NO
TITLE SHEET	1
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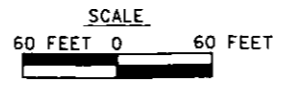
LIST OF PROPERTY OWNERS

- 1 RICHARD L. CRATTY II AND ELOISA CRATTY, HIS WIFE
- 2 JAMES W. TERNENT, JR. AND ALICE H. TERNENT, HIS WIFE
- 3 BARBARA N. PRYDE
- 4 PATRICK HUTCHISON
- 5 BUFFALO & PITTSBURGH RAILROAD, INC. BY MERGER WITH PITTSBURGH & SHAWMUT RAILROAD, INC.
- 6 THE BOROUGH OF WEST KITTANNING
- 7 TIMOTHY WALKOWIAK
- 8 JAMES E. EDWARDS AND DORIS J. EDWARDS
- 9 RIVERCLIFF TERRACE, INC. A PENNSYLVANIA CORPORATION
- 10 RICHARD F. FINK AND MARY ELLEN FINK, HIS WIFE
- 11 BETSY L. ALEXANDER
- 12 SHELBY S. WILSON AND ERIN L. WILSON, HUSBAND AND WIFE
- 13 LLOYD E. ALEXANDER AND NANCY J. ALEXANDER, HUSBAND AND WIFE
- 14 EDWIN C. BOWER AND SUSAN K. BOWER, HIS WIFE



LEGEND

- PLAN
- PROFILE
- PARCEL IDENTIFICATION NUMBER
- PARCEL IDENTIFICATION NUMBER-NO TAKE
- SHEET LIMITS



DRAWN BY CJC
CHECKED BY MJM

DONALD V. GENNUSO
ENGINEER
No. 0222-A
PENNSYLVANIA

MICHAEL J. MUTH
ENGINEER
No. 0222-A
PENNSYLVANIA

INDEX MAP

GENERAL NOTES CONTINUED

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
10-0	ARMSTRONG	1038	150 R/W	3 OF 17
EAST FRANKLIN TWP., WEST KITTANNING & APPLEWOLD BORO.'S				
REVISION NUMBER	REVISIONS	DATE	BY	

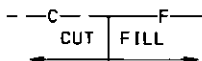
THE HORIZONTAL SURVEY INFORMATION IS BASED ON AN ASSUMED COORDINATE SYSTEM.

THE VERTICAL CONTROL ELEVATIONS ARE BASED UPON THE NATIONAL GEODETIC VERTICAL DATUM (NGVD) OR 1929.

ALL CURVE DATA IS BASED ON THE ARC DEFINITION UNLESS OTHERWISE NOTED.

THE ALLEGHENY RIVER IS A NAVIGABLE RIVER

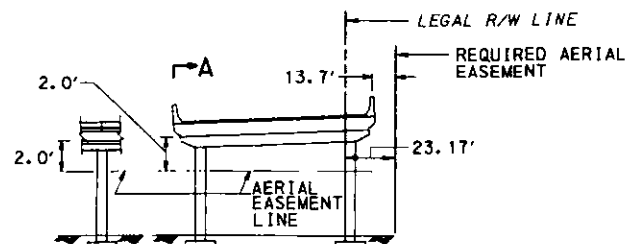
INDICATES SLOPE LIMITS



THE FILING OF THIS PLAN IS NOT A CONDEMNATION OF THE PROPERTIES DESIGNATED THEREIN AND DOES NOT IN ANY MANNER WHATSOEVER RESTRICT THE USE OR DISPOSAL THEREOF. AUTHORIZATION TO CONDEMN UNDER THIS PLAN EXTENDS ONLY ONE YEAR FROM THE DATE OF THE SECRETARY'S SIGNATURE INITIALLY AUTHORIZING ACQUISITION OR SUBSEQUENTLY REVISING THE PLAN OR REAUTHORIZING ACQUISITION THEREUNDER.

WHERE AN AERIAL EASEMENT IS ACQUIRED, IT SHALL INCLUDE AN EASEMENT IN THE AIR FOR THE ACCOMMODATION OF THE ELEVATED HIGHWAY STRUCTURE UNLIMITED IN VERTICAL DIMENSION ABOVE THE STRUCTURE. A SURFACE EASEMENT UNLIMITED IN VERTICAL DIMENSION FOR THE ACCOMMODATION OF PIERS AND OTHER APPURTENANCES AND A TEMPORARY EASEMENT FOR CONSTRUCTION PURPOSES INCLUDING THE STORAGE OF MATERIALS DURING CONSTRUCTION FOR THE ENTIRE AREA. THE FOLLOWING LIMITATIONS SHALL BE IMPOSED ON THE PROPERTY BENEATH THE AREA AFFECTED BY THE AERIAL EASEMENT.

1. NO USE SHALL BE MADE OF THE PROPERTY WHICH SHALL ENDANGER THE STRUCTURE OR THE HEALTH, SAFETY OR WELFARE OF THE TRAVELING PUBLIC.
2. NO FLAMMABLE, EXPLOSIVE, DANGEROUS OR HAZARDOUS MATERIAL SHALL BE USED, PLACED OR STORED ON THE PROPERTY.
3. NO BUILDING OR OTHER FACILITY SHALL BE CONSTRUCTED ON THE PROPERTY WITHOUT PRIOR AUTHORITY OF THE DEPARTMENT OF TRANSPORTATION. IF AND WHEN SUCH AUTHORITY IS GRANTED, THE PLANS FOR THE BUILDING OR FACILITY AND CONSTRUCTION METHODS SHALL BE SUBJECT TO THE APPROVAL OF THE DEPARTMENT OF TRANSPORTATION.
4. NO INTERFERENCE SHALL BE MADE WITH THE RIGHT OF THE DEPARTMENT OF TRANSPORTATION TO ENTER UPON THE PROPERTY FOR THE PURPOSES OF INSPECTION, MAINTENANCE, REPAIR, PAINTING, RECONSTRUCTION OR ALTERATION OF THE STRUCTURE OR APPURTENANCES. MOVEABLE ITEMS MAY HAVE TO BE REMOVED BY THE OWNER DURING SOME OR ALL OF THE ABOVE OPERATIONS.
5. ANY SUBSTANTIAL CHANGE IN PROPERTY USE TO BE MADE SUBSEQUENT TO THE ACQUISITION OF THE EASEMENT SHALL BE SUBJECT TO THE APPROVAL OF THE DEPARTMENT OF TRANSPORTATION.
6. THE NOTES ON THESE DRAWINGS SHALL NOT BE CONSTRUED AS LIMITING OR INTERFERING IN ANY WAY WITH THE PRESENT AND FUTURE OPERATION, USE, MAINTENANCE, REPAIR, RENEWAL, CHANGE, ADDITION, BETTERMENT OR ALTERATION OF THE RAILROAD AND ITS SUPPORTING FACILITIES.



VIEW A-A

FROM STA. 1953+71 TO STA. 1957+01, S.R. 1038
FROM STA. 10+31 TO STA. 10+49.5, S.R. 4025

SKETCH SHOWING ESTATE TO BE ACQUIRED FOR A LIMITED AERIAL EASEMENT

USE OF AIRSPACE BENEATH THE ESTABLISHED GRADELINE OF THE HIGHWAY SHALL PROVIDE SUFFICIENT VERTICAL AND HORIZONTAL CLEARANCES FOR THE CONSTRUCTION, OPERATION, MAINTENANCE, VENTILATION AND SAFETY OF THE HIGHWAY FACILITY. THE ESTATE ACQUIRED ABOVE THE AERIAL EASEMENT LINE MAY BE ENTERED ON BY MOVING VEHICLES SUCH AS TRUCKS OR RAILROAD ROLLING STOCK.

GENERAL NOTES

THE LEGAL RIGHT-OF-WAY ON SR 1038, FORMERLY LR 69 & 251, FROM STATION 1950+99.00 TO STATION 1963+73.00 IS VARIABLE EIGHTY-THREE (83) FEET TO ONE HUNDRED TWENTY (120) FEET BASED ON PLAN OF LR 69 AND 251, SIGNED BY THE GOVERNOR ON JULY 23, 1931.

THE LEGAL RIGHT-OF-WAY ON SR 4025, FORMERLY LR 03107, FROM STATION 10+68.25 TO STATION 12+26.00 IS THIRTY-THREE (33) FEET IN WIDTH BASED ON PLAN OF LR 69 AND 251, SIGNED BY THE GOVERNOR ON JULY 23, 1931.

THE LEGAL RIGHT-OF-WAY ON SR 4023, FORMERLY LR 03024, FROM STATION 20+32.00 TO STATION 22+85.00 IS FORTY (40) FEET IN WIDTH BASED ON PLAN OF LR 03024, SIGNED BY THE GOVERNOR ON APRIL 5, 1937.

THE LEGAL RIGHT-OF-WAY ON ALLEGHENY AVENUE FROM STATION 30+00.00 TO STATION 33+00.00 IS VARIABLE SEVENTY-ONE (71) FEET TO NINETY (90) FEET BASED ON PLAN OF LR 03024, SIGNED BY THE GOVERNOR ON APRIL 5, 1937.

THE LEGAL RIGHT-OF-WAY ON FRANKLIN AVE. IS SIXTEEN (16) FEET IN WIDTH BASED ON BOYD S. HENRY PLAN OF LOTS RECORDED ON APRIL 4, 1922 IN THE ARMSTRONG COUNTY RECORDER'S OFFICE IN PLAN BOOK VOLUME 1 PAGE 217.

THE LEGAL RIGHT-OF-WAY OF THE FOOT PATH IS TEN (10) FEET IN WIDTH BASED ON KITTANNING HIGHLANDS PLAN OF LOTS, SUBDIVISION NO. 1, RECORDED ON SEPTEMBER 28, 1946 IN THE ARMSTRONG COUNTY RECORDER'S OFFICE IN PLAN BOOK VOLUME 2 PAGE 49.

ALL REQUIRED RIGHT-OF-WAY FOR THIS PROJECT SHALL BE ACQUIRED IN FEE SIMPLE UNLESS OTHERWISE NOTED. AREAS, IF ANY, DESIGNATED AS REQUIRED FOR OTHER THAN RIGHT-OF-WAY SHALL BE ACQUIRED IN SUCH ESTATE AS DESIGNATED.

PRIVATE PROPERTY LINES ARE PLOTTED FROM THE DEED OF RECORD, RECORDED SUBDIVISION OR LOT PLANS, EXISTING TOPOGRAPHICAL FEATURES AND LIMITED FIELD DATA. PRIVATE PROPERTY LINES WERE NOT SURVEYED BY THE PROFESSIONAL LAND SURVEYOR RESPONSIBLE FOR THE PROJECT.

THE HALF CIRCLED NUMBER INDICATED A SCALED DIMENSION



TEMPORARY CONSTRUCTION EASEMENTS ARE REQUIRED ONLY UNTIL THE CONSTRUCTION OR WORK INDICATED BY THE PLAN IS COMPLETED, UNLESS SOONER RELINQUISHED IN WRITING BY THE DEPARTMENT.

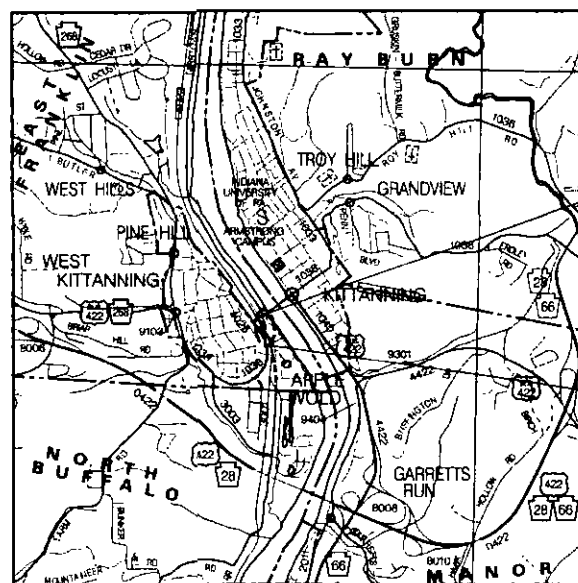
DRAINAGE EASEMENT. AN AREA WHICH SHALL ALLOW THE DEPARTMENT TO ENTER THE PROPERTY, AS NECESSARY, TO CONSTRUCT OR ALTER THE COURSE OF THE DRAINAGE AND TO MAKE SUCH FUTURE, REASONABLE ENTRIES AS NECESSARY TO MAINTAIN OR RECONSTRUCT THE DRAINAGE FACILITY FOR THE PROTECTION OF THE HIGHWAY. IT SHALL NOT PREVENT THE PROPERTY OWNER FROM MAKING ANY USE OF THE AREA WHICH IS NOT DETRIMENTAL TO THE NECESSARY FLOW OF WATER. HOWEVER, NO STRUCTURE OF ANY KIND MAY BE ERRECTED IN THE DESIGNATED AREA, NOR MAY ANY PIPE OR DITCH BE CONNECTED TO THE DEPARTMENT'S PIPE OR DITCH WITHOUT ADVANCED WRITTEN APPROVAL BY THE DEPARTMENT OF TRANSPORTATION.

UNDERGROUND ANCHOR EASEMENT. AN AREA WHICH SHALL ALLOW THE DEPARTMENT TO ENTER THE PROPERTY, AS NECESSARY, TO CONSTRUCT OR ALTER THE ANCHORS AND TO MAKE SUCH FUTURE, REASONABLE ENTRIES AS NECESSARY TO MAINTAIN OR RECONSTRUCT THE ANCHORS FOR THE PROTECTION OF THE HIGHWAY. IT SHALL NOT PREVENT THE OWNER FROM MAKING USE OF THE SURFACE FOR FARMING, PARKING AND SIMILAR PURPOSES WHICH SHALL NOT INJURE THE ANCHORS. HOWEVER, NO STRUCTURE OF ANY KIND MAY BE ERRECTED THEREON, NOR MAY ANY EXCAVATION OR DRILLING BE ALLOWED WITHOUT ADVANCED WRITTEN APPROVAL BY THE DEPARTMENT OF TRANSPORTATION.

SYMBOL	PUBLIC UTILITIES		
—S— —W—	WEST HILLS AREA WATER POLLUTION CONTROL AUTHORITY	RD #7, BOX 3 KITTANNING, PA 16201	COREY HELLER, MANAGER (724) 545-9126
—T—	ALLTELL	201 NORTH JEFFERSON STREET KITTANNING, PA 16201	LARRY LIGHTBODY (724) 543-7285
—CTV—	ADELPHIA CABLE - HIGHLAND VIDEO	ONE ADELPHIA DRIVE BLAIRSVILLE, PA 15717	RANDY GAULT (724) 459-9042
—G—	DOMINION PEOPLES	432 HYDE PARK ROAD LEECHBURG, PA 15656	MICHELLE SAXON (724) 842-4839
—E—	ALLEGHENY POWER	109A BRIAR HILL ROAD KITTANNING, PA 16201	KEVIN BAKER (412) 548-3538
—RR—	PITTSBURGH AND SHAMMUT RAILROAD, INC.	360 PINE STREET WARREN, PA 16365	BILL GENTILMAN, PROPERTY MANAGER (814) 726-3552

PA ONE CALL SYSTEM, INC PHONE NO 1-800-242-1776

DESIGNERS SERIAL NUMBERS: 2556437 FOR S.R. 1038 IN EAST FRANKLIN TWP.
2556446 FOR S.R. 1038 IN APPLEWOLD BORO
2556441 FOR S.R. 4025 IN EAST FRANKLIN TWP.
2556452 FOR S.R. 4023 IN EAST FRANKLIN TWP.



LOCATION MAP

LIMIT OF AUTHORIZATION
STA. 1963+73.00
SEG. 0060 OFFSET 0132
S.R. 1038 SEC. 150 R/W
EAST FRANKLIN TOWNSHIP
ARMSTRONG COUNTY

LIMIT OF AUTHORIZATION
STA. 1950+99.00
SEG. 0040 OFFSET 0836
S.R. 1038 SEC. 150 R/W
EAST FRANKLIN TOWNSHIP
ARMSTRONG COUNTY

LEGEND

- STATE ROUTE
- TOWNSHIP ROAD
- PROJECT

SCALE



LIST OF EQUATIONS

NONE

TABULATION OF OVERALL LENGTH

STA. 1950+99.00 TO STA 1963+73.00 = 1274.00 FT = 0.241 MI.

TABULATION OF AUTHORIZATION LENGTH

STA. 1950+99.00 TO STA 1962+85.41 = 1186.41 FT = 0.225 MI.

STA. 1963+06.00 TO STA 1963+73.00 = 67.00 FT = 0.012 MI.

TOTAL = 0.237 MI.

TABULATION OF SEGMENT EQUALITIES

SEGMENT 0040 OFFSET 0836 = STA. 1950+99.00 = LIMIT OF AUTHORIZATION

SEGMENT 0050 OFFSET 0000 = STA. 1953+50.00

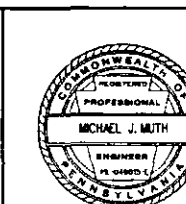
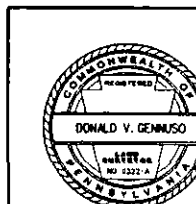
SEGMENT 0060 OFFSET 0000 = STA. 1962+41.32

SEGMENT 0060 OFFSET 0132 = STA. 1963+73.00 = LIMIT OF AUTHORIZATION

DRAWN BY CJC

CHECKED BY MJM

**LOCATION MAP AND
GENERAL NOTES**



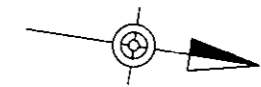
TABULATION OF PROJECT COORDINATES

BASED ON AN ASSUMED COORDINATE SYSTEM

RTE	STATION	POINT	COORDINATES		BEARING	RTE	STATION	POINT	COORDINATES		BEARING
			NORTH	EAST					NORTH	EAST	
S. R. 1038 SURVEY & R/W B	1948+25.26	PCC	8680.9759	10202.4300	N 10°58'52" E	S. R. 1038 R/W B	1927+83.29	PC	8172.1100	8605.6428	S 46°20'00" E
	1949+53.77	PI	8807.1316	10226.9091	N 0°54'00" W		1950+64.26	PI	6597.1884	10255.6249	N 0°54'00" W
	1950+81.35	PCC	8935.6243	10224.8906	N 0°54'00" W		1950+26.07	PT	8877.8759	10219.7970	N 0°54'00" W
	1951+94.78	PI	9049.0379	10223.1089	N 9°00'00" W		1950+80.39	PC	8932.1910	10218.9438	N 0°54'00" W
	1953+07.83	PT	9161.0690	10205.3649	N 9°00'00" W		1951+54.15	PI	9005.9412	10217.7852	N 0°54'00" W
	1956+60.33	PC	9509.2292	10150.2218	N 9°00'00" W		1952+27.66	PT	9078.7923	10206.2467	N 0°54'00" W
	1958+07.86	PI	9654.9379	10127.1438	N 9°00'00" W		1956+61.52	PC	9507.3122	10138.3758	N 9°00'00" W
	1959+54.36	PT	9792.9696	10075.0777	N 20°40'00" W		1958+07.86	PI	9651.8498	10115.4833	N 9°00'00" W
	1960+25.29	PC	9859.3332	10050.0451	N 20°40'00" W		1959+53.19	PT	9788.7721	10063.8357	N 20°40'00" W
	1961+91.35	PI	10014.7129	9991.4353	N 20°40'00" W		1960+09.22	PC	9841.1988	10044.0602	N 20°40'00" W
	1963+10.97	PT	10115.7310	10123.2433	N 52°32'00" E		1961+86.52	PI	10007.0879	9981.4862	N 20°40'00" W
	1975+09.33	POT	10844.6958	11074.3939	N 52°32'00" E		1963+14.22	PT	10114.9384	10122.2092	N 52°32'00" E
	S. R. 4025 SURVEY & R/W B	10+00.00	POT	9712.7477	10102.6742		S 61°15'57" W	1975+13.89	POT	10844.6958	11074.3939
10+52.12		PC	9687.6931	10056.9756	S 61°15'57" W						
10+91.65		PI	9668.6851	10022.3057	N 36°07'36" W						
11+17.00		PT	9700.6212	9998.9949	N 36°07'36" W						
S. R. 4023 SURVEY & R/W B	20+00.00	POT	10065.4229	10075.3400	N 27°11'16" W						
	23+66.49	POT	10391.4217	9907.8871							

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
10-0	ARMSTRONG	1038	150 R/W	4 OF 17
EAST FRANKLIN TWP., WEST KITTANNING & APPLEWOLD BORO.'S				
REVISION NUMBER	REVISIONS	DATE	BY	

NOTE:
FOUR PLACE COORDINATES ARE FOR COMPUTATIONAL PURPOSES ONLY AND DO NOT IMPLY A PRECISION BEYOND TWO DECIMAL PLACES.



S. R. 1038 R/W B

PI STA. 1950+64.26
 $\Delta = 134°34'00" LT$
 D = 6°00'00"
 T = 2280.97'
 L = 2242.78'
 R = 954.93'
 E = 1517.86'
 PC STA. = 1927+83.29
 PT STA. = 1950+26.07

S. R. 1038 SURVEY & R/W B

PI STA. 1949+53.77
 $\Delta = 11°52'52" LT$
 D = 4°38'22"
 T = 128.51'
 L = 256.10'
 R = 1235.00'
 E = 6.67'
 PCC STA. = 1948+25.26
 PCC STA. = 1950+81.35
 SE MATCH EXISTING

S. R. 1038 R/W B

PI STA. 1951+54.15
 $\Delta = 8°06'00" LT$
 D = 5°30'00"
 T = 73.76'
 L = 147.27'
 R = 1041.74'
 E = 2.61'
 PC STA. = 1950+80.39
 PT STA. = 1952+27.66

S. R. 1038 SURVEY & R/W B

PI STA. 1951+94.78
 $\Delta = 8°06'00" LT$
 D = 3°34'35"
 T = 113.43'
 L = 226.48'
 R = 1602.00'
 E = 4.01'
 PCC STA. = 1950+81.35
 PT STA. = 1953+07.83
 SE = 4.8%

S. R. 1038 R/W B

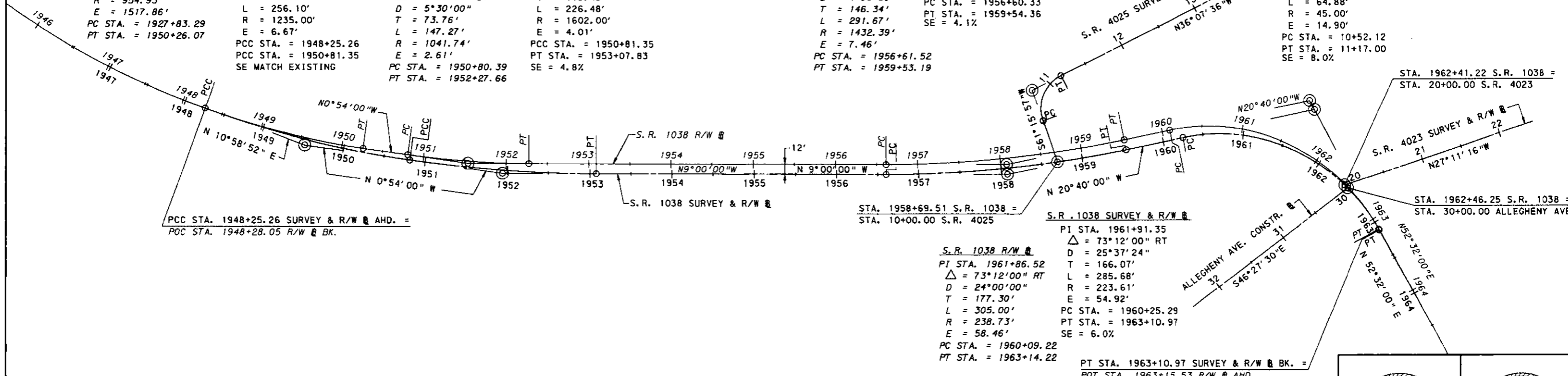
PI STA. 1958+07.86
 $\Delta = 11°40'00" LT$
 D = 4°00'00"
 T = 146.34'
 L = 291.67'
 R = 1432.39'
 E = 7.46'
 PC STA. = 1956+61.52
 PT STA. = 1959+53.19

S. R. 1038 SURVEY & R/W B

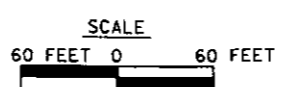
PI STA. 1958+07.86
 $\Delta = 11°40'00" LT$
 D = 3°58'04"
 T = 147.52'
 L = 294.03'
 R = 1444.00'
 E = 7.52'
 PC STA. = 1956+60.33
 PT STA. = 1959+54.36
 SE = 4.1%

S. R. 4025 SURVEY & R/W B

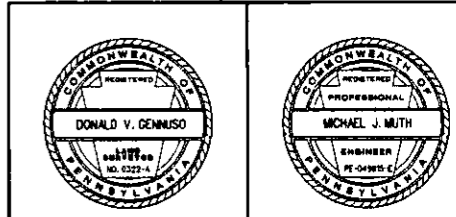
PI STA. 10+91.65
 $\Delta = 82°36'27" RT$
 D = 127°19'26"
 T = 39.54'
 L = 64.88'
 R = 45.00'
 E = 14.90'
 PC STA. = 10+52.12
 PT STA. = 11+17.00
 SE = 8.0%



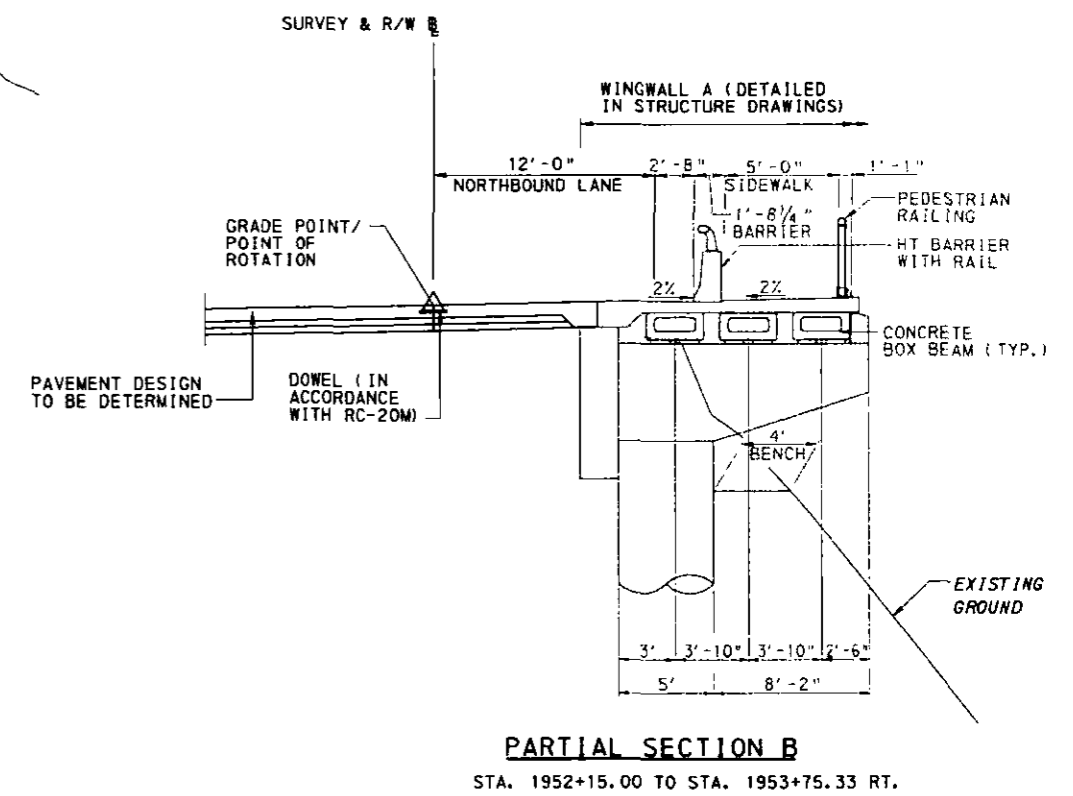
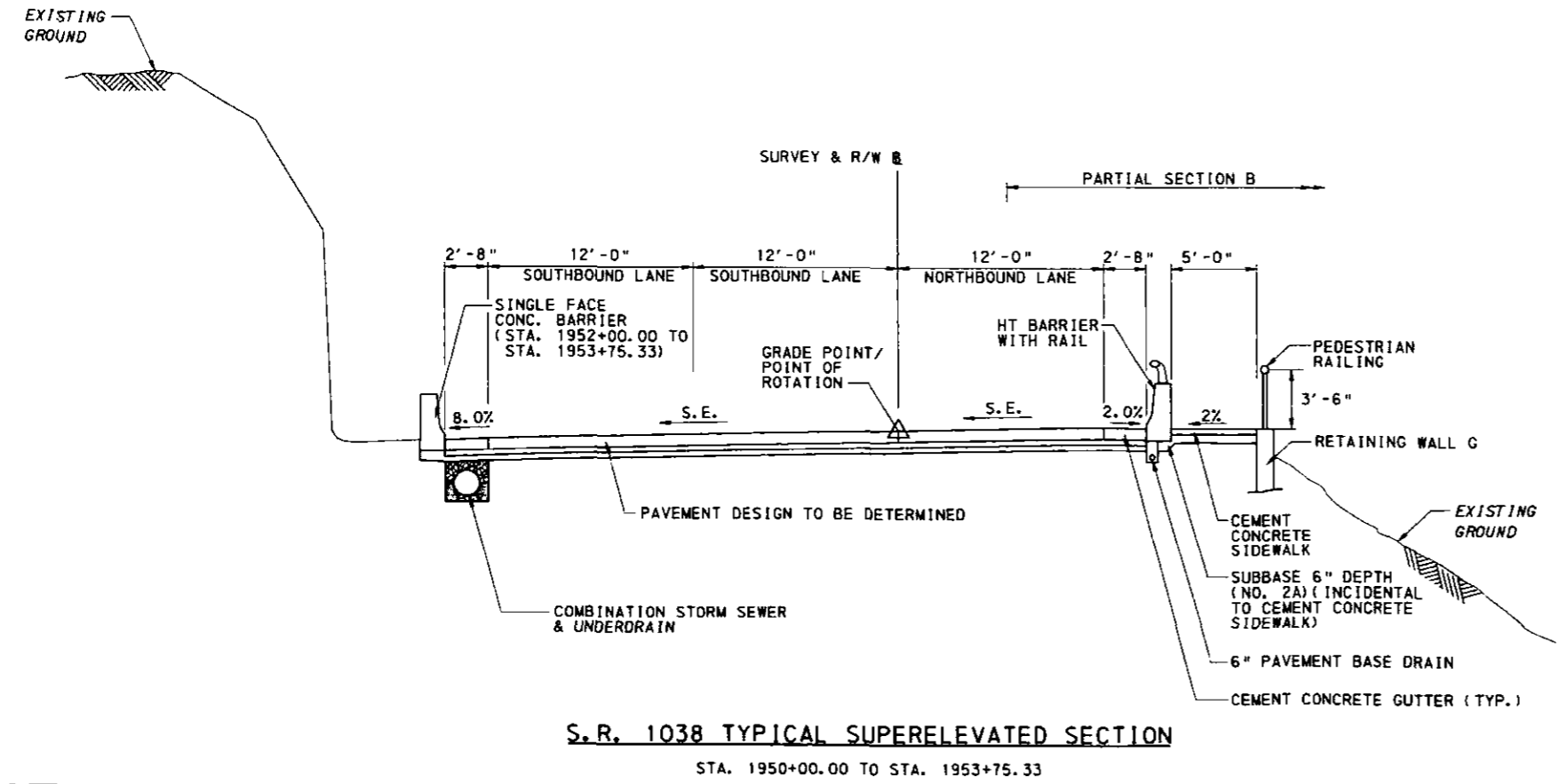
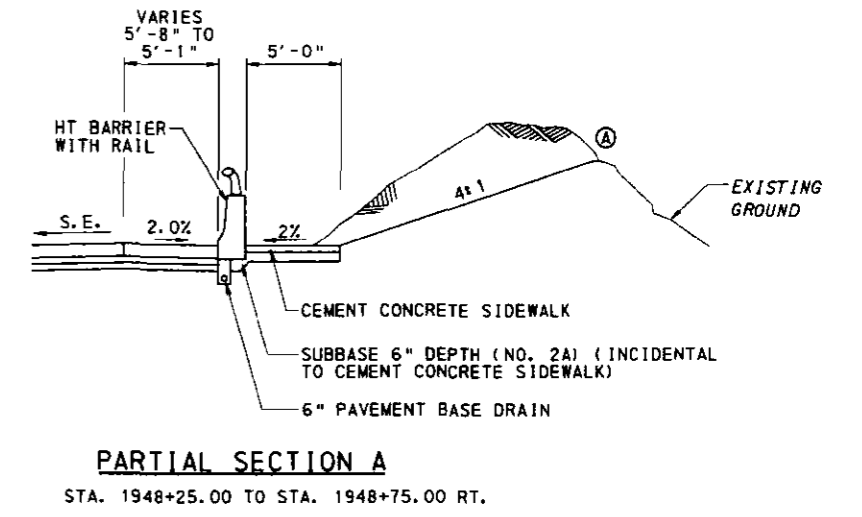
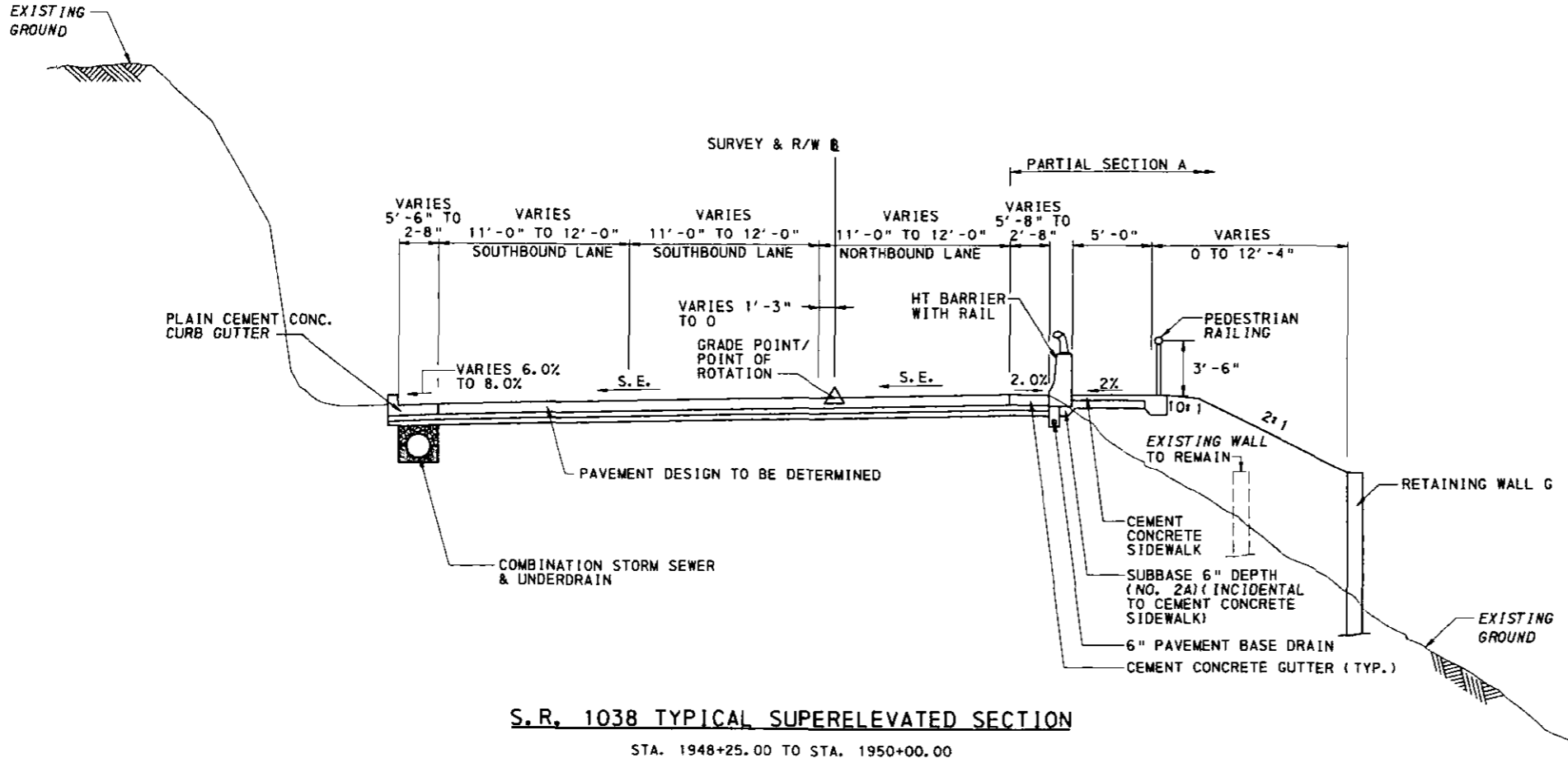
DRAWN BY JLT
 CHECKED BY MJM



GEOMETRIC LAYOUT



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
10-0	ARMSTRONG	103B	150 R/W	5 OF 17
EAST FRANKLIN TWP., WEST KITTANNING & APPLEWOLD BORO.'S				
REVISION NUMBER	REVISIONS			DATE BY



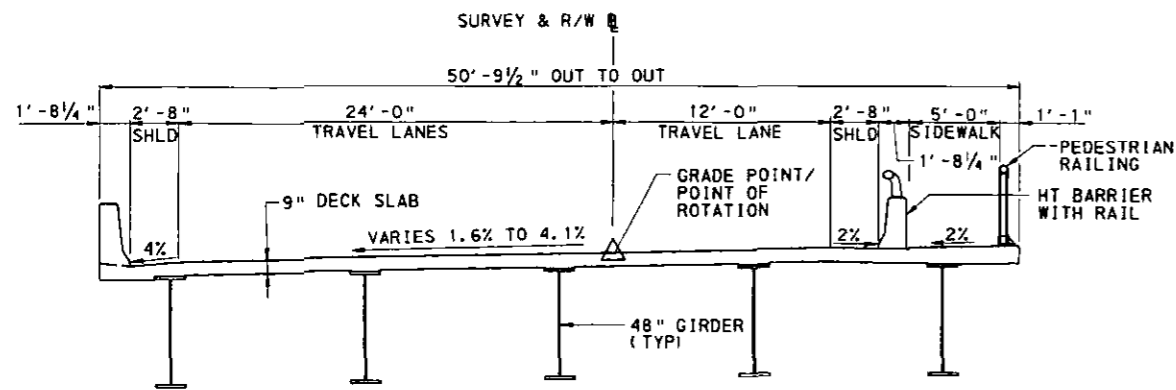
DRAWN BY	CJC
CHECKED BY	MJM

Ⓐ ROUNDING OF CUT SLOPES IN ACCORDANCE WITH RC-10M

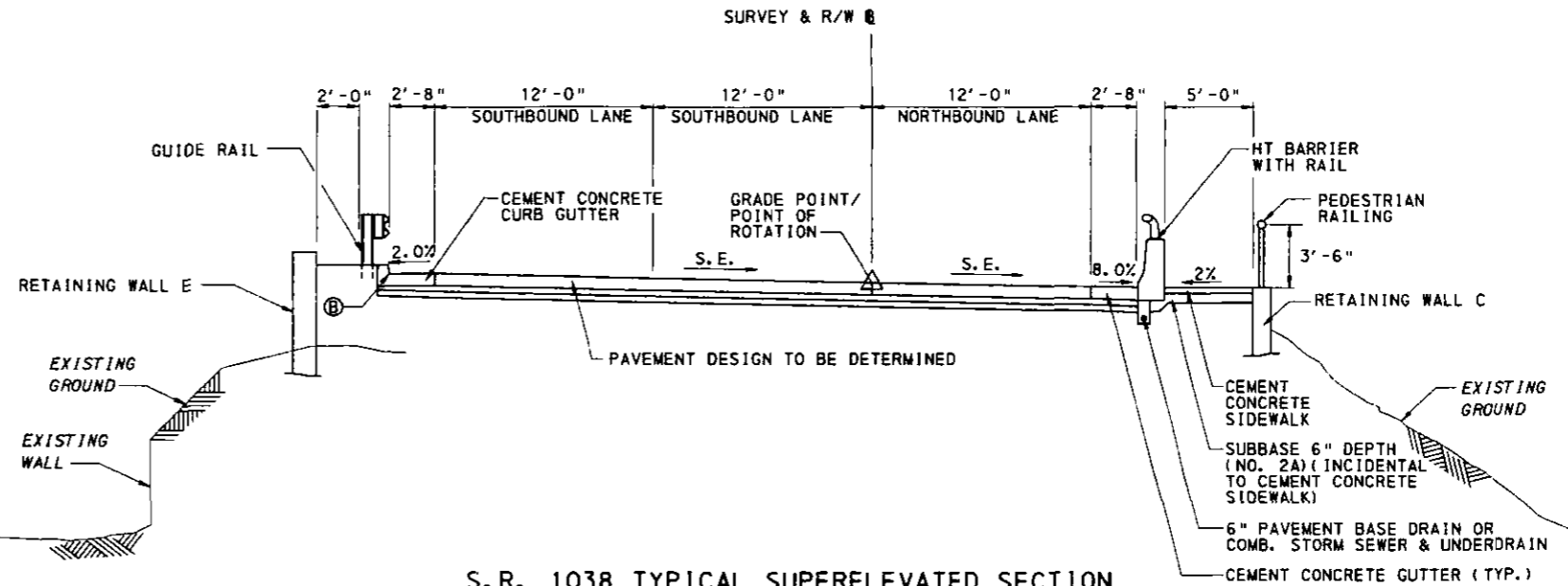
TYPICAL SECTIONS

<p>DONALD Y. GENUSO PROFESSIONAL ENGINEER NO. 6222-A PENNSYLVANIA</p>	<p>MICHAEL J. MUTH PROFESSIONAL ENGINEER NO. 4985-1 PENNSYLVANIA</p>
---	--

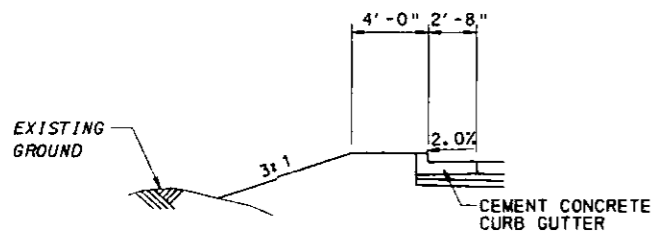
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
10-0	ARMSTRONG	1038	150 R/W	6 OF 17
EAST FRANKLIN TWP., WEST KITTANNING & APPLEWOLD BORO.'S				
REVISION NUMBER	REVISIONS	DATE	BY	



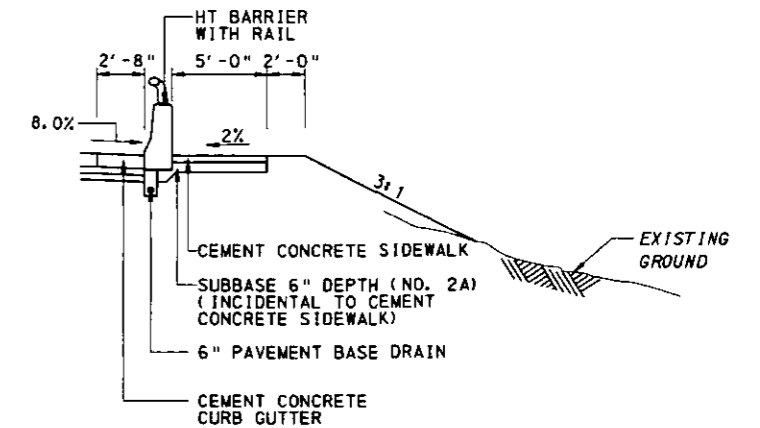
S.R. 1038 BRIDGE TYPICAL SECTION
STA. 1953+75.33 TO STA. 1958+96.33



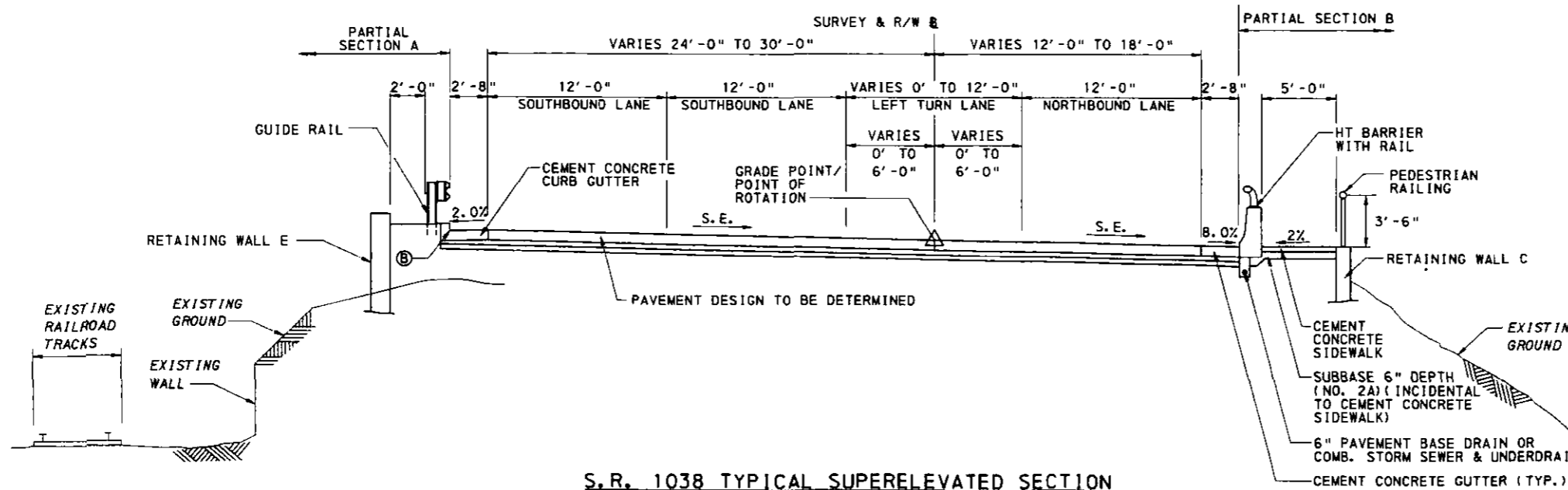
S.R. 1038 TYPICAL SUPERELEVATED SECTION
STA. 1958+96.33 TO STA. 1960+04.39



PARTIAL SECTION A
STA. 1961+60.00 TO STA. 1962+97.54 LT.



PARTIAL SECTION B
STA. 1961+65.00 TO STA. 1962+00.00 RT.

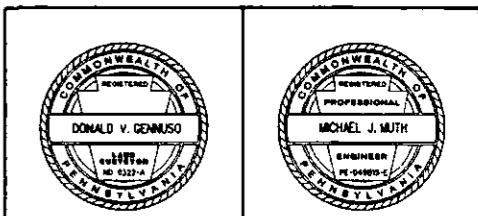


S.R. 1038 TYPICAL SUPERELEVATED SECTION
STA. 1960+04.39 TO STA. 1962+97.54

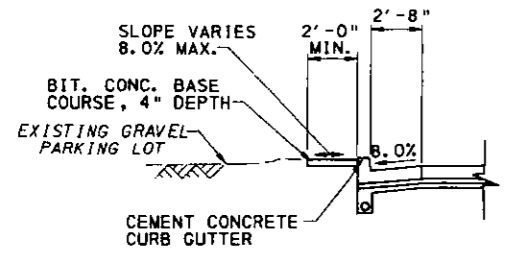
DRAWN BY CJC
CHECKED BY MJM

ⓑ CONSTRUCT CURB WITH 4" REVEAL WHERE GUIDERAIL IS PROPOSED ALONG THE CURB LINE

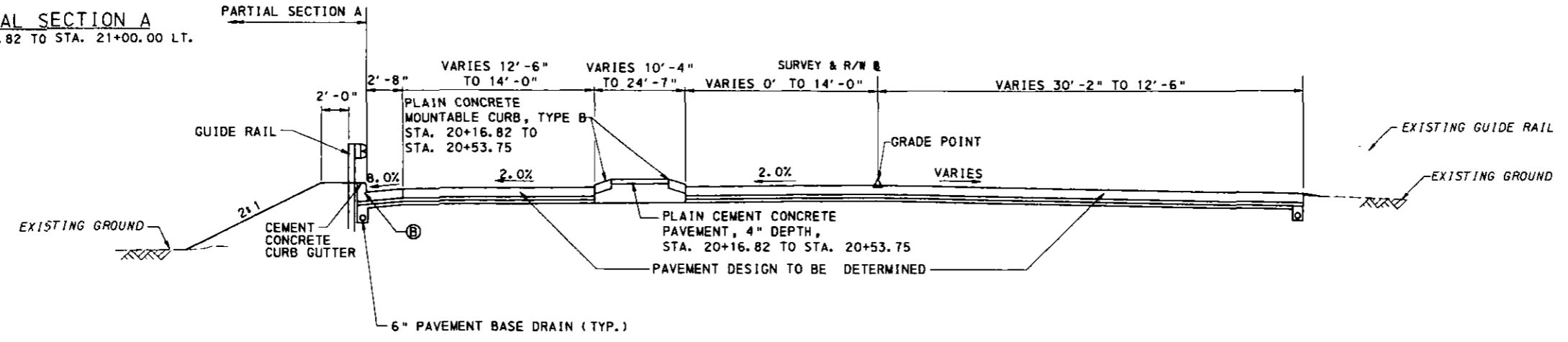
TYPICAL SECTIONS



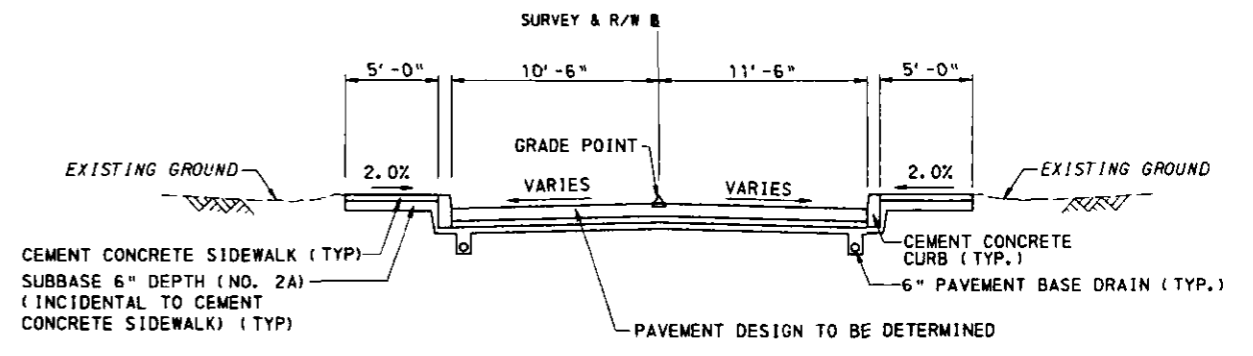
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
10-0	ARMSTRONG	103B	150 R/W	7 OF 17
EAST FRANKLIN TWP., WEST KITTANNING & APPLEWOLD BORO.'S				
REVISION NUMBER	REVISIONS	DATE	BY	



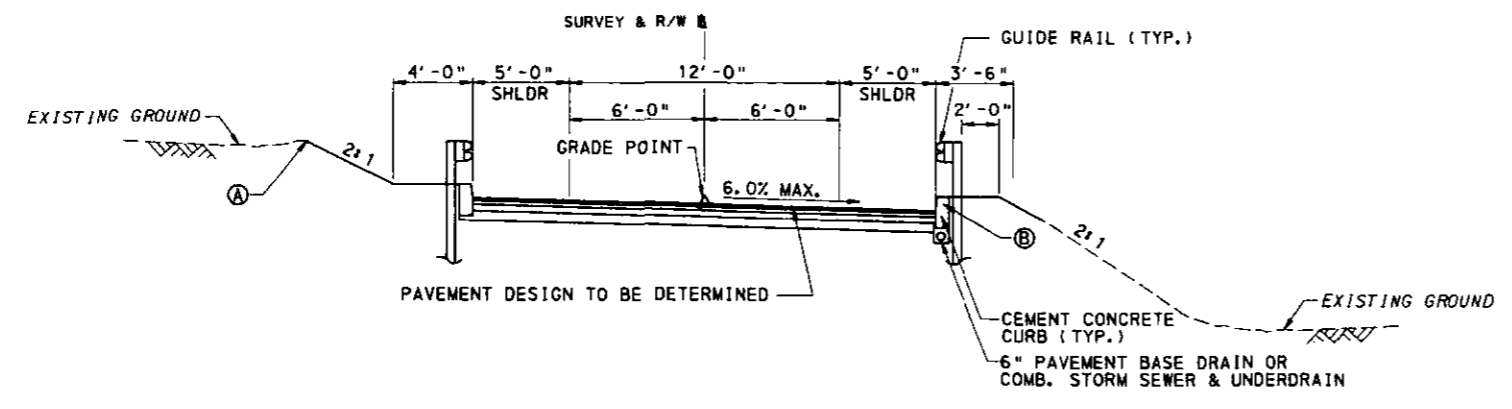
PARTIAL SECTION A
 STA. 20+16.82 TO STA. 21+00.00 LT.



S.R. 4023 (TARTOWN ROAD) TYPICAL TANGENT SECTION
 STA. 20+20.20 TO STA. 22+00.00



ALLEGHENY AVE. TYPICAL SECTION
 STA. 30+18.17 TO STA. 31+00.00

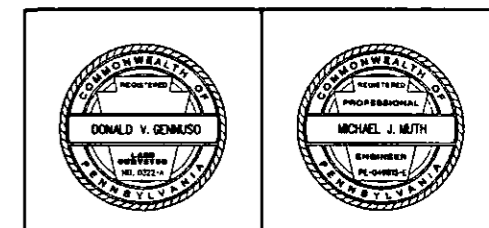


S.R. 4025 (PINE HILL ROAD) TYPICAL SUPERELEVATED SECTION
 STA. 10+27.14 TO STA. 12+25.00

DRAWN BY	CJC
CHECKED BY	MJM

- Ⓐ ROUNDING OF CUT SLOPES IN ACCORDANCE WITH RC-10M
- Ⓑ CONSTRUCT CURB WITH 4" REVEAL WHERE GUIDERAIL IS PROPOSED ALONG THE CURB LINE

TYPICAL SECTIONS



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
10-0	ARMSTRONG	1038	150 R/W	8 OF 17
EAST FRANKLIN TWP. & WEST KITTANNING BOROUGH				
REVISION NUMBER	REVISIONS	DATE	BY	

BM ELEV 905.22
32.10' LT, STA 1951+96.95 SR 1038
MAG IN STONE

S. R. 1038 SURVEY & R/W B
PI STA. 1949+53.77
Δ = 11°52'52" LT
D = 4°38'22"
T = 128.51'
L = 256.10'
R = 1235.00'
E = 6.67'
PCC STA. = 1948+25.26
PCC STA. = 1950+81.35
SE MATCH EXISTING

S. R. 1038 SURVEY & R/W B
PI STA. 1951+94.78
Δ = 8°06'00" LT
D = 3°34'35"
T = 113.43'
L = 226.48'
R = 1802.00'
E = 4.01'
PCC STA. = 1950+81.35
PT STA. = 1953+07.83
SE = 4.8%

RIGHT-OF-WAY CLAIM INFORMATION	
PARCEL NO	SHEET NO
5	17

STATION	STRUCTURE DATA	
	EXISTING	PROPOSED
1956+07.65	8-SPAN CONCRETE T-BEAM AND SINGLE SPAN STEEL THRU GIRDER	4-SPAN STEEL MULTI-GIRDER AND SINGLE SPAN ROLLED BEAM "T-SPAN"
	1 @ 49'-6", 5 @ 48'-0", 4 @ 46'-6", 1 @ 32'-5 1/4", 1 @ 97'-10 1/2"	116' - 144'-6" - 144'-6" - 116' AND 39'
	22'-0" MIN.	22'-0" MIN.
	30' CURB TO CURB	41'-4" CURB TO CURB, 5'-0" SIDEWALK, 2 - 1'-8 1/4" BARRIERS AND 1'-1" PED. RAILING
	VARIES - 16°-4' MIN.	90° (85°20'19" @ T-SPAN)
	S-720	S- TBD
		RECOMMENDED- <u> </u>

LIMIT OF AUTHORIZATION
STA. 1950+99.00
SEG. 0040 OFFSET 0836
S. R. 1038 SEC. 150 R/W
EAST FRANKLIN TOWNSHIP
ARMSTRONG COUNTY

TEMPORARY CONSTRUCTION EASEMENTS ARE REQUIRED ONLY UNTIL THE CONSTRUCTION OR WORK INDICATED BY THE PLAN IS COMPLETED, UNLESS SOONER RELINQUISHED IN WRITING BY THE DEPARTMENT.

DRAINAGE EASEMENT. AN AREA WHICH SHALL ALLOW THE DEPARTMENT TO ENTER THE PROPERTY, AS NECESSARY, TO CONSTRUCT OR ALTER THE COURSE OF THE DRAINAGE AND TO MAKE SUCH FUTURE, REASONABLE ENTRIES AS NECESSARY TO MAINTAIN OR RECONSTRUCT THE DRAINAGE FACILITY FOR THE PROTECTION OF THE HIGHWAY. IT SHALL NOT PREVENT THE PROPERTY OWNER FROM MAKING ANY USE OF THE AREA WHICH IS NOT DETRIMENTAL TO THE NECESSARY FLOW OF WATER. HOWEVER, NO STRUCTURE OF ANY KIND MAY BE ERRECTED IN THE DESIGNATED AREA, NOR MAY ANY PIPE OR DITCH BE CONNECTED TO THE DEPARTMENT'S PIPE OR DITCH WITHOUT ADVANCED WRITTEN APPROVAL BY THE DEPARTMENT OF TRANSPORTATION.

PRIVATE PROPERTY LINES ARE PLOTTED FROM THE DEED OF RECORD, RECORDED SUBDIVISION OR LOT PLANS, EXISTING TOPOGRAPHICAL FEATURES AND LIMITED FIELD DATA. PRIVATE PROPERTY LINES WERE NOT SURVEYED BY THE PROFESSIONAL LAND SURVEYOR RESPONSIBLE FOR THE PROJECT.

FOR THE AERIAL EASEMENT DEFINITION, SEE GENERAL NOTES, SHEET 3.

LIST OF PROPERTY OWNERS

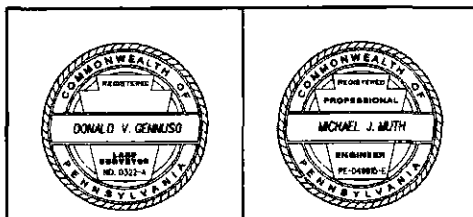
- ① RICHARD L. CRATTY II AND ELOISA CRATTY, HIS WIFE
- ② JAMES W. TERNENT, JR. AND ALICE H. TERNENT, HIS WIFE
- ③ BARBARA N. PRYDE
- ④ PATRICK HUTCHISON
- ⑤ BUFFALO & PITTSBURGH RAILROAD, INC. BY MERGER WITH PITTSBURGH & SHAWMUT RAILROAD, INC.

DRAWN BY	CJC
CHECKED BY	MJM

FOR SURVEY REFERENCES SEE SHEET 11
FOR PROFILE S. R. 1038 SEE SHEET 12

SURVEY BOOK NO. 18225

SCALE
25 FEET 0 25 FEET



SEE SHEET 9 OF 17

LIST OF PROPERTY OWNERS

- 4 PATRICK HUTCHISON
- 5 BUFFALO & PITTSBURGH RAILROAD, INC. BY MERGER WITH PITTSBURGH & SHAMMUT RAILROAD, INC.
- 6 THE BOROUGH OF WEST KITTANNING
- 7 TIMOTHY WALKOWIAK
- 8 JAMES E. EDWARDS AND DORIS J. EDWARDS
- 9 RIVERCLIFF TERRACE, INC. A PENNSYLVANIA CORPORATION
- 10 RICHARD F. FINK AND MARY ELLEN FINK, HIS WIFE
- 11 BETSY L. ALEXANDER
- 12 SHELBY S. WILSON AND ERIN L. WILSON, HUSBAND AND WIFE
- 13 LLOYD E. ALEXANDER AND NANCY J. ALEXANDER, HUSBAND AND WIFE
- 14 EDWIN C. BOWER AND SUSAN K. BOWER, HIS WIFE

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
10-0	ARMSTRONG	1038	150 R/W	9 OF 17
EAST FRANKLIN TWP., WEST KITTANNING & APPLEWOLD BORO.'S				
REVISION NUMBER	REVISIONS	DATE	BY	

TEMPORARY CONSTRUCTION EASEMENTS ARE REQUIRED ONLY UNTIL THE CONSTRUCTION OR WORK INDICATED BY THE PLAN IS COMPLETED, UNLESS SOONER RELINQUISHED IN WRITING BY THE DEPARTMENT.

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UNDERGROUND ANCHOR EASEMENT. AN AREA WHICH SHALL ALLOW THE DEPARTMENT TO ENTER THE PROPERTY, AS NECESSARY, TO CONSTRUCT OR ALTER THE ANCHORS AND TO MAKE SUCH FUTURE, REASONABLE ENTRIES AS NECESSARY TO MAINTAIN OR RECONSTRUCT THE ANCHORS FOR THE PROTECTION OF THE HIGHWAY. IT SHALL NOT PREVENT THE OWNER FROM MAKING USE OF THE SURFACE FOR FARMING, PARKING AND SIMILAR PURPOSES WHICH SHALL NOT INJURE THE ANCHORS. HOWEVER, NO STRUCTURE OF ANY KIND MAY BE ERRECTED THEREON, NOR MAY ANY EXCAVATION OR DRILLING BE ALLOWED WITHOUT ADVANCED WRITTEN APPROVAL BY THE DEPARTMENT OF TRANSPORTATION.

PRIVATE PROPERTY LINES ARE PLOTTED FROM THE DEED OF RECORD, RECORDED SUBDIVISION OR LOT PLANS, EXISTING TOPOGRAPHICAL FEATURES AND LIMITED FIELD DATA. PRIVATE PROPERTY LINES WERE NOT SURVEYED BY THE PROFESSIONAL LAND SURVEYOR RESPONSIBLE FOR THE PROJECT.

FOR THE AERIAL EASEMENT DEFINITION, SEE GENERAL NOTES, SHEET 3.

RIGHT-OF-WAY CLAIM INFORMATION	
PARCEL NO	SHEET NO
5	17
9	17

REQUIRED RIGHT-OF-WAY AREA

S.R. 1038 SURVEY & R/W

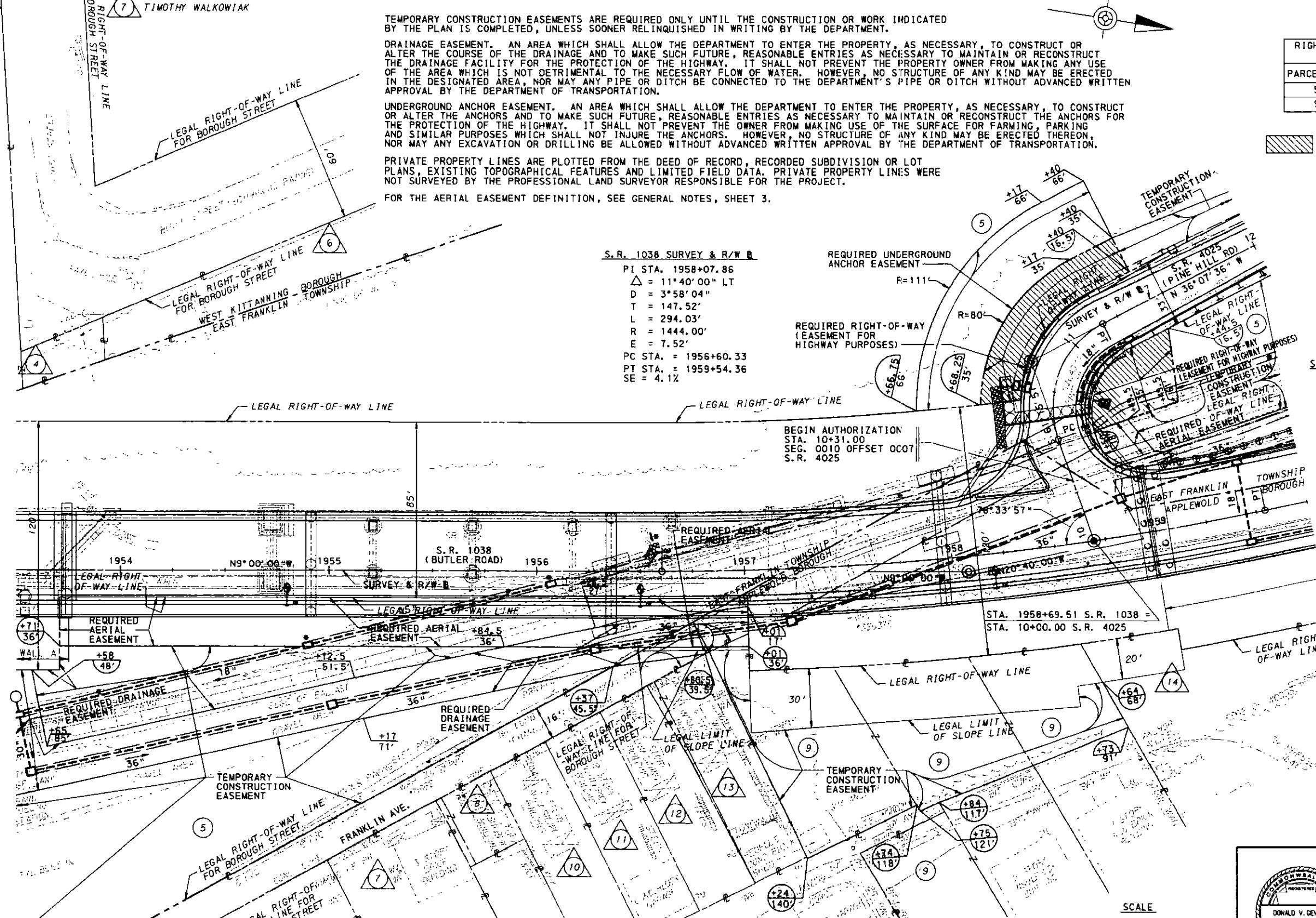
PI STA. 1958+07.86
 $\Delta = 11^\circ 40' 00''$ LT
 D = 3°58' 04"
 T = 147.52'
 L = 294.03'
 R = 1444.00'
 E = 7.52'
 PC STA. = 1956+60.33
 PT STA. = 1959+54.36
 SE = 4.1%

SR 4025 SURVEY & R/W

PI STA 10+91.65
 $\Delta = 82^\circ 36' 27''$ RT
 D = 127°19' 26"
 T = 39.54'
 L = 64.88'
 R = 45.00'
 E = 14.90'
 PC STA = 10+52.12
 PT STA = 11+17.00
 SE = 8.0%

SEE SHEET 8 OF 17

SEE SHEET 10 OF 17

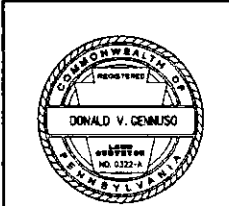
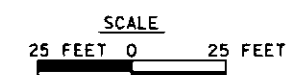


DRAWN BY	CJC
CHECKED BY	MJM

FOR SURVEY REFERENCES SEE SHEET 11
 FOR PROFILE S.R. 1038 SEE SHEET 13
 FOR PROFILE S.R. 4025 SEE SHEET 15

* BUFFALO & PITTSBURGH RAILROAD WILL ASSUME RESPONSIBILITY FOR MAINTENANCE OF STORM INLETS, PIPES AND DRAINAGE SWALES ALONG WEST SIDE OF TRACKS.

SURVEY BOOK NO. 18225



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
10-0	ARMSTRONG	1038	150 R/W	10 OF 17
EAST FRANKLIN TWP. & APPLEWOLD BOROUGH				
REVISION NUMBER	REVISIONS	DATE	BY	

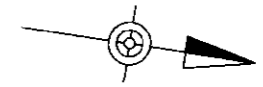
END AUTHORIZATION
 STA. 12+26.00
 SEG. 0010 OFFSET 0202
 S.R. 4025

BM ELEV 822.81
 32.53' RT, STA 1963+27.29 SR 1038
 BRONZE DISK ON WING

TEMPORARY CONSTRUCTION EASEMENTS ARE REQUIRED ONLY UNTIL THE CONSTRUCTION OR WORK INDICATED BY THE PLAN IS COMPLETED, UNLESS SOONER RELINQUISHED IN WRITING BY THE DEPARTMENT.

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S.R. 1038 SURVEY & R/W B
 PI STA. 1958+07.86
 $\Delta = 11^{\circ}40'00''$ LT
 D = 3'58'04"
 T = 147.52'
 L = 294.03'
 R = 1444.00'
 E = 7.52'
 PC STA. = 1956+60.33
 PT STA. = 1959+54.36
 SE = 4.1%

S.R. 1038 SURVEY & R/W B
 PI STA. 1961+91.35
 $\Delta = 73^{\circ}12'00''$ RT
 D = 25'37'24"
 T = 166.07'
 L = 285.68'
 R = 223.61'
 E = 54.92'
 PC STA. = 1960+25.29
 PT STA. = 1963+10.97
 SE = 6.0%

RIGHT-OF-WAY CLAIM INFORMATION	
PARCEL NO	SHEET NO
5	17

REQUIRED RIGHT-OF-WAY AREA

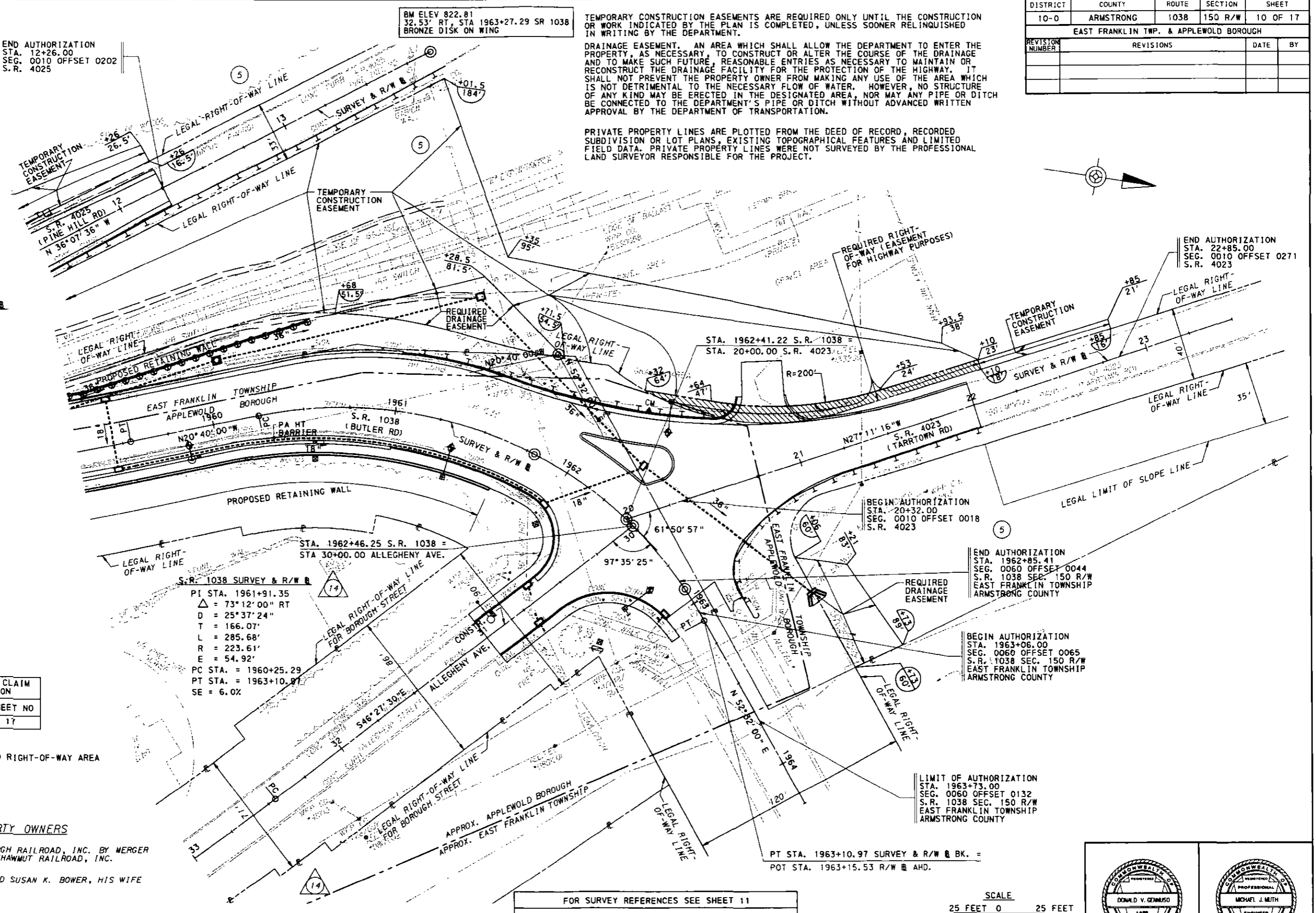
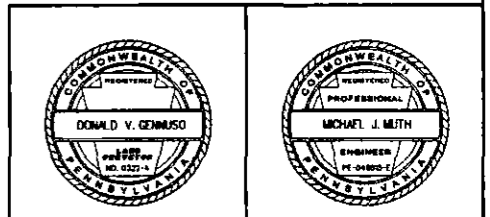
- LIST OF PROPERTY OWNERS
- ⑤ BUFFALO & PITTSBURGH RAILROAD, INC. BY MERGER WITH PITTSBURGH & SHAWMUT RAILROAD, INC.
 - ⑭ EDWIN C. BOWER AND SUSAN K. BOWER, HIS WIFE

DRAWN BY CJC
 CHECKED BY MJM

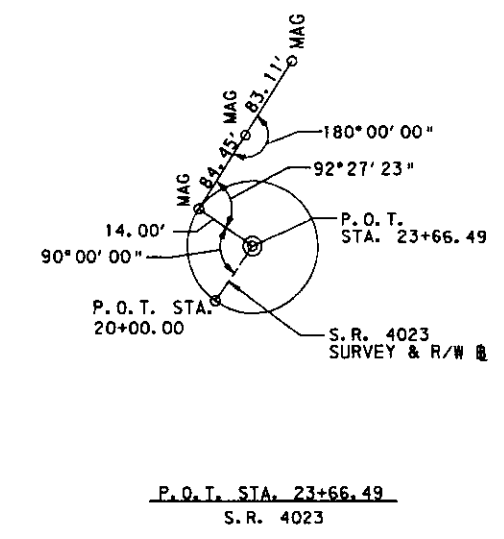
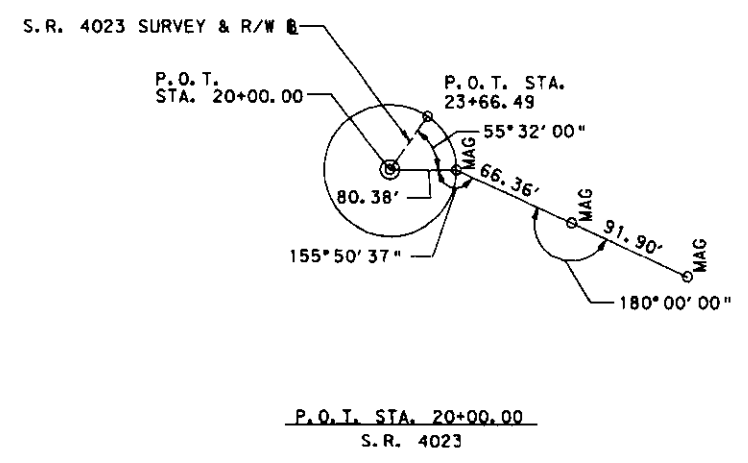
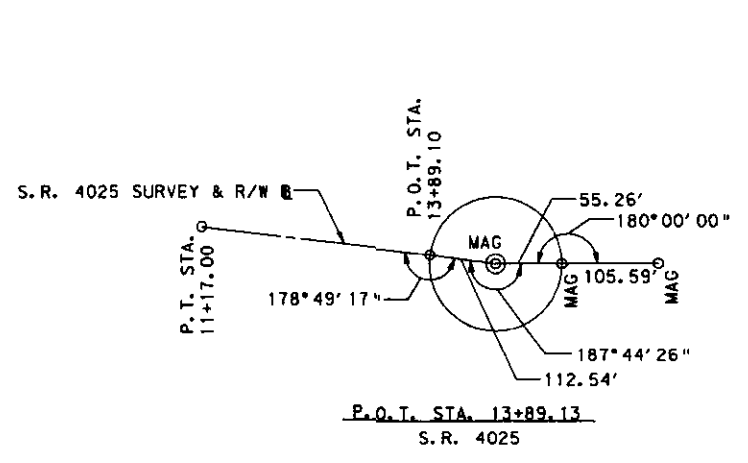
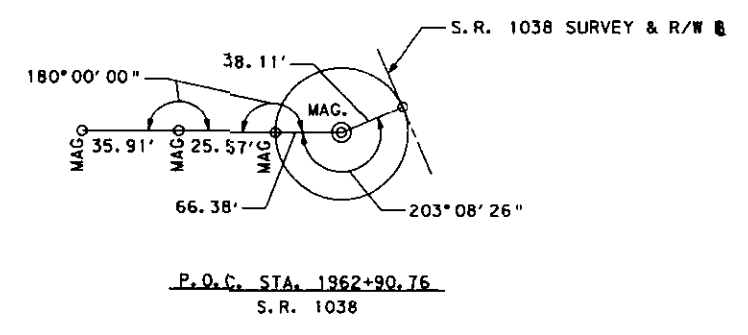
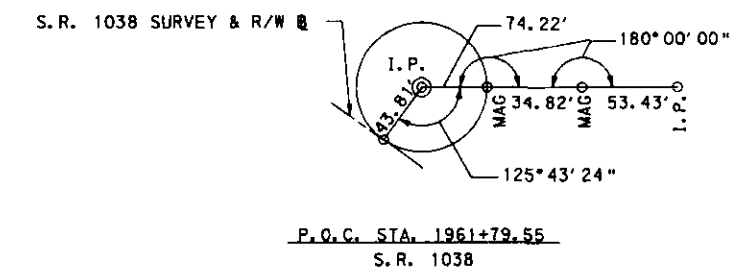
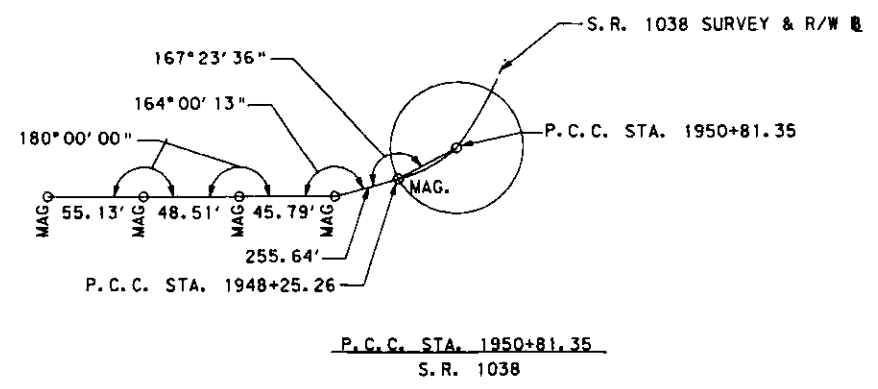
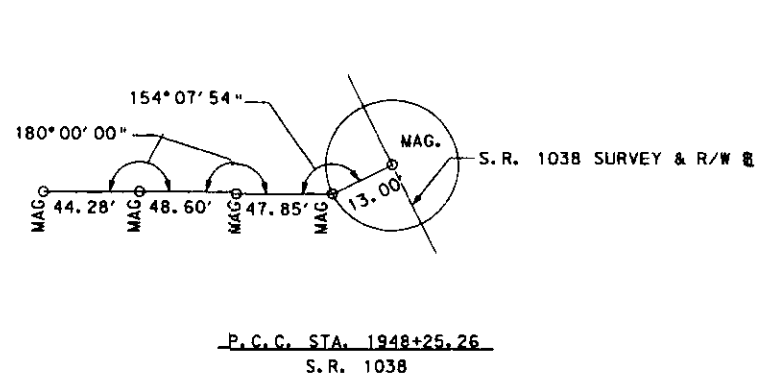
FOR SURVEY REFERENCES SEE SHEET 11
 FOR PROFILE S.R. 1038 SEE SHEET 14
 FOR PROFILE S.R. 4025 SEE SHEET 15
 FOR PROFILE S.R. 4023 & ALLEGHENY AVE SEE SHEET 16

SURVEY BOOK NO. 18225

SCALE
 25 FEET 0 25 FEET

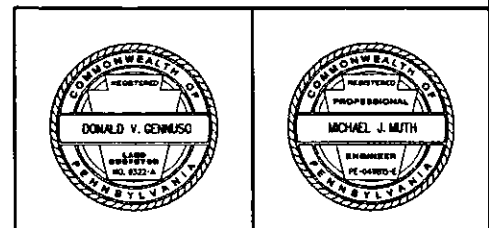


DISTRICT	COUNTY	ROUTE	SECTION	SHEET
10-0	ARMSTRONG	1038	150 R/W	11 OF 17
EAST FRANKLIN TWP., WEST KITTANNING & APPLEWOLD BORO.'S				
REVISION NUMBER	REVISIONS	DATE	BY	



SURVEY REFERENCES

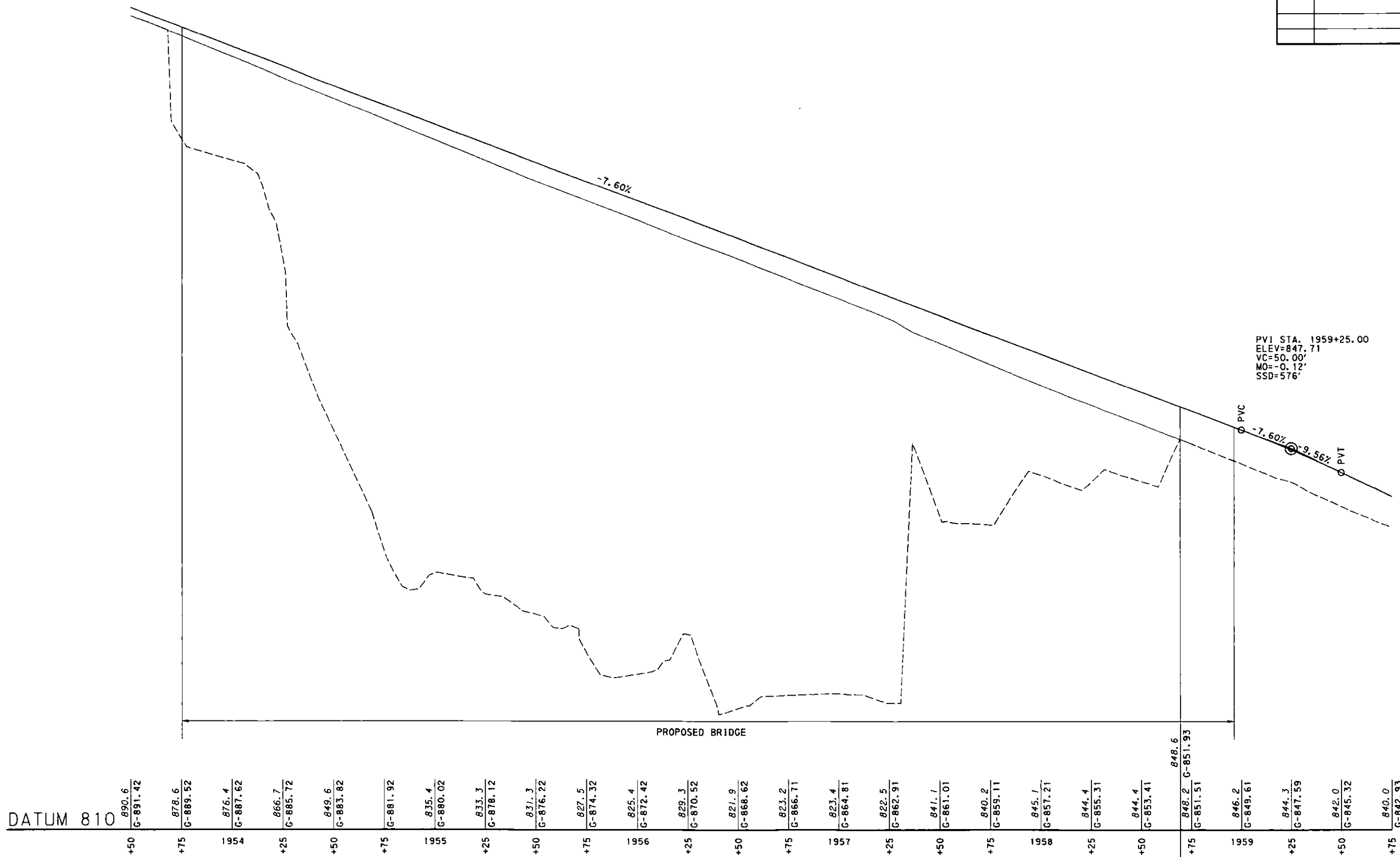
DRAWN BY	RPC
CHECKED BY	MJM



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
10-0	ARMSTRONG	1038	150 R/W	13 OF 17
EAST FRANKLIN TWP., WEST KITTANNING & APPLEWOLD BORO.'S				
REVISION NUMBER	REVISIONS			DATE

SEE SHEET 12 OF 17

SEE SHEET 14 OF 17

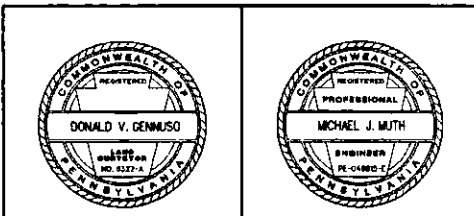
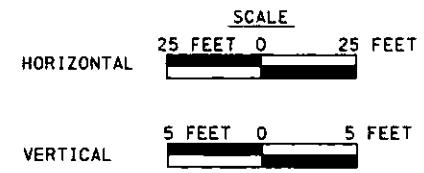


PVI STA. 1959+25.00
 ELEV=847.71
 VC=50.00'
 MO=0.12'
 SSD=576'

DATUM 810	890.6 G-891.42	878.6 G-889.52	876.4 G-887.62	866.7 G-885.72	849.6 G-883.82	848.1.92 G-881.92	835.4 G-880.02	833.3 G-878.12	831.3 G-876.22	827.5 G-874.32	825.4 G-872.42	829.3 G-870.52	821.9 G-868.62	823.2 G-866.71	823.4 G-864.81	822.5 G-862.91	841.1 G-861.01	840.2 G-859.11	845.1 G-857.21	844.4 G-855.31	844.4 G-853.41	848.6 G-851.93	846.2 G-849.61	844.3 G-847.59	842.0 G-845.32	840.0 G-842.93
	+50	+75	1954	+25	+50	+75	1955	+25	+50	+75	1956	+25	+50	+75	1957	+25	+50	+75	1958	+25	+50	+75	1959	+25	+50	+75

STA. 1958+69.51 S.R. 1038 SURVEY & R/W B
 STA. 10+00.00 S.R. 4025 SURVEY & R/W B

PROFILE - S.R. 1038



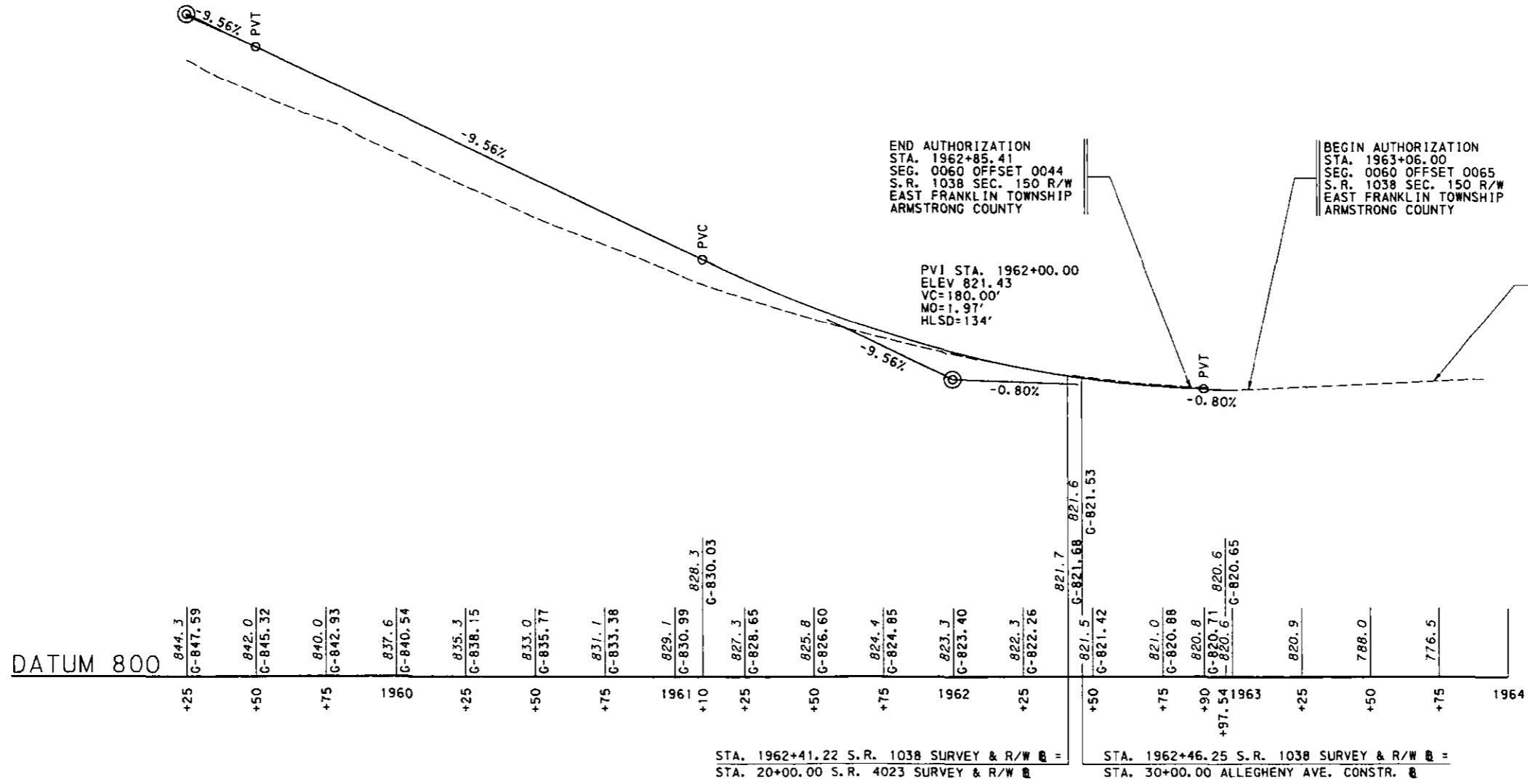
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 CHECKED BY MJM

SURVEY BOOK NO. 18225

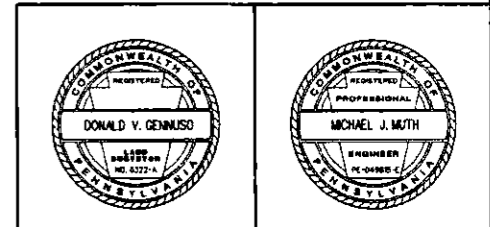
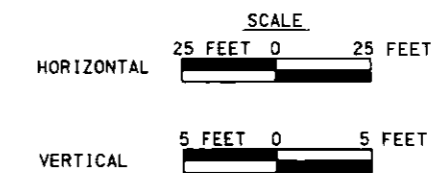
FOR PLAN S.R. 1038 SEE SHEET 9

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
10-0	ARMSTRONG	1038	150 R/W	14 OF 17
EAST FRANKLIN TWP. & APPLEWOLD BOROUGH				
REVISION NUMBER	REVISIONS	DATE	BY	

PVI STA 1959+25.00
 ELEV=847.71
 VC=50.00'
 MO=-0.12'
 SSD=576'



PROFILE - S.R. 1038



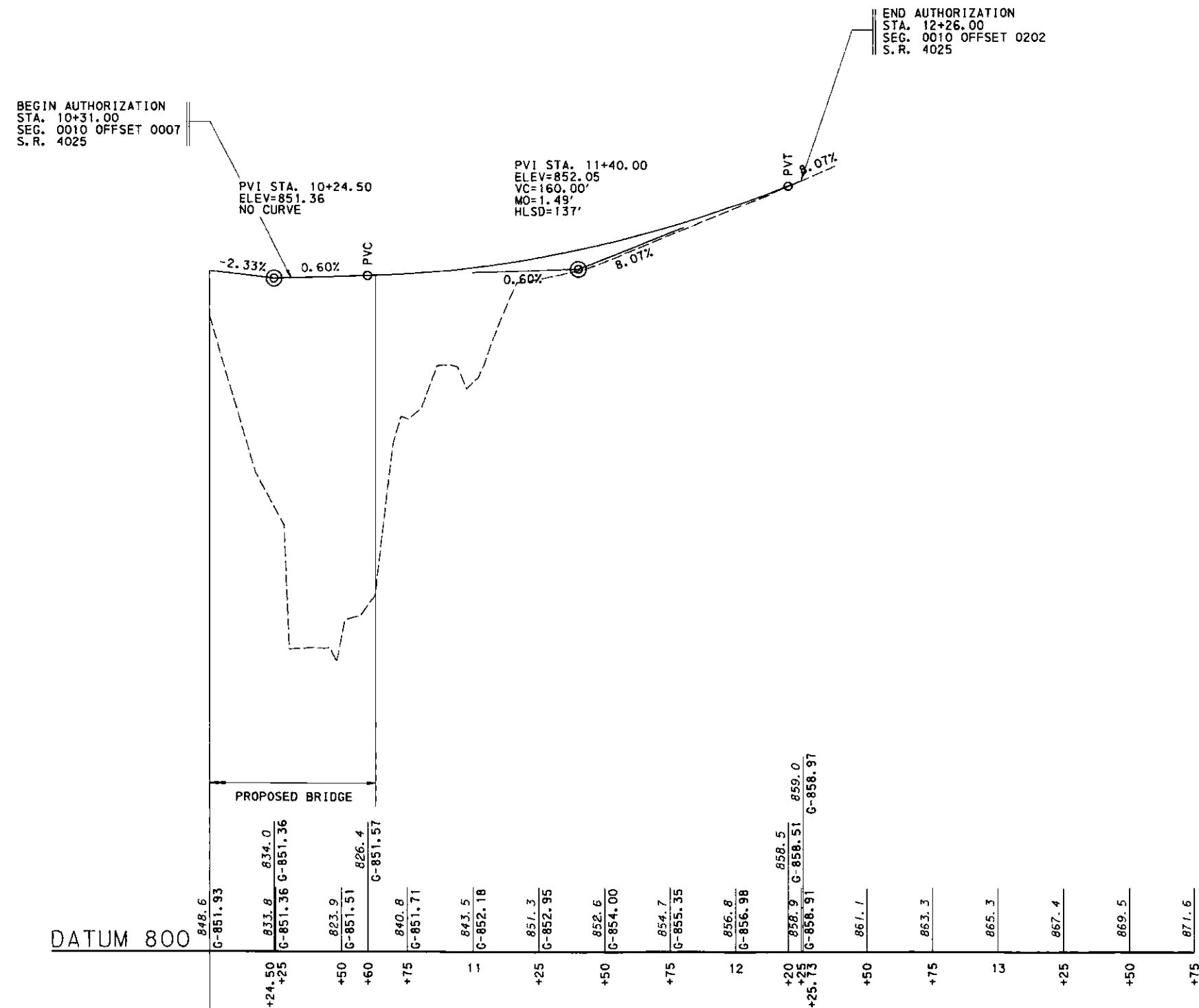
SEE SHEET 13 OF 17

DRAWN BY CJC
 CHECKED BY MJM

SURVEY BOOK NO. 18225

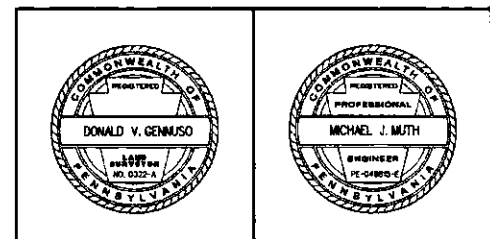
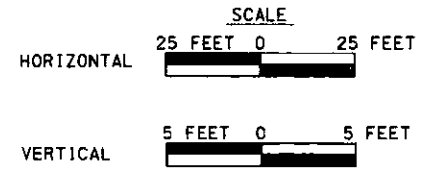
FOR PLAN S.R. 1038 SEE SHEET 10

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
10-0	ARMSTRONG	1038	150 R/W	15 OF 17
EAST FRANKLIN TWP. & APPLEWOLD BOROUGH				
REVISION NUMBER	REVISIONS	DATE	BY	



STA. 10+00.00 S.R. 4025 SURVEY & R/W =
STA. 1958+69.51 S.R. 1038 SURVEY & R/W =

PROFILE - S.R. 4025 (PINE HILL RD)

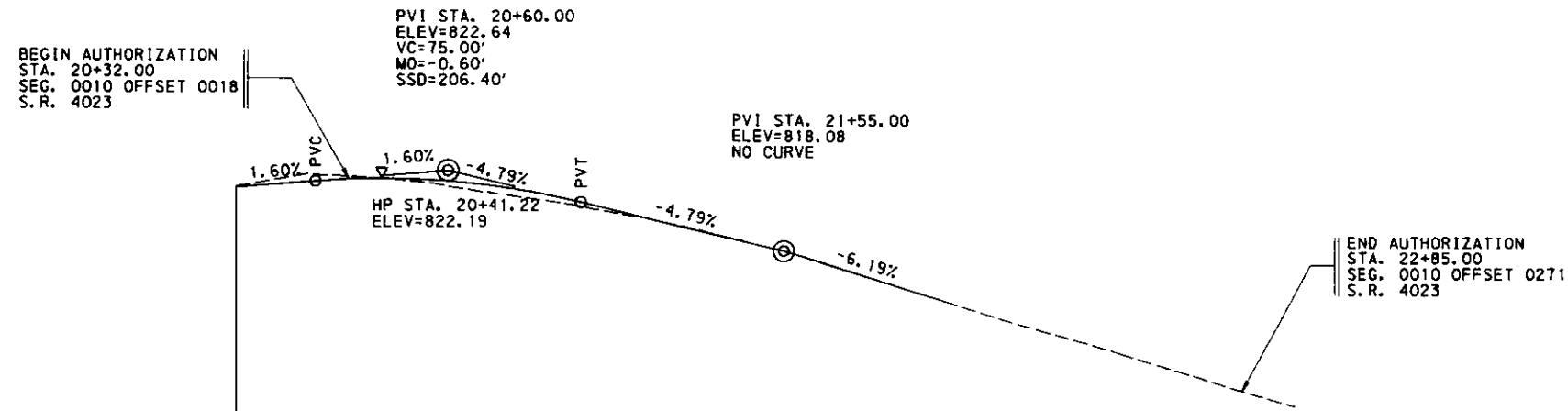


DRAWN BY CJC
CHECKED BY MJM

SURVEY BOOK NO. 18225

FOR PLAN S.R. 4025 SEE SHEETS 9 & 10

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
10-0	ARMSTRONG	1038	150 R/W	16 OF 17
EAST FRANKLIN TWP. & APPELWOLD BOROUGH				
REVISION NUMBER	REVISIONS	DATE	BY	

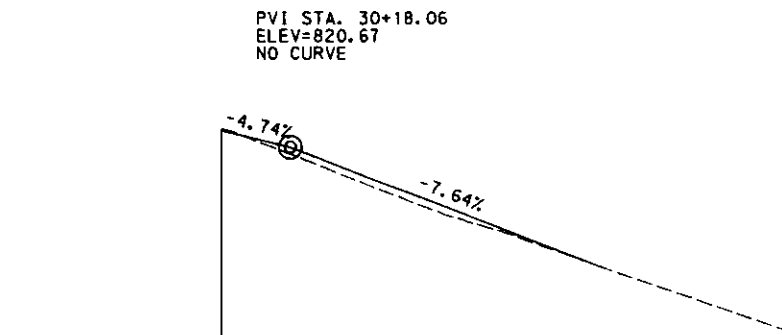


DATUM 780

821.7	821.68	822.4	821.8	820.6	819.6	818.3	816.9	815.3	813.8	812.3	810.8	809.3
G-821.68	G-822.04	G-822.04	G-822.04	G-820.84	G-819.52	G-818.32	G-816.84	G-815.30	G-813.8	G-812.3	G-810.8	G-809.3
+22.50	+25	+50	+60	+75	+97.50	+50	+75	22	+25	+50	+75	23

STA. 20+00.00 S.R. 4023 SURVEY & R/W =
 STA. 1962+41.22 S.R. 1038 SURVEY & R/W =

PROFILE - S.R. 4023 (TARRTOWN RD)



DATUM 780

821.6	820.3	819.8	817.8	816.2	814.4	812.7	810.9
G-821.53	G-820.67	G-820.14	G-818.23	G-816.32	G-814.41	G-812.7	G-810.9
+18.06	+25	+50	+75	31	+25	+50	

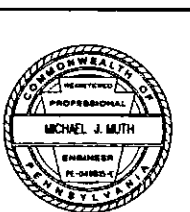
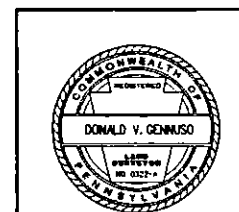
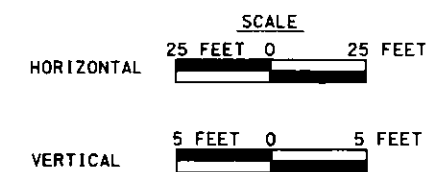
STA. 30+00.00 ALLEGHENY AVE. CONSTR. =
 STA. 1962+46.25 S.R. 1038 SURVEY & R/W =

PROFILE - ALLEGHENY AVE.

DRAWN BY	CJC
CHECKED BY	MJM

SURVEY BOOK NO. 18225

FOR PLAN S.R. 4023 & ALLEGHENY AVE. SEE SHEET 10



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
10-0	ARMSTRONG	1038	150 R/W	17 OF 17
EAST FRANKLIN TWP., WEST KITTANNING & APPLEWOLD BORO.'S				
REVISION NUMBER	REVISIONS	DATE	BY	

* TOO ENUMERABLE TO CALCULATE ** INCLUDES 1060 SF OF AERIAL EASEMENT
 *** INCLUDES 1060 SF OF REQUIRED DRAINAGE EASEMENT

⑤ **RIGHT-OF-WAY CLAIM INFORMATION**
 COMMONWEALTH OF PENNSYLVANIA-DEPARTMENT OF TRANSPORTATION
 STATE RTE. 1038 SEC. NO. 150 R/W EAST FRANKLIN TWP. ARMSTRONG COUNTY
 PARCEL NO. 5 SHEET NO. 8, 9 & 10 CLAIM NO. 0300435000
 PROPERTY OWNER(S) BUFFALO & PITTSBURGH RAILROAD, INC. BY MERGER WITH
 PITTSBURGH & SHAWMUT RAILROAD, INC.
 GRANTOR(S) THE PITTSBURGH & SHAWMUT RAILROAD COMPANY

DEED BOOK 2803 PAGE 223 DATE OF DEED 1-01-04 DATE OF RECORD 5-06-04 CONSIDERATION	DEED BOOK 1585 PAGE 300 DATE OF DEED 4-26-96 DATE OF RECORD 6-20-96 CONSIDERATION	AREAS SF DEED * CALCULATED * EXCEPTION * LEGAL R/W * EFFECTIVE * TOTAL REQ'D R/W 4,315 TOTAL RESIDUE * RESIDUE LT * RESIDUE RT *	REQUIRED AREA SF RIGHT OF WAY 4,315 REQ'D DRGE ESMT **11,454 TEMP CONSTR ESMT 64,872 REQ'D AERIAL ESMT ***7,837 REQ'D ANCHOR ESMT 3,975 VERIFICATION DATE 12-04-06 DRAWN BY SAI SCALE 25 0 25
TAX PARCEL NUMBER 130.00-06-01 & 130.00-06-01.002	TAX PARCEL NUMBER 130.00-06-01 & 130.00-06-01.002		

PRIVATE PROPERTY LINES ARE PLOTTED FROM THE DEED OF RECORD, RECORDED SUBDIVISION OR LOT PLANS, EXISTING TOPOGRAPHICAL FEATURES AND LIMITED FIELD DATA. PRIVATE PROPERTY LINES WERE NOT SURVEYED BY THE PROFESSIONAL LAND SURVEYOR RESPONSIBLE FOR THE PROJECT.

⑨
 * ELIZABETH H. TENNIES A/K/A ELIZABETH A. HENRY TENNIES, A/K/A ELIZABETH HENRY TENNIES, A/K/A ELIZABETH ANN TENNIES AND FRANCIS TENNIES, HER HUSBAND AND ELAINE E. HENRY

PROPERTY OWNER(S) RIVERCLIFF TERRACE, INC. A PENNSYLVANIA CORPORATION GRANTOR(S) *	PROPERTY OWNER(S) RIVERCLIFF TERRACE, INC. A PENNSYLVANIA CORPORATION GRANTOR(S) EUGENE HOYET & JUNE S. HOYET, HIS WIFE	PROPERTY OWNER(S) RIVERCLIFF TERRACE, INC. A PENNSYLVANIA CORPORATION GRANTOR(S) ELIZABETH ANN TENNIES & FRANCIS E. TENNIES, HER HUSBAND
DEED BOOK 1655 PAGE 251 DATE OF DEED 11-30-96 DATE OF RECORD 12-27-96 CONSIDERATION \$20,000 TAX PARCEL NUMBER 130.08-01-02.001 130.08-01-20	DEED BOOK 1198 PAGE 202 DATE OF DEED 5-20-92 DATE OF RECORD 5-28-92 CONSIDERATION \$49,000 TAX PARCEL NUMBER 130.08-01-04	DEED BOOK 629 PAGE 696 DATE OF DEED 3-24-83 DATE OF RECORD 5-9-83 CONSIDERATION \$9,400 TAX PARCEL NUMBER 130.08-01-02 LOT 10

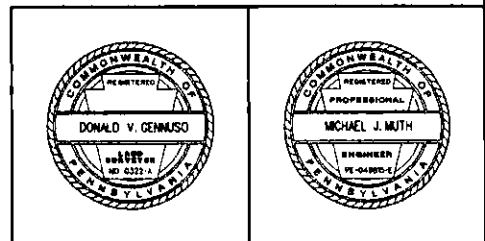
⑨ **RIGHT-OF-WAY CLAIM INFORMATION**
 COMMONWEALTH OF PENNSYLVANIA-DEPARTMENT OF TRANSPORTATION
 STATE RTE. 1038 SEC. NO. 150 R/W APPLEWOLD BORO ARMSTRONG COUNTY
 PARCEL NO. 9 SHEET NO. 9 CLAIM NO. 0300436000
 PROPERTY OWNER(S) RIVERCLIFF TERRACE, INC. A PENNSYLVANIA CORPORATION
 GRANTOR(S) ROBERT J. DUNN & JACALYN S. DUNN, HIS WIFE

DEED BOOK 708 PAGE 177 DATE OF DEED 12-30-85 DATE OF RECORD 12-27-85 CONSIDERATION \$58,000 TAX PARCEL NUMBER 130.08-01-02 LOT 9	AREAS TOTAL SF DEED * CALCULATED 31,566 EXCEPTION * LEGAL R/W * EFFECTIVE 31,566 TOTAL REQ'D R/W * TOTAL RESIDUE 31,566 RESIDUE LT * RESIDUE RT 31,566	REQUIRED AREA SF RIGHT OF WAY * TEMP CONSTR ESMT 7,105 REQ'D AERIAL ESMT 42 VERIFICATION DATE 12-04-06 DRAWN BY SAI SCALE 25 0 25
--	---	---

PRIVATE PROPERTY LINES ARE PLOTTED FROM THE DEED OF RECORD, RECORDED SUBDIVISION OR LOT PLANS, EXISTING TOPOGRAPHICAL FEATURES AND LIMITED FIELD DATA. PRIVATE PROPERTY LINES WERE NOT SURVEYED BY THE PROFESSIONAL LAND SURVEYOR RESPONSIBLE FOR THE PROJECT.

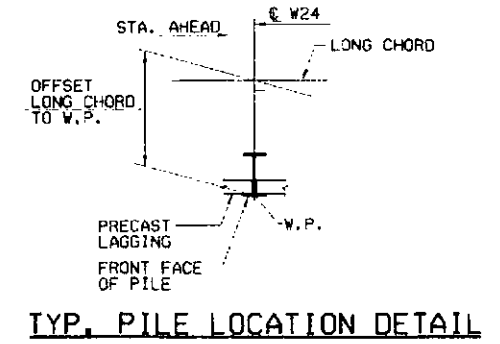
DRAWN BY CJC
 CHECKED BY MJN

RIGHT-OF-WAY CLAIM INFORMATION

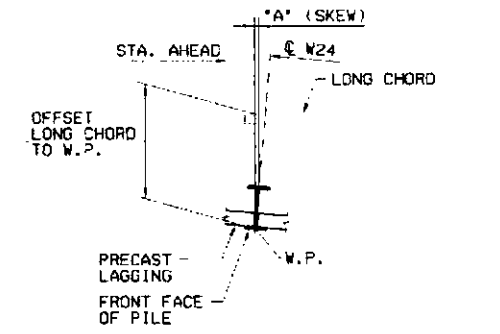


PILE AND PANEL SCHEDULE

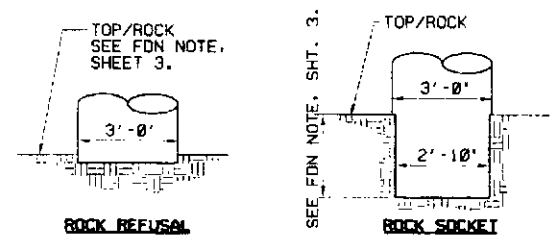
PILE LOCATION NUMBER	PILE SIZE	PILE LOCATION		SKEW DIMENSION "A" (FEET)	TOP OF SIDEWALK/TOP OF WALL ELEVATION	TOP OF PILE ELEVATION	TOP OF PRECAST LAGGING BK/AHD	BENCH ELEVATION	EXISTING GROUND LINE ELEVATION	BOTTOM OF PRECAST LAGGING BK/AHD	BOTTOM OF SHAFT SECTION IN SOIL	ESTIMATED TOP OF ROCK AT C SHAFT	DRILLED SHAFT, FEET			PILE LENGTH (FEET)
		CONSTR. S.R. 1038 STATION	OFFSET TO F.P. PILE										SHAFT IN SOIL	SHAFT IN ROCK	TOTAL SHAFT LENGTH (FEET)	
ABUT								837.0	839.53							
1		1959+09.02			849.24/849.57	848.69	-/845.99	836.8	839.27	-/831.99	801.99					46.70
2		1959+16.90			848.55/848.89	848.01	845.99/845.99	835.9	838.45	831.99/829.99	799.99					48.02
3		1959+24.78			847.87/848.21	847.33	845.99/843.99	835.1	837.64	829.99/829.99	799.99					47.34
4		1959+32.66			847.17/847.50	846.61	843.99/843.99	834.3	836.87	829.99/827.99	797.99					48.63
5		1959+40.54			846.48/846.74	845.85	843.99/841.99	833.5	836.15	827.99/827.99	797.99					47.86
6		1959+48.41			845.61/845.94	845.05	841.99/841.99	832.6	835.43	827.99/825.99	795.99					49.06
7		1959+56.32			844.80/845.13	844.24	841.99/841.99	831.8	834.62	825.99/825.99	795.99					48.25
8		1959+64.32			843.98/844.32	843.43	841.99/839.99	830.9	833.72	825.99/825.99	795.99					47.44
9		1959+72.32			843.17/843.51	842.61	839.99/839.99	830.1	832.07	825.99/823.99	793.99					48.63
10		1959+80.32			842.36/842.70	841.81	839.99/837.99	829.3	832.18	823.99/823.99	793.99					47.82
11		1959+88.32			841.55/841.89	841.00	837.99/837.99	828.7	831.58	823.99/823.99	793.99					47.01
12		1959+96.32			840.75/841.08	840.19	837.99/837.99	828.2	830.97	823.99/821.99	791.99	792.07				48.20
13		1960+04.32			839.94/840.27	839.38	837.99/835.99	827.5	830.30	821.99/821.99	791.99					47.39
14		1960+12.32	22.68'R	.07	839.13/839.46	838.57	835.99/835.99	826.8	829.61	821.99/821.99	791.99					46.58
15		1960+20.30	23.09'R	.14	838.31/838.65	837.75	835.99/833.99	826.1	828.92	821.99/819.99	789.99	790.67				47.77
16		1960+28.62	23.74'R	.18	837.47/837.81	836.91	833.99/833.99	825.5	828.23	819.99/819.99	789.99	790.23				46.92
17		1960+37.55	24.42'R	.17	836.54/836.87	835.97	833.99/831.99	824.8	827.58	819.99/819.99	789.99					45.98
18		1960+46.52	25.04'R	.16	835.58/835.92	835.02	831.99/831.99	824.2	826.93	819.99/817.99	788.04	789.34	29.14	SEE NOTE 2	29.14	46.17
19		1960+55.51	25.62'R	.15	834.68/835.01	834.11	831.99/831.99	823.4	826.13	817.99/817.99	788.42	788.90	29.58	SEE NOTE 2	29.58	45.71
20		1960+64.54	26.15'R	.13	833.79/834.12	833.22	831.99/829.99	822.3	824.97	817.99/815.99	787.96	788.46	28.03	SEE NOTE 2	28.03	45.26
21		1960+73.59	26.62'R	.12	832.92/833.25	832.36	829.99/829.99	821.3	823.89	815.99/815.99	787.52	788.02	28.47	SEE NOTE 2	28.47	44.84
22		1960+82.66	27.05'R	.11	832.11/832.44	831.55	829.99/827.99	820.6	823.23	815.99/815.99	787.07	787.57	28.91	SEE NOTE 2	28.91	44.48
23		1960+91.76	27.43'R	.09	831.35/831.69	830.80	827.99/827.99	819.9	822.70	815.99/813.99	786.63	787.13	27.36	SEE NOTE 2	27.36	44.17
24		1961+00.80	27.76'R	.08	830.56/830.90	830.00	827.99/825.99	819.2	822.10	813.99/813.99	786.19	786.69	27.80	SEE NOTE 2	27.80	43.81
25		1961+09.93	28.03'R	.06	829.67/829.99	829.09	825.99/825.99	818.5	821.35	813.99/811.99	785.75	786.25	26.24	SEE NOTE 2	26.24	43.35
26		1961+19.07	28.25'R	.05	828.72/829.05	828.16	825.99/823.99	817.7	820.54	811.99/811.99	785.30	785.80	26.68	SEE NOTE 2	26.68	42.86
27		1961+28.23	28.41'R	.03	827.87/828.21	827.31	823.99/823.99	816.9	819.82	811.99/811.99	784.86	785.36	27.13	SEE NOTE 2	27.13	42.45
28		1961+37.39	28.51'R	.02	827.09/827.42	826.53	823.99/823.99	816.1	819.25	811.99/811.99	784.42	784.92	27.57	SEE NOTE 2	27.57	42.11
29		1961+46.55	28.56'R	.01	826.37/826.69	825.81	823.99/821.99	816.3	819.12	811.99/811.99	783.97	784.47	28.01	SEE NOTE 2	28.01	41.83
30		1961+55.72	28.57'R		825.67/826.01	825.13	821.99/821.99	818.7	819.60	811.99/811.99	793.99		18.00		18.00	31.13
31		1961+64.89	28.57'R		825.02/825.35	824.47	821.99/821.99	821.3	820.17	811.99/813.99	793.99		18.00		18.00	30.48
32		1961+74.05	28.56'R		824.41/824.74	823.87	821.99/-	824.0	820.74	813.99/-	793.99		20.00		20.00	29.87



TYP. PILE LOCATION DETAIL



PILE LOCATION DETAIL (SKEWED PILE)



TYPICAL ROCK DETAIL

SCALE IN FEET

- NOTE:
- TOP OF ROCK ELEVATION SHOWN ONLY IF CAISSON EXTENDS INTO ROCK.
 - DRILL TO ROCK REFUSAL. SEE FOUNDATION NOTES ON SHEET 3.

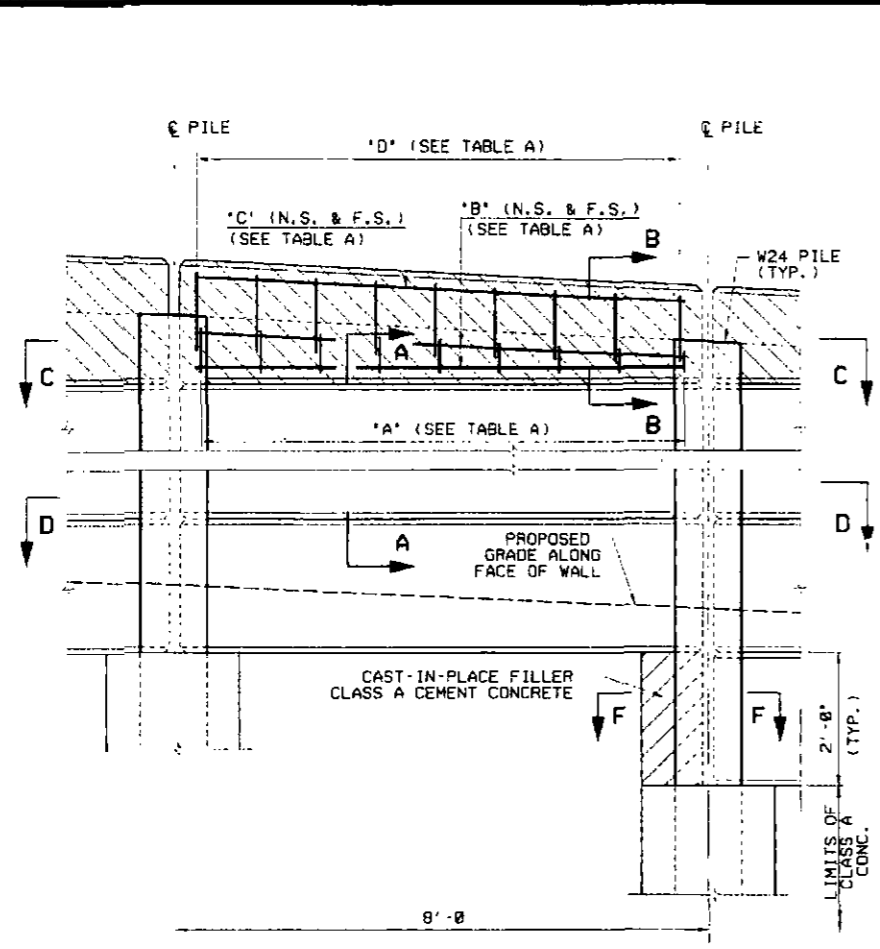
Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ARMSTRONG COUNTY
S.R. 1038 SECTION 150
SEGMENT 0050 OFFSET 0525
S.R. 1038 STA. 1960+41.25
SOLDIER PILE WALL, WALL C
PILE SCHEDULE AND DETAILS

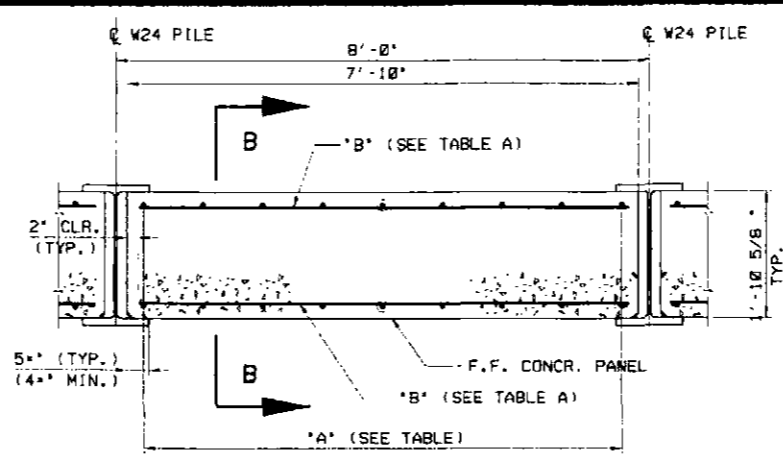


RECOMMENDED	J.B. 6.200	SHEET 4 OF 9
		S-27372

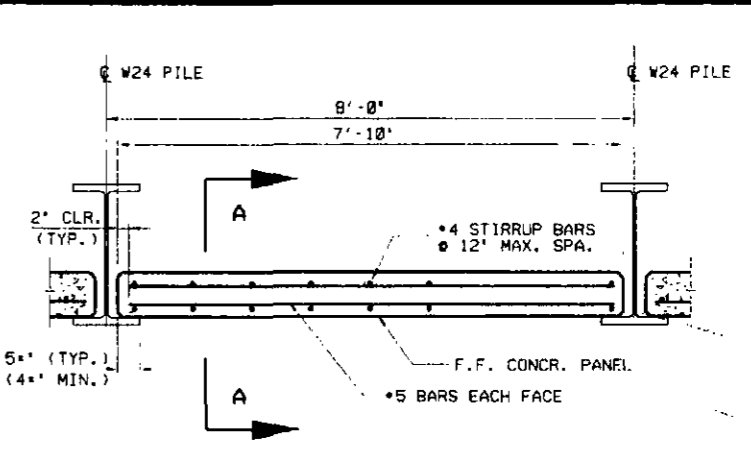
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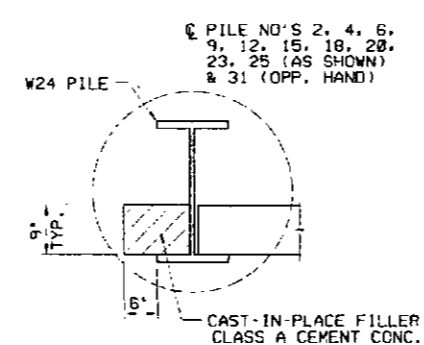
TYPICAL WALL ELEVATION
NOT TO SCALE



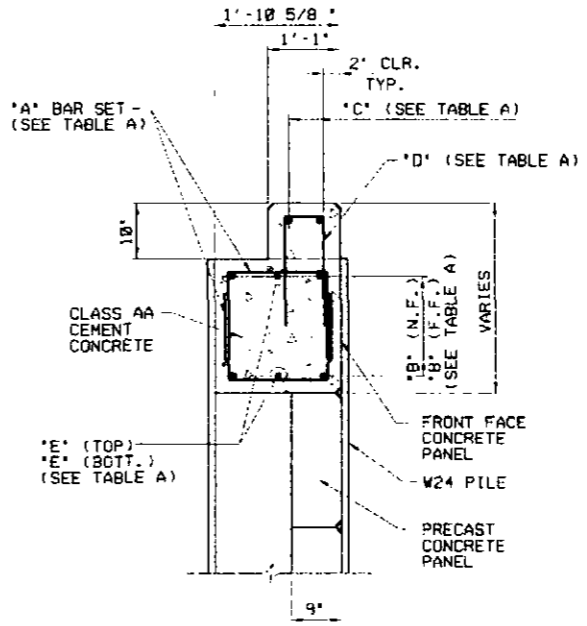
CAST-IN-PLACE CONCRETE PANEL SECTION C-C
NOT TO SCALE



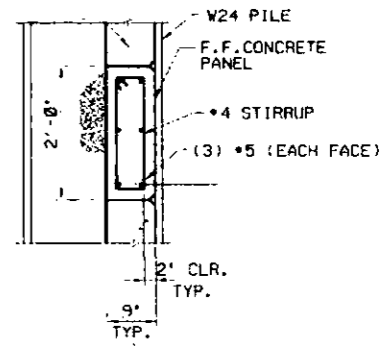
PRECAST CONCRETE PANEL SECTION D-D
NOT TO SCALE



SECTION F-F
CAST-IN-PLACE FILLER
NOT TO SCALE

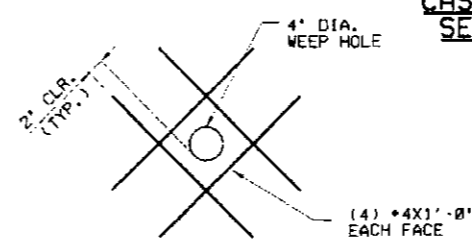


CAST-IN-PLACE SECTION B-B
NOT TO SCALE



PRECAST SECTION A-A
NOT TO SCALE

TABLE A		A		B		C		D		E	
PANEL (PILE TO PILE)		9 BAR SETS @ ABT. 12"	2-EW502 EA. SET	4-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
1-2		9 BAR SETS @ ABT. 12"	2-EW503 EA. SET	3-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
2-3		9 BAR SETS @ ABT. 12"	2-EW504 EA. SET	4-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
3-4		9 BAR SETS @ ABT. 12"	2-EW505 EA. SET	4-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
4-5		9 BAR SETS @ ABT. 12"	2-EW506 EA. SET	5-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
5-6		9 BAR SETS @ ABT. 12"	2-EW507 EA. SET	4-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
6-7		9 BAR SETS @ ABT. 12"	2-EW508 EA. SET	3-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
7-8		9 BAR SETS @ ABT. 12"	2-EW504 EA. SET	4-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
8-9		9 BAR SETS @ ABT. 12"	2-EW505 EA. SET	4-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
9-10		9 BAR SETS @ ABT. 12"	2-EW506 EA. SET	5-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
10-11		9 BAR SETS @ ABT. 12"	2-EW507 EA. SET	4-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
11-12		9 BAR SETS @ ABT. 12"	2-EW508 EA. SET	3-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
12-13		9 BAR SETS @ ABT. 12"	2-EW504 EA. SET	4-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
13-14		9 BAR SETS @ ABT. 12"	2-EW505 EA. SET	4-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
14-15		9 BAR SETS @ ABT. 12"	2-EW506 EA. SET	5-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
15-16		9 BAR SETS @ ABT. 12"	2-EW507 EA. SET	4-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
16-17		9 BAR SETS @ ABT. 12"	2-EW508 EA. SET	3-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
17-18		9 BAR SETS @ ABT. 12"	2-EW504 EA. SET	4-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
18-19		9 BAR SETS @ ABT. 12"	2-EW505 EA. SET	4-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
19-20		9 BAR SETS @ ABT. 12"	2-EW506 EA. SET	5-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
20-21		9 BAR SETS @ ABT. 12"	2-EW507 EA. SET	4-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
21-22		9 BAR SETS @ ABT. 12"	2-EW508 EA. SET	3-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
22-23		9 BAR SETS @ ABT. 12"	2-EW504 EA. SET	4-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
23-24		9 BAR SETS @ ABT. 12"	2-EW505 EA. SET	4-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
24-25		9 BAR SETS @ ABT. 12"	2-EW506 EA. SET	5-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
25-26		9 BAR SETS @ ABT. 12"	2-EW507 EA. SET	4-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
26-27		9 BAR SETS @ ABT. 12"	2-EW508 EA. SET	3-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
27-28		9 BAR SETS @ ABT. 12"	2-EW504 EA. SET	4-EW501 @ 12"	3-EW402	9-EW403 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
28-29		9 BAR SETS @ ABT. 12"	2-EW505 EA. SET	4-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
29-30		9 BAR SETS @ ABT. 12"	2-EW506 EA. SET	5-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
30-31		9 BAR SETS @ ABT. 12"	2-EW507 EA. SET	4-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501
31-32		9 BAR SETS @ ABT. 12"	2-EW508 EA. SET	3-EW501 @ 12"	2-EW402	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501	9-EW401 @ ABT. 12"	1-EW501



ADDITIONAL REINFORCEMENT AT WEEP HOLES
NOT TO SCALE

NOTE:
REPOSITION WALL REINFORCEMENT TO CLEAR WEEP HOLE, WHERE REQUIRED

Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ARMSTRONG COUNTY
S.R. 1038 SECTION 150
SEGMENT 0050 OFFSET 0525
S.R. 1038 STA. 1960+41.25
SOLDIER PILE WALL, WALL C
LAGGING DETAILS

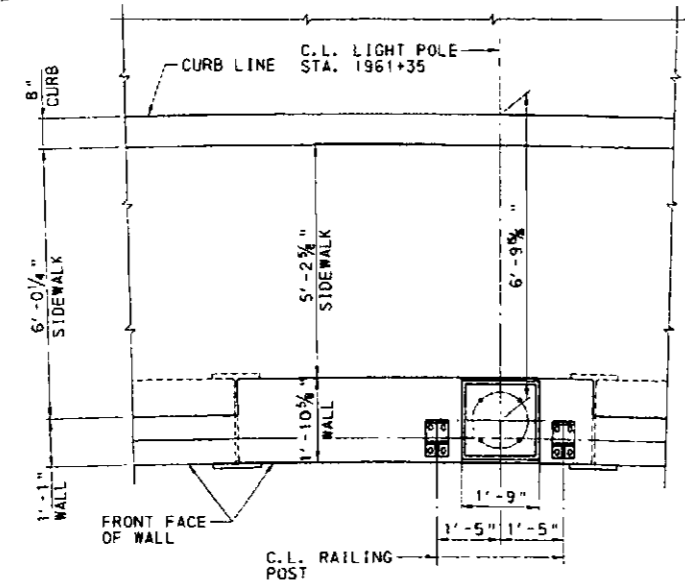


RECOMMENDED _____

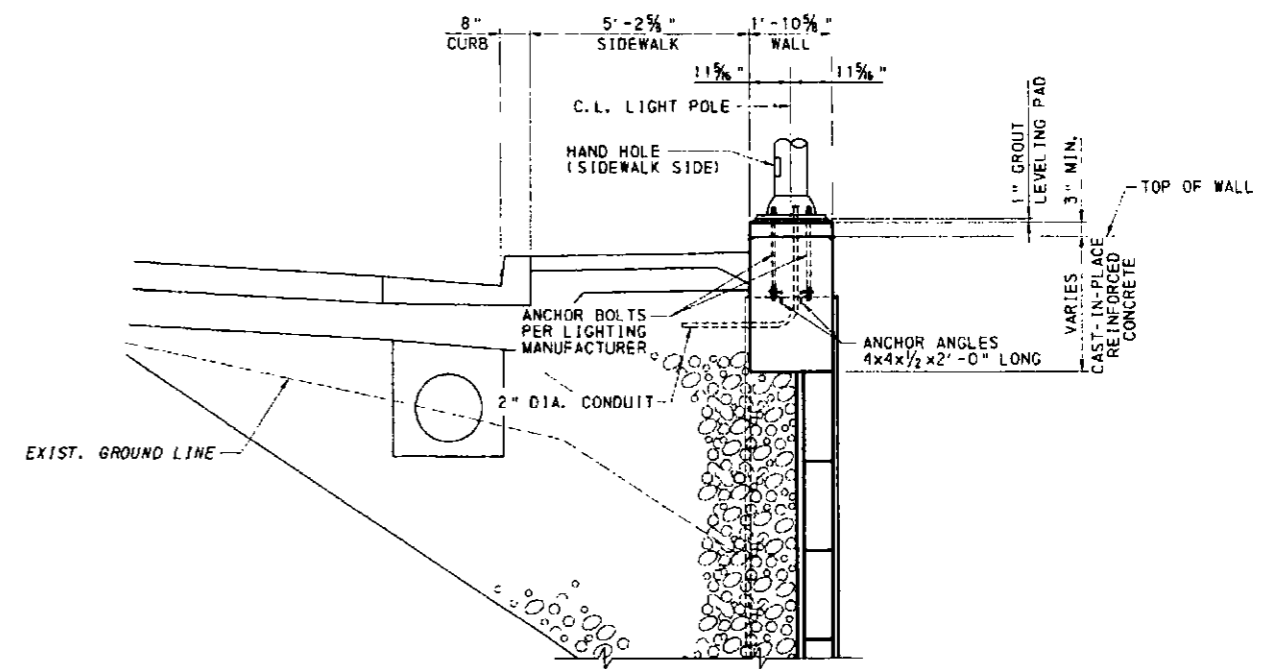
SHEET 5 OF 9
S-27372

DES: R.C. DWN: J.R. CKD: R.C.

A-00122496



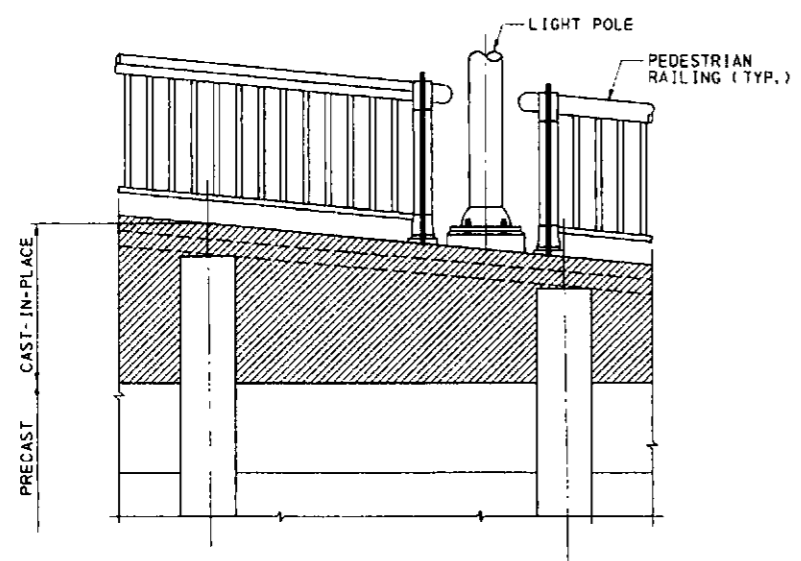
WALL PLAN AT LIGHT POLE
SCALE IN FEET



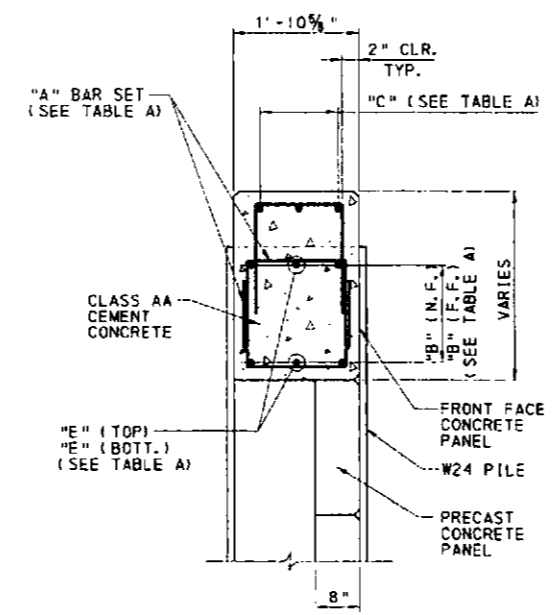
SECTION AT LIGHT POLE
SCALE IN FEET

LIGHT POLE NOTES

1. FOR LIGHT POLE, SEE HIGHWAY LIGHTING PLAN.
2. FOR LIGHTING POLE ANCHORAGE DETAILS, SEE STANDARD DRAWING BC-722M.
3. FOR ELECTRICAL DETAILS, SEE STANDARD DRAWING BC-721M.
4. FOR TABLE A, SEE SHEET 5.



ELEVATION AT LIGHT POLE
SCALE IN FEET



CAST-IN-PLACE SECTION B-B
SCALE IN FEET

Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION**

ARMSTRONG COUNTY
S.R. 1038 SECTION 150
SEGMENT 0050 OFFSET 0525
S.R. 1038 STA. 1960+41.25
SOLDIER PILE WALL, WALL C
WALL C LIGHTING POLE DETAILS

RECOMMENDED **JUL 8 2007**

SHEET 6 OF 9

S-27372

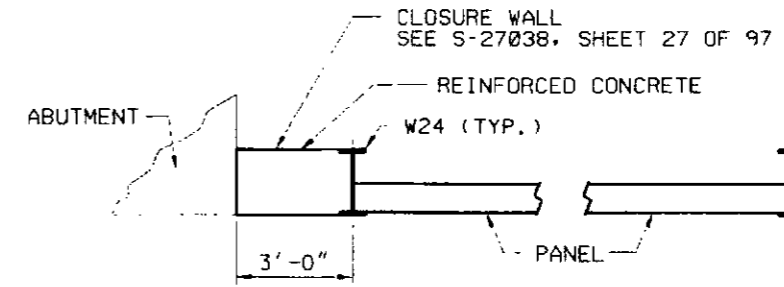


DES: R.C. DWN: G.A.C. CKD: R.C.

A-00122496

REINFORCEMENT BAR SCHEDULE

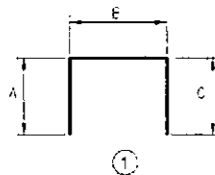
MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	REMARKS
SOLDIER PILE RETAINING WALL (CAST-IN-PLACE)										
EW401	4	4'-1"	270	(1)	1'-8"	9"	1'-8"			
EW402	4	7'-6"	63	STR.						
EW403	4	4'-10"	9	(1)	1'-8"	1'-6"	1'-8"			
EW501	5	7'-6"	304	STR.						
EW502	5	4'-2" TO 4'-10"	18	(1)	1'-4" TO 1'-8"	1'-6"	1'-4" TO 1'-8"			
EW503	5	3'-6" TO 4'-2"	18	(1)	1'-0" TO 1'-4"	1'-6"	1'-0" TO 1'-4"			2 SETS OF 9 VARY LENGTH BY 1" VARY A & C BY 1/2" INCREMENTAL LENGTHS A & C TO BE EQUAL.
EW504	5	4'-10" TO 5'-6"	36	(1)	1'-8" TO 2'-0"	1'-6"	1'-8" TO 2'-0"			4 SETS OF 9 VARY LENGTH BY 1" VARY A & C BY 1/2" INCREMENTAL LENGTHS A & C TO BE EQUAL.
EW505	5	4'-0" TO 4'-10"	36	(1)	1'-3" TO 1'-8"	1'-6"	1'-3" TO 1'-8"			4 SETS OF 9 VARY LENGTH BY 1/2" VARY A & C BY 1/4" INCREMENTAL LENGTHS A & C TO BE EQUAL.
EW506	5	5'-2" TO 6'-0"	36	(1)	1'-10" TO 2'-3"	1'-6"	1'-10" TO 2'-3"			4 SETS OF 9 VARY LENGTH BY 1/2" VARY A & C BY 1/4" INCREMENTAL LENGTHS A & C TO BE EQUAL.
EW507	5	4'-4" TO 5'-2"	54	(1)	1'-5" TO 1'-10"	1'-6"	1'-5" TO 1'-10"			6 SETS OF 9 VARY LENGTH BY 1" VARY A & C BY 1/2" INCREMENTAL LENGTHS A & C TO BE EQUAL.
EW508	5	3'-6" TO 4'-4"	54	(1)	1'-0" TO 1'-5"	1'-6"	1'-0" TO 1'-5"			6 SETS OF 9 VARY LENGTH BY 1/2" VARY A & C BY 1/4" INCREMENTAL LENGTHS A & C TO BE EQUAL.
EW509	5	4'-8" TO 5'-6"	36	(1)	1'-7" TO 2'-0"	1'-6"	1'-7" TO 2'-0"			4 SETS OF 9 VARY LENGTH BY 1/2" VARY A & C BY 1/4" INCREMENTAL LENGTHS A & C TO BE EQUAL.
EW510	5	3'-10" TO 4'-8"	18	(1)	1'-2" TO 1'-7"	1'-6"	1'-2" TO 1'-7"			2 SETS OF 9 VARY LENGTH BY 1/2" VARY A & C BY 1/4" INCREMENTAL LENGTHS A & C TO BE EQUAL.
EW511	5	5'-0" TO 5'-10"	18	(1)	1'-9" TO 2'-2"	1'-6"	1'-9" TO 2'-2"			2 SETS OF 9 VARY LENGTH BY 1/2" VARY A & C BY 1/4" INCREMENTAL LENGTHS A & C TO BE EQUAL.
EW512	5	4'-2" TO 5'-0"	36	(1)	1'-4" TO 1'-9"	1'-6"	1'-4" TO 1'-9"			4 SETS OF 9 VARY LENGTH BY 1/2" VARY A & C BY 1/4" INCREMENTAL LENGTHS A & C TO BE EQUAL.
EW513	5	5'-2" TO 6'-2"	18	(1)	1'-10" TO 2'-4"	1'-6"	1'-10" TO 2'-4"			2 SETS OF 9 VARY LENGTH BY 1/2" VARY A & C BY 1/4" INCREMENTAL LENGTHS A & C TO BE EQUAL.
EW514	5	3'-4" TO 4'-4"	18	(1)	1" TO 1'-5"	1'-6"	1" TO 1'-5"			2 SETS OF 9 VARY LENGTH BY 1/2" VARY A & C BY 1/4" INCREMENTAL LENGTHS A & C TO BE EQUAL.
EW515	5	4'-6" TO 5'-4"	18	(1)	1'-6" TO 1'-11"	1'-6"	1'-6" TO 1'-11"			2 SETS OF 9 VARY LENGTH BY 1/2" VARY A & C BY 1/4" INCREMENTAL LENGTHS A & C TO BE EQUAL.
EW516	5	3'-8" TO 4'-6"	18	(1)	1'-1" TO 1'-6"	1'-6"	1'-1" TO 1'-6"			2 SETS OF 9 VARY LENGTH BY 1/2" VARY A & C BY 1/4" INCREMENTAL LENGTHS A & C TO BE EQUAL.
EW517	5	5'-0" TO 5'-8"	18	(1)	1'-9" TO 2'-1"	1'-6"	1'-9" TO 2'-1"			2 SETS OF 9 VARY LENGTH BY 1/2" VARY A & C BY 1/4" INCREMENTAL LENGTHS A & C TO BE EQUAL.
EW518	5	3'-4" TO 4'-2"	18	(1)	1" TO 1'-4"	1'-6"	1" TO 1'-4"			2 SETS OF 9 VARY LENGTH BY 1/2" VARY A & C BY 1/4" INCREMENTAL LENGTHS A & C TO BE EQUAL.
EW519	5	4'-4" TO 5'-4"	18	(1)	1'-5" TO 1'-11"	1'-6"	1'-5" TO 1'-11"			2 SETS OF 9 VARY LENGTH BY 1/2" VARY A & C BY 1/4" INCREMENTAL LENGTHS A & C TO BE EQUAL.
EW520	5	4'-0" TO 4'-8"	36	(1)	1'-3" TO 1'-7"	1'-6"	1'-3" TO 1'-7"			4 SETS OF 9 VARY LENGTH BY 1" VARY A & C BY 1/2" INCREMENTAL LENGTHS A & C TO BE EQUAL.
EW521	5	3'-4" TO 4'-0"	18	(1)	1" TO 1'-3"	1'-6"	1" TO 1'-3"			2 SETS OF 9 VARY LENGTH BY 1" VARY A & C BY 1/2" INCREMENTAL LENGTHS A & C TO BE EQUAL.
EW522	5	4'-8" TO 5'-4"	18	(1)	1'-7" TO 1'-11"	1'-6"	1'-7" TO 1'-11"			2 SETS OF 9 VARY LENGTH BY 1" VARY A & C BY 1/2" INCREMENTAL LENGTHS A & C TO BE EQUAL.



END CONDITIONS
NOT TO SCALE

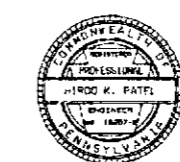
NOTES

- REINFORCEMENT BAR SCHEDULE IS FOR INFORMATION ONLY. VERIFY BAR LENGTHS PRIOR TO BIDDING AND FABRICATION.
- ALL REINFORCEMENT STEEL SHALL BE IN ACCORDANCE WITH THE REQUIREMENT OF SECTION 709.1 OF PUBLICATION 40B.
- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
- FIGURES IN CIRCLES SHOW BAR TYPES
- "E" PREFIX DENOTES EPOXY COATED
- ALL REINFORCEMENT BARS TO BE A.S.T.M. A615-60, fs-24,000 P.S.I.
- ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT DIMENSIONS ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS SHOWN TO THE INSIDE OF THE BAR.



BAR TYPES

Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					



**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION**

**ARMSTRONG COUNTY
S.R. 1038 SECTION 150
SEGMENT 0050 OFFSET 0525
S.R. 1038 STA. 1960+41.25
SOLDIER PILE WALL, WALL C
REINFORCING BAR SCHEDULE**

RECOMMENDED	SHEET 7 OF 9
	S-27372

A-00122496

WALL C*

COUNTY DISTRICT
ARMSTRONG 10

WKB-033
STA 1959+13, 15.57' Rt
ELEVATION 842.5

G.S.E. 842.5	A	B	C	D	E	DESCRIPTION	842.5
1.5	2-2-3	0.4				SAND, gravelly; brown; moist; dense.	
1.8	50/1	0.1					839.5
4.5	22-32-15	0.8				sandstone GRAVEL, sandy; gray-brown; wet; dense.	837.6
5.2	32-50/2	0.6				Sandstone GRAVEL, sandy; gray; wet; dense.	
7.5	19-12-11	0.7					
9.0	3-9-23	0.3					
10.5	20-15-8	1.1					
12.0	10-8-19	0.5					
13.5	10-10-13	0.8					829.0
13.8	50/1	0.1				SANDSTONE BOULDERS	
15.9	10-50/4	0.5					
16.5	50/0	0.0					
19.5	21-11-7	0.0					823.0
21.0	7-7-11	0.8				SAND, gravelly; brown; wet; medium dense to very dense.	
22.5	21-15-12	0.8					
24.0	9-5-5	0.4					
25.5	4-3-4	0.7					
27.0	4-5-8	0.0					
28.5	11-6-6	0.4					
30.0	9-12-13	0.8					
31.5	10-20-21	0.8					
33.0	22-31-24	0.8					
34.5	34-38-38	0.6					
36.0	28-29-20	0.4					806.5
37.5	19-22-24	0.8				CLAY, sandy; orange-brown; wet; hard.	805.0
39.0	11-17-20	0.5				GRAVEL, sandy; brown; wet; dense.	
40.5	9-12-9	0.0					
42.0	15-25-17	0.8					
43.5	24-19-13	0.3					
44.3	19-50/3	0.4					798.2
47.0		0.7	25	0		SANDSTONE gravel and cobbles; gray-brown; hard; moderately weathered	
49.0		0.3	13	0			
52.0		0.9	31	0			
54.5		0.4	17	0			788.0
57.0		1.0	40	0		SILTSTONE, sandy; gray; medium; slightly weathered; very intensely bedded; very closely fractured.	
69.5		2.5	100	0		Stratum RQD=0%	784.0
62.0		2.3	83	72		COAL; black, soft	783.8
						Stratum RQD=0%	
67.0		5.0	100	74		SANDSTONE, fine grained; gray; hard; slightly weathered; very intensely bedded-very thinly bedded; medium fractured.	
						Stratum RQD=71%	
72.0		5.0	100	80			770.5

WKB-040
STA 1960+00, 14.48' rt
ELEVATION 835.6

G.S.E. 835.6	A	B	C	D	E	DESCRIPTION	835.6
1.5	1-1-1	0.3				soft organics	
3.0	3-4-5	0.5					833.2
4.5	10-14-14	0.6				GRAVEL, clayey; (gc.a-2-b); light brown; moist; loose.	832.8
6.0	9-13-11	0.6				GRAVEL, sandy; (gm.a-1-b); brown; moist; dense.	
7.5	39-19-12	0.4					
9.0	26-34-32	0.8					828.6
10.5	11-21-42	1.0				GRAVEL, sandy; (gm.a-1-b); gray; moist; very dense-loose.	
12.0	31-26-19	0.6					
13.5	11-16-17	0.3					
15.0	8-5-6	0.6					
18.5	8-5-6	0.8					
18.0	8-4-2	0.0					
19.5	4-2-2	0.2					
20.3	17-50/3	0.6					
22.5		1.3	83	0		SANDSTONE, medium grained; gray-brown; hard; moderately weathered; very thinly bedded; closely fractured.	814.6
25.0		0.0	0	0		no recovery	813.1
27.5		0.0	0	0		no recovery	810.6
29.0	8-10-14	0.4				GRAVEL, sandy; (gm.a-1-b); brown; wet; medium dense-dense.	808.1
30.5	30-29-23	0.4					
32.0	11-11-13	0.4					
33.5	8-25-18	0.8					
35.0	23-31-25	0.8					
36.5	18-21-17	0.3					799.1
38.0	8-16-28	0.7				GRAVEL, sandy; (gm.a-1-b); gray; wet; dense.	
39.5	12-15-20	0.6					
41.0	26-24-18	0.1					
42.5	4-8-8	0.0					
43.8	10-34-50/3	0.8					791.8
45.0		0.5	43	0		SANDSTONE; gray-brown; hard; slightly-moderately weathered; very thinly bedded; closely fractured.	
47.0		1.3	67	0		Stratum RQD=0%	788.2
50.0		2.8	94	0		SILTSTONE, sandy; dark gray; medium; slightly-moderately weathered; very intensely bedded; very closely fractured.	785.6
55.0		5.0	100	46		SANDSTONE; gray; hard; slightly weathered; thinly bedded; medium fractured.	780.6
						Stratum RQD=46%	
						Bottom of hole.	

WKB-013
STA 1961+08.57, 20.70' RT
ELEVATION 825.22

G.S.E. 825.2	A	B	C	D	E	DESCRIPTION	825.2
1.5	1-1-2	0.5				CLAY, sandy; (cl.a-6); brown; moist; soft.	
3.0	11-7-5	0.8					822.2
4.5	7-12-19	0.8				GRAVEL, clayey; (gc.a-2-b); brown; moist; dense.	820.7
6.0	11-7-23	0.4				GRAVEL; (gp.a-1-a); brown; moist; medium dense-very dense.	
7.5	19-20-14	1.1					
9.0	14-15-16	0.9					
10.5	10-17-12	0.4					
12.0	12-30-21	0.8					
13.5	23-47-49	1.2					
15.0	32-43-23	0.8					
16.5	22-38-24	0.7					
18.0	27-31-14	0.8					
18.5	8-20-20	0.7					
21.0	27-14-12	0.8					
22.5	16-20-27	0.8					
24.0	25-15-11	0.4					
25.5	12-12-13	0.8					
27.0	9-12-10	0.6					796.2
28.5	12-14-12	1.5				GRAVEL, sandy, clayey; (gc.a-2-b); brown; moist; medium dense.	
30.0	7-8-5	1.5					
31.5	4-5-5	1.0					793.7
33.0	6-6-6	1.5				GRAVEL, sandy; (gp.a-1-a); black-brown; moist; medium dense.	
34.5	2-3-2	1.5					790.7
36.0	3-7-11	1.5				GRAVEL, sandy; (gp.a-1-a); gray-brown; moist; medium dense-very dense.	
37.5	10-17-23	0.8					
38.9	28-32-30/0.4	0.5				SANDSTONE (boulders); pink-gray; hard; moderately weathered; extremely closely fractured-closely fractured.	786.3
42.0		1.4	46	0			
44.5		1.3	53	0			
47.0		0.9	37	0			
49.5		1.1	43	12			
50.5		0.7	67	0			774.7
52.0		1.5	100	0		SILTY SANDSTONE; dark gray; medium; moderately weathered; very intensely bedded; extremely closely-closely fractured.	774.2
						CLAYSTONE; gray; soft-medium; highly weathered; very intensely bedded; extremely closely-closely fractured.	
57.0		5.0	100	70			768.2

ELEV 810.6
0 HRS. 3/23/06
ELEV 810.3
24 HRS. 3/24/06

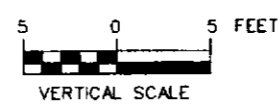
TRE 788.0

TRE 774.7

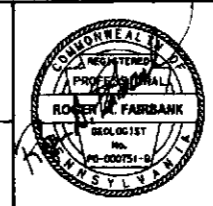
Bottom of Hole.
No water reading taken.

LEGEND

COLUMN A - DENOTES DEPTH FOR BOTTOM OF SPOON SAMPLE OR BOTTOM OF CORE RUN IN FEET.
 COLUMN B - DENOTES NUMBER OF BLOWS ON SPOON SAMPLER FOR EVERY 6" OR AS NOTED.
 COLUMN C - DENOTES SPOON SAMPLER OR CORE RECOVERY IN FEET.
 COLUMN D - DENOTES CORE RECOVERY IN PERCENT.
 COLUMN E - DENOTES ROCK QUALITY DESIGNATION (RQD) IN PERCENT.
 ELEV. GROUND WATER ELEVATION IN FEET.
 HR. DATE
 GSE INDICATES EXISTING GROUND SURFACE ELEVATION IN FEET.
 TRE INDICATES TOP OF ROCK ELEVATION IN FEET.
 BLE INDICATES BOTTOM OF LEVELING PAD IN FEET.
 TRSE TOP OF ROCK SOCKET ELEVATION IN FEET.
 BRSE BOTTOM OF ROCK SOCKET ELEVATION IN FEET.



PREPARED BY:
AWK CONSULTING ENGINEERS, INC.
PITTSBURGH, PA 15235



DATE: 7/3/07

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ARMSTRONG COUNTY
S.R. 1038 SECTION 150

SEG 0050 OFFSET 0525
S. R. 1038 STA 1960+41.25
SOLIDER PILE WALL - WALL C
STRUCTURE BORING LOGS

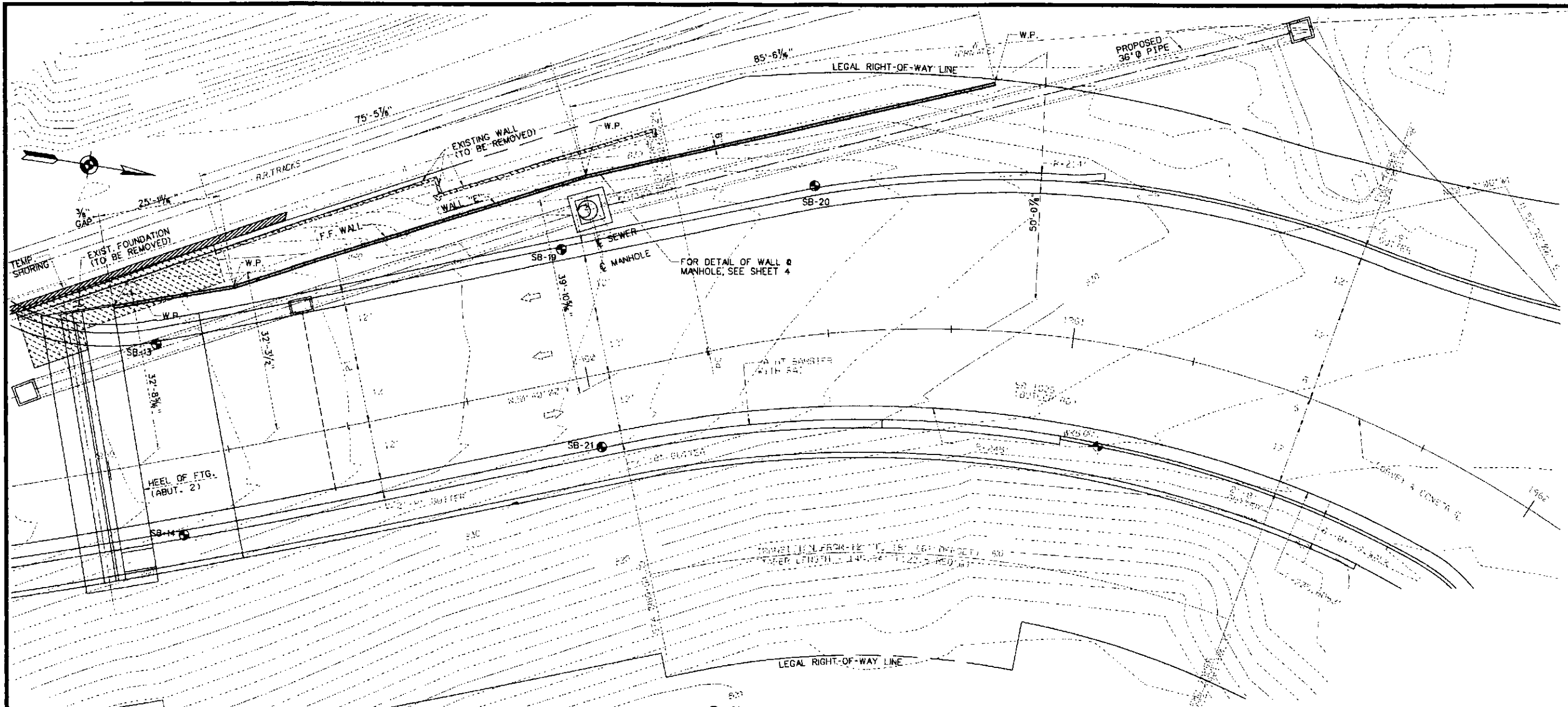
RECOMMENDED SHEET 9 OF 9
S-27372

G:\P\EC05160101\WestKittanningBridge\PS&E\SUB\EC05160101_WALL_C_5L01.dgn
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7/3/2007

NOTES:
 1. THE CORE BORING LOGS AND RELATED INFORMATION DEPICT SUBSURFACE CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AND DATES INDICATED. SOIL AND ROCK CONDITIONS AND GROUNDWATER LEVELS AT OTHER LOCATIONS MAY DIFFER FROM THE CONDITIONS OCCURRING AT THESE BORING LOCATIONS. ALSO, THE PASSAGE OF TIME MAY RESULT IN A CHANGE OF THE CONDITIONS AT THESE BORING LOCATIONS.
 2. THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT AND IS NOT A PART OF THE CONTRACT DRAWINGS. (SEE PUBLICATION 408/2000, SECTION 102.05).
 3. THE CLASSIFICATIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED. RAF
 * SEE FIRST SHEET FOR CAISSON/PILE TIP ELEVATIONS.

DRAWN BY: MEL DATE: 06-25-07 CHK'D BY: MCM DATE: 06-25-07 APR'D BY: RAF DATE: 06-25-07

A-00122496



SR 1038 SURVEY & CONSTR. C
P.I. STA. 1958-07.86

- △ - 11° 40' 00" LT
- D - 3° 58' 04"
- T - 147.52'
- L - 294.03'
- R - 1444.00'
- E - 7.52'

P.C. STA. - 1956+60.33
P.T. STA. - 1959+54.36
S.E. - 4.1%

SR 1038 SURVEY & CONSTR. C
P.I. STA. 1961-91.35

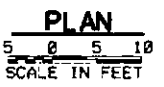
- △ - 73° 12' 00" RT
- D - 25° 37' 24"
- T - 166.07'
- L - 285.68'
- R - 223.61'
- E - 54.92'

P.C. STA. - 1960+25.29
P.T. STA. - 1963+10.97
S.E. - 6.0%

LEGEND

- ⊕ EXIST. BORING
- ⊙ BORING DRILLED IN 2006
- EXISTING CONTOURS
- DIRECTION OF TRAFFIC
- ROADWAY ITEM
- W- EXISTING WATER PIPE
- F.F. - FRONT FACE

BORING LOCATIONS			
NUMBER	STATION	OFFSET	REMARKS
WKB-032 (SB-13)	1959+14.00	23.49' LT.	2006 BORING
WKB-033 (SB-14)	1959+13.00	15.57' RT.	2006 BORING
WKB-038 (SB-19)	1960+00.00	26.17' LT.	2006 BORING
WKB-039 (SB-20)	1960+50.00	30.00' LT.	2006 BORING
WKB-040 (SB-21)	1960+00.00	14.48' RT.	2006 BORING



INDEX OF DRAWINGS	
SHEET NO.	TITLE
1	GENERAL PLAN
2	ELEVATION
3	GENERAL NOTES & QUANTITIES
4	DETAILS
5	TEST BORINGS 1
6	TEST BORINGS 2

Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

CLASSIFICATION OF EARTHWORK FOR STRUCTURES	RC-11M	APR. 15, 2004
BACKFILL AT STRUCTURES	RC-12M	APR. 15, 2004
WALL CONSTR. & EXP. JOINT DETAILS	BC-735M	JAN. 21, 2003
GENERAL NOTES AND LEGENDS FOR SOIL/ROCK DESCRIPTION	BC-795M	JAN. 21, 2003
DESCRIPTION	DWG. NO.	APP. DATE

SUPPLEMENTAL DRAWINGS

PREPARED BY:
TRI-STATE DESIGN & DEVELOPMENT
9 EAST MALL PLAZA
CARRIEGIE, PA. 15106

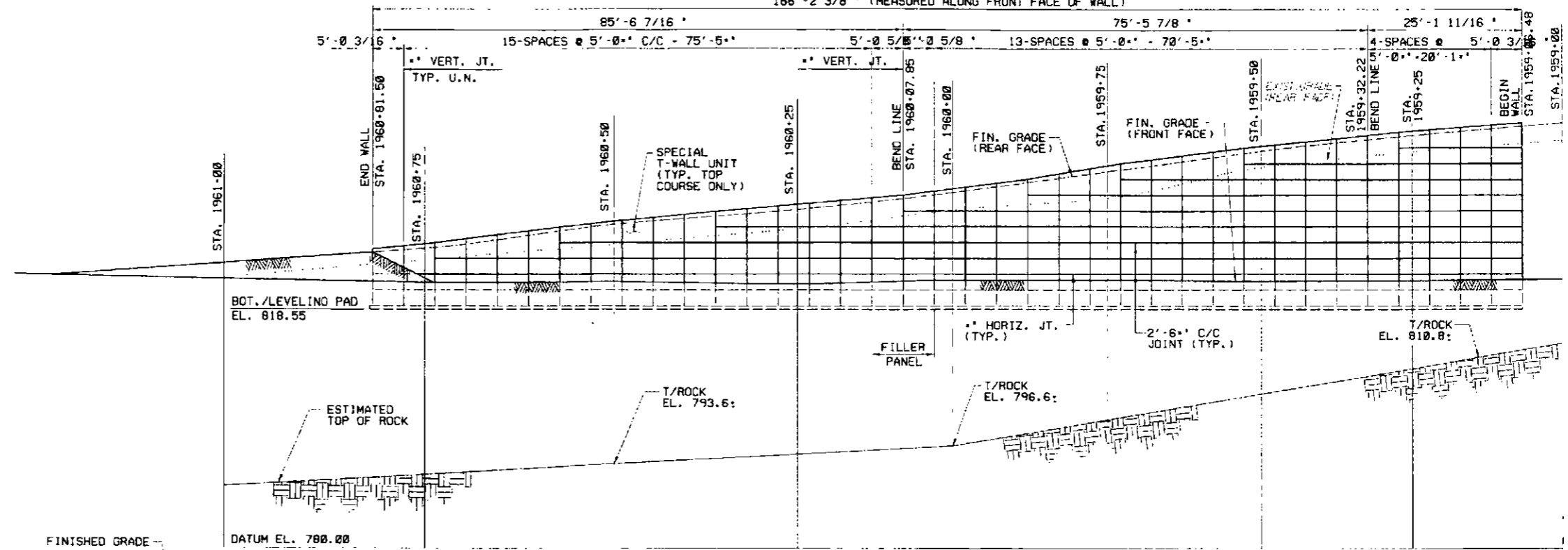
Shrood K. Patel
7/12/07
SIGNATURE & DATE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ARMSTRONG COUNTY
S.R. 1038 SECTION 150
SEGMENT 0050 OFFSET 0525
S.R. 1038 STA. 1959+99.82
T-WALL(R) RETAINING WALL, WALL E
GENERAL PLAN

RECOMMENDED	6/2007	SHEET 1 OF 6
<i>Thomas P. Macione</i> CHIEF BRIDGE ENGINEER		SUPPLEMENTAL DRAWINGS
		S-27373

A-00122496

186'-2 3/8" (MEASURED ALONG FRONT FACE OF WALL)

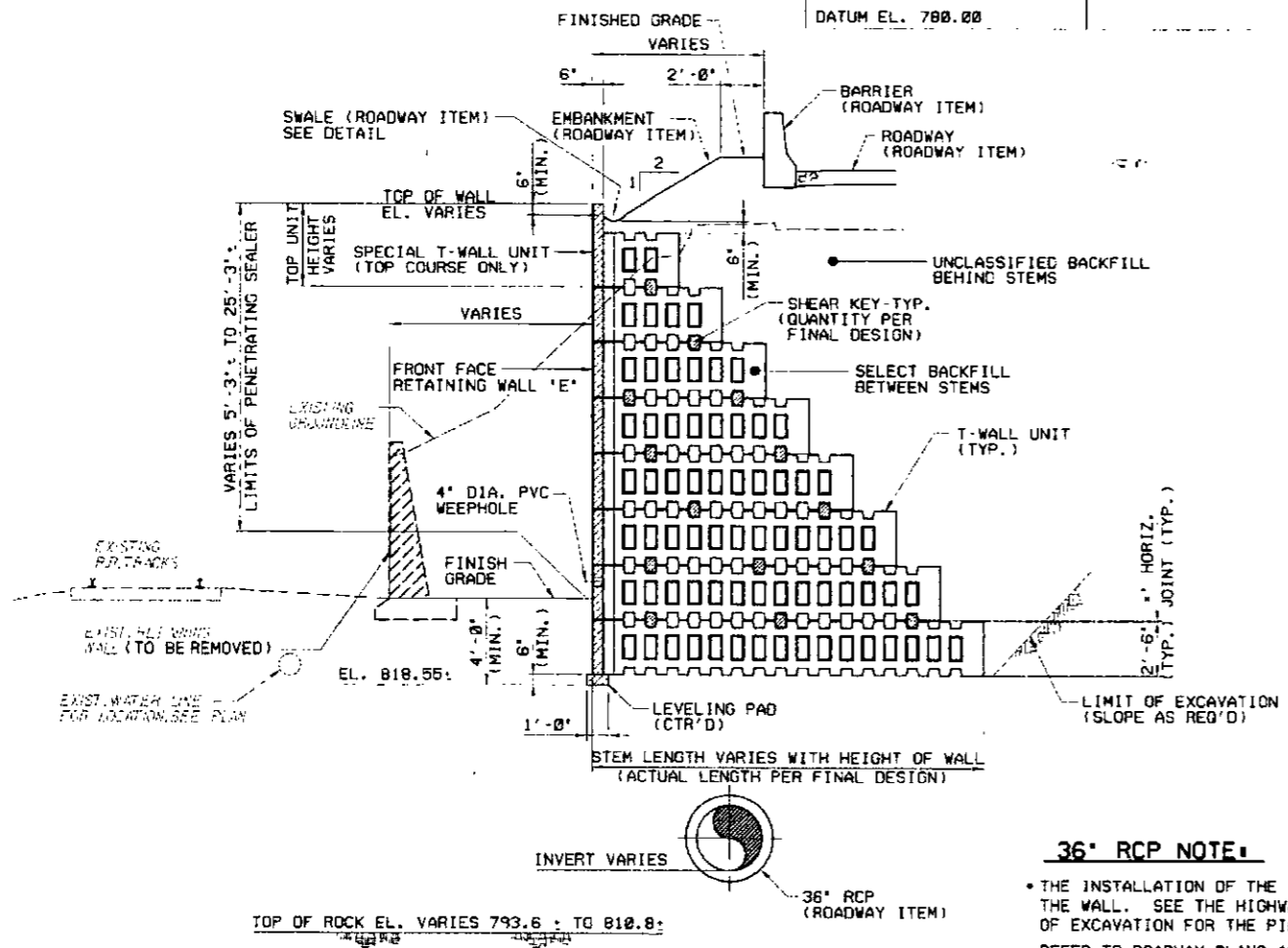


WALL ELEVATION
(DEVELOPED)

SCALE IN FEET
5 0 5 10

TOP OF WALL	
STATION	ELEVATION
1959-06.48	849.51
1959-25.00	847.13
1959-32.22	846.27
1959-50.00	844.20
1959-75.00	840.80
1960-00.00	837.40
1960-07.85	836.55
1960-25.00	834.70
1960-50.00	832.40
1960-75.00	828.50
1962-81.50	827.50

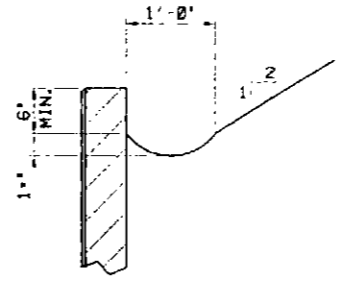
NOTE:
ELEVATIONS GIVEN AS GUIDE FOR T-WALL MANUFACTURER. ELEVATIONS MAY BE ADJUSTED, HIGHER THAN GIVEN VALUES EXCEPT FOR STATION 1959-06.48, TO PROVIDE EASE IN FABRICATION AND/OR CONSTRUCTION.



TYPICAL WALL SECTION

SCALE IN FEET
1 0 1 2 3

SWALE DETAIL
NOT TO SCALE



36" RCP NOTE:

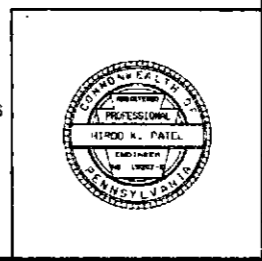
- THE INSTALLATION OF THE 36" RCP PIPE WILL OCCUR BEFORE THE INSTALLATION OF THE WALL. SEE THE HIGHWAY DRAWING FOR THE PIPE INSTALLATION AND THE LIMITS OF EXCAVATION FOR THE PIPE.
- REFER TO ROADWAY PLANS AND CROSS SECTIONS FOR INLET AND STORM DRAIN PIPE LOCATIONS AND ELEVATIONS.
- FOR LIMITS OF 36" PIPE EXCAVATION AND BACKFILL, SEE HIGHWAY DRAWINGS.

Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ARMSTRONG COUNTY
S.R. 1038 SECTION 150
SEGMENT 0050 OFFSET 0525
S.R. 1038 STA. 1959-99.82
T-WALL(R) RETAINING WALL, WALL E
ELEVATION

SHEET 2 OF 6
S-27373



DES: R.C. DWN: J.R. CKD: R.C.

A-00122496

GENERAL NOTES

- PROVIDE MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH SPECIFICATIONS, PUBLICATION 408/2007, INCLUDING CURRENT SUPPLEMENTS, ANSI/AASHTO/AWS/D1.5-2002 BRIDGE WELDING CODE AND CONTRACT SPECIAL PROVISIONS. (USE ANSI/AWS/D1.1-2002 FOR WELDING NOT COVERED IN ANSI/AASHTO/AWS/D1.5-2002.)
- DIMENSIONS SHOWN ARE FOR A NORMAL TEMPERATURE OF 68 DEGREES F.
- ALL DIMENSIONS SHOWN ARE HORIZONTAL EXCEPT AS NOTED.
- VERIFY ALL DIMENSIONS AND GEOMETRY OF THE EXISTING STRUCTURE IN THE FIELD AS NECESSARY FOR PROPER FIT OF THE PROPOSED CONSTRUCTION.

DESIGN SPECIFICATIONS:

- AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1996 AND APPROVED INTERIM SPECIFICATIONS AND AS SUPPLEMENTED BY DESIGN MANUAL, PART 4, APRIL 2000 (INCLUDING AUG. 2005 REVISIONS)
- DESIGN IS IN ACCORDANCE WITH THE WORKING STRESS.
- EARTH PRESSURES IN ACCORDANCE WITH DM4, SECTION 3.11.5.
- SEISMIC FORCES WERE CONSIDERED FOR ACCELERATION COEFFICIENT OF 0.05.
- THE CONTRACTOR IS RESPONSIBLE FOR THE FINAL DESIGN AND CONSTRUCTION OF THE T-WALL (R) RETAINING WALL IN ACCORDANCE WITH LFD METHODOLOGY AND THE "STANDARD DETAILS" APPROVED BY THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION.

DESIGN LIVE LOADS:

- SURCHARGE IN ACCORDANCE WITH DM4, SECTION 3.11.6. MINIMUM LIVE SURCHARGE, 3 FT OF SOIL.

CONCRETE NOTES:

- TOP OF LEVELING PAD TO BE A MINIMUM OF 4'-0" BELOW GRADE.
- USE TYPE II SULFATE RESISTANT CEMENT IN LEVELING PAD.
- PROVIDE 2" CONCRETE COVER ON REINFORCEMENT BARS EXCEPT AS NOTED.
- RAKE FINISH ALL HORIZONTAL CONSTRUCTION JOINTS EXCEPT AS INDICATED.
- CHAMFER EXPOSED CONCRETE EDGES 1" X 1" EXCEPT AS NOTED.
- APPLY A PROTECTIVE COATING (PENETRATING SEALER, REINFORCED CONCRETE SUBSTRUCTURE SURFACES) WITH PUBLICATION 408, SECTION 1019, TO THE EXPOSED SURFACES OF THE CONCRETE PANELS INCLUDING THE FACE.

REINFORCEMENT:

- PROVIDE GRADE 60 REINFORCING STEEL BARS THAT MEET THE REQUIREMENTS OF ASTM A615/A, A616/A AND A706/A. DO NOT WELD GRADE 60 REINFORCING STEEL BARS UNLESS SPECIFIED. GRADE 40 REINFORCING STEEL BARS MAY BE SUBSTITUTED WITH A PROPORTIONAL INCREASE IN CROSS SECTIONAL AREA, IF APPROVED BY THE CHIEF BRIDGE ENGINEER. DO NOT USE RAIL STEEL A616/A REINFORCEMENT BARS WHERE BENDING OR WELDING OF THE REINFORCEMENT BARS IS INDICATED.
- PROVIDE MINIMUM LAP SPLICE AND EMBEDMENT LENGTH OF 30 BAR DIAMETERS OR IN ACCORDANCE WITH AASHTO AS MODIFIED BY DESIGN MANUAL PART 4, WHICHEVER IS GREATER.
- WELDING OF REINFORCEMENT BARS DURING FABRICATION OR CONSTRUCTION IS NOT PERMITTED UNLESS SPECIFIED.

FOUNDATION:

- PROOF-ROLL THE FOUNDATION SUBGRADE ALONG THE ENTIRE WALL LENGTH PRIOR TO CONSTRUCTION OF THE RETAINING WALL SYSTEM. A GEOTECHNICAL ENGINEER MUST INSPECT THE EXCAVATED FOUNDATION SUBGRADE ALONG THE ENTIRE WALL LENGTH PRIOR TO CONSTRUCTION OF THE WALL. ANY SOFT OR UNSUITABLE MATERIALS IDENTIFIED BY INSPECTION SHOULD BE EXCAVATED TO COMPETENT MATERIAL AND REPLACED WITH COMPACTED STRUCTURAL BACKFILL.
- PRIOR TO PLACEMENT OF WALL ELEMENTS, THOROUGHLY COMPACT THE SUBGRADE USING A HEAVY DRUM ROLLER. WET CONDITIONS MAY REQUIRE PLACEMENT OF STRUCTURAL BACKFILL (PADOT 2A) PRIOR TO THE COMPACTION OF THE SUBGRADE IN ORDER TO PROVIDE A FIRM WORKING SURFACE.

SOIL/ROCK PARAMETERS

- ENGINEERED FILL WITHIN THE T-WALL STEMS AS PROVIDED BY THE T-WALL CONTRACTOR:
 SOIL TO GRADE $\phi = 32^\circ$
 $\gamma = 120$ pcf (MOIST)
 $\gamma = 125$ pcf (SATURATED)
 $K_a = 0.307$
 $K_o = 0.470$
 $c = 0$
- SOIL BEHIND THE T-WALL STEMS (UNCLASSIFIED FILL)

- SOIL TO GRADE $\phi = 30^\circ$
 $\gamma = 120$ pcf (MOIST)
 $\gamma = 125$ pcf (SATURATED)
 $K_a = 0.333$
 $K_p = 3.000$
 $c = 0$

- SOIL BELOW THE T-WALL RESIDUAL SOIL
 SOIL BELOW T-WALL
 SOIL BELOW GRADE $\phi = 33^\circ$
 $\gamma = 120$ pcf (MOIST)
 $\gamma = 125$ pcf (SATURATED)
 $K_a = 0.260$
 $K_p = 3.000$
 $c = 0$

T-WALL PARAMETERS

FACTOR OF SAFETY:

- OVERTURNING = 2.0
- SLIDING = 1.5
- PULLOUT = 1.5
- BEARING CAPACITY = 3.0
- COEFFICIENT OF SLIDING FRICTION = 0.58

EXCAVATION

- PERFORM ALL EXCAVATIONS IN ACCORDANCE WITH OSHA REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF ALL EXCAVATED SLOPES AND THE DESIGN OF ANY TEMPORARY SHORING AND BRACING THAT MAY BE USED. ALL SURFACE RUNOFF SHOULD BE DIVERTED AWAY FROM EXCAVATIONS TO AVOID THE DETERIORATION OF THE SUBGRADE SOILS DUE TO EXPOSURE TO MOISTURE. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SUFFICIENT DEWATERING SO THAT EXCAVATIONS ARE DRY ENOUGH FOR INSPECTION AND CONSTRUCTION.

UTILITIES:

- COORDINATE, LOCATE AND CONDUCT WORK RELATED TO PUBLIC AND PRIVATE UTILITIES IN ACCORDANCE WITH PUBLICATION 408/2007 SECTIONS 105.06 AND 107.12.

36" DIA. RCP PIPE INSTALLATION

- THE INSTALLATION OF THE 36" RCP PIPE WILL OCCUR BEFORE THE INSTALLATION OF THE WALL. SEE THE HIGHWAY DRAWING FOR THE PIPE INSTALLATION AND THE LIMITS OF EXCAVATION FOR THE PIPE.
- REFER TO ROADWAY PLANS AND CROSS SECTIONS FOR INLET AND STORM DRAIN PIPE LOCATIONS AND ELEVATIONS.
- FOR LIMITS OF 36" PIPE EXCAVATION AND BACKFILL, SEE HIGHWAY DRAWINGS.

ALTERNATE STRUCTURE ITEMS				
ITEM NUMBER	ITEM	UNIT	TOTAL	
9741-2205	PREFABRICATED T-WALL RETAINING WALL SYSTEM, AS DESIGNED, S-27373	(A) LS	1	
8610-0003	CONCRETE RETAINING WALL	(A)(B) LS	1	
8600-0003	SOLDIER PILE RETAINING WALL	(A)(B) LS	1	
8641-0003	MECHANICALLY STABILIZED RETAINING WALL	(A)(B) LS	1	

APPROXIMATE QUANTITIES - RETAINING WALL, AS DESIGNED				
ITEM NUMBER	ITEM	UNIT	TOTAL	
9741-2205	PREFABRICATED T-WALL RETAINING WALL SYSTEM, AS DESIGNED, S-27373	(A) LS		
	CLASS 3 EXCAVATION	(D) CY	750	
	SELECTED BORROW EXCAVATION, STRUCTURAL BACKFILL	(D) CY	750	
	T-WALL COMPLETE INSTALLATION	(C)(C) SF	3600	
	PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALERS, REINF. CONC. SUBSTRUCTURE SURFACES)	(B)(D) SY	320	

QUANTITIES LEGEND

- (A) SEE SPECIAL PROVISIONS.
- (B) FOR ALTERNATE DESIGNS, INCLUDED IN STRUCTURE LUMP SUM BID ITEM. ADDITIONAL QUANTITY ITEMS MAY BE NECESSARY FOR ALTERNATE STRUCTURES.
- (C) AREA OF WALL FOR COST PURPOSES IS THE OVERALL LENGTH OF WALL TIMES THE HEIGHT FROM THE TOP OF THE WALL TO THE TOP OF THE LEVELING PAD.
- (D) ITEMS IN LUMP SUM ITEM 9741-2205, RETAINING WALL, AS DESIGNED, S-27373 FOR INFORMATION ONLY.
 (INCLUDE THE FOLLOWING ITEMS IN THE LUMP SUM STRUCTURE:
 SPECIFIED BACKFILL
 PRECAST T-WALL UNITS
 GEOTEXTILE, CLASS 2 TYPE A
 CLASS A CEMENT CONCRETE
 30 MIL IMPERVIOUS MEMBRANE
 ANY OTHER ITEMS REQUIRED FOR THE CONSTRUCTION OF THE WALL

Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION**

ARMSTRONG COUNTY
S.R. 1038 SECTION 150
SEGMENT 0050 OFFSET 0525
S.R. 1038 STA. 1959+99.82

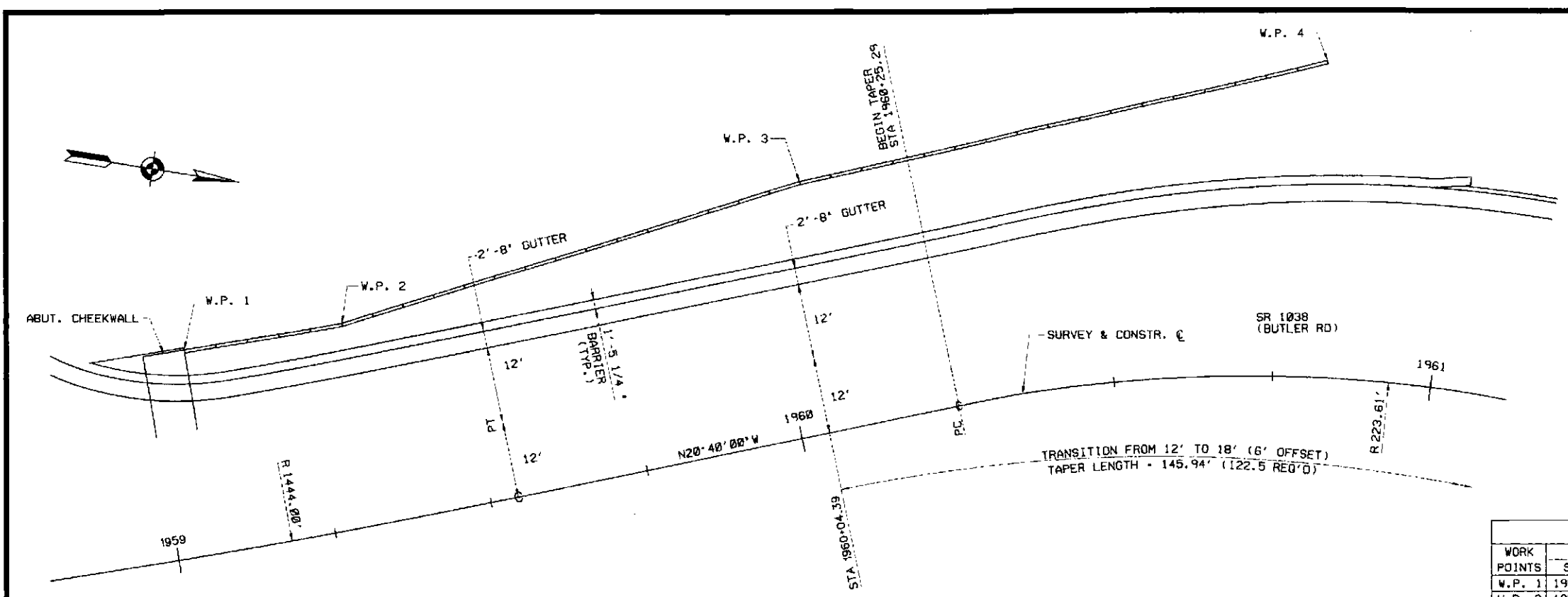
**T-WALL(R) RETAINING WALL, WALL E
GENERAL NOTES AND QUANTITIES**



RECOMMENDED JUL 05 2007 SHEET 3 OF 6
S-27373

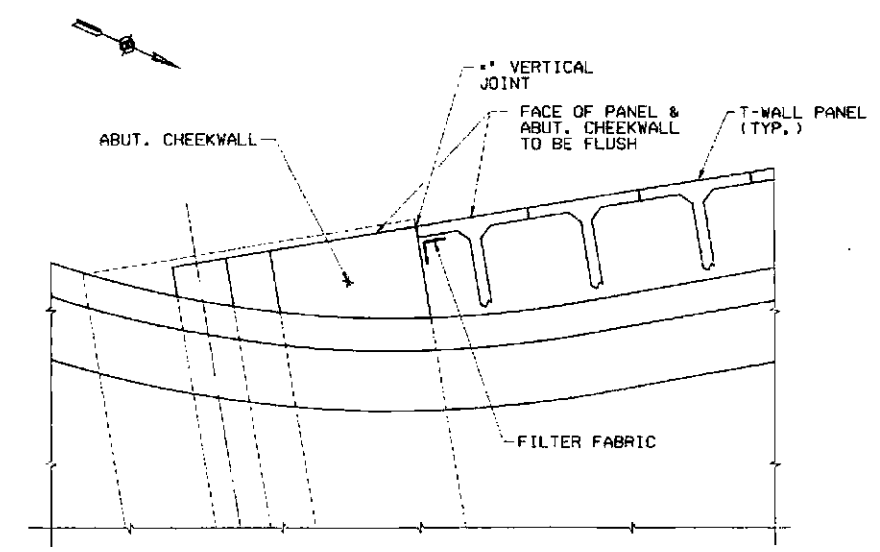
DES: R.C. DWG: C.E. CKD: R.C.

A-00127496

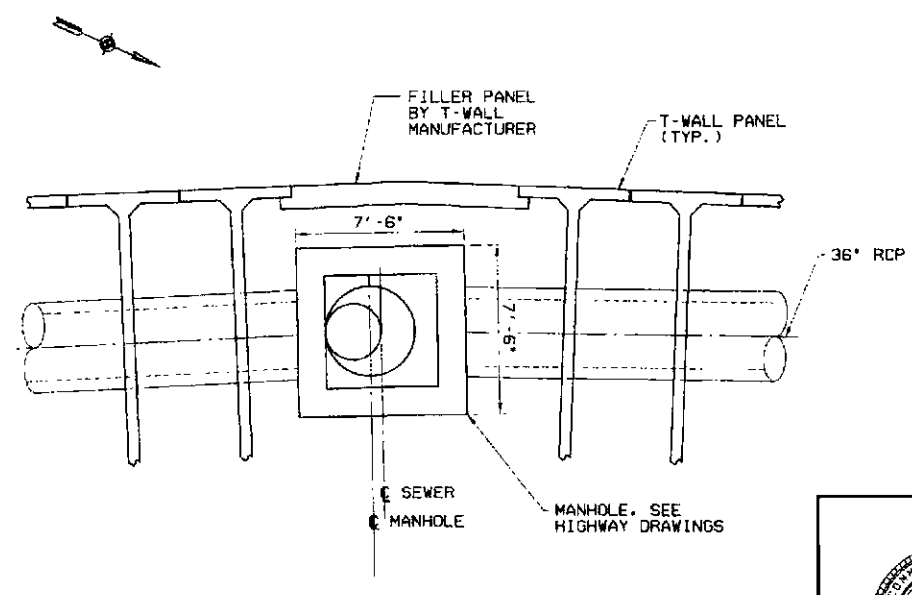


STAKE OUT PLAN
NOT TO SCALE

WORK POINTS			
WORK POINTS	STATIONS & OFFSETS FROM SURVEY & CONSTR. C.S.R. 1038		
	STATION	OFFSET	DESCRIPTION
W.P. 1	1959+06.48	32.69' LT	BEGIN WALL @ F.F. WALL
W.P. 2	1959+32.22	32.29' LT	END SEGMENT 1, BEGIN SEGMENT 2
W.P. 3	1960+07.85	39.86' LT	END SEGMENT 2, BEGIN SEGMENT 3
W.P. 4	1960+81.50	50.07' LT	END SEGMENT 3, END WALL @ F.F. WALL



START OF T-WALL AT ABUTMENT
SCALE IN FEET



DETAIL OF WALL @ MANHOLE
SCALE IN FEET

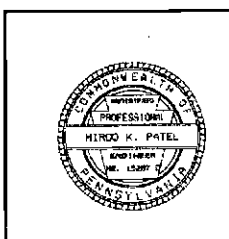
Mark	Description	By	Chk'd.	Recm'd	Date
REVISIONS					

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ARMSTRONG COUNTY
S.R. 1038 SECTION 150
SEGMENT 0050 OFFSET 0525
S.R. 1038 STA. 1959+99.82
T-WALL(R) RETAINING WALL, WALL E
DETAILS

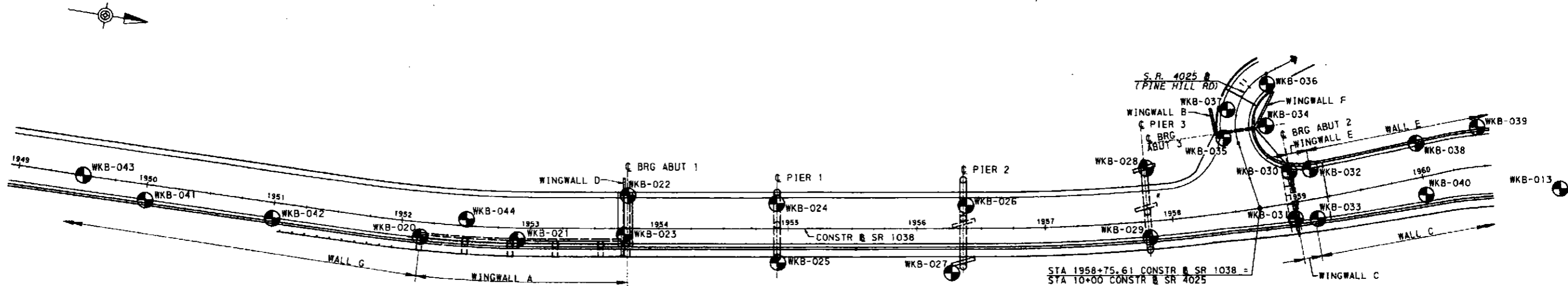
RECOMMENDED JUL 6 2000

SHEET 4 OF 6
S-27373



DES: R.C. | DWN: G.A.C. | CKD: R.C.

A-00122496



LOCATION PLAN
NOT TO SCALE

WALL C - PILE (CAISSON) TIP ELEVATIONS West Kittanning Bridge Northern Approach Ramp	
CAISSON NO	CAISSON TIP ELEVATION
1 THRU 11	801.99 - 793.99
12 THRU 29	791.99 - 783.97
30 THRU 32	793.99

LEGEND

WKB-026 BORING FOR FOUNDATION DESIGN

LEGEND

COLUMN A - DENOTES DEPTH FOR BOTTOM OF SPOON SAMPLE OR BOTTOM OF CORE RUN IN FEET.
 COLUMN B - DENOTES NUMBER OF BLOWS ON SPOON SAMPLER FOR EVERY 6" OR AS NOTED.
 COLUMN C - DENOTES SPOON SAMPLER OR CORE RECOVERY IN FEET.
 COLUMN D - DENOTES CORE RECOVERY IN PERCENT.
 COLUMN E - DENOTES ROCK QUALITY DESIGNATION (RQD) IN PERCENT.

ELEV. GROUND WATER ELEVATION IN FEET.
 HR. DATE

GSE INDICATES EXISTING GROUND SURFACE ELEVATION IN FEET.
 TRE INDICATES TOP OF ROCK ELEVATION IN FEET.
 BLE INDICATES BOTTOM OF LEVELING PAD IN FEET.
 TRSE TOP OF ROCK SOCKET ELEVATION IN FEET.
 BRSE BOTTOM OF ROCK SOCKET ELEVATION IN FEET.

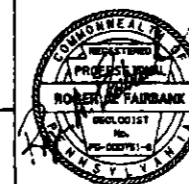
NOTES:

1. THE CORE BORING LOGS AND RELATED INFORMATION DEPICT SUBSURFACE CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AND DATES INDICATED. SOIL AND ROCK CONDITIONS AND GROUNDWATER LEVELS AT OTHER LOCATIONS MAY DIFFER FROM THE CONDITIONS OCCURRING AT THESE BORING LOCATIONS. ALSO, THE PASSAGE OF TIME MAY RESULT IN A CHANGE OF THE CONDITIONS AT THESE BORING LOCATIONS.
2. THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT AND IS NOT A PART OF THE CONTRACT DRAWINGS. (SEE PUBLICATION 408/2000, SECTION 102.05).
3. THE CLASSIFICATIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED. RAF



THE INFORMATION SUBMITTED REPRESENTS THE CONDITIONS ENCOUNTERED BY THE TEST BORING PROGRAM, INCLUDING LOGS, SOIL SAMPLES, BORING ROCK CORES, CLASSIFICATION OF MATERIALS AND DEPTH OF BORINGS.
Roger A. Fairbank 7/3/07
 (GEOLOGICAL ENGINEER/ENGINEERING GEOLOGIST)

PREPARED BY:
 AWK CONSULTING ENGINEERS, INC.
 PITTSBURGH, PA 15235



DATE: 7/3/07

COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF TRANSPORTATION

ARMSTRONG COUNTY
 SR 1038 SECTION 150

SEG 0050 OFFSET 0525
 S. R. 1038 STA 1959+99.82

SOLDIER PILE WALL - WALL E
 STRUCTURE BORING LOGS

RECOMMENDED _____

SHEET 5 OF 6

S-27373

DRAWN BY: MEL DATE: 06-25-07 CHK'D BY: MCM DATE: 06-25-07 APR'D BY: RAF DATE: 06-25-07

G:\P\EC05160101WestKittanningBridge\PS&E\SUB 1\EC05160101_WALL E_PL 03.dgn

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7/3/2007

A-00122496

WALL E

COUNTY	DISTRICT
ARMSTRONG	10

WKB-032
STA 1959+14, 23.49' LT
ELEVATION 844.7

G.S.E. 844.7	A	B	C	D	E	DESCRIPTION	844.7 844.0
						Asphalt. Concrete.	
	6.0		3.0	100	67		
	11.0		5.0	100	98		
	16.0		5.0	100	100		
	21.0		5.0	100	88		
BLPE 818.55	26.0		5.0	100	100		
	31.0		2.8	57	40	SANDSTONE and SILTSTONE GRAVEL with sand. Trace clay	816.7
TRE 810.8	36.0		2.1	42	14	LIMESTONE: light gray; very hard; slightly weathered; thinly bedded; closely fractured. Stratum RQD=37%	810.8
	41.0		4.8	92	36		
	46.0		2.9	58	10	CLAYSTONE, sandy, gray; soft; highly weathered; thickly bedded; extremely closely fractured. Stratum RQD=0%	802.6 799.9
ELEV 796.7 0 HRS. 4/13/06	51.0		5.0	100	0	SANDSTONE, silty; dark gray; hard; slightly weathered; intensely bedded; very closely fractured. Stratum RQD=0%	790.9
	56.0		4.2	83	38	SILTSTONE, sandy, shaly; gray; hard; slightly weathered; intensely bedded; closely fractured. Stratum RQD=86%	788.7
						Bottom of hole.	

No 24 HR Water Reading Taken

WKB-038
STA 1960+00, 26.17' LT
ELEVATION 838.5

G.S.E. 838.5	A	B	C	D	E	DESCRIPTION	838.5 837.5
						Asphalt.	
	4.5	13-17-13	0.5			SAND, gravelly, clayey, dark brown; moist; medium dense.	
	7.5	7-12-13	1.1				
	10.5	3-3-4	0.7			GRAVEL; light gray; moist; loose.	829.5 826.5
	13.5	3-4-8	0.8			SAND, clayey with gravel; brown; moist; medium dense.	823.5
ELEV 822.1 0 HRS. 4/11/06	16.5	6-16-18	1.0			GRAVEL, sandy, gray-orange; dry to moist; dense to medium dense.	
ELEV 818.6 24 HRS. 4-12-06	19.5	12-30-13	1.5				
BLPE 818.55	22.5	13-15-16	0.9				
	25.5	12-14-5	0.7				
	28.5	7-11-12	0.0				
	31.5	4-8-11	0.8			CLAY; gray; very stiff, moist.	807.7
TRE 804.7	33.0	5-6-11	0.6			COAL; black; soft	807.3 804.7
	35.0		2.0	100	0	CLAYSTONE; light gray; soft; moderately weathered; very thinly bedded; very closely fractured.	801.8
	37.0		1.0	50	15		
	39.0		1.3	63	0	SANDSTONE; light brown; hard; moderately weathered; very thinly bedded; very closely fractured.	796.9
	42.0		1.0	33	0		
	44.0		1.3	63	0	SILTSTONE; dark gray; medium; moderately weathered; very intensely bedded; extremely closely fractured. Stratum RQD=0%	790.7 790.5 788.4
	47.0		3.0	100	0		
	52.0		5.0	100	68	COAL; black; soft SILTSTONE, sandy; gray; hard; fresh; very intensely bedded; closely fractured. Stratum RQD=91% SANDSTONE; light gray; hard; slightly weathered; thinly bedded; medium fractured. Stratum RQD=83% Bottom of hole.	786.5

WKB-039
STA 1960+50, 30.0' LT
ELEVATION 834.9

G.S.E. 834.9	A	B	C	D	E	DESCRIPTION	834.9 834.2
						Asphalt.	
	3.0	4-8-8	0.8			CLAY, gravelly, sandy; (cl- 6); brown; moist; stiff.	831.9
	4.5	5-10-15	0.6			SANDSTONE GRAVEL, sandy; (gp, a-1-a); gray; dry; dense.	828.6
	5.3	10-50/3	0.3				
	8.0		0.4	63	0	SANDSTONE; gray; hard; fresh; very thinly bedded; closely fractured.	828.0
	8.0		0.8	42	26		
	11.0		1.1	36	0	SANDSTONE; cobbles and gravel; brown; hard; moderately weathered; closely fractured.	821.9
	13.0		0.3	13	0		
	14.3	4-4-50/3	0.8			SANDSTONE GRAVEL, sandy; (gp, a-1-a); brown; moist; very dense.	820.2
	15.0		0.7	100	0		819.8
	18.0		0.8	83	0	Concrete (old roadway?)	
BLPE 818.55	18.0		1.0	50	0	SANDSTONE (cobbles and boulders); brown; hard; moderately weathered. (some small rounded stones)	813.3
ELEV 817.4 0 HRS. 3/13/06	20.0		1.1	54	0		
	22.0		1.5	75	0	SANDSTONE GRAVEL, silty, sandy; brown.	810.5
	24.0		1.2	58	0		
	26.0		1.0	50	0	SANDSTONE; cobbles and gravel; brown; hard; moderately weathered.	
	28.0		0.7	33	0		
	30.0		0.8	42	0		
	32.0		0.8	38	0		
	34.0		0.0	0	0		800.9
	35.5	4-6-13	0.5			GRAVEL, clayey; (gc, a-2-6); gray; wet; medium dense.	798.4
	37.0	3-13-17	0.5			SANDSTONE GRAVEL, sandy; (gp, a-1-a); brown; wet; dense to very dense.	
	38.5	4-37-17	0.8				
	40.0	14-12-13	0.5				
TRE 793.6	41.3	10-40-50/3	0.9			SILTSTONE, shaly; dark gray; soft; moderately weathered; very intensely bedded; very closely fractured. Stratum RQD=0%	793.6 790.7
	43.0		1.2	70	0		
	46.0		3.0	100	43	SANDSTONE (interbedded with siltstone at times); gray; hard; slightly weathered; very intensely bedded to very thinly bedded; very closely to closely fractured. Stratum RQD=53%	785.8 784.6
	51.0		5.0	100	50	SILTSTONE, sandy; dark gray; medium; slightly weathered; very intensely bedded; very closely fractured. Stratum RQD=42%	780.9
	54.0		3.0	100	48	SANDSTONE; gray; hard; slightly weathered; thinly bedded; medium fractured. Stratum RQD=84% Bottom of hole.	

No 24 HR Water Reading Taken

LEGEND

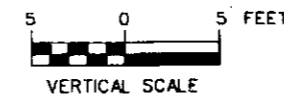
COLUMN A - DENOTES DEPTH FOR BOTTOM OF SPOON SAMPLE OR BOTTOM OF CORE RUN IN FEET.
 COLUMN B - DENOTES NUMBER OF BLOWS ON SPOON SAMPLER FOR EVERY 6" OR AS NOTED.
 COLUMN C - DENOTES SPOON SAMPLER OR CORE RECOVERY IN FEET.
 COLUMN D - DENOTES CORE RECOVERY IN PERCENT.
 COLUMN E - DENOTES ROCK QUALITY DESIGNATION (RQD) IN PERCENT.

ELEV. GROUND WATER ELEVATION IN FEET.
 HR. DATE

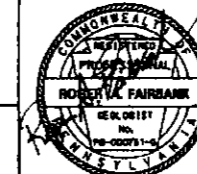
GSE INDICATES EXISTING GROUND SURFACE ELEVATION IN FEET.
 TRE INDICATES TOP OF ROCK ELEVATION IN FEET.
 BLPE INDICATES BOTTOM OF LEVELING PAD IN FEET.
 TRSE TOP OF ROCK SOCKET ELEVATION IN FEET.
 BRSE BOTTOM OF ROCK SOCKET ELEVATION IN FEET.

NOTES:

- THE CORE BORING LOGS AND RELATED INFORMATION DEPICT SUBSURFACE CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AND DATES INDICATED. SOIL AND ROCK CONDITIONS AND GROUNDWATER LEVELS AT OTHER LOCATIONS MAY DIFFER FROM THE CONDITIONS OCCURRING AT THESE BORING LOCATIONS. ALSO, THE PASSAGE OF TIME MAY RESULT IN A CHANGE OF THE CONDITIONS AT THESE BORING LOCATIONS.
 - THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT AND IS NOT A PART OF THE CONTRACT DRAWINGS. (SEE PUBLICATION 408/2000, SECTION 102.05).
 - THE CLASSIFICATIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED. *RAF*
- * SEE FIRST SHEET FOR CAISSON/PILE TIP ELEVATIONS.



PREPARED BY:
 AWK CONSULTING ENGINEERS, INC.
 PITTSBURGH, PA 15235



DATE: 7/3/07

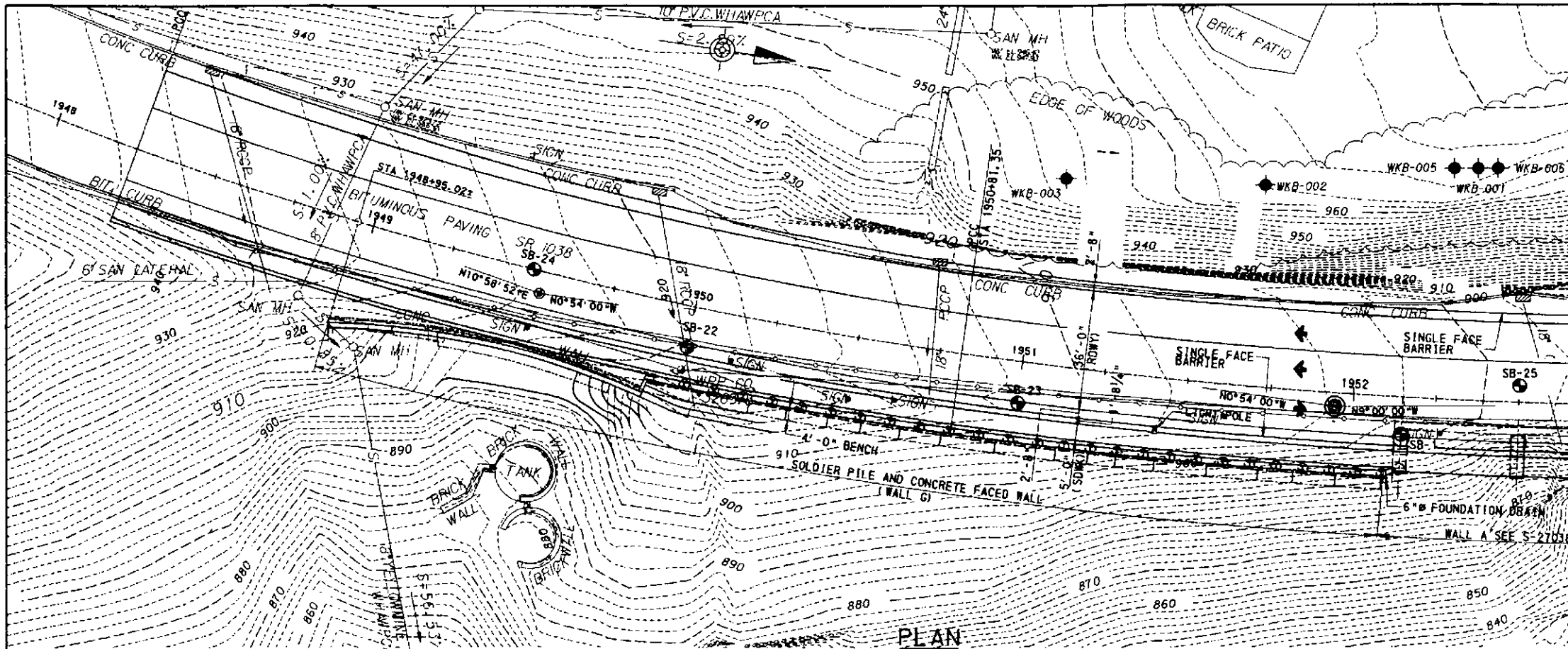
COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF TRANSPORTATION

ARMSTRONG COUNTY
 SR 1038 SECTION 150

SEG 0050 OFFSET 0525
 S. R. 1038 STA 1959+99.82

SOLIDER PILE WALL - WALL E
 STRUCTURE BORING LOGS

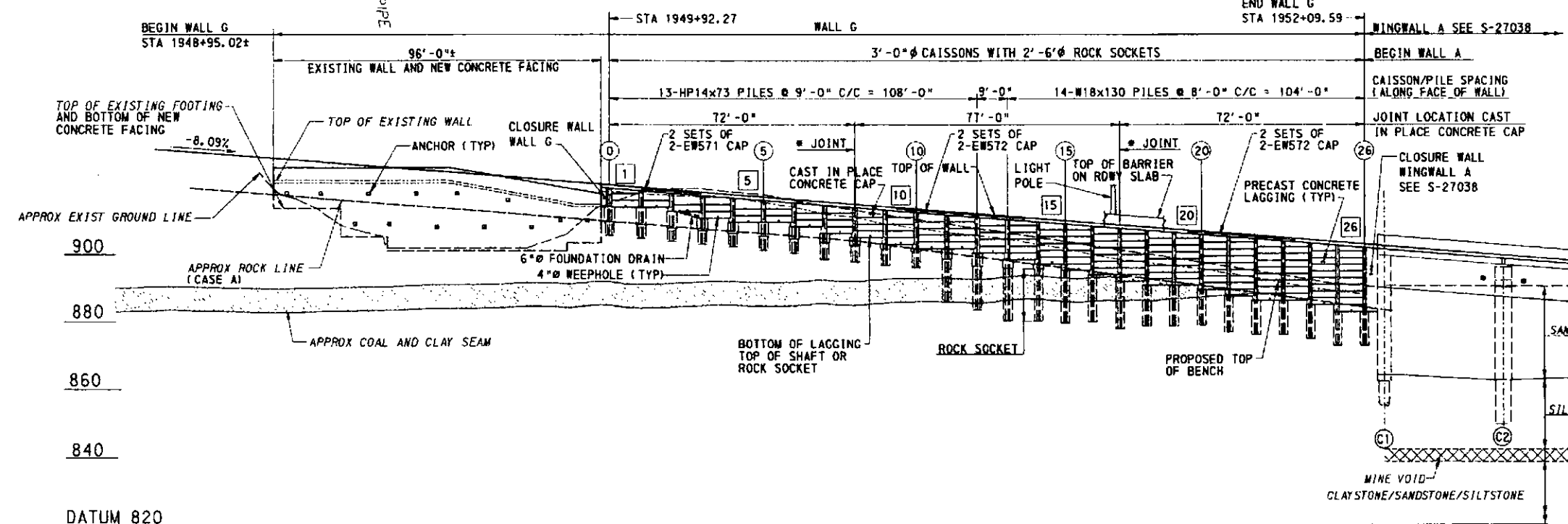
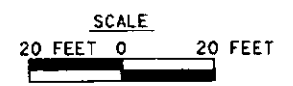
RECOMMENDED _____ SHEET 6 OF 6
 S-27373



NOTE
 • FOR GENERAL NOTES, QUANTITIES, DRAWING INDEX AND LIST OF SUPPLEMENTAL DRAWINGS SEE SHEET 2

LEGEND

- ◆ BORINGS DRILLED IN 2002
- BORINGS DRILLED IN 2006
- ➔ DIRECTION OF TRAFFIC
- EXISTING CONTOURS
- PROPOSED CONTOURS
- Ⓢ CAISSON NUMBER FOR WINGWALL A
- Ⓢ CAISSON/PILE NUMBER FOR WALL G
- ⊕ EXPANSION JOINT IN CAST IN PLACE CONCRETE CAP
- 1 WALL PANEL NUMBER



MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

DATUM 820

SR 1038 CURVE DATA

PI STA	Δ	D	T	L	R	E	PCC STA	PT STA
1949+53.77	11°52'52" LT	4'38"22"	128.51'	256.10'	1235.00'	6.67'	1948+25.26	1950+81.35
1951+94.78	8°06'00" LT	3'34"35"	113.43'	226.48'	1602.00'	4.01'	1950+81.35	1953+07.83
1958+07.86	11°40'00" LT	3'58"04"	147.52'	294.03'	1444.00'	7.52'	1956+60.33	1959+54.36

ELEVATION SR 1038 GRADE DATA

PVI STA 1952+50.00
 ELEV = 899.02
 HVC = -0.03 FT
 -8.09%
 -7.60%

PREPARED BY:
 SAI CONSULTING ENGINEERS, INC.
 PITTSBURGH, PA.

REG. PROF. ENGR. PENNA.
 DATE: July 3, 2007

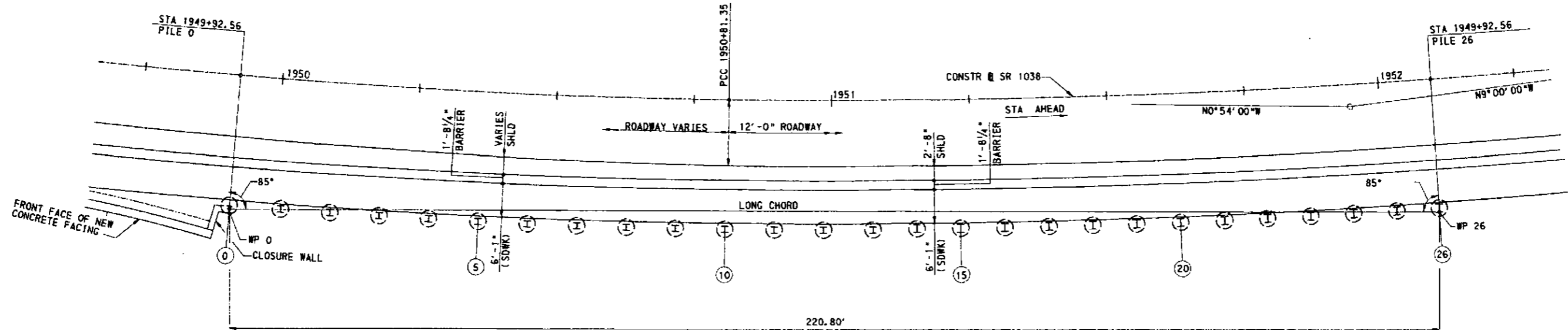
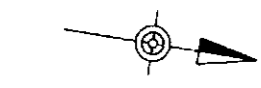
COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF TRANSPORTATION

ARMSTRONG COUNTY
 SR 1038 SECTION 150
 SEG 0040 OFFSET 0632
 SR 1038-150 STA 1948+94.59 AND SR 4025 OVER
 BUFFALO AND PITTSBURGH RAILROAD
 SOLDIER PILE WALL - WALL G
 WALL G PLAN AND ELEVATION

SHEET 1 OF 11
 +SUPPLEMENTAL DWGS.
 S-27374

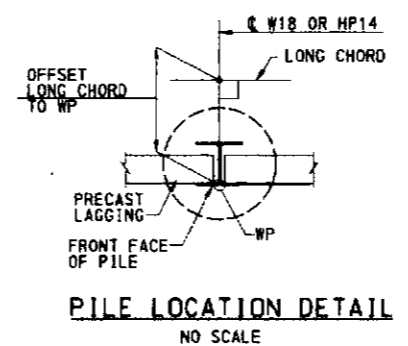
DESIGNED BY	WCF
DRAWN BY	RLG
CHECKED BY	MP



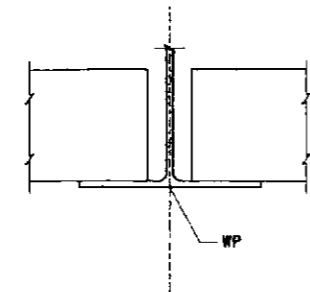


STAKE OUT PLAN
NO SCALE

WORK POINT STATIONS AND COORDINATES					
WP NO.	STATION	OFFSET FROM SR 1038 TO WP	OFFSET FROM LONG CHORD TO WP	NORTH	EAST
WP0	1949+92.27	24.41' RIGHT	0.00	8845.2009	10247.4433
WP1	1950+01.10	24.39' RIGHT	0.68	8854.1898	10247.9000
WP2	1950+09.92	24.36' RIGHT	1.29	8863.1816	10248.2825
WP3	1950+18.75	24.33' RIGHT	1.84	8872.1760	10248.6007
WP4	1950+27.57	24.30' RIGHT	2.33	8881.1724	10248.8547
WP5	1950+36.40	24.27' RIGHT	2.75	8890.1704	10249.0444
WP6	1950+45.23	24.24' RIGHT	3.11	8899.1695	10249.1697
WP7	1950+54.05	24.21' RIGHT	3.40	8908.1693	10249.2308
WP8	1950+62.88	24.19' RIGHT	3.63	8917.1692	10249.2275
WP9	1950+71.71	24.16' RIGHT	3.79	8926.1690	10249.1600
WP10	1950+80.54	24.13' RIGHT	3.89	8935.1680	10249.0281
WP11	1950+89.40	24.13' RIGHT	3.96	8944.1665	10248.8658
WP12	1950+98.27	24.13' RIGHT	3.98	8953.1640	10248.6544
WP13	1951+07.13	24.13' RIGHT	3.95	8962.1602	10248.3932
WP14	1951+15.01	24.13' RIGHT	3.89	8970.1555	10248.1191
WP15	1951+22.89	24.13' RIGHT	3.78	8978.1494	10247.8058
WP16	1951+30.78	24.13' RIGHT	3.63	8986.1416	10247.4531
WP17	1951+38.66	24.13' RIGHT	3.45	8994.1320	10247.0612
WP18	1951+46.54	24.13' RIGHT	3.22	9002.1204	10246.6299
WP19	1951+54.42	24.13' RIGHT	2.96	9010.1065	10246.1593
WP20	1951+62.30	24.13' RIGHT	2.65	9018.0902	10245.6494
WP21	1951+70.18	24.13' RIGHT	2.31	9026.0713	10245.1003
WP22	1951+78.06	24.13' RIGHT	1.93	9034.0497	10244.5119
WP23	1951+85.95	24.13' RIGHT	1.50	9042.0250	10243.8843
WP24	1951+93.83	24.13' RIGHT	1.04	9049.9972	10243.2174
WP25	1952+01.71	24.13' RIGHT	0.54	9057.9659	10242.5113
WP26	1952+09.59	24.13' RIGHT	0.00	9065.9309	10241.7641



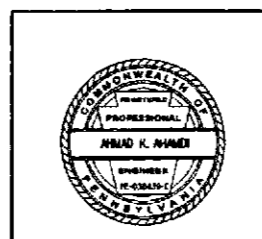
PILE LOCATION DETAIL
NO SCALE



LEGEND
WP DENOTES WORK POINT
⊙ DENOTES PILE NUMBER

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

DESIGNED BY	KAM
DRAWN BY	RLG
CHECKED BY	KAM



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ARMSTRONG COUNTY
SR 1038 SECTION 150
SEG 0040 OFFSET 0632
SR 1038-150 STA 1948+94.59 TO 1952+15.00
SOLDIER PILE WALL - WALL G

STAKE OUT PLAN

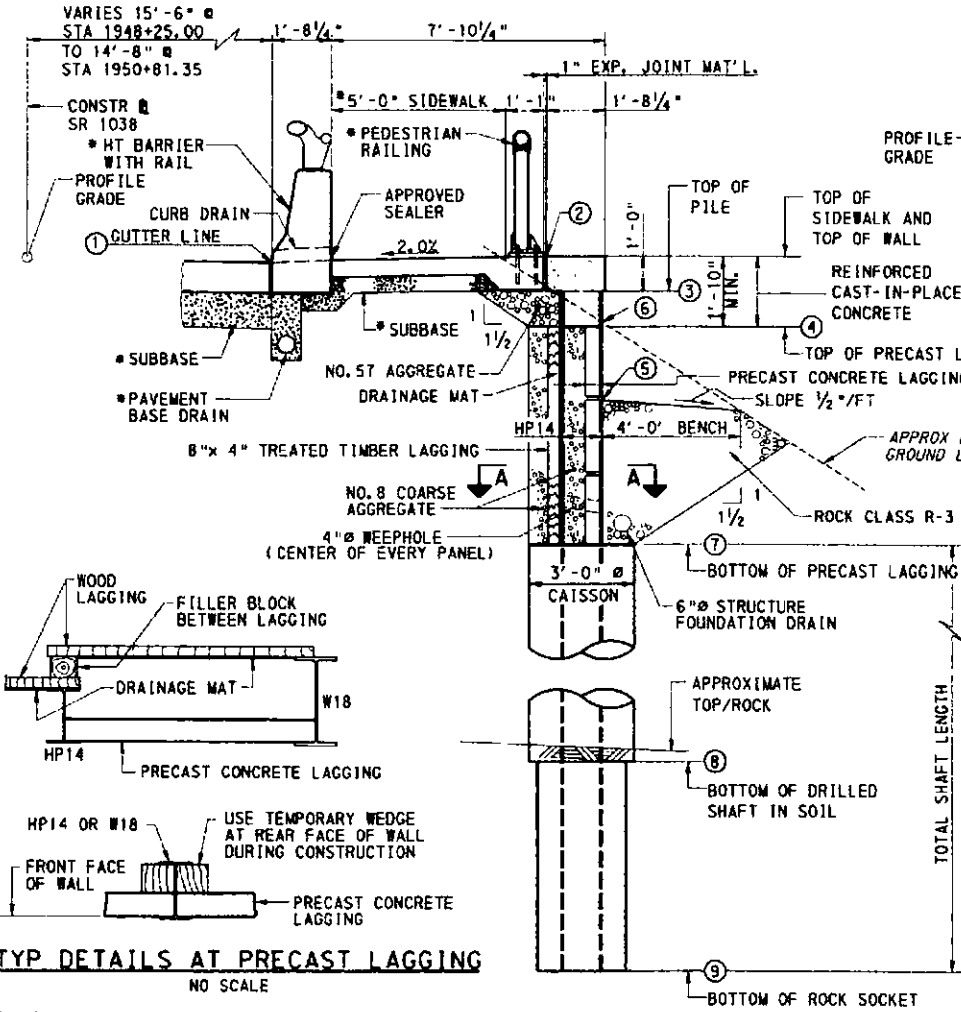
RECOMMENDED _____ 6/2007

SHEET 3 OF 11
S-27374

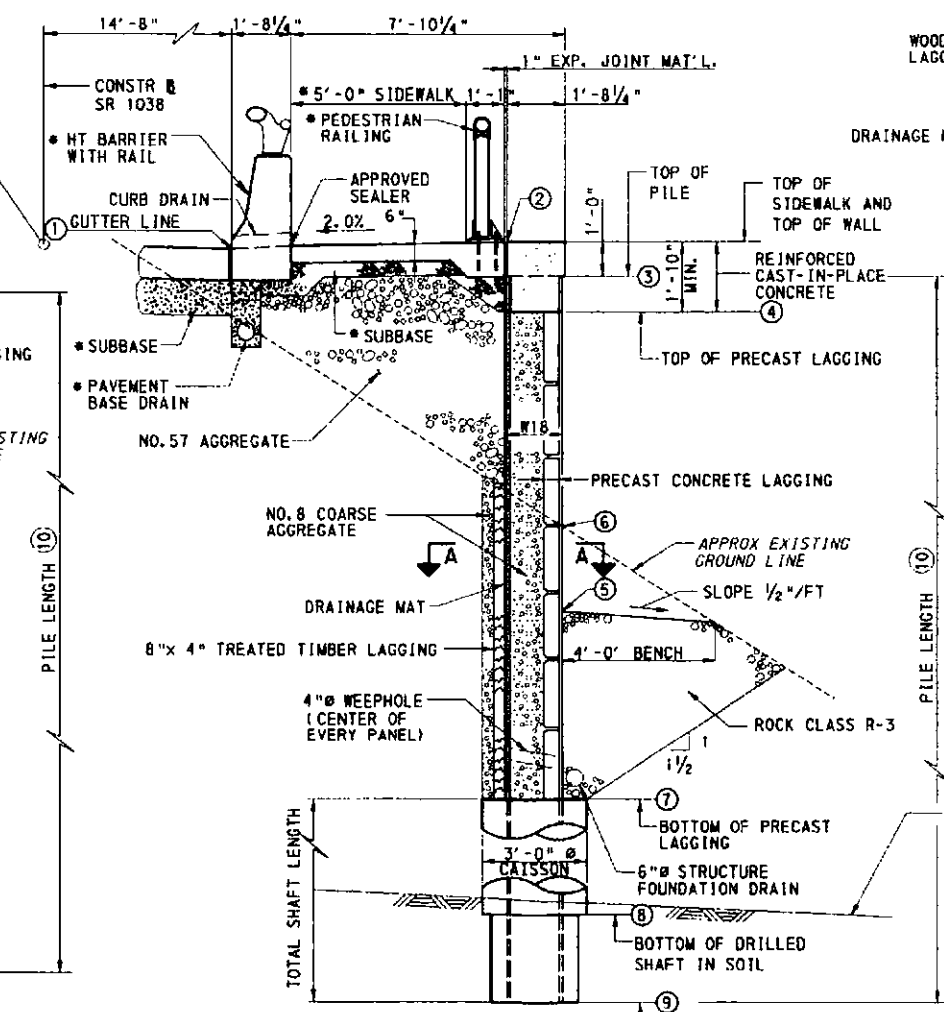
A-00122496

PILE SCHEDULE

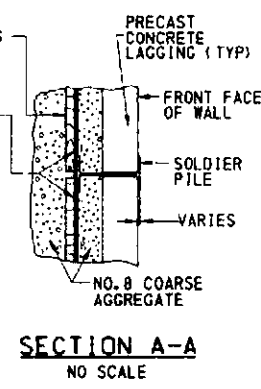
PILE NO.	PILE SIZE	CONSTR # SR 1038 STATION	OFFSET TO FF PILE	GUTTER LINE	TOP OF SIDEWALK TOP OF WALL	TOP OF PILE	TOP OF PRECAST LAGGING BK/AHD	BENCH	EXISTING GROUND LINE	BOT OF PRECAST LAGGING BK/AHD	CASE A					CASE B										
											BOTTOM OF SHAFT SECTION IN SOIL	ESTIMATED TOP OF ROCK AT & SHAFT	TOP OF ROCK SOCKET	BOTTOM OF ROCK SOCKET	DRILLED SHAFT, FEET	DRILLED SHAFT, FEET	DRILLED SHAFT, FEET	DRILLED SHAFT, FEET	BOTTOM OF SHAFT SECTION IN SOIL	ESTIMATED TOP OF ROCK AT & SHAFT	TOP OF ROCK SOCKET	BOTTOM OF ROCK SOCKET	DRILLED SHAFT, FEET	DRILLED SHAFT, FEET	DRILLED SHAFT, FEET	DRILLED SHAFT, FEET
0	HP14xT3	1949+92.27	24.41'	920.31	920.52	919.52	918.00	918.50	916.50	914.00	909.50	910.00	909.50	905.50	4.50	4.00 (2)	8.50	14.02	903.00	903.50			11.00	0.00	11.00	16.52
1		1950+01.10	24.38'	919.60	919.81	918.81	918.00/916.00	918.00	918.50	914.00	908.75	909.16	908.75	904.75	5.25	4.00 (2)	9.25	14.06	902.00	902.67			12.00	0.00	12.00	16.81
2		1950+09.92	24.35'	918.89	919.10	918.10	916.00/914.75	917.50	919.50	914.00/912.75	907.75	908.33	907.75	903.75	5.00	4.00 (2)	9.00	14.35	901.25	901.83			11.50	0.00	11.50	16.85
3		1950+18.75	24.32'	918.19	918.40	917.40	914.75	917.00	919.50	912.75/910.75	907.00	907.50	907.00	903.00	3.75	4.00 (2)	7.75	14.40	900.50	901.00			10.25	0.00	10.25	16.90
4		1950+27.57	24.30'	917.48	917.69	916.69	914.75/913.50	916.75	918.50	910.75/909.50	906.00	906.67	906.00	902.00	3.50	4.00 (2)	7.50	14.69	899.50	900.16			11.50	0.00	11.50	17.19
5		1950+36.40	24.27'	916.77	916.98	915.98	913.50	916.50	917.75	909.50	905.25	905.83	905.25	901.25	4.25	4.00 (2)	8.25	14.73	898.50	899.33			11.50	0.00	11.50	17.48
6		1950+45.23	24.24'	916.06	916.27	915.27	913.50/912.25	914.00	916.00	909.50/908.25	904.50	905.00	904.50	900.50	3.75	4.00 (2)	7.75	14.77	898.00	898.50			11.50	0.00	11.50	17.27
7		1950+54.05	24.22'	915.35	915.56	914.56	912.25	912.00	914.50	908.25/906.25	903.50	904.12	903.50	898.50	2.75	5.00 (2)	7.75	16.06	897.25	897.75	897.25	894.25	9.00	3.00	12.00	20.31
8		1950+62.88	24.19'	914.64	914.85	913.85	912.25/911.00	911.00	913.00	906.25/905.00	902.75	903.25	902.75	897.75	2.25	5.00 (2)	7.25	16.10	896.50	897.00	896.50	893.00	8.50	3.50	12.00	20.85
9		1950+71.71	24.16'	913.93	914.14	913.14	911.00	909.00	911.75	905.00/903.00	901.75	902.38	901.75	896.75	1.25	5.00 (2)	6.25	16.39	895.75	896.25	895.75	890.50	7.25	5.25 (1)	12.50	22.64
10		1950+80.54	24.14'	913.22	913.43	912.43	911.00/909.75	907.75	910.00	903.00/901.75	901.00	901.50	901.00	896.00	0.75	5.00 (2)	5.75	16.43	895.00	895.50	895.00	889.25	6.75	5.75 (1)	12.50	23.18
11		1950+89.40		912.51	912.72	911.72	909.75	906.50	909.00	901.75	898.75	899.25	898.75	885.75	3.00	13.00 (1)	16.00	25.97	893.75	894.25	893.75	884.25	8.00	9.50 (1)	17.50	27.47
12		1950+98.27		911.79	912.00	911.00	909.75/908.50	905.50	908.00	901.75/900.50	896.50	897.00	896.50	883.50	4.00	13.00 (1)	17.00	27.50	892.50	893.00	892.50	883.00	8.00	9.50 (1)	17.50	28.00
13	1951+07.13	W18x130	24.13'	911.07	911.28	910.28	908.50	904.50	906.50	900.50/898.50	896.00	896.65	896.00	880.50	2.50	15.50 (1)	18.00	29.78	892.00	892.50	892.00	881.00	6.50	11.00 (1)	17.50	29.28
14	1951+15.01		910.43	910.64	909.64	908.50/907.25	903.00	905.00	908.50/897.25	901.75	902.38	901.75	889.25/895.25	1.50	15.50 (1)	17.00	29.39	891.50	892.00	891.50	880.00	5.75	11.50 (1)	17.25	29.64	
15	1951+22.89		909.80	910.01	909.01	907.25	901.75	904.50	897.25/895.25	900.00	903.75	895.25/894.00	0.00	14.00 (1)	14.00	28.37	891.00	891.50	891.00	878.00	4.25	13.00 (1)	17.25	31.01		
16	1951+30.78		909.16	909.37	908.37	907.25/906.00	900.00	903.75	895.25/894.00	898.50	899.00	898.50/892.00	0.00	14.00 (1)	14.00	29.73	890.00	890.50	890.00	879.00	4.00	11.00 (1)	15.00	29.37		
17	1951+38.66		908.52	908.73	907.73	906.00	898.50	902.00	894.00/892.00	897.75	901.00	892.00/890.75	0.00	12.00 (1)	12.00	28.34	889.00	889.50	889.00	877.50	3.00	11.50 (1)	14.50	30.23		
18	1951+46.54		907.88	908.09	907.09	906.00/904.75	897.75	901.00	892.00/890.75	896.50	900.00	890.75	889.50	878.75	0.00	12.00 (1)	12.00	28.34	888.25	888.75	888.25	878.75	2.50	9.50 (1)	12.00	28.34
19	1951+54.42		907.24	907.45	906.45	904.75	896.50	900.00	890.75	899.00	899.50	899.00/889.50	0.00	10.50 (2)	10.50	26.82	887.50	888.00	887.50	878.75	3.25	8.75 (2)	12.00	27.70		
20	1951+62.30		906.61	906.82	905.82	904.75/903.50	895.75	899.00	890.75/889.50	895.00	898.50	887.50/886.25	0.00	10.00 (2)	10.00	28.04	886.50	887.00	886.50	877.50	3.00	9.00 (2)	12.00	28.32		
21	1951+70.18		905.97	906.18	905.18	903.50	894.25	898.00	889.50/887.50	889.50	887.50	877.00	876.50	875.00	0.00	10.50 (2)	10.50	28.16	885.50	886.00	885.50	875.50	2.00	10.00 (2)	12.00	29.68
22	1951+78.06		905.33	905.54	904.54	903.50/902.25	893.00	896.50	887.50/886.25	888.40	886.50	876.50	875.00	873.00	0.00	10.00 (2)	10.00	28.26	884.75	885.12	884.75	875.25	1.50	9.50 (2)	11.00	29.29
23	1951+85.95		904.69	904.90	903.90	902.25	891.75	895.75	886.25	887.25	886.50	876.50	875.00	873.00	0.00	10.00 (2)	10.00	27.40	883.75	884.25	883.75	875.25	2.50	8.50 (2)	11.00	28.65
24	1951+93.83		904.05	904.26	903.26	902.25/901.00	890.00	894.00	886.25/885.00	886.10	885.00	875.00	873.00	871.00	0.00	10.00 (2)	10.00	28.26	882.75	883.38	882.75	874.00	2.25	8.75 (2)	11.00	29.26
25	1952+01.71		903.42	903.63	902.63	901.00	889.00	893.00	885.00/883.00	885.00	883.00	873.00	871.00	869.00	0.00	10.00 (2)	10.00	29.63	882.00	882.50	882.00	872.00	1.00	10.00 (2)	11.00	30.63
26	1952+09.59		902.78	902.99	901.99	901.00	888.00	890.00	883.00	883.90	883.00	873.00	871.00	869.00	0.00	10.00 (2)	10.00	28.99	881.00	881.62	881.00	872.00	2.00	9.00 (2)	11.00	29.99



TYPICAL WALL SECTION AT HP14 PILES
NO SCALE
* ROADWAY ITEM



TYPICAL WALL SECTION AT W18 PILES
NO SCALE
* ROADWAY ITEM



SECTION A-A
NO SCALE

FOUNDATION NOTES:

- TOP OF ROCK ELEVATION ESTIMATED TO BE BETWEEN THE ELEVATIONS GIVEN FOR CASE A AND CASE B. NOTIFY THE ENGINEER IF ROCK IS ENCOUNTERED AT AN ELEVATION BELOW THAT SHOWN FOR CASE B.
- PROVIDE "SHAFT IN ROCK" LENGTH AS SHOWN FOR CASE A AS LONG AS CASE A "TOTAL SHAFT LENGTH" IS SATISFIED. "TOTAL SHAFT LENGTH" IS NOT TO EXCEED THAT SHOWN FOR CASE B AS LONG AS CASE B "SHAFT IN ROCK" LENGTH IS SATISFIED.
- (1) ROCK SOCKET LENGTH INCLUDES DRILLING THROUGH COAL/CLAY SEAM.
- (2) REQUIRED SHAFT LENGTH IN ROCK NOT INCLUDING ANY LENGTH IN COAL/CLAY SEAM. IF COAL/CLAY SEAM IS ENCOUNTERED, DO NOT INCLUDE THE LENGTH THROUGH THE COAL/CLAY SEAM IN DETERMINING IF THE REQUIRED LENGTH OF SHAFT IN ROCK IS SATISFIED.
- (3) MEASURED FROM THE TOP OF CAISSON/BOTTOM OF LAGGING ELEVATION.

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

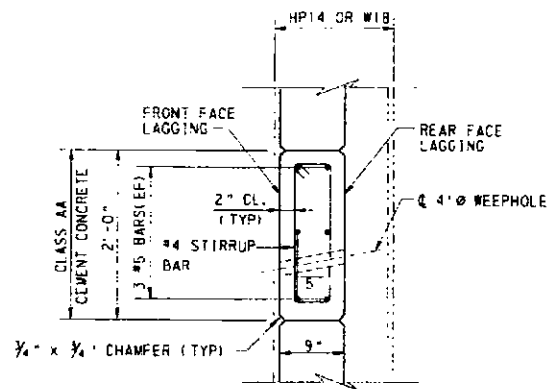
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ARMSTRONG COUNTY
SR 1038 SECTION 150
SEG 0040 OFFSET 0632
SR 1038-150 STA 1948+94.59 TO 1952+15.00
SOLDIER PILE WALL - WALL G

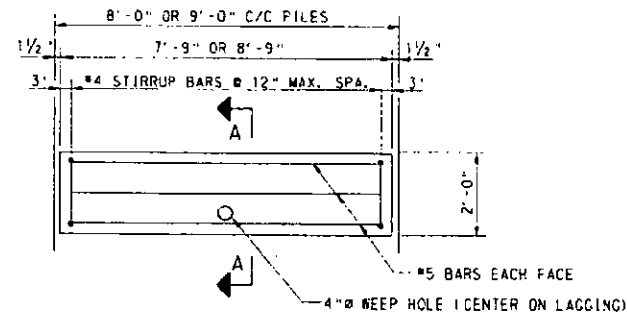
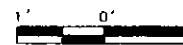
PILE SCHEDULE AND SECTIONS



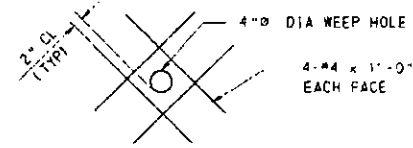
A-00122496



SECTION A-A

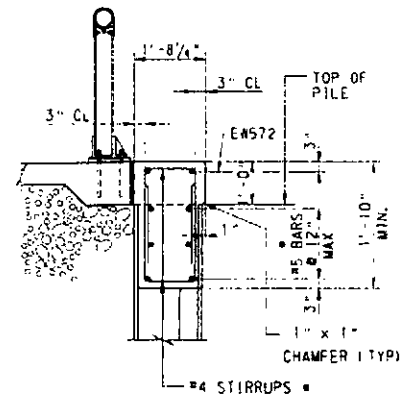


ELEVATION - PRECAST CONCRETE LAGGING

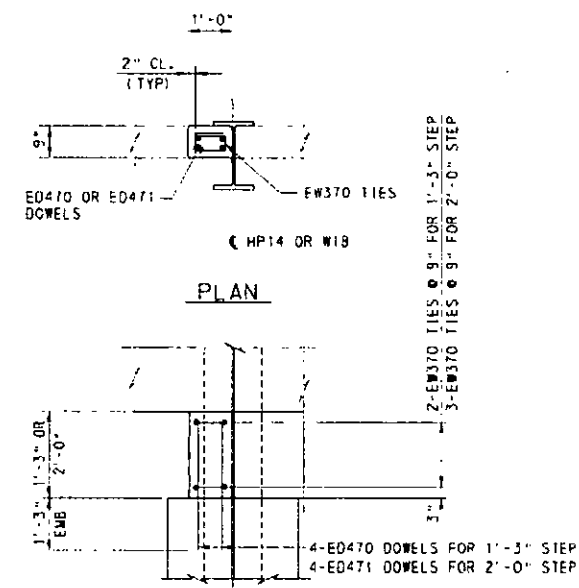


ADDITIONAL REINFORCEMENT AT WEEP HOLES

NOTE:
REPOSITION WALL REINFORCEMENT TO CLEAR WEEP HOLE, WHERE REQUIRED

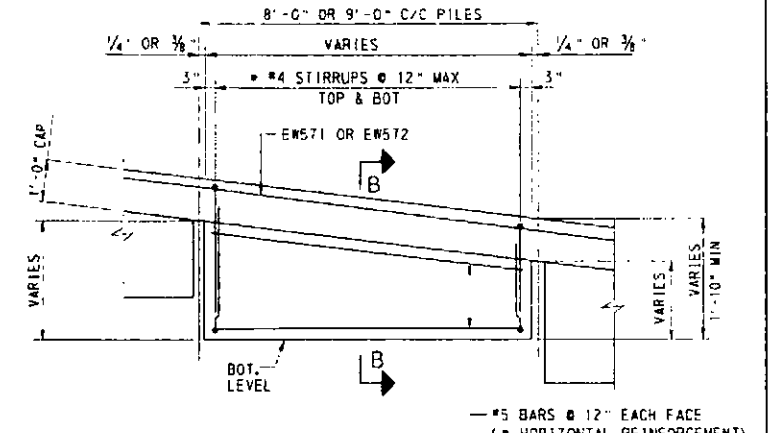


SECTION B-B AT W18

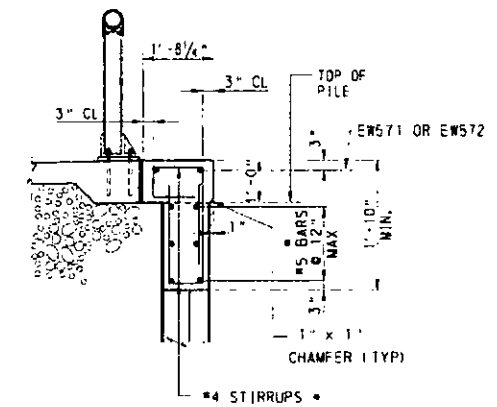


STEPPED LAGGING DETAIL

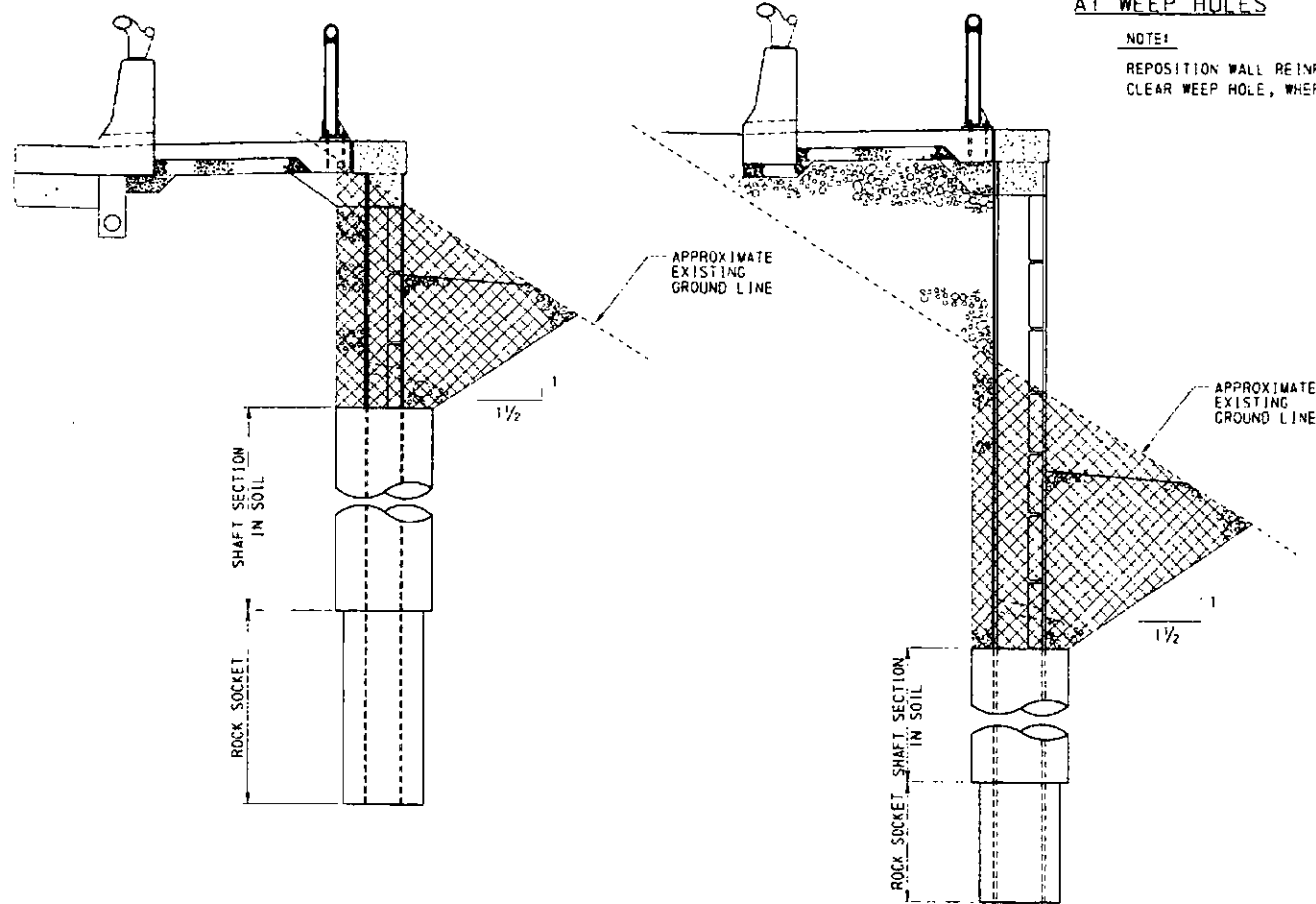
1'-3" STEP FOR PILES 2,4,6,8,10,12,14,16,18,20,22 & 24
2'-0" STEP FOR PILES 3,7,9,13,15,17,21 & 25



ELEVATION CAST-IN-PLACE CONCRETE LAGGING



SECTION B-B AT HP14



EARTHWORK DETAIL AT HP14 PILES
NO SCALE

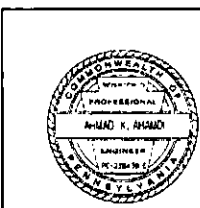
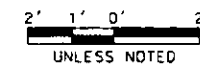
EARTHWORK DETAIL AT W18 PILES
NO SCALE

NOTES:

- FOR GENERAL NOTES AND QUANTITIES SEE SHEET 2
- FOR LOCATION OF LAGGING AND CAP LONGITUDINAL REINFORCEMENT SEE ELEVATION VIEW SHEET 1
- SLOPE TOP OF CAST IN PLACE LAGGING TO MATCH ROADWAY GRADE
- FOR REINFORCEMENT BAR SCHEDULE SEE SHEET 8

LEGEND:

- CLASS 3 EXCAVATION
- SEE REINFORCEMENT BAR PLACEMENT TABLE SHEET 8



MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ARMSTRONG COUNTY
SR 1038 SECTION 150
SEG 0040 OFFSET 0632
SR 1038-150 STA 1948+94.59 TO 1952+15.00
SOLDIER PILE WALL - WALL G

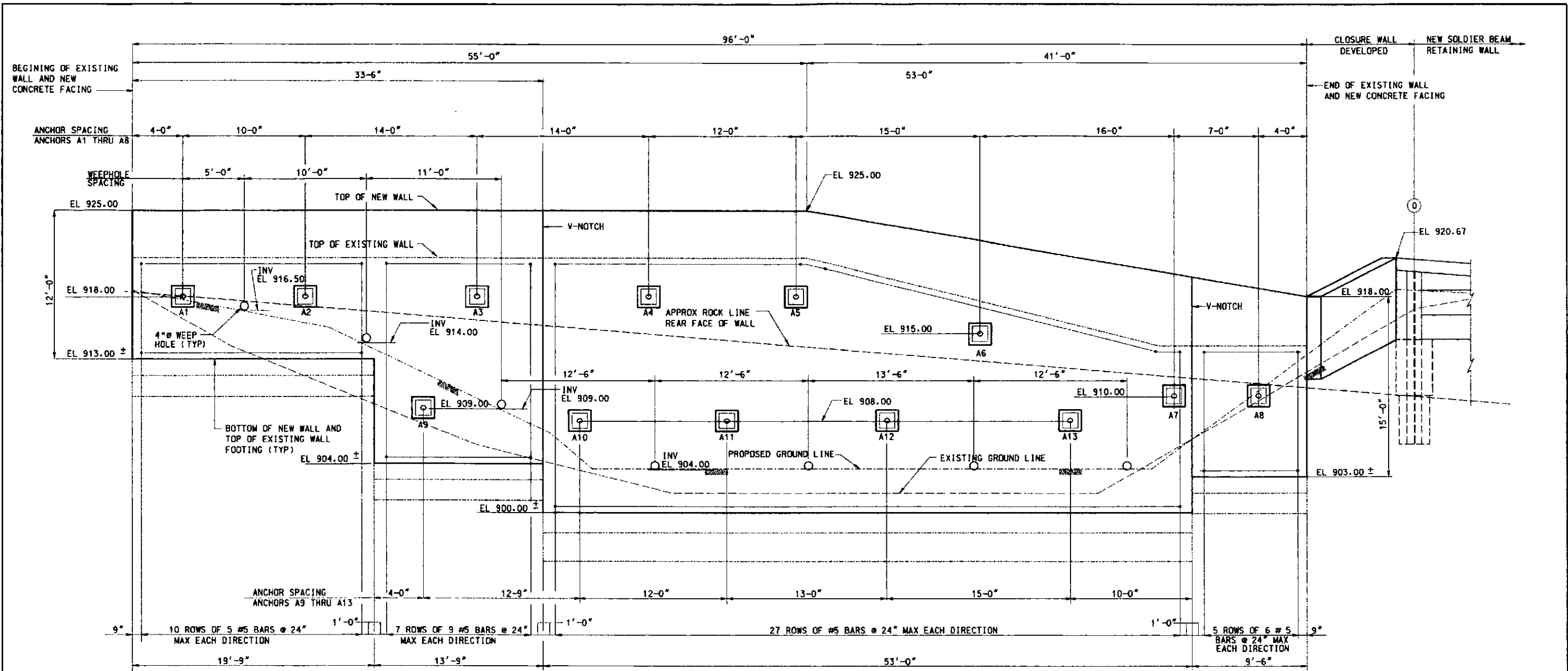
LAGGING DETAILS

RECOMMENDED

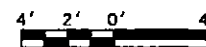
SHEET 5 OF 11

S-27374

DESIGNED BY	JMF
DRAWN BY	RLG
CHECKED BY	MP



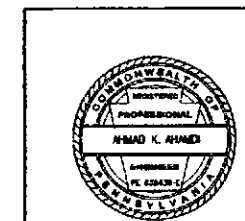
ELEVATION WALL G



MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

NOTES:

- FOR GENERAL PLAN AND ELEVATION SEE SHEET 1
- FOR GENERAL NOTES SEE SHEET 2
- FOR SOLDIER BEAM RETAINING WALL DETAILS SEE SHEETS 4 AND 5
- FOR TYPICAL WALL SECTION, ANCHOR SCHEDULE AND DETAILS SEE SHEET 7
- FOR CLOSURE WALL DETAILS SEE SHEET 8
- VERIFY ALL DIMENSIONS AND GEOMETRY OF EXISTING WALL IN FIELD AS NECESSARY TO PROVIDE PROPER FIT FOR PROPOSED CONSTRUCTION
- FOR V-NOTCH DETAILS SEE STANDARD DRAWING BC-752M



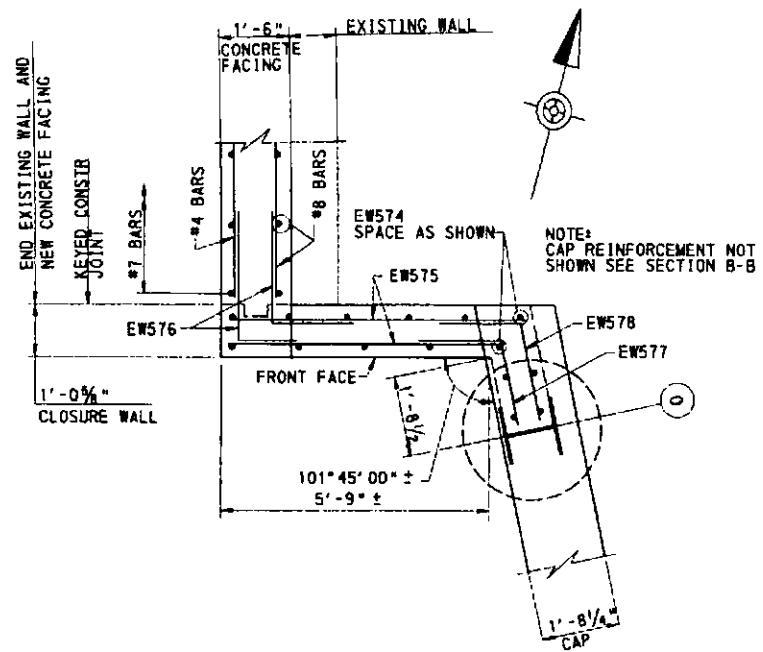
DESIGNED BY	DCT
DRAWN BY	RLG
CHECKED BY	MP

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

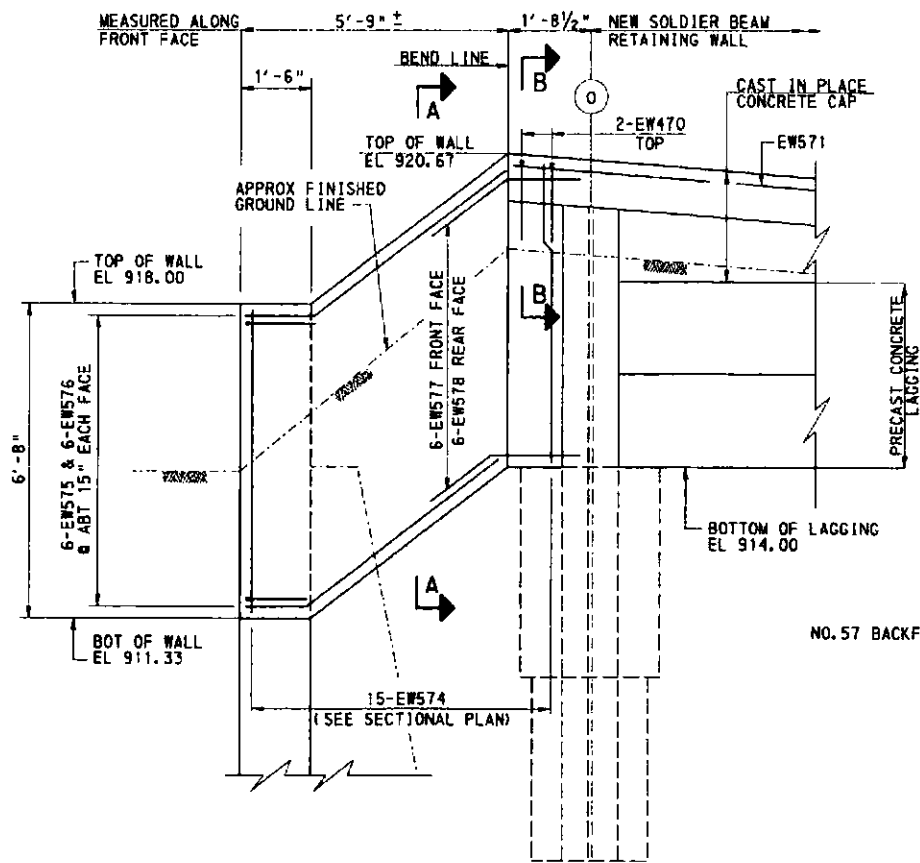
ARMSTRONG COUNTY
SR 1038 SECTION 150
SEG 0040 OFFSET 0632
SR 1038-150 STA 1948+94.59 TO 1952+15.00
SOLDIER PILE WALL - WALL G
EXISTING WALL G ELEVATION

RECOMMENDED JUL 8 2007 SHEET 6 OF 11
S-27374

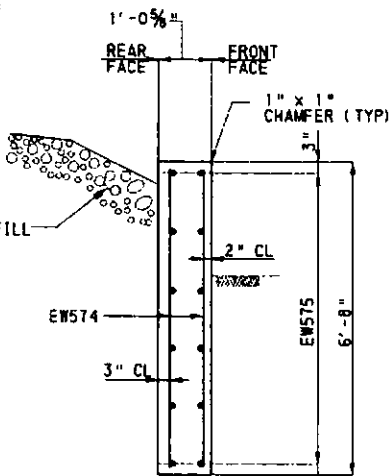
A-00122496



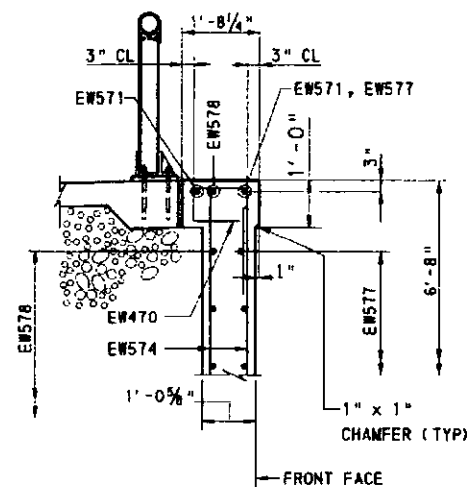
SECTIONAL PLAN CLOSURE WALL



DEVELOPED ELEVATION



SECTION A-A

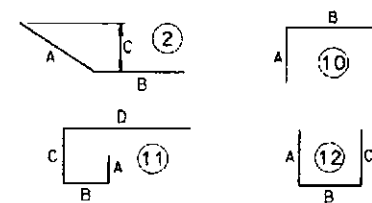


SECTION B-B

REINFORCEMENT BAR PLACEMENT TABLE			
PANEL NO.	TOP STIRRUPS	BOTTOM STIRRUPS	HORIZONTAL REINFORCEMENT
1	10-EW470	10-EW471	2-EW570
2	10-EW472	10-EW473	4-EW570
3	10-EW472	10-EW473	4-EW570
4	10-EW472	10-EW473	4-EW570
5	10-EW472	10-EW473	4-EW570
6	10-EW474	10-EW475	3-EW570
7	10-EW472	10-EW473	4-EW570
8	10-EW474	10-EW475	3-EW570
9	10-EW472	10-EW473	4-EW570
10	10-EW474	10-EW475	3-EW570
11	10-EW474	10-EW475	4-EW570
12	10-EW476	10-EW477	3-EW570
13	10-EW474	10-EW475	3-EW570
14	9-EW478	9-EW478	3-EW573
15	9-EW479	9-EW479	3-EW573
16	9-EW478	9-EW478	3-EW573
17	9-EW479	9-EW479	3-EW573
18	9-EW478	9-EW478	3-EW573
19	9-EW479	9-EW479	3-EW573
20	9-EW478	9-EW478	3-EW573
21	9-EW479	9-EW479	3-EW573
22	9-EW478	9-EW478	3-EW573
23	9-EW479	9-EW479	3-EW573
24	9-EW478	9-EW478	3-EW573
25	9-EW479	9-EW479	3-EW573
26	9-EW478	9-EW478	3-EW573

REINFORCEMENT BAR SCHEDULE															
MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	F	G	H	K	R	REMARKS
EW370	3	2'-10"	48	STR											BEND IN FIELD
ED470	4	2'-4"	48	STR											
ED471	4	3'-1"	32	STR											
EW470	4	4'-8"	12	11	1'-2"	8"	1'-2"	1'-8"							
EW471	4	4'-0 1/2"	10	12	1'-8"	8 1/2"	1'-8"								
EW472	4	5'-8"	60	11	1'-2"	8"	1'-2"	2'-8"							
EW473	4	6'-0 1/2"	60	12	2'-8"	8 1/2"	2'-8"								
EW474	4	5'-2"	50	11	1'-2"	8"	1'-2"	2'-2"							
EW475	4	5'-0 1/2"	50	12	2'-2"	8 1/2"	2'-2"								
EW476	4	5'-0"	10	11	1'-2"	8"	1'-2"	2'-0"							
EW477	4	4'-8 1/2"	10	12	2'-0"	8 1/2"	2'-0"								
EW478	4	4'-8"	126	12	1'-9"	1'-2"	1'-9"								
EW479	4	5'-6"	108	12	2'-2"	1'-2"	2'-2"								
EW570	5	8'-8"	90	STR											
EW571	5	38'-6"	4	STR											
EW572	5	39'-6"	8	STR											
EW573	5	7'-8"	78	STR											
EW574	5	6'-4"	15	STR											
EW575	5	6'-4"	12	2	5'-0"	1'-4"	2'-8"								
EW576	5	5'-0"	12	10	2'-6"	2'-6"									
EW577	5	4'-4"	6	2	1'-10"	2'-6"	1'-9 1/2"								
EW578	5	4'-8"	6	2	2'-2"	2'-6"	2'-1 1/2"								

BAR BENDING DIAGRAMS



NOTES

- PREFIX E DENOTES EPOXY COATED REINFORCEMENT BARS.
- ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS SHOWN TO THE INSIDE OF THE BAR.
- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
- FIGURES IN CIRCLES SHOW TYPES.

NOTES:

- FOR GENERAL NOTES AND QUANTITIES SEE SHEET 2
- FOR NEW SOLDIER BEAM RETAINING WALL DETAILS SEE SHEETS 4 AND 5
- FOR EXISTING WALL G MODIFICATIONS SEE SHEETS 6 AND 7

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

2' 1' 0' 2'
UNLESS NOTED



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

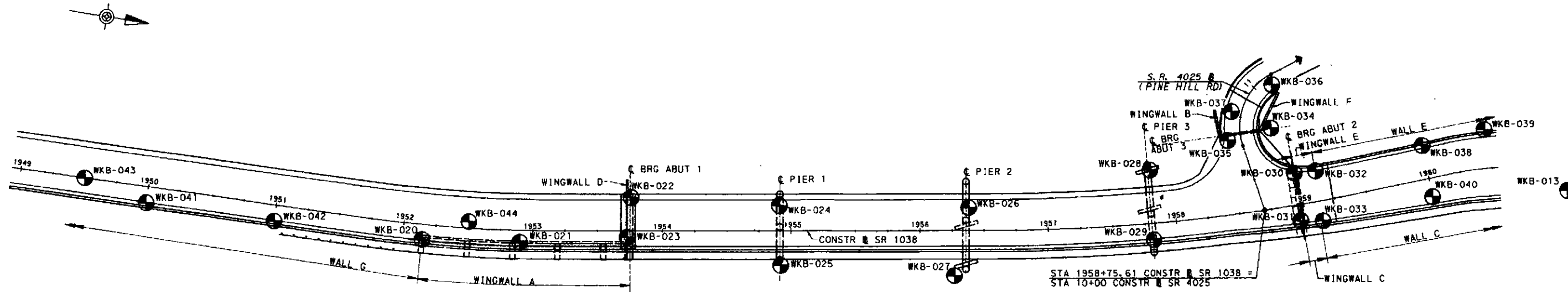
ARMSTRONG COUNTY
SR 1038 SECTION 150
SEG 0040 OFFSET 0632
SR 1038-150 STA 1948+94.59 TO 1952+15.00
SOLDIER PILE WALL - WALL G

CLOSURE WALL & REINF BAR SCHEDULE

RECOMMENDED JUL 8 2007 SHEET 8 OF 11
S-27374

DESIGNED BY	DCT
DRAWN BY	RLG
CHECKED BY	MP

A-00122496



LOCATION PLAN
NOT TO SCALE

WALL G - PILE (CAISSON) TIP ELEVATIONS

STATION	Pile No.'s	Pile Size	ESTIMATED CAISSON TIP ELEVATION
1949+92 to 1950+45	P0 - P6	HP 14x73	905.55 - 901.31
1950+54 to 1951+07	P7 - P13	HP 14x74	898.60 - 982.00
1951+15 to 1951+54	P14 - P19	W 18x130	883.15 - 880.55
1951+62 to 1952+10	P20 - P26	W 18x131	882.50 - 875.00

LEGEND

WKB-026 BORING FOR FOUNDATION DESIGN

LEGEND

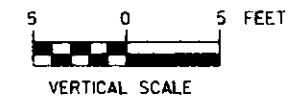
COLUMN A - DENOTES DEPTH FOR BOTTOM OF SPOON SAMPLE OR BOTTOM OF CORE RUN IN FEET.
 COLUMN B - DENOTES NUMBER OF BLOWS ON SPOON SAMPLER FOR EVERY 6" OR AS NOTED.
 COLUMN C - DENOTES SPOON SAMPLER OR CORE RECOVERY IN FEET.
 COLUMN D - DENOTES CORE RECOVERY IN PERCENT.
 COLUMN E - DENOTES ROCK QUALITY DESIGNATION (RQD) IN PERCENT.

ELEV. GROUND WATER ELEVATION IN FEET.
 HR. DATE

GSE INDICATES EXISTING GROUND SURFACE ELEVATION IN FEET.
 TRE INDICATES TOP OF ROCK ELEVATION IN FEET.
 BLE INDICATES BOTTOM OF LEVELING PAD IN FEET.
 TRSE TOP OF ROCK SOCKET ELEVATION IN FEET.
 BRSE BOTTOM OF ROCK SOCKET ELEVATION IN FEET.

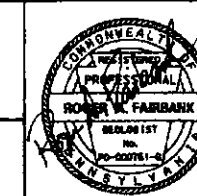
NOTES:

- THE CORE BORING LOGS AND RELATED INFORMATION DEPICT SUBSURFACE CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AND DATES INDICATED. SOIL AND ROCK CONDITIONS AND GROUNDWATER LEVELS AT OTHER LOCATIONS MAY DIFFER FROM THE CONDITIONS OCCURRING AT THESE BORING LOCATIONS. ALSO, THE PASSAGE OF TIME MAY RESULT IN A CHANGE OF THE CONDITIONS AT THESE BORING LOCATIONS.
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT AND IS NOT A PART OF THE CONTRACT DRAWINGS. (SEE PUBLICATION 408/2000, SECTION 102.05).
- THE CLASSIFICATIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED. RAF



THE INFORMATION SUBMITTED REPRESENTS THE CONDITIONS ENCOUNTERED BY THE TEST BORING PROGRAM, INCLUDING LOGS, SOIL SAMPLES, BORING ROCK CORES, CLASSIFICATION OF MATERIALS AND DEPTH OF BORINGS.
Ron A. Fairbank 7/3/07
 (GEO TECHNICAL ENGINEER/ENGINEERING GEOLOGIST)

PREPARED BY:
 AWK CONSULTING ENGINEERS, INC.
 PITTSBURGH, PA 15235



DATE: 7/3/07

COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF TRANSPORTATION

ARMSTRONG COUNTY
 SR 1038 SECTION 150

SEG 0040 OFFSET 1110
 SR 1038-150 STA 1948+94.59 TO STA 1952+15.00

SOLDIER PILE WALL - WALL G
 STRUCTURE BORING LOGS

RECOMMENDED

SHEET 9 OF 11

S-27374

DRAWN BY: MEL DATE: 06-25-07 CHK'D BY: MCM DATE: 06-25-07 APR'D BY: RAF DATE: 06-25-07

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7/3/2007

A-00122496

WALL G*

WKB-020
STA 1952+15, 11.63' rt
ELEVATION 901.3

G.S.E. 901.3	A	B	C	D	E	DESCRIPTION	901.3
	1.5	3-3-5	1.1			CLAY, sandy; brown; moist; stiff.	
	3.0	5-5-10	0.8				898.5
	4.5	10-17-21	0.8			GRAVEL, sandy; Trace of clay; brown; moist; dense to very dense.	
	6.0	12-33-24	1.1				
	7.5	24-20-19	0.8				
	9.0	12-18-21	1.0				892.3
	10.5	9-13-16	0.9			CLAY, sandy; brown; wet; very stiff.	890.8
TRE 888.4	12.0	12-18-16	0.7			SAND, gravelly; orange-brown; wet; dense.	889.3
	12.9	20-50/4	0.6				886.4
	15.0		2.1	100	0	CLAY; orange-gray; wet; hard. SANDSTONE, fine grained, silty (randomly interbedded); gray; hard; slightly weathered; very intensely bedded; very closely fractured. Stratum ROD = 25%	
	17.5		2.0	80	20		
	22.5		5.0	100	38		878.8
	27.5		5.0	100	56	SANDSTONE; gray; hard; slightly weathered to fresh; intensely bedded; closely fractured. Stratum ROD=53%	
	32.5		5.0	100	96		
	37.5		4.8	95	0		864.5
	42.5		4.8	95	74	SILTSTONE; dark gray; hard; slightly weathered; thinly bedded; closely to medium fractured. Stratum ROD=79%	
	47.5		4.7	93	84		
	52.5		5.0	100	92		
	57.5		5.0	100	88		
	62.5		3.5	70	48	MINE VOID	840.3
	67.5		2.8	55	0	CLAYSTONE; gray; very soft; highly weathered; closely fractured. Stratum ROD=0%	836.8
							833.8

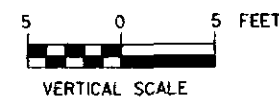
No Water Reading Taken Bottom of hole.

ELEVATION, FEET

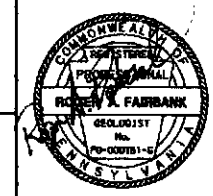
ELEVATION, FEET

LEGEND	
COLUMN A	- DENOTES DEPTH FOR BOTTOM OF SPOON SAMPLE OR BOTTOM OF CORE RUN IN FEET.
COLUMN B	- DENOTES NUMBER OF BLOWS ON SPOON SAMPLER FOR EVERY 6" OR AS NOTED.
COLUMN C	- DENOTES SPOON SAMPLER OR CORE RECOVERY IN FEET.
COLUMN D	- DENOTES CORE RECOVERY IN PERCENT.
COLUMN E	- DENOTES ROCK QUALITY DESIGNATION (ROD) IN PERCENT.
	ELEV. GROUND WATER ELEVATION IN FEET.
	HR. DATE
GSE	INDICATES EXISTING GROUND SURFACE ELEVATION IN FEET.
TRE	INDICATES TOP OF ROCK ELEVATION IN FEET.
BLPE	INDICATES BOTTOM OF LEVELING PAD IN FEET.
TRSE	TOP OF ROCK SOCKET ELEVATION IN FEET.
BRSE	BOTTOM OF ROCK SOCKET ELEVATION IN FEET.

- NOTES:
- THE CORE BORING LOGS AND RELATED INFORMATION DEPICT SUBSURFACE CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AND DATES INDICATED. SOIL AND ROCK CONDITIONS AND GROUNDWATER LEVELS AT OTHER LOCATIONS MAY DIFFER FROM THE CONDITIONS OCCURRING AT THESE BORING LOCATIONS. ALSO, THE PASSAGE OF TIME MAY RESULT IN A CHANGE OF THE CONDITIONS AT THESE BORING LOCATIONS.
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 - THE CLASSIFICATIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED. RAF
- * SEE FIRST SHEET FOR CAISSON/PILE TIP ELEVATIONS.



PREPARED BY:
AWK CONSULTING ENGINEERS, INC.
PITTSBURGH, PA 15235



DATE: 7/3/07

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION	
ARMSTRONG COUNTY SR 1038 SECTION 150	
SEG 0040 OFFSET 1110 SR 1038-150 STA 1948+94.59 TO STA 1952+15.10	
SOLDIER PILE WALL - WALL G STRUCTURE BORING LOGS	
RECOMMENDED _____	SHEET 10 OF 11 S-27374

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7/3/2007

WALL G*

WKB-043
STA 1949+50, CL
ELEVATION 923.3'

G.S.E. 923.3	A	B	C	D	E	DESCRIPTION	923.3
						Blacktop	923.3
						Concrete	922.4
	3.0	9-25-20	1.1			CLAY, sandy; (cl, p-6); brown; clay; hard.	921.8
	4.5	11-15-20	0.8			GRAVEL, sandy; (gm, a-1-b); brown; moist; dense.	920.9
TRE 917.5	5.8	7-9-50/3	0.5				917.5
	8.0		0.9	42	0	SANDSTONE; brown-gray; hard; moderately weathered; intensely bedded; very closely fractured.	
	10.5		1.1	43	0	Stratum RQD=6%	
	15.5		5.0	100	7		906.6
	20.5		5.0	100	43	SANDSTONE; gray; hard; slightly weathered; very finely bedded; very closely-medium fractured.	901.3
	25.5		5.0	100	75	SANDSTONE; gray; hard; fresh; slightly weathered; medium bedded; medium-widely fractured.	
	30.5		5.0	100	98	Stratum RQD=82%	
ELEV 884.8 0 HRS. 4/30/06						Coal	889.8
	35.5		5.0	100	56	CLAYSTONE, sandy; gray; very soft to soft; highly weathered; very finely bedded; closely fractured.	888.6
	40.5		4.0	80	50	Stratum RQD=43%	882.7
	45.5		5.0	100	86	SANDSTONE, fine grained; gray; hard; fresh; intensely bedded; closely-medium fractured.	877.8
						Stratum RQD=68%	
						No 24 HR Water Reading Taken	
						Bottom of Hole.	

WKB-041
STA 1950+00, 12.4' rt
ELEVATION 919.7

G.S.E. 919.7	A	B	C	D	E	DESCRIPTION	919.7
	1.5	5-2-2	0.5			SAND, gravelly; light brown; moist; loose to very dense.	
	3.0	7-5-5	0.6				
	4.5	7-10-20	0.5				
	4.5	6/0	0.0				
	6.1	5/0.1	0.0				
TRE 911.1	7.7	5/0.2	0.2				911.2
	10.5		1.9	96	74	METAL FRAGMENT	911.1
	12.5		2.0	100	25	SANDSTONE; gray; hard; slightly weathered; intensely to very finely bedded; closely fractured.	
	17.5		5.0	100	54	Stratum RQD=52%	902.2
	22.5		5.0	100	92	SANDSTONE; gray; hard; slightly weathered to fresh; medium bedded; medium to widely fractured.	
	27.5		5.0	100	94	Stratum RQD=94%	
ELEV 887.5 0 HRS. 3/27/06						COAL; black; soft	890.4
	32.5		4.7	93	86	Stratum RQD=63%	889.5
ELEV 885.6 24 HRS. 3-28-06						CLAYSTONE, sandy; gray; soft to medium; fresh; very finely bedded; closely fractured.	884.1
	37.5		4.6	97	80	Stratum RQD=50%	
	42.5		5.0	100	100	SILTSTONE, shaly; gray; medium-hard; fresh; very finely bedded; medium fractured.	877.2
						Stratum RQD=100%	
						Bottom of hole.	

WKB-042
STA 1951+00, 12.4' rt
ELEVATION 911.5

G.S.E. 911.5	A	B	C	D	E	DESCRIPTION	911.5
	1.5	2-2-10	0.9			CLAY, sandy; brown; stiff.	910.0
	3.0	10-15-6	0.8			SAND, gravelly; trace of clay; brown; moist; medium dense to dense.	907.0
	4.4	8-17-50/4	0.7				
	6.0	17-4-8	0.8			GRAVEL, sandy; brown; moist; medium dense to very dense.	
TRE 903.6	7.5	17-31-23	0.8				903.6
	7.9	5/0.4	0.3				
	10.0		1.6	78	38	SANDSTONE, medium grained; light brown; hard; slightly weathered; very finely bedded; closely fractured.	901.5
	12.5		2.5	100	68	Stratum RQD=38%	
	17.5		5.0	100	58	SANDSTONE, fine grained; gray/brown; hard; slightly to moderately weathered; very finely bedded; closely to medium fractured.	893.4
	22.5		3.3	65	16	Stratum RQD=62%	883.2
	27.5		5.0	100	68	CLAYSTONE, silty; gray; soft to medium; slightly weathered; intensely bedded; very closely fractured.	887.0
	32.5		5.0	100	90	Stratum RQD=13%	
	37.5		5.0	100	56	SANDSTONE, fine grained; gray; hard; fresh; very finely bedded; closely to medium fractured.	869.0
	42.5		5.0	100	72	Stratum RQD=77%	
ELEV 873.5 0 HRS. 3/29/06							
ELEV 872.8 24 HRS. 3-29-06							
						Bottom of hole.	

G:\P\EC051600\West-KittanningBridg\PS&E.SUB\NEC051600\WALL G_SLO3.dgn

7/3/2007 12:52:58 PM

LEGEND

COLUMN A - DENOTES DEPTH FOR BOTTOM OF SPOON SAMPLE OR BOTTOM OF CORE RUN IN FEET.

COLUMN B - DENOTES NUMBER OF BLOWS ON SPOON SAMPLER FOR EVERY 6" OR AS NOTED.

COLUMN C - DENOTES SPOON SAMPLER OR CORE RECOVERY IN FEET.

COLUMN D - DENOTES CORE RECOVERY IN PERCENT.

COLUMN E - DENOTES ROCK QUALITY DESIGNATION (RQD) IN PERCENT.

ELEV. HR. DATE - GROUND WATER ELEVATION IN FEET.

GSE INDICATES EXISTING GROUND SURFACE ELEVATION IN FEET.

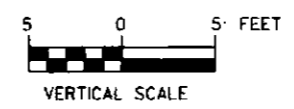
TRE INDICATES TOP OF ROCK ELEVATION IN FEET.

BLE INDICATES BOTTOM OF LEVELING PAD IN FEET.

TRSE TOP OF ROCK SOCKET ELEVATION IN FEET.

BRSE BOTTOM OF ROCK SOCKET ELEVATION IN FEET.

- NOTES:**
- THE CORE BORING LOGS AND RELATED INFORMATION DEPICT SUBSURFACE CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AND DATES INDICATED. SOIL AND ROCK CONDITIONS AND GROUNDWATER LEVELS AT OTHER LOCATIONS MAY DIFFER FROM THE CONDITIONS OCCURRING AT THESE BORING LOCATIONS. ALSO, THE PASSAGE OF TIME MAY RESULT IN A CHANGE OF THE CONDITIONS AT THESE BORING LOCATIONS.
 - THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT AND IS NOT A PART OF THE CONTRACT DRAWINGS. (SEE PUBLICATION 408/2000, SECTION 102.05).
 - THE CLASSIFICATIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED. *RAF*
- * SEE FIRST SHEET FOR CAISSON/PILE TIP ELEVATIONS.



THE INFORMATION SUBMITTED REPRESENTS THE CONDITIONS ENCOUNTERED BY THE TEST BORING PROGRAM, INCLUDING LOGS, SOIL SAMPLES, BORING ROCK CORES, CLASSIFICATION OF MATERIALS AND DEPTH OF BORINGS.

Roger V. Fairbank 7/3/07
(GEOTECHNICAL ENGINEER/ENGINEERING GEOLOGIST)

PREPARED BY:
AWK CONSULTING ENGINEERS, INC.
PITTSBURGH, PA 15235

DATE: 7/3/07

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ARMSTRONG COUNTY
SR 1038 SECTION 150

SEG 0040 OFFSET 1110
SR 1038-150 STA 1948+94.59 TO STA 1952+15.10

SOLDIER PILE WALL - WALL G
STRUCTURE BORING LOGS

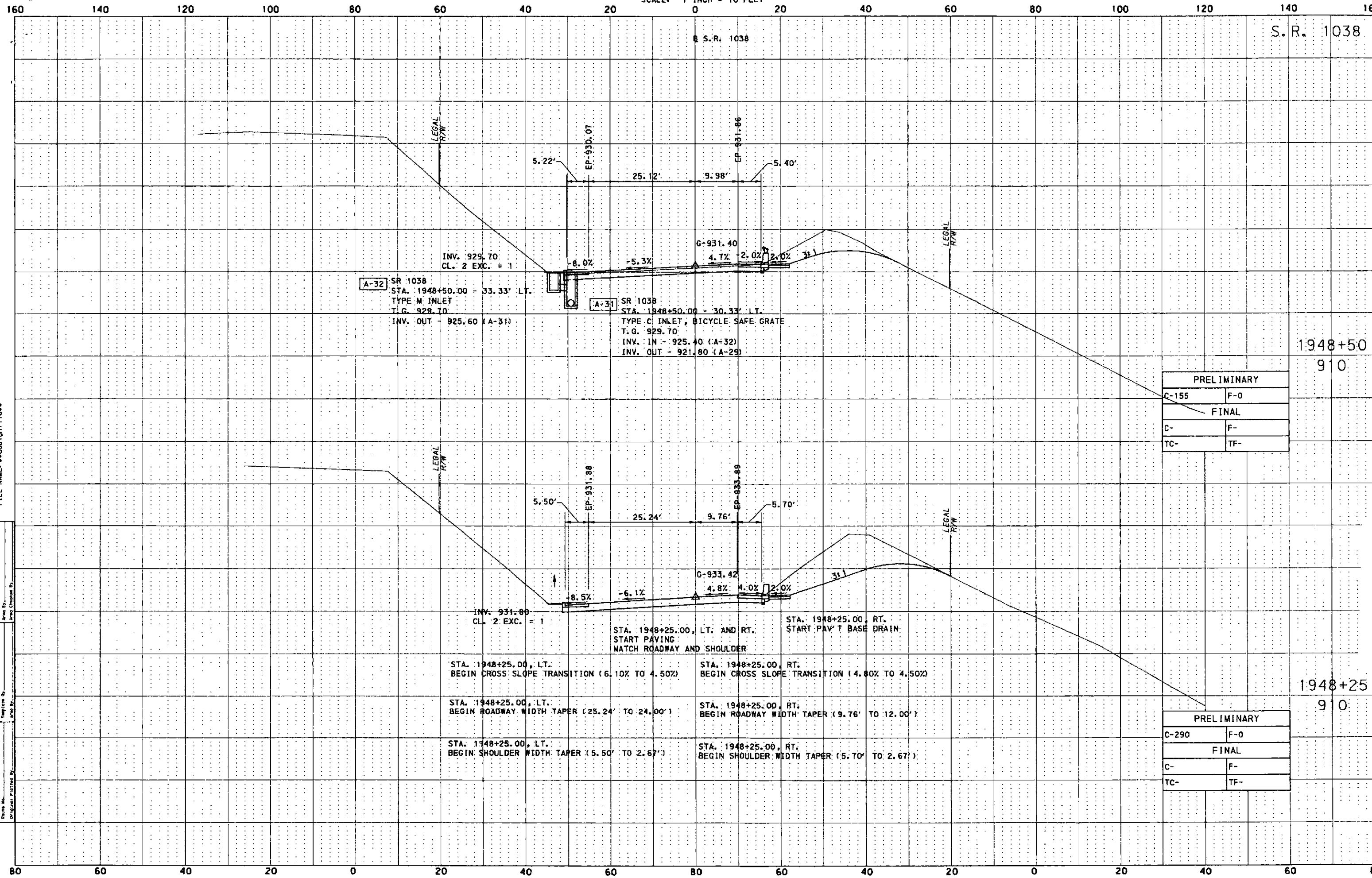
RECOMMENDED _____

SHEET 11 OF 11
S-27374

A-00122496

CROSS SECTIONS
SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			2 OF 52



S. R. 1038

1948+50
9'0"

PRELIMINARY	
C-155	F-0
FINAL	
C-	F-
TC-	TF-

1948+25
9'0"

PRELIMINARY	
C-290	F-0
FINAL	
C-	F-
TC-	TF-

PLOTTED: *****

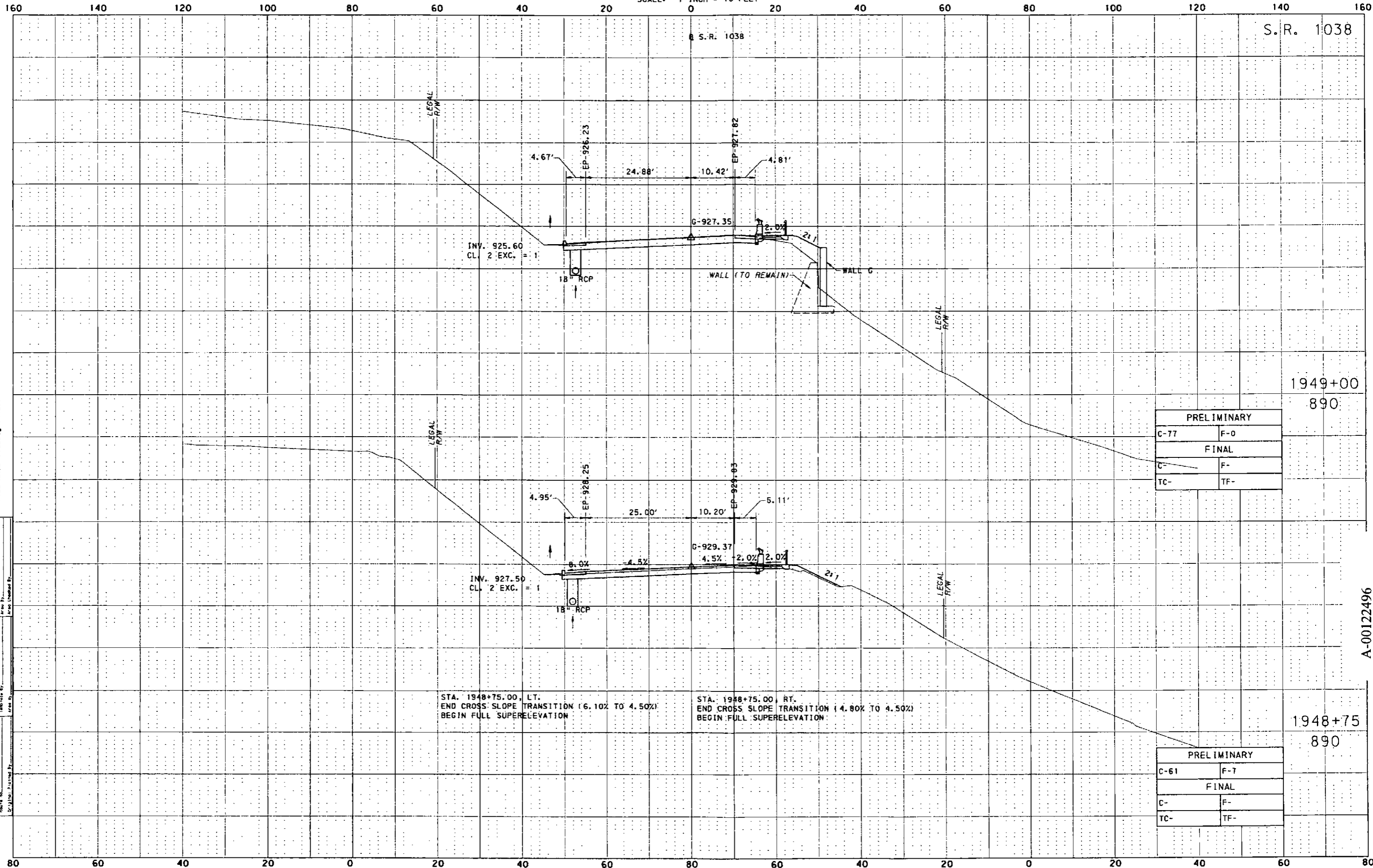
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 Final Checked By: _____
 Area By: _____
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 Template By: _____
 Area By: _____
 Original Plotted By: _____
 Date: _____

A-00122496

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

District	County	Route	Section	Prelim. No.	Final No.	Sheet No.
10-0	ARMSTRONG	1038	150			3 OF 52



S.R. 1038

1949+00
890

PRELIMINARY	
C-77	F-0
FINAL	
C-	F-
TC-	TF-

A-00122496

1948+75
890

PRELIMINARY	
C-61	F-7
FINAL	
C-	F-
TC-	TF-

Operator: _____
 File Name: _____
 Date: _____
 Scale: _____
 Plot Date: _____
 Plot By: _____

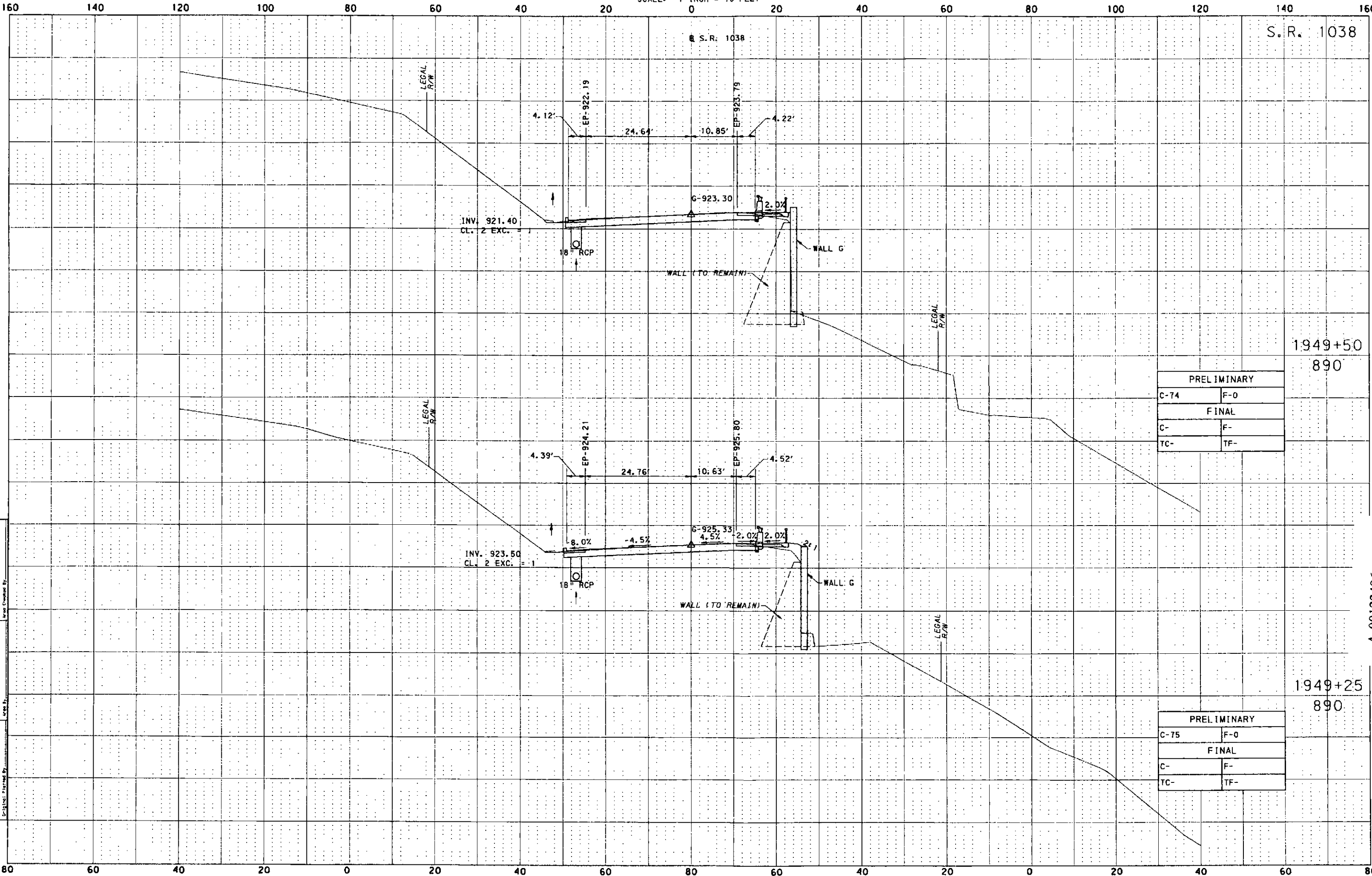
STA. 1948+75.00, LT.
 END CROSS SLOPE TRANSITION (6.10% TO 4.50%)
 BEGIN FULL SUPERELEVATION

STA. 1948+75.00, RT.
 END CROSS SLOPE TRANSITION (4.80% TO 4.50%)
 BEGIN FULL SUPERELEVATION

CROSS SECTIONS

SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Spct.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			4 OF 52



S. R. 1038

1949+50
890

PRELIMINARY	
C-74	F-0
FINAL	
C-	F-
TC-	TF-

1949+25
890

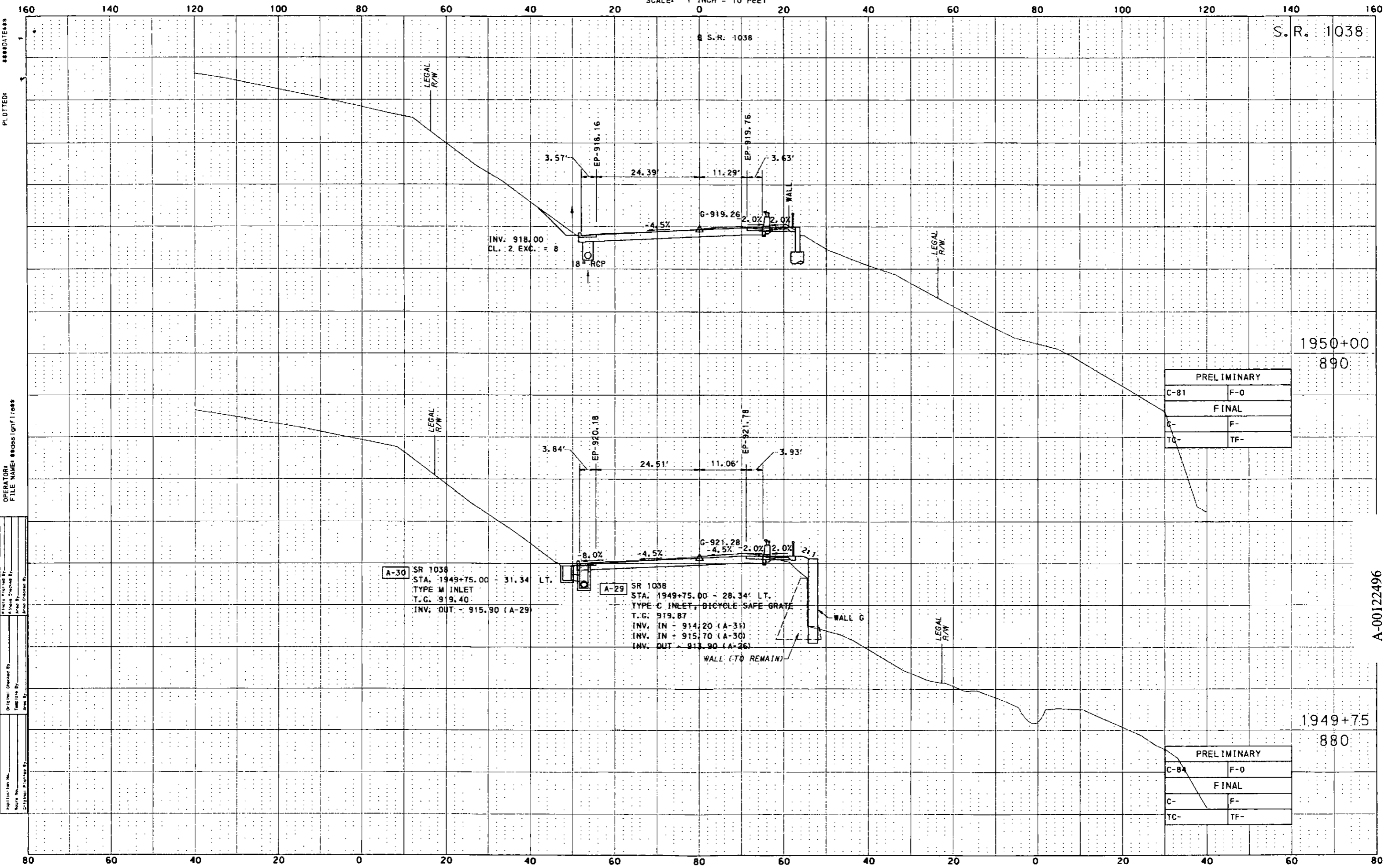
PRELIMINARY	
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FINAL	
C-	F-
TC-	TF-

Plotted By: _____
 Checked By: _____
 Date: _____
 Operator: _____
 File Name: _____

A-00122496

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Secs.	Prelim. Br. No.	Final Br. No.	Sheet No.
10-0	ARMSTRONG	1038	150			5 OF 52



1950+00
890

PRELIMINARY	
C-81	F-0
FINAL	
C-	F-
TC-	TF-

1949+75
880

PRELIMINARY	
C-81	F-0
FINAL	
C-	F-
TC-	TF-

A-30 SR 1038
 STA. 1949+75.00 - 31.34 LT.
 TYPE M INLET
 T.G. 919.40
 INV. OUT - 915.90 (A-29)

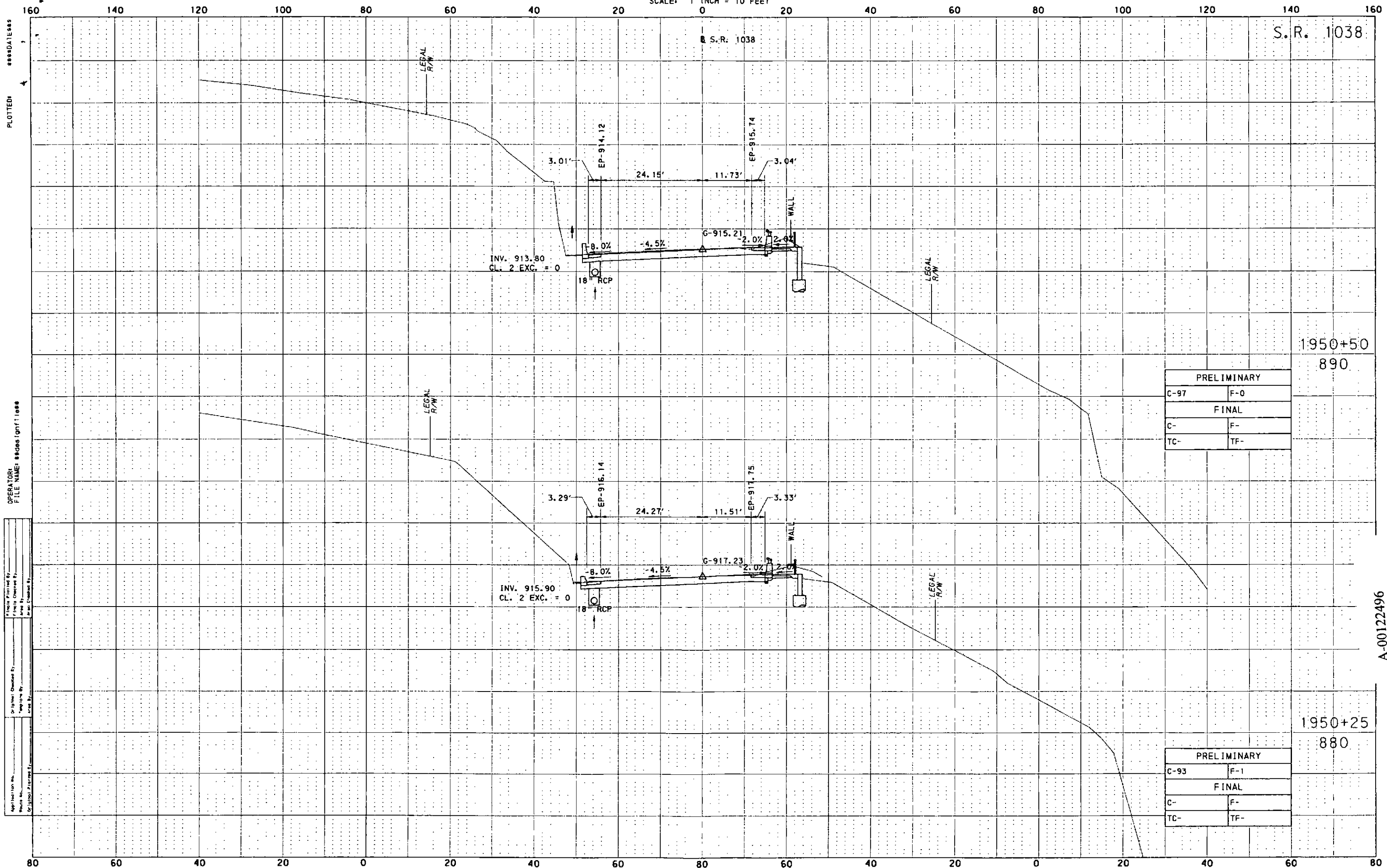
A-29 SR 1038
 STA. 1949+75.00 - 28.34' LT.
 TYPE C INLET, BICYCLE SAFE GRATE
 T.G. 919.87
 INV. IN - 914.20 (A-31)
 INV. IN - 915.70 (A-30)
 INV. OUT - 913.90 (A-26)

OPERATOR: FILE NAME: 0000010711000
 Plotted By: _____
 Checked By: _____
 Date: _____
 Application No.: _____
 Name: _____
 Original Drawing By: _____

A-00122496

CROSS SECTIONS
SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sec.	Proj. No.	Sheet No.	Sheet No.
10-0	ARMSTRONG	1038	150		6 OF 52	



S.R. 1038

1950+50
890

PRELIMINARY	
C-97	F-0
FINAL	
C-	F-
TC-	TF-

1950+25
880

PRELIMINARY	
C-93	F-1
FINAL	
C-	F-
TC-	TF-

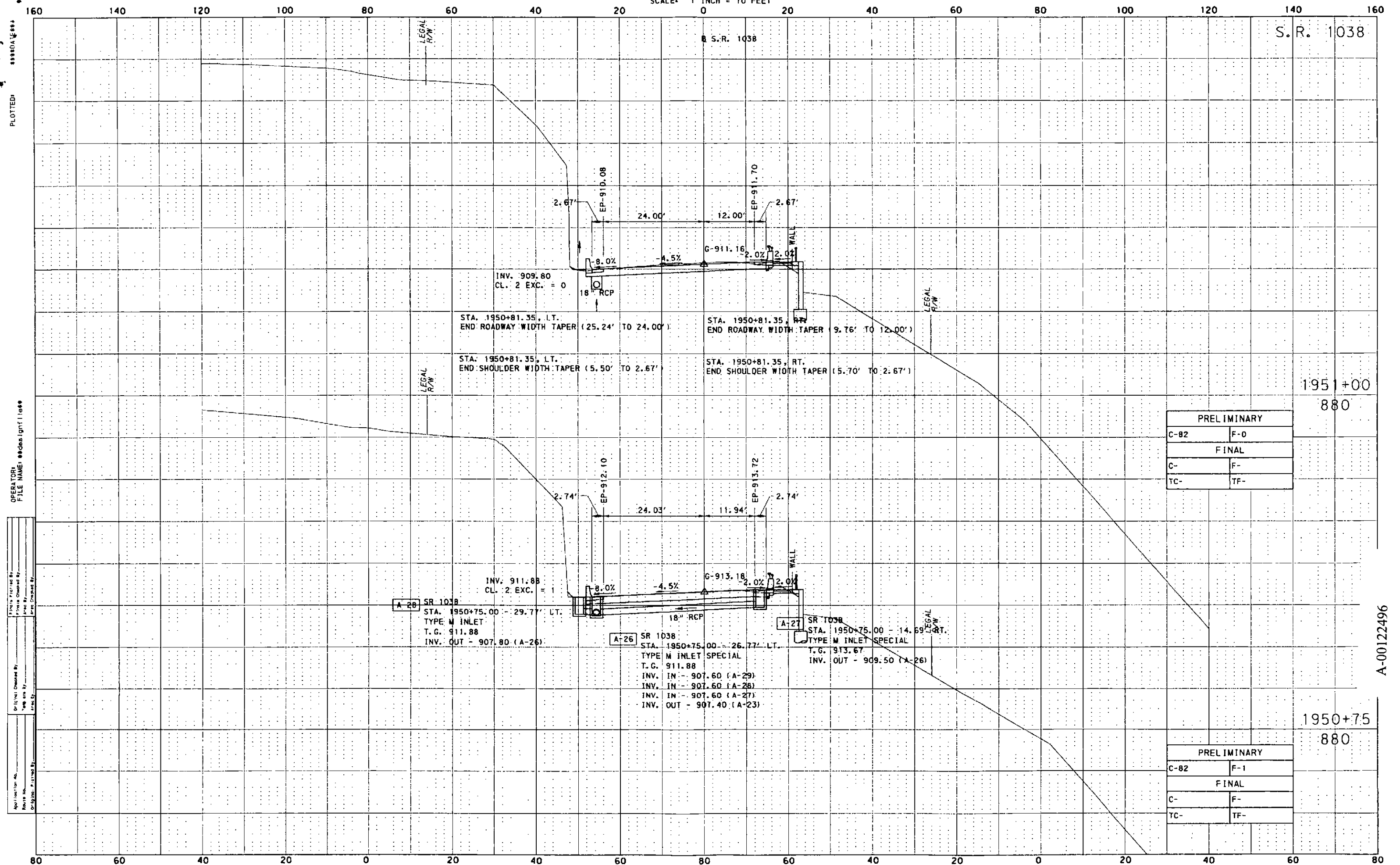
PLOTTED

OPERATOR FILE NAME

Application No. _____
 Route No. _____
 Original Stationing _____
 Original Plan No. _____
 Original Date _____
 Checked By _____
 Date _____
 Approved By _____
 Date _____

A-00122496

Dist.	County	Route	Sheet	Project Dist. No.	Final Dist. No.	Sheet No.
10-0	ARMSTRONG	1038	150			7 OF 52



PLOTTED

OPERATOR: FILE NAME: 000001038

Plotted By: _____
 Checked By: _____
 Date: _____
 Plotted By: _____
 Checked By: _____
 Date: _____
 Plotted By: _____
 Checked By: _____
 Date: _____

PRELIMINARY	
C-82	F-0
FINAL	
C-	F-
TC-	TF-

1951+00
880

A-28 SR 1038
 STA. 1950+75.00 - 29.77' LT.
 TYPE M INLET
 T.G. 911.88
 INV. OUT - 907.80 (A-26)

A-26 SR 1038
 STA. 1950+75.00 - 26.77' LT.
 TYPE M INLET SPECIAL
 T.G. 911.88
 INV. IN - 907.60 (A-29)
 INV. IN - 907.60 (A-28)
 INV. IN - 907.60 (A-27)
 INV. OUT - 907.40 (A-23)

A-27 SR 1038
 STA. 1950+75.00 - 14.69' RT.
 TYPE M INLET SPECIAL
 T.G. 913.67
 INV. OUT - 909.50 (A-26)

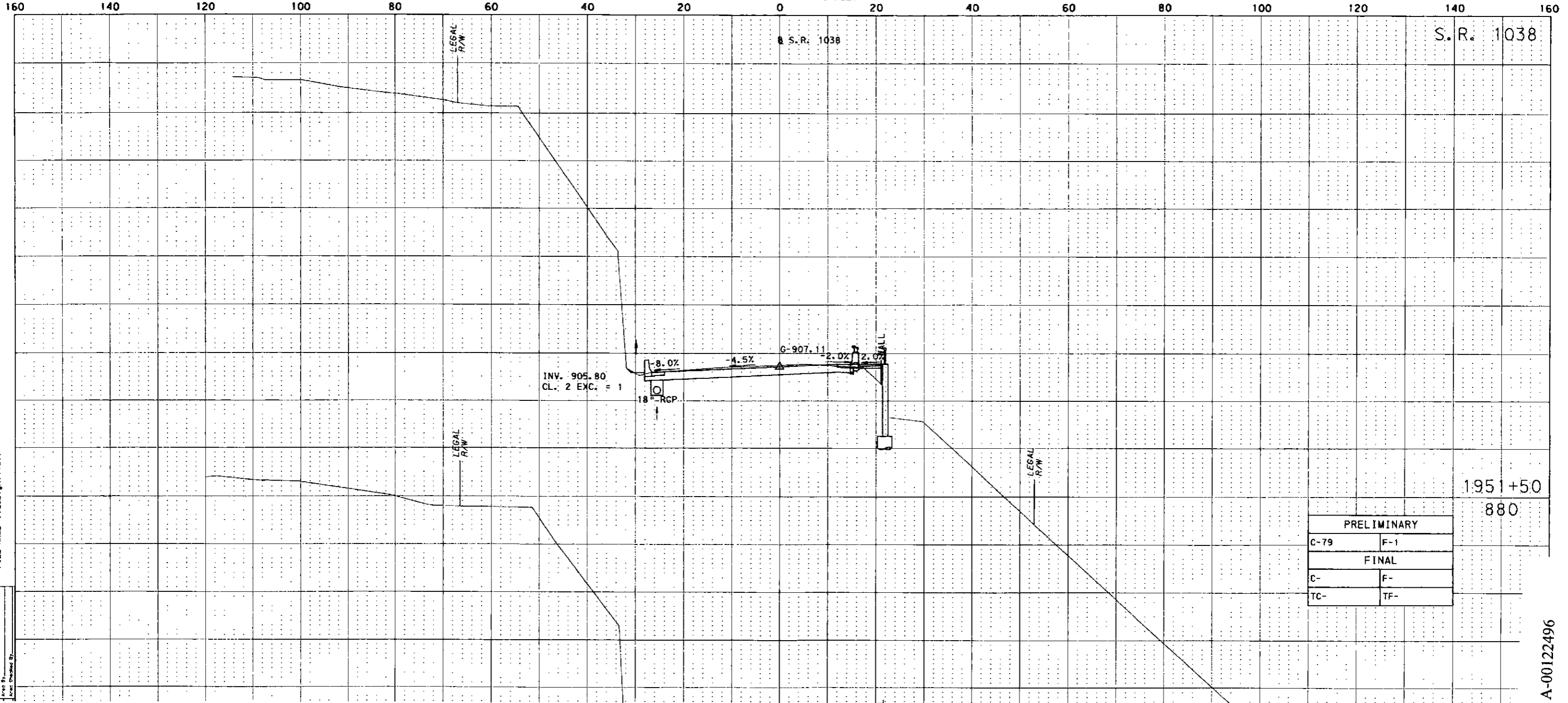
PRELIMINARY	
C-82	F-1
FINAL	
C-	F-
TC-	TF-

1950+75
880

A-00122496

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sect.	Proj. Bk. No.	Final Bk. No.	Sheet No.
10+0	ARMSTRONG	1038	150			8 OF 52



DATE
 PLOTTED:

OPERATOR:
 FILE NAME: ***design***

Drawn by:
 Checked by:
 Date:

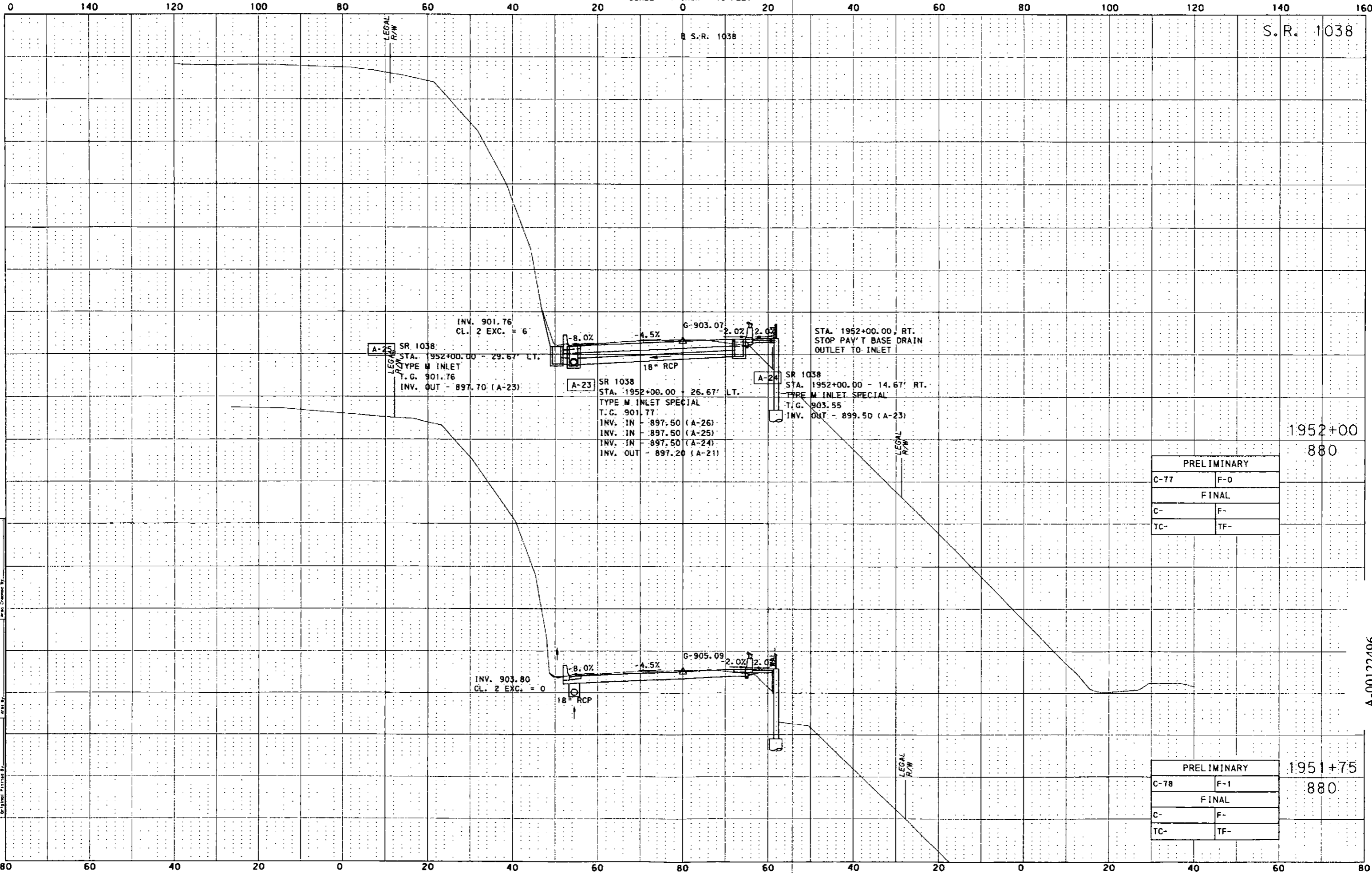
PRELIMINARY	
C-79	F-1
FINAL	
C-	F-
TC-	TF-

1951+50
 880

A-00122496

CROSS SECTIONS
SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sect.	Proj. Bk. No.	Final Bk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			9 OF 52



PLOTTED

OPERATOR:
FILE NAME: sdesign1.flee

Plotted By: _____
Checked By: _____
Date: _____

PRELIMINARY	
C-77	F-0
FINAL	
C-	F-
TC-	TF-

1952+00
880

PRELIMINARY	
C-78	F-1
FINAL	
C-	F-
TC-	TF-

1951+75
880

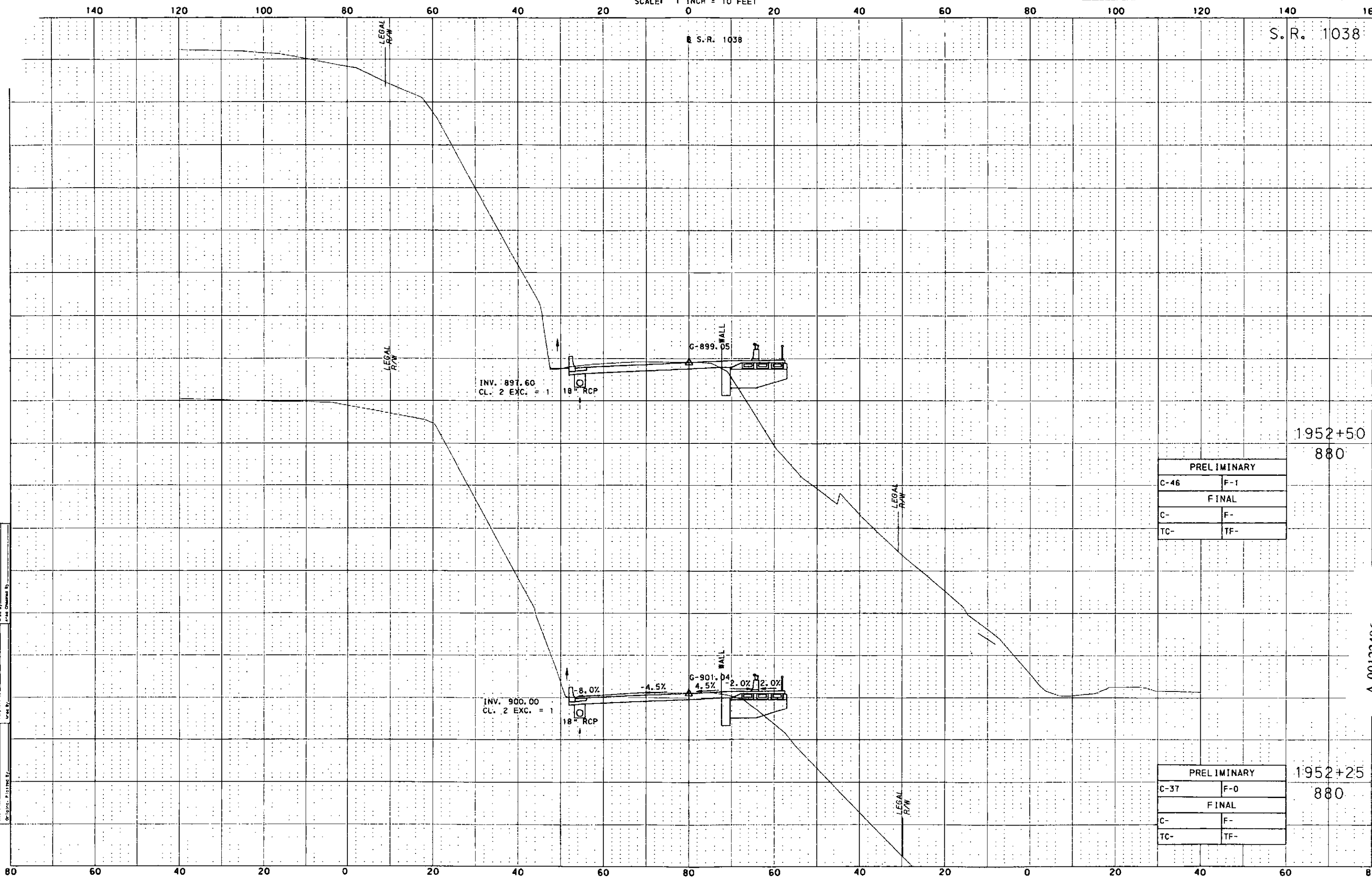
A-00122496

Dist.	County	Route	Sect.	Prelim. Br. No.	Final Br. No.	Sheet No.
10-0	ARMSTRONG	1038	150			10 OF 52

PLOTTED:

OPERATOR:
FILE NAME: *des lgnf l1e8*

Application No. _____
Route No. _____
Date Plotted By: _____
Date Checked By: _____
Date Created By: _____
Date Revised By: _____
Date Plotted By: _____
Date Checked By: _____



S. R. 1038

1952+50
880

PRELIMINARY	
C-46	F-1
FINAL	
C-	F-
TC-	TF-

1952+25
880

PRELIMINARY	
C-37	F-0
FINAL	
C-	F-
TC-	TF-

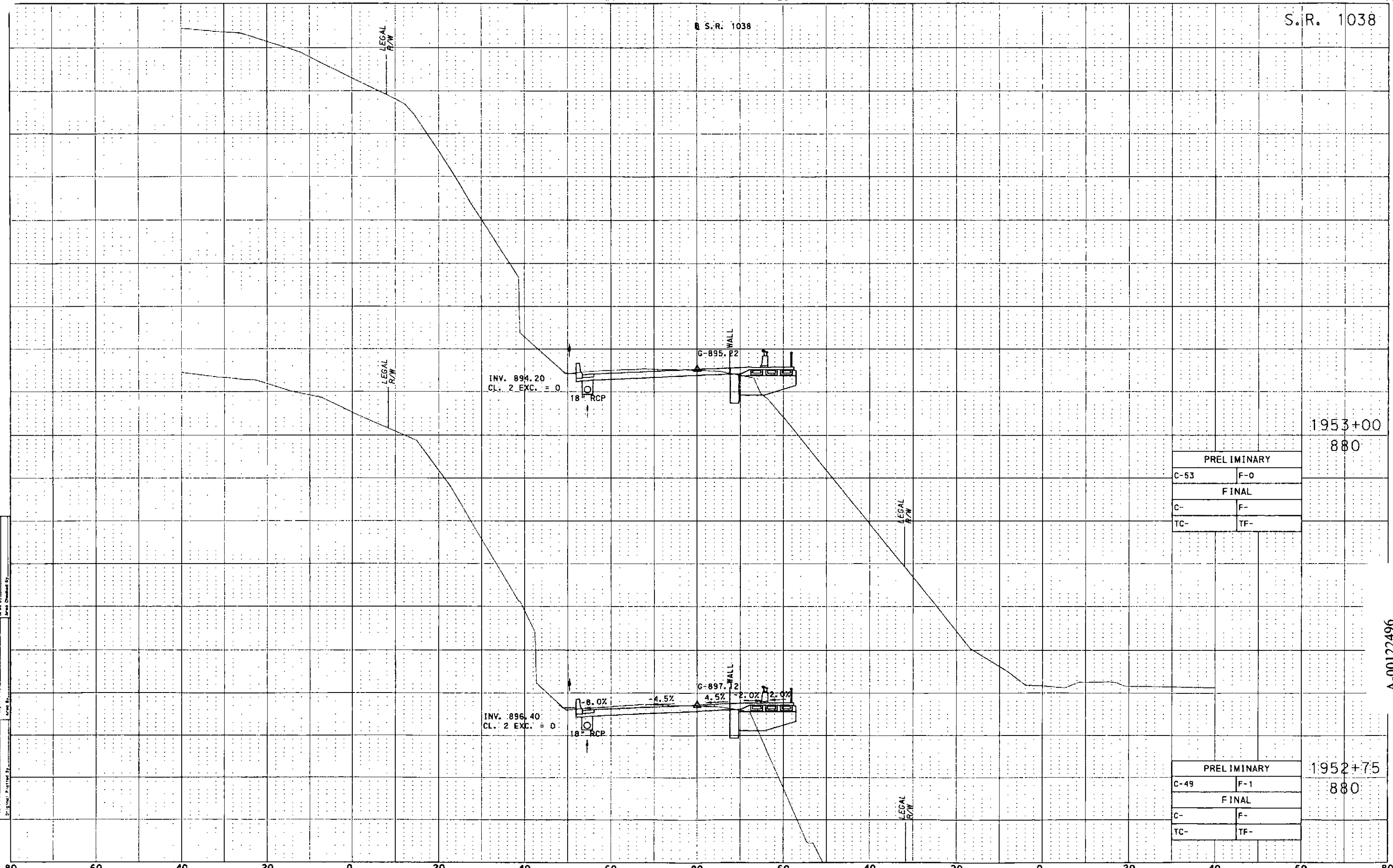
A-00122496

Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			11 OF 52

PLOTTED

OPERATOR: FILE NAME: #design#11000

Application No.	Original Created By	Checked By
Rev. No.	Revised By	Area By
2-Digit Plotted By	Area Checked By	



PRELIMINARY		1953+00
C-53	F-0	880
FINAL		
C-	F-	
TC-	TF-	

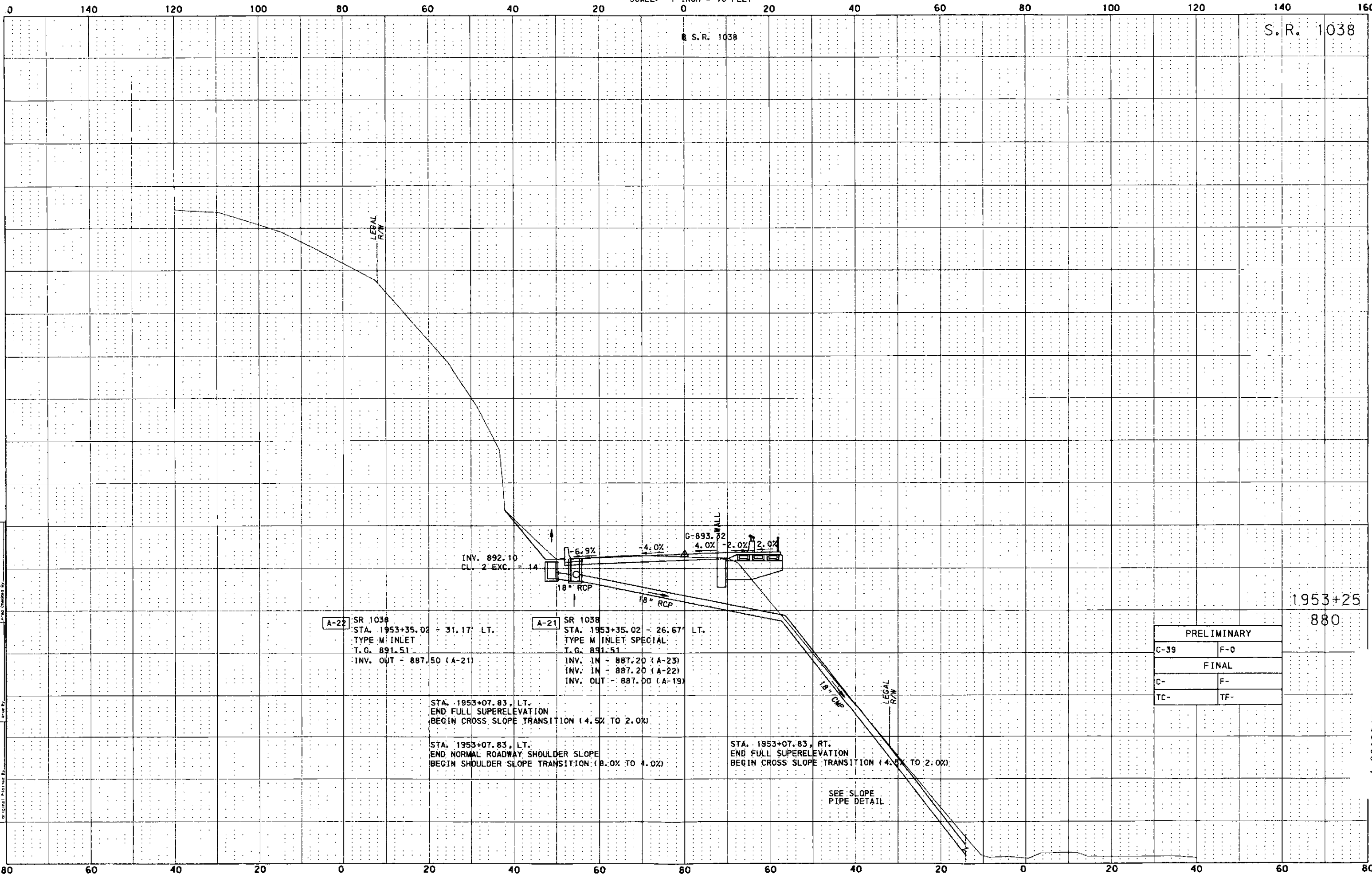
PRELIMINARY		1952+75
C-49	F-1	880
FINAL		
C-	F-	
TC-	TF-	

A-00122496

CROSS SECTIONS

SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sec.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			12 OF 52



S.R. 1038

S.R. 1038

1953+25
880

A-22 SR 1038
STA. 1953+35.02 - 31.17' LT.
TYPE M INLET
T.G. 891.51
INV. OUT - 887.50 (A-21)

A-21 SR 1038
STA. 1953+35.02 - 26.67' LT.
TYPE M INLET SPECIAL
T.G. 891.51
INV. IN - 887.20 (A-23)
INV. IN - 887.20 (A-22)
INV. OUT - 887.00 (A-19)

STA. 1953+07.83, LT.
END FULL SUPERELEVATION
BEGIN CROSS-SLOPE TRANSITION (4.5% TO 2.0%)

STA. 1953+07.83, LT.
END NORMAL ROADWAY SHOULDER SLOPE
BEGIN SHOULDER SLOPE TRANSITION (8.0% TO 4.0%)

STA. 1953+07.83, RT.
END FULL SUPERELEVATION
BEGIN CROSS-SLOPE TRANSITION (4.5% TO 2.0%)

SEE SLOPE
PIPE DETAIL

PRELIMINARY	
C-39	F-0
FINAL	
C-	F-
TC-	TF-

A-00122496

PLOTTED

OPERATOR:
FILE NAME:
DATE:
TIME:
BY:
CHECKED BY:
DATE:
TIME:
BY:
CHECKED BY:

Application No.
Revision No.
Date Plotted By
Date Checked By
Date Approved By
Date Issued By

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Span	Proj. Bk. No.	Final Bk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			13 OF 52

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

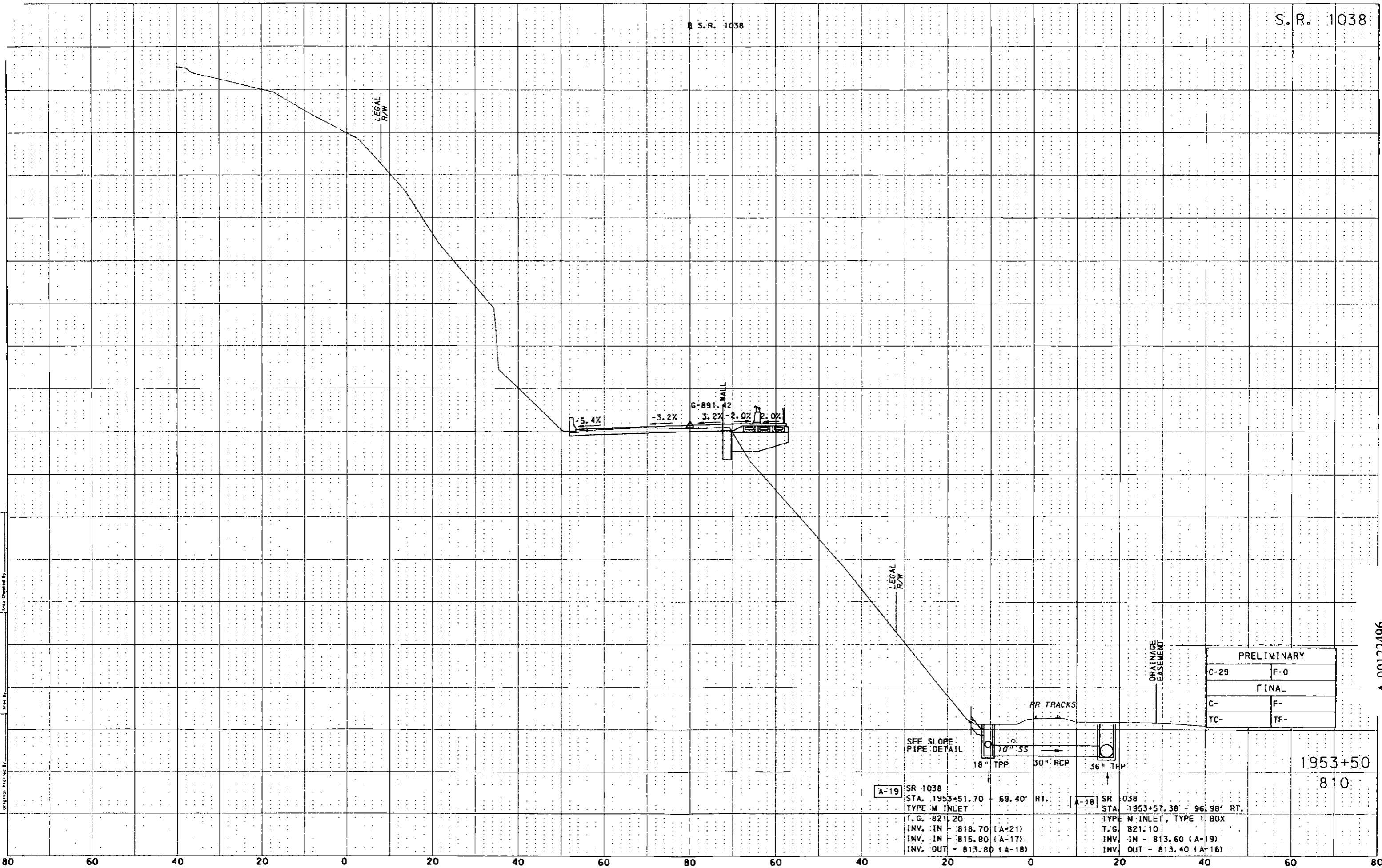
S.R. 1038

S.R. 1038

PLOTTED:

OPERATOR:
 FILE NAME: sdesign11.gss

Application No. _____
 Date No. _____
 Original Planned By _____
 Plans Checked By _____
 Drawn By _____
 Original Checked By _____
 Date Checked By _____



SEE SLOPE
 PIPE DETAIL

A-19 SR 1038
 STA. 1953+51.70 - 69.40' RT.
 TYPE M INLET
 T.G. 821.20
 INV. IN - 818.70 (A-21)
 INV. IN - 815.80 (A-17)
 INV. OUT - 813.80 (A-18)

A-18 SR 1038
 STA. 1953+57.38 - 96.98' RT.
 TYPE M INLET, TYPE I BOX
 T.G. 821.10
 INV. IN - 813.60 (A-19)
 INV. OUT - 813.40 (A-18)

PRELIMINARY	
C-29	F-0
FINAL	
C-	F-
TC-	TF-

1953+50
 8' 0"

A-00122496

80 60 40 20 0 20 40 60 80 20 0 20 40 60 80

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sect.	Prelim. Dk. No.	Final Dk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			14 OF 52

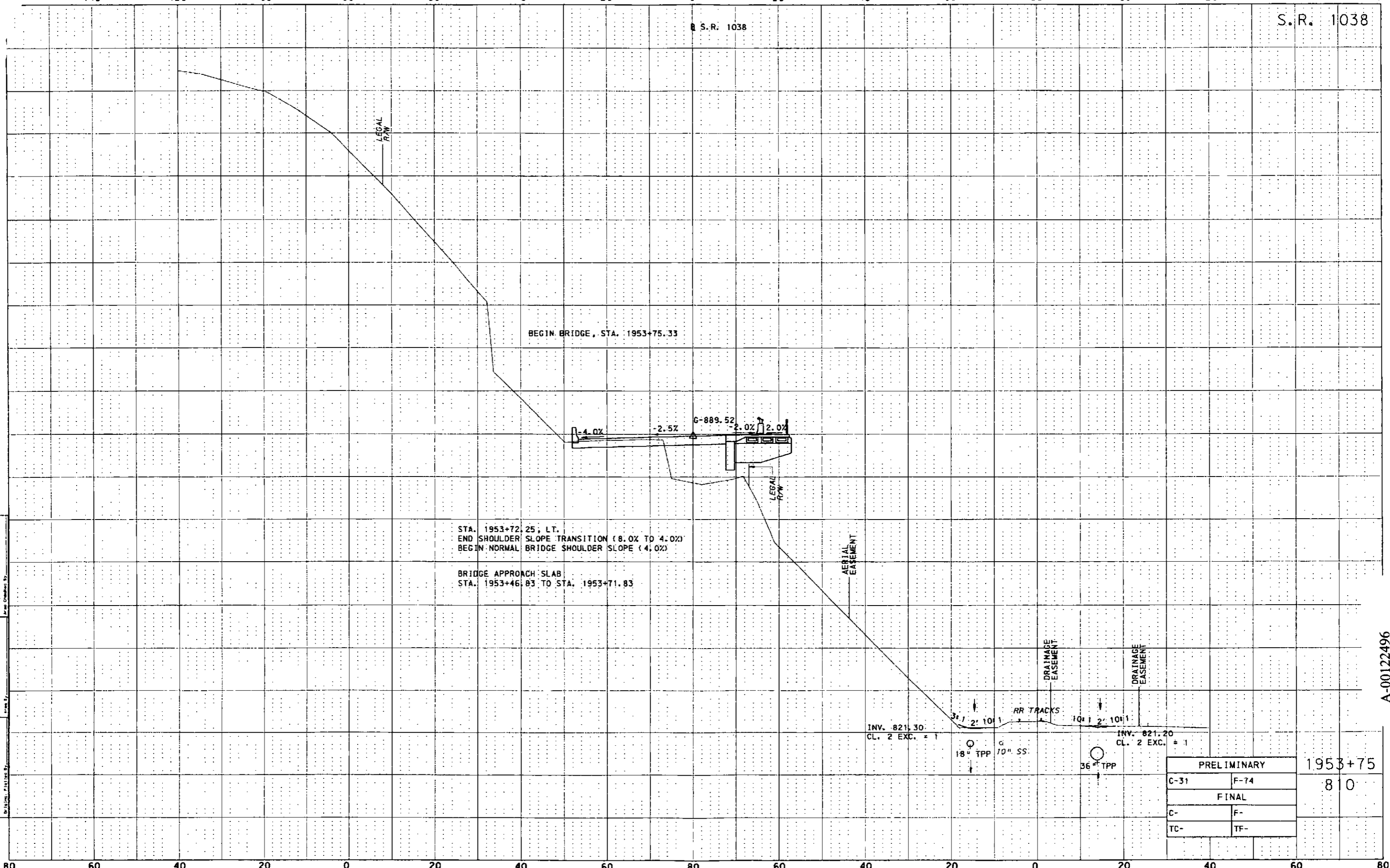
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S. R. 1038

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OPERATOR:
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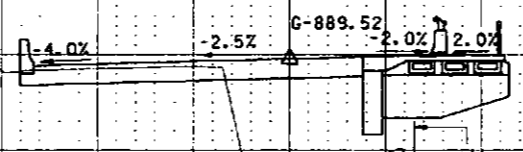
Application No. _____
 Route No. _____
 Original Created By _____
 Template By _____
 Plotted By _____
 Date Plotted _____



STA. 1953+72.25, LT.
 END SHOULDER SLOPE TRANSITION (8.0% TO 4.0%)
 BEGIN NORMAL BRIDGE SHOULDER SLOPE (4.0%)

BRIDGE APPROACH SLAB
 STA. 1953+46.83 TO STA. 1953+71.83

BEGIN BRIDGE, STA. 1953+75.33



INV. 821.30
 CL. 2' EXC. = 1'

INV. 821.20
 CL. 2' EXC. = 1'

18" TPP
 10" SS.

36" TPP

RR TRACKS

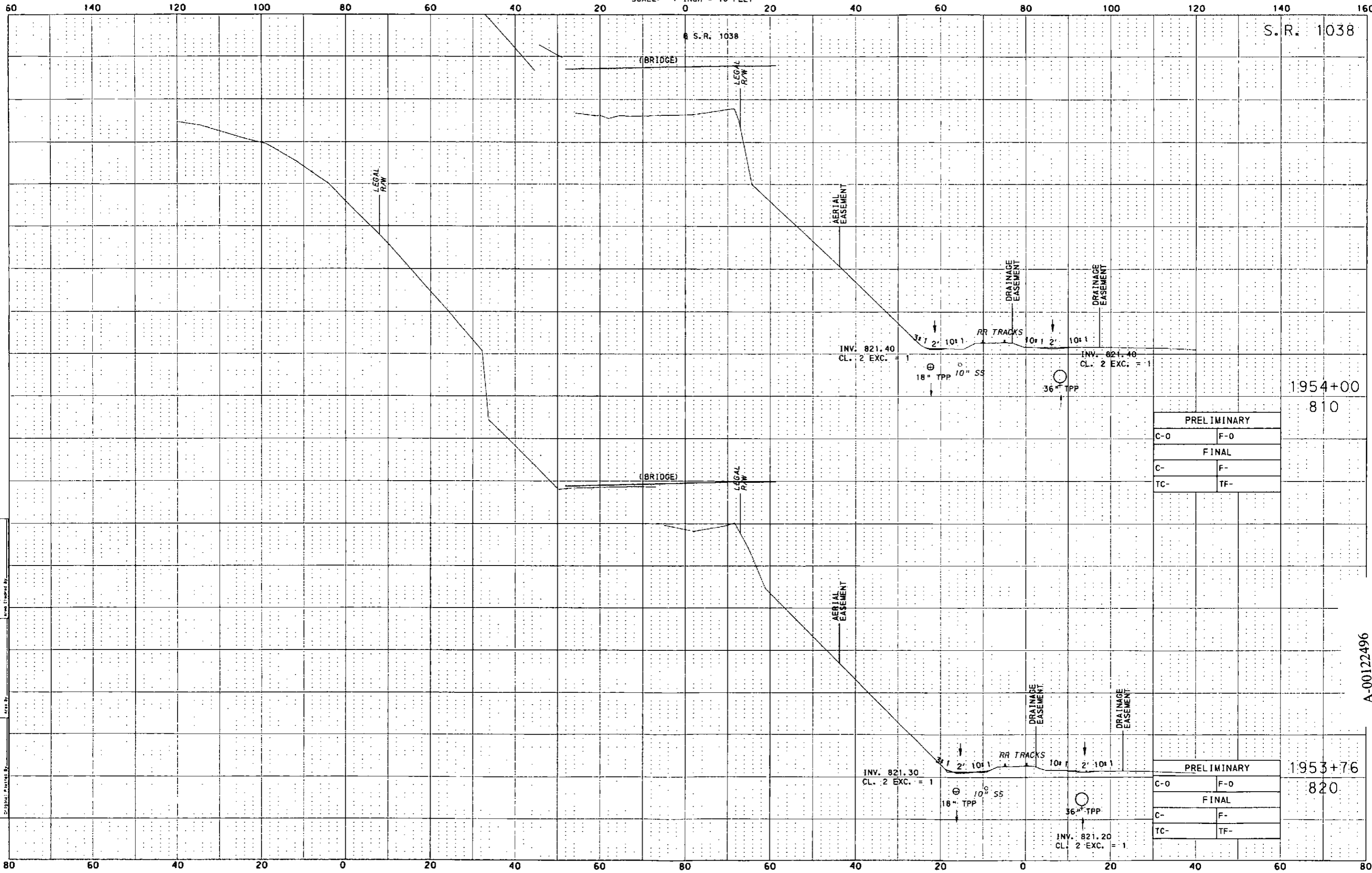
PRELIMINARY		1953+75
C-31	F-74	810
FINAL		
C-	F-	
TC-	TF-	

A-00122496

80 60 40 20 0 20 40 60 80 60 40 20 0 20 40 60 80 40 20 0 20 40 60 80

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
 CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			15 OF 52



S. R. 1038

1954+00
810

PRELIMINARY	
C-0	F-0
FINAL	
C-	F-
TC-	TF-

1953+76
820

PRELIMINARY	
C-0	F-0
FINAL	
C-	F-
TC-	TF-

PLOTTED:

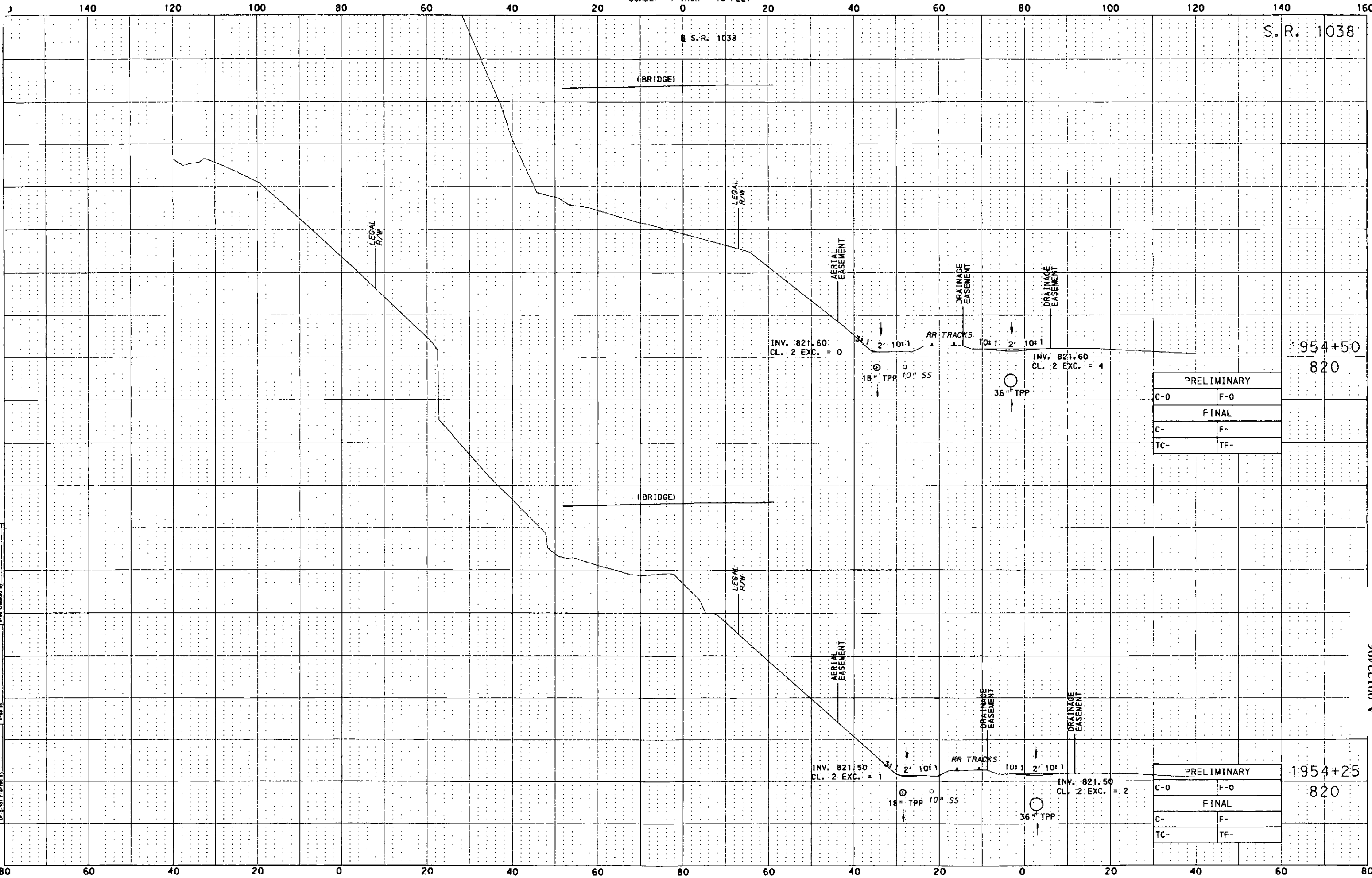
OPERATOR:
FILE NAME: eces\gnf\1038

App. No. _____
 Name No. _____
 Original Plotted By _____
 Date Plotted By _____
 Original Checked By _____
 Temp. By _____
 Area By _____
 Final Plotted By _____
 Date Plotted By _____

A-00122496

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sec.	Proj. Br. No.	Final Br. No.	Sheet No.
10-0	ARMSTRONG	1038	150			16 OF 52



S. R. 1038

1954+50
820

PRELIMINARY	
C-0	F-0
FINAL	
C-	F-
TC-	TF-

1954+25
820

PRELIMINARY	
C-0	F-0
FINAL	
C-	F-
TC-	TF-

PLOTTED:

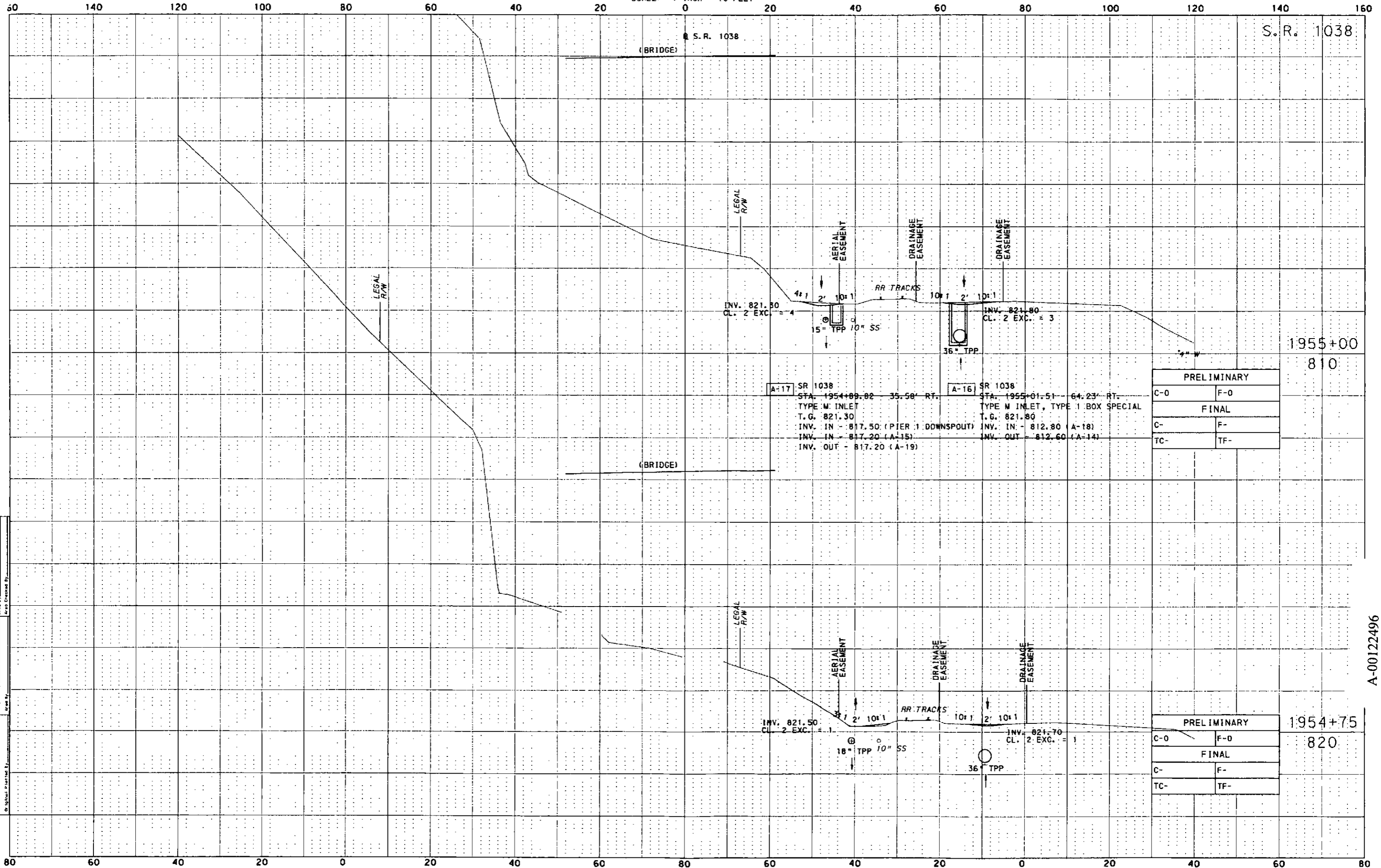
OPERATOR:
FILE NAME: sdes1grf1.esd

Checked By:	Checked By:
Checked By:	Checked By:
Checked By:	Checked By:
Checked By:	Checked By:

A-00122496

CROSS SECTIONS
SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sect.	Proj. Bk. No.	Final Bk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			17 OF 52



INV. 821.80
CL. 2 EXC. = 4

15" TPP 10" SS

RR TRACKS

36" TPP

INV. 821.80
CL. 2 EXC. = 3

A-17 SR 1038
STA. 1954+89.82 - 35.58' RT.
TYPE M INLET
T.G. 821.30
INV. IN - 817.50 (PIER 1 DOWNSPOUT)
INV. IN - 817.20 (A-15)
INV. OUT - 817.20 (A-19)

A-16 SR 1038
STA. 1955+01.51 - 64.23' RT.
TYPE M INLET, TYPE 1 BOX SPECIAL
T.G. 821.80
INV. IN - 812.80 (A-18)
INV. OUT - 812.60 (A-14)

PRELIMINARY	
C-0	F-0
FINAL	
C-	F-
TC-	TF-

1955+00
810

INV. 821.50
CL. 2 EXC. = 1

18" TPP 10" SS

RR TRACKS

36" TPP

INV. 821.70
CL. 2 EXC. = 1

PRELIMINARY	
C-0	F-0
FINAL	
C-	F-
TC-	TF-

1954+75
820

PLOTTED

OPERATOR
FILE NAME: 80001grt1000

Application No. _____
Scale No. _____
Date Plotted _____
By _____
Checked By _____
Drawn By _____
Area Checked By _____
Final Checked By _____
Final Checked By _____
Area Checked By _____

A-00122496

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			18 OF 52

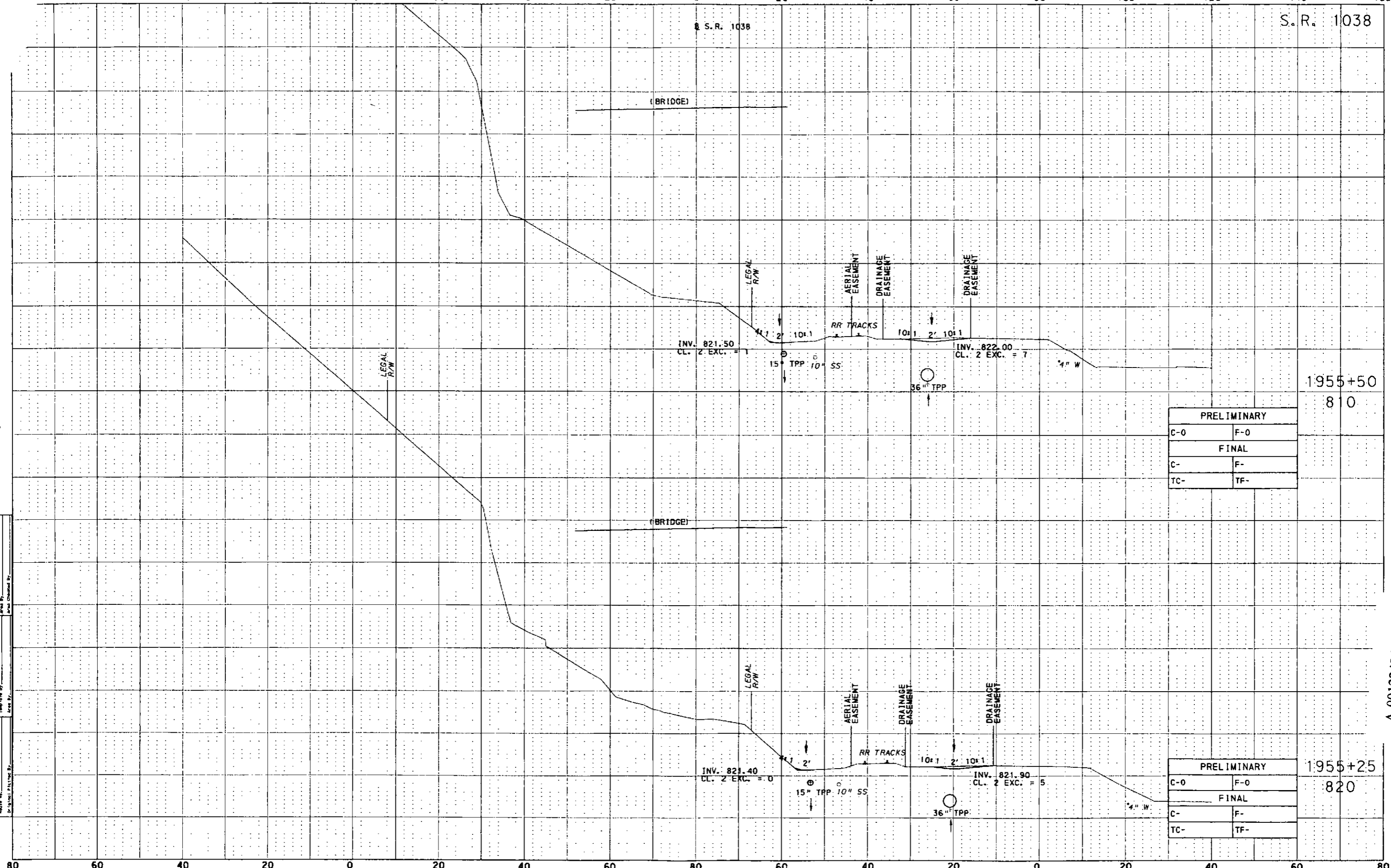
140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

S. R. 1038

PLOTTED:

OPERATOR:
FILE NAME: @des (QTY) .lot

App. Made for No. _____
 Made by _____
 Date _____
 Checked by _____
 Date _____
 Drawn by _____
 Date _____
 Title _____
 Date _____
 Scale _____
 Plot. No. _____
 Date _____
 Plot. No. _____
 Date _____



S. R. 1038

(BRIDGE)

INV. 821.50
CL. 2' EXC. = 1

15" TPP 10" SS

RR TRACKS

INV. 822.00
CL. 2' EXC. = 7

36" TPP

4" W

1955+50
810

PRELIMINARY	
C-0	F-0
FINAL	
C-	F-
TC-	TF-

(BRIDGE)

INV. 821.40
CL. 2' EXC. = 0

15" TPP 10" SS

RR TRACKS

INV. 821.90
CL. 2' EXC. = 5

36" TPP

4" W

1955+25
820

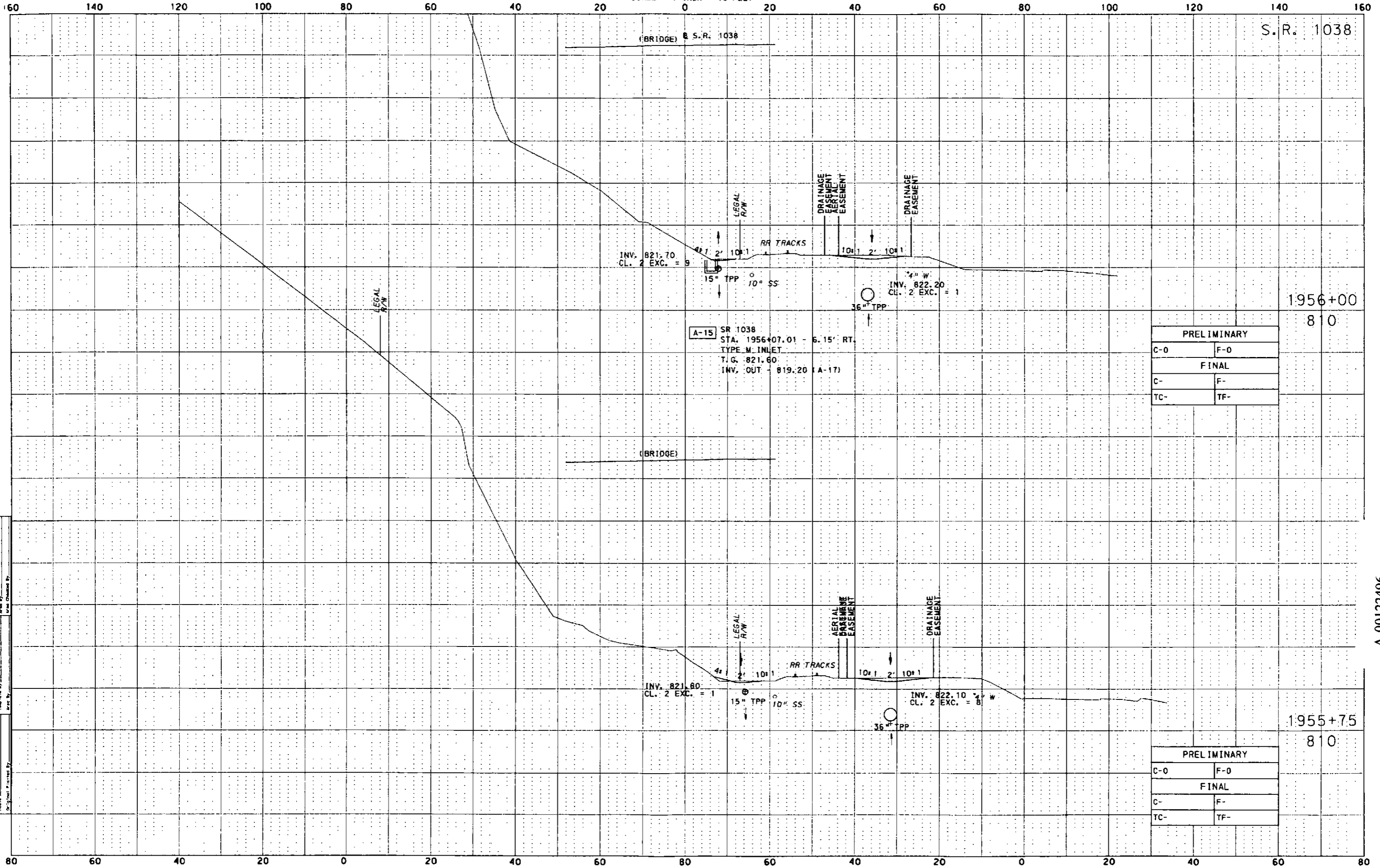
PRELIMINARY	
C-0	F-0
FINAL	
C-	F-
TC-	TF-

80 60 40 20 0 20 40 60 80 100 120 140 160

A-00122496

CROSS SECTIONS
SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sec.	Proj. Lk. No.	Final Bk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			19 OF 52



S.R. 1038

1956+00
810

PRELIMINARY	
C-0	F-0
FINAL	
C-	F-
TC-	TF-

1955+75
810

PRELIMINARY	
C-0	F-0
FINAL	
C-	F-
TC-	TF-

PLOTTED

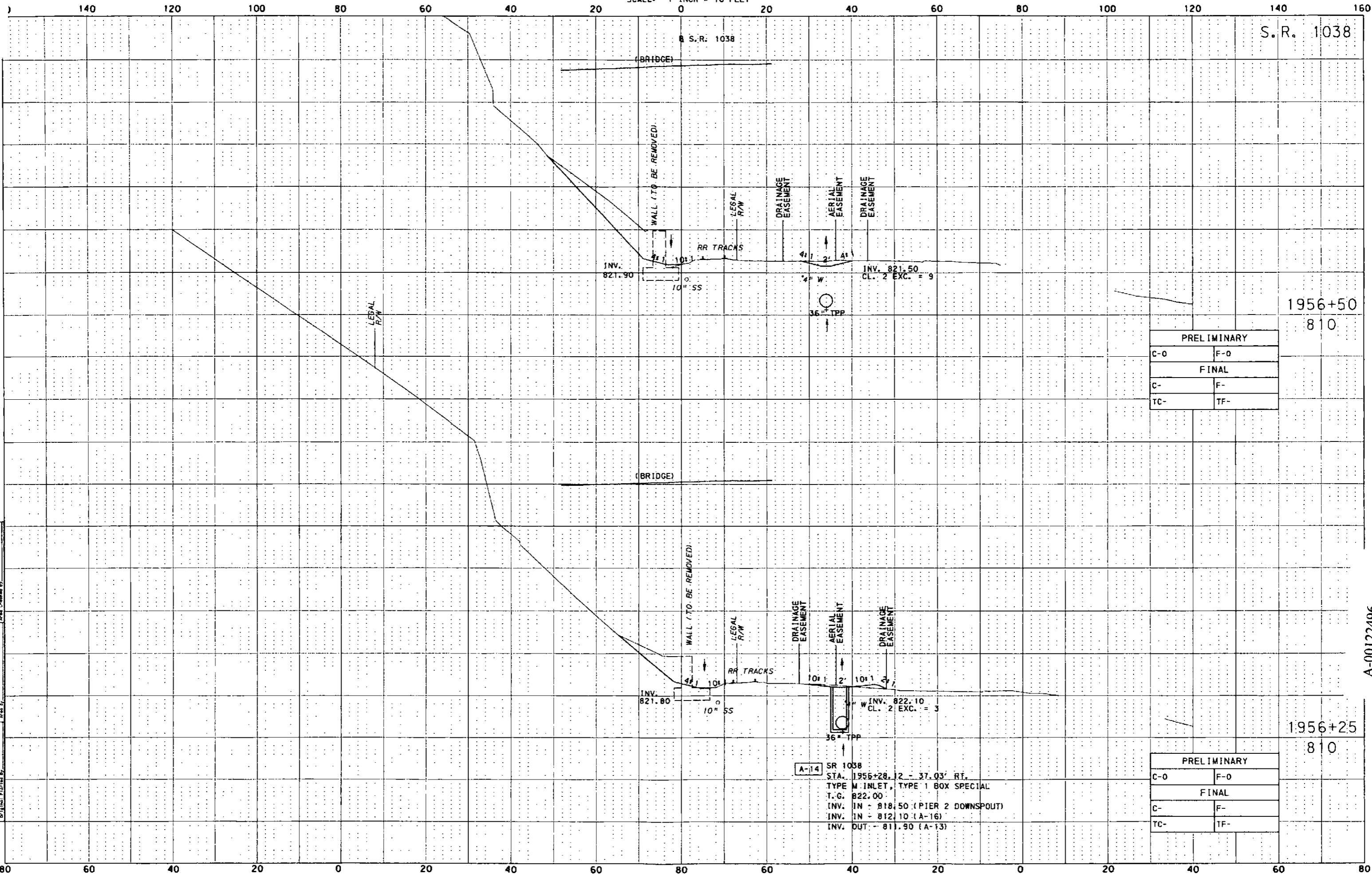
OPERATOR:
FILE NAME: #des ign11es

Application No.	Checked By
Drawn By	Checked By
Project No.	Checked By
Scale	Checked By
Sheet No.	Checked By

A-00122496

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sec.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			20 OF 52



S. R. 1038

1956+50
810

PRELIMINARY	
C-0	F-0
FINAL	
C-	F-
TC-	TF-

1956+25
810

PRELIMINARY	
C-0	F-0
FINAL	
C-	F-
TC-	TF-

A-14 SR 1038
 STA. 1956+28.12 - 37.03 RT.
 TYPE MANHOLE, TYPE 1 BOX SPECIAL
 T.G. 822.00
 INV. IN - 818.50 (PIER 2 DOWNSPOUT)
 INV. IN - 812.10 (A-16)
 INV. OUT - 811.90 (A-13)

PLOTTED:

OPERATOR:
FILE NAME: 000001038

Plotted By:	Checked By:
Drawn By:	Reviewed By:
Original Plotted By:	Final Checked By:

A-00122496

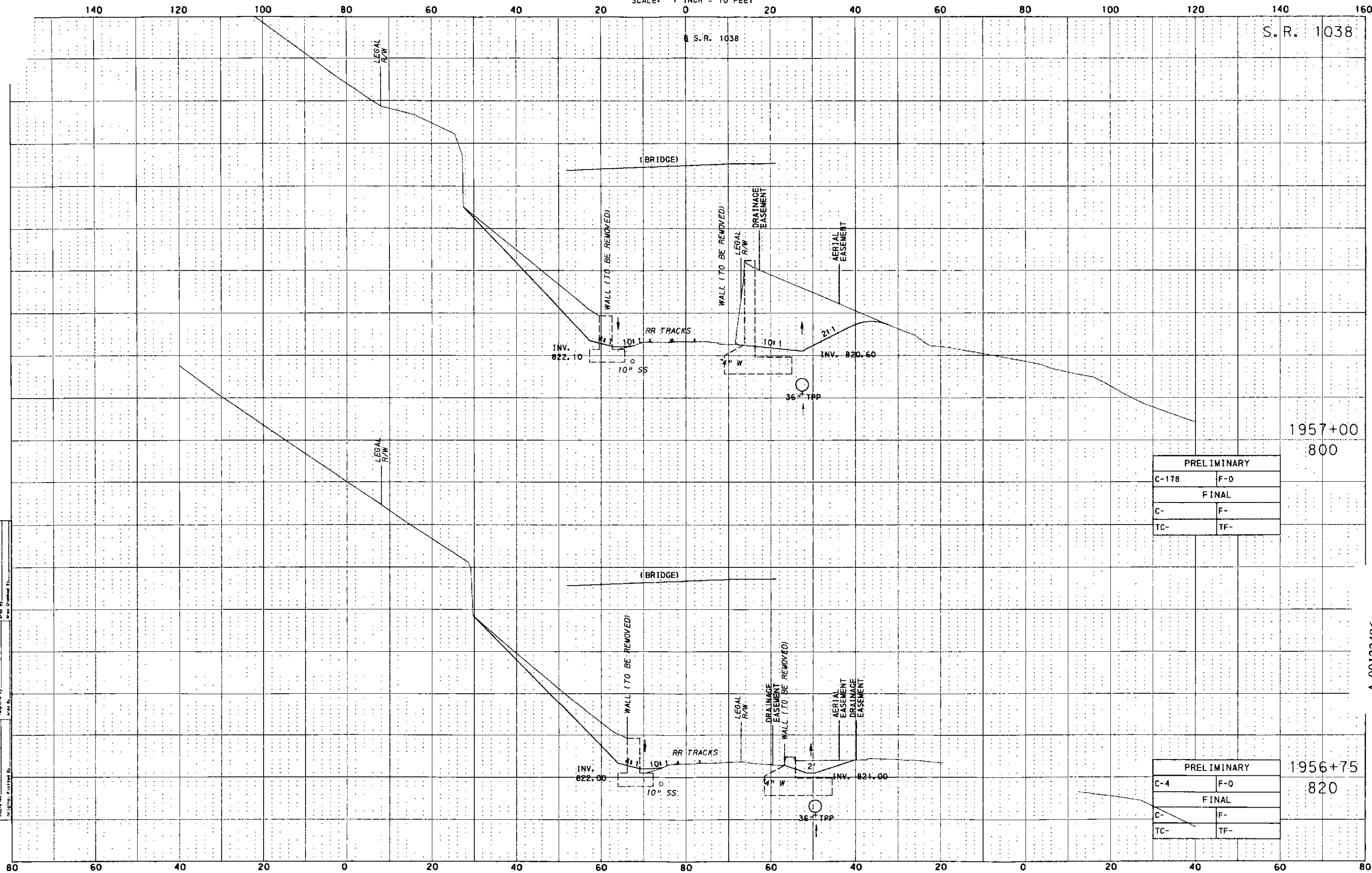
CROSS SECTIONS
SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sect.	Proj. Bk. No.	Final Bk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			21 OF 52

PLOTTED:

OPERATOR:
FILE NAME: *sdas1gn111e*

Application No.	Design Checked By
Route No.	Drawn By
Original Plotted By	Proj. Checked By



S. R. 1038

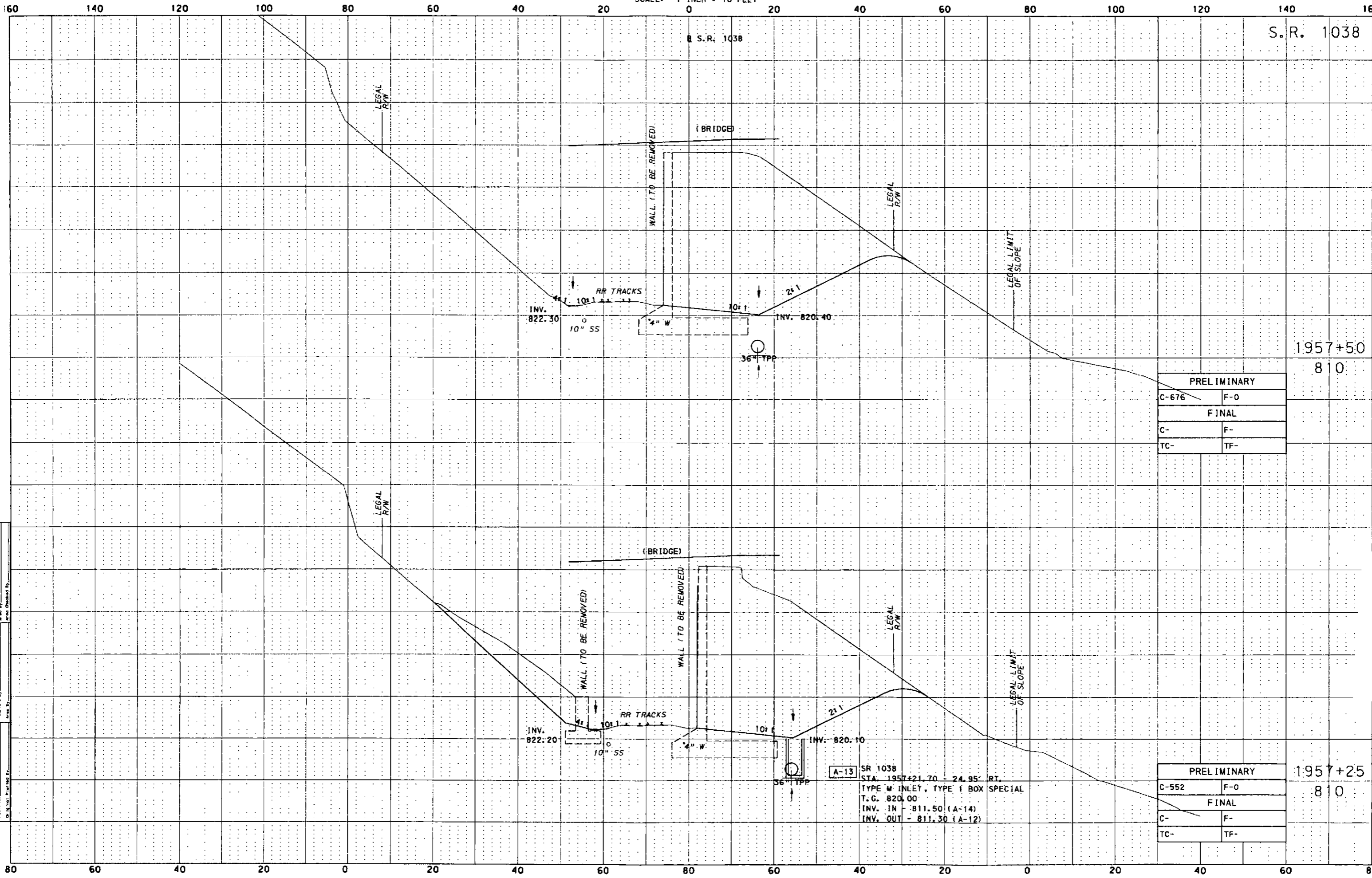
1957+00
800

PRELIMINARY	
C-178	F-0
FINAL	
C-	F-
TC-	TF-

1956+75
820

PRELIMINARY	
C-4	F-0
FINAL	
C-	F-
TC-	TF-

A-00122496



PRELIMINARY	
C-676	F-0
FINAL	
C-	F-
TC-	TF-

1957+50
810

PRELIMINARY	
C-552	F-0
FINAL	
C-	F-
TC-	TF-

1957+25
810

A-13 SR 1038
STA. 1957+21.70 - 24.95' RT.
TYPE W INLET, TYPE 1 BOX SPECIAL
T.G. 820.00
INV. IN - 811.50 (A-14)
INV. OUT - 811.30 (A-12)

PLOTTED

OPERATOR
FILE NAME: sdesign108

Checked By: _____
Reviewed By: _____
Drawn By: _____
Date: _____

A-00122496

CROSS SECTIONS

SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sec.	Pr. Sta. Bk. No.	Final Bk. No.	Sheet No.
10-C	ARMSTRONG	1038	150			23 OF 52

140

120

100

80

60

40

20

0

20

40

60

80

100

120

140

160

S. R. 1038

S. R. 1038

PLOTTED

ANCHOR
CASEMENT

LEGAL
R/W

(BRIDGE)

WALL TO BE REMOVED

LEGAL
R/W

LEGAL LIMIT
OF SLOPE

INV.
822.50

4:1
10:1
10' SS

RR TRACKS

10:1

INV. 820.70

2:1

36" TPP

1958+00

790

PRELIMINARY

C-776

F-0

FINAL

C-

F-

TC-

TF-

OPERATOR:
FILE NAME:
codes (gn) files

App. Location No. _____
Route No. _____
Date Plotted _____
Original Checked By _____
Plotted By _____
Scale _____
Lead Checked By _____

LEGAL
R/W

(BRIDGE)

WALL TO BE REMOVED

LEGAL
R/W

LEGAL LIMIT
OF SLOPE

INV.
822.40

4:1
10:1
10' SS

RR TRACKS

10:1

INV. 820.50

2:1

36" TPP

1957+75

80

PRELIMINARY

C-765

F-0

FINAL

C-

F-

TC-

TF-

A-00122496

80

60

40

20

0

20

40

60

80

60

40

20

0

20

40

60

80

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sect.	Proj. No.	Sheet No.
10-0	ARMSTRONG	1038	150		24 OF 52

PLOTTED

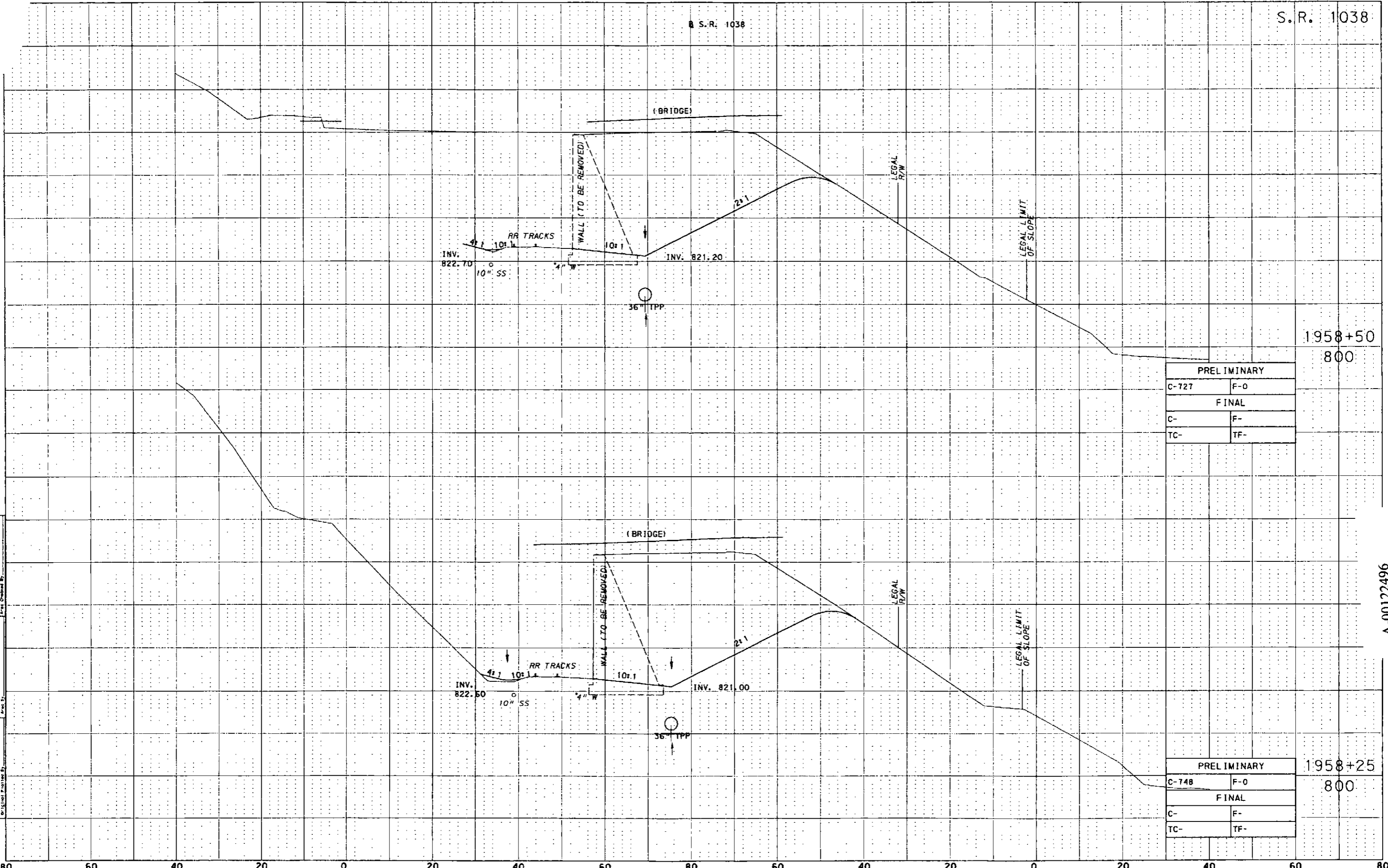
OPERATOR
 FILE NAME: #des (g/f) 1000

Application No.
 Original Checked By
 Date
 Original Plotted By
 Date

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

S.R. 1038

S.R. 1038



1958+50
 800

PRELIMINARY	
C-727	F-0
FINAL	
C-	F-
TC-	TF-

1958+25
 800

PRELIMINARY	
C-748	F-0
FINAL	
C-	F-
TC-	TF-

A-00122496

80 60 40 20 0 20 40 60 80 60 40 20 0 20 40 60 80

CROSS SECTIONS
SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sect.	Profile No.	Final E. No.	Sheet No.
10-0	ARMSTRONG	1038	150			25 OF 52

60 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

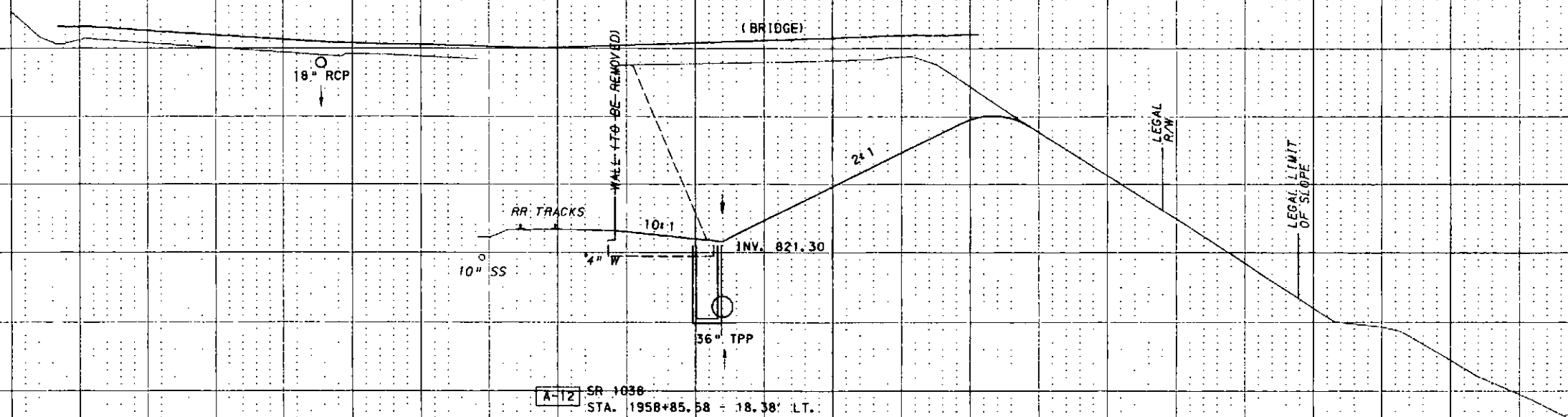
S.R. 1038

S.R. 1038

PLOTTED:

OPERATOR:
FILE NAME: sdes1gn71less

Drawn by: _____
 Checked by: _____
 Date: _____
 Original: _____
 Template: _____
 Plot: _____
 Application No.: _____
 Route No.: _____
 Project: _____



A-12 SR 1038
 STA. 1958+85.58 - 18.38' LT.
 TYPE M INLET, TYPE 1 BOX SPECIAL
 T.G. 821.00
 INV. IN - 817.50 (ABUTMENT 2 DOWNSPOUT)
 INV. IN - 810.70 (A-13)
 INV. OUT - 810.50 (A-11)

1958+75
790

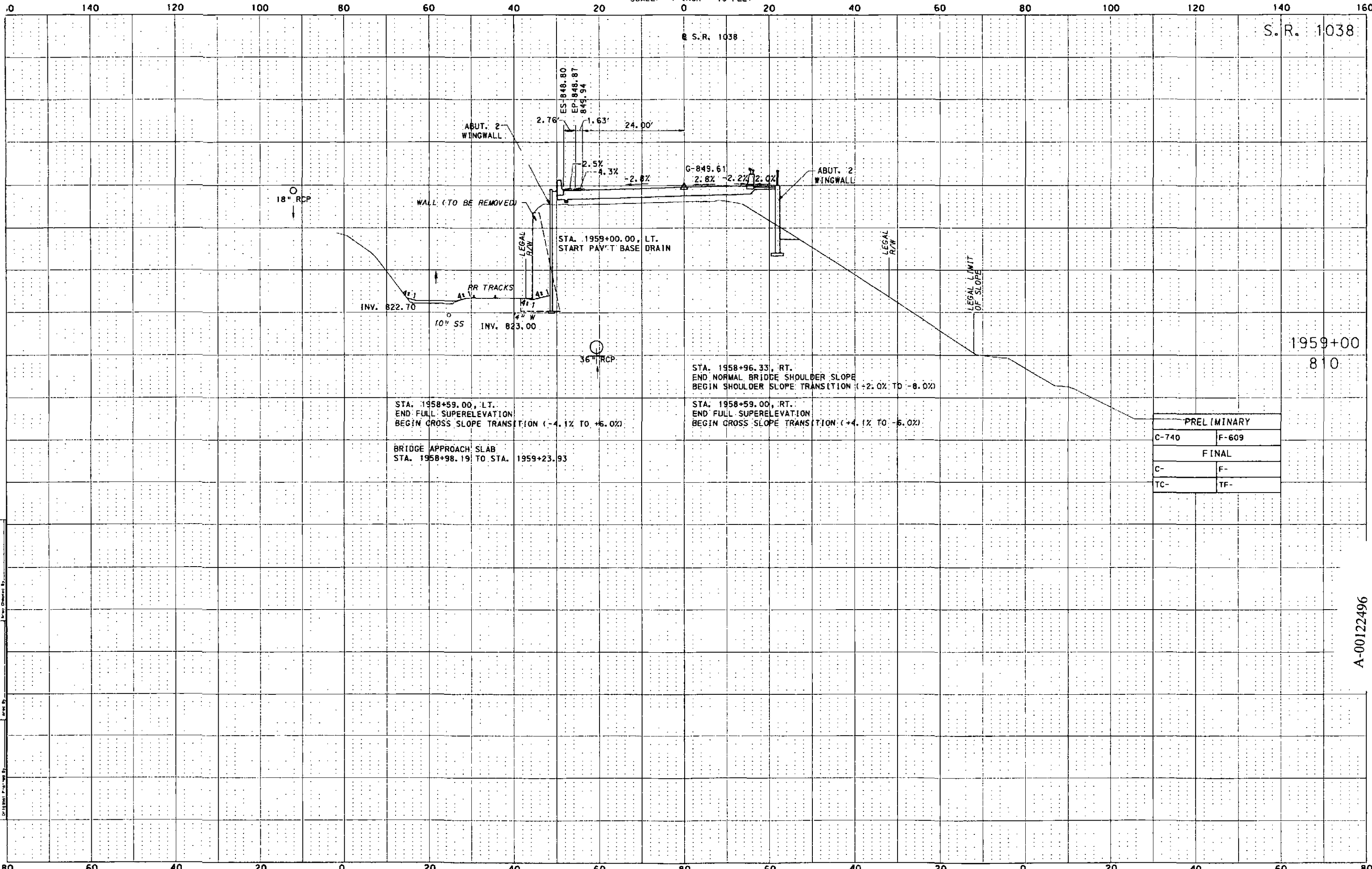
PRELIMINARY	
C-651	F-0
FINAL	
C-	F-
TC-	TF-

A-00122496

80 60 40 20 0 20 40 60 80 60 40 20 0 20 40 60 80

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

DIST.	COUNTY	ROUTE	SECT.	PROJ. BK. NO.	FINAL BK. NO.	SHEET NO.
10-0	ARMSTRONG	1038	150			26 OF 52



PRELIMINARY	
C-740	F-609
FINAL	
C-	F-
TC-	TF-

S.R. 1038

1959+00
810

A-00122496

PLOTTED:

OPERATOR:
FILE NAME: design11.ees

Project No. _____
 Date _____
 Design By _____
 Check By _____
 Plot By _____

80 60 40 20 0 20 40 60 80 60 40 20 0 20 40 60 80

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

DIST.	COUNTY	ROUTE	SECT.	PRELIM. BK. NO.	FINAL BK. NO.	SHEET NO.
10-0	ARMSTRONG	1038	150			27 OF 52

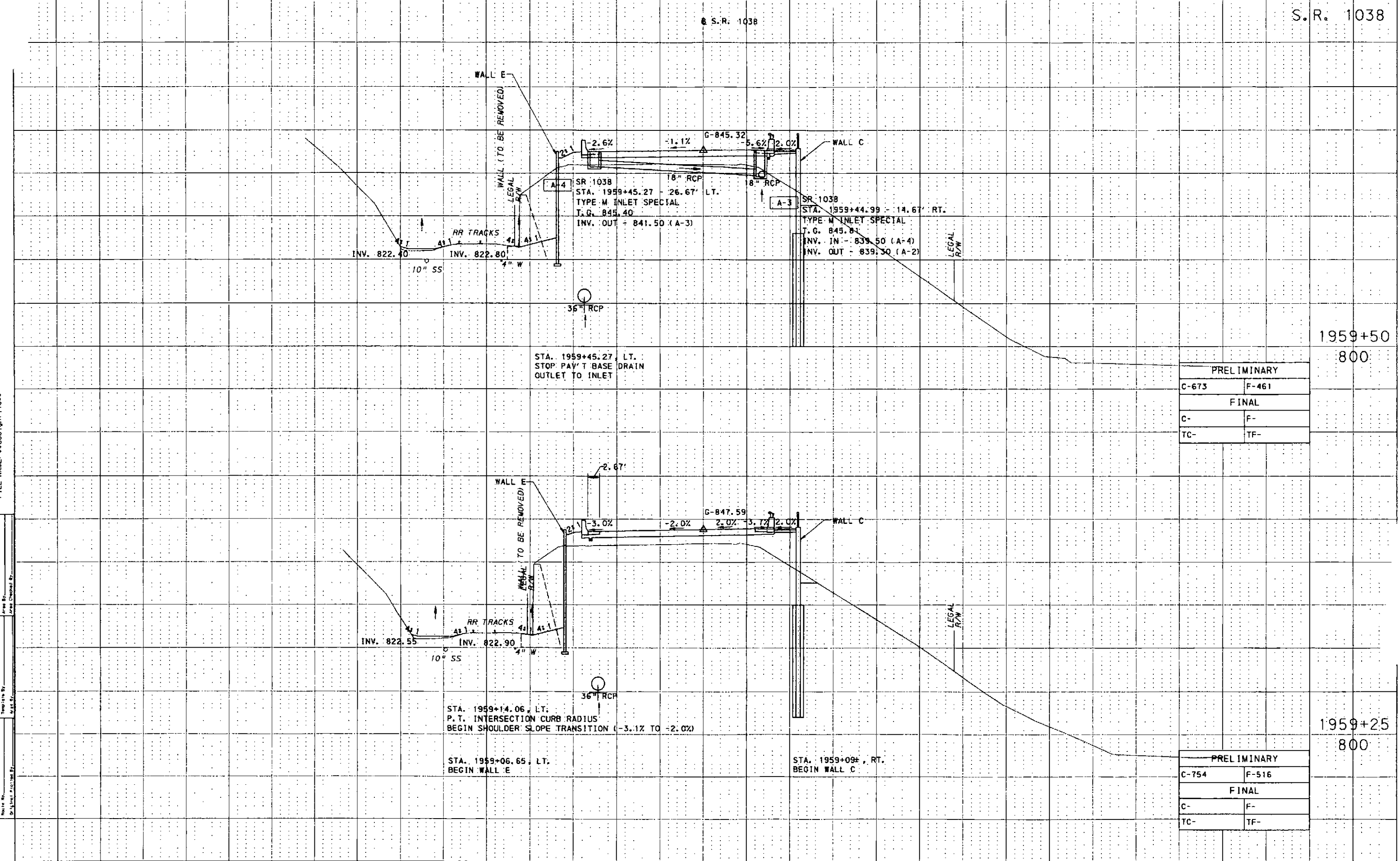
140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

S.R. 1038

PLOTTED:

OPERATOR:
FILE NAME:
 * * * * *

Design Checked By: _____
 Layout Checked By: _____
 Engineer Checked By: _____
 Date: _____
 Scale: _____
 Plot Date: _____
 Plotter: _____
 Plot Size: _____
 Plot Orientation: _____
 Plot Resolution: _____
 Plot Font: _____
 Plot Color: _____
 Plot Line Weight: _____
 Plot Background: _____
 Plot Grid: _____
 Plot Title: _____
 Plot Subtitle: _____
 Plot Author: _____
 Plot Contact: _____
 Plot Version: _____
 Plot License: _____
 Plot Copyright: _____
 Plot Trademark: _____
 Plot Disclaimer: _____
 Plot Terms: _____
 Plot Privacy: _____
 Plot Security: _____
 Plot Support: _____
 Plot Updates: _____
 Plot Training: _____
 Plot Resources: _____
 Plot Feedback: _____
 Plot Help: _____
 Plot About: _____



1959+50
800

PRELIMINARY	
C-673	F-461
FINAL	
C-	F-
TC-	TF-

1959+25
800

PRELIMINARY	
C-754	F-516
FINAL	
C-	F-
TC-	TF-

A-00122496

80 60 40 20 0 20 40 60 80 60 40 20 0 20 40 60 80

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

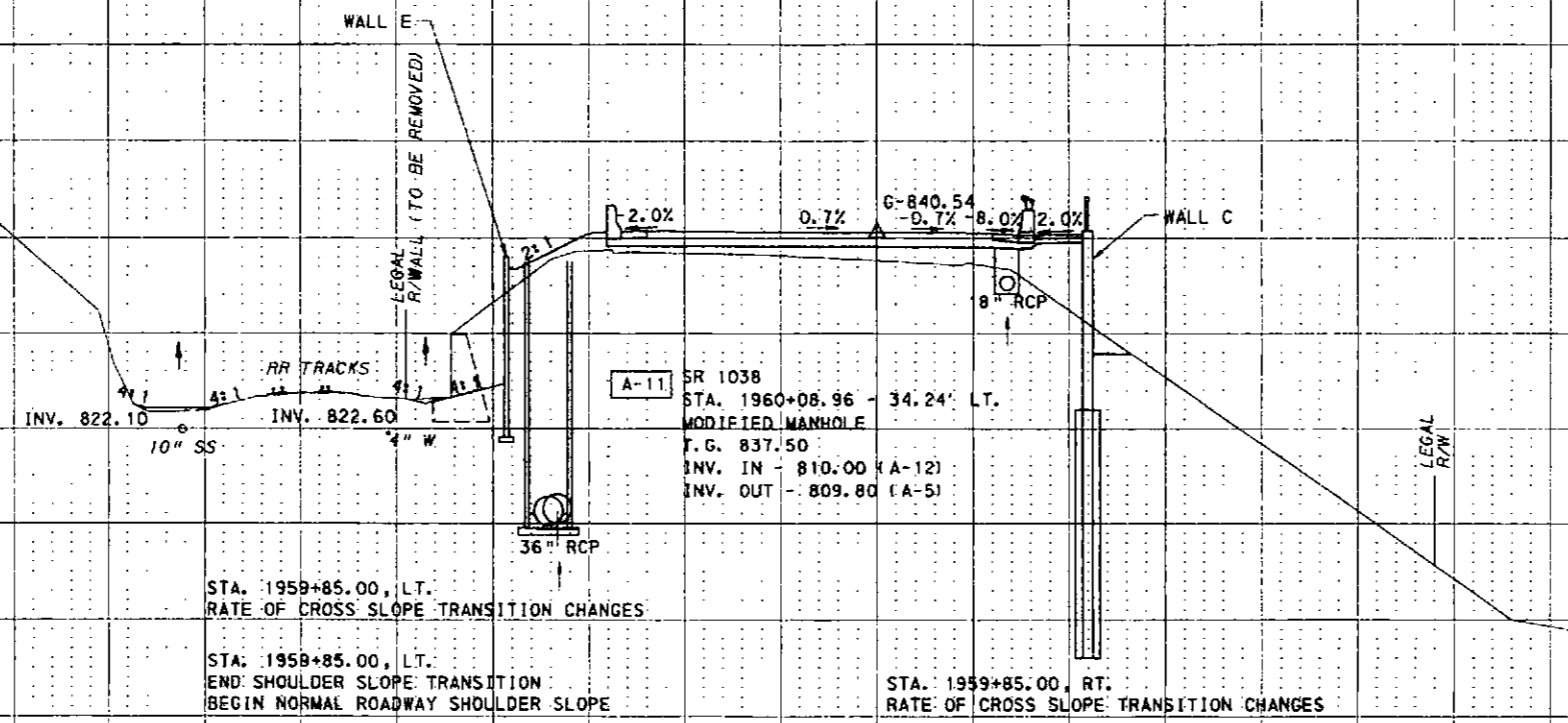
Dist.	County	Route	Sect.	Proj. Br. No.	Final Br. No.	Sheet No.
10-0	ARMSTRONG	1038	150			28 OF 52

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

S.R. 1038

S.R. 1038

PLOTTED



STA. 1959+85.00, LT.
 RATE OF CROSS SLOPE TRANSITION CHANGES

STA. 1959+85.00, LT.
 END SHOULDER SLOPE TRANSITION
 BEGIN NORMAL ROADWAY SHOULDER SLOPE

STA. 1959+85.00, RT.
 RATE OF CROSS SLOPE TRANSITION CHANGES

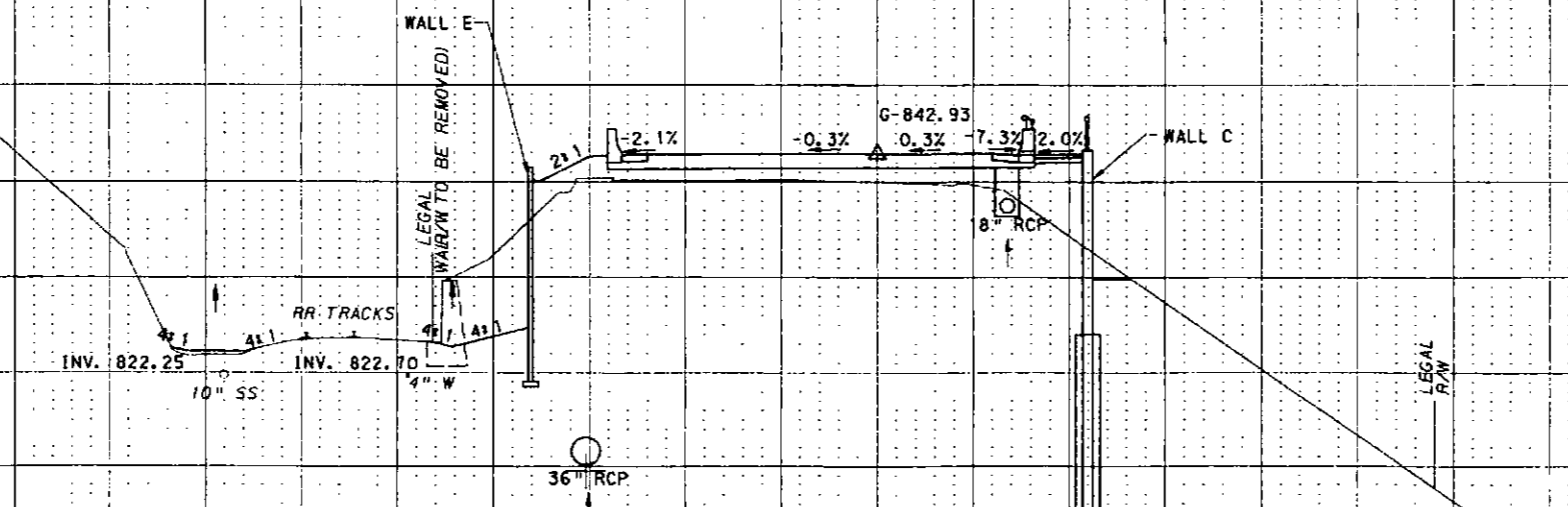
STA. 1959+85.00, RT.
 END SHOULDER SLOPE TRANSITION
 BEGIN NORMAL ROADWAY SHOULDER SLOPE

PRELIMINARY	
C-424	F-321
FINAL	
C-	F-
TC-	TF-

1960+00
 800

OPERATOR:
 FILE NAME: sdes 1gnf1100

Finals Plotted By:
 Plots Checked By:
 Original Checked By:
 Temporarily Plotted By:
 Date Plotted By:



STA. 1959+75.800, LT.
 RATE OF CROSS SLOPE TRANSITION CHANGES

STA. 1959+75.800, LT.
 END SHOULDER SLOPE TRANSITION
 BEGIN NORMAL ROADWAY SHOULDER SLOPE

STA. 1959+75.800, RT.
 RATE OF CROSS SLOPE TRANSITION CHANGES

STA. 1959+75.800, RT.
 END SHOULDER SLOPE TRANSITION
 BEGIN NORMAL ROADWAY SHOULDER SLOPE

PRELIMINARY	
C-624	F-420
FINAL	
C-	F-
TC-	TF-

1959+75
 800

A-00122496

80 60 40 20 0 20 40 60 80 100 120 140 160

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sec.	Proj. (B. No.)	Final (B. No.)	Sheet No.
10-0	ARMSTRONG	1038	150			29 OF 52

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

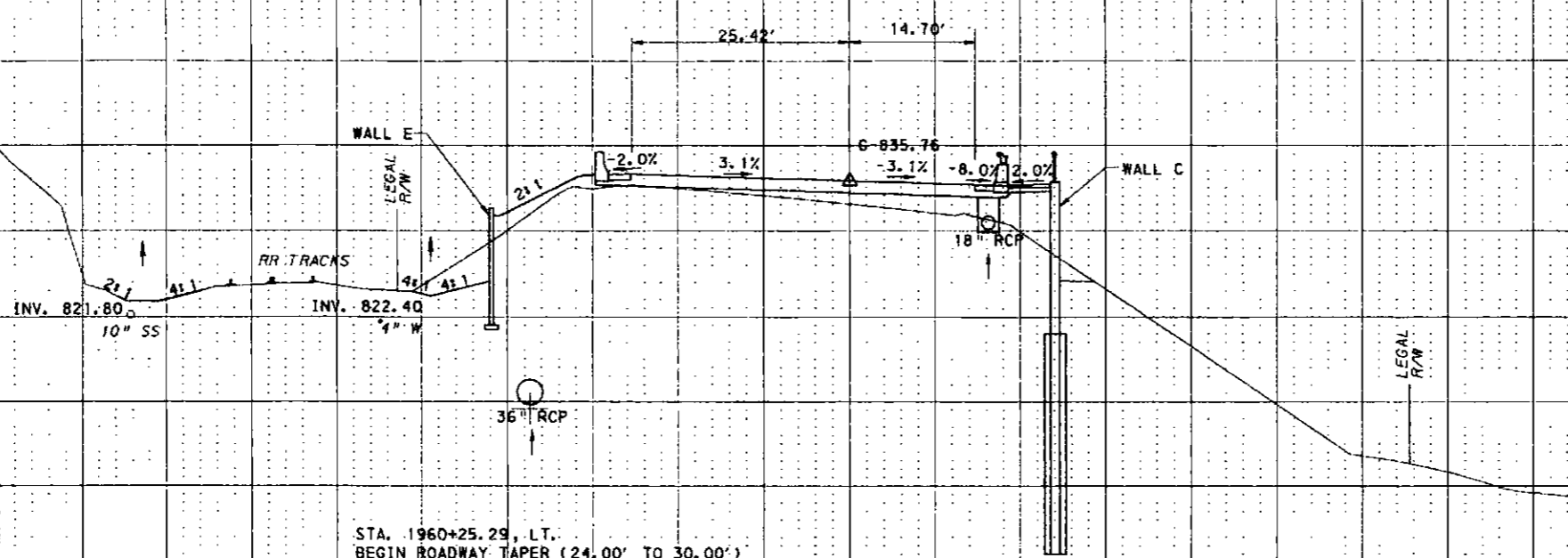
S. R. 1038

S. R. 1038

PLOTTED:

OPERATOR:
 FILE NAME: *xxxxx*

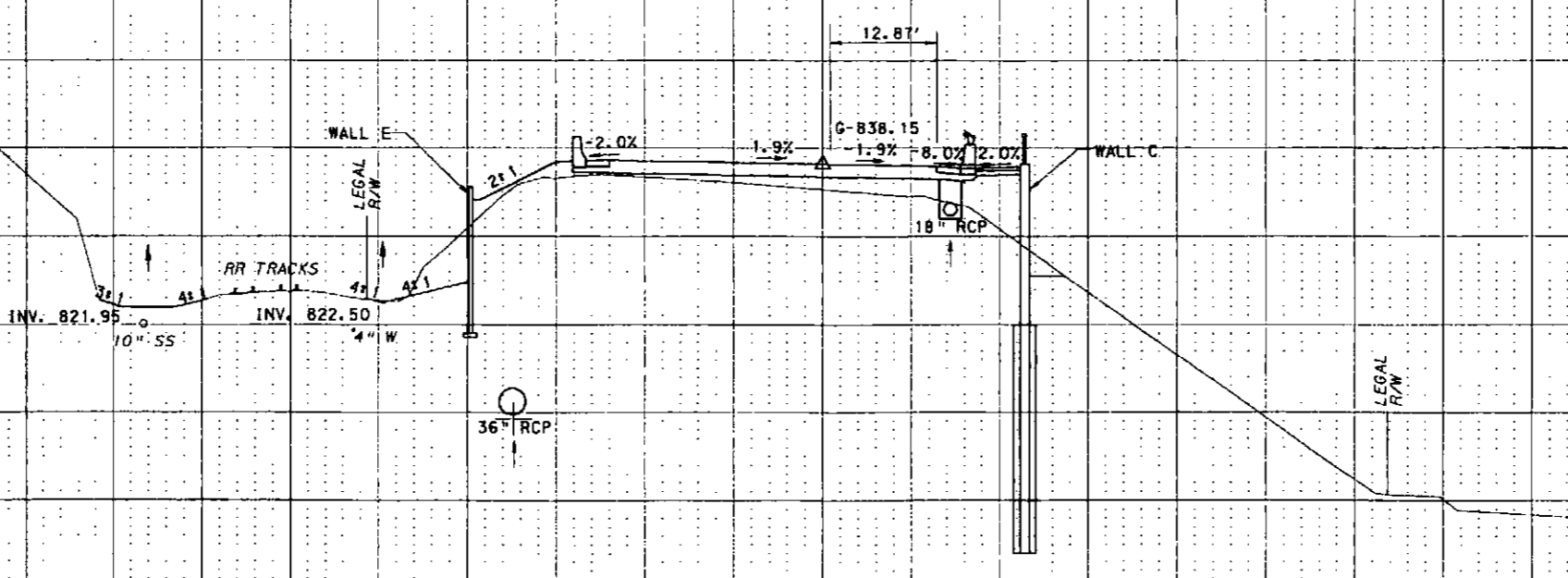
Application No. _____
 Date _____
 Original Plotted By _____
 Plotted Checked By _____
 Date _____
 Final Checked By _____
 Date _____
 Auto Plotted By _____



STA. 1960+25.29, LT.
 BEGIN ROADWAY TAPER (24.00' TO 30.00')

1960+50
 800

PRELIMINARY	
C-319	F-258
FINAL	
C-	F-
TC-	TF-



STA. 1960+04.39, RT.
 BEGIN ROADWAY TAPER (12.00' TO 18.00')

1960+25
 800

PRELIMINARY	
C-393	F-290
FINAL	
C-	F-
TC-	TF-

80 60 40 20 0 20 40 60 80 100 120 140 160

A-00122496

Dist.	County	Route	Sec.	Proj. Bk. No.	Plan. Bk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			30 OF 52

0 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

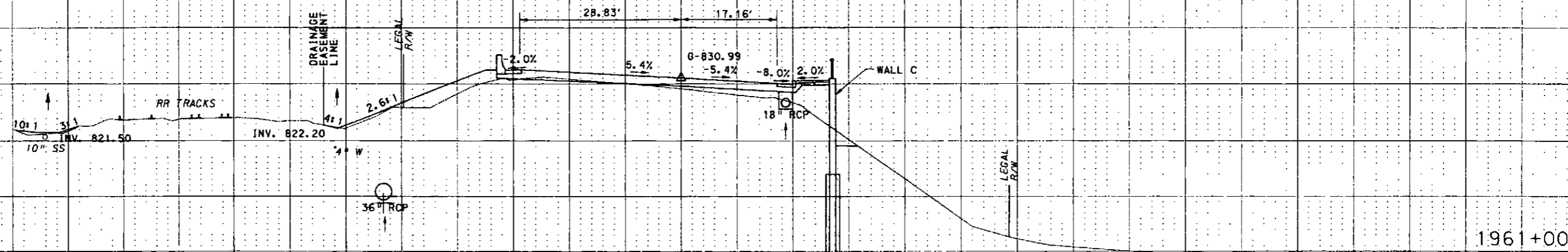
S. R. 1038

S. R. 1038

PLOTTED

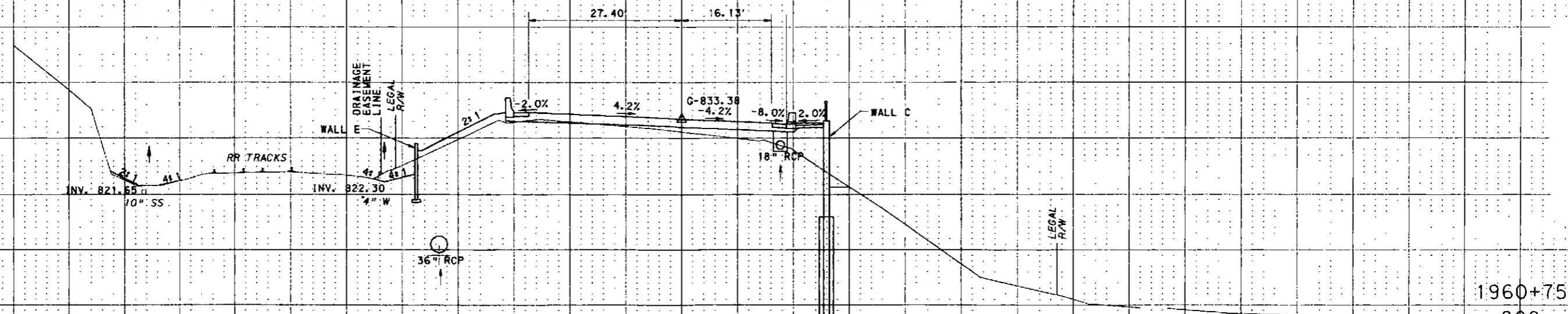
OPERATOR:
FILE NAME: 000001000

Plotted By: _____
 Checked By: _____
 Date: _____
 Scale: _____
 Project: _____
 Sheet: _____



1961+00
800

PRELIMINARY	
C-2	F-57
FINAL	
C-	F-
TC-	TF-



1960+75
800

PRELIMINARY	
C-169	F-146
FINAL	
C-	F-
TC-	TF-

A-00122496

80 60 40 20 0 20 40 60 80 60 40 20 0 20 40 60 80

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

DIST.	COUNTY	ROUTE	SECT.	PRELIM. BK. NO.	FINAL BK. NO.	SHEET NO.
10-0	ARMSTRONG	1038	150			31 OF 52

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

PLOTTED

OPERATOR:
 FILE NAME: 80801071.ess

Project No. _____
 Route No. _____
 District No. _____
 Designated by _____
 Checked by _____
 Drawn by _____
 Date _____

S. R. 1038

1961+50
 800

PRELIMINARY	
C-25	F-38
FINAL	
C-	F-
TC-	TF-

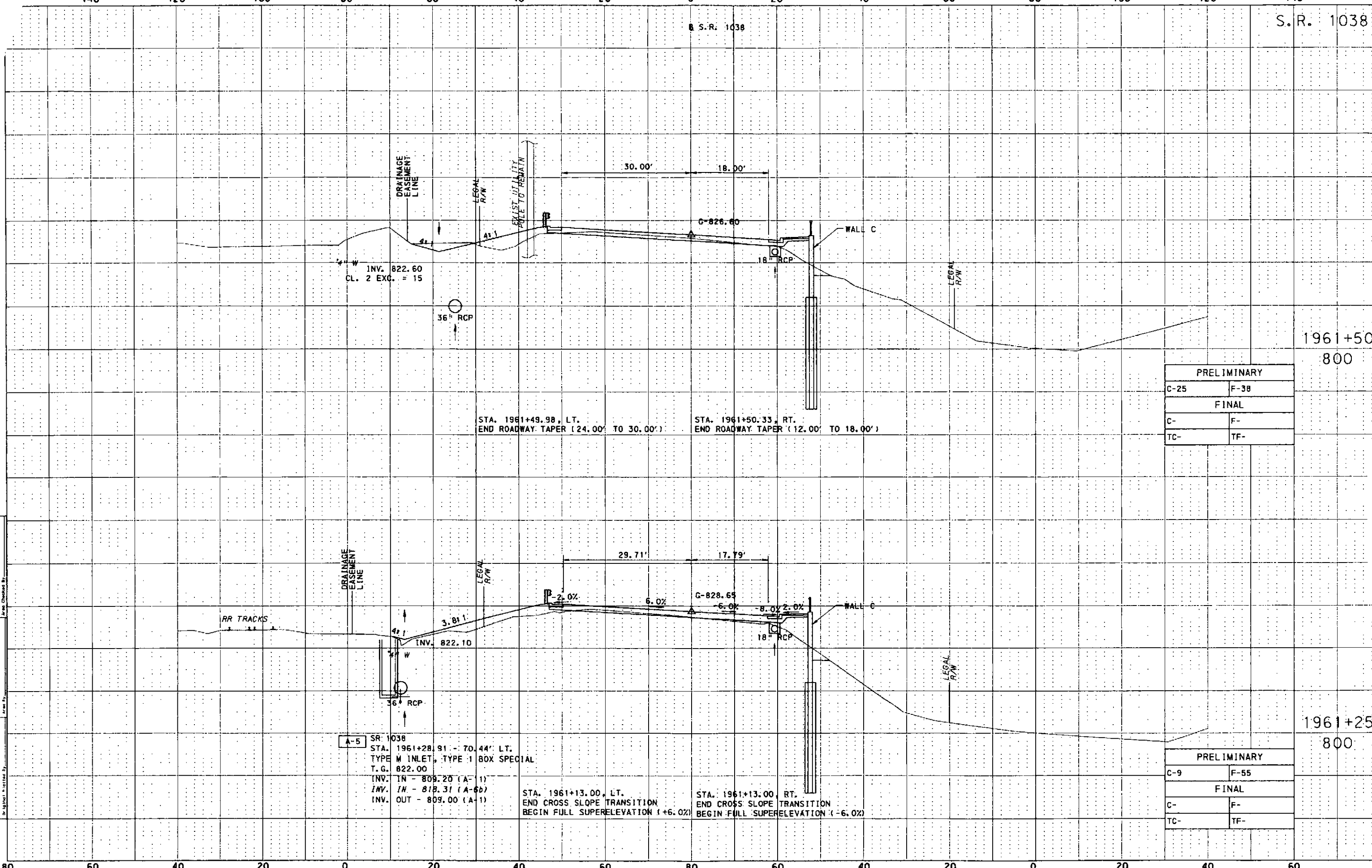
STA. 1961+49.98, LT. END ROADWAY TAPER (24.00' TO 30.00')
 STA. 1961+50.33, RT. END ROADWAY TAPER (12.00' TO 18.00')

1961+25
 800

PRELIMINARY	
C-9	F-55
FINAL	
C-	F-
TC-	TF-

STA. 1961+13.00, LT. END CROSS SLOPE TRANSITION BEGIN FULL SUPERELEVATION (+6.0%)
 STA. 1961+13.00, RT. END CROSS SLOPE TRANSITION BEGIN FULL SUPERELEVATION (-6.0%)

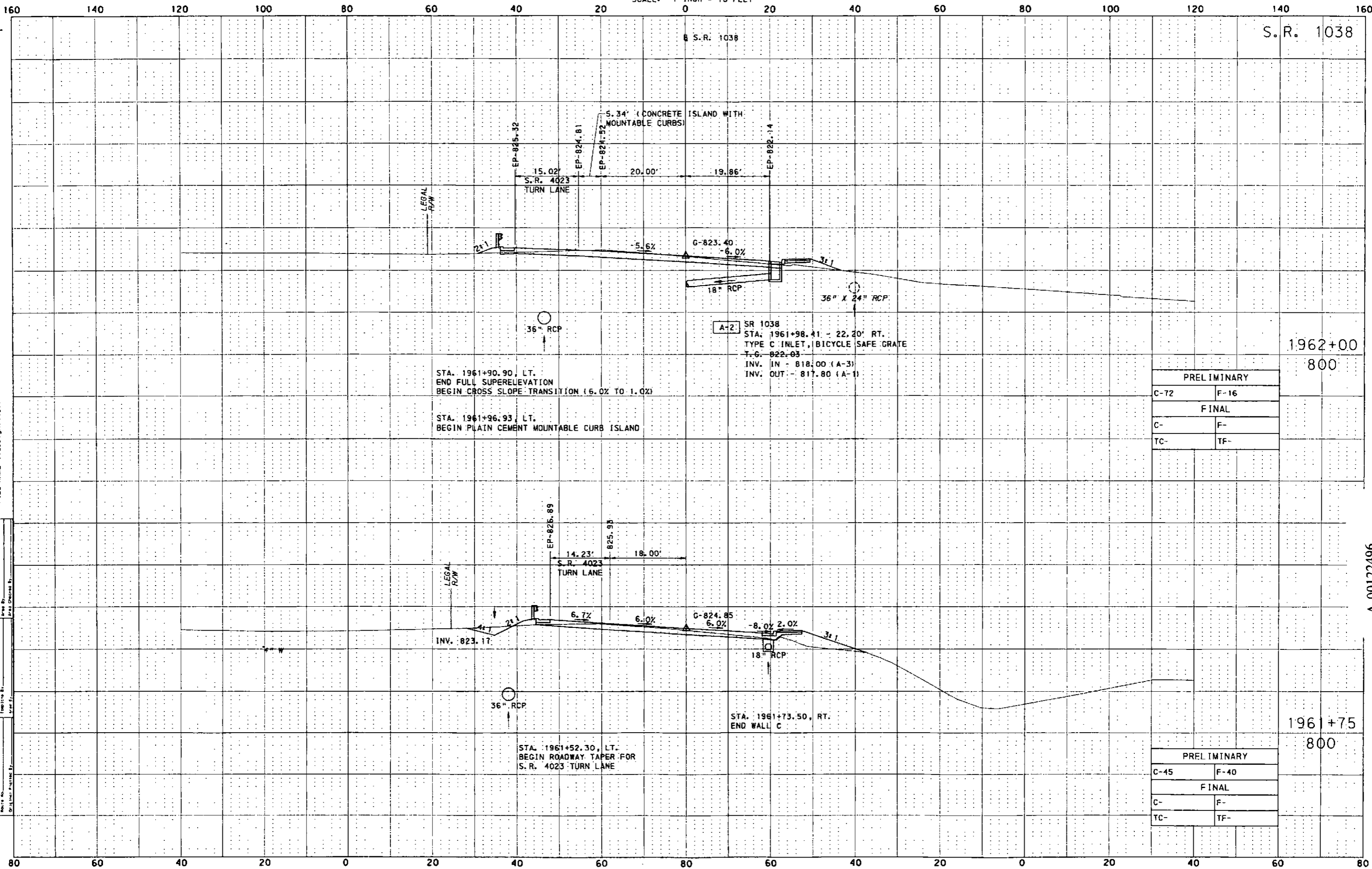
A-5 SR: 1038
 STA. 1961+28.91 - 70.44' LT.
 TYPE M INLET, TYPE 1 BOX SPECIAL
 T. G. 822.00
 INV. IN - 809.20 (A-1)
 INV. IN - 818.31 (A-60)
 INV. OUT - 809.00 (A-1)



A-00122496

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sheet	Proj. No.	Sheet No.
10-0	ARMSTRONG	1038	150		32 OF 52



S. R. 1038

1962+00
800

PRELIMINARY	
C-72	F-16
FINAL	
C-	F-
TC-	TF-

1961+75
800

PRELIMINARY	
C-45	F-40
FINAL	
C-	F-
TC-	TF-

PLOTTED

OPERATOR:
FILE NAME: 880510n11000

Final Plotted By: _____
 Plotted Operator By: _____
 Date Plotted: _____
 Original Checked By: _____
 Date Checked: _____
 Original Drawn By: _____
 Date Drawn: _____
 Original Plotted By: _____
 Date Plotted: _____

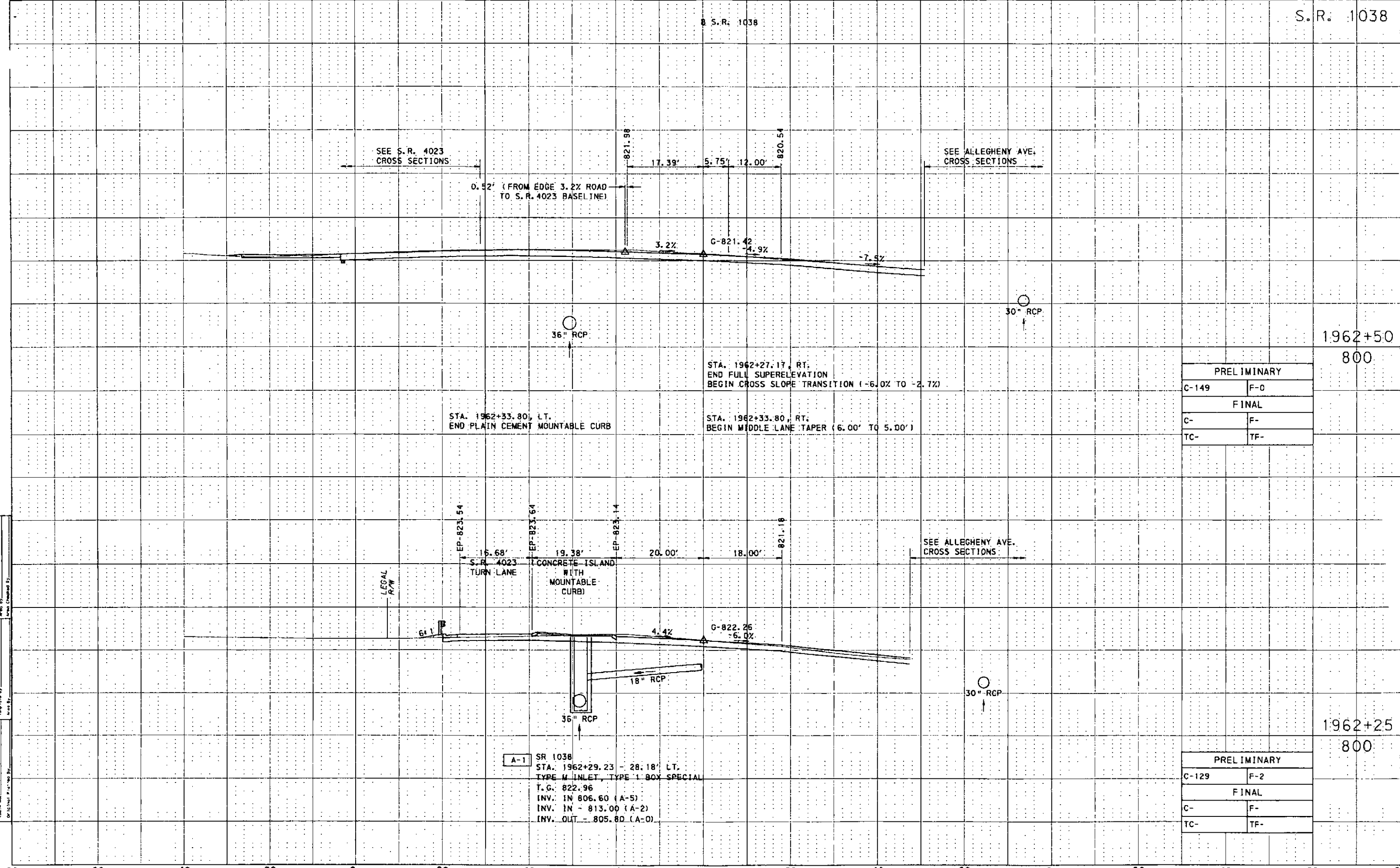
A-00122496

160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

PLOTTED:

OPERATOR:
FILE NAMES: s00s (gtr) less

Checked By: _____
 Drawn By: _____
 Plotted By: _____
 Date: _____



S. R. 1038

SEE S. R. 4023
CROSS SECTIONS

SEE ALLEGHENY AVE.
CROSS SECTIONS

0.52' (FROM EDGE 3.2% ROAD
TO S. R. 4023 BASELINE)

17.39' 5.75' 12.00'

821.98

820.54

3.2% G-821.42 -4.9%

-7.5%

36" RCP

30" RCP

1962+50
800

STA. 1962+27.17, RT.
END FULL SUPERELEVATION
BEGIN CROSS SLOPE TRANSITION (-6.0% TO -2.7%)

STA. 1962+33.80, LT.
END PLAIN CEMENT MOUNTABLE CURB

STA. 1962+33.80, RT.
BEGIN MIDDLE LANE TAPER (6.00' TO 5.00')

PRELIMINARY	
C-149	F-0
FINAL	
C-	F-
TC-	TF-

EP-823.54 15.68' S. R. 4023 TURN LANE
 19.38' CONCRETE ISLAND WITH MOUNTABLE CURB
 EP-823.64
 EP-823.14 20.00' 18.00' 821.18

SEE ALLEGHENY AVE.
CROSS SECTIONS

6.1'

4.4% G-822.26 -6.0%

18" RCP

36" RCP

30" RCP

1962+25
800

A-1 SR 1038
 STA. 1962+29.23 - 28.18' LT.
 TYPE M INLET, TYPE 1 BOX SPECIAL
 T.C. 822.96
 INV. IN 806.60 (A-5)
 INV. IN - 813.00 (A-2)
 INV. OUT - 805.80 (A-0)

PRELIMINARY	
C-129	F-2
FINAL	
C-	F-
TC-	TF-

80 60 40 20 0 20 40 60 80 20 0 20 40 60 80

A-00122496

Dist.	County	Route	Sec.	Proj. Bk. No.	Final Bk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			34 OF 52

160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

PLOTTED: *****

OPERATOR: FILE NAMES *****

Prepared By: _____
 Checked By: _____
 Drawn By: _____
 Application No. _____
 Review No. _____
 Date Plotted: _____

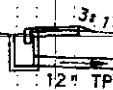
S. R. 1038

LEGAL R/W

LEGAL R/W

820.61
 10.37' -1.4%
 820.76
 15.37'

G-820.63



STA. 1962+97.54, LT.
 END CROSS SLOPE TRANSITION (6.0% TO 1.0%)
 MATCH EXISTING ROADWAY

STA. 1962+97.54, RT.
 END FULL DEPTH FULL WIDTH
 ROADWAY RECONSTRUCTION

STA. 1962+97.54, RT.
 END MIDDLE LANE TAPER (6.00' TO 5.00')



C-1

SR 1038
 STA. 1962+96.80 - 17.64' RT.
 TYPE C INLET, BICYCLE SAFE GRATE
 T.G. 820.14
 INV. OUT - 816.95 (C-0)

30" CMP

1963+00
790

PRELIMINARY	
C-20	F-1
FINAL	
C-	F-
TC-	TF-

SEE S. R. 4023 CROSS SECTIONS

821.23
 16.46' 5.35' 12.00' 9.74'
 ER-820.23
 ES-819.21

2.12
 G-820.88
 -3.7%



30" CMP

1962+75
790

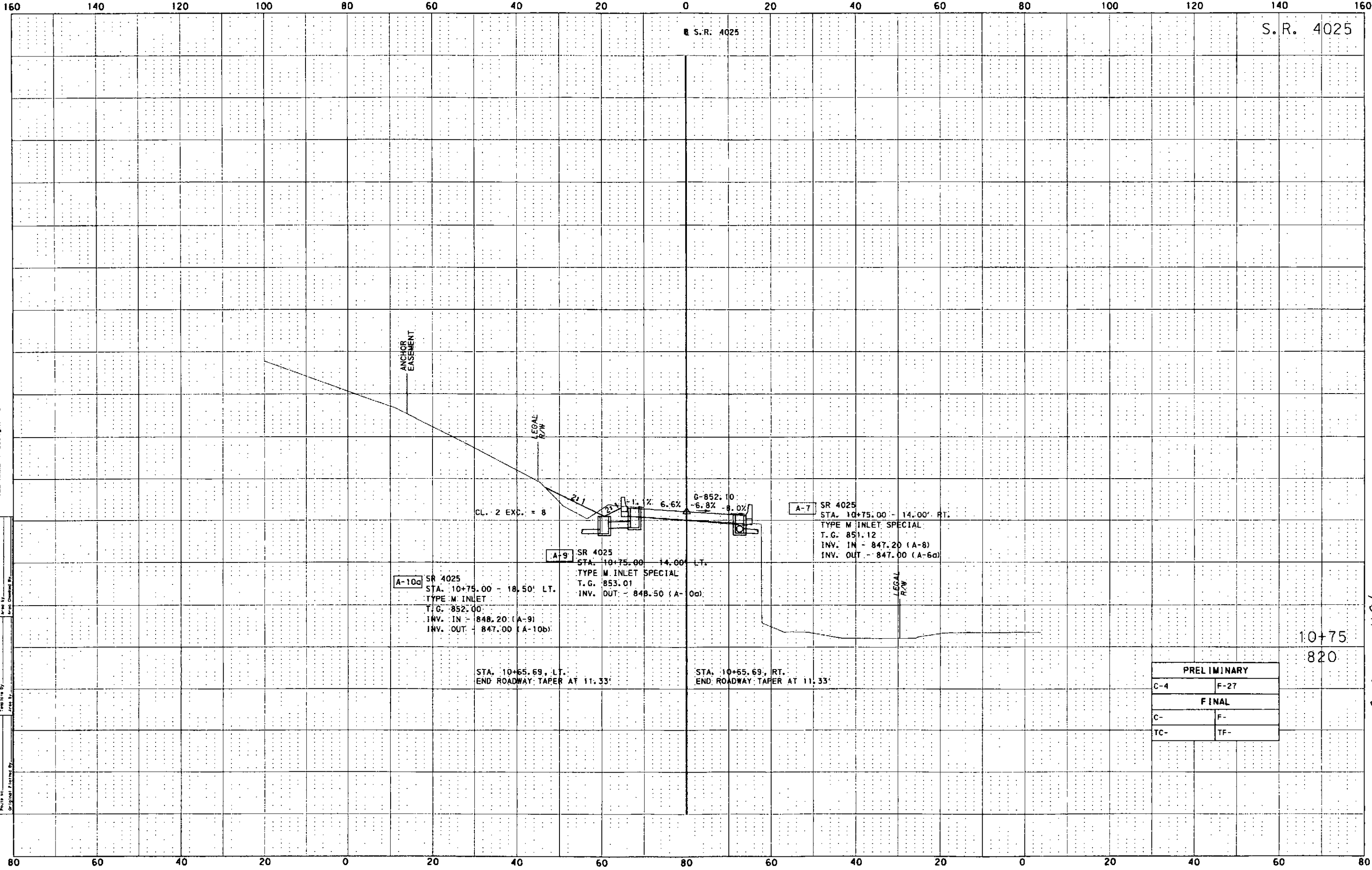
PRELIMINARY	
C-108	F-1
FINAL	
C-	F-
TC-	TF-

80 60 40 20 0 20 40 60 80 60 40 20 0 20 40 60 80

A-00122496

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sect.	Proj. Br. No.	Final Br. No.	Sheet No.
10-0	ARMSTRONG	1038	150			35 OF 52



S. R. 4025

10+75.820

PRELIMINARY	
C-4	F-27
FINAL	
C-	F-
TC-	TF-

A-00122494

PLOTTED: *****

OPERATOR: FILE NAME: #ces10711oss

Original Created By: _____
 Original Checked By: _____
 Original Entered By: _____
 Original Plotted By: _____
 Original Date: _____
 Original Time: _____
 Original Location: _____

Dist.	County	Route	Sec.	Prelim. Bl. No.	Final Bl. No.	Sheet No.
10-0	ARMSTRONG	1038	150			36 OF 52

160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

S.R. 4025

S.R. 4025

ANCHOR
EASEMENT

LEGAL
R/W

LEGAL
R/W

41.1' 2.0% 6.3% G-852.48
-6.3% -8.0%

11+00
820

PRELIMINARY	
C-4	F-9
FINAL	
C-	F-
TC-	TF-

A-00122496

PLOTTED: 000000000000

OPERATOR: godes/gof/le98
FILE NAME: godes/gof/le98

Application No. _____
 Date: _____
 Design: _____
 Checked By: _____
 Date: _____
 Drawn: _____
 Checked By: _____
 Date: _____

80 60 40 20 0 20 40 60 80 60 40 20 0 20 40 60 80

Dist.	County	Route	Secr.	Proj. Br. No.	Final Br. No.	Sheet No.
10-0	ARMSTRONG	1038	150			37 OF 52

160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

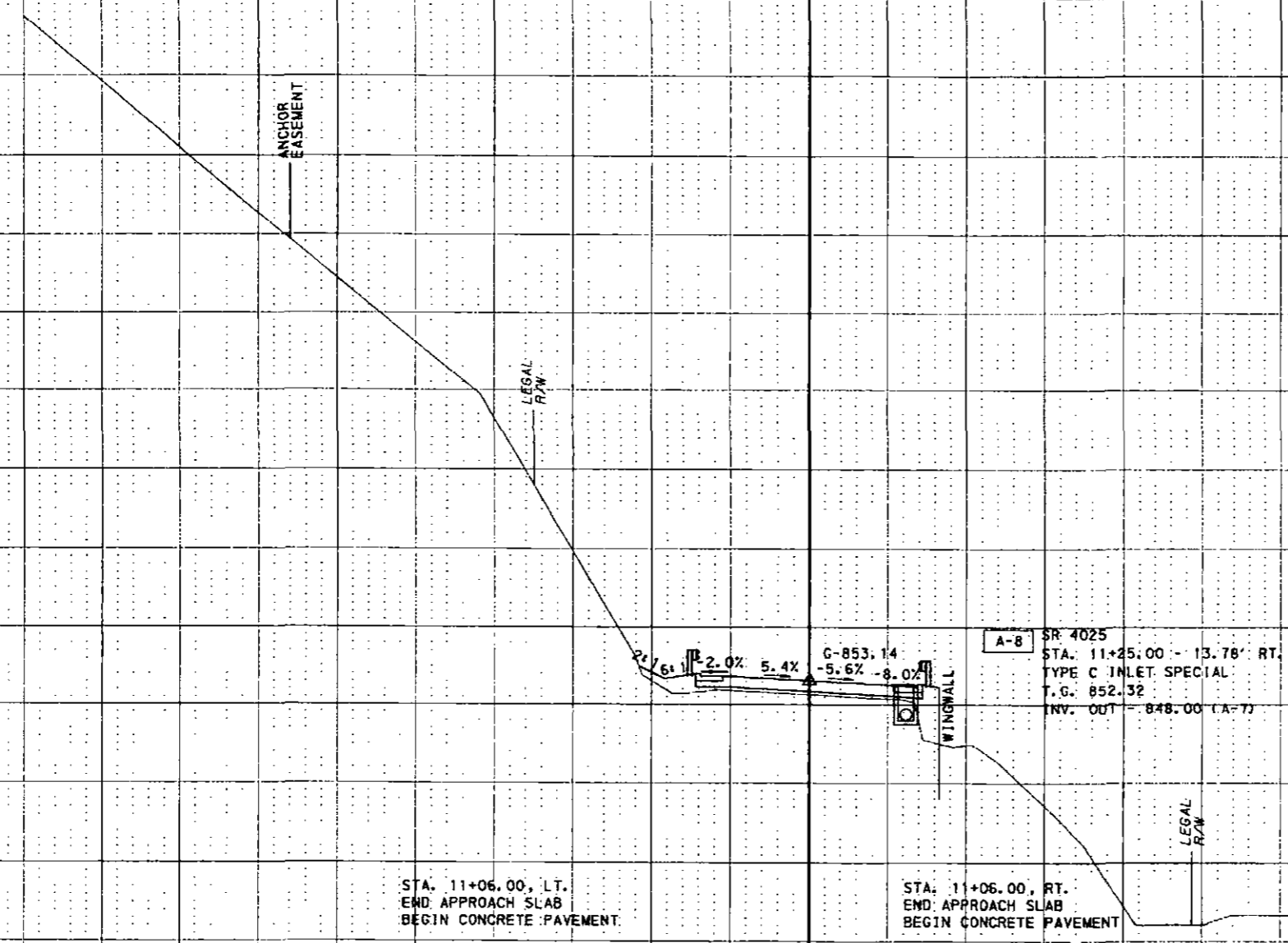
S.R. 4025

S.R. 4025

PLOTTED

OPERATOR: FILE NAME: 000011088

Plotted By: _____
 Checked By: _____
 Date: _____
 Application No.: _____
 Project No.: _____
 Date Plotted: _____



STA. 11+06.00, LT.
END APPROACH SLAB
BEGIN CONCRETE PAVEMENT

STA. 11+06.00, RT.
END APPROACH SLAB
BEGIN CONCRETE PAVEMENT

STA. 11+17.00, LT.
BEGIN ROADWAY TAPER (11.33' TO 9.04')

STA. 11+17.00, RT.
BEGIN ROADWAY TAPER (11.33' TO 9.04')

STA. 11+17.00, LT.
BEGIN CROSS-SLOPE TRANSITION (6.0% TO -1.5%)

STA. 11+17.00, RT.
BEGIN CROSS-SLOPE TRANSITION (-6.0% TO -1.1%)

A-8 SR 4025
 STA. 11+25.00 - 13.78' RT.
 TYPE C INLET SPECIAL
 T.G. 852.32
 INV. OUT 848.00 (A-7)

PRELIMINARY	
C-0	F-24
FINAL	
C-	F-
TC-	TF-

11+25
820

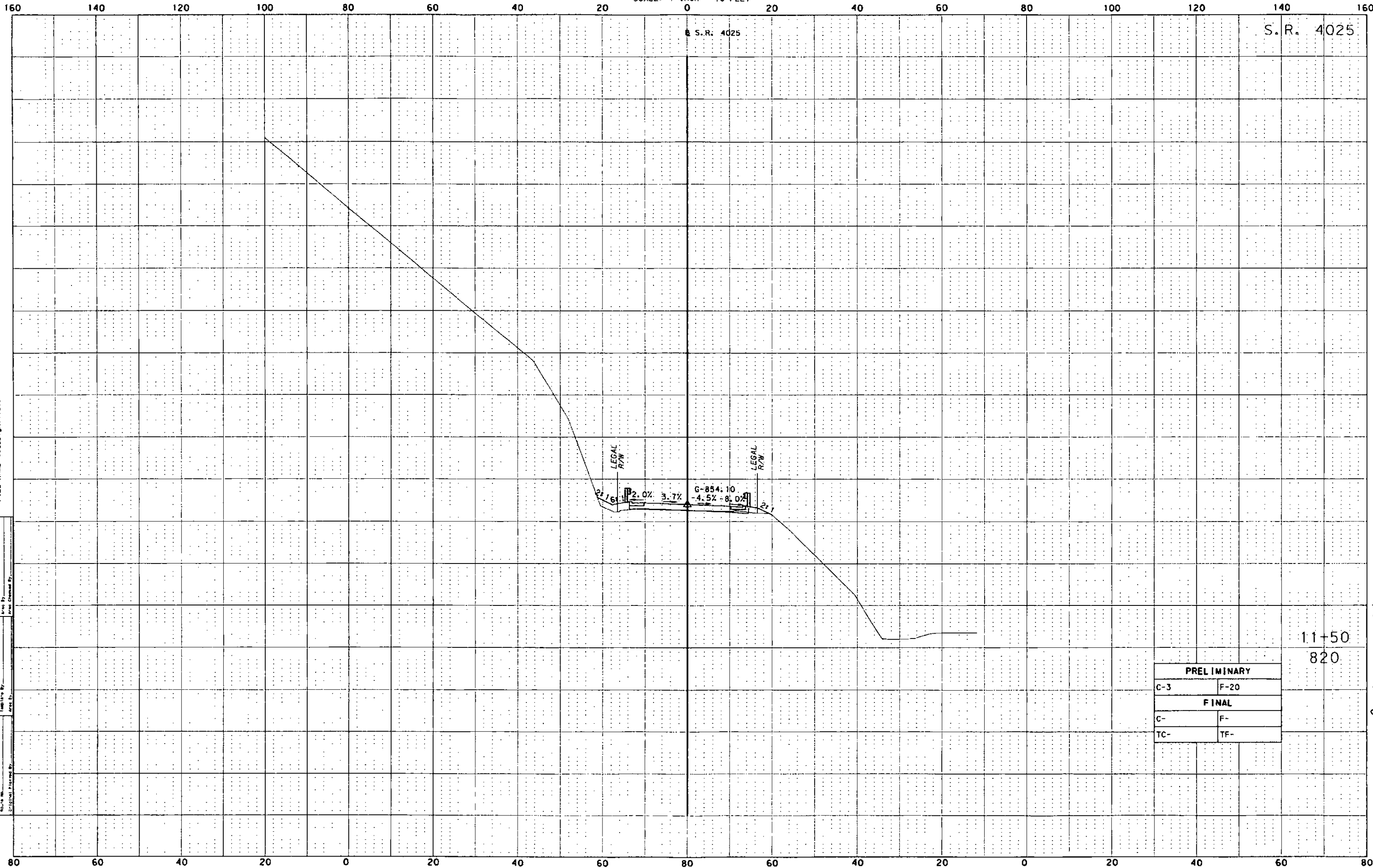
A-00122496

80 60 40 20 0 20 40 60 80 60 40 20 0 20 40 60 80

CROSS SECTIONS

SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sect.	Prelim. Sta. No.	Final Sta. No.	Sheet No.
10-0	ARMSTRONG	1038	150			38 OF 52



PLOTTED

OPERATOR FILE NAME

Plotted By: _____
 Checked By: _____
 Date: _____
 Original Plotted By: _____
 Date: _____

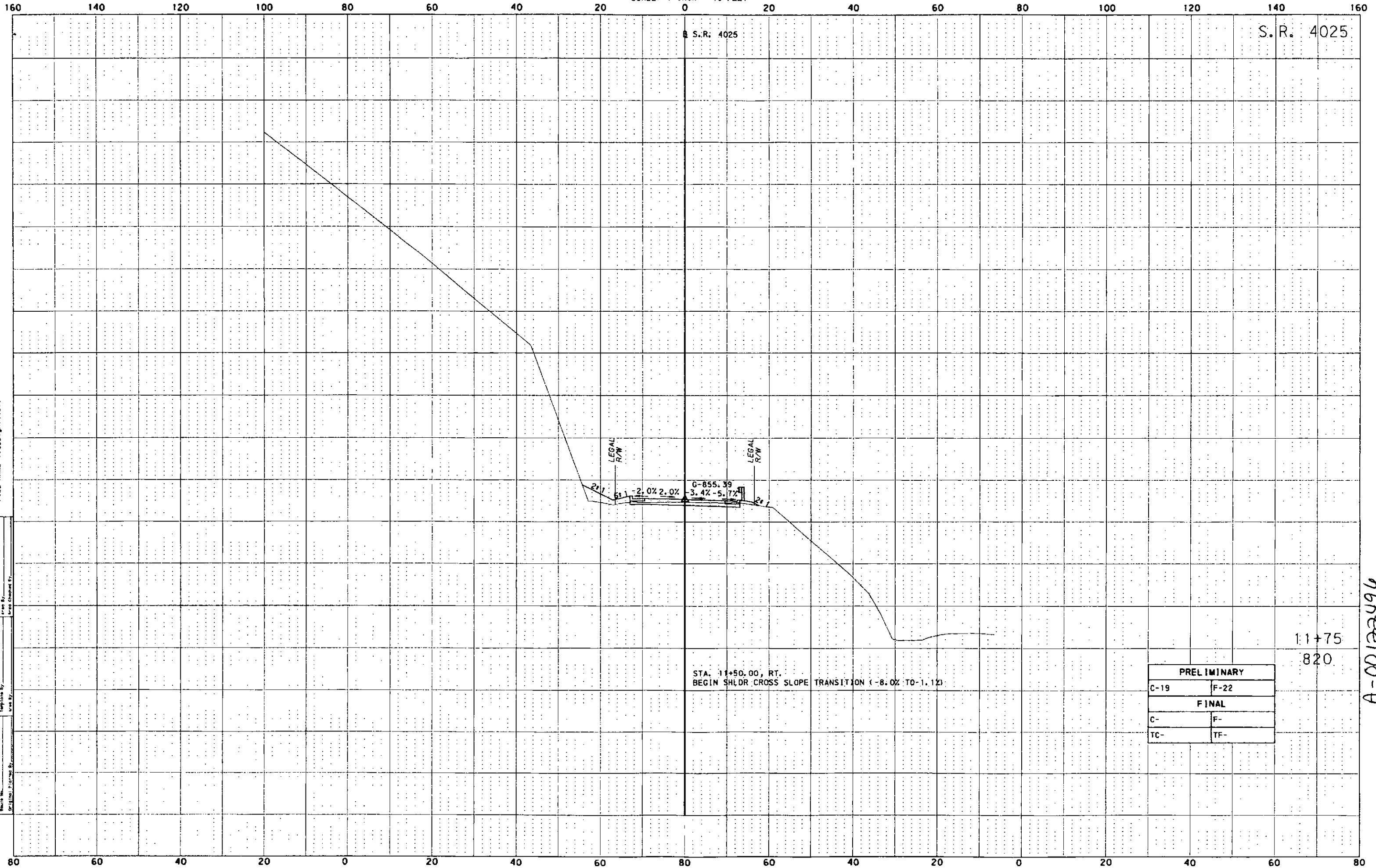
PRELIMINARY	
C-3	F-20
FINAL	
C-	F-
TC-	TF-

11+50
820

A-0022496

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sec.	Proj. Bk. No.	Firm Bk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			39 OF 52



PLOTTED

OPERATOR
 FILE NAME: 88081108

Application No. _____
 Sheet No. _____
 Original Plotted By _____
 Checked By _____
 Date _____
 Final Checked By _____
 Date _____
 Final Checked By _____
 Date _____

S.R. 4025

LEGAL R/W
 2.0%
 6.1%
 2.0%
 2.0%
 G-855.39
 3.4%
 5.7%
 LEGAL R/W

STA. 11+50.00, RT.
 BEGIN SHLDR. CROSS SLOPE TRANSITION (-8.0% TO +1.1%)

11+75
 820

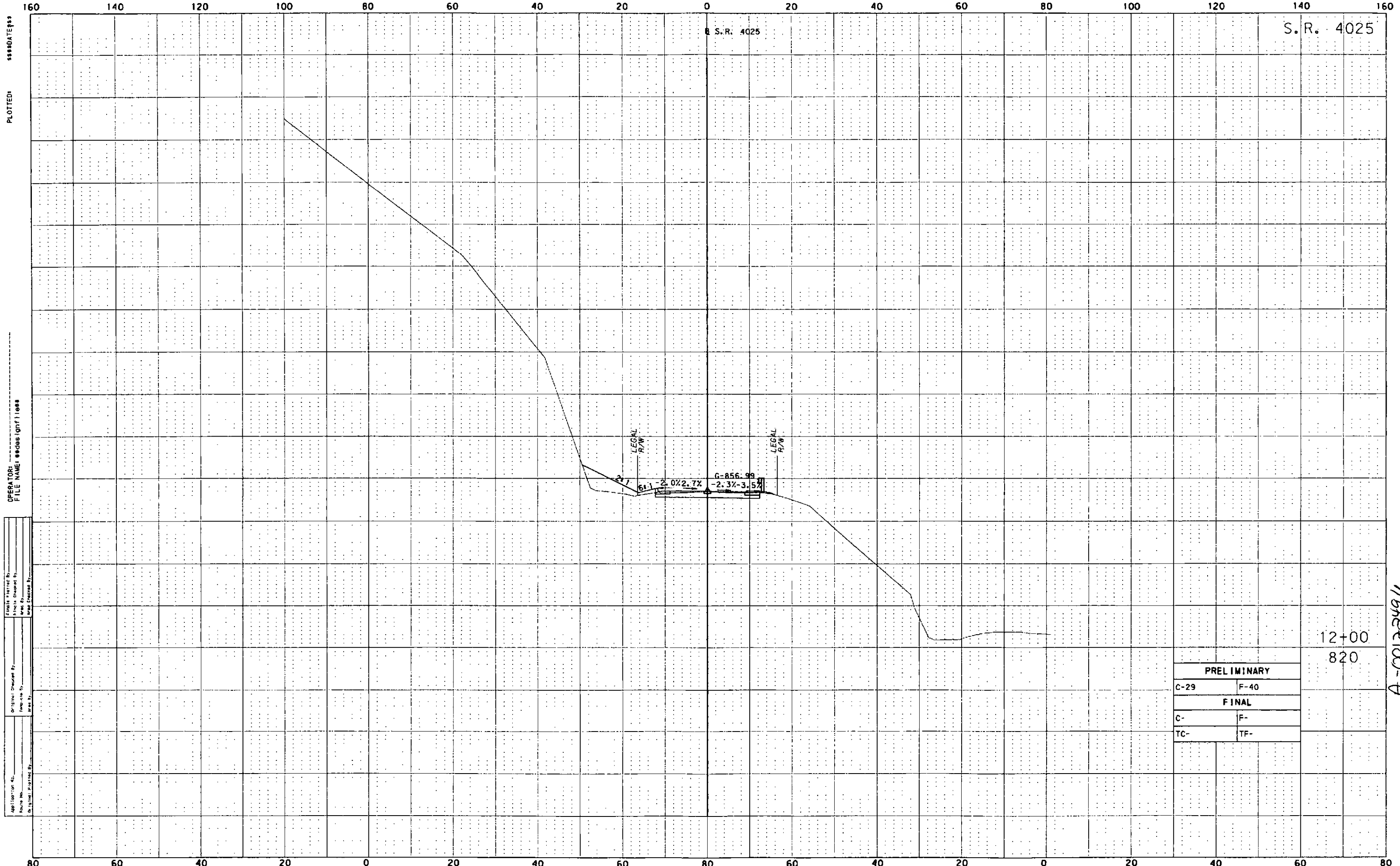
PRELIMINARY	
C-19	F-22
FINAL	
C-	F-
TC-	TF-

A-00122494

CROSS SECTIONS

SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Spot	Profile Br. No.	Final Br. No.	Sheet No.
10-0	ARMSTRONG	1038	150			40 OF 52



DATE PLOTTED

OPERATOR FILE NAME

Application No. _____
 Route No. _____
 Date Plotted By _____
 Profile Stationed By _____
 Profile Checked By _____
 Area By _____
 Area Checked By _____

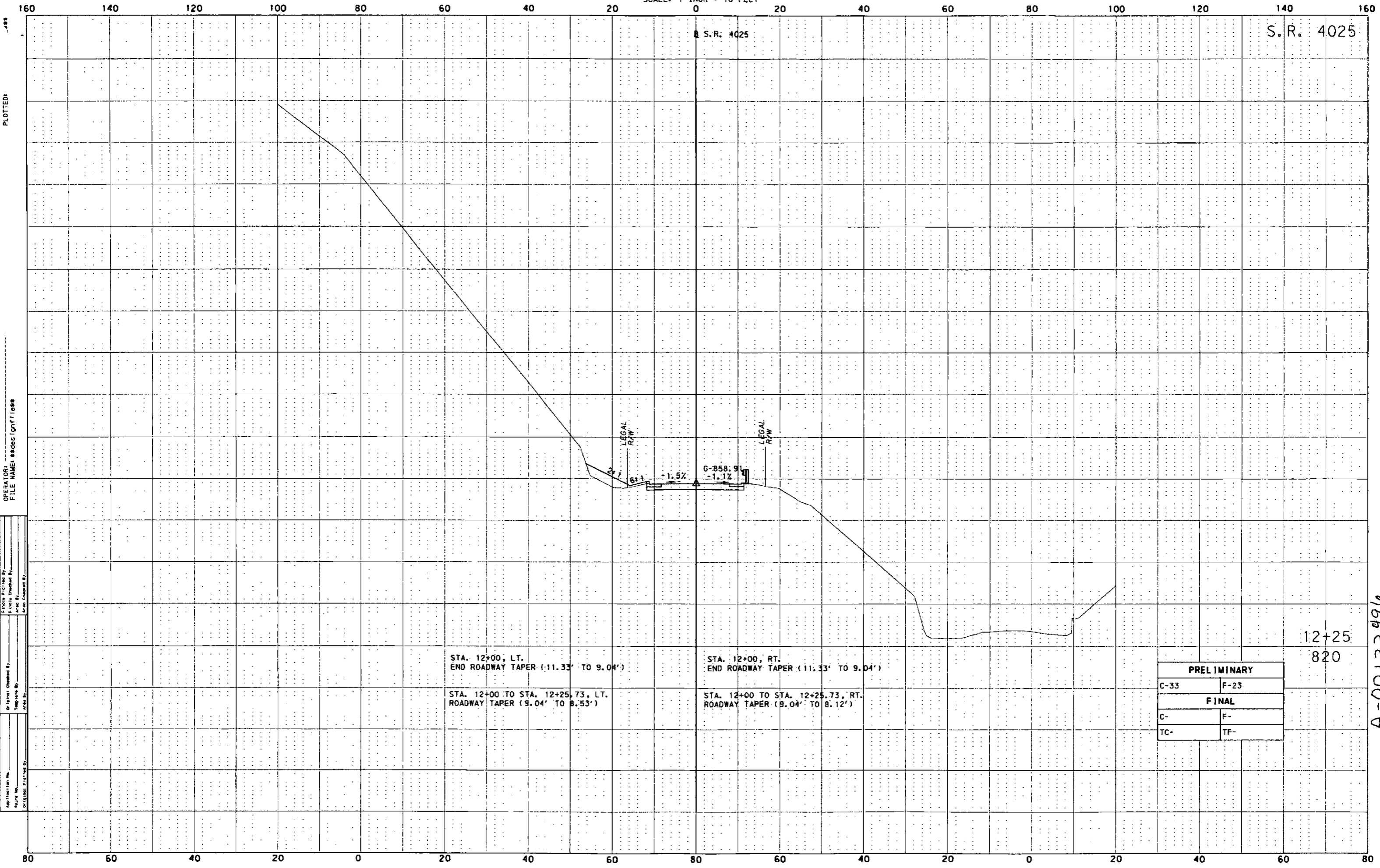
PRELIMINARY	
C-29	F-40
FINAL	
C-	F-
TC-	TF-

12+00
820

A-00122494

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sect.	Profile	Blk. No.	Final Blk. No.	Sheet No.
10-0	ARMSTRONG	1038	150				41 OF 52



S.R. 4025

STA. 12+00, LT.
 END ROADWAY TAPER (11.33' TO 9.04')

STA. 12+00, RT.
 END ROADWAY TAPER (11.33' TO 9.04')

STA. 12+00 TO STA. 12+25.73, LT.
 ROADWAY TAPER (9.04' TO 8.53')

STA. 12+00 TO STA. 12+25.73, RT.
 ROADWAY TAPER (9.04' TO 8.12')

12+25
 820

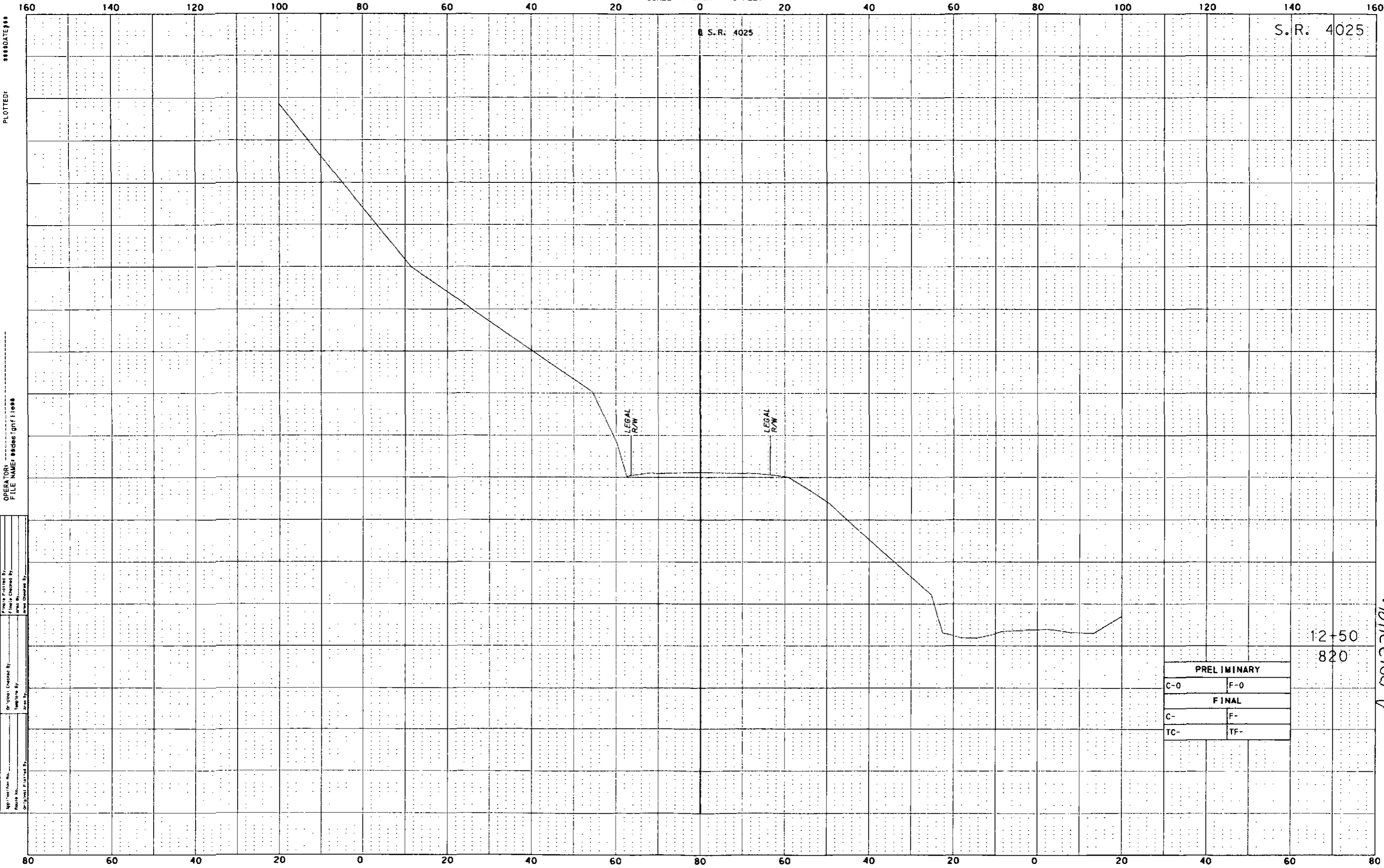
PRELIMINARY	
C-33	F-23
FINAL	
C-	F-
TC-	TF-

Application No. _____
 Date _____
 Checked By _____
 Drawn By _____
 Plotted By _____
 File Name: 0000011000

A-00122496

CROSS SECTIONS
SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sec.	Proj. Bk. No.	Final Bk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			42 OF 52



PLOTTED: ***DATE***

OPERATOR: FILE NAME: ***.gnf***

Project No. _____
 Design No. _____
 Date: _____
 Prepared By: _____
 Checked By: _____
 Plotted By: _____

S.R. 4025

LEGAL R/W

LEGAL R/W

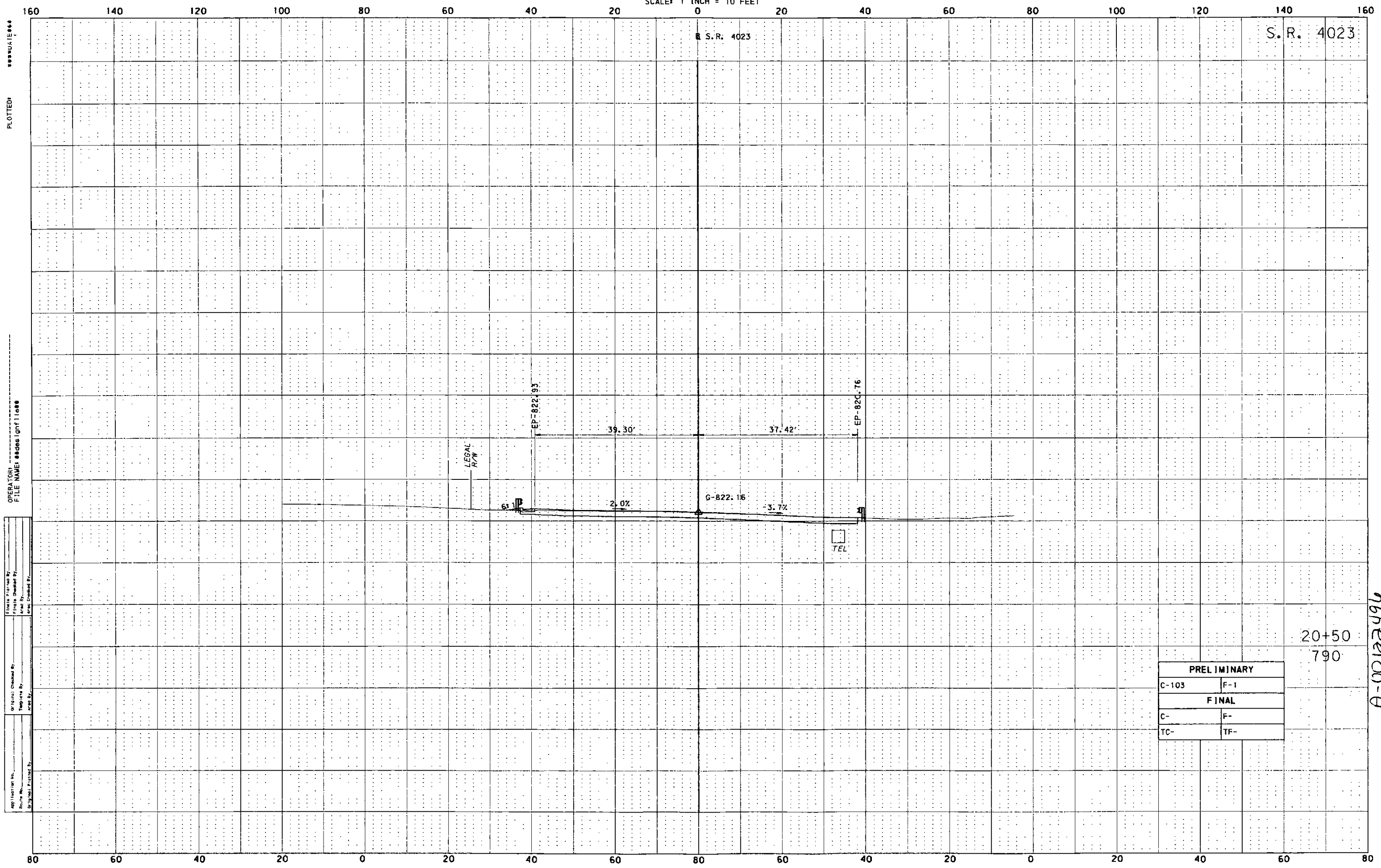
12+50
820

PRELIMINARY	
C-0	F-0
FINAL	
C-	F-
TC-	TF-

A-0012490

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

DIST.	COUNTY	ROUTE	SECT.	PRELIM. BK. NO.	INSTR. BK. NO.	SHEET NO.
10-0	ARMSTRONG	1038	150			43 OF 52



PLOTTED

OPERATOR FILE NAME: 8221038

Checked By:	Drawn By:
Checked By:	Drawn By:
Checked By:	Drawn By:
Checked By:	Drawn By:

PRELIMINARY	
C-103	F-1
FINAL	
C-	F-
TC-	TF-

20+50
790

A-00122496

CROSS SECTIONS

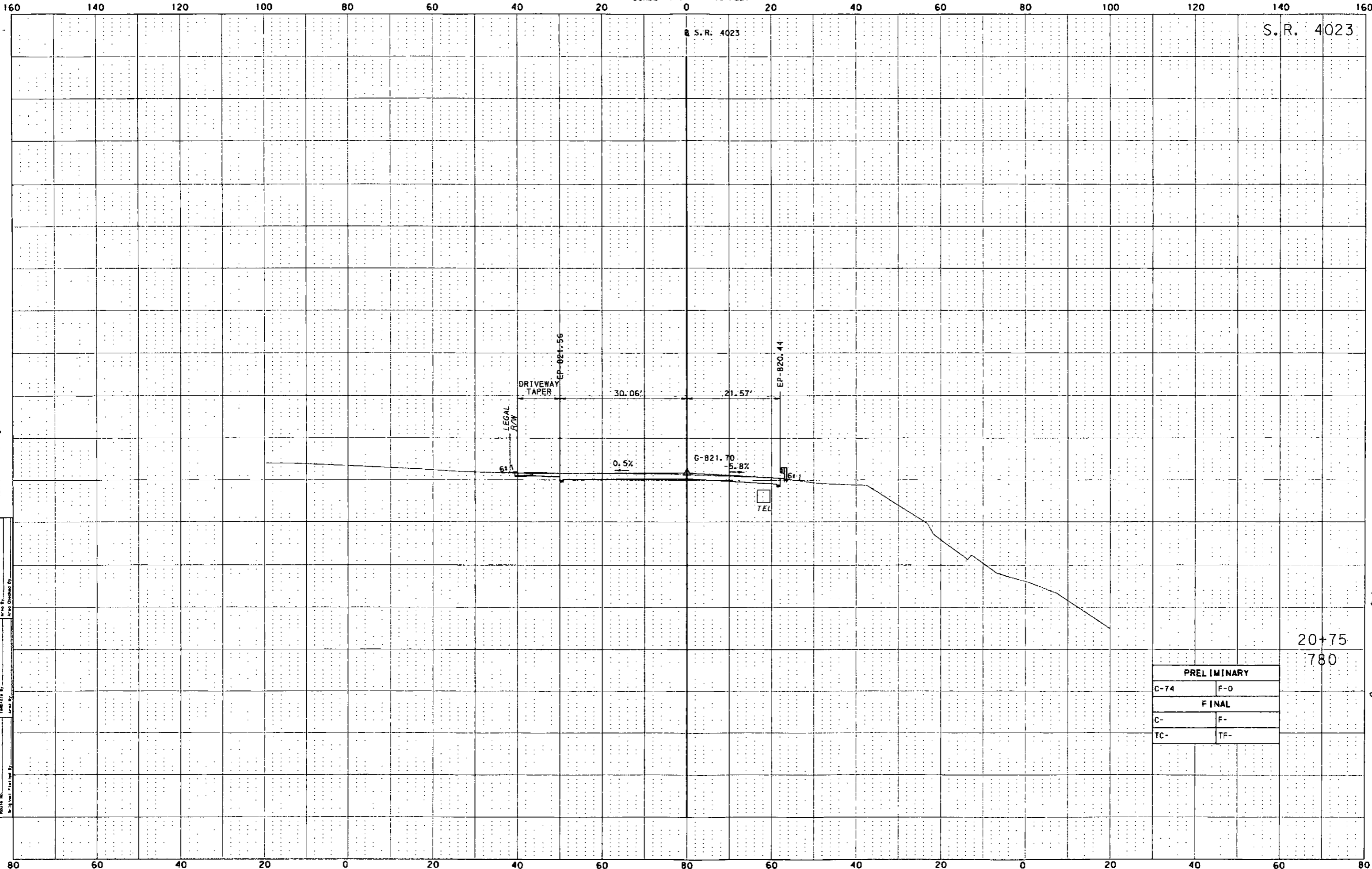
SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sect.	Prelim. Br. No.	Final Br. No.	Sheet No.
10-0	ARMSTRONG	1038	150			44 OF 52

PLOTTED: -588

OPERATOR: FILE NAME: sscs100711.sss

This is printed by: _____
 File created by: _____
 Date: _____
 Operator: _____
 Date: _____
 Application No.: _____
 Route No.: _____
 District: _____



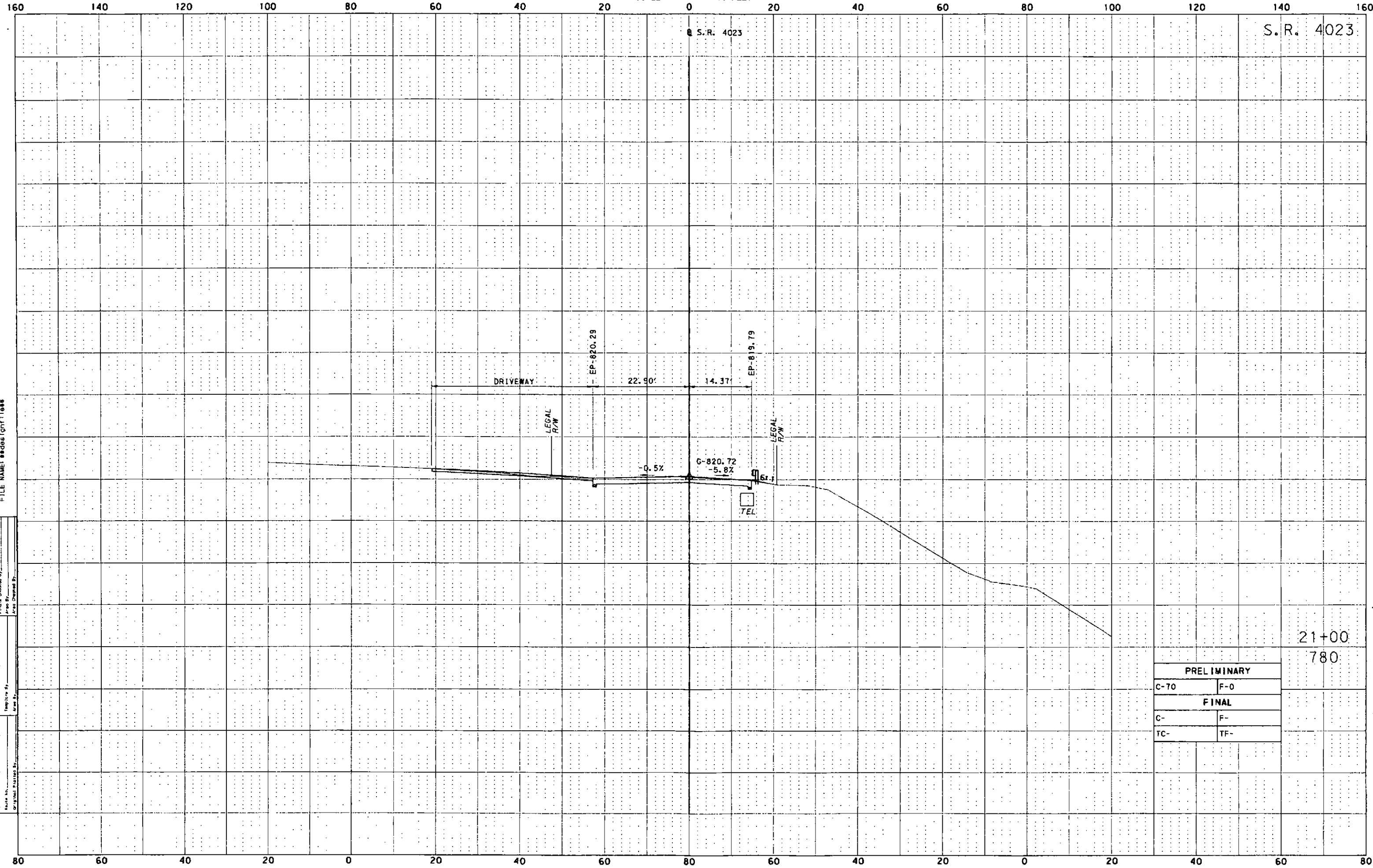
PRELIMINARY	
C-74	F-0
FINAL	
C-	F-
TC-	TF-

20+75
780

A-00122494

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sec.	Proj. Bk. No.	Final Bk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			45 OF 52



PLOTTED

OPERATOR: FILE NAME: 80001011000

Final Plotted By: _____
 Final Checked By: _____
 Area By: _____
 Area Checked By: _____
 Original Plotted By: _____
 Original Checked By: _____

PRELIMINARY	
C-70	F-0
FINAL	
C-	F-
TC-	TF-

21+00
780

A-00122496

CROSS SECTIONS

SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sect.	Proj. Bk. No.	Final Bk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			46 OF 52

160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

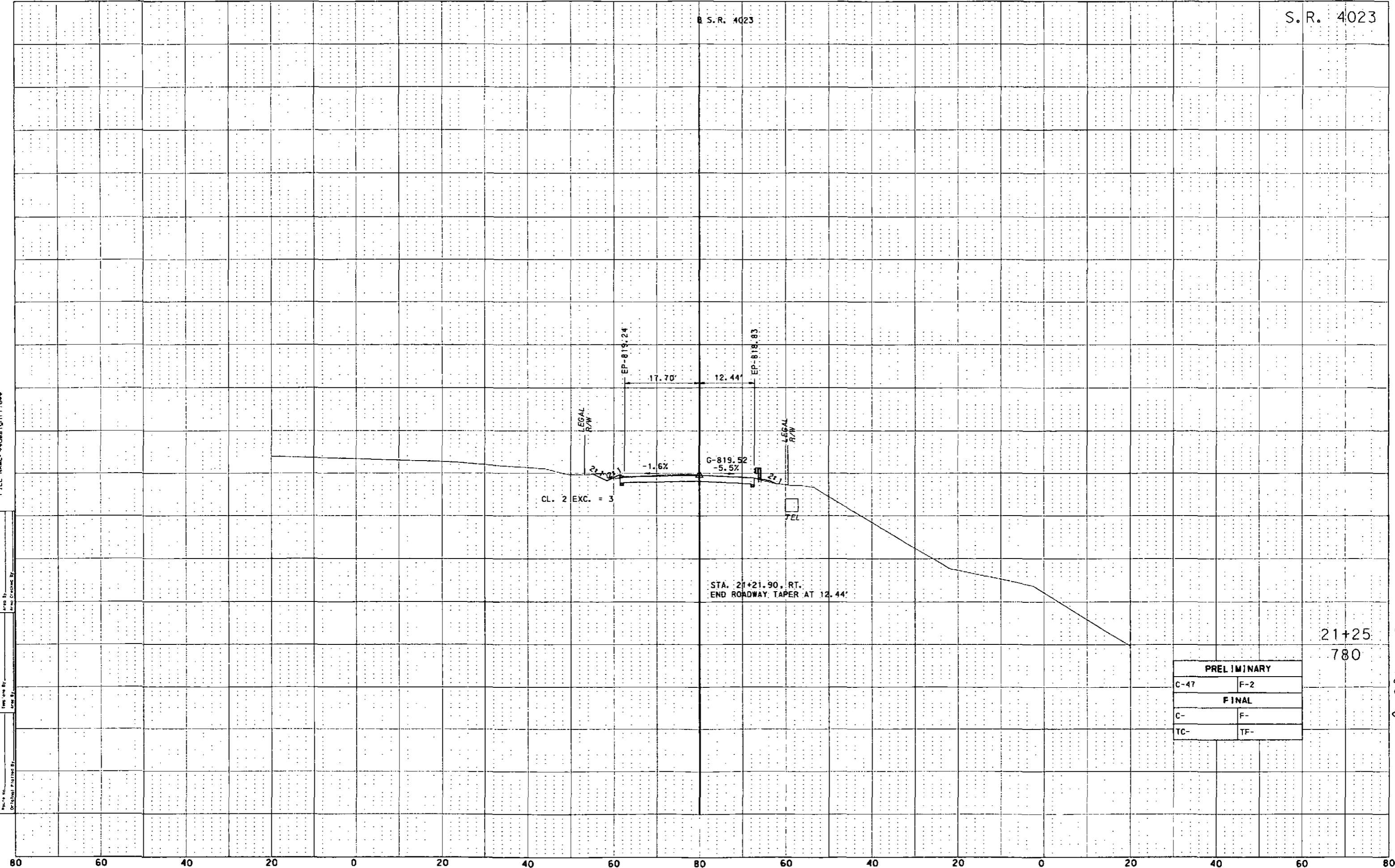
PLOTTED: *****

S. R. 4023

S. R. 4023

OPERATOR: FILE NAME: sdcslgn11000

Project Created By: _____
 Date Created: _____
 Operator: _____
 File Name: _____
 Date Plotted: _____
 Application No.: _____
 Plot No.: _____
 Date Plotted By: _____



21+25
780

PRELIMINARY	
C-47	F-2
FINAL	
C-	F-
TC-	TF-

A-002296

80 60 40 20 0 20 40 60 80 60 40 20 0 20 40 60 80

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
 CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sec.	Proj. Bk. No.	Final Bk. No.	Sheet No.
19-0	ARMSTRONG	103B	150			47 OF 52

160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

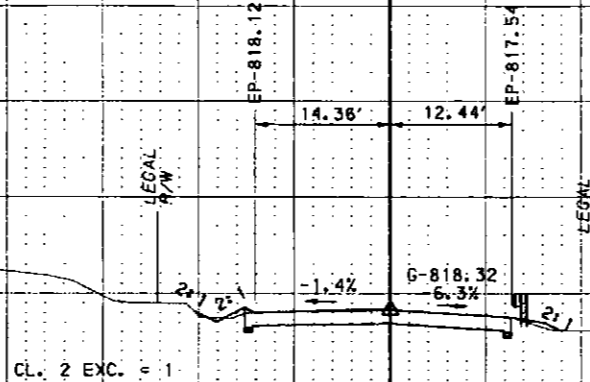
S.R. 4023

S.R. 4023

PLOTTED

OPERATOR:
 FILE NAME: *cross1gnr1less*

App. Location No.
 Route No.
 Original Plotted By
 File Checked By
 Area By
 Date Checked By



21+50
 780

PRELIMINARY	
C-40	F-3
FINAL	
C-	F-
TC-	TF-

934EE100-A

80 60 40 20 0 20 40 60 80 60 40 20 0 20 40 60 80

CROSS SECTIONS

SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
110-0	ARMSTRONG	103B	150			48 OF 52

160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

S. R. 4023

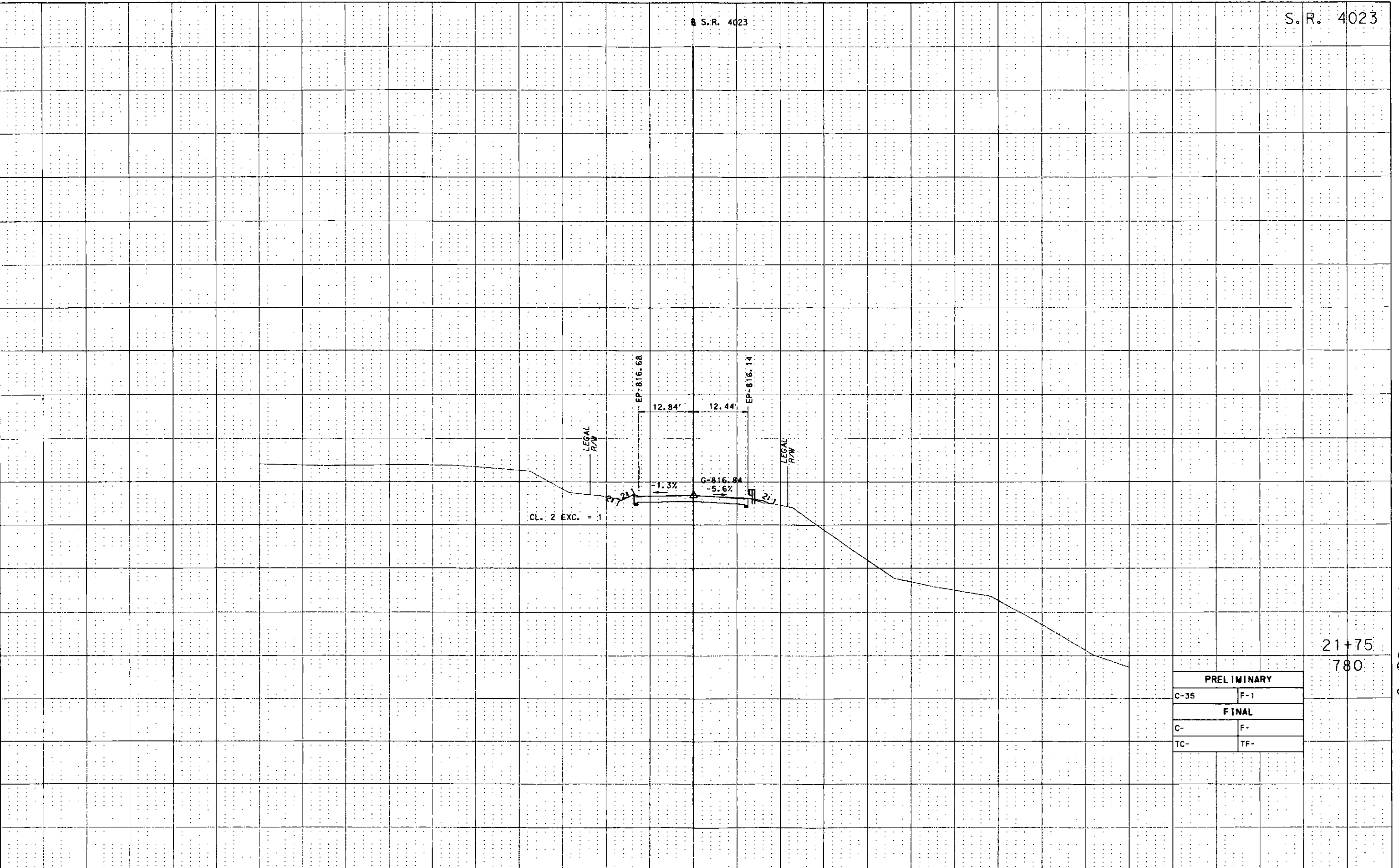
S. R. 4023

DATE PLOTTED: 11/15/84

OPERATOR: J. J. ...

FILE NAME: 8008 1071 1088

Application No.	Checked By
Route No.	Date PLOTTED
Original PLOTTED By	Area Checked By



21+75
780

PRELIMINARY	
C-35	F-1
FINAL	
C-	F-
TC-	TF-

A-0010224

80 60 40 20 0 20 40 60 80 60 40 20 0 20 40 60 80

CROSS SECTIONS

SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sec.	Prin. Bk. No.	Final Bk. No.	Sheet No.
10-0	ARMSTRONG	103B	150			43 OF 52

160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

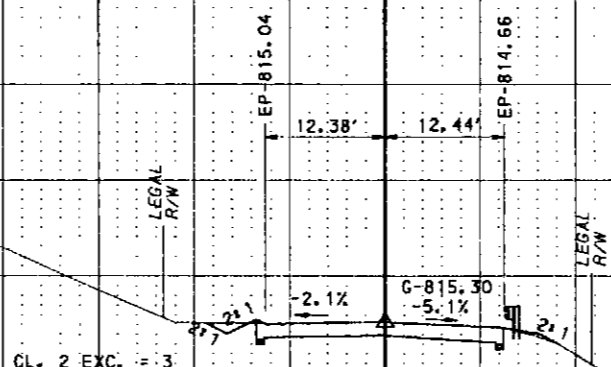
S. R. 4023

S. R. 4023

PLOTTED

OPERATOR
FILE NAME

Plotted By: _____
 Final Checked By: _____
 Date: _____
 Application No. _____
 Route No. _____
 Stationing: _____

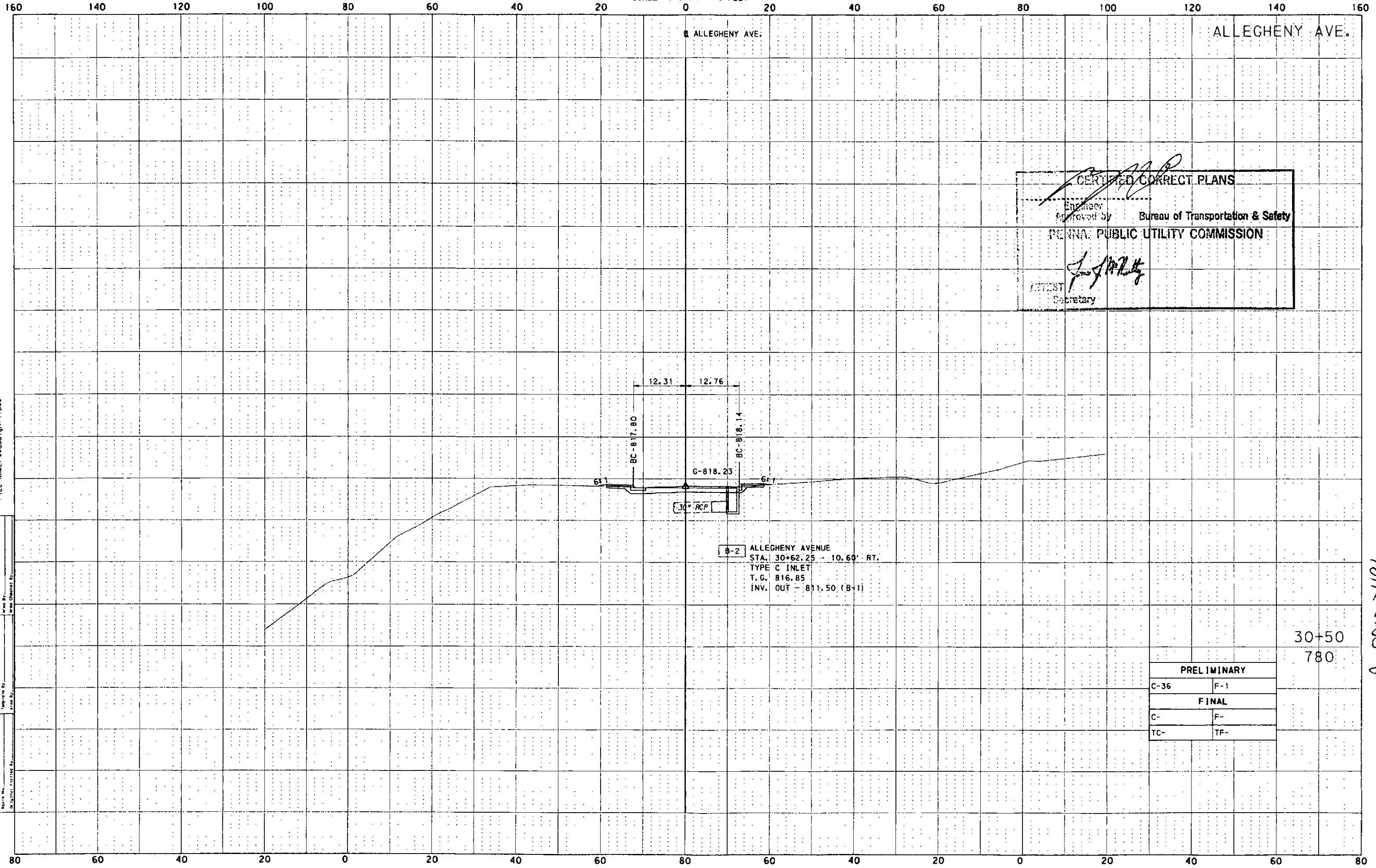


22-00
780

PRELIMINARY	
C-38	F-1
FINAL	
C-	F-
TC-	TF-

A-00122496

80 60 40 20 0 20 40 60 80 60 40 20 0 20 40 60 80



[Signature]
CERTIFIED CORRECT PLANS
 Approved by **Bureau of Transportation & Safety**
PENNSYLVANIA PUBLIC UTILITY COMMISSION
[Signature]
 SECRETARY

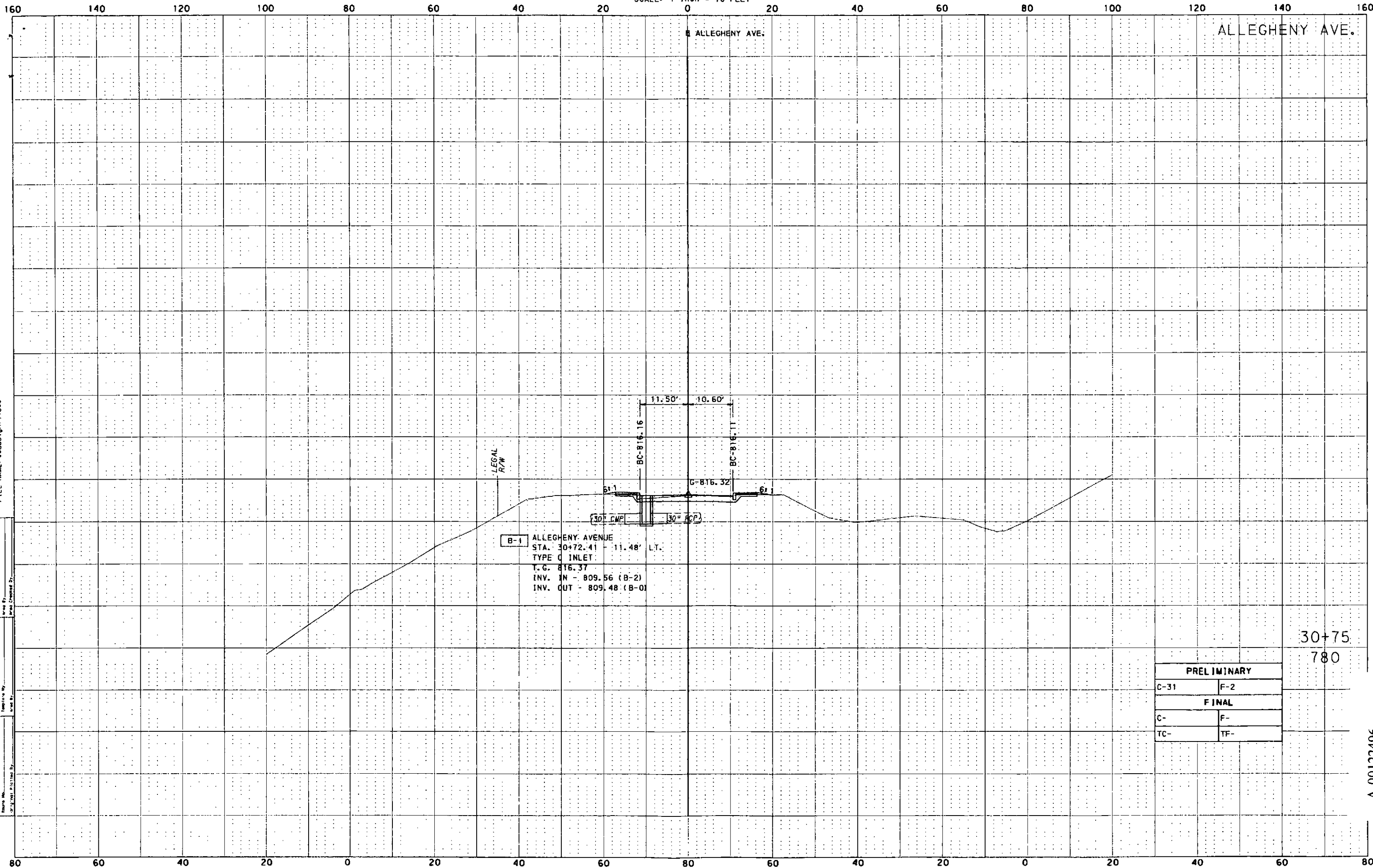
B-2 ALLEGHENY AVENUE
 STA.: 30+62.25 - 10.60' RT.
 TYPE C INLET
 T.G. 816.85
 INV. OUT - 811.50 (B-1)

30+50
780

PRELIMINARY	
C-36	F-1
FINAL	
C-	F-
TC-	TF-

OPERATOR: FILE NAME:
 PLOTTED:
 App. Checked By:
 License Expired By:
 Area By:
 Original Stationed By:

A-0012496



B-1 ALLEGHENY AVENUE
 STA. 30+72.41 - 11.48' LT.
 TYPE C INLET
 I.C. 816.37
 INV. IN - 809.56 (B-2)
 INV. OUT - 809.48 (B-0)

30+75
 780

PRELIMINARY	
C-31	F-2
FINAL	
C-	F-
TC-	TF-

App'l. Station No. _____
 Date _____
 Checked By _____
 Date _____
 Plotted By _____
 Date _____
 Operator _____
 File Name _____

A-00122496

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
CROSS SECTIONS
 SCALE: 1 INCH = 10 FEET

Dist.	County	Route	Sheet	Prelim. Bk. No.	Final Bk. No.	Sheet No.
10-0	ARMSTRONG	1038	150			52 OF 52

160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

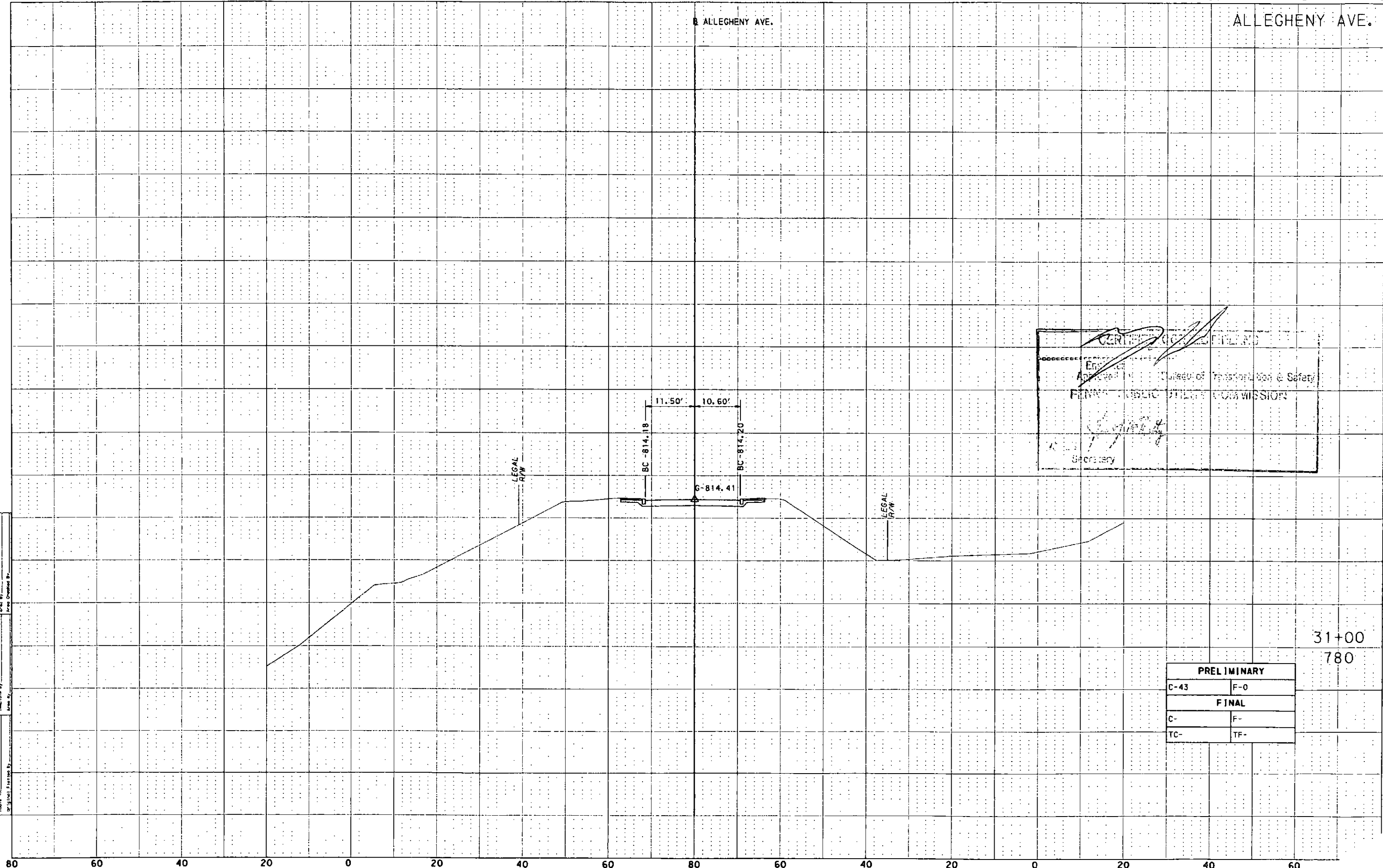
PLOTTED

B ALLEGHENY AVE.

ALLEGHENY AVE.

OPERATORS
 FILE NAME: sdcas10n11000

Application No. _____
 Route No. _____
 District _____
 Date _____
 Checked By _____
 Area _____
 Date _____
 Checked By _____
 Area _____



[Handwritten Signature]
 Engineer
 Approved _____
 Director of Transportation & Safety
 PENNSYLVANIA PUBLIC UTILITIES COMMISSION
[Handwritten Signature]
 Secretary

31+00
 780

PRELIMINARY	
C-43	F-0
FINAL	
C-	F-
TC-	TF-

A-0020496