CITY OF PHILADELPHIA

DEPARTMENT OF STREETS
SURVEYS, DESIGN, & CONSTRUCTION DIVISION
830 Municipal Services Building
1401 John F. Kennedy Blvd.
Philadelphia, PA 19102-1676

CARLTON WILLIAMS
Streets Commissioner

November 12, 2020

Via E-filing
Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Post Office Box 3265
Harrisburg, PA 17105

RE: City of Philadelphia's Application for approval to reconstruct City Bridge No. 185 carrying Montgomery Avenue over the tracks of National Railroad Passenger Corporation ("Amtrak") and Consolidated Rail Corporation ("Conrail"), all in the City of Philadelphia, PUC Docket A-2016-2540105

Dear Secretary Chiavetta:

Enclosed please find a set of the City of Philadelphia's Final Design Plans for the reconstruction of the highway bridge carrying Montgomery Avenue above grade tracks of Amtrak and Conrail in the City of Philadelphia. One complete set of plans has been emailed to each person listed on the attached Certification of Service.

An Order for this project was adopted and entered on January 18, 2018. Since that time, however, the proposed scope of work and construction completion date have changed. These revisions are summarized as follows:

The City of Philadelphia proposes constructing an entirely new superstructure and substructure. The existing superstructure and substructure will be demolished. The newly proposed superstructure is a 125 foot 10 inch long, single-span, steel plate multi-girder bridge founded upon two reinforced concrete full height abutments on piles. There are 7 beams equally spaced at 7 foot 8 inches with a skew angle of 50°. The overall bridge width of 52 feet 6 inches is comprised of a 34-foot cartway and two sidewalks, which vary in width from 8 feet over non electrified tracks, and between 7 feet 11 3/8 inches and 7 feet 8 3/8 inches (pilaster locations) over electrified tracks. The roadway will have one 10-foot lane of traffic in each direction with 7-foot shoulders. The sidewalks will run the entire length of the bridge on either side of the roadway. The proposed work will also include: 1) construction of moment slabs extending certain distances away from the bridge along the approach roadway; 2) installation of pedestrian scale lighting on the bridge; and 3) full depth roadway reconstruction of approximately 200 feet past the end of the structure on both approaches. The approach roadway will be repaved with

historic bricks roughly 150' past the end of approach slab on both sides. In addition, ADA curb ramps will be installed at two intersections within the project limits.

PECO poles and various wires in the vicinity of the bridge must be relocated to permit installation of approach slabs and moment slabs and to facilitate construction. The City has coordinated with PECO regarding the revised scope of work affecting their facilities and PECO is agreeable toward the change. Care will be taken to protect the Philadelphia Water Department sewer main that runs under the railbed; a portion of this sewer in the vicinity of the bridge will be lined. Portions of Philadelphia Water Department sewer mains running under Montgomery Avenue will be relocated, including the installation of new manholes/wellholes, to facilitate construction of the West Abutment. The City has coordinated with the Water Department regarding the revised scope of work affecting their facilities and the Water Department is agreeable to the change.

The following clearances are now proposed: 1) minimum side clearance provided from the centerline of Conrail's track to outer-most side of bridge foundation is 11 feet 11/16 inches; 2) minimum side clearance provided from the centerline of Amtrak's track to outer-most side of bridge foundation is 21 feet 11 1/8 inches; 3) minimum vertical clearance provided over the tracks of Amtrak is 19.97 feet, with a vertical clearance of 19.76 feet at a 6 foot offset; and 4) minimum vertical clearance provided over the tracks of Conrail is 22.87 feet, with a vertical clearance of 22.74 feet at a 6 foot offset. Amtrak and Conrail have reviewed the newly proposed structure plans, including the aforementioned clearances, and accepted them.

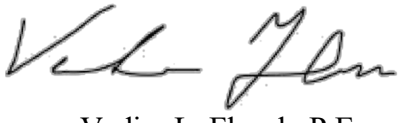
All work is anticipated to be completed by December 31, 2023.

The entire project is estimated to cost approximately $14,000,000 (including construction management and inspection) and will utilize federal, state, and local funds.

The City of Philadelphia requests that an Order approving the Final Plans be issued before December 11, 2020 so that the anticipated letting schedule can be met. At this time, the City anticipates advertising for construction in early January 2021. A Notice to Proceed with construction should be issued in May 2021.

If you have any questions or require additional information, please contact Timothy Dragan at timothy.dragan@phila.gov.

Sincerely,



Vadim L. Fleysh, P.E.
Chief Design Engineer

CC: File; VLF/rss/tzd
Enclosures: Plans; Certificate of Service

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

In re: Application of the City of Philadelphia for approval of (1) the reconstruction of the bridge carrying Montgomery Avenue (City Bridge #185) over and above the tracks of National Railroad Passenger Corporation (MP 86.36) and also Consolidated Rail Corporation located in the City of Philadelphia, Philadelphia Co.; (2) exemption from the minimum vertical clearances required by 52 Pa. Code, Section 33.121 and (3) allocation of certain costs and expenses incident thereto.	:	Docket No. A-2016-2540105

FINAL DESIGN PLANS

The City of Philadelphia hereby submits to the Commission and all interested parties the following Final Design Plans for the reconstruction of the bridge carrying Montgomery Avenue over Amtrak and Conrail.

Road Plans:	17 sheets
Traffic Control Plans:	2 sheets
Signing and Pavement Marking Plans:	3 Sheets
Erosion and Sediment Control Plans:	4 Sheets
Sewer Relocation, Lining, and Inlet Replacement Plans:	4 Sheets
Lighting Plan:	2 Sheets
Structure Plans:	62 sheets
Existing Plans:	6 sheets
Electrification Modification Plans:	31 sheets

One set of plans has been emailed on November 9, 2020 to all interested parties listed on the attached Certification of Service.

Timothy Z. Dragan
City of Philadelphia, Streets Department
1401 JFK Blvd., Room 830 MSB
Philadelphia, PA 19102
Phone: 215-686-5069
Fax: 215-686-5059
timothy.dragan@phila.gov

CERTIFICATE OF SERVICE

I hereby certify that I am this day causing true copies of the City of Philadelphia's Final Design Plans for the reconstruction of the bridge carrying Montgomery Avenue over Amtrak and Conrail (which were filed electronically) to be sent by email to each party or person listed below:

City of Philadelphia – Traffic Street Lighting
ATTN: Kristin Del Rossi
Department of Streets
G Street & Ramona Street
Philadelphia, PA 19120
kristin.del.rossi@phila.gov

Amtrak
ATTN: Candace Hager
30th Street Station
2955 Market Street, Box 64
Philadelphia, PA 19104
candace.cervino@amtrak.com
(Note: Richard Cianfrini and Dennis Moore were listed as an Amtrak Interested Parties on the original Order. However, per coordination with Amtrak, Candace Hager has replaced Richard Cianfrini and Dennis Moore has retired. Candace Hager indicated that she should be the sole Amtrak recipient of the Final Design Plans.)

Conrail
ATTN: Robert Winegrad
1000 Howard Blvd.
Mount Laurel, NJ 08054
rob.winegrad@conrail.com
(Note: Anthony DiArenzo was listed as a Conrail Interested Party on the original Order. However, per coordination with Conrail, Anthony DiArenzo has retired and Rob Winegrad has replaced him in this role.)

Conrail
ATTN: Ryan Hill
1000 Howard Blvd.
Mount Laurel, NJ 08054
ryan.hill@conrail.com
(Note: Ryan Hill was not listed as a Conrail Interested Party on the original Order but has since requested to be added to the list.)

PECO
ATTN: Lou Robinson
830 S. Schyukill Avenue
Philadelphia, PA 19146
louis.robinson@peco-energy.com

Philadelphia Water Department
ATTN: William Dobbins
1101 Market Street, Aramark Tower, 2nd Floor
Philadelphia, PA, 19107
william.dobbins@phila.gov

Southeastern Pennsylvania Transportation Authority (SEPTA)
ATTN: David Higgins
1234 Market Street, 13th Floor
Philadelphia, PA 19107
dhiggins@septa.org
(Note: Robin K. Youmans was listed as a SEPTA Interested Party on the original Order. However, per coordination with SEPTA, David Higgins has replaced Robin K. Youmans in this role.)

Pa. Department of Transportation
ROW & Utility Div.
ATTN: Rosemary Chiavetta
Bureau of Design – PennDOT
P.O. Box 3362
Harrisburg, PA 17105-3362
rchiavetta@pa.gov

Pa. Department of Transportation
Office of Chief Counsel
ATTN: Gina M. D'Alfonso
400 North Street
P.O. Box 8212
Harrisburg, PA 17105-3362
gdalfonso@pa.gov

Pa. Department of Transportation
Engineering District 6-0
ATTN: Robert Magee
District Grade Crossing/Utility Engineer
7000 Geerdes Boulevard
King of Prussia, PA 19406
rmagee@pa.gov
(Note: Robert Magee was not listed as a PennDOT Interested Party on the original Order but has since requested to be added to the list.)

Pa. Department of Transportation
Engineering District 6-0
ATTN: Mary Ann Lang
District Utility Engineer
7000 Geerdes Boulevard
King of Prussia, PA 19406
malang@pa.gov
(Note: Mary Ann Lang was not listed as a PennDOT Interested Party on the original Order but has since requested to be added to the list.)

Pa. Department of Transportation
Bureau of Project Delivery
ATTN: Michael Clinger
Acting Section Chief
400 North Street, 7th Floor
Harrisburg, PA 17120
micclinger@pa.gov
(Note: Michael Clinger was not listed as a PennDOT Interested Party on the original Order but has since requested to be added to the list.)

PA Public Utility Commission
Bureau of Technical Utility Services
ATTN: George Steiner
400 North Street
Harrisburg, PA 17120
gsteiner@pa.gov
(Note: Lawrence Barth was listed as a PUC Interested Party on the original Order. However, per coordination with the PUC, Lawrence Barth has retired, and the Commission's Law Bureau is not involved in this case any longer. Therefore, George Steiner of the Bureau of Technical Utility Services has become the Interested Party for the PUC.)



Timothy Z. Dragan
City of Philadelphia, Streets Department
1401 JFK Blvd., Room 830 MSB
Philadelphia, PA 19102
Phone: 215-686-5069
Fax: 215-686-5059
timothy.dragan@phila.gov

Date: November 12, 2020

DISTRICT	COUNTY	TOWNSHIP	CITY	ROUTE	SECTION	TOTAL SHEETS
6-0	PHILADELPHIA		PHILADELPHIA	7301	185	17

ECMS No: 57276

CITY OF PHILADELPHIA

DEPARTMENT OF STREETS

DRAWINGS FOR

CONSTRUCTION

OF

MONTGOMERY AVENUE

OVER

AMTRAK AND CONRAIL

IN THE

32ND WARD

FROM STA. 1+00.00 TO STA. 9+50.00 – LENGTH 850.00 FT., 0.161 MI.

ALSO INCLUDED:

TRAFFIC CONTROL PLAN		2 SHEETS
SIGNING AND PAVEMENT MARKING PLAN		3 SHEETS
EROSION AND SEDIMENT POLLUTION CONTROL PLAN		4 SHEETS
SEWER LINING AND INLET REPLACEMENT PROJECT		4 SHEETS
LIGHTING PLAN		2 SHEETS
STRUCTURE PLAN, L-201		62 SHEETS
EXISTING STRUCTURE PLANS	9677	1 SHEET
	9736	1 SHEET
	9678	1 SHEET
	3036	1 SHEET
	9847	1 SHEET
	9680	1 SHEET
MONTGOMERY AVENUE OVER AMTRAK AND CONRAIL ELECTRIFICATION MODIFICATION*		31 SHEETS

*(FOR INFORMATION ONLY)

P.U.C. APPLICATION DOCKET NO. A-2016-2540105

SCALE IN FEET

HORIZONTAL 25' 0 25'

VERTICAL 5' 0 5'

DESIGN DESIGNATION

CLASS OF HIGHWAY – URBAN COLLECTOR	A.D.T. (2018) – 5796
DESIGN SPEED – 25 M.P.H	A.D.T. (2038) – 7073
PAVEMENT WIDTH – 34'-0" CURB TO CURB	D.H.V. (2018) – 580
SHOULDER WIDTH – N/A	D.H.V. (2038) – 707
MEDIAN WIDTH – NONE	D. (2038) – 50%
SECTION WIDTH – 60.09'	T. (2038) – 5%

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DARIN L. GATTI
ENGINEER
035696-E

PREPARED BY:

CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

CITY OF PHILADELPHIA	PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
APPROVED _____ STREETS COMMISSIONER DATE	RECOMMENDED _____ DISTRICT EXECUTIVE DATE
APPROVED Darin L. Gatti 11/06/2020 CHIEF ENGINEER & SURVEYOR DATE	
APPROVED 11.04.20 CHIEF DESIGN ENGINEER DATE	

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	2 OF 17
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS		DATE	BY

INDEX

DESCRIPTION	SHEET
TITLE SHEET	1
INDEX SHEET	2
LOCATION MAP SHEET	3
SIDEWALK SECTIONS	4
ROADWAY SECTIONS AND ELEVATIONS	5 TO 8
CURB RAMP DETAILS	9 TO 11
SUMMARY SHEET	12 TO 13
TABULATION SHEETS	14 & 15
PLAN	16
PROFILE	17

PROPERTY OWNERS

PARCEL	OWNERS
1	*GROSSO CONSTRUCTION INC.*
2	*JOSEPH WILLIAMS*
3	*UNLIMITED HOLDINGS LLC*
4	*AMTRAK*
5	*CONRAIL LEASED*
6	*DOUGLAS C. PAYNE*
7	*EAST PARK CONGREGATION OF JEHOVAH'S WITNESS*
8	*OLIVER STONER & EUGENE PORTER*
9	*GEORGE HUTT*
10	*WILLIAM A. FRANKLIN JR. & ALICE BEATRICE*
11	*SECRETARY OF HOUSING & URBAN DEVELOPMENT*
12	*CRUDE LLC*
13	*FREDA BERGMAN & JACK WEINSTEIN*
14	*CITY OF PHILADELPHIA*
15	*PHILADELPHIA REDEVELOPMENT*
16	*REDEVELOPMENT AUTHORITY OF PHILA*
17	*ESTER KEAN*

RECORD OF EXISTING ROAD TYPE

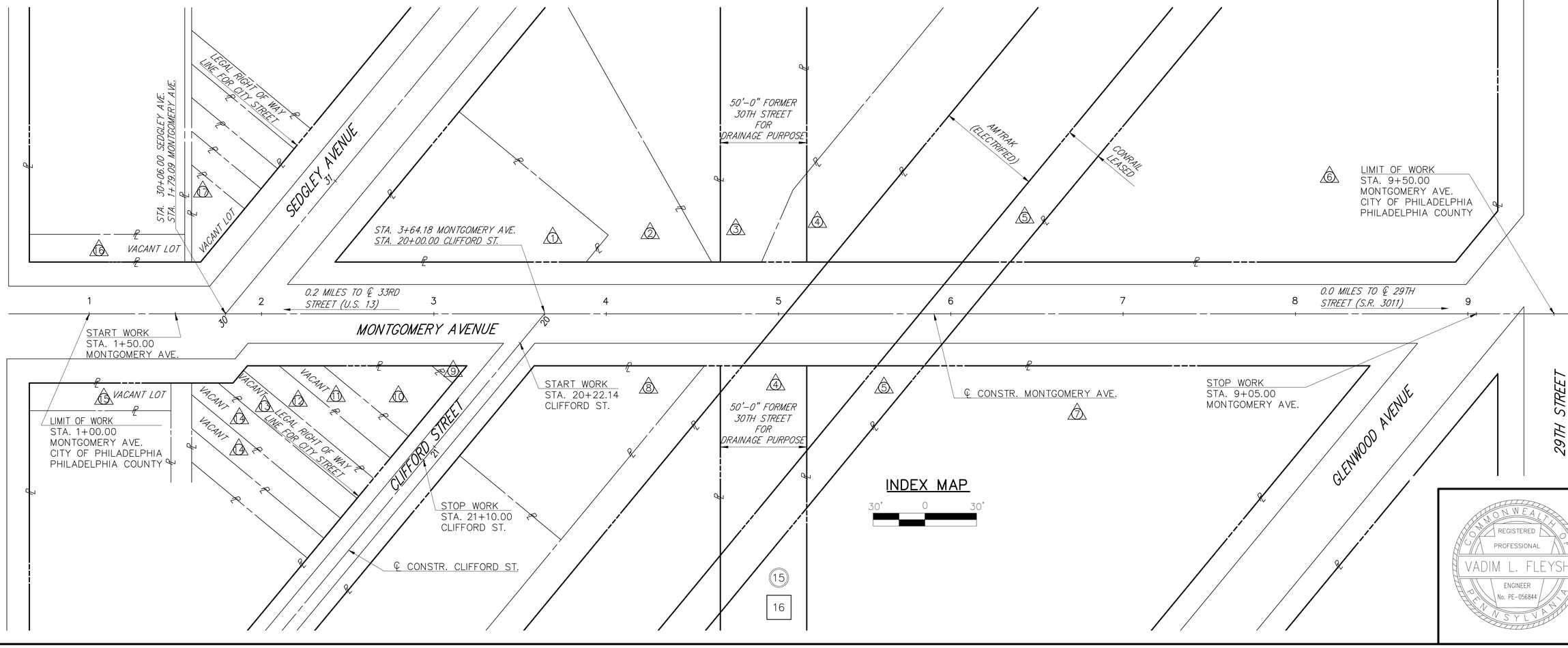
STATIONS	ROAD TYPE
LIMIT. OF WORK ADJACENT TO STA. 1+00.00	34.05' BITUMINOUS SURFACE COURSE ON 34.05' PL. CEM. CONC. BASE COURSE 12" ± DP.
STA. 2+17.80 TO STA. 4+42.95	34.08' BRICK
STA. 4+42.95 TO STA. 6+59.92	EXISTING BRIDGE
STA. 6+59.92 TO STA. 8+68.02	34.08' BRICK
LIMIT OF WORK ADJACENT TO STA. 9+50.00	34.05' BITUMINOUS SURFACE COURSE ON 34.05' PL. CEM. CONC. BASE COURSE 12 ± DP.

NOTE: THE DEPTHS OF MATERIAL SHOWN ARE FOR DESIGN PURPOSES ONLY. ANY RISK OF UNANTICIPATED COSTS ASSOCIATED WITH DIFFERENCES BETWEEN THE LISTED DEPTHS AND THE ACTUAL DEPTHS SHALL BE ACCEPTED BY THE CONTRACTOR.

NORTH

LEGEND

- PLAN
- PROFILE
- PROPERTY OWNER – NO TAKE



INDEX MAP

30' 0 30'

15

16

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VADIM L. FLEYSH
ENGINEER
No. PE-056844

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	3 OF 17
CITY OF PHILADELPHIA				

REVISION NUMBER	REVISIONS	DATE	BY

PUBLIC UTILITIES

DEPARTMENT OF WATER
SEWER AND WATER
ARAMARK TOWER
2ND FLOOR
1101 MARKET STREET
PHILADELPHIA, PENNSYLVANIA 19107
ATTN: MR. VINU VARGHESE
STAFF ENGINEER
215-685-6332
——— W ———

AMTRAK
MAINTENANCE OF WAY AND STRUCTURES
NATIONAL RAILROAD PASSENGER CORP.
30TH STREET STATION
3RD FLOOR, SOUTH TOWER
PHILADELPHIA, PENNSYLVANIA 19104
ATTN: MR. IFRAN ONEU
ASSISTANT CHIEF ENGINEER, STRUCTURES
215-557-1125

PHILADELPHIA GAS WORKS
800 WEST MONTGOMERY AVENUE
PHILADELPHIA, PENNSYLVANIA 19122
ATTN: MR. MIKE PARZANESE
STAFF ENGINEER
215-684-6082
——— G ———

SEPTA
1234 MARKET STREET
PHILADELPHIA, PENNSYLVANIA 19107
ATTN: MRS. LYDIA GROSE
STAFF ENGINEER
215-580-8255

AT&T COMMUNICATIONS
50 PATRICIA DRIVE
FLANDERS, NJ 07836
ATTN: MR. JAY EVERLY
PA CABLE ENGINEER
610-328-6465
———FOU———

CONRAIL
1000 HOWARD BLVD.
MOUNT LAUREL, NJ 08054
ATTN: JACOB FENNO
PROJECT ENGINEER
856-231-2031

MCI WORLDCOM
630 CLARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406
ATTN: JOHN ALESSANDRINI
RIGHT OF WAY SPECIALIST
610-517-8456
———FOU———

DEPARTMENT OF STREETS
MUNICIPAL SERVICES BUILDING
1401 JOHN F. KENNEDY BLVD.
7TH FLOOR
PHILADELPHIA, PENNSYLVANIA 19102
ATTN: MR. CARLTON WILLIAMS
COMMISSIONER
215-686-5460

CENTURY LINK
2011 HARTEL STREET
LEVITTOWN, PA. 19057
ATTN: MARK HARLEY
SENIOR ENGINEER
610-613-0979
———FOU———

PA ONE CALL
1-800-242-1776
SERIAL NUMBER: 20142370542
WARD 32

PECO ENERGY
830 SOUTH SCHUYLKILL AVENUE
PHILADELPHIA, PENNSYLVANIA 19146
ATTN: MR. LOUIS ROBINSON
215-731-3283
——— E ———

OTHER CONSTRUCTION CONTACTS

TRAFFIC ENGINEERING DIVISION
MUNICIPAL SERVICES BUILDING
1401 JOHN F. KENNEDY BLVD.
9TH FLOOR
PHILADELPHIA, PENNSYLVANIA 19102
ATTN: MR. KASIM ALI
CHIEF TRAFFIC ENGINEER
215-686-5572

STREET LIGHTING DIVISION
MUNICIPAL SERVICES BUILDING
1401 JOHN F. KENNEDY BLVD.
9TH FLOOR
PHILADELPHIA, PENNSYLVANIA 19102
ATTN: MS. KRISTIN DEL ROSSI
STREET LIGHTING
215-686-5534

NINETH SURVEY DISTRICT
4000 NORTH AMERICAN STREET
PHILADELPHIA, PENNSYLVANIA 19140
ATTN: MR. JOHN PARKINSON
SURVEYOR & REGULATOR
215-685-3050

THIRD HIGHWAY DISTRICT
990 SPRING GARDEN STREET
PHILADELPHIA, PENNSYLVANIA 19123
ATTN: MR. WILLIAM WHITE
HIGHWAY DISTRICT ENGINEER
215-685-2192

TABULATION OF OVERALL AND CONSTRUCTION LENGTHS

	ROUTE	STATION TO STATION	L.F.	MI.
OVERALL LENGTH	MONTGOMERY AVE.	STA. 1+00.00 TO STA. 9+50.00	850.00	0.161
CONSTRUCTION LENGTH	MONTGOMERY AVE.	STA. 1+50.00 TO STA. 9+05.00	755.00	0.143

STATION EQUALITIES – MONTGOMERY STA. 1+79.09 = SEDGLEY STA. 30+06.00
MONTGOMERY STA. 3+64.18 = CLIFFORD STA. 20+00.00

CONSTRUCTION DETAILS, OTHER THAN THOSE INDICATED, ARE ON THE FOLLOWING STANDARD DRAWINGS:

STATE STANDARDS

RC-10M	JUN. 01, 2010
RC-11M	JUN. 01, 2010
RC-12M	SEPT. 15, 2016
RC-13M	JUN. 01, 2010
RC-20M	SEPT. 15, 2016
RC-23M	JUN. 01, 2010
RC-27M	JUN. 01, 2010
RC-40M	JUN. 01, 2010
RC-45M	SEPT. 15, 2016
RC-46M	SEPT. 15, 2016
RC-60M	JUN. 01, 2010
RC-64M	JUN. 01, 2010
RC-67M	JUN. 01, 2013
RC-70M	SEPT. 15, 2016
RC-72M	AUG. 04, 2017
BC-732M	SEPT. 30, 2016
BC-734M	AUG. 04, 2017
BC-735M	SEPT. 30, 2016
BC-736M	SEPT. 30, 2016
BC-751M	SEPT. 30, 2016
BC-752M	SEPT. 30, 2016
BC-753M	SEPT. 30, 2016
BC-754M	SEPT. 30, 2016
BC-755M	SEPT. 30, 2016
BC-766M	SEPT. 30, 2016
TC-8600	JUN. 13, 2013
TC-8702	JUN. 13, 2013
TC-8716	JUN. 13, 2013

LEGEND
PROJECT

1000' 0 1000'

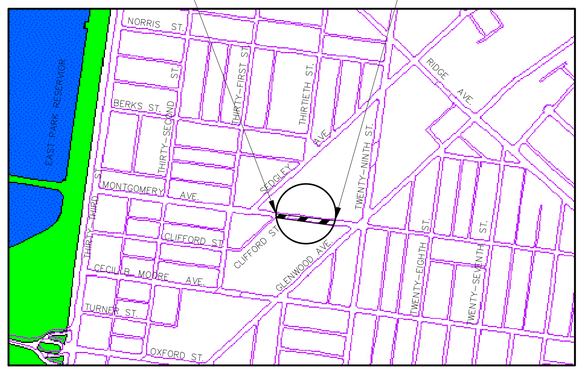
NORTH

CITY OF PHILADELPHIA STANDARDS
IT-1 NOV. 19, 2002
IT-2 NOV. 19, 2002

CITY OF PHILA. – WATER DEPARTMENT
STD. DETAILS & STD. SPECIFICATIONS
FOR SEWERS 1985

LIMIT OF WORK
STA. 1+00.00
MONTGOMERY AVE.
CITY OF PHILADELPHIA
PHILADELPHIA COUNTY

LIMIT OF WORK
STA. 9+50.00
MONTGOMERY AVE.
CITY OF PHILADELPHIA
PHILADELPHIA COUNTY



LOCATION MAP
SCALE: 1" = 1000'

SUMMARY OF PROJECT COORDINATES

SURVEY BASED ON STATE PLANE COORDINATES

RTE.	STATION	POINT	COORDINATES NORTH	COORDINATES EAST	BEARING
MONTGOMERY AVENUE (CONSTR. ℄)	2+00.00	POT	247344.1054	2687400.4349	E 82°14'38" S
	3+64.18	POT	247321.9487	2687563.1130	
	9+00.00	POT	247249.6341	2688094.0307	

ONLY AND DO NOT IMPLY PRECISION BEYOND TWO (2) PLACES

GENERAL NOTES

THE LEGAL RIGHT-OF-WAY ON MONTGOMERY AVE., FROM SEDGLEY AVE. TO THE PENNSYLVANIA RAILROAD WEST RIGHT-OF-WAY IS (60) SIXTY FEET (D.S.) DISTRICT STANDARD AND WAS LEGALLY OPENED BY "A" BOND, ORDINANCE OCTOBER 6, 1893.

THE LEGAL RIGHT-OF-WAY ON MONTGOMERY AVE., FROM GLENWOOD AVE. TO THE CONNECTING RAILROAD EAST RIGHT-OF-WAY IS (60) SIXTY FEET (D.S.) DISTRICT STANDARD OPENED BY "A" BOND, ORDINANCE OCTOBER 6, 1893.

THE LEGAL RIGHT-OF-WAY ON SEDGLEY AVENUE FROM 29TH STREET TO MONTGOMERY AVE. IS (60) SIXTY FEET (D.S.) DISTRICT STANDARD AND WAS LEGALLY OPENED BY DEED OF DEDICATION (#507) ON OCTOBER 18, 1872.

THE LEGAL RIGHT-OF-WAY ON CLIFFORD STREET FROM 31ST ST TO MONTGOMERY AVENUE IS (30) THIRTY FEET (D.S.) DISTRICT STANDARD AND WAS LEGALLY OPENED BY DEED OF DEDICATION (#507) ON OCTOBER 18, 1872.

THE LEGAL RIGHT-OF-WAY ON GLENWOOD AVENUE, FROM CECIL B. MOORE AVENUE TO 29TH STREET IS (60) SIXTY FEET (D.S.) DISTRICT STANDARD AND LEGALLY OPENED BY DEED OF DEDICATION (#1964) ON APRIL 4, 1982 AND "A" BOND, MARCH 23, 1900.

THE LEGAL RIGHT-OF-WAY ON MONTGOMERY AVE., FROM 31ST STREET TO SEDGLEY AVE. WEST RIGHT-OF-WAY IS (70) SEVENTY FEET (D.S.) DISTRICT STANDARD AND WAS LEGALLY OPENED BY DEED (#507) OCTOBER 18, 1872.

THE CONTRACTOR SHALL IN NO WAY INTERFERE WITH THE OPERATION OF ANY FIRE HYDRANT, FIRE CALL BOX, OR POLICE CALL BOX, UNLESS DIRECTED TO DO SO BY THE CITY OF PHILADELPHIA.

THIS IS A FEDERAL AID PROJECT AND AS SUCH IS SUBJECT TO INSPECTIONS BY REPRESENTATIVES OF THE FEDERAL HIGHWAY ADMINISTRATION, PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, AND THE CITY OF PHILADELPHIA.

HORIZONTAL CONTROL FOR THIS PROJECT IS TIED TO THE CITY OF PHILADELPHIA, CITY PLAN INFORMATION.

ALL QUANTITY MEASUREMENTS WILL BE MADE UTILIZING UNITED STATES STANDARD.

VERTICAL CONTROL IS BASED ON CITY ON PHILADELPHIA DATUM ELEVATION 0.00' CITY DATUM = ELEVATION 5.99 U.S.C. & G.S. SEA LEVEL DATUM OF 1929.

ALL DIMENSIONS ARE UNITED STATES STANDARD MEASURE (U.S.S.), UNLESS NOTED OTHERWISE. 1.000' PHILADELPHIA DISTRICT STANDARD (D.S.) EQUALS 1.0025' U.S.S.

☒ THE CITY RESERVES THE RIGHT TO ELIMINATE ANY OR ALL OF THIS WORK. DO NOT PERFORM WORK EXCEPT THAT WHICH IS WITHIN THE HIGHWAY RIGHT-OF-WAY UNTIL ORDERED IN WRITING BY THE ENGINEER.

THREE (3) WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR MUST CONTACT THE PA ONE CALL SYSTEM INC., PHONE: 1-800-242-1776 FOR THE CITY OF PHILADELPHIA. SERIAL NUMBER .

EARTHWORK SUMMARY ENTIRE PROJECT

THE INFORMATION ON ESTIMATED AMOUNTS OF EARTHWORK HAS BEEN USED IN THE PRELIMINARY ESTIMATE. DO NOT USE AS A WAIVER OF ANY PROVISIONS OF THE SPECIFICATIONS AND CONTRACTS.

CU. YDS. OF EXCAVATION						CUBIC YARDS OF COMPLETED EMBANKMENT **	CUBIC YARDS OF BORROW EXCAVATION	CUBIC YARDS OF SELECTED BORROW EXC. S.B.	CUBIC YARDS OF WASTE
CLASS 1	CLASS 1A	CLASS 1B	CLASS 2	CLASS 3 *	CLASS 4				
452	--	9	--	7238	--	958	--	1084	6280

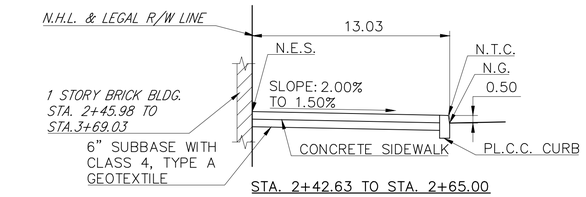
EARTHWORK NOTES:
*7033 C.Y. PART OF LUMP SUM STRUCTURE ITEM

**INCLUDES ALL BORROW ITEMS

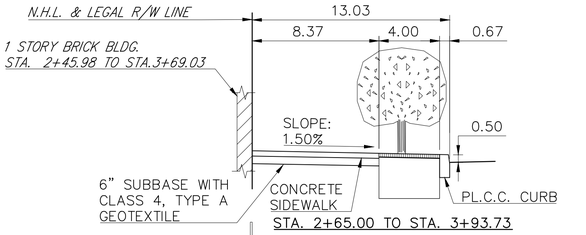
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VADIM L. FLEYSH
ENGINEER
No. PE-056844

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	4 OF 17
PHILADELPHIA				

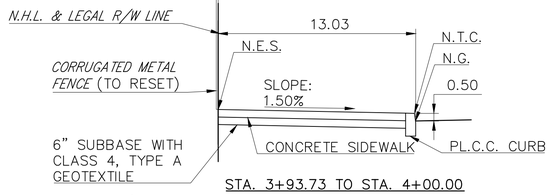
REVISION NUMBER	REVISIONS	DATE	BY



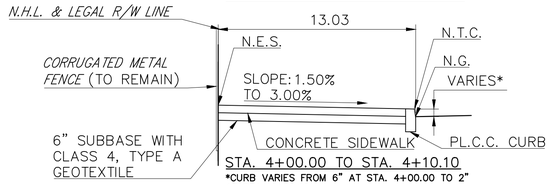
STA. 2+42.63 TO STA. 2+65.00



STA. 2+65.00 TO STA. 3+93.73

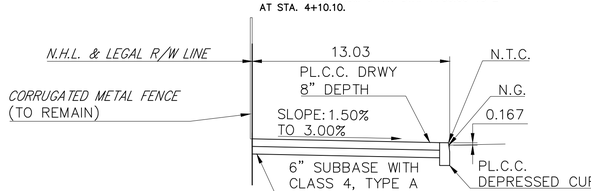


STA. 3+93.73 TO STA. 4+00.00

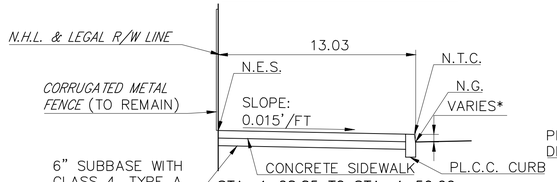


STA. 4+00.00 TO STA. 4+10.10

*CURB VARIES FROM 6" AT STA. 4+00.00 TO 2" AT STA. 4+10.10.

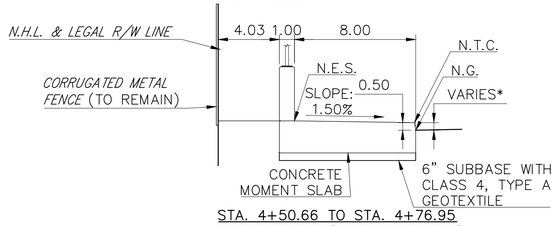


STA. 4+10.10 TO STA. 4+28.85



STA. 4+28.85 TO STA. 4+50.66

*CURB VARIES FROM 2" AT STA. 4+28.85 TO 4" AT STA. 4+50.66.

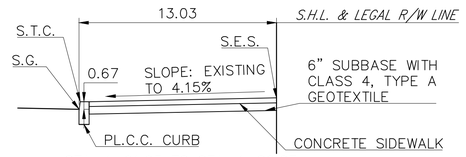


STA. 4+50.66 TO STA. 4+76.95

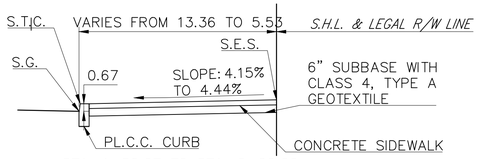
*CURB VARIES FROM 4" AT STA. 4+50.66 TO 6" AT STA. 4+69.04.

NORTH SIDEWALK SECTIONS

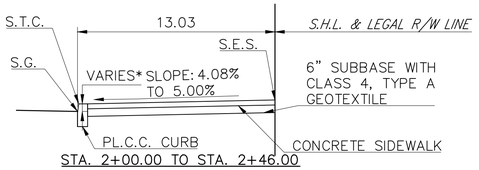
SCALE: 1"=5'



STA. 1+61.05 TO STA. 1+80.27

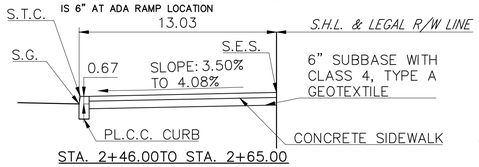


STA. 1+80.27 TO STA. 2+00.00

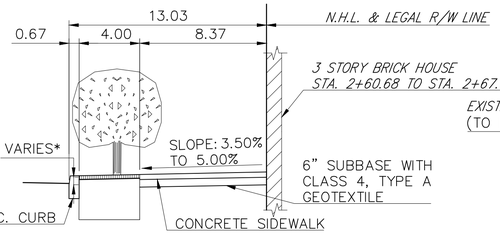


STA. 2+00.00 TO STA. 2+46.00

NOTE: ADA RAMP QUADRANT BETWEEN STA 2+23.79 AND STA 2+40.79. *CURB HEIGHT IS 6" AT ADA RAMP LOCATION

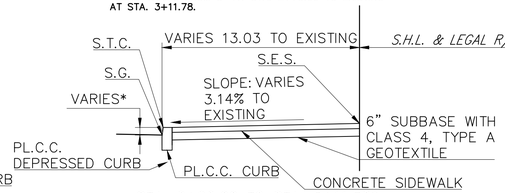


STA. 2+46.00TO STA. 2+65.00



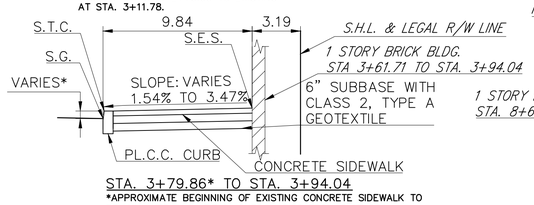
STA. 2+65.00 TO STA. 2+90.00

*CURB VARIES FROM 8" AT STA. 2+75.00 TO EXISTING AT STA. 3+11.78.



STA. 2+90.00 TO STA. 3+11.78*

*APPROXIMATE BEGINNING OF EXISTING CONCRETE SIDEWALK TO REMAIN; VERIFY IN FIELD. CURB VARIES FROM 8" AT STA. 2+75.00 TO EXISTING AT STA. 3+11.78.

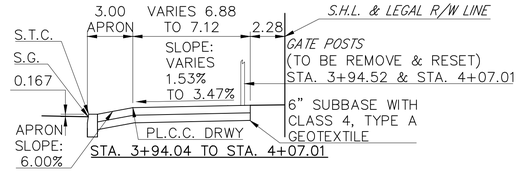


STA. 3+79.86* TO STA. 3+94.04

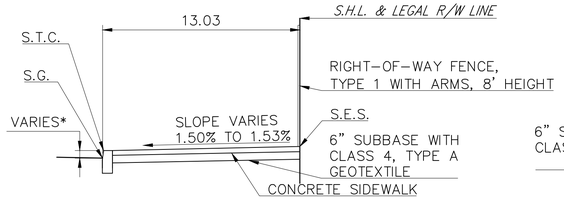
*APPROXIMATE BEGINNING OF EXISTING CONCRETE SIDEWALK TO REMAIN; VERIFY IN FIELD. CURB VARIES FROM 5"AT STA. 3+79.86 TO 2" AT STA. 3+94.04

SOUTH SIDEWALK SECTIONS

SCALE: 1"=5'

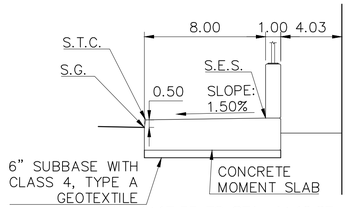


STA. 3+94.04 TO STA. 4+07.01



STA. 4+07.01 TO STA. 4+17.53

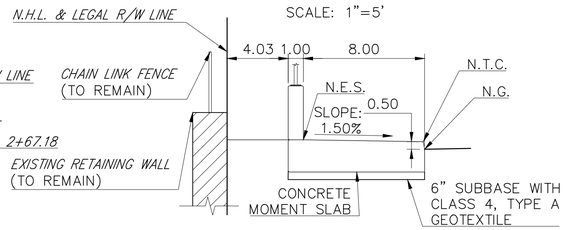
*CURB VARIES FROM 2" AT STA. 4+07.01 TO 6" AT STA. 4+17.53.



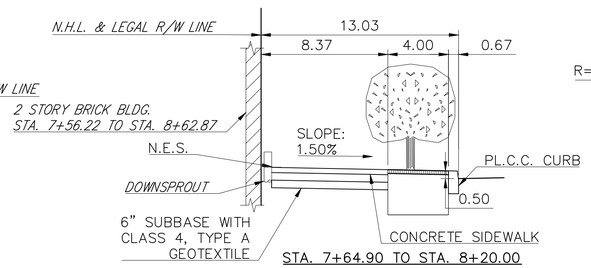
STA. 4+17.53 TO STA. 4+40.87

SOUTH SIDEWALK SECTIONS

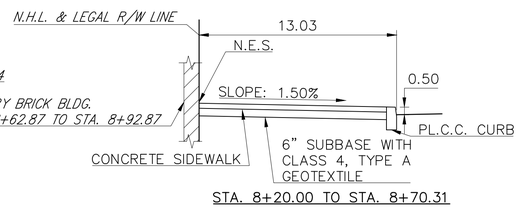
SCALE: 1"=5'



STA. 6+62.13 TO STA. 7+64.90



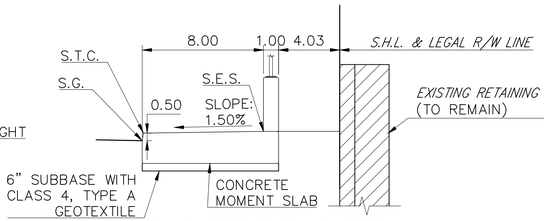
STA. 7+64.90 TO STA. 8+20.00



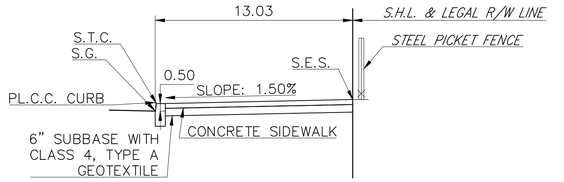
STA. 8+20.00 TO STA. 8+70.31

NORTH SIDEWALK SECTIONS

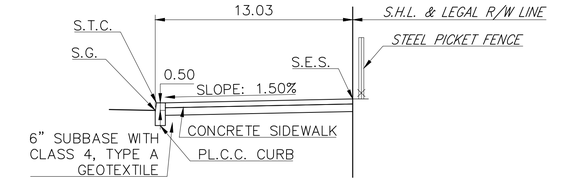
SCALE: 1"=5'



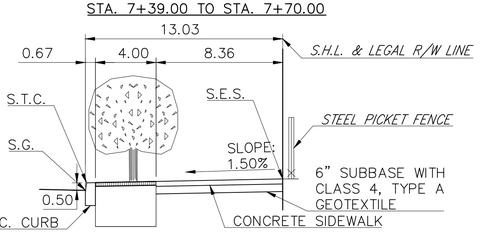
STA. 6+26.05 TO STA. 7+39.00



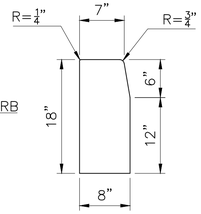
STA. 7+39.00 TO STA. 7+70.00



STA. 7+39.00 TO STA. 7+70.00

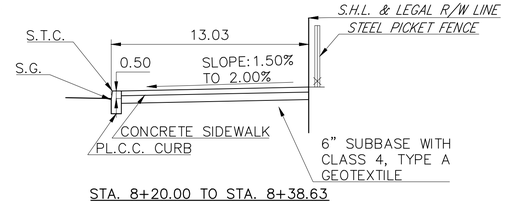


STA. 7+70.00 TO STA. 8+20.00



CURB DETAIL

SCALE: 1"=1'



STA. 8+20.00 TO STA. 8+38.63

SOUTH SIDEWALK SECTIONS

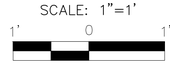
SCALE: 1"=5'

NOTES:

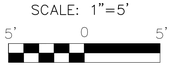
- FOR ABBREVIATION TABLE, SEE ROADWAY SHEET 6

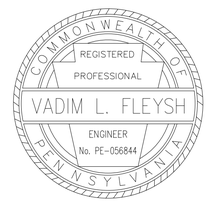
BAR SCALE KEY

SCALE: 1"=1'



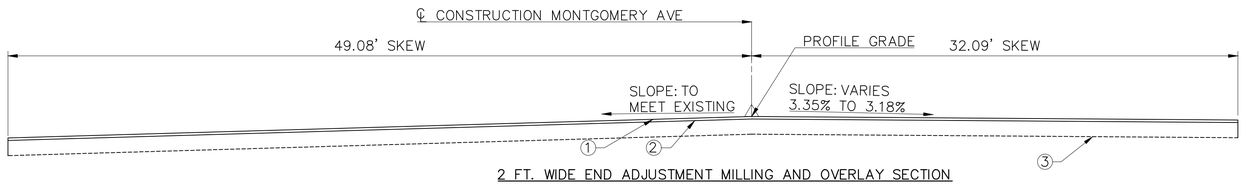
SCALE: 1"=5'





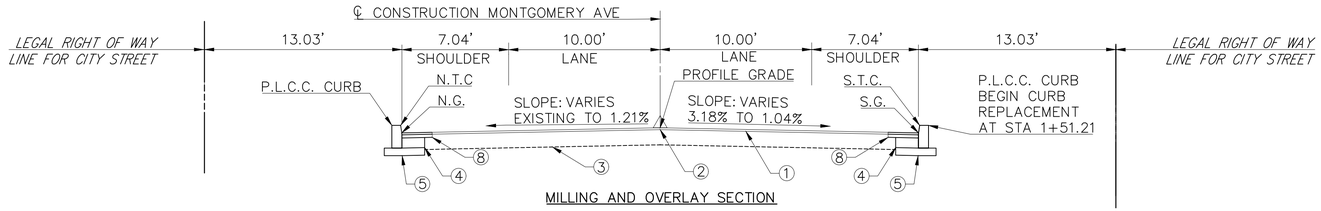
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	5 OF 17
CITY OF PHILADELPHIA				

REVISION NUMBER	REVISIONS	DATE	BY



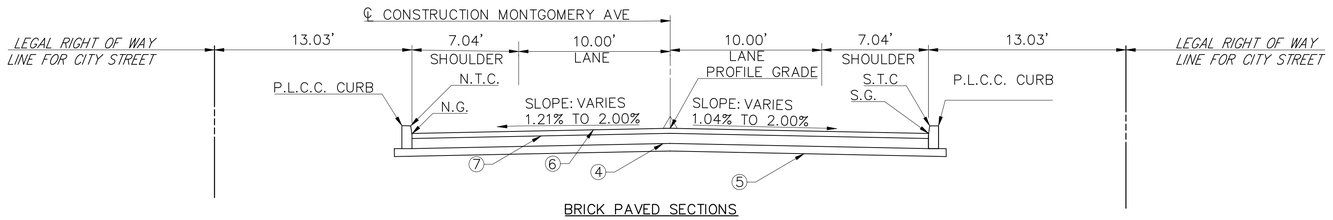
2 FT. WIDE END ADJUSTMENT MILLING AND OVERLAY SECTION

STA 2+00.80 TO STA 2+03.31



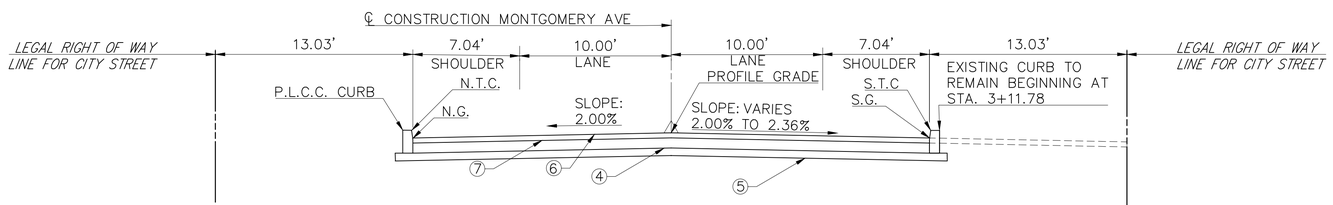
MILLING AND OVERLAY SECTION

STA 2+03.31 TO STA 2+46.00



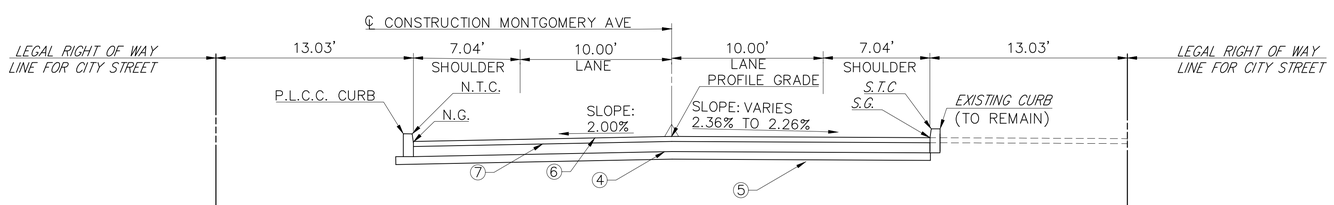
BRICK PAVED SECTIONS

STA 2+46.00 TO STA 2+75.00



BRICK PAVED SECTIONS

STA 2+75.00 TO STA 3+25.55



BRICK PAVED SECTIONS

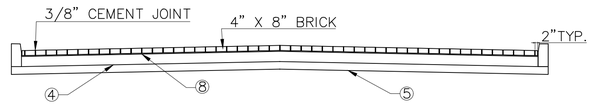
STA 3+25.55 TO STA 3+61.48

MONTGOMERY AVENUE ROADWAY SECTIONS

SCALE: 1" = 5'

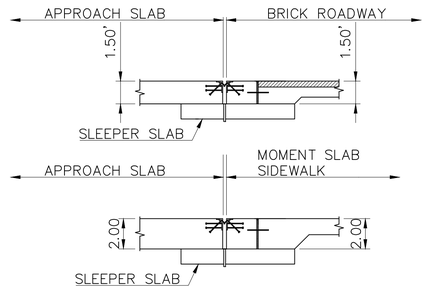
PAVEMENT NOTES:

1. SUPERPAVE ASPHALT MIXTURE DESIGN, ASPHALT WEARING COURSE, PG 64-22, < 0.3 MILLION ESALS, 9.5 MM MIX, 1 ½" DEPTH, SRL-H
2. BITUMINOUS TACK COAT
3. EXISTING PAVEMENT
4. PLAIN CEMENT CONCRETE PAVEMENT, 8" DEPTH
5. SUBBASE 6" DEPTH (NO. 2A)
6. 4" BRICK COURSE
7. 3/4" SETTING BED (93% SAND AND 7% MOTAR)
8. SUPERPAVE ASPHALT MIXTURE DESIGN, ASPHALT BINDER COURSE, PG 64-22, < 0.3 MILLION ESALS, 19.0 MM MIX, 2 ½" DEPTH



PROPOSED BRICK DETAILS

SCALE 1"=5'



SECTION-PAVING AT EXPANSION DAMS

SCALE 1"=5'

NOTES:

- FOR ABBREVIATION TABLE, SEE ROADWAY SHEET 14
- SEE ROADWAY SHEET 4 FOR SIDEWALK TYPICAL SECTIONS
- BRICK TO BE LAID IN A RUNNING BOND PATTERN SEE ROADWAY SHEET 6

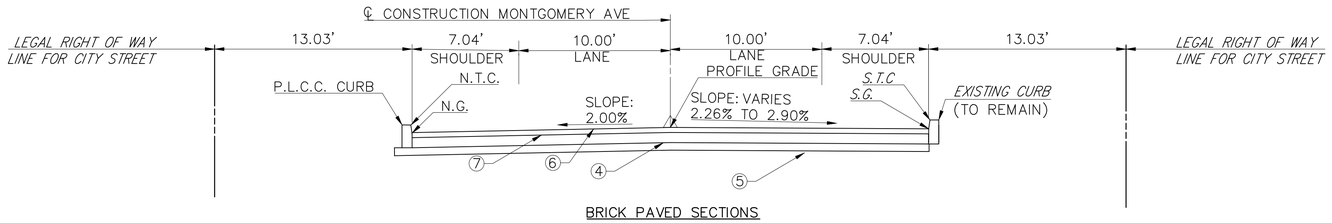
BAR SCALE KEY

SCALE: 1"=5'



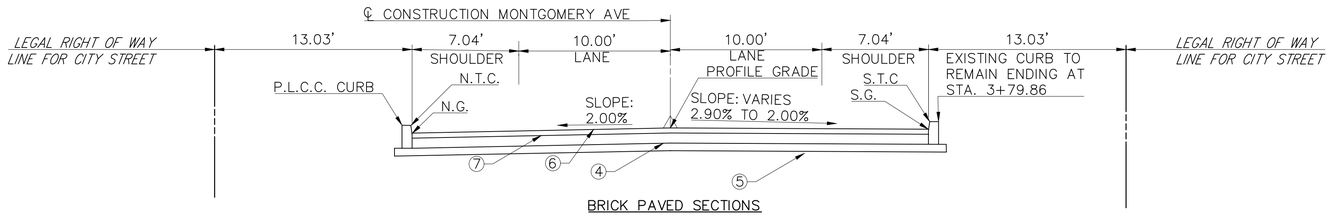
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VADIM L. FLEYSH
ENGINEER
No. PE-056844

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	6 OF 17
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS		DATE	BY



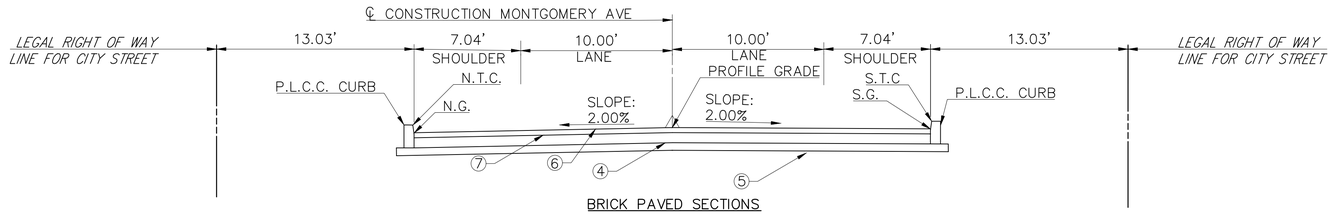
BRICK PAVED SECTIONS

STA 3+61.48 TO STA 3+65.68



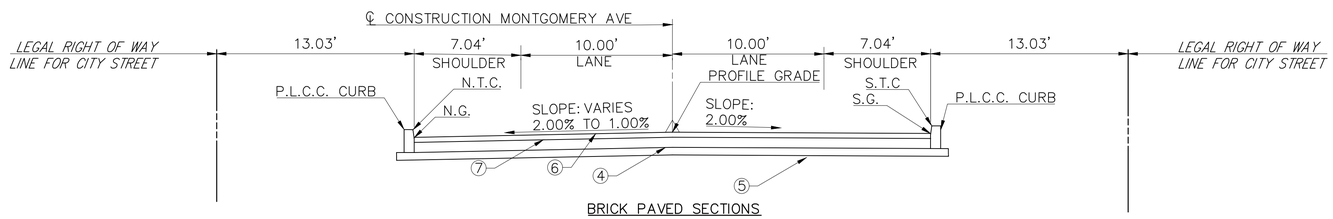
BRICK PAVED SECTIONS

STA 3+65.68 TO STA 3+94.04



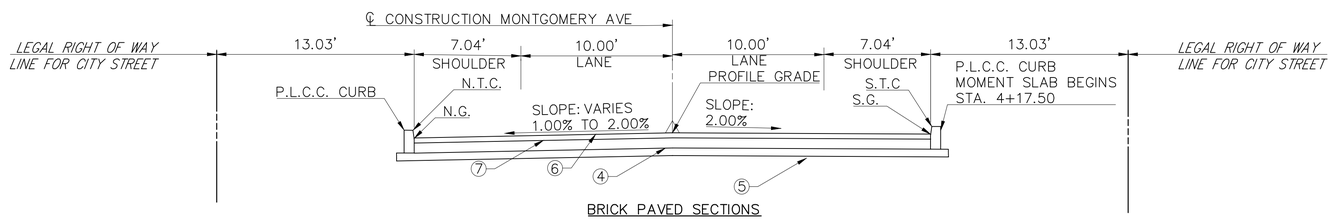
BRICK PAVED SECTIONS

STA 3+94.04 TO STA 4+00.00



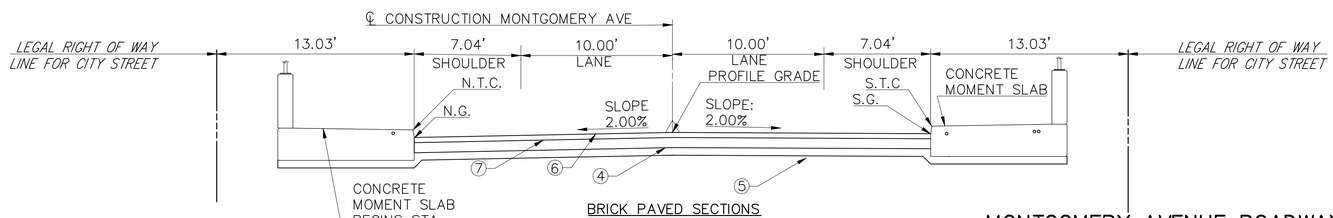
BRICK PAVED SECTIONS

STA 4+00.00 TO STA 4+10.10



BRICK PAVED SECTIONS

STA 4+10.10 TO STA 4+28.85



BRICK PAVED SECTIONS

STA 4+28.85 TO STA 4+55.13

MONTGOMERY AVENUE ROADWAY SECTIONS

SCALE: 1" = 5'

PAVEMENT NOTES:

① SUPERPAVE ASPHALT MIXTURE DESIGN, ASPHALT WEARING COURSE, PG 64-22, < 0.3 MILLION ESALS, 19.0 MM MIX, 1 ½" DEPTH

② BITUMINOUS TACK COAT

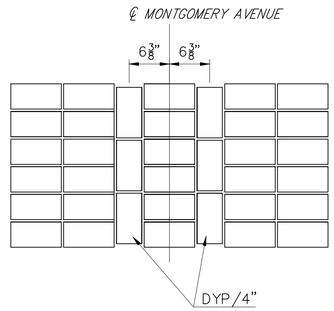
③ EXISTING PAVEMENT

④ PLAIN CEMENT CONCRETE PAVEMENT, 8" DEPTH

⑤ SUBBASE 6" DEPTH (NO. 2A)

⑥ 4" BRICK COURSE

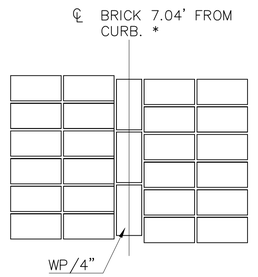
⑦ 3/4" SETTING BED (93% SAND AND 7% MOTAR)



DETAIL A

BRICK LAYOUT AT CENTERLINE OF ROADWAY

SCALE: 1" = 1'



DETAIL B

BRICK LAYOUT AT SHOULDER LINE (TYPICAL)

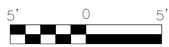
SCALE: 1" = 1'

NOTES:

- FOR ABBREVIATION TABLE, SEE ROADWAY SHEET 14
- SEE ROADWAY SHEET 4 FOR SIDEWALK TYPICAL SECTIONS
- BRICK TO BE LAID IN A RUNNING BOND PATTERN SEE ROADWAY SHEET 6

BAR SCALE KEY

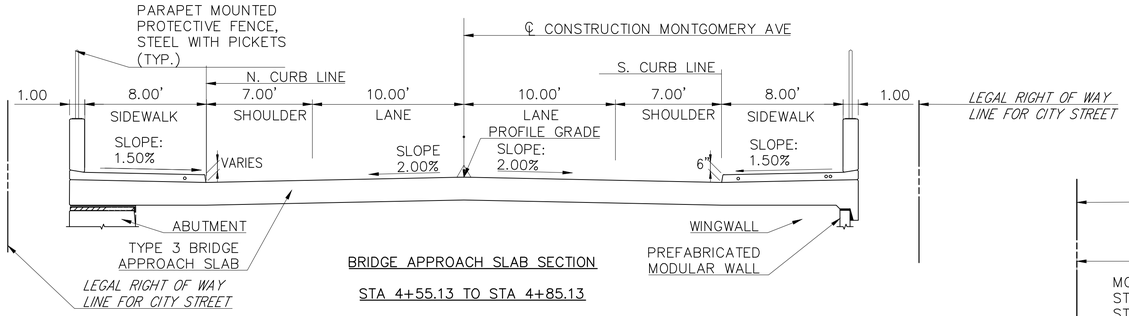
SCALE: 1"=5'



COMMONWEALTH OF PENNSYLVANIA
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ENGINEER
No. PE-056844

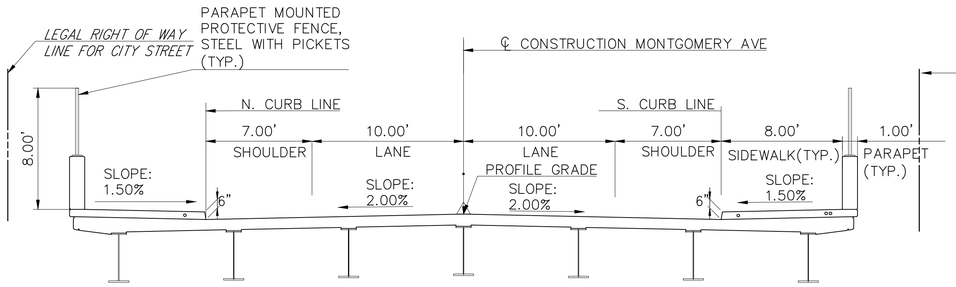
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	7 OF 17
CITY OF PHILADELPHIA				

REVISION NUMBER	REVISIONS	BY	DATE



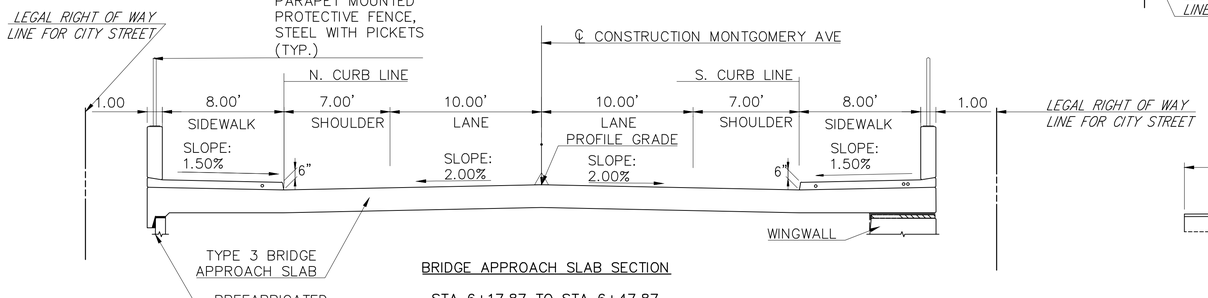
BRIDGE APPROACH SLAB SECTION

STA 4+55.13 TO STA 4+85.13



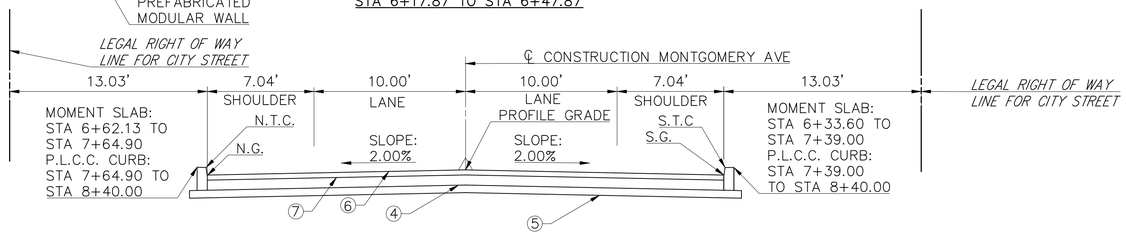
BRIDGE SECTION

STA 4+85.13 TO STA 6+17.87



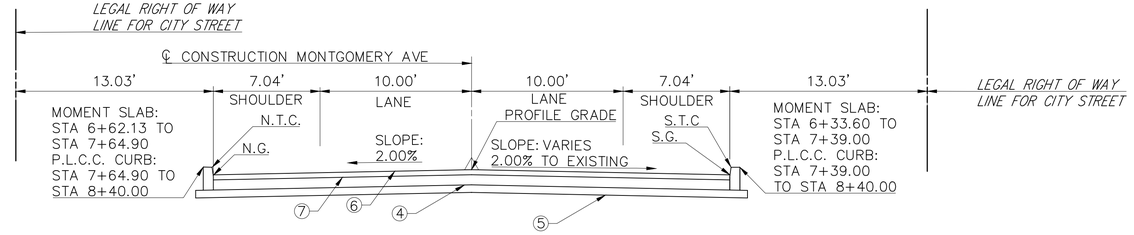
BRIDGE APPROACH SLAB SECTION

STA 6+17.87 TO STA 6+47.87



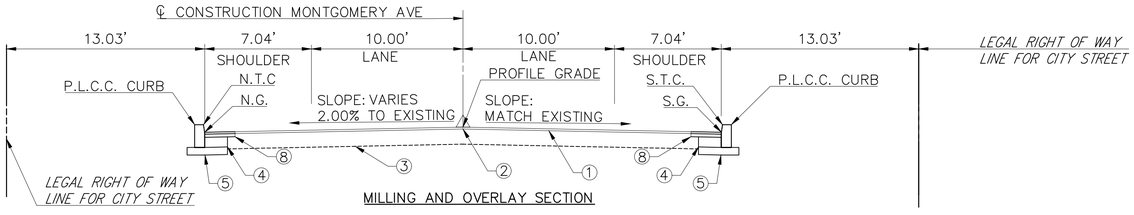
BRICK PAVED SECTIONS

STA 6+47.87 TO STA 8+00.00



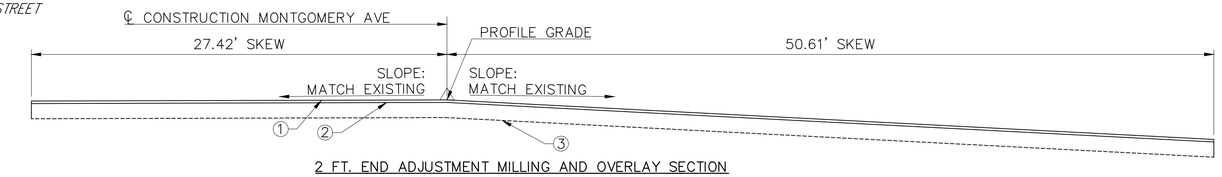
BRICK PAVED SECTIONS

STA 8+00.00 TO STA 8+40.00



MILLING AND OVERLAY SECTION

STA 8+40.00 TO STA 8+84.92



2 FT. END ADJUSTMENT MILLING AND OVERLAY SECTION

STA 8+84.92 TO STA 8+87.52

MONTGOMERY AVENUE ROADWAY SECTIONS

SCALE: 1" = 5'

PAVEMENT NOTES:

1. SUPERPAVE ASPHALT MIXTURE DESIGN, ASPHALT WEARING COURSE, PG 64-22, < 0.3 MILLION ESALS, 9.5 MM MIX, 1 ½" DEPTH, SRL-H
2. BITUMINOUS TACK COAT
3. EXISTING PAVEMENT
4. PLAIN CEMENT CONCRETE PAVEMENT, 8" DEPTH
5. SUBBASE 6" DEPTH (NO. 2A)
6. 4" BRICK COURSE
7. 3/4" SETTING BED (93% SAND AND 7% MOTAR)
8. SUPERPAVE ASPHALT MIXTURE DESIGN, ASPHALT BINDER COURSE, PG 64-22, < 0.3 MILLION ESALS, 19.0 MM MIX, 2 ½" DEPTH

BAR SCALE KEY

SCALE: 1"=5'

5' 0 5'

NOTES:

- FOR ABBREVIATION TABLE, SEE ROADWAY SHEET 14
- SEE ROADWAY SHEET 4 FOR SIDEWALK TYPICAL SECTIONS
- BRICK TO BE LAID IN A RUNNING BOND PATTERN SEE ROADWAY SHEET 6

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VADIM L. FLEYSH
ENGINEER
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DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	8 OF 17
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS		DATE	BY

TABLE OF ELEVATIONS

STATION	N.H.L.	N.E.S.	N.T.C.	N.G.	P.G.	S.G.	S.T.C.	S.E.S.	S.H.L	REMARKS
1+50.00	–	–	–	–	105.85	105.46	105.64	106.01	106.01	STARK WORK
1+61.05	–	–	–	–	106.26	105.72	106.39	106.52	106.52	BEGIN CURB AND SW (S)
1+80.00	–	–	–	–	106.96	106.15	106.82	107.40	107.40	
1+96.04	–	–	–	–	107.55	107.04	107.70	108.33	108.33	
2+00.00	–	–	–	–	107.70	107.13	107.80	108.33	108.33	
2+00.80	–	–	–	–	107.71	107.15	107.82	108.35	108.35	BEGIN PAVING ADJUSTMENT AREA
2+25.00	–	–	–	–	108.17	107.81	108.48	109.08	109.08	
2+36.00	–	–	–	108.21	108.37	108.11	108.77	109.41	109.41	BEGIN ROADWAY TRANSITION
2+42.63	–	–	–	108.41	108.61	108.40	109.07	109.60	109.60	BEGINNING CURB AND SW (N)
2+46.00	109.21	109.21	109.02	108.52	108.72	108.55	109.21	109.79	109.79	END PAVING ADJUSTMENT AREA AND BEGIN BRICK PAVING
2+50.00	109.34	109.34	109.14	108.64	108.87	108.67	109.33	109.89	109.89	
2+65.00	109.80	109.80	109.60	109.10	109.40	109.11	109.78	110.25	110.25	TREE (N&S)
2+75.00	110.10	110.10	109.91	109.41	109.75	109.41	110.08	110.49	110.49	END ROADWAY TRANSITION
2+90.00	110.64	110.64	110.44	109.94	110.28	109.92	110.52	110.85	110.85	TREE (N&S)
3+00.00	110.99	110.99	110.80	110.30	110.64	110.27	110.82	111.09	111.09	
3+11.78	111.41	111.41	111.21	110.71	111.06	110.67	111.17	111.37	111.37	END SOUTH PROPOSED SIDEWALK
3+15.00	111.52	111.52	111.33	110.83	111.17	110.78	111.27	111.45	111.45	TREE (N)
3+23.56	111.82	111.82	111.63	111.13	111.47	111.07	–	–	–	
3+25.00	111.87	111.87	111.68	111.18	111.52	111.12	–	–	–	
3+40.00	112.40	112.40	112.21	111.71	112.05	111.66	–	–	–	TREE (N)
3+50.00	112.76	112.76	112.57	112.07	112.41	112.02	–	–	–	
3+58.29	113.05	113.05	112.86	112.36	112.70	112.32	–	–	–	BEGINNING OF BRICK BLDG (S)
3+61.71	113.17	113.17	112.98	112.48	112.82	112.40	112.78	112.87	112.87	END BRICK BLDG AND BEGIN CMU WALL
3+68.72	113.42	113.42	113.23	112.73	113.07	112.59	113.01	113.16	113.16	EXISTING TREE (N)
3+69.03	113.43	113.43	113.24	112.74	113.08	112.61	113.03	113.17	113.17	END BRICK BLDG (N)
3+75.00	113.64	113.64	113.45	112.95	113.29	112.85	113.27	113.42	113.42	
3+79.86	113.81	113.81	113.63	113.13	113.47	113.05	113.47	113.62	113.62	END SOUTH PROPOSED SIDEWALK
3+91.04	114.21	114.21	114.02	113.52	113.86	113.51	113.79	114.09	114.09	BEGIN DRIVEWAY APRON FLARE (S)
3+93.73	114.30	114.30	114.12	113.62	113.96	113.62	113.86	114.20	114.20	EXISTING TREE (N)
3+94.04	114.32	114.32	114.13	113.63	113.97	113.63	113.79	114.21	114.21	BEGIN DRIVEWAY APRON (S)
3+94.20	114.32	114.32	114.13	113.63	113.97	113.63	114.80	114.22	114.22	BEGINNING OF GATE POST (S) AND END CMU WALL (S)
4+00.00	114.53	114.53	114.34	113.84	114.18	113.84	114.01	114.36	114.36	
4+01.50	114.58	114.58	114.37	113.92	114.23	113.89	114.06	114.40	114.40	BEGIN DRIVEWAY APRON (N)
4+06.82	114.78	114.78	114.47	114.20	114.42	114.08	114.25	114.54	114.54	END GATE POST (S)
4+07.01	114.79	114.79	114.47	114.21	114.43	114.09	114.25	114.54	114.54	END DRIVEWAY APRON (S)
4+10.01	114.90	114.90	114.51	114.36	114.53	114.19	114.61	114.77	114.77	END DRIVEWAY APRON FLARE (S)
4+10.10	114.91	114.91	114.53	114.37	114.54	114.20	114.61	114.77	114.77	BEGIN DRIVEWAY APRON (N)
4+17.53	115.03	115.03	114.73	114.56	114.80	114.46	114.96	115.08	115.08	BEGIN MOMENT SLAB (S)
4+25.00	115.21	115.21	114.98	114.82	115.12	114.78	115.28	115.40	115.40	
4+28.85	115.30	115.30	115.11	114.95	115.29	114.95	115.45	115.57	115.57	END DRIVEWAY APRON (N)
4+40.87	115.91	115.91	115.72	115.46	115.80	115.46	115.96	116.08	116.08	END BRICK PAVING (S)
4+50.66	115.80	115.80	115.54	115.04	116.22	115.88	116.38	116.50	116.50	BEGIN MOMENT SLAB (N)
4+69.40	117.23	117.23	117.11	116.69	117.03	116.69	117.19	117.31	117.31	END BRICK PAVING (N)
6+33.60	118.60	118.60	118.48	117.98	118.32	117.98	118.48	118.60	118.60	BEGIN BRICK PAVING (S)

TABLE OF ELEVATIONS

STATION	N.H.L.	N.E.S.	N.T.C.	N.G.	P.G.	S.G.	S.T.C.	S.E.S.	S.H.L	REMARKS
6+59.52	117.48	117.48	117.36	116.86	117.20	116.86	117.36	117.48	117.48	BEGIN BRICK PAVING (N)
6+75.00	116.80	116.80	116.68	116.18	116.52	116.18	116.68	116.80	116.80	
7+00.00	115.71	115.71	115.59	115.09	115.43	115.09	115.59	115.71	115.71	
7+25.00	114.63	114.63	114.51	114.01	114.35	114.01	114.51	114.63	114.63	
7+39.00	114.02	114.02	113.90	113.40	113.74	113.40	113.90	114.02	114.02	END MOMENT SLAB (S)
7+50.00	113.54	113.54	113.42	112.92	113.26	112.92	113.42	113.61	113.61	
7+56.22	113.27	113.27	113.15	112.65	112.99	112.65	113.15	113.34	113.34	BEGINNING OF BLDG (N)
7+64.90	112.89	112.89	112.77	112.27	112.61	112.27	112.77	112.96	112.96	END MOMENT SLAB (N)
7+70.00	112.74	112.74	112.55	112.05	112.39	112.05	112.55	112.74	112.74	TREE (N&S)
7+75.00	112.52	112.52	112.33	111.83	112.17	111.83	112.33	112.52	112.52	
7+95.00	111.65	111.65	111.46	110.96	111.30	110.96	111.46	111.65	111.65	TREE (N&S)
8+00.00	111.44	111.44	111.24	110.74	111.08	110.74	111.24	111.44	111.44	
8+20.00	110.57	110.57	110.37	109.87	110.21	109.91	110.41	110.60	110.60	TREE (N&S)
8+25.00	110.35	110.35	110.15	109.65	109.99	109.70	110.20	110.40	110.40	
8+38.63	109.75	109.75	109.56	109.06	109.40	109.13	109.63	109.83	109.83	END CURB AND SIDEWALK (S)
8+40.00	109.69	109.69	109.50	109.00	109.34	109.08	–	–	–	END BRICK PAVING AND BEGIN PAVING ADJUSTMENT AREA
8+50.00	109.38	109.38	109.19	108.69	109.08	108.80	–	–	–	
8+70.31	108.75	108.75	108.55	108.05	108.55	–	–	–	–	END CURB AND SIDEWALK (N)
8+87.52	108.21	108.21	108.02	107.52	108.10	–	–	–	–	END PAVING ADJUSTMENT AREA
–	–	–	–	–	107.64	–	–	–	–	STOP WORK

LEGEND

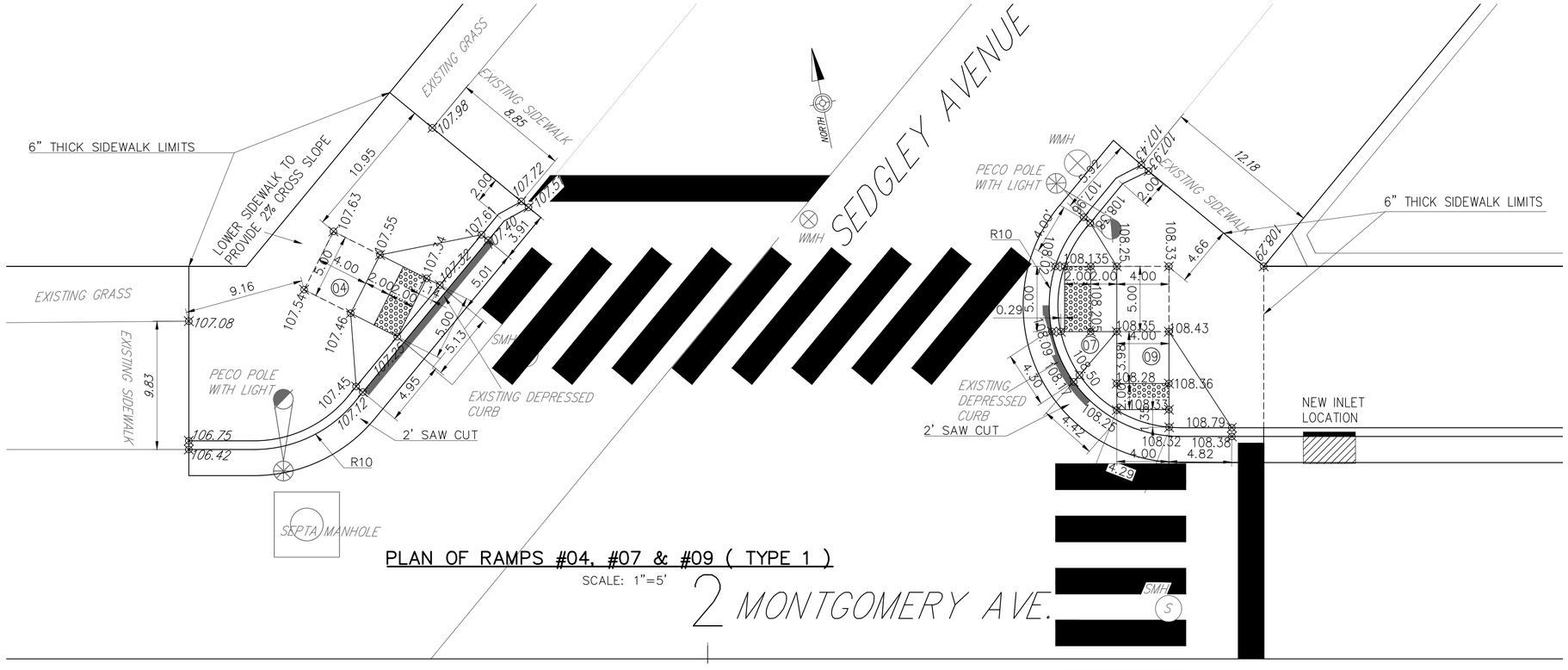
N.H.L.	NORTH HOUSE LINE
N.E.S.	NORTH EDGE OF SIDEWALK
N.T.C.	NORTH TOP OF CURB
N.G.	NORTH GUTTER
P.G.	PROFILE GRADE POINT
S.G.	SOUTH GUTTER
S.T.C.	SOUTH TOP OF CURB
S.E.S.	SOUTH EDGE OF SIDEWALK
S.H.L.	SOUTH HOUSE LINE

NOTES:

- SEE ROADWAY SHEET 4 FOR SIDEWALK TYPICAL SECTIONS

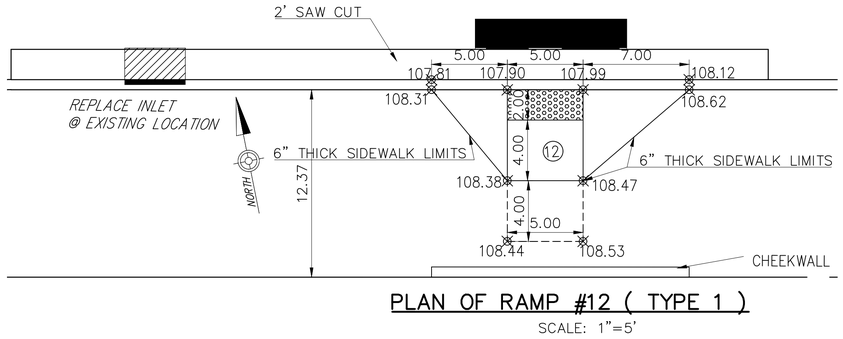
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VADIM L. FLEYSH
ENGINEER
No. PE-056844

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	9 OF 17
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS		DATE	BY



PLAN OF RAMPS #04, #07 & #09 (TYPE 1)

SCALE: 1"=5'



PLAN OF RAMP #12 (TYPE 1)

SCALE: 1"=5'

LEGEND

- DETECTABLE WARNING SURFACE
- EXISTING SEWER MANHOLE
- BOLLARDS
- EXISTING WATER VALVE
- EXISTING GAS VALVE
- EXISTING SEPTA MANHOLE
- NEW INLET
- STOP SIGN
- EXISTING PECO POLE W/LIGHT
- EXISTING TRAFFIC SIGNAL

NOTES:

- REFER TO RC-67M FOR FURTHER CURB RAMP DETAIL AND FOR ADA ACCESSIBILITY REQUIREMENTS.
- RAMPS NUMBERING PER PENNDOT INSPECTION NOTES.
- ALL CROSSWALKS AND STOP BARS MUST COMPLY WITH CITY OF PHILADELPHIA STANDARDS.
- ERADICATE ALL EXISTING MARKINGS WHICH ARE NO LONGER APPROPRIATE USING A METHOD APPROVED BY THE CITY OF PHILADELPHIA.
- PAVEMENT ADJUSTMENT TO BE CONSTRUCTED AS SHOWN TO ELIMINATE PONDING AND PROVIDE POSTIVIE DRAINAGE ALONG THE CURB LINE AT THE PROPOSED RAMP LOCATION.
- RESET ALL UTILITY VALVES, COVERS, AND MANHOLES TO GRADE AS NECESSARY.
- IN THE EVENT THAT THERE ARE ANY DISCREPANCIES FOUND BETWEEN THE PROPOSED SLOPES AND PROPOSED SPOT ELEVATIONS/DISTANCES, THE CONTRACTOR MUST CONTACT THE DESIGN ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.

BAR SCALE KEY

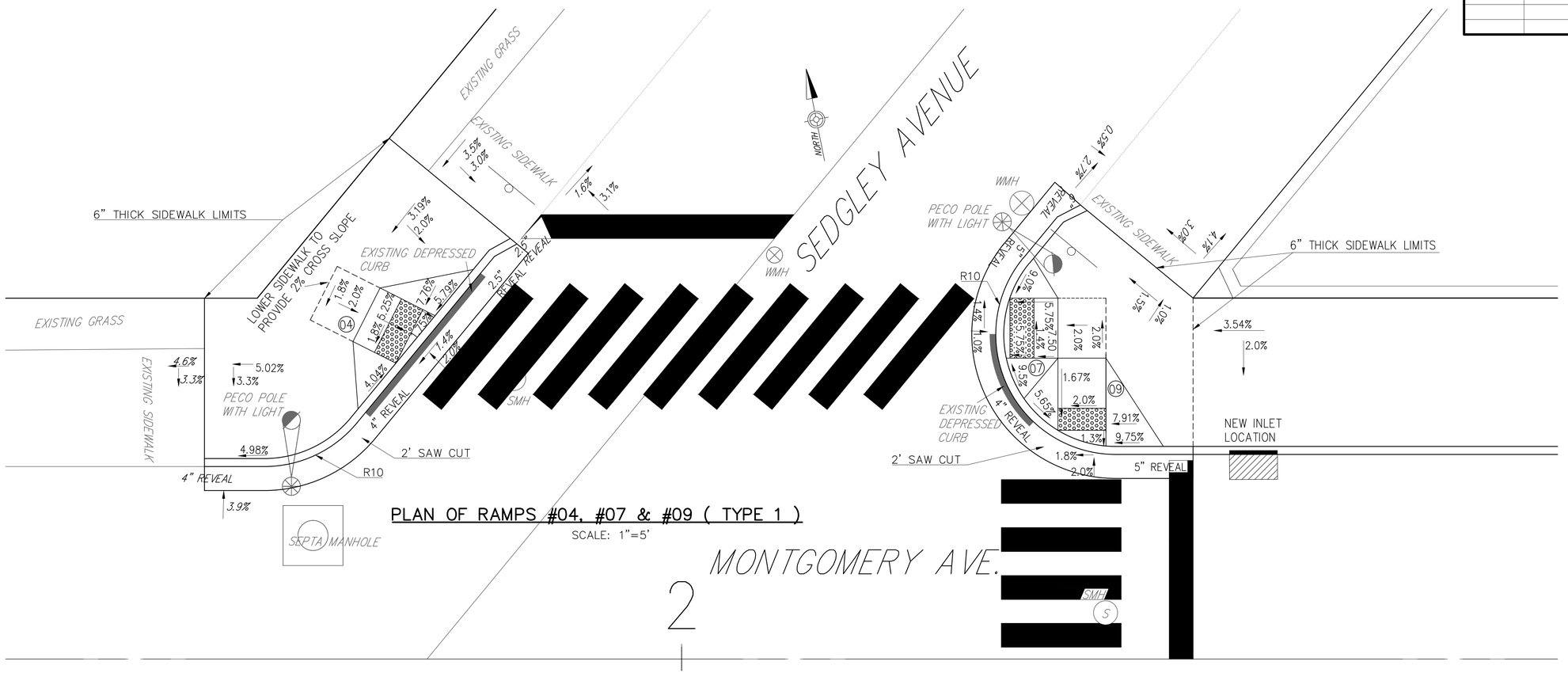
SCALE: 1"=5'-0"

5' 0 5'

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
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ENGINEER
No. PE-056844

CURB RAMP DETAILS

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	10 OF 17
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS		DATE	BY



PLAN OF RAMPS #04, #07 & #09 (TYPE 1)

SCALE: 1"=5'

PLAN OF RAMP #12 (TYPE 1)

SCALE: 1"=5'

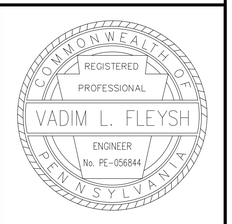
NOTES:

- FOR NOTES SEE SHEET 9
- FOR LEGEND SEE SHEET 9

BAR SCALE KEY

SCALE: 1"=5'-0"

5' 0 5'

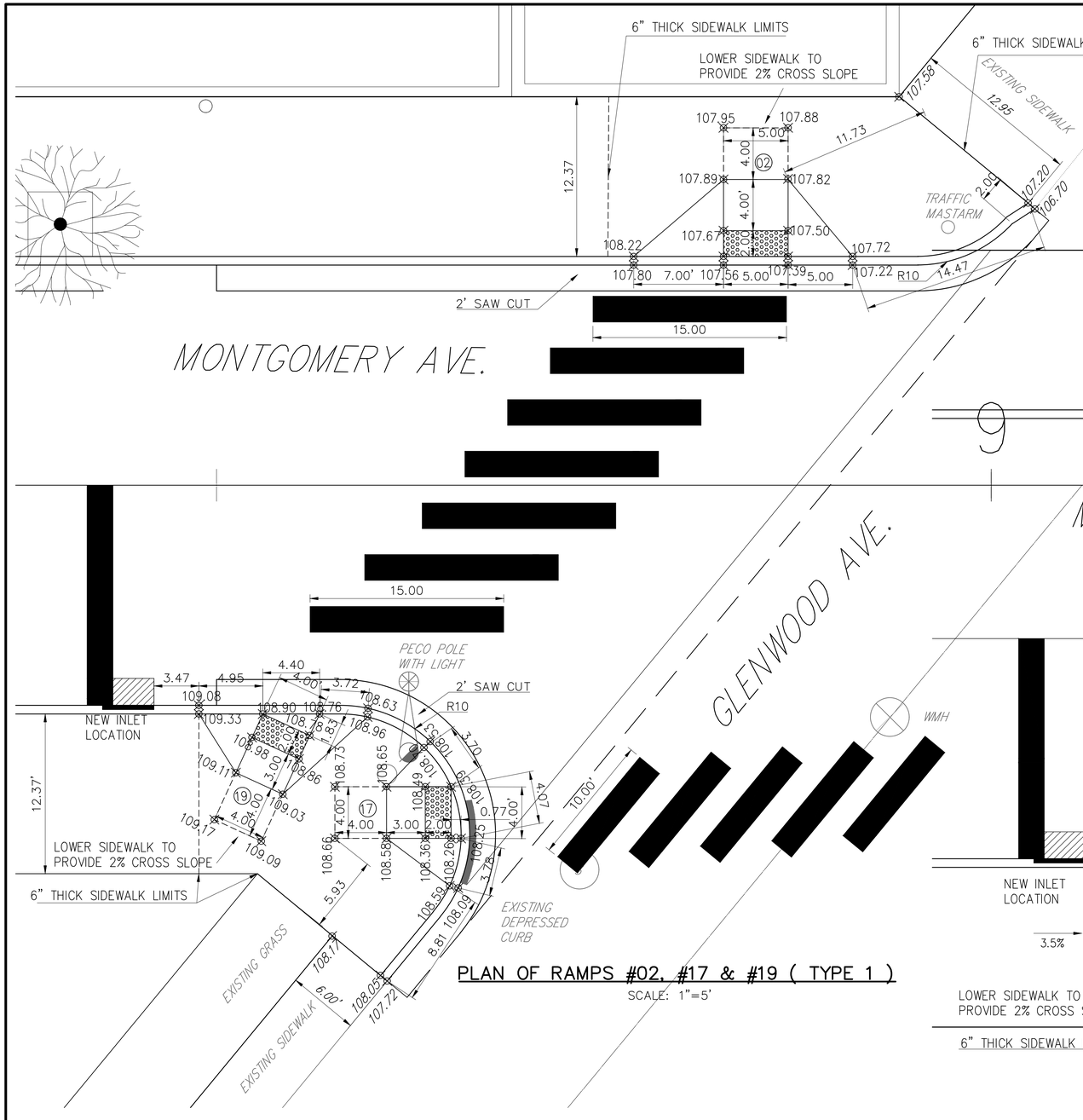


CURB RAMP DETAILS

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	11 OF 17

CITY OF PHILADELPHIA

REVISION NUMBER	REVISIONS	DATE	BY



PLAN OF RAMPS #02, #17 & #19 (TYPE 1)

SCALE: 1"=5'

PLAN OF RAMPS #02, #17 & #19 (TYPE 1)

SCALE: 1"=5'

BAR SCALE KEY

SCALE: 1"=5'-0"

5' 0 5'

NOTES:

- FOR NOTES SEE SHEET 9
- FOR LEGEND SEE SHEET 9

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VADIM L. FLEYSH
ENGINEER
No. PE-056844

CURB RAMP DETAILS

LITE = LIGHTING PLAN
PWD = SEWER LINING AND INLET REPLACEMENT
BRDG = STRUCTURE PLAN BPAA-672260
♦ - SEE SPECIAL PROVISIONS

SUMMARY

S & PMP = SIGNING AND PAVEMENT MARKING PLAN

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				06	PHILADELPHIA	7301	0185	12 OF 17
				CITY OF PHILADELPHIA				

QUANTITY	ITEM NO / UNIT	DESCRIPTION	DESIGN NO	FOR TAB SEE SHEET
X	4201 0001 / LS	CLEARING AND GRUBBING ♦		NO TAB
452	0203 0001 / CY	CLASS 1 EXCAVATION		14
9	0203 0004 / CY	CLASS 1B EXCAVATION		14
2983	0212 0014 / SY	GEOTEXTILE, CLASS 4, TYPE A		14
1556	0301 0004 / SY	PLAIN CEMENT CONCRETE BASE COURSE, 8" DEPTH		14
2630	0350 0106 / SY	SUBBASE 6" DEPTH (NO. 2A)		14
395	0413 0192 / SY	SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 64S-22, < 0.3 MILLION ESALS, 9.5 MM MIX, 1 1/2" DEPTH, SRL-H		14
24	0413 6035 / SY	SUPERPAVE ASPHALT MIXTURE DESIGN, BINDER COURSE, PG 64S-22, < 0.3 MILLION ESALS, 19.0 MM MIX, 2 1/2" DEPTH		14
1	0413 7009 / TON	SUPERPAVE ASPHALT MIXTURE DESIGN, BINDER COURSE (LEVELING), PG 64S-22, 0.3 TO < 3 MILLION ESALS, 19.0 MM MIX		14
395	0460 0001 / SY	ASPHALT TACK COAT		14
391	0491 0012 / SY	MILLING OF ASPHALT PAVEMENT SURFACE, 1 1/2" DEPTH, MILLED MATERIAL RETAINED BY CONTRACTOR		14
1	0606 0160 / SET	GRADE ADJUSTMENT OF EXISTING WATER VALVES		14
3	0606 0162 / SET	GRADE ADJUSTMENT OF EXISTING UTILITY BOXES		14
X	0608 0001 / LS	MOBILIZATION		NO TAB
X	4609 0002 / LS	INSPECTOR'S FIELD OFFICE AND INSPECTION FACILITIES, TYPE A ♦		NO TAB
X	0609 0009 / LS	EQUIPMENT PACKAGE ♦		NO TAB
149	4624 0001 / LF	RIGHT-OF-WAY FENCE, TYPE 1 ♦		14
585	0630 0010 / LF	PLAIN CEMENT CONCRETE CURB, INCLUDING REMOVAL OF EXISTING CURB		14
734	4676 0001 / SY	CEMENT CONCRETE SIDEWALK ♦		14
X	4686 0050 / LS	CONSTRUCTION SURVEYING, TYPE D ♦		NO TAB
X	0688 0002 / LS	MICROCOMPUTER WITH BATTERY BACKUP SYSTEM, TYPE A		NO TAB
X	0689 0003 / LS	CPM SCHEDULE		NO TAB
64	4695 0002 / SF	DETECTABLE WARNING SURFACE, CAST IRON ♦		14
8	0703 0020 / CY	NO. 1 COARSE AGGREGATE		15
2	0703 0025 / CY	NO. 57 COARSE AGGREGATE		15
22	0802 0001 / CY	TOPSOIL FURNISHED AND PLACED		15
1	0804 0011 / LB	SEEDING AND SOIL SUPPLEMENTS - FORMULA B		15
18	0804 0014 / LB	SEEDING - FORMULA E		15
1	0805 0021 / TON	MULCHING - HAY		15
14	0808 3442 / EACH	APPLE SERVICEBERRY - CLUMP FORM - (8' HT. B&B - HEAVY)		14
X	0810 0024 / LS	TREE TRIMMING TO AN UNLIMITED HEIGHT		14
4	0810 0052 / EACH	SELECTIVE TREE REMOVAL		14
20000	0845 0001 / DOLLA	UNFORESEEN WATER POLLUTION CONTROL		15
2	0855 0003 / EACH	PUMPED WATER FILTER BAG		15
2	0855 0004 / EACH	REPLACEMENT PUMPED WATER FILTER BAG		15
7	0860 0000 / EACH	INLET FILTER BAG FOR TYPE M INLET		15
11	0860 0002 / EACH	INLET FILTER BAG FOR TYPE C INLET		15
349	0866 0005 / LF	HEAVY DUTY SILT BARRIER FENCE		15
X	4901 0001 / LS	MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION ♦		NO TAB
3	4910 0001 / EACH	JUNCTION BOXES J.B.-1 MODIFIED ♦		LITE
7	0910 2002 / EACH	6-FOOT BRACKET ARM		LITE
1850	0910 4114 / LF	AWG 4 UNDERGROUND CABLE, COPPER, 1 CONDUCTOR		LITE
620	0910 4115 / LF	AWG 6 UNDERGROUND CABLE, COPPER, 1 CONDUCTOR		LITE
217	0910 5055 / LF	2" DIRECT BURIAL CONDUIT		LITE
X	0910 7210 / LS	TESTING OF ENTIRE LIGHTING SYSTEM		LITE
39	0931 0001 / SF	POST MOUNTED SIGNS, TYPE B		S & PMP
39	0935 0001 / SF	POST MOUNTED SIGNS, TYPE F		S & PMP
2	0954 0301 / EACH	JUNCTION BOX, JB-26		LITE
67	0960 0001 / LF	4" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS		S & PMP
7	0960 0002 / LF	4" YELLOW HOT THERMOPLASTIC PAVEMENT MARKINGS		S & PMP
44	0960 0005 / LF	6" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS		S & PMP
395	0960 0021 / LF	24" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS		S & PMP
386	0961 0321 / LF	4" COLD WHITE PLASTIC PAVEMENT MARKER, SURFACE APPLIED		S & PMP
385	0961 0322 / LF	4" COLD YELLOW PLASTIC PAVEMENT MARKER, SURFACE APPLIED		S & PMP
694	0964 0001 / LF	4" WHITE EPOXY PAVEMENT MARKINGS		S & PMP
695	0964 0002 / LF	4" YELLOW EPOXY PAVEMENT MARKINGS		S & PMP
17	0964 0021 / LF	24" WHITE EPOXY PAVEMENT MARKINGS		S & PMP
5	0975 0001 / EACH	REMOVE POST MOUNTED SIGNS, TYPE F		S & PMP
22	9000 0032 / EACH	DYNAMIC PILE LOAD TEST ♦		BRDG
X	5018 0050 / LS	REMOVAL OF PORTION OF EXISTING BRIDGE ♦		BRDG
3000	1091 0335 / DOLLA	EPOXY INJECTION CRACK SEAL		BRDG
2000	1999 9999 / HOUR	TRAINEES		NO TAB
EITHER	8200 0001 / LS	BRIDGE STRUCTURE, AS DESIGNED, L-201 ♦	3	BRDG
OR	8000 0001 / LS	PRESTRESSED CONCRETE BRIDGE STRUCTURE ♦	3	BRDG
OR	8100 0001 / LS	STEEL BRIDGE STRUCTURE ♦	3	BRDG
AND 13	1001 0611 / LF	6" STRUCTURE FOUNDATION DRAIN	3	BRDG
AND 958	9999 9998 / CY	EMBANKMENT MATERIAL (FOR INFORMATION ONLY)	3	BRDG
AND 27	0675 0001 / CY	RANDOM STONE SLOPE WALL	3	BRDG
AND 5	0703 0025 / CY	NO. 57 COARSE AGGREGATE	3	BRDG
AND 1084	1001 0730 / CY	SELECTED BORROW EXCAVATION, STRUCTURE BACKFILL	3	BRDG
AND 1000	1005 1410 / LF	MANDATORY PREDRILLING FOR DRIVEN PILES	3	BRDG
AND 176112	1002 0052 / LB	REINFORCEMENT BARS, EPOXY COATED	3	BRDG
AND 2075	1005 1845 / LF	STEEL HP14X102 PRODUCTION PILE	3	BRDG
AND 7347	9000 0056 / CY	ULTRA-LIGHTWEIGHT FOAMED GLASS AGGREGATE ♦	3	BRDG
AND 2	1005 1745 / EACH	STEEL HP14X102 TEST PILE	3	BRDG
AND 63	1005 2045 / EACH	STEEL HP14X102 PILE TIP REINFORCEMENT (HEAVY DUTY)	3	BRDG
2	9000 0001 / EACH	CONCRETE WASHOUT ♦		15
68	9000 0002 / SY	CEMENT CONCRETE SIDEWALK SEALED JOINTS, 8" DEPTH ♦		14
1497	9000 0003 / SY	REMOVAL OF BRICK PAVING ♦		14
1524	9000 0004 / SY	INSTALLATION OF BRICK PAVING ♦		14
X	9000 0005 / LS	RESETTING OF VEHICULAR GATE ♦		14
2	9000 0006 / EACH	BRONZE INSCRIPTION TABLET ♦		BRDG
10000	9000 0007 / DOLLA	SOIL SAMPLE COLLECTION, TESTING AND ANALYSIS ♦		BRDG
2	9000 0008 / EACH	TRUCK WASH ♦		15
12000	9000 0009 / DOLLA	PECO SUPPLY (PECO CORRDINATION) ♦		LITE
10	9000 0010 / EACH	PHILADELPHIA PEDESTRIAN POLE ♦		LITE
X	9000 0011 / LS	TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM ♦		BRDG
40000	9000 0014 / DOLLA	RELOCATE CATCH BASIN ♦		BRDG
50000	9000 0015 / DOLLA	RELOCATE DRAINAGE PIPE ♦		BRDG
1	9000 0018 / EACH	20' C-POST, STREET NAME SIGN POLE ♦		S & PMP
10	9000 0019 / EACH	WARNING LIGHT, TYPE B ♦		S & PMP
5625	9000 0020 / SF	PREFABRICATED MODULAR WINGWALL		BRDG
X	9000 0025 / LS	MASS POUR CONCRETE ♦		BRDG

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DARIN L. GATTI
ENGINEER
35698-E

PROJECT ID: 1279
MPMS: 57276
ECMS: 57276
11/3/2020 1:46:58 PM

LITE = LIGHTING PLAN
PWD = SEWER LINING AND INLET REPLACEMENT
BRDG = STRUCTURE PLAN BPAA-672260
♦ - SEE SPECIAL PROVISIONS

SUMMARY

S & PMP = SIGNING AND PAVEMENT MARKING PLAN

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				06	PHILADELPHIA	7301	0185	13 OF 17
				CITY OF PHILADELPHIA				

QUANTITY	ITEM NO / UNIT	DESCRIPTION	DESIGN NO	FOR TAB SEE SHEET
X	9000 0026 / LS	LOCATE BRICK SEWER ♦		BRDG
X	9000 0027 / LS	LOCATE AND PROTECT C&S DUCT BANK ♦		BRDG
200	9000 0029 / LF	EARTH DRILLING ♦		BRDG
20	9000 0030 / LF	OBSTRUCTION DRILLING ♦		BRDG
10000	9000 0031 / DOLLA	OVEREXCAVATION AND BACKFILLING WITH PENNDOT NO. 2A COARSE AGGREGATE ♦		BRDG
1	9000 0050 / EACH	PRE AND POST CONSTRUCTION SURVEYS ♦		BRDG
50000	9000 0051 / DOLLA	EXCAVATION, TRANSPORTATION AND DISPOSAL OF RESIDUAL AND HAZARDOUS WASTE ♦		BRDG
100	9000 0053 / LF	REMOVE AND RESET CORRUGATED METAL FENCE ♦		14
X	9000 0054 / LS	BONDING AND GROUNDING ♦		BRDG
265	9000 1001 / LF	5'-0" NON-STRYENATED RESIN IMPREGNATED LINER INCLUDING ALL APPURTENANT WORK ♦		PWD
130	9000 1002 / LF	4'-6" NON-STRYENATED RESIN IMPREGNATED LINER INCLUDING ALL APPURTENANT WORK ♦		PWD
X	9000 1003 / LS	DEWATERING OF THE SEWER ♦		PWD
2	9000 1004 / CY	FILL VOIDS IN THE CROWN, WALLS, AND INVERT WITH EPOXY MASTIC TO REPAIR THE SEWER PRIOR TO THE EPOXY LINING ♦		PWD
25	9000 1005 / SY	1/4-(250 MILS) LAYER OF EPOXY RESIN LINING ♦		PWD
10	9000 1006 / CY	CLEANING AND REMOVAL OF DEBRIS IN THE 4'-0" SEWER ♦		PWD
700	9000 1007 / CY	EXCAVATION FOR PIPE SEWERS INCLUDING SHEATHING AND SHORING, WITH STEEL SOLDIER BEAMS ♦		PWD
100	9000 1008 / CY	EXPLORATORY EXCAVATION ♦		PWD
15	9000 1009 / LF	54 INCH RCP SEWER ♦		PWD
15	9000 1010 / LF	60 INCH RCP SEWER ♦		PWD
4	9000 1011 / EACH	SEWER MANHOLES FOR PIPES 36 INCHES AND OVER ♦		PWD
1	9000 1012 / EACH	WELLHOLES ♦		PWD
4	9000 1013 / EACH	4 FOOT OPEN MOUTH GRATE INLETS ♦		PWD
4	9000 1014 / EACH	FILLING ABANDONED INLETS ♦		PWD
38400	9000 1015 / DOLLA	SHEETING AND SHORING TO BE LEFT IN PLACE ♦		PWD
75	9000 1016 / LF	15 INCH INLET CONNECTIONS ♦		PWD
1	9000 1017 / EACH	SEWER MANHOLES FOR PIPES 30 INCHES AND UNDER ♦		PWD
1	9000 1018 / EACH	FILLING ABANDONED MANHOLES ♦		PWD
90	9000 1019 / LF	48 INCH RCP SEWER ♦		PWD
7	9000 1512 / EACH	LED ROADWAY LUMINAIRE ♦		LITE
7	9000 1513 / EACH	REMOVE STREET LIGHT ARM AND LUMINAIRE FROM EXISTING POLE ♦		LITE
5	9000 5001 / EACH	CONSTRUCTION OF ADA RAMPS (BY QUADRANT) ♦		14
2	9000 5002 / EACH	COVID-19 SAFETY PLAN SIGN ♦		14
45000	9000 5003 / DOLLA	PILE EXTRACTION AND RE-DRIVING ♦		BRDG
30000	9000 5004 / DOLLA	MOBILIZATION FOR PREDRILLING FOR UNFORESEEN OBSTRUCTIONS ♦		BRDG
30000	9000 5050 / DOLLA	ASBESTOS TESTING AND ABATEMENT ♦		14

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DARIN L. GATTI
ENGINEER
35698-E

TABULATION OF QUANTITIES

ROADWAY

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				06	PHILADELPHIA	7301	0185	14 OF 17
				CITY OF PHILADELPHIA				

CLASS 1 EXCAVATION	CLASS 1B EXCAVATION	GEOTEXTILE, CLASS 4, TYPE A	PLAIN CEMENT CONCRETE BASE COURSE, 8" DEPTH	SUBBASE 6" DEPTH (NO. 2A)	SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 64S-22, < 0.3 MILLION ESALS, 9.5 MM MIX, 1 1/2" DEPTH, SRL-H	SUPERPAVE ASPHALT MIXTURE DESIGN, BINDER COURSE, PG 64S-22, < 0.3 MILLION ESALS, 19.0 MM MIX, 2 1/2" DEPTH	SUPERPAVE ASPHALT MIXTURE DESIGN, BINDER COURSE (LEVELING), PG 64S-22, 0.3 TO < 3 MILLION ESALS, 19.0 MM MIX	ASPHALT TACK COAT	MILLING OF ASPHALT PAVEMENT SURFACE, 1 1/2" DEPTH, MILLED MATERIAL RETAINED BY CONTRACTOR	GRADE ADJUSTMENT OF EXISTING WATER VALVES	GRADE ADJUSTMENT OF EXISTING UTILITY BOXES	RIGHT-OF-WAY FENCE, TYPE 1	PLAIN CEMENT CONCRETE CURB, INCLUDING REMOVAL OF EXISTING CURB	CEMENT CONCRETE SIDEWALK	DETECTABLE WARNING SURFACE, CAST IRON	APPLE SERVICEBERRY - CLUMP FORM - (8' HT. B&B - HEAVY)	TREE TRIMMING TO AN UNLIMITED HEIGHT	SELECTIVE TREE REMOVAL	CEMENT CONCRETE SIDEWALK SEALED JOINTS, 8" DEPTH	REMOVAL OF BRICK PAVING	INSTALLATION OF BRICK PAVING	RESETTING OF VEHICULAR GATE	REMOVE AND RESET CORRUGATED METAL FENCE	CONSTRUCTION OF ADA RAMPS (BY QUADRANT)	COVID-19 SAFETY PLAN SIGN	ASBESTOS TESTING AND ABATEMENT	REMARKS	SIDE	STATIONS
0203 0001 CY	0203 0004 CY	0212 0014 SY	0301 0004 SY	0350 0106 SY	0413 0192 SY	0413 6035 SY	0413 7009 TON	0460 0001 SY	0491 0012 SY	0606 0160 SET	0606 0162 SET	4624 0001 LF	0630 0010 LF	4676 0001 SY	4695 0002 SF	0808 3442 EACH	0810 0024 LS	0810 0052 EACH	9000 0002 SY	9000 0003 SY	9000 0004 SY	9000 0005 LS	9000 0053 LF	9000 5001 EACH	9000 5002 EACH	9000 5050 DOLLA	ITEM NUMBER UNIT			
																											MONTGOMERY AVE		
							1			1	3						X					X	100		2	30000	ENTIRE PROJECT	LT / RT	1+00.00 to 9+50.00
					199	17		196	192						38									3			ROADWAY	LT / RT	1+61.05 to 2+46.00
25	6	546	12	109									380	463					68								MONTOGOMERY AVE & SEDGLEY AVE	LT / RT	1+61.05 to 4+79.56
325		803	802	802								20								719	792						ROADWAY	LT / RT	2+46.00 to 4+72.05
																8											TREES		2+65.00 to 3+90.00
		22																									SIDEWALK IN MOMENT SLAB	RT	4+17.53 to 4+43.45
		30																									SIDEWALK IN APPROACH SLAB	RT	4+35.93 to 4+72.89
		111		173																							ROADWAY APPROACH SLAB		4+43.45 to 5+02.05
		25																									SIDEWALK IN MOMENT	LT	4+50.66 to 4+79.56
												129															ADJACENT TO STRUCTURE		4+50.66 to 6+69.68
		31																									SIDEWALK IN APPROACH		4+72.61 to 5+09.56
		30																									SIDEWALK IN APPROACH	RT	5+94.27 to 6+30.96
		111		173																							ROADWAY IN APPROACH SLAB		6+00.96 to 6+67.07
		252		126																							SIDEWALK & CURB	RT	6+23.44 to 8+38.63
		738	737	1127																	732						ROADWAY		6+30.00 to 8+40.00
		30																									SIDEWALK IN APPROACH SLAB	LT	6+30.11 to 6+67.07
																				778							ROADWAY		6+46.81 to 8+52.17
																											SIDEWALK IN MOMENT SLAB	RT	6+60.11 to 7+64.90
		102		101																							SIDEWALK IN MOMENT SLAB	RT	6+60.11 to 7+64.90
																6		4									TREES		6+86.58 to 8+20.00
																											TREES		6+89.58 to 8+20.00
		152		19									205	271													SIDEWALK & CURB	LT / RT	7+39.00 to 8+70.31
102																											ROADWAY		7+79.65 to 8+40.00
					196			199	199						26									2			ROADWAY		8+38.63 to 9+05.00
	3		5			7																					SIDEWALK & CURB	LT	8+40.00 to 8+70.31
452	9	2983	1556	2630	395	24	1	395	391	1	3	149	585	734	64	14	---	4	68	1497	1524	---	100	5	2	30000	TOTALS		

PROJECT ID: 1279 MPMS: 57276 ECMS: 57276 11/3/2020 1:42:57 PM

TABULATION OF QUANTITIES

EROSION AND SEDIMENT POLLUTION CONTROL

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				06	PHILADELPHIA	7301	0185	15 OF 17
				CITY OF PHILADELPHIA				

NO. 1 COARSE AGGREGATE 0703 0020 CY	NO. 57 COARSE AGGREGATE 0703 0025 CY	TOPSOIL FURNISHED AND PLACED 0802 0001 CY	SEEDING AND SOIL SUPPLEMENTS - FORMULA B 0804 0011 LB	SEEDING - FORMULA E 0804 0014 LB	MULCHING - HAY 0805 0021 TON	UNFORESEEN WATER POLLUTION CONTROL 0845 0001 DOLLA	PUMPED WATER FILTER BAG 0855 0003 EACH	REPLACEMENT PUMPED WATER FILTER BAG 0855 0004 EACH	INLET FILTER BAG FOR TYPE M INLET 0860 0000 EACH	INLET FILTER BAG FOR TYPE C INLET 0860 0002 EACH	HEAVY DUTY SILT BARRIER FENCE 0866 0005 LF	CONCRETE WASHOUT 9000 0001 EACH	TRUCK WASH 9000 0008 EACH	REMARKS	SIDE	STATIONS
														MONTGOMERY AVE		
		22	1	18	1	20000			7	11				ENTIRE PROJECT		1+50.00 to 9+05.00
2	0.5										32				LT / RT	1+51.21 to 1+75.68
													2	TRUCK WASHES		2+46.00 to 8+07.54
							2	2				2		CONCRETE WASHOUTS		2+46.86 to 8+27.58
2	0.5										125					4+35.93 to 5+09.56
2	0.5										88					5+79.76 to 6+35.24
2	0.5										104					7+39.00 to 8+43.17
														INLET FILTER BAG FOR TYPE C	RT	2+05.54
														INLET FILTER BAG FOR TYPE C		2+43.67
														INLET FILTER BAG FOR TYPE M	LT	3+63.85
														INLET FILTER BAG FOR TYPE M	RT	8+33.16
8	2	22	1	18	1	20000	2	2	7	11	349	2	2	TOTALS		

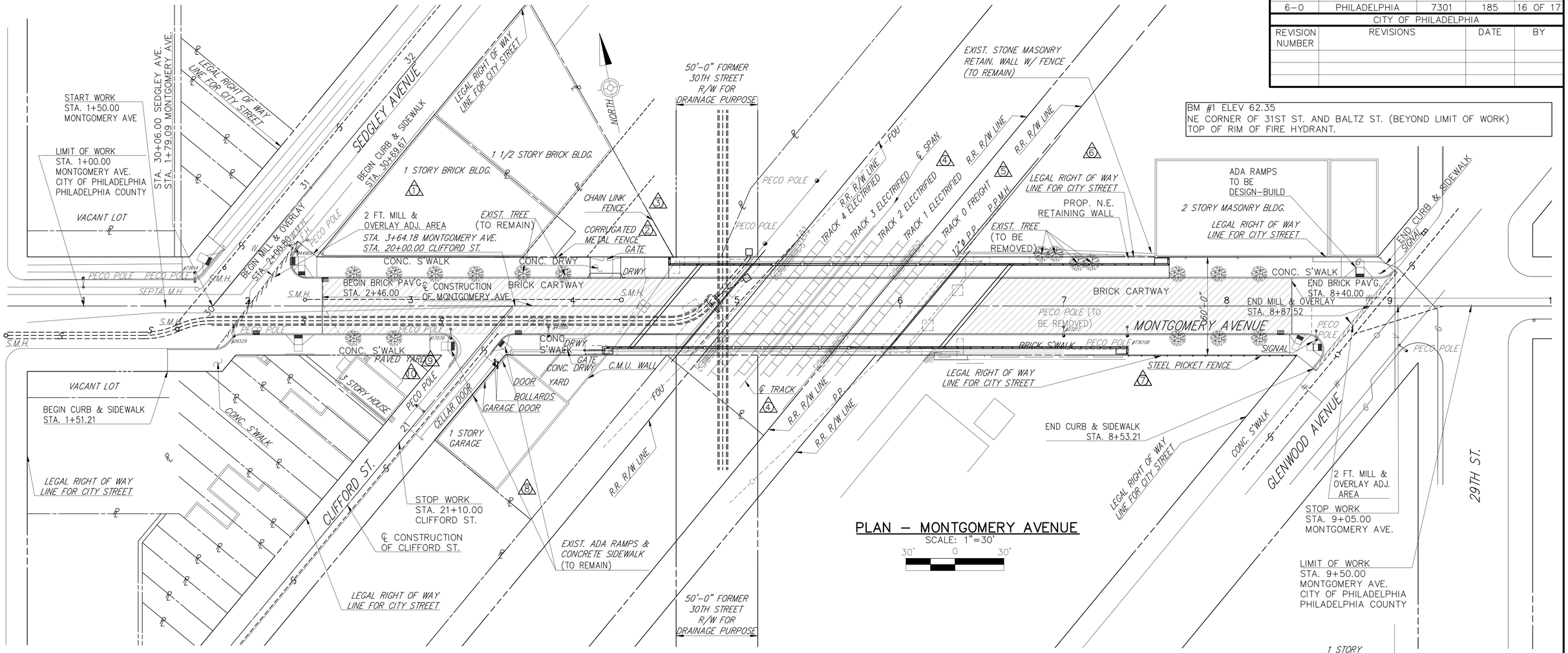
PROJECT ID: 1279 MPMS: 57276 ECMS: 57276 11/3/2020 1:45:48 PM

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	16 OF 17

CITY OF PHILADELPHIA

REVISION NUMBER	REVISIONS	DATE	BY

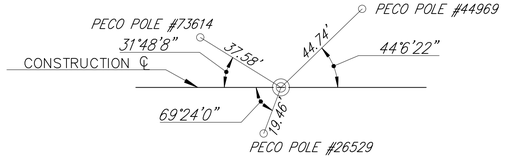
BM #1 ELEV 62.35
NE CORNER OF 31ST ST. AND BALTZ ST. (BEYOND LIMIT OF WORK)
TOP OF RIM OF FIRE HYDRANT.



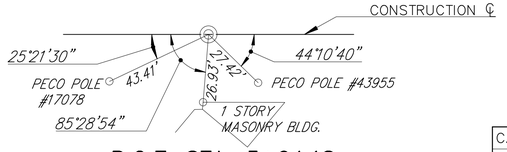
PLAN – MONTGOMERY AVENUE

SCALE: 1"=30'

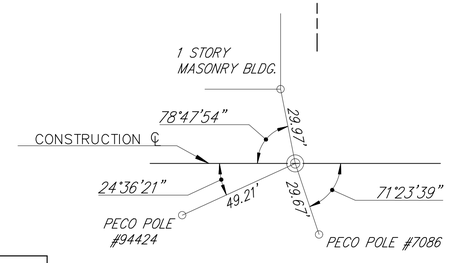
30' 0 30'



P.O.T. STA. 2+00.00



P.O.T. STA. 3+64.18



P.O.T. STA. 9+00.00

STRUCTURE DATA

EXISTING STRUCTURE	PROPOSED STRUCTURE
STA. 4+42.96 TO STA. 6+59.92	STA. 4+88.58 TO STA. 6+14.42
CONCRETE ENCASED STEEL THRU GIRDER BRIDGE	SINGLE SPAN CONSTANT DEPTH GIRDER BRIDGE
SPANS: 30.20'-31.38'-72.63'-46.13'-33.23'	SPAN: 125'-10"
19.24' MIN. VERT. CLEARANCE	19.76' MIN VERTICAL CLEARANCE
SKEW ANGLE 50°26'03" RT.	SKEW ANGLE 50°00'00" RT.
35.5' ROADWAY, 10.29' LT. S'WALK, 10.29' RT. S'WALK	34.0' ROADWAY, 8.0' LT. S'WALK, 8.0' RT. S'WALK
	CITY BRIDGE NUMBER 185, L-201

LEGEND

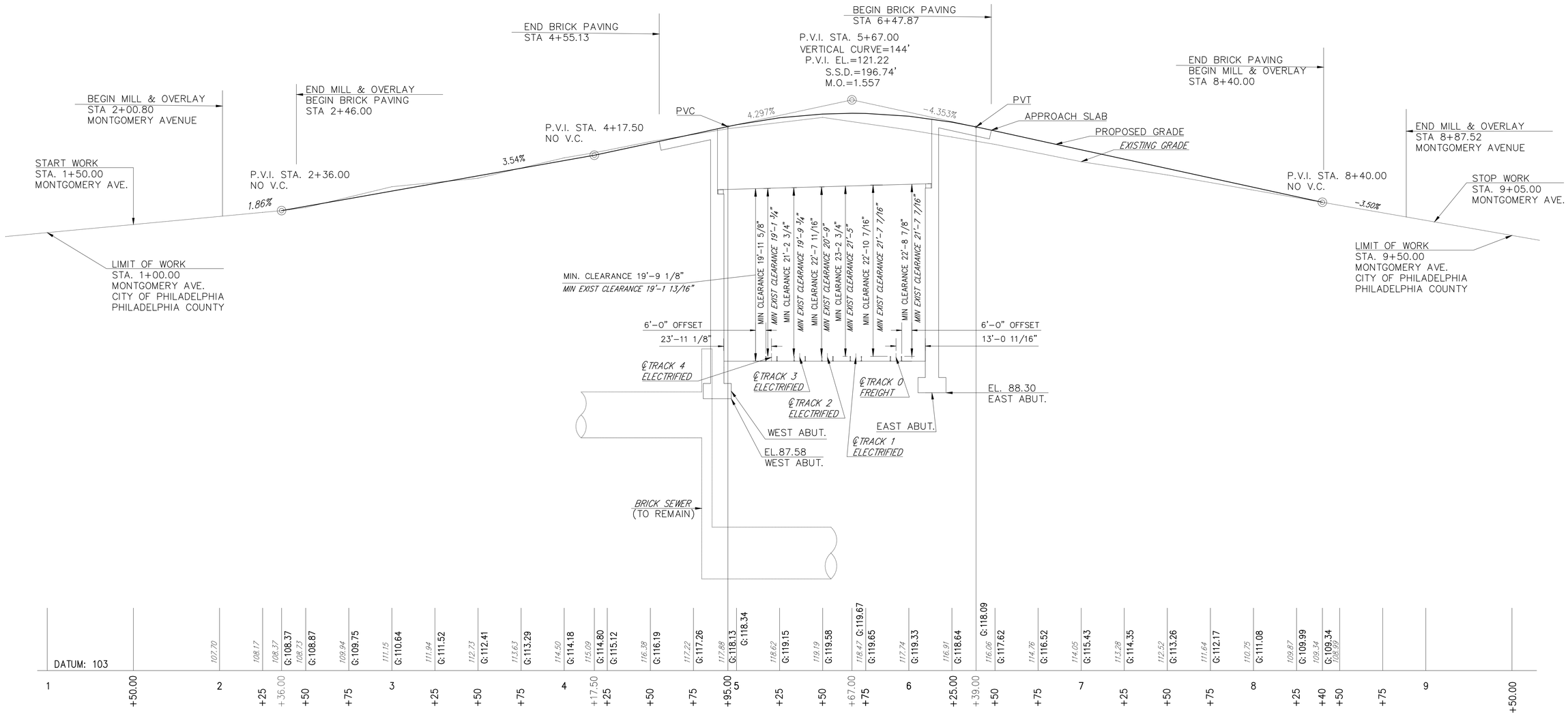
-C&S-	CABLE & SIGNAL	□	GAS VALVE BOX
-FOU-	FIBER OPTIC UNDERGROUND	⊗	WATER VALVE BOX
-G-	PHILADELPHIA GAS WORKS	▧	SEWER VENT BOX
-SEPTA-	SEPTA	◎	FIRE HYDRANT
-S-	SEWER MAIN		STREET SIGN
-STD. E-	STD. ELECTRIC		TREE
-VT-	VERIZON TELEPHONE DUCT	▨	INLET
-W-	WATER MAIN		PROPOSED ST. LIGHT POLE
-PO-	PRIVATELY OWNED		PROPERTY OWNER SEE SHT.3
—○—	MANHOLE		PECO POLE
	PECO POLE W/ ST. LIGHT		ADA RAMP

C.M.U.	CONCRETE MASONRY UNIT
P.G.	PROFILE GRADE POINT
N.G., S.G.	NORTH, SOUTH GUTTER
N.H.L, S.H.L, E.H.L, W.H.L	NORTH, SOUTH, EAST, WEST HOUSE LINE
N.T.C., S.T.C.	NORTH, SOUTH TOP OF CURB
N.E.S., S.E.S.	NORTH, SOUTH EDGE OF S'WALK
N.T.P., S.T.P.	NORTH, SOUTH TOP OF PARAPET/PILASTER
P.V.C.	POINT OF VERTICAL CURVE
P.V.I.	POINT OF VERTICAL INTERSECTION
P.V.T.	POINT OF VERTICAL TANGENCY
P.L.C.C.	PLAIN CEMENT CONCRETE (CURB)
R.D.C.C.	REINFORCED DEPRESSED CEMENT CONCRETE (CURB)

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VADIM L. FLEYSH
ENGINEER
No. PE-056844

SURVERY BOOK #9501 | LOCATION: 1401 JOHN F. KENNEDY BLVD. IN MSB 830

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	17 OF 17
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS		DATE	BY



PROFILE

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=25'

BAR SCALE KEY

SCALE: 1"=25'

25' 0 25'

SCALE: 1"=5'

5' 0 5'

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VADIM L. FLEYSH
ENGINEER
No. PE-056844

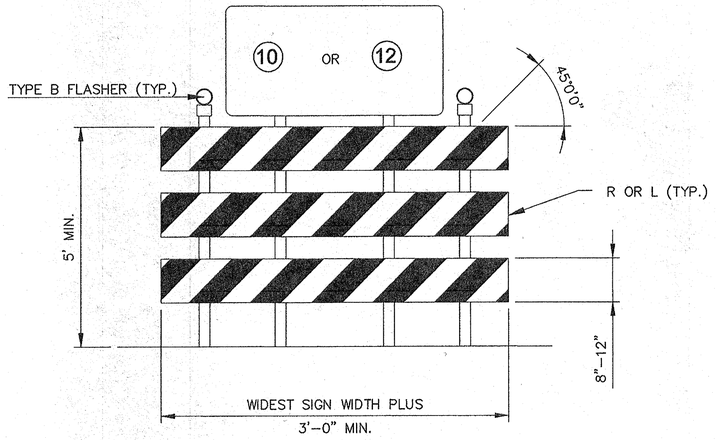
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	1 OF 2
CITY OF PHILADELPHIA				

REVISION NUMBER	REVISIONS	DATE	BY

TABULATION OF SIGNS AND DEVICES (FOR INFORMATION ONLY) ▲

SYMBOL	DESIGNATION	DESCRIPTION	SIZE (INCHES)	QUANTITY
1	FAB	MONTGOMERY AVE	48X12	4
	W20-2	ADVANCE DETOUR SIGN	36X36	
	W30-1-1	500 FT DISTANCE PANEL	–	
2	FAB	MONTGOMERY AVE	48X12	1
	W20-2	ADVANCE DETOUR SIGN	36X36	
	W30-1-2	1000 FT DISTANCE PANEL	–	
3	FAB	MONTGOMERY AVE	48X12	1
	W20-2	ADVANCE DETOUR SIGN	36X36	
	W30-1-3	1500 FT DISTANCE PANEL	–	
4	FAB	MONTGOMERY AVE	48X12	2
	M4-9SR	ADVANCE DETOUR SIGN, RIGHT	30X24	
5	FAB	MONTGOMERY AVE	48X12	2
	M4-9R	DETOUR SIGN, RIGHT	30X24	
6	FAB	MONTGOMERY AVE	48X12	3
	M4-9SL	ADVANCE DETOUR, LEFT	30X24	
7	FAB	MONTGOMERY AVE	48X12	4
	M4-9L	DETOUR SIGN, LEFT	30X24	
8	FAB	MONTGOMERY AVE	48X12	8
	M4-9S	DETOUR SIGN, STRAIGHT	30X24	
9	FAB	MONTGOMERY AVE	48X12	2
	M4-8A	END DETOUR SIGN	24X18	
10	R11-2-1	BRIDGE CLOSED SIGN	48X30	4
11	W23-101	THIS BRIDGE TO BE CLOSED FOR CONSTRUCTION XX-XX-XXXX	48X48	2
12	R11-3A	ROAD CLOSED 1500 FEET AHEAD LOCAL TRAFFIC ONLY SIGN	60X30	2
	M4-10R	DETOUR, RIGHT	48X18	
13	R9-9	SIDEWALK CLOSED	30X18	2
14	R9-11A (L)	SIDEWALK CLOSED CROSS HERE, LEFT	24X12	1
15	R9-11A (R)	SIDEWALK CLOSED CROSS HERE, RIGHT	24X12	1
16	M4-9B (R)	PEDESTRIAN DETOUR SIGN, RIGHT	30X24	3
17	M4-9B (L)	PEDESTRIAN DETOUR SIGN, LEFT	30X24	3
18	M4-9B (S)	PEDESTRIAN DETOUR SIGN, STRAIGHT	30X24	6
19	M4-8A	END DETOUR	24X18	2
	FAB	PEDESTRIAN	30X12	
20	W20-3	ROAD CLOSED	36X36	2
	W30-1-1	500 FT DISTANCE PANEL	–	
21	W20-3	ROAD CLOSED	36X36	2
	W30-1-2	1000 FT DISTANCE PANEL	–	
	–	TYPE III BARRICADE	–	6
	–	TEMPORARY PORTABLE SIGN POST	–	50
☼	–	TYPE B FLASHING LIGHT	–	12

▲ THESE SIGNS AND DEVICES TO BE INCLUDED AS INCIDENTAL UNDER ITEM 4901-0001 MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION.



TYPE III BARRICADE DETAIL
NOT TO SCALE



FAB 48"X12"		FAB 30"X12"	
3.2		4.35	
M	3.4	P	2.4
O	3.2	E	2.1
N	2.9	D	2.4
T	2.7	E	2.1
G	2.9	S	2.3
O	3.2	T	2.1
M	3.4	R	2.4
E	2.7	I	1.1
R	2.9	A	2.7
Y	2.5	N	1.7
4.0		4.35	
A	2.7	30.0	
V	3.1		
E	2.0		
3.2			
48.0			

FABRICATION DETAIL
NOT TO SCALE

GENERAL NOTES:

THIS WORK CONSISTS OF THE MAINTENANCE OF TRAFFIC AND THE PROTECTION OF THE TRAVELING PUBLIC APPROACHING THE CONSTRUCTION AREA AND WITHIN THE LIMITS OF CONSTRUCTION.

FURNISH, ERECT, PLACE AND MAINTAIN TRAFFIC CONTROL SIGNS AND DEVICES AND MAINTAIN TRAFFIC DURING THE HOURS OF CONSTRUCTION AND AT ALL OTHER TIMES IN ACCORDANCE WITH THE METHODS INDICATED ON THESE DRAWINGS, AND THE FOLLOWING:

1. SPECIAL PROVISIONS OF THE CONTRACT.
2. PA CODE, TITLE 67, CHAPTER 212, OFFICIAL TRAFFIC CONTROL DEVICES.
3. PENNDOT PUBLICATION 213, WORK ZONE TRAFFIC CONTROL.
4. PENNDOT PUBLICATION 236, HANDBOOK OF APPROVED SIGNS.
5. PENNDOT PUBLICATION 35, APPROVED CONSTRUCTION MATERIALS (BULLETIN 15).
6. PENNDOT PUBLICATION 408, SPECIFICATIONS.
7. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

REMOVE CONFLICTING PAVEMENT MARKINGS WHEN PLACING DETOUR.

REPLACE ALL PAVEMENT MARKINGS WHICH HAD BEEN REMOVED DURING CONSTRUCTION, UNLESS OTHERWISE NOTED.

INSTALL ALL TRAFFIC CONTROL DEVICES AND HAVE THE INSTALLATION INSPECTED BY THE INSPECTOR-IN-CHARGE OR HIS REPRESENTATIVE BEFORE WORK BEGINS.

COVER OR REMOVE ALL SIGNS NOT IN USE.

ALL SIGNS TO BE MOUNTED ON EXISTING POSTS OR UTILITY POLES WHEREVER POSSIBLE.

ALL SIGNS AND DEVICES MUST BE IN NEW OR NEAR NEW CONDITION AND MAINTAINED AS SUCH.

THIS TRAFFIC CONTROL PLAN DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY AS SPECIFIED IN SECTION 901.3(a) OF PUBLICATION 408.

NOTIFY LOCAL EMERGENCY OFFICIALS (POLICE, FIRE, AMBULANCE) TWO (2) WEEKS PRIOR TO THE DETOUR.

SIGN 11 TO BE MOUNTED 2 WEEKS PRIOR TO CONSTRUCTION AND REMOVED WHEN WORK STARTS.

BARRICADE ENTIRE ROADWAY WIDTH AT SIGN 10 LOCATIONS.

IMMEDIATELY UPON COMPLETION OF THE WORK, REMOVE ALL SIGNS AND DEVICES, UNLESS OTHERWISE SPECIFIED IN THE SPECIAL PROVISIONS. ALL MATERIAL WILL REMAIN THE PROPERTY OF THE CONTRACTOR.

MAINTAIN ACCESS TO BUILDINGS AND DRIVEWAYS.

FABRICATION NOTES:

COLORS FOR INFORMATION SIGNS:
BACKGROUND: ORANGE (REFLECTORIZED)
LEGEND AND BORDER: BLACK (NON-REFLECTORIZED)
ALL CAPITAL LETTERS AND NUMERALS SHALL BE SERIES "C", UNLESS OTHERWISE NOTED.

SIGN DETAILS:
1.5" RADIUS , 2.0" BORDER,
0.4" INDENT, BLACK ON ORANGE

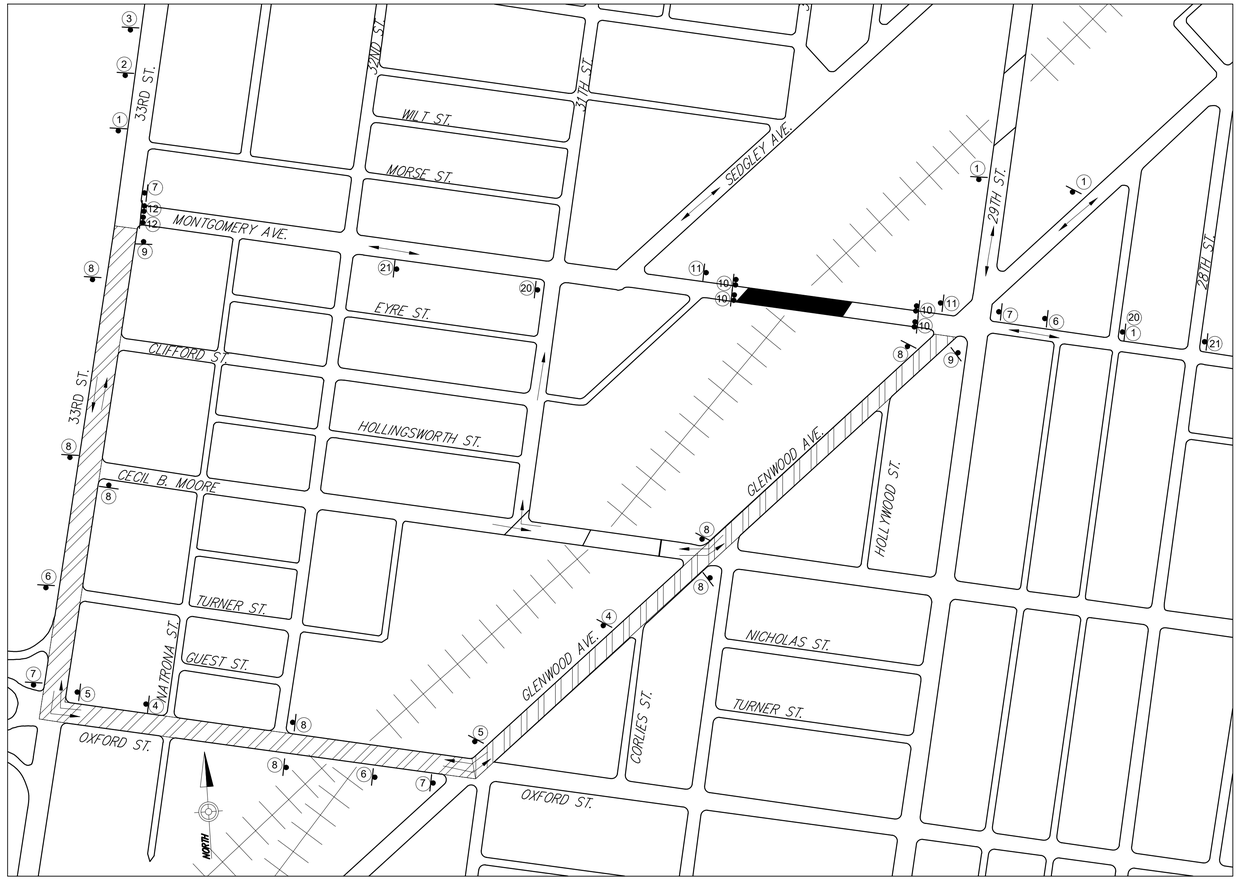
9-19-16
PHILADELPHIA DISTRICT TRAFFIC ENGINEER DATE

10/18/16
RECOMMENDED DISTRICT 6-0 TRAFFIC ENGINEER DATE

TRAFFIC CONTROL PLAN

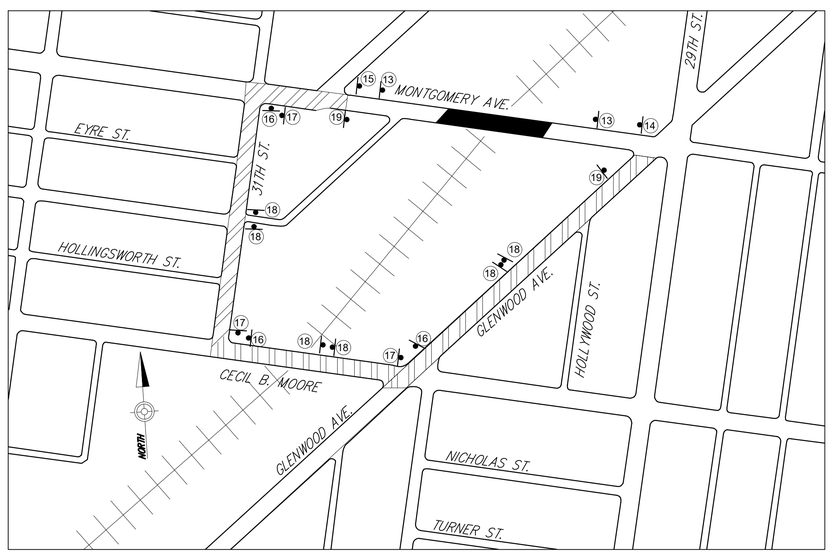
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DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	2 OF 2
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS		DATE	BY



VEHICULAR DETOUR MAP

SCALE: 1" = 500'



PEDESTRIAN DETOUR MAP

SCALE: 1" = 500'

TRAFFIC CONTROL

VEHICULAR TRAFFIC WILL BE DETOURED DURING CONSTRUCTION AS FOLLOWS:

1. GLENWOOD AVE. – OXFORD ST. – 33RD ST.

LEGEND:

- DETOUR ROUTE
- BRIDGE
- TEMPORARY SIGN WITH DESIGNATION #
- TYPE III BARRICADE
- TYPE B FLASHING LIGHT
- DIRECTION OF TRAFFIC
- RAILROADS

BAR SCALE

SCALE: 1"=500'

500' 0 500'

SIGN SCHEDULE

1 — MONTGOMERY AVE / DETOUR 500 FT — W20-2 36"X36" W30-1-1 — BLACK ON ORANGE

2 — MONTGOMERY AVE / DETOUR 1000 FT — W20-2 36"X36" W30-1-2 — BLACK ON ORANGE

3 — MONTGOMERY AVE / DETOUR 1500 FT — W20-2 36"X36" W30-1-3 — BLACK ON ORANGE

4 — MONTGOMERY AVE / DETOUR (→) — M4-9SR 30"X24" — BLACK ON ORANGE

5 — MONTGOMERY AVE / DETOUR (→) — M4-9R 30"X24" — BLACK ON ORANGE

6 — MONTGOMERY AVE / DETOUR (←) — M4-9SL 30"X24" — BLACK ON ORANGE

7 — MONTGOMERY AVE / DETOUR (←) — M4-9L 30"X24" — BLACK ON ORANGE

8 — MONTGOMERY AVE / DETOUR (↑) — M4-9S 30"X24" — BLACK ON ORANGE

9 — MONTGOMERY AVE / END DETOUR — M4-8A 24"X18" — BLACK ON ORANGE

10 — BRIDGE CLOSED — R11-2-1 48"X30" BLACK ON WHITE

11 — THIS BRIDGE TO BE CLOSED FOR CONSTRUCTION XX-XX-XXXX* — W 23-101 96"X48" *APPROPRIATE DATE — BLACK ON ORANGE

12 — ROAD CLOSED 1500 FEET AHEAD LOCAL TRAFFIC ONLY / DETOUR (→) — R11-3A 60"X30" BLACK ON WHITE

M4-10R 48"X18" BLACK ON ORANGE

13 — SIDEWALK CLOSED — R9-9 30"X18" — BLACK ON WHITE

14 — SIDEWALK CLOSED CROSS HERE (←) — R9-11AL 24"X12" — BLACK ON WHITE

15 — SIDEWALK CLOSED CROSS HERE (→) — R9-11AR 24"X12" — BLACK ON WHITE

16 — DETOUR (→) — M4-9B (R) 30"X24" — BLACK ON ORANGE

17 — DETOUR (←) — M4-9B (L) 30"X24" — BLACK ON ORANGE

18 — DETOUR (↑) — M4-9B (S) 30"X24" — BLACK ON ORANGE

19 — END DETOUR / PEDESTRIAN — M4-8A 24"X18" BLACK ON ORANGE

FAB 30"X12" BLACK ON ORANGE

20 — ROAD CLOSED 500 FT — W20-3 36"X36" W30-1-1 — BLACK ON ORANGE

21 — ROAD CLOSED 1000 FT — W20-3 36"X36" W30-1-2 — BLACK ON ORANGE

TRAFFIC CONTROL PLAN

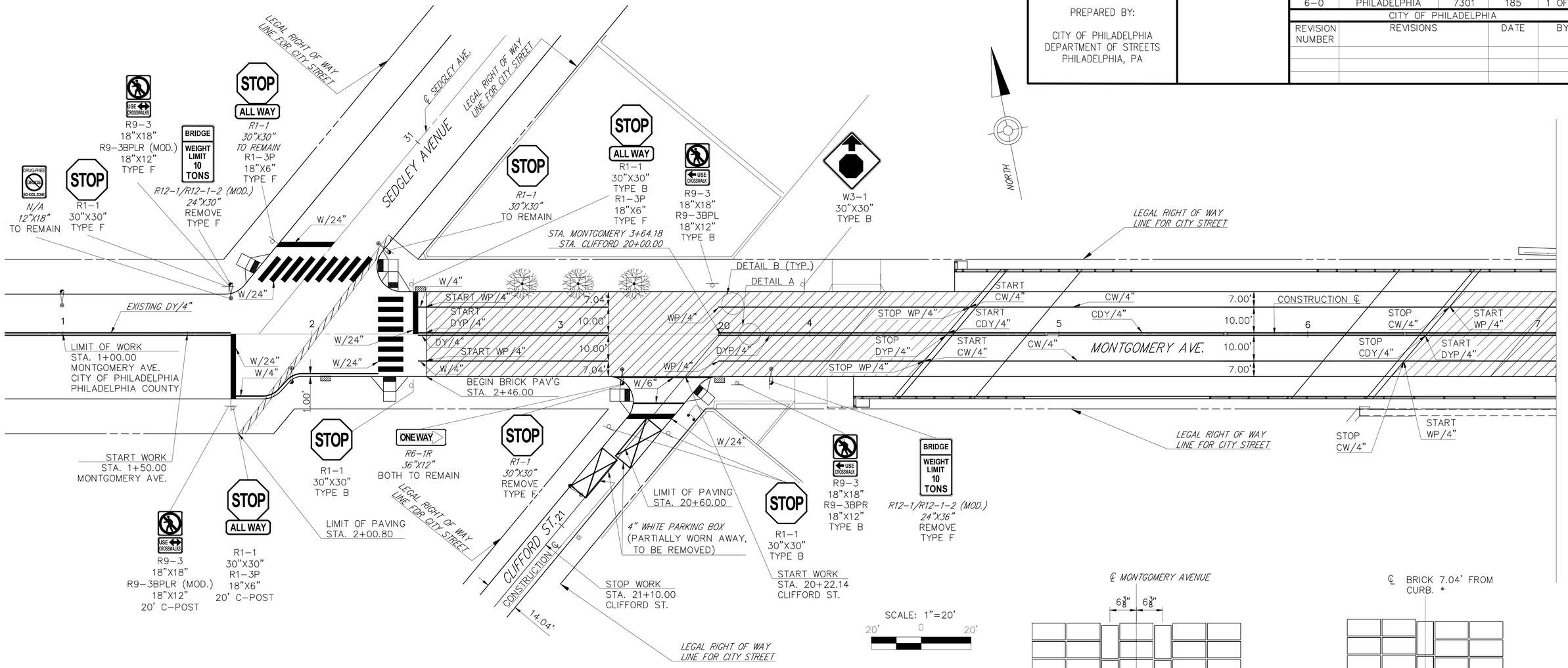
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PREPARED BY:

CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	1 OF 3
CITY OF PHILADELPHIA				

REVISION NUMBER	REVISIONS	DATE	BY



LEGEND

W/4"	4" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS
W/6"	6" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS
W/24"	24" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS
DY/4"	4" YELLOW HOT THERMOPLASTIC PAVEMENT MARKINGS
CW/4"	4" COLD WHITE PLASTIC PAVEMENT MARKER SURFACE APPLIED (CONTRAST TAPE, WHITE ON BLACK)
CDY/4"	4" COLD YELLOW PLASTIC PAVEMENT MARKER SURFACE APPLIED (CONTRAST TAPE, YELLOW ON BLACK)
WP/4"	4" WHITE EPOXY PAVEMENT MARKINGS
WP/24"	24" WHITE EPOXY PAVEMENT MARKINGS
DYP/4"	4" YELLOW EPOXY PAVEMENT MARKINGS

BRICK PAVING
PECO POLE
POST MOUNTED SIGN
ADA CURB RAMP
TRAFFIC LIGHT POLE

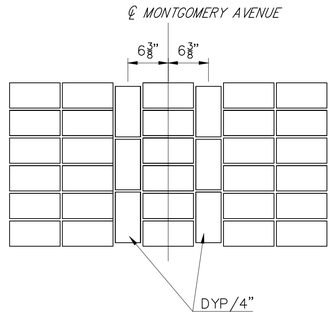
GENERAL NOTES:

THIS WORK CONSISTS OF INSTALLATION OF SIGNS AND APPLICATION OF PAVEMENT MARKINGS WITHIN THE LIMITS OF CONSTRUCTION. THE CONTRACTOR MUST APPLY PAVEMENT MARKINGS IN ACCORDANCE WITH THE METHODS INDICATED ON THESE DRAWINGS, AND THE FOLLOWING:

1. THE SPECIAL PROVISIONS OF THE CONTRACT.
2. PENNDOT PUBLICATION NO. 236, HANDBOOK OF APPROVED SIGNS.
3. PENNDOT PUBLICATION 111, TRAFFIC CONTROL SIGNING STANDARDS, TC-8700 SERIES.
4. PENNDOT PUBLICATION 111, PAVEMENT MARKING STANDARDS, TC-8600 SERIES.
5. PENNDOT PUBLICATION 35, APPROVED CONSTRUCTION MATERIALS (BULLETIN 15).
6. PENNDOT PUBLICATION 408 SPECIFICATIONS.
7. USE HOT EXTRUDED THERMOPLASTIC ON BITUMINOUS SURFACES.
8. USE COLD PLASTIC CONTRAST TAPE ON CONCRETE SURFACES (COLOR ON BLACK).
9. USE EPOXY PAINT ON BRICK SURFACES.
10. MATCH PROPOSED PAVEMENT MARKINGS TO EXISTING PAVEMENT MARKINGS AT LOCATIONS OF START WORK AND STOP WORK.
11. ALL NEW STOP SIGNS WILL HAVE FLASHERS PER PUBLICATION 46, CHAPTER 2.4.

ALL PAVEMENT MARKINGS MUST BE PLACED AND INSPECTED BY THE INSPECTOR-IN-CHARGE OR HIS REPRESENTATIVE BEFORE TRAFFIC IS ALLOWED TO USE THE ROADWAY.

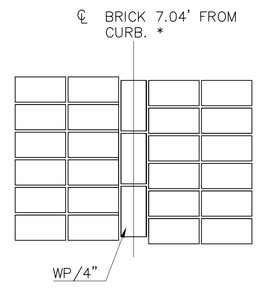
* MATCH THE CENTERLINE OF WP/4" WITH CENTERLINE OF BRICK.



DETAIL A

BRICK LAYOUT AT CENTERLINE OF ROADWAY

SCALE: 1" = 1'



DETAIL B

BRICK LAYOUT AT SHOULDER LINE (TYPICAL)

SCALE: 1" = 1'

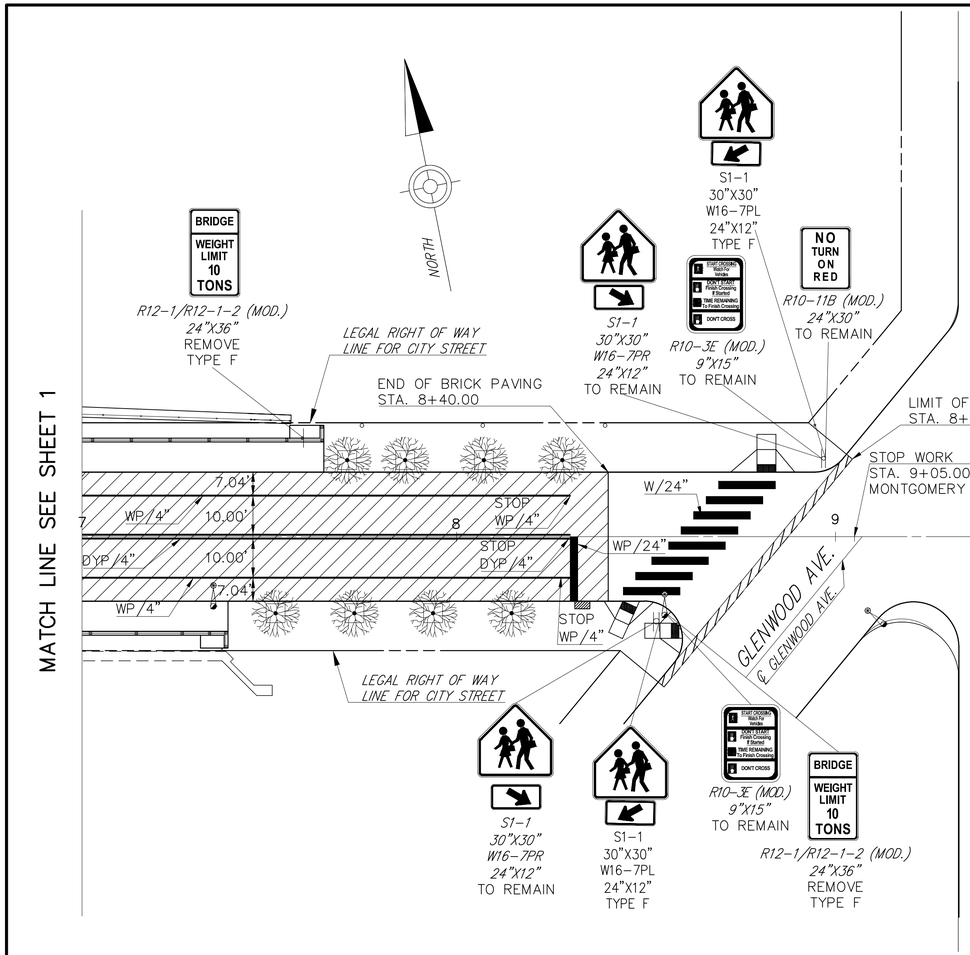
SCALE: 1"=1'
1' 0 1'

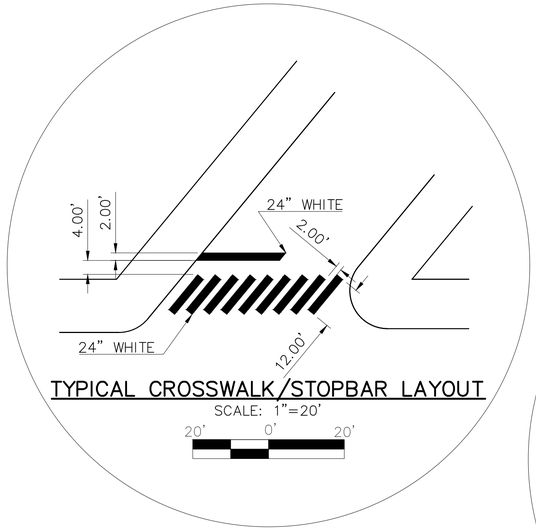
Kasim Ali 8/11/20
PHILADELPHIA CHIEF TRAFFIC ENGINEER DATE

SIGNING AND PAVEMENT MARKING PLAN

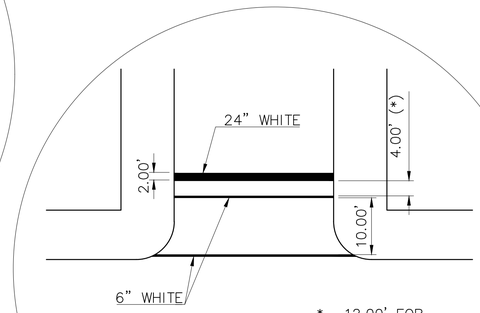
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	2 OF 3
CITY OF PHILADELPHIA				

REVISION NUMBER	REVISIONS	DATE	BY



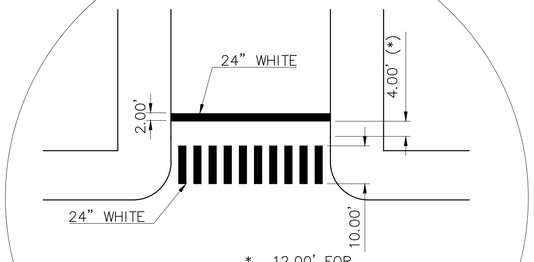


TYPICAL CROSSWALK/STOPBAR LAYOUT
SCALE: 1"=20'
20' 0' 20'



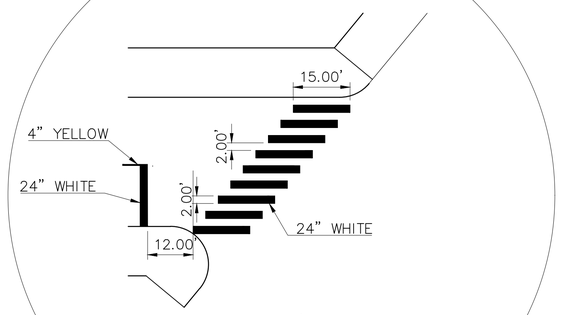
* 12.00' FOR SIGNALIZED INTERSECTIONS

TYPICAL CROSSWALK/STOPBAR LAYOUT
SCALE: 1"=20'
20' 0' 20'



* 12.00' FOR SIGNALIZED INTERSECTIONS

TYPICAL CROSSWALK/STOPBAR LAYOUT
SCALE: 1"=20'
20' 0' 20'



TYPICAL CROSSWALK/STOPBAR LAYOUT
SCALE: 1"=20'
20' 0' 20'

LEGEND

SCALE: 1"=20'
20' 0' 20'

W/4"	4" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS
W/6"	6" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS
W/24"	24" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS
DY/4"	4" YELLOW HOT THERMOPLASTIC PAVEMENT MARKINGS
CW/4"	4" COLD WHITE PLASTIC PAVEMENT MARKER SURFACE APPLIED (CONTRAST TAPE, WHITE ON BLACK)
CDY/4"	4" COLD YELLOW PLASTIC PAVEMENT MARKER SURFACE APPLIED (CONTRAST TAPE, YELLOW ON BLACK)
WP/4"	4" WHITE EPOXY PAVEMENT MARKINGS
WP/24"	24" WHITE EPOXY PAVEMENT MARKINGS
DYP/4"	4" YELLOW EPOXY PAVEMENT MARKINGS

BRICK PAVING
PECO POLE
POST MOUNTED SIGN
ADA CURB RAMP
TRAFFIC LIGHT POLE

NOTES:

SEE SHEET 1 FOR GENERAL NOTES.

SIGNING AND PAVEMENT MARKING PLAN

TABULATION OF QUANTITIES

SIGNING AND PAVEMENT MARKING PLAN

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				06	PHILADELPHIA	7301	0185	3 OF 3
				CITY OF PHILADELPHIA				

POST MOUNTED SIGNS, TYPE B	POST MOUNTED SIGNS, TYPE F	4" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS	4" YELLOW HOT THERMOPLASTIC PAVEMENT MARKINGS	6" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS	24" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS	4" COLD WHITE PLASTIC PAVEMENT MARKER, SURFACE APPLIED	4" COLD YELLOW PLASTIC PAVEMENT MARKER, SURFACE APPLIED	4" WHITE EPOXY PAVEMENT MARKINGS	4" YELLOW EPOXY PAVEMENT MARKINGS	24" WHITE EPOXY PAVEMENT MARKINGS	REMOVE POST MOUNTED SIGNS, TYPE F	20' C-POST, STREET NAME SIGN POLE	WARNING LIGHT, TYPE B																REMARKS	SIDE	STATIONS
0931 0001 SF	0935 0001 SF	0960 0001 LF	0960 0002 LF	0960 0005 LF	0960 0021 LF	0961 0321 LF	0961 0322 LF	0964 0001 LF	0964 0002 LF	0964 0021 LF	0975 0001 EACH	9000 0018 EACH	9000 0019 EACH																ITEM NUMBER UNIT			
																													MONTGOMERY AVE		
	22	67			275						1	1	8																MONTGOMERY AVE & SEDGLEY AVE		1+67.47 to 2+46.00
26											2																				2+40.67 to 3+96.06
			7																												2+42.67 to 2+46.00
								330	330																						2+46.00 to 4+64.37
				44																											3+19.09 to 3+63.31
						386	385																								4+45.90 to 6+47.58
								364	365		1																				6+38.91 to 8+45.15
					120					17																				MONTGOMERY AVE & GLENWOOD AVE		8+29.98 to 8+45.15
	17										1																			MONTGOMERY AVE & GLENWOOD AVE		8+52.70 to 8+95.05
																														CLIFFORD ST		
13													2																		20+44.08 to 20+57.19
39	39	67	7	44	395	386	385	694	695	17	5	1	10																	TOTALS		

PROJECT ID: 1279 MPMS: 57276 ECMS: 57276 11/3/2020 1:41:23 PM

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	1 OF 4

CITY OF PHILADELPHIA

REVISION NUMBER	REVISIONS	DATE	BY
1	General Notes and Construction Sequence	12/24/2019	BAC

GENERAL NOTES:

1. ALL EROSION AND SEDIMENT POLLUTION CONTROL MEASURES ARE IN ACCORDANCE WITH THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION'S PUBLICATION 408/2011 AND RC-70M, RC-72M, AND RC-75M, RC-77M OF THE DEPARTMENT'S STANDARDS FOR ROADWAY CONSTRUCTION. AT ANY TIME PRIOR TO STABILIZATION, IMMEDIATE ACTION MUST BE TAKEN IF ANY EROSION AND SEDIMENT PROBLEMS ARISE REQUIRING ADDITIONAL MEASURES.

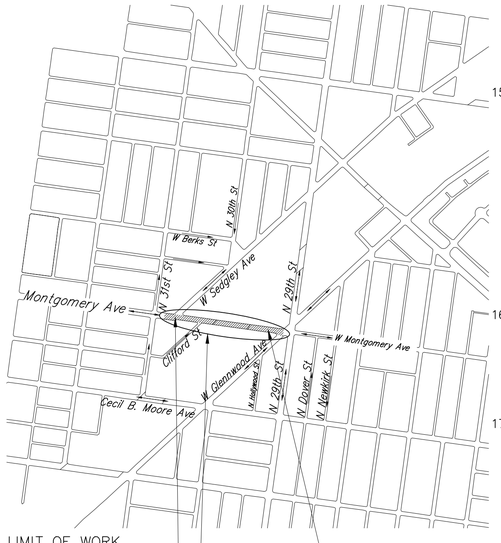
2. IT IS THE DUTY OF THE CONTRACTOR TO COMPLY WITH THE PROVISIONS OF ACT 38 (PUBLIC UTILITY LAW) BEFORE PERFORMING ANY EXCAVATION.

3. IT IS THE DUTY OF THE CONTRACTOR TO COMPLY WITH THE GENERAL WORK PRACTICE STANDARDS FOR DUST MINIMIZATION AS STATED IN THE CITY OF PHILADELPHIA'S AIR MANAGEMENT REGULATIONS I, II, III OF THE AIR POLLUTION CONTROL BOARD § IX.C.

4. AN INDUSTRIAL WASTE PERMIT WILL BE REQUIRED SHOULD PUMPING TO CITY-OWNED INFRASTRUCTURE BECOME NECESSARY DURING CONSTRUCTION. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.

5. NO LESS THAN TEN (10) DAYS BEFORE COMMENCING CONSTRUCTION, OR DEMOLITION ACTIVITIES, DISTRIBUTE WRITTEN NOTIFICATION THAT: (1) IDENTIFIES THE OWNER AND OPERATOR OF THE CONSTRUCTION OR DEMOLITION ACTIVITY; (2) IDENTIFIES THE CONSTRUCTION CONTRACTORS WORKING ON THE SITE; (3) STATES THE DATE(S) AND DURATION OF THE CONSTRUCTION OR DEMOLITION ACTIVITY (4) IDENTIFIES DUST CONTROL MEASURES THAT WILL BE USED ON THE WORKSITE; (5) ADVISES RECIPIENTS TO TAKE PRECAUTIONARY MEASURES TO MINIMIZE DUST EXPOSURE; AND (6) INCLUDES CONTACT INFORMATION FOR THE DEPARTMENT. THE WRITTEN NOTIFICATION MUST BE MADE ON A FORM PRESCRIBED BY THE DEPARTMENT AND MUST BE DISTRIBUTED TO THE OCCUPANTS OF PROPERTIES THAT ARE IMMEDIATELY ADJACENT TO THE WORKSITE.

6. AT LEAST THREE (3) DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.



LIMIT OF WORK
STA. 1+00.00
MONTGOMERY AVE.
CITY OF PHILADELPHIA
PHILADELPHIA COUNTY

SITE LOCATION

LIMIT OF WORK
STA. 9+50+00
MONTGOMERY AVE.
CITY OF PHILADELPHIA
PHILADELPHIA COUNTY

LOCATION MAP

SCALE: 1" = 500'

500' 0 500'

7. AT LEAST SEVEN (7) DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENTATION PLAN PREPARER, AND A REPRESENTATIVE FROM THE PHILADELPHIA WATER DEPARTMENT TO AN ON-SITE PRECONSTRUCTION MEETING.

8. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.

9. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE PWD AND PA DEP.

10. INLET PROTECTION SHOULD BE PROVIDED FOR ALL INLETS THAT ARE LOCATED WITHIN ONE BLOCK OF THE PROJECT SITE.

11. NO STONE OR BERMS SHALL BE PERMITTED TO BE USED AS INLET PROTECTION WITHIN THE PUBLIC RIGHT-OF-WAY.

12. PHILADELPHIA WATER DEPARTMENT IS NOT RESPONSIBLE FOR ANY CLEANING OR REPAIRS NEEDED ON CITY-OWNED INFRASTRUCTURE DUE TO FAILURE OF ANY EROSION AND SEDIMENT CONTROLS. THE CONTRACTOR IS RESPONSIBLE FOR THE CLEANING AND REPAIRS OF THESE FACILITIES.

13. CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND OPERATION OF THE EROSION AND SEDIMENT POLLUTION CONTROL FACILITIES UNTIL RELEASED BY THE PHILADELPHIA WATER DEPARTMENT. UNTIL THE SITE ACHIEVES FINAL STABILIZATION, ASSURE THAT THE BEST MANAGEMENT PRACTICES ARE IMPLEMENTED, OPERATED, AND MAINTAINED PROPERLY AND COMPLETELY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL BEST MANAGEMENT PRACTICE FACILITIES. MAINTAIN AND MAKE AVAILABLE TO THE PHILADELPHIA WATER DEPARTMENT COMPLETE WRITTEN INSPECTION LOGS OF ALL THOSE INSPECTIONS. ALL MAINTENANCE WORK, INCLUDING CLEANING, REPAIR, REPLACEMENT, REGRADING, AND RESTABILIZATION SHALL BE PERFORMED IMMEDIATELY.

14. A LOG SHOWING DATES THAT EROSION AND SEDIMENTATION BEST MANAGEMENT PRACTICES WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.

15. FAILURE TO CORRECTLY INSTALL EROSION AND SEDIMENTATION BEST MANAGEMENT PRACTICES, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF EROSION AND SEDIMENTATION BEST MANAGEMENT PRACTICES MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO $10,000 PER DAY IN CIVIL PENALTIES, UP TO $10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO $25,000 IN MISDEMEANOR CRIMINAL FOR EACH VIOLATION.

16. ANY DAMAGE THAT OCCURS IN WHOLE OR PART AS A RESULT OF BASIN OR TRAP DISCHARGE SHALL BE IMMEDIATELY REPAIRED BY THE PERMITTEE IN A PERMANENT MANNER SATISFACTORY TO THE MUNICIPALITY, THE PHILADELPHIA WATER DEPARTMENT, AND THE OWNER OF THE MANAGED PROPERTY.

17. PROPERLY MAINTAIN ALL EROSION AND SEDIMENT POLLUTION CONTROLS UNTIL THE SITE IS STABILIZED. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL CONTROLS AFTER ALL PRECIPITATION EVENTS, BEFORE ANY ANTICIPATED PRECIPITATION EVENTS, AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED, WILL BE REQUIRED.

18. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION AND NOTIFY PWD AND PA DEP

19. INSTALL COMPOST FILTER SOCKS AND SILT BARRIER FENCES AT LEVEL GRADE. BOTH ENDS OF EACH FENCE OR SOCK SECTION SHOULD BE EXTENDED AT LEAST 8 FEET UPSLOPE AT 45 DEGREES TO THE MAIN BARRIER OR FENCE ALIGNMENT. SUPPORT STAKES SHALL BE SPACED AT A MAXIMUM OF 8 FEET. REMOVE SEDIMENT WHEN ACCUMULATIONS REACH 1/2 THE HEIGHT OF THE FENCE OR SOCK ABOVE GROUND. IMMEDIATELY REPLACE ANY FENCE OR SOCK SECTION WHICH HAS BEEN UNDERMINED OR TOPPED WITH A ROCK FILTER OUTLET. SEE ROCK FILTER OUTLET DETAIL IN RC-70M. IF A SECTION OF FILTER SOCK IS DEEMED CLOGGED BY OWNER, ENGINEER, PWD, OR PA DEP INSPECTOR, THAT SECTION SHALL BE REPLACED IN KIND.

20. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.

21. THE MAXIMUM HEIGHT FOR STOCKPILES SHALL BE 20 FEET.

22. THE MAXIMUM SLOPE FOR STOCKPILES SHALL NOT EXCEED 2H: 1V.

23. IF THE CONTRACTOR WOULD PREFER A ROCK CONSTRUCTION ENTRANCE AS AN ALTERNATE TO THE TRUCK WASH, IT SHALL BE INSTALLED IN DIRECT ACCORDANCE WITH THE STANDARD DETAIL ATTACHED. THE ROCK CONSTRUCTION ENTRANCE, IF UTILIZED, SHALL BE PLACED BETWEEN STATIONS 2+36.00 AND 2+86.00 ALONG THE WEST APPROACH, AND 7+90.00 AND 8+40.00 ALONG THE EAST APPROACH.

24. CONSTRUCT THE ROCK CONSTRUCTION ENTRANCES PRIOR TO PERMITTING CONSTRUCTION VEHICLE TO TRAVEL ON DISTURBED ARES.CONTRACTOR IS TO SUBMIT TRUCK WASH MEANS AND METHOD FOR APPROVAL PRIOR TO INSTALLATION.

25. MAINTAIN AS CONSTANT THE ROCK CONSTRUCTION ENTRANCE THICKNESS. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE.

26. REMOVE AND RETURN SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSE OF IT IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL SEDIMENT BE WASHED, SHOVELLED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.

27. CONCRETE WASH WATER SHALL BE HANDLED PER CHAPTER 3 OF THE PA DEP EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATER OR GROUNDWATER SYSTEMS.

28. PUMP ALL SEDIMENT LADEN WATER THROUGH A SEDIMENT BEST MANAGEMENT PRACTICE CONTROL, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER VEGETATED, NON-DISTURBED AREAS.

29. CONSTRUCT, STABILIZE, AND MAKE FUNCTIONAL ALL EROSION AND SEDIMENT POLLUTION CONTROLS BEFORE SITE DISTURBANCE CAN TAKE PLACE WITHIN THE TRIBUTARY AREAS OF THOSE CONTROLS.

30. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL.

31. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING, AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.

32. IMMEDIATELY STABILIZE ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED AND WHICH WILL REMAIN EXPOSED FOR MORE THAN 20 DAYS. DURING NON-GERMINATING PERIODS, APPLY MULCH AT THE RECOMMENDED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE YEAR MAY BE STABILIZED IN ACCORDANCE WITH TEMPORARY SEEDING SPECIFICATIONS. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE REDISTURBED WITHIN ONE YEAR MUST BE TREATED TO ESTABLISH COVER IN ACCORDANCE WITH PERMANENT SEEDING SPECIFICATIONS.

33. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED, AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE PWD SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES, AND MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.

34. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. EACH STAGE SHALL BE COMPLETED AND IMMEDIATELY STABILIZED BEFORE ANY FOLLOWING STAGE IS INITIATED. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE PHILADELPHIA WATER DEPARTMENT OR BY THE PA DEP PRIOR TO IMPLEMENTATION.

35. REMOVE FROM THE SITE ALL MATERIAL EXCAVATED THAT WILL BE WASTE. IF OFFSITE STOCKPILES ARE NEEDED, OBTAIN NECESSARY EROSION AND SEDIMENT POLLUTION CONTROL PERMITS.

36. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES -- 6 TO 12 INCHES ON COMPACTED SOILS -- PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.

37. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED NINE INCHES IN THICKNESS.

38. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

39. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING. CLEAN FILL IS DEFINED AS UNCONTAMINATED, NONWATER-SOLUBLE, NONDECOMPOSTABLE INERT SOLID MATERIAL. THE TERM INCLUDES OIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK, OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND RECOGNIZABLE AS SUCH. (25 PA CODE SS 271.101 AND 287.101) THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF OWNERSHIP AND USE HISTORY OF PROPERTY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.

40. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.

41. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN EROSION AND SEDIMENTATION PLAN APPROVED BY PHILADELPHIA WATER DEPARTMENT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.

42. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.

43. REMOVAL FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. DO NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.

44. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT CONTROLS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORM WATER MANAGEMENT CONTROLS. AREAS DISTURBED DURING THEIR REMOVAL OR CONVERSION SHALL BE STABILIZED IMMEDIATELY. REMOVAL/CONVERSIONS IN SUCH AREAS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.

45. IMMEDIATELY ADDRESS ALL AREAS REQUIRING INTERIM OR FINAL STABILIZATION UPON COMPLETION OF THE DISTURBANCE. SEED/PLANT AREAS UTILIZING VEGETATIVE STABILIZATION IN SUFFICIENT TIME TO GERMINATE BY OCTOBER 15 OF EACH YEAR. PERFORM SEEDING THROUGH THE USE OF HYDROSEEDING TECHNIQUES OR CONVENTIONAL SEEDING AND MULCHING AT THE RATE OF 3.0 TONS/ACRE.

46. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. UNTIL SUCH TIME AS THIS STANDARD IS ACHIEVED, DO NOT REMOVE INTERIM STABILIZATION MEASURES. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.

47. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.

48. REMOVE AN EROSION AND SEDIMENTATION CONTROL ONLY TO REPLACE IT WITH ANOTHER CONTROL APPROVED BY THE PHILADELPHIA WATER DEPARTMENT OR THE DEPARTMENT, OR AFTER PERMANENT STABILIZATION IS ESTABLISHED IN THE DRAINAGE AREA TRIBUTARY TO THAT DEVICE. STABILIZE CONSTRUCTION IMMEDIATELY AFTER COMPLETION OR DISTURBANCE.

49. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THIS PLAN.

50. UPON COMPLETION OF EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE PHILADELPHIA WATER DEPARTMENT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF EROSION AND SEDIMENTATION CONTROLS.

51. CONTACT PWD WATER TRANSPORT RECORDS (1101 MARKET STREET, 2ND FLOOR, PHONE: 215-685-6271) FOR ADDITIONAL APPROVALS AND PERMITS REQUIRED FOR ALL WATER SERVICES, METERS, AND CONNECTIONS TO THE EXISTING AND/OR PROPOSED PWD FACILITIES.

LEGEND:

TOTAL WORK AREA

DIRECTION OF TRAFFIC

EROSION AND SETTLEMENT POLLUTION CONTROL PLAN

PROJECT INFORMATION: MONTGOMERY AVENUE BRIDGE;
OWNER: CITY OF PHILADELPHIA;
ENGINEERING: THE CITY OF PHILADELPHIA
IN COORDINATION WITH MODJESKI AND MASTERS INC.
PROJECT ADDRESS:
2900 W MONTGOMERY AVE PHILA, PA 19121

EROSION AND SEDIMENT POLLUTION CONTROL PLAN

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	2 OF 4

CITY OF PHILADELPHIA

REVISION NUMBER	REVISIONS	DATE	BY
1	General Notes and Construction Sequence	12/24/2019	BAC

CONSTRUCTION SEQUENCE:

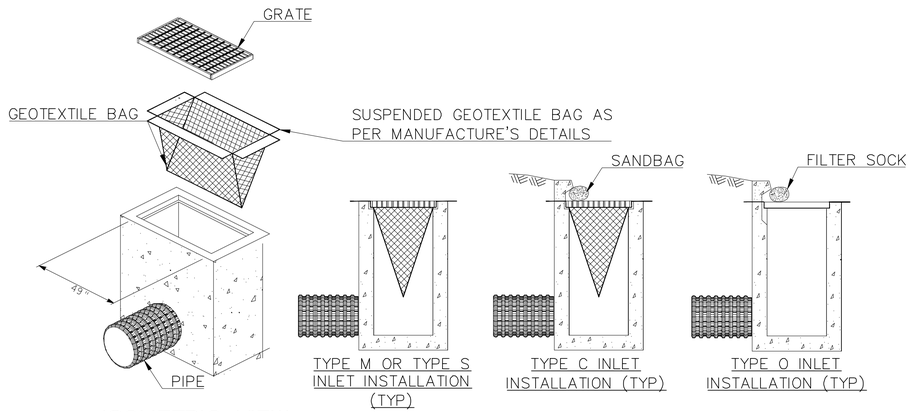
THE PURPOSE OF THIS PLAN IS TO DOCUMENT THE EROSION AND SEDIMENTATION MEASURES NECESSARY TO CONTROL THE EARTH DISTURBANCE ACTIVITIES ASSOCIATED WITH THE CONSTRUCTION OF THE TABOR ROAD BRIDGE. ALL EARTH DISTURBANCE ACTIVITIES PROCEED WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL APPROPRIATE CITY OFFICIALS TO A SITE MEETING. THE OPERATOR SHALL CONTACT THE PA DEP WATERSHED MANAGEMENT PERMIT AND TECHNICAL SECTION AT LEAST SEVEN (7) DAYS PRIOR TO ANY EARTHMOVING ACTIVITY OR INSTALLATION OF ANY BEST MANAGEMENT PRACTICES. PRIOR TO ANY EARTHWORK, THE PHILADELPHIA WATER DEPARTMENT INSPECTIONS COORDINATOR (OFFICE 215-685-6387) MUST BE CALLED TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE PHILADELPHIA WATER DEPARTMENT'S EROSION AND SEDIMENT CONTROL INSPECTION GROUP. THE FOLLOWING STEPS SHALL BE IMPLEMENTED DURING CONSTRUCTION (COMPLETE STEPS 1 THROUGH 12 FOR CONSTRUCTION PHASE 1, THEN REPEAT FOR PHASE 2):

1. INSTALL TRAFFIC CONTROL DEVICES AND PROTECTIVE FENCE AROUND THE LIMITS OF CONSTRUCTION.
2. INSTALL INLET PROTECTION ON ALL EXISTING INLETS, AS DIRECTED.
3. INSTALL ROCK CONSTRUCTION ENTRANCE AS SHOWN ON THE PLAN.
4. INSTALL PERIMETER CONTROLS (SILT BARRIER FENCE AND/OR COMPOST FILTER SOCKS) AROUND THE LIMITS OF WORK, AS SHOWN ON THE PLANS.
5. INSTALL TREE PROTECTION FENCING PER PLAN.
6. ENSURE THAT ADEQUATE SEDIMENT CONTROL MEASURES (PARTICULARLY ADEQUATELY SIZED AND PROPERLY FUNCTIONING PERIMETER SILT BARRIER FENCE AND/OR COMPOST FILTER SOCKS) ARE PROVIDED DOWN-SLOPE OF ANY AND ALL EARTH DISTURBANCE ACTIVITIES UNTIL CONTRIBUTORY DRAINAGE AREA IS ADEQUATELY STABILIZED. WATER PUMPED FROM WORK AREAS SHOULD BE TREATED FOR SEDIMENT REMOVAL PRIOR TO DISCHARGING TO A "SURFACE WATER"
7. BEGIN DEMOLITION AND REMOVAL OF ALL EXISTING SURFACE FEATURES WITHIN THE LIMITS OF DISTURBANCE WHICH ARE MARKED TO BE REMOVED ON THE PLAN. ALSO REFER TO THE PLAN FOR ALL FENCE REMOVAL LOCATIONS (IF ANY). WASTE MATERIALS, SCRAP, OR EXCESS CONSTRUCTION MATERIALS TO BE COLLECTED, STORED, AND DISPOSED OF IN ACCORDANCE WITH THE SOLID WASTE MANAGEMENT ACT (35 P.S. §§ 6018.101-6018.1003), THE MUNICIPAL WASTE PLANNING, RECYCLING AND WASTE REDUCTION ACT (53 P.S. §§ 4000.101-4000.1904), THE CLEAN STREAMS LAW (35 P.S. §§ 691.1-691.1001), AND RELATED RULES AND REGULATIONS (TITLE 25, CHAPTER 105, SECTION 46a). WHERE ONLY PORTIONS OF PAVEMENT REMOVAL ARE OCCURRING, PAVEMENT REMOVAL SHALL BE DONE BY SAWCUTTING A CLEAN LINE AT THE LIMITS OF DISTURBANCE.
8. INSTALL DEBRIS SCREEN UNDER EXISTING STRUCTURE AND DEMOLISH EXISTING BRIDGE SUPERSTRUCTURE TO THE LIMITS SHOWN. REMOVE DEBRIS SCREEN.
9. INSTALL DEBRIS SCREEN AROUND EXISTING SUBSTRUCTURE AND COMPLETE SUBSTRUCTURE REHABILITATION/MODIFICATION WORK TO THE LIMITS SHOWN. REMOVE DEBRIS SCREEN.
10. ERECT SUPERSTRUCTURE STEEL AND INSTALL PROTECTIVE SHIELDING. CONSTRUCT REMAINING BRIDGE SUPERSTRUCTURE. UPON COMPLETION OF BRIDGE SUPERSTRUCTURE, REMOVE PROTECTIVE SHIELDING.
11. CONSTRUCT BRIDGE APPROACHES AND EMBANKMENTS. AS SOON AS SLOPES, CHANNELS, DITCHES, AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. CESSATION OF ACTIVITY FOR FOUR (4) DAYS OR LONGER REQUIRES TEMPORARY STABILIZATION.
12. PERFORM ALL ROAD WORK ASSOCIATED WITH THE CONSTRUCTION STAGE.
13. AS SOON AS SLOPES, CHANNELS, DITCHES, AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED WITH SEED AND MULCH. CESSATION OF ACTIVITY FOR FOUR (4) DAYS OR LONGER REQUIRES TEMPORARY STABILIZATION.
14. INSTALL PROPOSED SIGNAGE, LANDSCAPING, LIGHTPOLES AND OTHER SITE FEATURES.
15. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT INSPECTIONS COORDINATOR OF PWD (OFFICE: 215-685-6387) FOR A FINAL INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS.
16. REMOVE TRAFFIC CONTROL DEVICES AND OPEN ROADWAY TO THE PUBLIC.

CONSTRUCTION AND DEMOLITION WORK PRACTICES TO REDUCE / MINIMIZE DUST (AMR II. § IX.C.)

DURING THE COURSE OF WORK IT IS THE DUTY OF THE CONTRACTOR TO COMPLY WITH THE GENERAL WORK PRACTICE STANDARDS FOR DUST MINIMIZATION (BELOW) AS STATED IN THE CITY OF PHILADELPHIA'S AIR MANAGEMENT REGULATIONS I, II, III OF THE AIR POLLUTION CONTROL BOARD § IX.C.

1. FUGITIVE DUST FORM CONSTRUCTION, DEMOLITION, AND EARTHWORKS ACTIVITIES MAY NOT BE VISIBLE AT THE POINT IT PASSES THE WORKSITE PROPERTY LINE.
2. USE OF VACUUM OR SIMILAR SUCTION SYSTEMS TO CAPTURE DUST KICKED UP BY POWER TOOLS WHEN GRINDING / CUTTING.
3. APPLICATION OF WATER OR APPROVED DUST SUPPRESSANT TO A WORKSITE WITH ONGOING EXCAVATION, LAND CLEARING, DEMOLITION, OR OTHER EARTH DISTURBANCE RELATED ACTIVITIES TO SUPPRESS DUST FORMATION. GENERAL PROHIBITION AGAINST DRY ABRASIVE BLASTING OF EXTERIOR SURFACES OPEN TO THE OUTSIDE AIR WHEN TEMPERATURE IS ABOVE FREEZING.
4. COVERING AND WETTING OF STOCKPILED EARTH, SAND, GRAVEL, AND OTHER SIMILAR CONSTRUCTION MATERIALS.
5. ALL TEMPORARY PERIMETER FENCING AROUND MUST HAVE DUST CONTROL FABRIC; MUST MEASURE A MINIMUM OF 5 FT IN HEIGHT FROM THE BOTTOM OF THE FENCING.
6. A 10 MILES PER HOUR SPEED LIMIT FOR ALL EQUIPMENT AND TRUCKS TRAVELING WITHIN THE WORKSITE.
7. WETTING AND SWEEPING OF ROADWAYS / ACCESS ROADS IN A WORKSITE TO PREVENT DUST FORMATION.
8. VEHICLE ACCESS POINTS MUST BE EQUIPPED WITH DUST SUPPRESSION MEASURES (I.E. WHEEL WASH SYSTEMS, RUMBLE GRATES, AND/OR GRAVEL PADS)

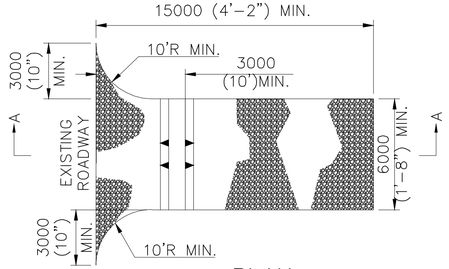


ISOMETRIC VIEW
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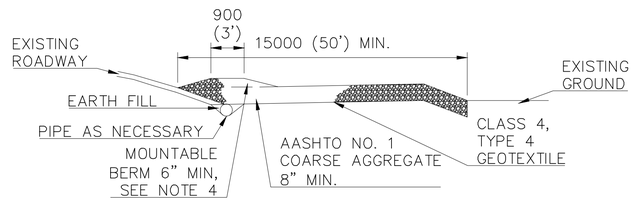
SIDE VIEW
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INLET FILTER BAG NOTES:

1. INSPECT INLET FILTER BAG BEFORE AND AFTER EACH RUNOFF EVENT. MAINTAIN AS REQUIRED TO ENSURE PROPER FUNCTIONING OF THE BAG.
2. REMOVE ACCUMULATED SEDIMENT/DEBRIS WHEN THE INLET FILTER REACHES ONE-HALF MAXIMUM CAPACITY.
3. REPLACE FILTER BAG IF RIPPED OR TORN.
4. PROVIDE DOWN GRADIENT BERM. DO NOT USE IN SAG/SUMP CONDITIONS.
5. USE SANDBAGS AT TYPE C INLET CURB OPENINGS TO PREVENT BYPASS FLOW.
6. REMOVE AND PROPERLY DISPOSE OF INLET FILTER BAG WHEN NO LONGER NEEDED.



PLAN
NOT TO SCALE



SECTION A-A

ROCK CONSTRUCTION ENTRANCE
NOT TO SCALE

ROCK CONSTRUCTION ENTRANCE NOTES:

1. INSPECT THE ENTRANCE DAILY. REMOVE ALL SEDIMENT DEPOSITED ON THE PUBLIC ROADWAYS AND RETURN TO THE CONSTRUCTION SITE. WASHING OF ROADWAY WILL NOT BE PERMITTED.
2. MAINTAIN THE SPECIFIED ROCK CONSTRUCTION ENTRANCE THICKNESS. PLACE ADDITIONAL ROCK WHENEVER ROCK BECOMES CLOGGED WITH SEDIMENT.
3. MAINTAIN STOCKPILE OF AASHTO NO. 1 COARSE AGGREGATE
4. CONSTRUCT A MOUNTABLE BERM ONLY WHEN 150 (6") MIN COVER CANNOT BE PROVIDED OVER THE PIPE.
5. SATISFACTORILY REMOVE MATERIALS AS PER SPECIFICATION IN PUBLICATION 408, SECTION 849 WHEN ROCK CONSTRUCTION IS NO LONGER NEEDED.
6. PROVIDE GEOTEXTILE MATERIAL MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 735. FURNISH AND INSTALL IN ACCORDANCE WITH PUBLICATION 408, SECTION 212. PROVIDE GEOTEXTILE ALONG ALL INTERFACE AREAS WITH GROUND CONTACT.
7. CONSTRUCT ROCK CONSTRUCTION ENTRANCE WITHIN THE RIGHT-OF-WAY OR EASEMENT AREAS. ENTRANCE MAY BE CONSTRUCTED ON A SKEW IF ADEQUATE PULL OUT SIGHT DISTANCE IS AVAILABLE.
8. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED. U.S. CUSTOMARY UNITS IN ( ) PARENTHESES.

PROJECT INFORMATION: MONTGOMERY AVENUE BRIDGE;
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PROJECT ADDRESS:
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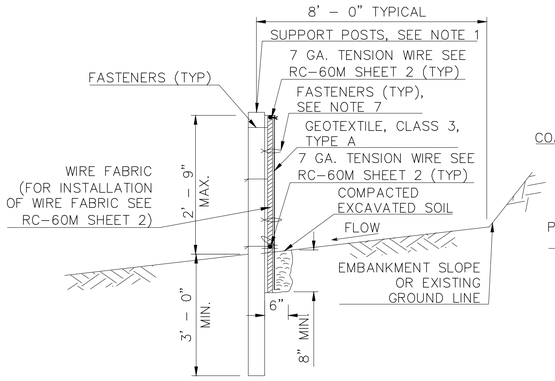
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VADIM L. FLEYSH
ENGINEER
No. PE-056044

EROSION AND SEDIMENT POLLUTION CONTROL PLAN

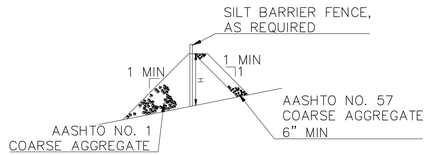
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	3 OF 4

CITY OF PHILADELPHIA

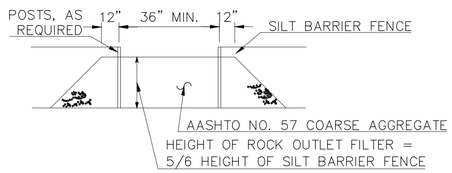
REVISION NUMBER	REVISIONS	DATE	BY
1	General Notes and Standard Details	12/24/2019	BAC



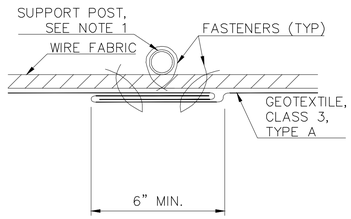
HEAVY DUTY SILT BARRIER FENCE
NOT TO SCALE



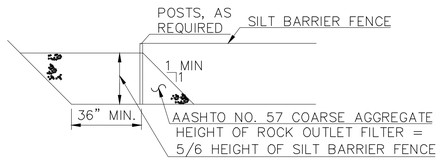
CROSS SECTION
NOT TO SCALE



FILTER AT INTERSECTION OF SILT BARRIER FENCE UPSLOPE FACE
NOT TO SCALE



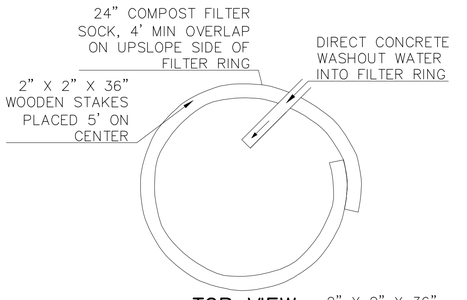
GEOTEXTILE OVERLAP DETAIL
NOT TO SCALE



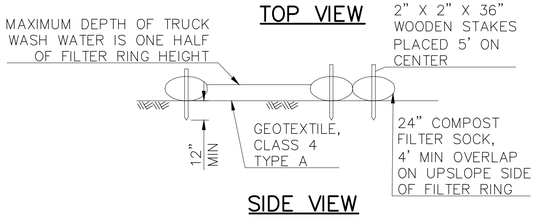
ROCK FILTER OUTLET
NOT TO SCALE

SILT FENCE NOTES:

1. SPACE POSTS AT 10'–0" MAXIMUM. USE 2.5" DIAMETER GALVANIZED STEEL OR ALUMINUM POSTS.
2. EXTEND GEOTEXTILE AND WIRE FABRIC 8" MIN INTO EXCAVATED TRENCH.
3. PLACE HEAVY DUTY SILT BARRIER FENCE ON LEVEL GRADE. EXTEND BOTH ENDS OF THE FENCE AT LEAST 8'–0" UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT.
4. REMOVE DEPOSITS WHEN SEDIMENT ACCUMULATION IS ONE–HALF THE ABOVE GROUND HEIGHT OF THE SILT FENCE.
5. ADHERE TO THE MANUFACTURER'S RECOMMENDATIONS RELATIVE TO REQUIRED GEOTEXTILE REPLACEMENT DUE TO WEATHERING.
6. REPLACE UNDERCUT AND OVERTOPPED SECTIONS OF THE FENCE WITH A ROCK FILTER OUTLET. ROCK FILTER OUTLETS SHOULD BE INSTALLED ALONG THE SILT BARRIER FENCE AT POINTS OF FREQUENT FAILURES AND WHERE REQUIRED BY THE EROSION AND SEDIMENT POLLUTION CONTROL PLAN.
7. SPACE GEOTEXTILE TO WIRE FABRIC FASTENERS AT 24" MAX CENTER TO CENTER



TOP VIEW
NOT TO SCALE

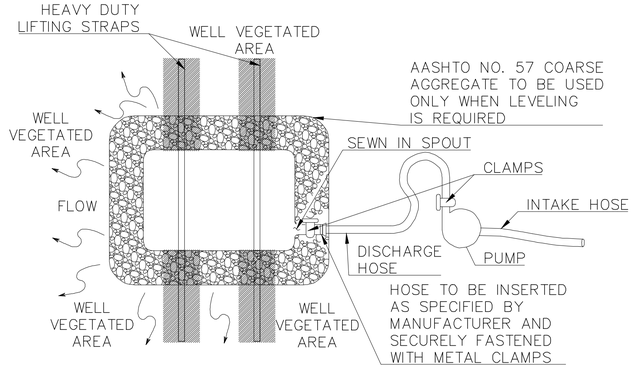


SIDE VIEW

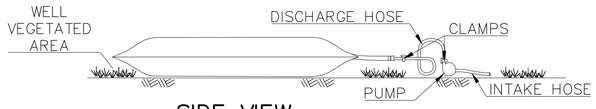
CONCRETE WASHOUT FACILITY
NOT TO SCALE

TEMPORARY CONCRETE WASHOUT NOTES:

1. INSTALL TEMPORALLY CONCRETE WASHOUT AT A LOCATION WITHIN THE LEGAL R.O.W., IN ACCORDANCE WITH THE CONTRACT SPECIAL PROVISIONS, PENNDOT "STANDARD DRAWINGS" (PUBLICATION 72M) AND "SPECIFICATIONS" (PUBLICATION 408), CURRENT EDITION; THE PADEP "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL"; AS SHOWN ON THIS EROSION AND SEDIMENT POLLUTION CONTROL PLAN. COMPLY WITH THE REQUIREMENTS OF PADEP RULES AND REGULATIONS IDENTIFIED IN TITLE 25, CHAPTER 102, "EROSION CONTROL". IN THE EVENT OF CONFLICT AMONG THESE REQUIREMENTS AND POLLUTION CONTROL LAWS, RULES OR REGULATIONS OF OTHER FEDERAL, STATE, OR LOCAL AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS WILL APPLY.
2. LOCATE IN LEVEL AREAS (LESS THAN 2% GRADE) MORE THAN 50' FROM STORM DRAINS, OPEN DITCHES OR SURFACE WATERS. UNDER NO CIRCUMSTANCES IS CONCRETE WASH WATER PERMITTED TO ENTER ANY SURFACE WATERS.
3. CONSTRUCT AND MAINTAIN TEMPORARY CONCRETE WASHOUT FACILITIES IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.
4. FOR ADDED HEIGHT, PLACE 18" COMPOST FILTER SOCK STACKED ON TOP OF DOUBLE 24" COMPOST FILTER SOCK IN PYRAMIDAL CONFIGURATION.
5. MAINTAIN CONTINUOUS CONTACT BETWEEN GEOTEXTILE AND SOCK AT ALL LOCATIONS.
6. INSPECT CONCRETE WASHOUT DAILY.
7. IMMEDIATELY DEACTIVATE AND REPAIR OR REPLACE DAMAGED OR LEAKING WASHOUTS.
8. REMOVE ACCUMULATED MATERIALS WHEN WASHOUT REACHES 75 PERCENT CAPACITY.
9. PERFORM WASHOUT OF CONCRETE TRUCKS IN DESIGNATED AREAS ONLY



TOP VIEW
NOT TO SCALE

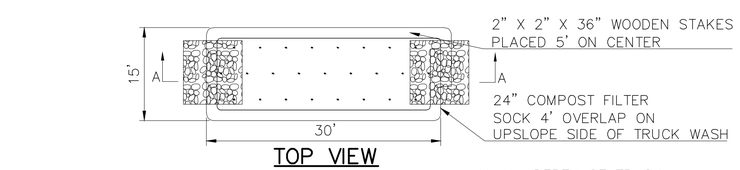


SIDE VIEW

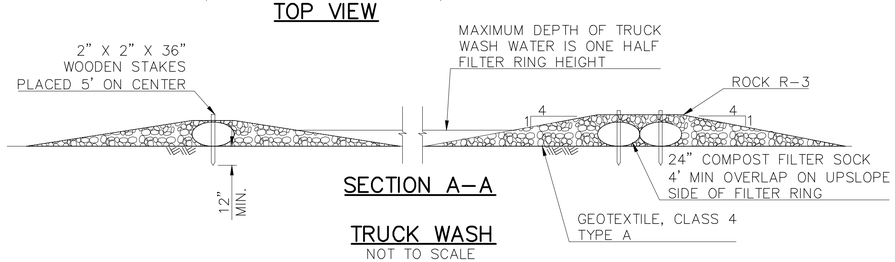
PUMPED WATER FILTER BAG
NOT TO SCALE

PUMPED WATER FILTER BAG NOTES:

1. LOCATE BAG IN LEVEL AREAS (LESS THAN 5% GRADE). WHEN LEVEL AREAS ARE NOT AVAILABLE, PLACE AASHTO NO. 57 COARSE AGGREGATE TO LEVEL THE BAG.
2. LOCATE BAG IN A WELL VEGETATED AREA. DISCHARGE ONTO A STABLE, EROSION RESISTANT AREA. WHEN VEGETATED AREA IS NOT AVAILABLE, PROVIDE A GEOTEXTILE (CLASS 4, TYPE A) LINED FLOW PATH TO A STABLE EROSION RESISTANT RECEIVING WATER COURSE OR A WELL VEGETATED AREA.
3. LOCATE BAG IN AN AREA ACCESSIBLE BY EQUIPMENT FOR MAINTENANCE AND REMOVAL PURPOSES.
4. DO NOT INSERT MORE THAN ONE HOSE INTO A BAG.
5. REPLACE THE BAG WHEN 50% OF THE SEDIMENT CAPACITY HAS BEEN FILLED AND/OR WHEN THERE IS A FAILURE. THE ADDITIONAL BAGS WILL BE PAID AS EACH.
6. REMOVE AND PROPERLY DISPOSE OF THE PUMPED WATER FILTER BAGS. RESTORE THE AREA IN ACCORDANCE WITH THE SPECIFICATIONS IN PUBLICATION 408. DO NOT CUT FILTER BAG OR DISTRIBUTE AND SEED SEDIMENT.
7. DO NOT PERMIT DISCHARGE FROM THE BAG TO DRAIN BACK INTO WORK OR ACCESS AREAS OF THE PROJECT



TOP VIEW



SECTION A–A

TRUCK WASH
NOT TO SCALE

TEMPORARY TRUCK WASH NOTES:

1. INSTALL TEMPORARY TRUCK WASH AT A LOCATION IN THE LEGAL R.O.W., IN ACCORDANCE WITH THE CONTRACT SPECIAL PROVISIONS, PENNDOT "STANDARD DRAWINGS" (PUBLICATION 72M) AND "SPECIFICATIONS" (PUBLICATION 408), CURRENT EDITION; THE PADEP "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL"; AS SHOWN ON THIS EROSION AND SEDIMENT POLLUTION CONTROL PLAN. COMPLY WITH THE REQUIREMENTS OF PADEP RULES AND REGULATIONS IDENTIFIED IN TITLE 25, CHAPTER 102, "EROSION CONTROL". IN THE EVENT OF CONFLICT AMONG THESE REQUIREMENTS AND POLLUTION CONTROL LAWS, RULES OR REGULATIONS OF OTHER FEDERAL, STATE, OR LOCAL AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS WILL APPLY.
2. LOCATE IN LEVEL AREAS (LESS THAN 2% GRADE) MORE THAN 50' FROM STORM DRAINS, OPEN DITCHES OR SURFACE WATERS. UNDER NO CIRCUMSTANCES IS WASH WATER PERMITTED TO ENTER ANY SURFACE WATERS.
3. CONSTRUCT AND MAINTAIN TRUCK WASH FACILITIES IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND SEDIMENT GENERATED BY TRUCK WASH OPERATIONS.
4. FOR ADDED HEIGHT, PLACE 18" COMPOST FILTER SOCK STACKED ON TOP OF DOUBLE 24" COMPOST FILTER SOCK IN PYRAMIDAL CONFIGURATION.
5. MAINTAIN CONTINUOUS CONTACT BETWEEN GEOTEXTILE AND SOCK AT ALL LOCATIONS.
6. INSPECT TRUCK WASH AFTER EACH USE.
7. IMMEDIATELY DEACTIVATE AND REPAIR OR REPLACE DAMAGED OR LEAKING WASHOUTS.
8. REMOVE ACCUMULATED MATERIALS WHEN WASHOUT REACHES 75 PERCENT CAPACITY.
9. WASH TRUCKS IN DESIGNATED AREAS ONLY.
10. PUMP SEDIMENT LADEN WATER INTO PUMPED WATER FILTER BAG

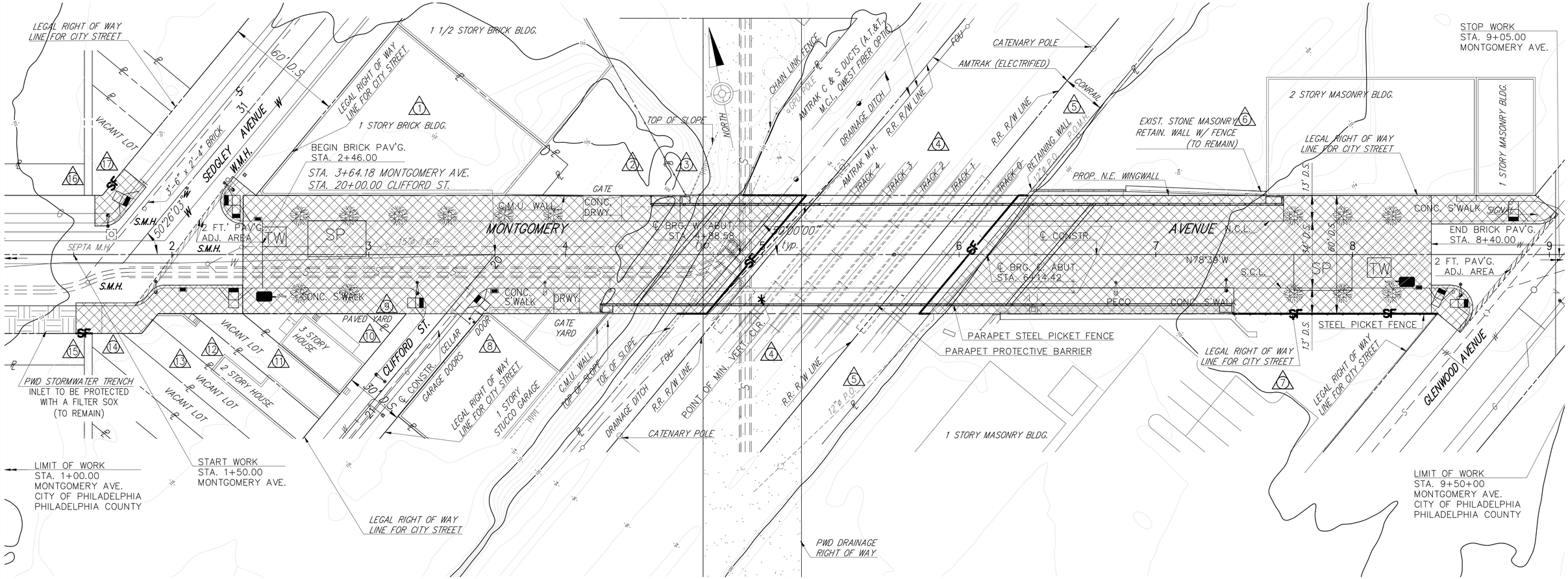
PROJECT INFORMATION: MONTGOMERY AVENUE BRIDGE;
OWNER: CITY OF PHILADELPHIA;
ENGINEERING: THE CITY OF PHILADELPHIA
IN COORDINATION WITH MODJESKI AND MASTERS INC.
PROJECT ADDRESS:
2900 W MONTGOMERY AVE PHILA, PA 19121

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VADIM L. FLEYSH
ENGINEER
No. PE-056844

EROSION AND SEDIMENT POLLUTION CONTROL PLAN

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	4 OF 4
CITY OF PHILADELPHIA				

REVISION NUMBER	REVISIONS	DATE	BY
1	General Notes and Construction Sequence	12/24/2019	BAC
2	PWD GSI TRENCH PROTECTION LANUAGE	02/14/2020	BAC



PLAN
SCALE: 1"=25'
25' 0 25'

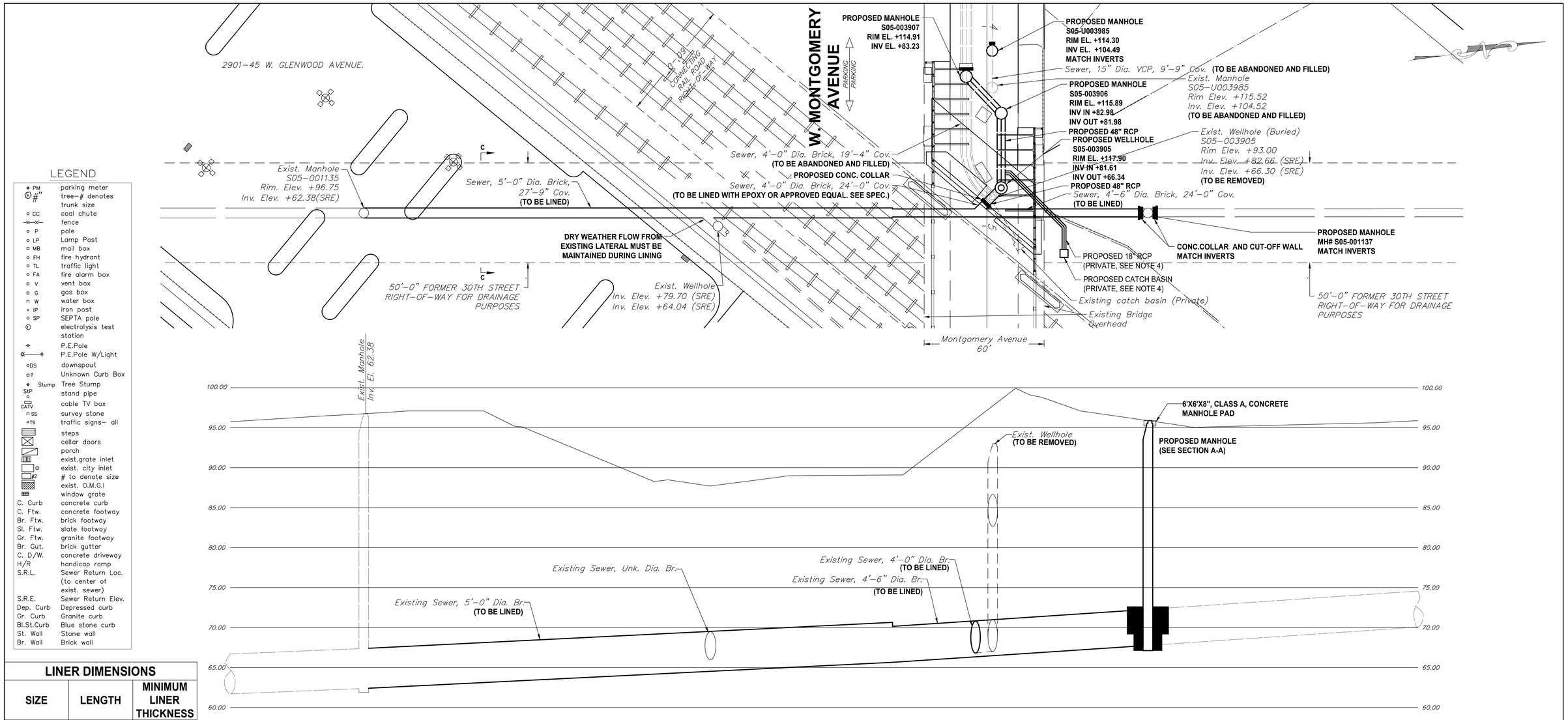
LEGEND					
SIGN	DESCRIPTION	SIGN	DESCRIPTION	SIGN	DESCRIPTION
—C&S—	CABLE AND SIGN	□	GAS VALVE BOX		PWD STORMWATER TRENCH
—FOU—	FIBER OPTICS UNDERGROUND	⊗	WATER VALVE BOX		PWD DRAINAGE RIGHT OF WAY
—G—	PHILADELPHIA GAS WORKS	⧅	SEWER VENT BOX	℄	PROPERTY LINE
—Septa—	SEPTA	◎	FIRE HYDRANT		
—S—	SEWER	⊙	STREET SIGN		
Std. E-	STD. ELECTRIC		TREE		
—VT—	VERIZON TELEPHONE CO. DUCT	▬	INLET FILTER BAG		
—W—	WATER MAIN		PROP. STREET LIGHTING POLE		
—PO—	PRIVATELY OWNED		PARCEL NUMBER		
—○—	MANHOLE		PECO POLE		
	PECO POLE W/ ST. LIGHT		PUMPED WATER FILTER BAG		
	AREA OF DISTURBANCE = 32,428 SF = 0.74 ACRES	TW	TRUCK WASH		
SF	SILT FENCE	SP	STOCKPILE		

GREEN INLET PROTECTION WILL BE PROVIDED VIA INLET FILTER BAG FOR SYSTEM 1288-8-1 ON MONTGOMERY AVE & SYSTEM 1288-9-1 ON THE EAST SIDE OF N31ST STREET.

PROJECT INFORMATION: MONTGOMERY AVENUE BRIDGE;
OWNER: CITY OF PHILADELPHIA;
ENGINEERING: THE CITY OF PHILADELPHIA
IN COORDINATION WITH MODJESKI AND MASTERS INC.
PROJECT ADDRESS:
2900 W MONTGOMERY AVE PHILA, PA 19121

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VADIM L. FLEYSH
ENGINEER
No. PE-056044

EROSION AND SEDIMENT POLLUTION CONTROL PLAN



LEGEND

PM	parking meter
#" #	tree–# denotes trunk size
CC	coal chute
	fence
P	pole
LP	Lamp Post
MB	mail box
FH	fire hydrant
TL	traffic light
FA	fire alarm box
V	vent box
G	gas box
W	water box
IP	iron post
SP	SEPTA pole
	electrolysis test station
	P.E.Pole
	P.E.Pole W/Light
DS	downspout
?	Unknown Curb Box
Stump	Tree Stump
STP	stand pipe
CATV	cable TV box
SS	survey stone
TS	traffic signs– all
	steps
	cellar doors
	porch
	exist.grate inlet
CI	exist. city inlet
#2	# to denote size
	exist. O.M.G.I
	window grate
C. Curb	concrete curb
C. Ftw.	concrete footway
Br. Ftw.	brick footway
Sl. Ftw.	slate footway
Gr. Ftw.	granite footway
Br. Gut.	brick gutter
C. D/W.	concrete driveway
H/R	handicap ramp
S.R.L.	Sewer Return Loc. (to center of exist. sewer)
S.R.E.	Sewer Return Elev.
Dep. Curb	Depressed curb
Gr. Curb	Granite curb
Bl.St.Curb	Blue stone curb
St. Wall	Stone wall
Br. Wall	Brick wall

LINER DIMENSIONS

SIZE	LENGTH	MINIMUM LINER THICKNESS
5'-0" CIRCULAR	265 Ft	45mm
4'-6" CIRCULAR	120 Ft	45mm
4'-0" CIRCULAR	15 FT	SEE SPEC.

* CONTRACTOR MUST PROVIDE CALCULATION TO PWD FOR LINE THICKNESS CALCULATION (SEE SPECIFICATION)

NOTES:

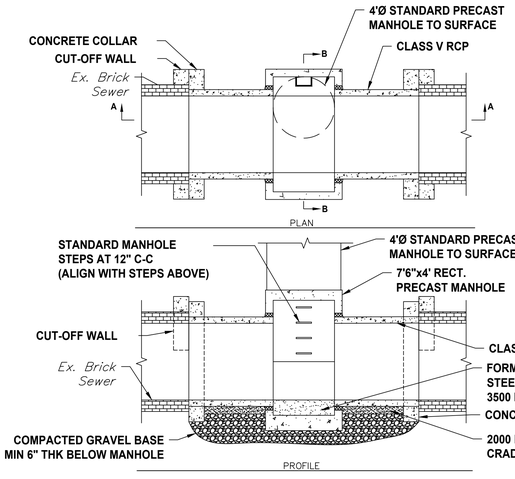
1. ALL DISTANCES SHOWN ARE IN DISTRICT STANDARD MEASUREMENT. PAYMENT FOR ALL WORK WILL BE BASED UPON THAT STANDARD.
2. THE LOCATIONS AND ELEVATIONS OF THE EXISTING SEWERS ARE APPROXIMATE. THE ELEVATIONS OF THE EXISTING SEWER AT THE TERMINATING CONNECTION POINTS TO THE PROPOSED SEWER MUST BE FIELD CHECKED PRIOR TO CONSTRUCTING THE NEW SEWER.
3. THE THICKNESS OF THE ARCHES AND THE CHARACTER AND THE EXTENT OF THE CRADLES OF THE EXISTING SEWERS ARE UNKNOWN
4. ADDITIONAL APPROVALS AND PERMITS ARE REQUIRED FOR ALL DRAINAGE CONNECTIONS TO THE EXISTING PWD FACILITIES. CONTACT MR.ERIK SMITH, PWD WATER MAIN RECORDS, 1101 MARKET STREET, 2ND FLOOR, PHONE (215) 685–6270, FOR ADDITIONAL APPROVAL FOR CONNECTIONS TO THE EXISTING PWD FACILITIES

④ DENOTES 4 FT. OPEN MOUTH GRATE INLET.

④ DENOTES 4 FT. HIGHWAY GRATE INLET.

④ DENOTES 4 FT. CITY INLET.

Ⓡ DENOTES EXISTING INLET TO BE RECONNECTED.

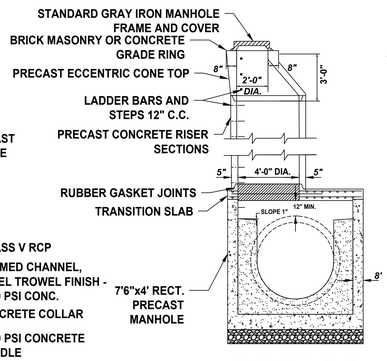


SECTION A–A

NOT TO SCALE

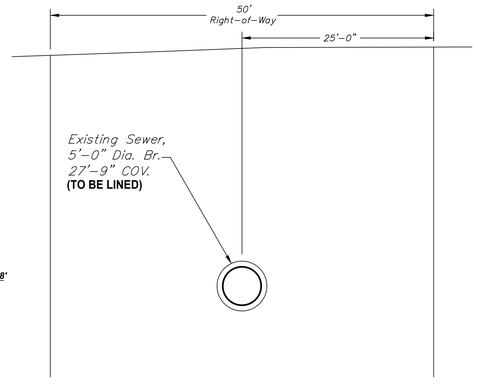
DETAIL FOR 5'0"ø SEWER SHOWN

DETAIL FOR 4'6"ø SEWER SIMILAR



SECTION B–B

NOT TO SCALE



SECTION C–C

SCALE 1/8"=1'–0"

NOTICE:

PURSUANT TO THE REQUIREMENTS OF PENNSYLVANIA ACT 287 OF 1974 (THE UNDERGROUND UTILITY LINE PROTECTION ACT), AS AMENDED BY PA ACT 199 OF 2004, THE CONTRACTOR SHALL CONTACT THE PENNSYLVANIA ONE CALL SYSTEM AT 1–800–242–1776, AT LEAST 3 DAYS PRIOR TO EXCAVATION.

HIGHWAY DISTRICT NO. 3 WARD NO. 3210, 3221

SURVEY DISTRICT NO. 9 DRAINAGE SHT. NO. 41 OUTFALL NO. R–12

ONE CALL SERIAL NO. _____ GPIS NO. _____

SEWER LINING AND INLET REPLACEMENT PROJECT

FORMER 30TH STREET RIGHT–OF–WAY

FROM

W. GLENWOOD AVE. to SEDGLEY AVE.

APPROVED _____ CHIEF, DESIGN BRANCH, ENGINEERING DIVISION

APPROVED Stephen J Furtak GENERAL MANAGER, PLANNING AND ENGINEERING

APPROVED _____ WATER COMMISSIONER

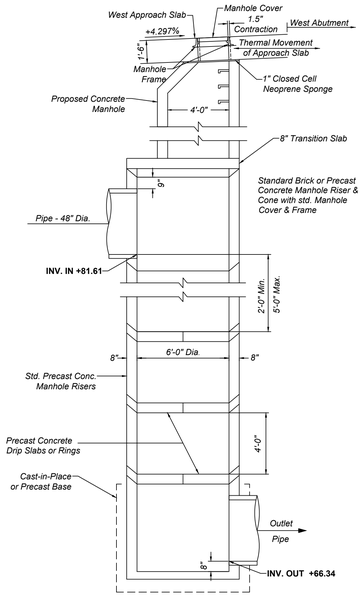
CITY OF PHILADELPHIA
WATER DEPARTMENT

SCALES:
PLAN 1" = 20'
HORIZ 1" = 20'
VERT. 1" = 5'
AND AS NOTED

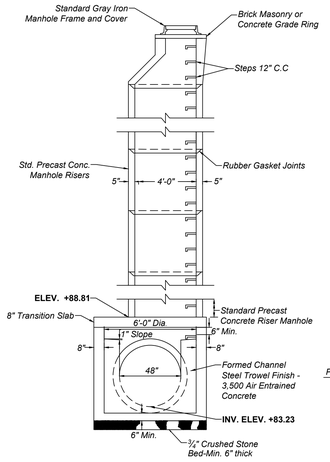
WORK NO. S–40963–R

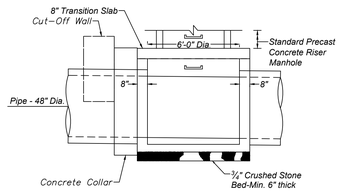
SHEET NO. S–1 OF 4

DRAWN BY	MIKE WHELAN	7/13/16
PROJECT ENGR.	VINU VARGHESE	11/16/17
Vinu Varghese		8/4/2020
SUPERVISOR		DATE

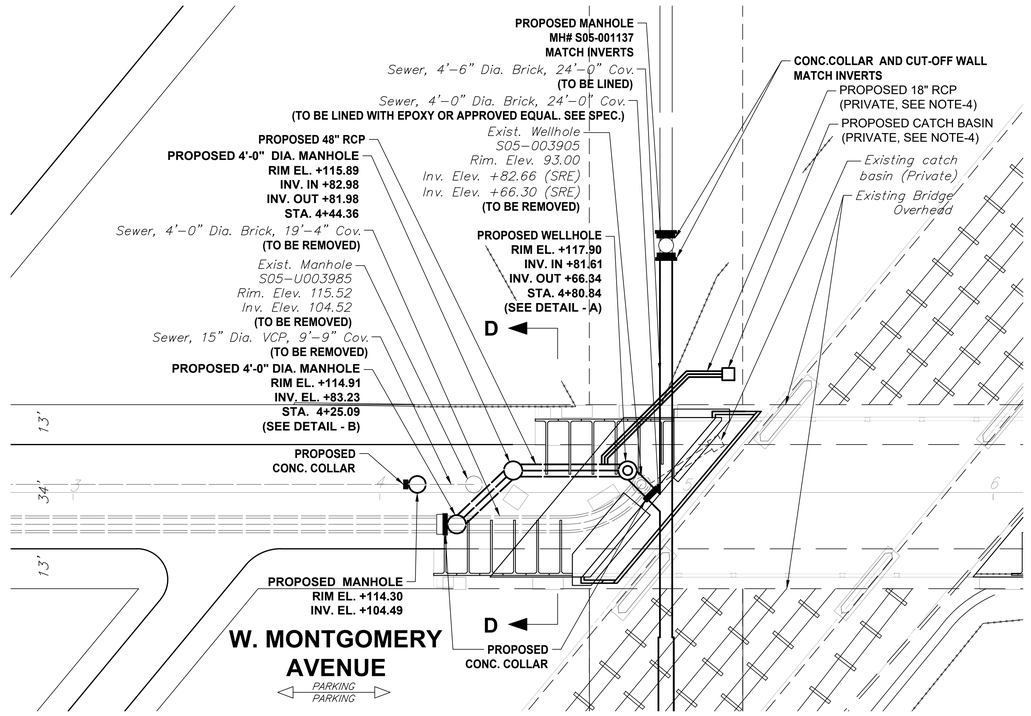


DETAIL A
PRECAST CONCRETE
WELLHOLE



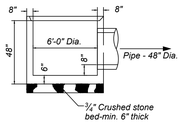


DETAIL B
PRECAST CONCRETE
MANHOLE

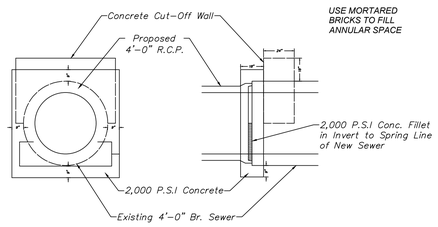


LEGEND

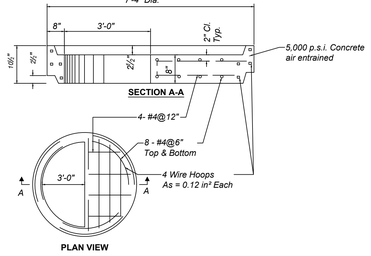
PM	parking meter
#"	tree—# denotes trunk size
CC	coal chute
	fence
P	pole
LP	Lamp Post
MB	mail box
FH	fire hydrant
TL	traffic light
FA	fire alarm box
V	vent box
G	gas box
W	water box
IP	iron post
SP	SEPTA pole
	electrolysis test station
	P.E.Pole
	P.E.Pole W/Light
DS	downspout
?	Unknown Curb Box
Stump	Tree Stump
STP	stand pipe
CATV	cable TV box
SS	survey stone
TS	traffic signs— all
	steps
	cellar doors
	porch
	exist.grate inlet
	exist. city inlet
#2	# to denote size
	exist. O.M.G.I
	window grate
C. Curb	concrete curb
C. Ftw.	concrete footway
Br. Ftw.	brick footway
Sl. Ftw.	slate footway
Gr. Ftw.	granite footway
Br. Gut.	brick gutter
C. D/W.	concrete driveway
H/R	handicap ramp
S.R.L.	Sewer Return Loc. (to center of exist. sewer)
S.R.E.	Sewer Return Elev.
Dep. Curb	Depressed curb
Gr. Curb	Granite curb
Bl.St.Curb	Blue stone curb
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Br. Wall	Brick wall



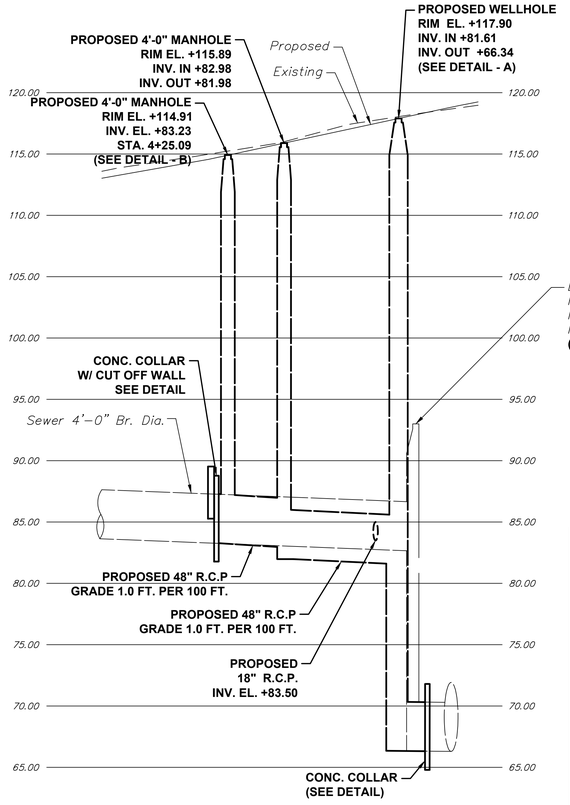
PRECAST CONCRETE
BASE SECTIONS FOR PRECAST WELLHOLE
WELLHOLE



CONCRETE COLLAR
1/4"=1'

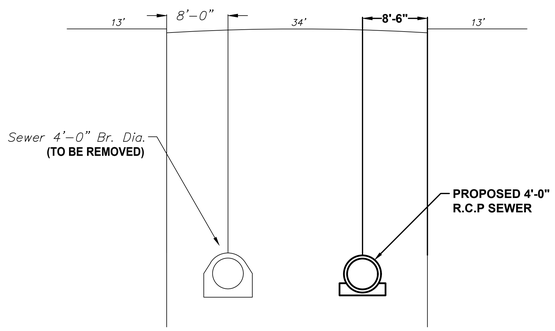


DRIP RING



NOTES:

1. ALL DISTANCES SHOWN ARE IN DISTRICT STANDARD MEASUREMENT. PAYMENT FOR ALL WORK WILL BE BASED UPON THAT STANDARD.
2. THE LOCATIONS AND ELEVATIONS OF THE EXISTING SEWERS ARE APPROXIMATE. THE ELEVATIONS OF THE EXISTING SEWER AT THE TERMINATING CONNECTION POINTS TO THE PROPOSED SEWER MUST BE FIELD CHECKED PRIOR TO CONSTRUCTING THE NEW SEWER.
3. THE THICKNESS OF THE ARCHES AND THE CHARACTER AND THE EXTENT OF THE CRADLES OF THE EXISTING SEWERS ARE UNKNOWN
4. ADDITIONAL APPROVALS AND PERMITS ARE REQUIRED FOR ALL DRAINAGE CONNECTIONS TO THE EXISTING PWD FACILITIES. CONTACT MR.ERIK SMITH, PWD WATER MAIN RECORDS, 1101 MARKET STREET, 2ND FLOOR, PHONE (215) 685-6270, FOR ADDITIONAL APPROVAL FOR CONNECTIONS TO THE EXISTING PWD FACILITIES



SECTION D-D
SCALE 1/8"=1'-0"

NOTICE:
PURSUANT TO THE REQUIREMENTS OF PENNSYLVANIA ACT 287 OF 1974 (THE UNDERGROUND UTILITY LINE PROTECTION ACT), AS AMENDED BY PA ACT 199 OF 2004, THE CONTRACTOR SHALL CONTACT THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776, AT LEAST 3 DAYS PRIOR TO EXCAVATION.

HIGHWAY DISTRICT NO. 3 WARD NO. 3210, 3221
SURVEY DISTRICT NO. 9 DRAINAGE SHT. NO. 41 OUTFALL NO. R-12
ONE CALL SERIAL NO. GPIS NO.

SEWER LINING AND RECONSTRUCTION

FORMER 30TH STREET RIGHT-OF-WAY
FROM
W. GLENWOOD AVE. to SEDGLEY AVE.

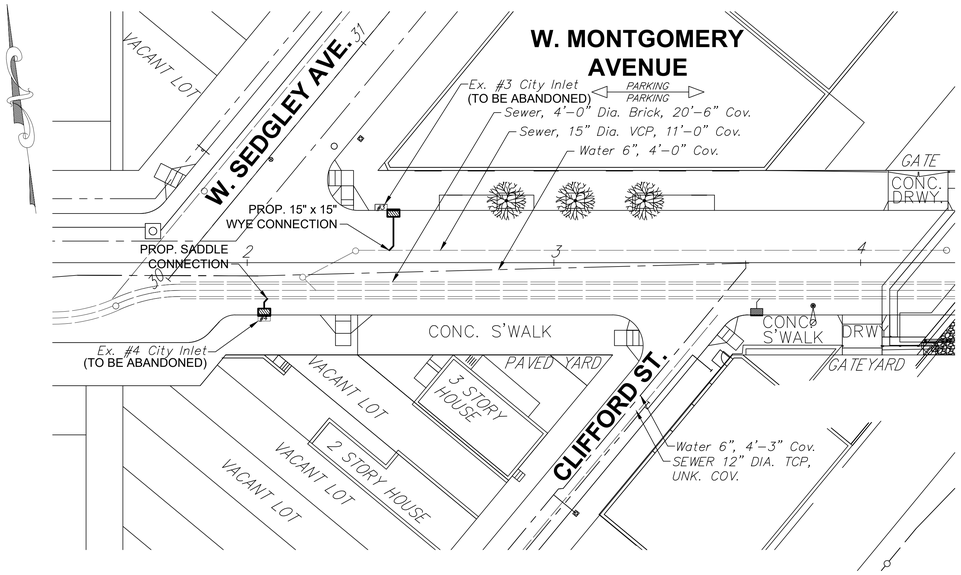
APPROVED
CHIEF, DESIGN BRANCH, ENGINEERING DIVISION

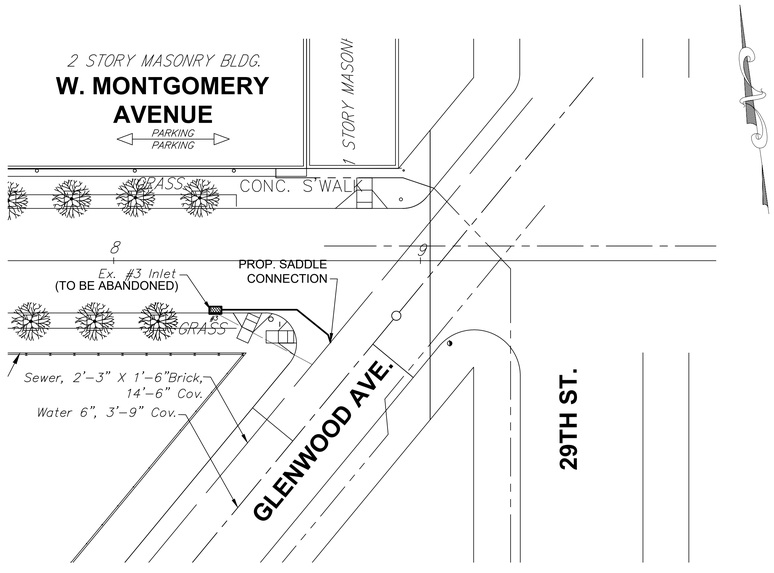
CITY OF PHILADELPHIA
WATER DEPARTMENT

SCALES:
PLAN 1" = 20'
HORIZ 1" = 20'
VERT. 1" = 5'
AND AS NOTED

WORK NO. S-40963-R
SHEET NO. S-2 OF 4

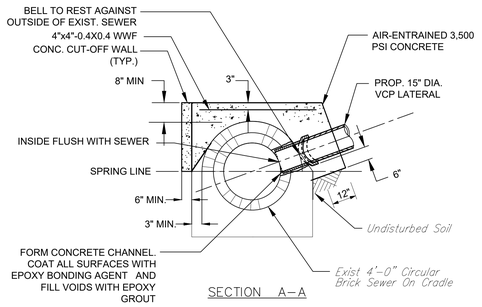
DRAWN BY	EDGAR PACIO	3/2/20
PROJECT ENGR.	VINU VARGHESE	11/16/17
Vinu Varghese		8/4/2020
SUPERVISOR		DATE



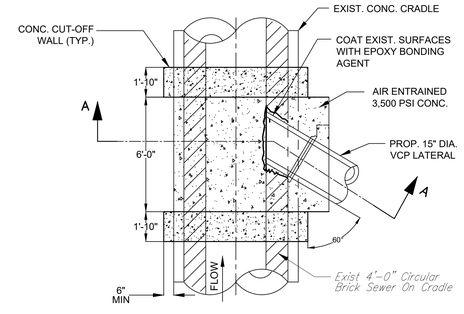


LEGEND

PM	parking meter
#	tree–# denotes trunk size
CC	coal chute
	fence
P	pole
LP	Lamp Post
MB	mail box
FH	fire hydrant
TL	traffic light
FA	fire alarm box
V	vent box
G	gas box
W	water box
IP	iron post
SP	SEPTA pole
	electrolysis test station
	P.E.Pole
	P.E.Pole W/Light
DS	downspout
?	Unknown Curb Box
Stump	Tree Stump
SIP	stand pipe
CATV	cable TV box
SS	survey stone
TS	traffic signs– all
	steps
	cellar doors
	porch
	exist.grate inlet
CI	exist. city inlet
#2	# to denote size
	exist. O.M.G.I
	window grate
C. Curb	concrete curb
C. Ftw.	concrete footway
Br. Ftw.	brick footway
Sl. Ftw.	slate footway
Gr. Ftw.	granite footway
Br. Gut.	brick gutter
C. D/W.	concrete driveway
H/R	handicap ramp
S.R.L.	Sewer Return Loc. (to center of exist. sewer)
S.R.E.	Sewer Return Elev.
Dep. Curb	Depressed curb
Gr. Curb	Granite curb
Bl.St.Curb	Blue stone curb
St. Wall	Stone wall
Br. Wall	Brick wall

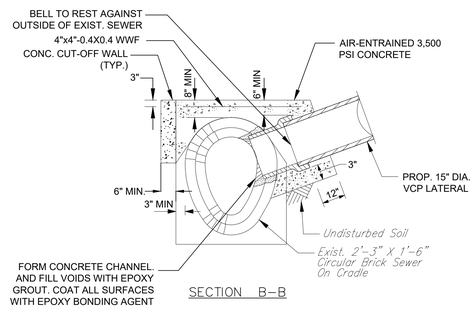


SECTION A–A



MODIFIED SADDLE CONNECTION
(CIRCULAR BRICK SEWER)

NOT TO SCALE



SECTION B–B

MODIFIED SADDLE CONNECTION
(EGG SHAPED BRICK SEWER)

NOT TO SCALE

NOTES

CAREFULLY MAKE OPENING IN THE EXISTING BRICK SEWER CORE DRILLING.

COAT EXISTING SURFACES WITH EPOXY BONDING AGENT.

NOTES:

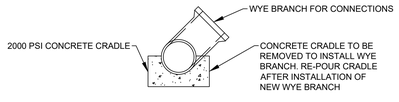
1. ALL DISTANCES SHOWN ARE IN DISTRICT STANDARD MEASUREMENT. PAYMENT FOR ALL WORK WILL BE BASED UPON THAT STANDARD.
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④ DENOTES 4 FT. OPEN MOUTH GRATE INLET.

④ DENOTES 4 FT. HIGHWAY GRATE INLET.

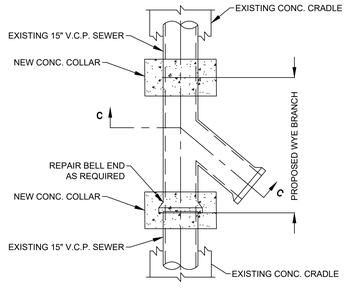
④ DENOTES 4 FT. CITY INLET.

Ⓡ DENOTES EXISTING INLET TO BE RECONNECTED.



SECTION C–C

NOT TO SCALE



15"X15" WYE BRANCH

NOT TO SCALE

NOTICE:

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HIGHWAY DISTRICT NO. 3 WARD NO. 3210, 3221

SURVEY DISTRICT NO. 9 DRAINAGE SHT. NO. 41 OUTFALL NO. R–12

ONE CALL SERIAL NO. _____ GPIS NO. _____

SEWER LINING AND INLET REPLACEMENT PROJECT

FORMER 30TH STREET RIGHT–OF–WAY
FROM
W. GLENWOOD AVE. to SEDGLEY AVE.

APPROVED _____
CHIEF, DESIGN BRANCH, ENGINEERING DIVISION

CITY OF PHILADELPHIA
WATER DEPARTMENT

SCALES:
PLAN 1" = 20'
HORIZ 1" = 20'
VERT. 1" = 5'
AND AS NOTED

WORK NO. S–40963–R
SHEET NO. S–3 OF 4

DRAWN BY	VINU VARGHESE	7/13/16
PROJECT ENGR.	VINU VARGHESE	11/16/17
Vinu Varghese		8/4/2020
SUPERVISOR		DATE

TABULATION OF QUANTITIES

SEWER LINING, RECONSTRUCTION, AND INLET RE

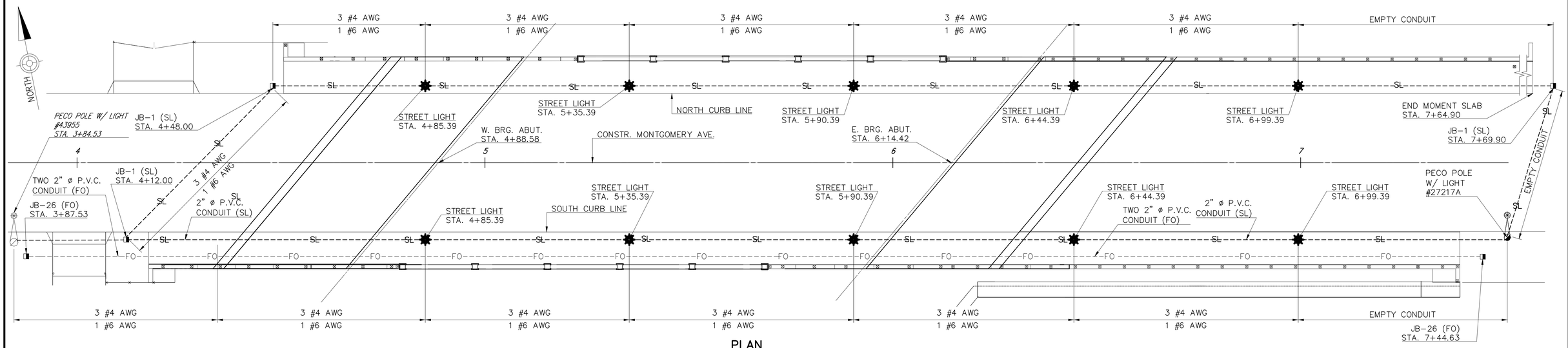
REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				06	PHILADELPHIA	7301	0185	5 OF 5
				CITY OF PHILADELPHIA				

5'-0" NON-STRYENATED RESIN IMPREGNATED LINER INCLUDING ALL APPURTENANT WORK	4'-6" NON-STRYENATED RESIN IMPREGNATED LINER INCLUDING ALL APPURTENANT WORK	DEWATERING OF THE SEWER	FILL VOIDS IN THE CROWN, WALLS, AND INVERT WITH EPOXY MASTIC TO REPAIR THE SEWER PRIOR TO THE EPOXY LINING	1/4-(250 MILS) LAYER OF EPOXY RESIN LINING	CLEANING AND REMOVAL OF DEBRIS IN THE 4'-0" SEWER	EXCAVATION FOR PIPE SEWERS INCLUDING SHEATHING AND SHORING, WITH STEEL SOLDIER BEAMS	EXPLORATORY EXCAVATION	54 INCH RCP SEWER	60 INCH RCP SEWER	SEWER MANHOLES FOR PIPES 36 INCHES AND OVER	WELLHOLES	4 FOOT OPEN MOUTH GRATE INLETS	FILLING ABANDONED INLETS	SHEETING AND SHORING TO BE LEFT IN PLACE	15 INCH INLET CONNECTIONS	SEWER MANHOLES FOR PIPES 30 INCHES AND UNDER	FILLING ABANDONED MANHOLES	48 INCH RCP SEWER										REMARKS	SIDE	STATIONS
9000 1001 LF	9000 1002 LF	9000 1003 LS	9000 1004 CY	9000 1005 SY	9000 1006 CY	9000 1007 CY	9000 1008 CY	9000 1009 LF	9000 1010 LF	9000 1011 EACH	9000 1012 EACH	9000 1013 EACH	9000 1014 EACH	9000 1015 DOLLA	9000 1016 LF	9000 1017 EACH	9000 1018 EACH	9000 1019 LF										ITEM NUMBER UNIT		
																												MONTGOMERY AVE		
												1																		2+05.54
													1																	2+38.29
												1																		2+47.68
													1																	3+63.85
												1																		3+66.13
														38400	75	1	1													4+00.00 to 5+00.00
																		90												4+22.08 to 4+88.00
					10																									4+84.37 to 4+88.40
265	130	X	2	25		700	100	15	15	4	1																			4+91.30
																														6+57.52
												1																		8+33.16
													2																	8+38.66
265	130	---	2	25	10	700	100	15	15	4	1	4	4	38400	75	1	1	90										TOTALS		

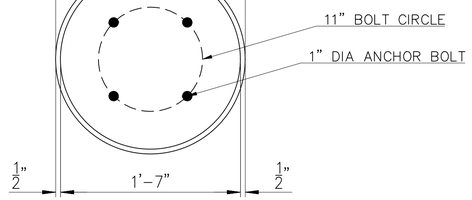
PROJECT ID: 1279 MPMS: 57276 ECMS: 57276 8/3/2020 3:00:38 PM

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	7301	185	1 OF 2
CITY OF PHILADELPHIA				

REVISION NUMBER	REVISIONS	DATE	BY



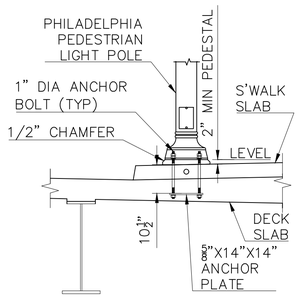
PLAN
SCALE: 3/32"=1'-0"



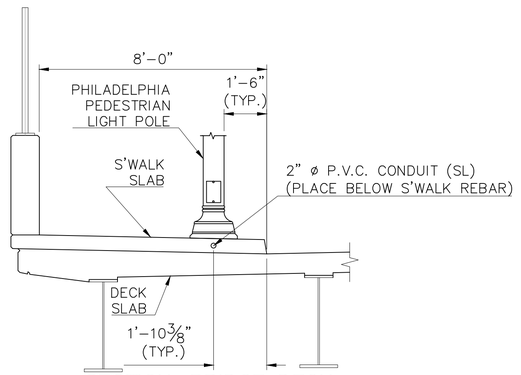
LIGHT POLE BASE PLAN
SCALE: 1 1/2"=1'-0"

NOTES:

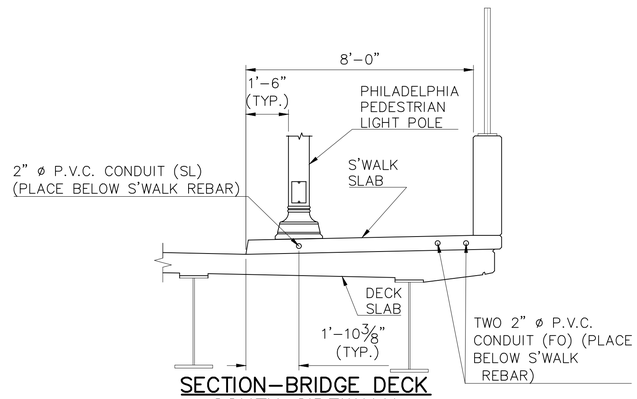
- FOR GENERAL NOTES SEE STRUCTURE SHT 01.
- FOR PAINT NOTE SEE STRUCTURE SHT 01.
- FOR POLE AND LUMINAIRE DETAILS, SEE SPECIAL PROVISIONS AND CITY OF PHILADELPHIA STANDARD DETAILS
- SIDEWALK SHALL HAVE A JB26 TYPE JUNCTION BOX
- WORK THIS SHT WITH STRUCTURE SHTS. 32 TO 42 .
- COORDINATE CONDUIT PLACEMENT WITH CONCRETE POURS.
- COORDINATE STREET LIGHTING CONDUIT PLACEMENT WITH ROADWAY DRAWINGS.
- COORDINATE ANCHOR BOLT PLACEMENT WITH CONCRETE POURS.
- ANCHOR BOLTS SHALL BE ASTM F1554 GRADE 55, MECHANICALLY GALVANIZED PER PUBLICATION 408 SECTION 1105.02(A)3.
- ALL CONDUITS SHALL BE SCHEDULE 40 PVC.
- P.V.C. CONDUIT TO MAKE 3-90 DEGREE BENDS AT END OF CONCRETE PARAPET, STA. 6+40.50
- EXTEND CONDUIT TO RELOCATED PECO POLE AS SHOWN.
- P.V.C. CONDUIT TO MAKE 1-90 DEGREE BEND @ RELOCATED PECO POLE, EXTEND THROUGH S'WALK TO A MIN. 12" ABOVE GRADE
- PROVIDE MIN. 10 FT. PVC SHIELD FOR CONDUIT ABOUT SIDEWALK.
- SEE TABULATION OF QUANTITIES TABLE FOR ROADWAY LUMINAIRE AND BRACKET ARM REPLACEMENT LOCATIONS.
- PROVIDE TIER 22 RATED COVERINGS FOR JB-1.



ANCHORAGE DETAIL - BRIDGE DECK (APPROACH AND MOMENT SLABS SIMILAR)
SCALE: 3/8"=1'-0"



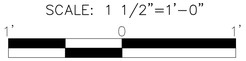
SECTION-BRIDGE DECK NORTH SIDEWALK (APPROACH AND MOMENT SLABS SIMILAR)
SCALE: 3/8"=1'-0"



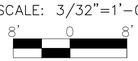
SECTION-BRIDGE DECK SOUTH SIDEWALK (APPROACH AND MOMENT SLABS SIMILAR)
SCALE: 3/8"=1'-0"

BAR SCALE KEY

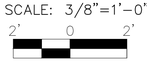
SCALE: 1 1/2"=1'-0"



SCALE: 3/32"=1'-0"



SCALE: 3/8"=1'-0"



LEGEND:

- ---FO--- TRAFFIC FIBER OPTIC (FO)
- ---SL--- STREET LIGHTING (SL)
- JUNCTION BOX IN SIDEWALK

PREPARED BY:

CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VADIM L. FLEYSH
ENGINEER
No. PE-056844

LIGHTING PLAN

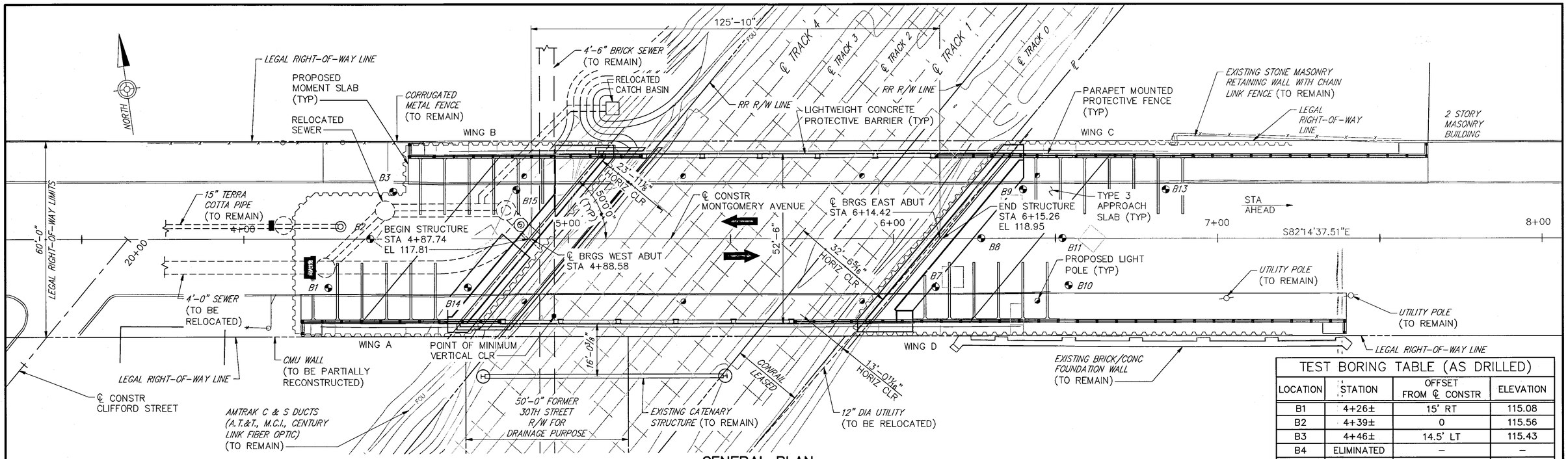
TABULATION OF QUANTITIES

LIGHTING PLAN

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				06	PHILADELPHIA	7301	0185	2 OF 2
				CITY OF PHILADELPHIA				

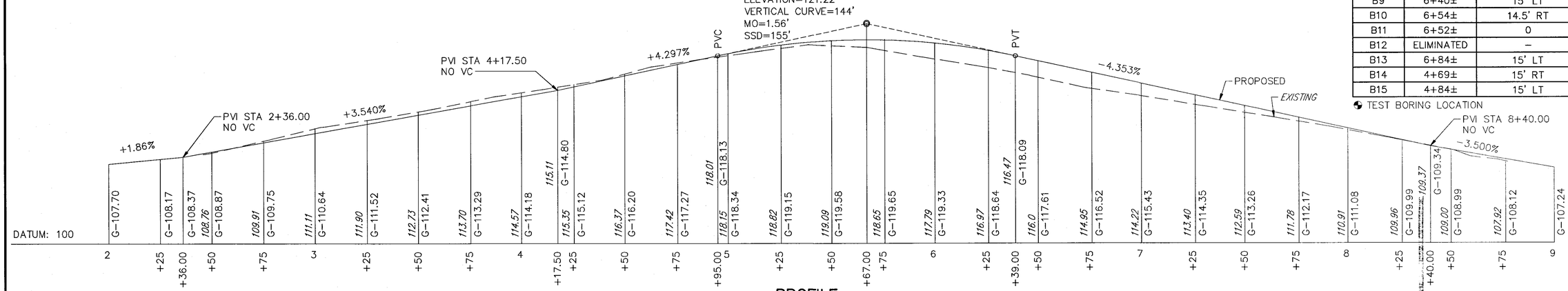
JUNCTION BOXES J.B.-1 MODIFIED	6-FOOT BRACKET ARM	AWG 4 UNDERGROUND CABLE, COPPER, 1 CONDUCTOR	AWG 6 UNDERGROUND CABLE, COPPER, 1 CONDUCTOR	2" DIRECT BURIAL CONDUIT	TESTING OF ENTIRE LIGHTING SYSTEM	JUNCTION BOX, JB-26	PECO SUPPLY (PECO CORRDINATION)	PHILADELPHIA PEDESTRIAN POLE	LED ROADWAY LUMINAIRE	REMOVE STREET LIGHT ARM AND LUMINAIRE FROM EXISTING POLE																								REMARKS	SIDE	STATIONS
4910 0001 EACH	0910 2002 EACH	0910 4114 LF	0910 4115 LF	0910 5055 LF	0910 7210 LS	0954 0301 EACH	9000 0009 DOLLA	9000 0010 EACH	9000 1512 EACH	9000 1513 EACH																								ITEM NUMBER UNIT			
																																	MONTGOMERY AVE		
	1								1	1																									LT	1+68.00 to 1+68.00
	1								1	1																									LT	2+30.44 to 2+30.44
	1								1	1																									RT	3+24.77 to 3+24.77
	1								1	1																									RT	3+84.54 to 3+84.54
2				134		1																														3+84.54 to 4+50.66
		1850	620		X		12000	10																												3+84.54 to 7+00.00
																																				4+17.53 to 7+39.00
																																				4+85.39 to 6+45.39
1				83		1																														7+00.00 to 7+69.90
	1								1	1																									RT	7+50.66 to 7+50.66
	1								1	1																									RT	7+90.66 to 7+90.66
	1								1	1																									RT	8+54.89 to 8+54.89
3	7	1850	620	217	---	2	12000	10	7	7																										TOTALS		

PROJECT ID: 1279 MPMS: 57276 ECMS: 57276 11/3/2020 1:40:16 PM



GENERAL PLAN

(RANDOM STONE SLOPE WALL AT WEST ABUTMENT NOT SHOWN FOR CLARITY)
SCALE: 1"=15'-0"



PROFILE

HORIZONTAL SCALE: 1"=25'-0"
VERTICAL SCALE: 1" = 5'-0"

TEST BORING TABLE (AS DRILLED)

LOCATION	STATION	OFFSET FROM ℄ CONSTR	ELEVATION
B1	4+26±	15' RT	115.08
B2	4+39±	0	115.56
B3	4+46±	14.5' LT	115.43
B4	ELIMINATED	–	–
B5	4+65±	0	116.88
B6	ELIMINATED	–	–
B7	6+13±	15' RT	117.14
B8	6+27±	0	116.94
B9	6+40±	15' LT	116.17
B10	6+54±	14.5' RT	115.26
B11	6+52±	0	115.94
B12	ELIMINATED	–	–
B13	6+84±	15' LT	114.16
B14	4+69±	15' RT	116.83
B15	4+84±	15' LT	117.17

TEST BORING LOCATION

NOTES:

1. VERTICAL CONTROL IS BASED ON CITY OF PHILADELPHIA DATUM: NGVD29 = NAV88+0.98 AND NAVD88 = CITY DATUM+4.483.
2. FOR GENERAL ELEVATION, SEE SHEET 2.
3. FOR EXISTING CONDITIONS, SEE SHEET 4.
4. FOR TYPICAL SECTION, SEE SHEET 3.
5. FOR GENERAL NOTES, SEE SHEETS 5 AND 6.
6. FOR STAKE-OUT PLAN, SEE SHEET 8.
7. FOR PROPOSED CATCH BASIN, SEE SHEET 51.
8. FOR RELOCATED SEWER, SEE SEWER LINING, RECONSTRUCTION, AND INLET REPLACEMENT PROJECT PLAN.

BAR SCALE KEY

SCALE: 1"=25'
25' 0 25'
SCALE: 1"=15'
15' 0 15'
SCALE: 1"=5'
5' 0 5'

DESIGN REVIEWED BY:
NTM Engineering, Inc.
130 W. Church St., Suite 200
Dillsburg, PA 17019

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL DAVID JAMES MIRAGLIA ENGINEER PE071369

THE DESIGN REVIEW IS A DETAILED REVIEW FOR PROPER DEVELOPMENT AND PRESENTATION OF THE CONCEPTS IN THE TYPE, SIZE AND LOCATION PLANS APPROVED BY THE DEPARTMENT. IT IS NOT INTENDED TO RELIEVE THE DESIGNER OF FULL RESPONSIBILITY FOR THE PROPER DEVELOPMENT AND PRESENTATION OF THE DESIGN AND FOR THE ACCURACY AND COMPLETENESS OF THE PLANS.

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL CHRISTOPHER W. SMITH ENGINEER PE062861

NUMBER	REVISIONS	BY	DATE

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE B-0185-2001 / L-201

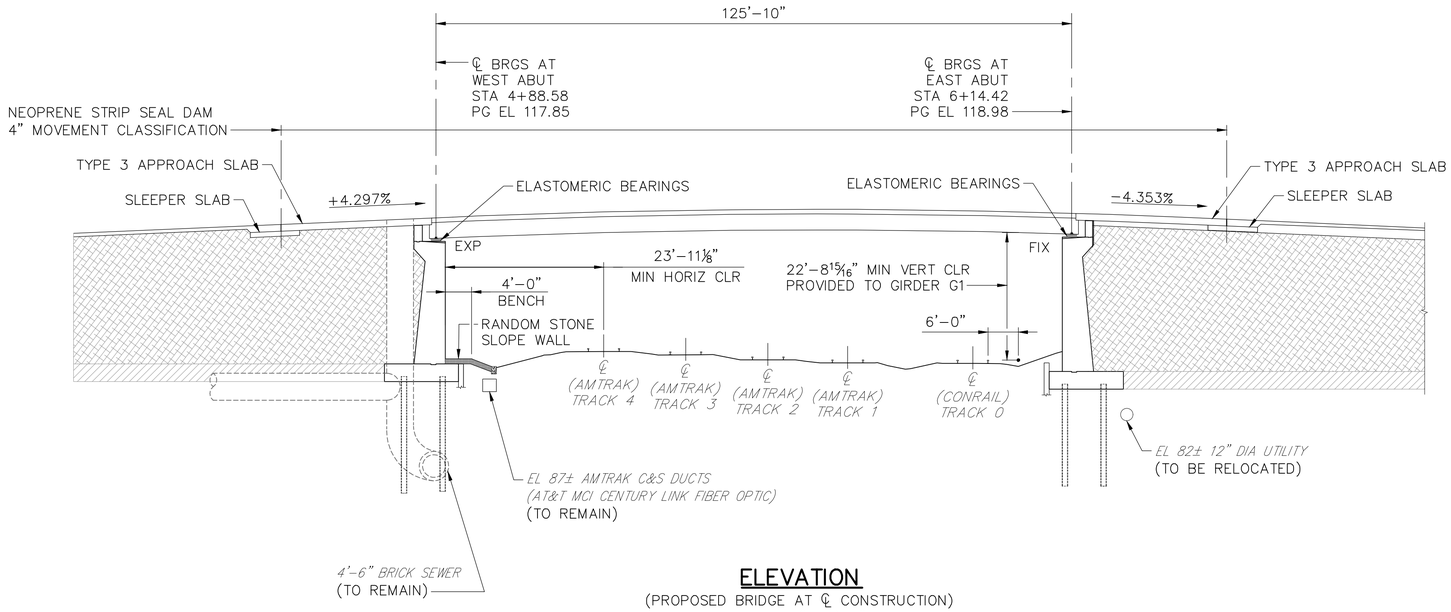
GENERAL PLAN & PROFILE

RECOMMENDED
ENGINEER OF DESIGN 9/10/2020
CHIEF BRIDGE ENGINEER 10/30/20
DISTRICT BRIDGE ENGINEER PENNDOT

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

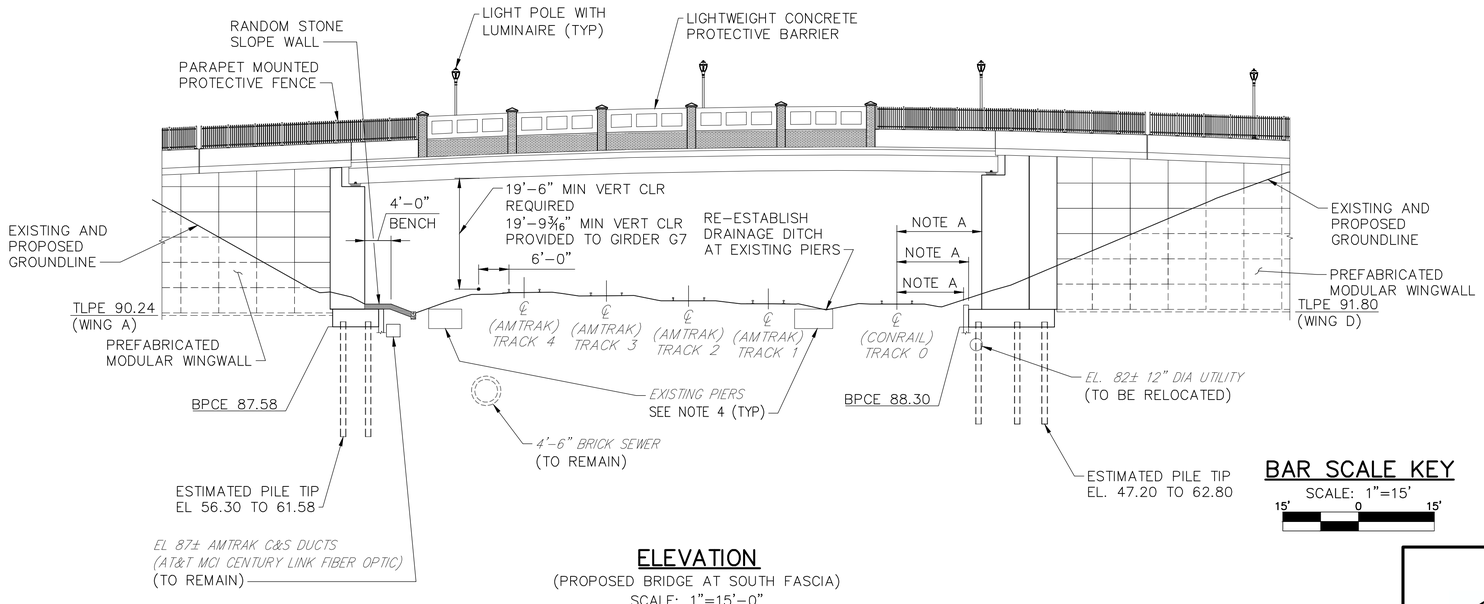
DRAWN BY:	CWS/ALS	DATE:	8/18/2020
CHECKED BY:	AYB	DATE:	8/18/2020
SCALE:	AS NOTED	SHEET:	1 OF 62

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ELEVATION

(PROPOSED BRIDGE AT ℄ CONSTRUCTION)
SCALE: 1"=15'-0"



ELEVATION

(PROPOSED BRIDGE AT SOUTH FASCIA)
SCALE: 1"=15'-0"

NOTE A:

MINIMUM HORIZONTAL CLEARANCE FROM ℄ TRACK 0 TO FACE OF EAST ABUTMENT = 13'-0¹⁄₁₆"
TOE OF EAST ABUTMENT PILE CAP = 11'-0¹⁄₁₆"
TRACK-SIDE FACE OF TEMPORARY EXCAVATION SUPPORT = 10'-0⁹⁄₁₆"

BAR SCALE KEY

SCALE: 1"=15'

15' 0 15'

NOTES:

1. ALL BEARINGS ARE LAMINATED NEOPRENE BEARING PADS.
2. FOR GENERAL PLAN, SEE SHEET 1.
3. FOR TYPICAL SECTION, SEE SHEET 3.
4. FOR LIMITS OF EXISTING PIER REMOVAL, SEE SHEETS 9 THRU 12.
5. FOR STREET LIGHT POLE INFORMATION, SEE LIGHTING PLAN
6. FOR CONDUIT DETAILS, SEE LIGHTING PLAN.
7. FOR PROTECTIVE BARRIER AND PICKET FENCE DETAILS, SEE SHEETS 35 THRU 37.
8. FOR RELOCATED SEWER, SEE SEWER LINING, RECONSTRUCTION, AND INLET PROJECT REPLACEMENT PLAN.

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — CHRISTOPHER W. SMITH — ENGINEER — PE062861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE B-0185-2001 / L-201

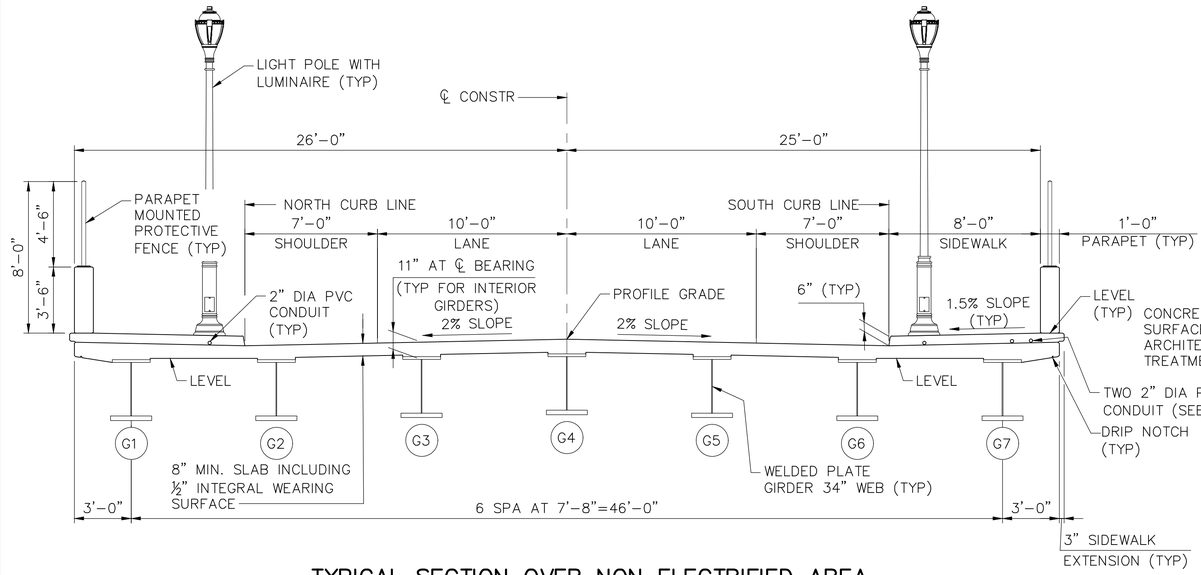
GENERAL PLAN – ELEVATION

RECOMMENDED 9/1/2020

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

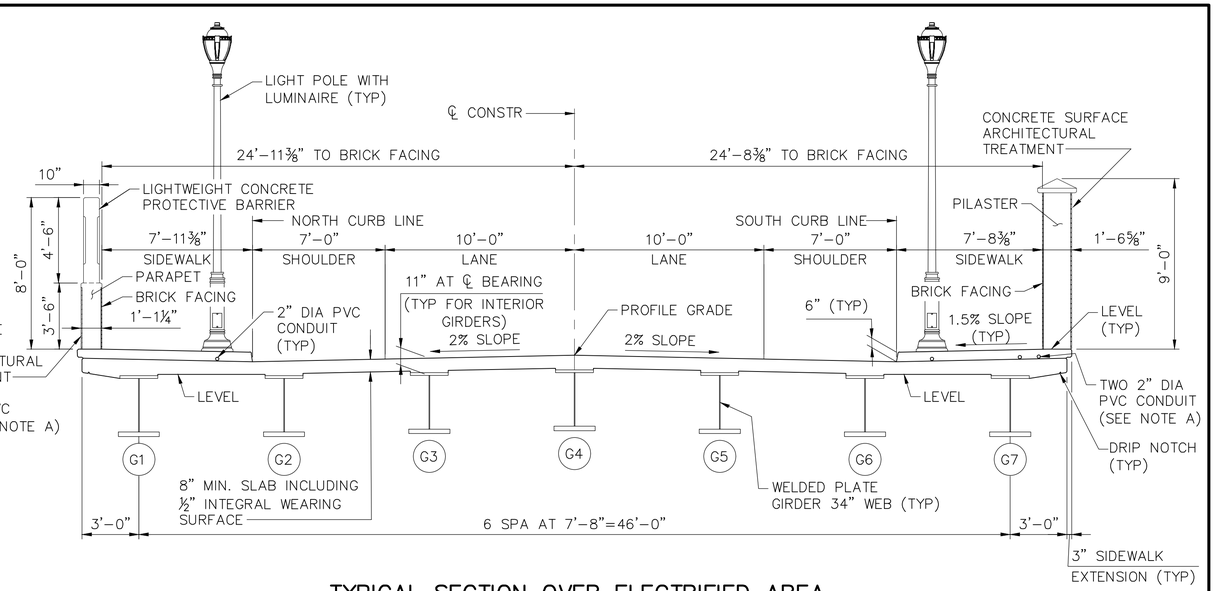
DRAWN BY:	CWS/JAW	DATE:	5/20/2020
CHECKED BY:	AYB	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	2 OF 62

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Plotted 8/18/2020 11:02:01 PM by STUM, AMELIA L.



TYPICAL SECTION OVER NON ELECTRIFIED AREA

SCALE: ¼" = 1'-0"



TYPICAL SECTION OVER ELECTRIFIED AREA

SCALE: ¼" = 1'-0"

BRIDGE LOAD RATINGS WITH FUTURE WEARING SURFACE

ADTT (2018) = 145 (EACH DIRECTION)

SPAN NO. 1		SIMPLE SPAN STEEL WELDED PLATE I-GIRDER BRIDGE					
		H20	HS20	ML-80	TK-527	PHL-93	P-82
INVENTORY RATING (IR)	DISTRIBUTION FACTOR	0.714	0.714	0.714	0.714	0.714	–
	LOCATION	0.50L	0.51L	0.50L	0.51L	0.51L	–
	LIMIT STATE	STR-I	STR-I	STR-I	STR-I	STR-I	–
	RATING FACTOR	1.94M	1.79M	1.62M	1.57M	1.21M	–
OPERATING RATING (OR)	DISTRIBUTION FACTOR	0.714	0.714	0.714	0.714	0.714	0.714
	LOCATION	0.50L	0.51L	0.50L	0.51L	0.51L	0.51L
	LIMIT STATE	STR-II	STR-II	STR-II	STR-II	STR-IA	STR-II
	RATING FACTOR	2.52M	2.32M	2.10M	2.04M	1.57M	1.10M

CRITICAL MEMBER: EXTERIOR GIRDER
MAXIMUM FACTORED FLEXURAL RESISTANCE (K-FT): 13896 K-FT
LOCATION: 0.50L
MAXIMUM FACTORED SHEAR RESISTANCE (K): 554 K
LOCATION: 0.00L

BRIDGE LOAD RATINGS WITHOUT FUTURE WEARING SURFACE

ADTT (2018) = 145 (EACH DIRECTION)

SPAN NO. 1		SIMPLE SPAN STEEL WELDED PLATE I-GIRDER BRIDGE					
		H20	HS20	ML-80	TK-527	PHL-93	P-82
INVENTORY RATING (IR)	DISTRIBUTION FACTOR	0.714	0.714	0.714	0.714	0.714	–
	LOCATION	0.50L	0.51L	0.51L	0.51L	0.51L	–
	LIMIT STATE	STR-I	STR-I	STR-I	STR-I	STR-I	–
	RATING FACTOR	2.08M	1.92M	1.74M	1.69M	1.30M	–
OPERATING RATING (OR)	DISTRIBUTION FACTOR	0.714	0.714	0.714	0.714	0.714	0.714
	LOCATION	0.50L	0.51L	0.51L	0.51L	0.51L	0.51L
	LIMIT STATE	STR-II	STR-II	STR-II	STR-II	STR-IA	STR-II
	RATING FACTOR	2.70M	2.49M	2.26M	2.19M	1.69M	1.18M

CRITICAL MEMBER: EXTERIOR GIRDER
MAXIMUM FACTORED FLEXURAL RESISTANCE (K-FT): 13896 K-FT
LOCATION: 0.50L
MAXIMUM FACTORED SHEAR RESISTANCE (K): 554 K
LOCATION: 0.00L

SUPPLEMENTAL DRAWINGS

DESCRIPTION	DWG NO	APP'D DATE
CLASSIFICATION OF EARTHWORK FOR STRUCTURES	RC-11M	JUN. 1, 2010
BACKFILL AT STRUCTURES	RC-12M	FEB. 8, 2019
CONCRETE PAVEMENT JOINTS	RC-20M	APR. 29, 2019
RIGHT-OF-WAY FENCE	RC-60M	JUN. 1, 2010
ELECTRICAL DETAILS	BC-721M	SEPT. 30, 2016
LIGHTING POLE ANCHORAGE	BC-722M	SEPT. 30, 2016
PERMANENT METAL DECK FORMS	BC-732M	JAN. 31, 2019
ANCHOR SYSTEMS	BC-734M	JAN. 31, 2019
WALL CONSTRUCTION AND EXPANSION JOINT DETAILS	BC-735M	SEPT. 30, 2016
REINFORCEMENT BAR FABRICATION DETAILS	BC-736M	JAN. 31, 2019
BRIDGE DRAINAGE	BC-751M	JAN. 31, 2019
CONCRETE DECK SLAB DETAILS	BC-752M	SEPT. 30, 2016
STEEL GIRDER DETAILS	BC-753M	JAN. 31, 2019
STEEL DIAPHRAGMS FOR STEEL BEAM/GIRDER STRUCTURES	BC-754M	JAN. 31, 2019
BEARINGS	BC-755M	JAN. 31, 2019
STEEL PILE TIP REINFORCEMENTS & SPLICES	BC-757M	SEPT. 30, 2016
PREFORMED NEOPRENE COMPRESSION SEAL JOINT FOR APPROACH SLABS	BC-766M	JAN. 31, 2019
NEOPRENE STRIP SEAL DAM FOR PRESTRESSED CONCRETE & STEEL I-BEAM BRIDGES	BC-767M	JAN. 31, 2019
RANDOM STONE SLOPE WALL	BC-781M	SEPT. 30, 2016
TYPICAL WATERPROOFING AND EXPANSION DETAILS	BC-788M	JAN. 31, 2019

LEGEND:

(G1) DENOTES GIRDER NUMBER

NOTE A:

TWO (2) 2" DIAMETER PVC CONDUIT (SOUTH SIDE ONLY) FOR THE FUTURE USE BY CITY OF PHILADELPHIA, STREETS DEPARTMENT.

NOTES:

1. "M" DENOTES MOMENT CONTROLLED THE LOAD RATING FACTOR.
2. "S" DENOTES SHEAR CONTROLLED THE LOAD RATING FACTOR.
3. THE RATING FACTOR IS THE RATIO OF THE ALLOWABLE LIVE LOAD TO THE ACTUAL LIVE LOAD PLUS IMPACT. THE INVENTORY RATING (IR) IS THE LIVE LOAD PLUS IMPACT THAT CAN BE CARRIED BY THE STRUCTURE FOR AN INDEFINITE PERIOD OF TIME. THE OPERATING RATING (OR) IS THE LIVE LOAD PLUS IMPACT THAT WILL PRODUCE THE ABSOLUTE MAXIMUM PERMISSIBLE STRESS.
4. ML-80 = PENNSYLVANIA MAXIMUM LEGAL LOAD.
5. TK-527 = PENNSYLVANIA LEGAL LOAD.
6. P-82 = PENNSYLVANIA 204 KIP PERMIT LOAD.
7. FOR GENERAL PLAN, SEE SHEET 1.
8. FOR GENERAL ELEVATION, SEE SHEET 2.
9. FOR GENERAL NOTES, SEE SHEET 5.
10. FOR LIGHTWEIGHT CONCRETE PROTECTIVE BARRIER AND PARAPET MOUNTED PROTECTIVE FENCE DETAILS, SEE SHEETS 35 THRU 37.
11. FOR CONDUIT DETAILS, SEE LIGHTING PLANS.

BAR SCALE KEY

SCALE: ¼"=1'-0"

4' 0 4'

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201

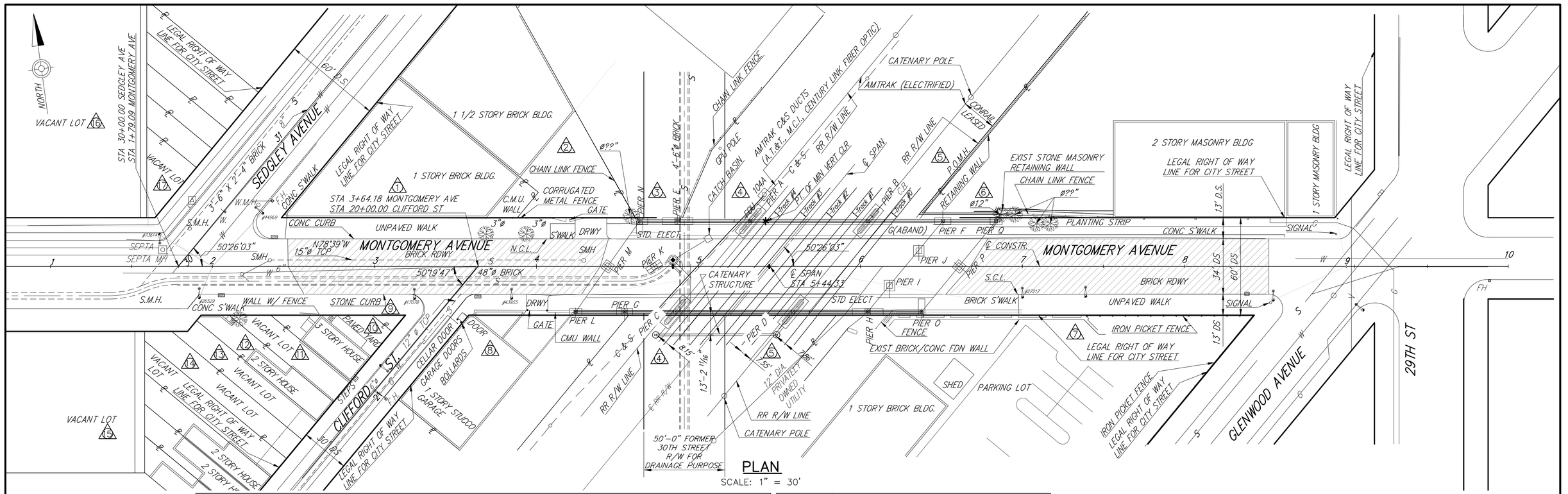
TYPICAL SECTIONS & LOAD RATING TABLES

RECOMMENDED 9/1/2020

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

DRAWN BY:	HNB/JAW	DATE:	5/20/2020
CHECKED BY:	AYB	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	3 OF 62

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PLAN
SCALE: 1" = 30'

TRAFFIC DATA

A.D.T. (2018)=5796
A.D.T. (2038)=7073
D.H.V. (2018)=580
D.H.V. (2038)=707
T(2018) =290
T(2038) =354
AVERAGE D =50%
LEGAL SPEED=25MPH
PROP. DESIGN SPEED=25MPH
PROP. STOPPING SIGHT DIST.=155 FT.

UTILITIES

UTILITIES	EXISTING	PROPOSED
AMTRAK	*4–ELECTRIFIED TRACKS, 1 C&S CONDUIT, 1–CATCH BASIN, 1–MANHOLE*	4–ELECTRIFIED TRACKS, 1–C&S CONDUIT, 1 CATCH BASIN, 1–MANHOLE
AT&T LOCAL SERVICES	*NONE*	NONE
AT&T LONG DISTANCE CORE NETWORK	*1–FIBER OPTIC LINE IN AMTRAK CONDUIT*	1–FIBER OPTIC LINE IN AMTRAK CONDUIT
CONRAIL	*1–NON–ELECTRIFIED TRACK*	1–NON–ELECTRIFIED TRACK
ZAYO GROUP	*1–FIBER OPTIC CABLE ATTACHED TO EXISTING AMTRAK CATENARY POLES*	1–FIBER OPTIC CABLE ATTACHED TO EXISTING AMTRAK CATENARY POLES
MCI	*1–FIBER OPTIC LINE IN AMTRAK CONDUIT*	1–FIBER OPTIC LINE IN AMTRAK CONDUIT
PECO ENGERY	*4–AERIAL DISTRIBUTION POLES MONTGOMERY AVE.*	4–AERIAL DISTRIBUTION POLES MONTGOMERY AVE.
PHILADELPHIA GAS WORKS	*NONE*	NONE
PHILADELPHIA WATER DEPARTMENT	*SEWER: 1–4'–6" DIA. BRICK, 1–4'–0" DIA. BRICK WATER: NONE*	SEWER: 1–4'–6" DIA. BRICK, 1–4'–0" DIA BRICK WATER: NONE *
CENTURY LINK FIBER OPTIC	*1–FIBER OPTIC LINE IN AMTRAK CONDUIT*	1–FIBER OPTIC LINE IN AMTRAK CONDUIT
VERIZON	*NONE*	NONE
PRIVATELY OWNED SEWER	*SEWER: 1–12" DIA., 1–MANHOLE*	SEWER: 1–12" DIA., 1–MANHOLE
STREETS DEPARTMENT	*NONE*	2–2" PVC CONDUITS

PROPERTY OWNERS

PARCEL	PROPERTY OWNERS
1	*GROSSO CONSTRUCTION INC.*
2	*JOSEPH WILLIAMS*
3	*UNLIMITED HOLDINGS INC.*
4	*AMTRAK*
5	*CONRAIL LEASED*
6	*DOUGLAS C. PAYNE*
7	*EAST PARK CONGREGATION OF JEHOVA'S WITNESSES*
8	*OLIVER STONER & EUGENE PROTER*
9	*GEORGE HUTT*
10	*WILLIAM A. FRANKLIN JR. & ALISE BEATRICE*
11	*SECRETARY OF HOUSING & URBAN DEVELOPMENT*
12	*CRUD LLC*
13	*FREDA BERGMAN & JACK WEINSTEIN*
14	*CITY OF PHILADELPHIA*
15	*PHILADELPHIA REDEVELOPMENT*
16	*REDEVELOPMENT AUTHORITY OF PHILA*
17	*ESTER KEAN*

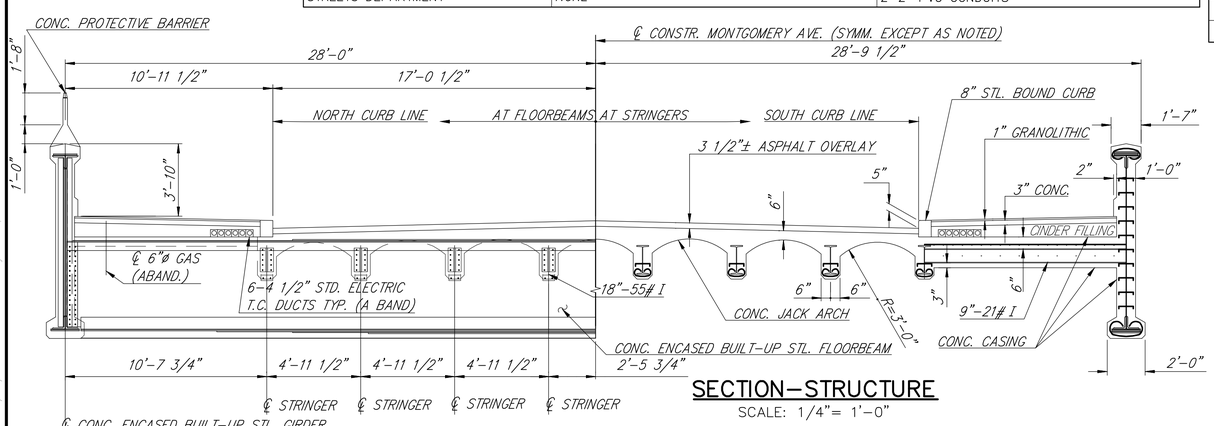
TABLE OF CLEARANCES (AMTRAK & CONRAIL)

		TRACK 4			TRACK 3		TRACK 2		TRACK 1		TRACK 0		
NORTH	LOCATION	6' OFFSET	W.RAIL	E.RAIL	W.RAIL	E.RAIL	W.RAIL	E.RAIL	W.RAIL	E.RAIL	W.RAIL	E.RAIL	6' OFFSET
	EXIST. CLR.	19.15	19.15	19.15	19.81	19.81	20.81	20.81	21.42	21.42	21.66	21.66	21.66
	PROP. CLR.	20.76	20.87	20.98	21.76	21.81	22.87	22.85	23.31	23.23	23.07	22.87	22.74
SOUTH	LOCATION	6' OFFSET	W.RAIL	E.RAIL	E.RAIL	E.RAIL	W.RAIL	E.RAIL	W.RAIL	E.RAIL	W.RAIL	E.RAIL	6' OFFSET
	EXIST CLR.	19.23	19.23	19.23	19.92	19.92	20.90	20.90	21.58	21.58	21.62	21.62	21.62
	PROP. CLR.	19.76	19.97	20.19	21.23	21.38	22.64	22.76	23.51	23.57	23.55	23.47	23.42

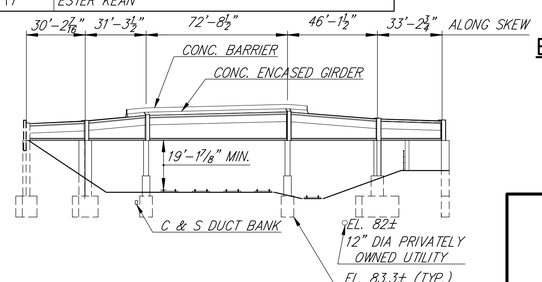
NOTES:
1. 6' OFFSET FROM ℄ TRACK (AREA ENVELOPE).

TABLE OF CLEARANCES BETWEEN BOTTOM OF PROPOSED BRIDGE AND EXISTING TOP CATENARY (AMTRAK)

		TRACK 4	TRACK 3	TRACK 2	TRACK 1
NORTH	LOCATION	℄	℄	℄	℄
	0' F	2.66	2.50	3.00	3.09
	60' F	3.31	3.15	3.56	3.62
SOUTH	LOCATION	℄	℄	℄	℄
	0' F	1.28	1.73	2.70	3.22
	60' F	1.50	1.94	2.91	3.41



SECTION–STRUCTURE
SCALE: 1/4"= 1'–0"



ELEVATION–SOUTH FASCIA
(BRICK SEWER NOT SHOWN FOR CLARITY)
NOT TO SCALE

BARSCALE KEY
SCALE: 1"=30'
25' 0 25'
SCALE: 1/4"=1'–0"
4' 0 4'

NUMBER	REVISIONS	BY	DATE

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE B–0185–2001 / L–201
EXISTING CONDITIONS

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — CHRISTOPHER W. SMITH — ENGINEER — PE062861

RECOMMENDED 9/1/2020

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

DRAWN BY:	RCD/CWS/ALS	DATE:	5/20/2020
CHECKED BY:	CWS/HNB	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	4 OF 62

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

File: Q:\3436.10\CADD\Structural\Final Design\S226000040FXX_EX CONDITIONS
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DESIGN SPECIFICATIONS:

1. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, CUSTOMARY U.S. UNITS, 7TH EDITION, 2014, AND AS SUPPLEMENTED BY DESIGN MANUAL, PART 4 (APRIL 2015).
2. LIVE LOAD DISTRIBUTION TO GIRDERS IS BASED UPON DESIGN MANUAL, PART 4 DISTRIBUTION FACTORS. A THREE–DIMENSIONAL FINITE ELEMENT ANALYSIS METHOD WAS UTILIZED TO DESIGN THE STEEL DIAPHRAGM MEMBERS AND CONNECTIONS AND CONCRETE END DIAPHRAGM.
3. DESIGN IS IN ACCORDANCE WITH LRFD METHOD.

DESIGN LIVE LOADS:

1. PHL–93 OR P–82 (204 KIP PERMIT LOAD).
2. FATIGUE DESIGN IS BASED ON THE FOLLOWING:

   STEEL STRUCTURES: ADTT 177 (2038) (ONE–DIRECTIONAL)

DEAD LOADS:

1. INCLUDES SURFACE AREA DENSITY OF 0.030 KSF FOR FUTURE WEARING SURFACE ON THE ROADWAY PORTION OF THE DECK SLAB.
2. INCLUDES A SURFACE AREA DENSITY OF 0.015 KSF FOR PERMANENT METAL DECK FORMS WHICH TAKES INTO ACCOUNT THE WEIGHT OF THE FORM, PLUS THE WEIGHT OF THE CONCRETE IN THE VALLEYS OF THE FORMS.
3. INCLUDES THE FOLLOWING LOADS FOR THE LIGHTWEIGHT CONCRETE PROTECTIVE BARRIER DIVIDED BETWEEN THE FASCIA GIRDER AND FIRST INTERIOR GIRDER. MAXIMUM LIGHTWEIGHT CONCRETE UNIT WEIGHT IS 115 PCF EXCLUDING REINFORCEMENT UNIT WEIGHT.

   10" WALL: 0.469 KIP/FT (ABOVE THE PARAPET)
   BRICK FACING: 0.038 KIP/FT (ON THE PARAPET)
   PILASTERS: 0.425 KIP (ADDITIONAL CONCRETE WITHIN THE PARAPET)
   PILASTERS: 1.838 KIP (ABOVE THE PARAPET WITH BRICK FACING AND CAP WEIGHT)

GENERAL:

1. PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH SPECIFICATIONS, PUBLICATION 408: 2020, AASHTO/AWS D1.5M/D1.5:2008 BRIDGE WELDING CODE, AND CONTRACT SPECIAL PROVISIONS.
2. ALL DIMENSIONS SHOWN ARE HORIZONTAL, EXCEPT AS NOTED.
3. SUPERSTRUCTURE DIMENSIONS SHOWN ARE FOR A NORMAL TEMPERATURE OF 68° F.
4. VERIFY ALL DIMENSIONS AND GEOMETRY OF THE EXISTING STRUCTURE IN THE FIELD AS NECESSARY FOR PROPER FIT OF THE PROPOSED CONSTRUCTION. MAKE NO CLAIM AGAINST THE CITY FOR WORK PERTAINING TO MODIFICATIONS AS MAY BE REQUIRED DUE TO ANY DIFFERENCE BETWEEN ACTUAL FIELD CONDITIONS AND THOSE SHOWN BY THE DETAILS AND DIMENSIONS ON THE CONTRACT PLANS.
5. DO NOT CONSIDER ANY OF THE DATA ON THE EXISTING STRUCTURE SUPPLIED IN THE ORIGINAL DESIGN DRAWINGS OR MADE AVAILABLE TO YOU BY THE CITY OR ITS AUTHORIZED AGENTS AS POSITIVE REPRESENTATIONS OF ANY OF THE CONDITIONS THAT YOU WILL ENCOUNTER IN THE FIELD.
6. ALL DIMENSIONS ARE UNITED STATES STANDARD (U.S.S.) MEASURE, UNLESS NOTED OTHERWISE. 1.000' PHILADELPHIA DISTRICT STANDARD (D.S.) EQUALS 1.0025' U.S.S.
7. SITE CLASS IS NOT CLASS E.
8. HORIZONTAL SEISMIC FORCES ON THE ANCHOR BOLTS WERE CONSIDERED 25% OF THE VERTICAL REACTION DUE TO THE TRIBUTARY PERMANENT LOAD.
9. FOR LOCATION AND DESCRIPTION OF SURVEY CONTROL POINTS, SEE ROADWAY DRAWINGS.
10. FOR APPROACH ROADWAY CONSTRUCTION AND IMPROVEMENTS, SEE ROADWAY DRAWINGS.
11. FOR CATENARY STRUCTURE, SEE RAILROAD ELECTRIFICATION DRAWINGS.
12. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE STABILITY AND STRUCTURAL INTEGRITY OF THOSE PORTIONS OF THE EXISTING STRUCTURES AND MASONRY WALLS TO REMAIN WHICH MAY BE AFFECTED BY THEIR OPERATIONS THROUGHOUT THE DURATION OF THE CONTRACT. ANY DAMAGE TO THE EXISTING STRUCTURES OR MASONRY WALLS WHICH IS THE RESULT OF THE CONTRACTOR'S OPERATIONS WILL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE CITY, AT THE DISCRETION OF, AND TO THE SATISFACTION OF THE REPRESENTATIVE.

DEMOLITION NOTES:

1. EXERCISE CARE TO AVOID DAMAGE TO ANY SURROUNDING STRUCTURES AND UTILITIES TO REMAIN. REPAIR ANY DAMAGE OR REPLACE DAMAGED MATERIALS TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE CITY.
2. SUBMIT A DEMOLITION PLAN FOR REMOVAL OF THE EXISTING BRIDGE. PROVIDE DETAILS REGARDING REMOVAL AND DISPOSAL METHODS AND PROCEDURES, DEMOLITION SEQUENCE, TEMPORARY SHORING, SHIELDING, BRACING, OR RIGGING EQUIPMENT NECESSARY TO SAFELY REMOVE THE EXISTING BRIDGE. ALL PLANS AND CALCULATIONS ARE TO BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE COMMONWEALTH OF PENNSYLVANIA.
3. CONTRACTOR MAY NOT STOCKPILE ANY MATERIALS NOR STAGE ANY EQUIPMENT ON THE EXISTING BRIDGE. DO NOT STAGE EQUIPMENT OR STOCKPILE MATERIALS ON THE PROPOSED BRIDGE UNLESS WRITTEN REQUEST HAS BEEN SUBMITTED AND ACCEPTED BY THE REPRESENTATIVE. SEE CONTRACT SPECIAL PROVISIONS.

CONCRETE NOTES:

1. USE CLASS AAAP CEMENT CONCRETE IN DECK SLABS, CONCRETE END DIAPHRAGMS AND APPROACH SLABS.
2. USE CLASS AA CEMENT CONCRETE IN ALTERNATE SIDEWALK, PARAPETS, SLEEPER SLABS, MOMENT SLABS, AND ABUTMENT BACKWALLS.
3. USE CLASS AA LIGHTWEIGHT CEMENT CONCRETE IN PROTECTIVE BARRIERS ABOVE THE PARAPET, PILASTERS ABOVE THE PARAPET AND PRECAST PILASTER CAPS.
4. USE CLASS A CEMENT CONCRETE IN ABUTMENT BELOW BRIDGE SEAT, PEDESTALS, WINGWALLS, AND FOOTINGS.
5. A HIGHER CLASS OF CONCRETE MAY BE SUBSTITUTED FOR A LOWER CLASS CONCRETE AT NO ADDITIONAL COST TO THE CITY, IF APPROVED BY THE ENGINEER.
6. RAKE–FINISH ALL HORIZONTAL CONSTRUCTION JOINTS, EXCEPT AS INDICATED.
7. USE RETARDER ADMIXTURE CONFORMING TO PUBLICATION 408 IN THE CONCRETE DECK SLAB.
8. ABUTMENT BACKWALLS MAY BE PLACED UP TO A CONSTRUCTION JOINT BELOW THE BOTTOM OF DECK SLAB PRIOR TO CONSTRUCTION OF THE DECK.
9. PLACE BACKWALL CONCRETE AFTER GIRDERS ARE SET IN POSITION.
10. CHAMFER EXPOSED CONCRETE EDGES 1 INCH BY 1 INCH, EXCEPT AS NOTED.
11. USE PERMANENT METAL FORMS TO CONSTRUCT THE DECK SLAB UNLESS SPECIFIED.
12. DECK SLAB THICKNESS INCLUDES A ½ INCH INTEGRAL WEARING SURFACE.
13. APPLY A TWO–COAT WATERPROOFING OR MEMBRANE WATERPROOFING CONFORMING TO SECTION 680 OF PUBLICATION 408 (2016) TO THE REAR FACES OF THE ABUTMENT STEM FROM THE PAVING NOTCH TO PILE CAP.

STRUCTURAL STEEL NOTES:

1. PROVIDE STRUCTURAL STEEL CONFORMING TO AASHTO M 270 (ASTM A 709), GRADE 50W UNPAINTED DESIGNATION, EXCEPT WHEN NOTED OTHERWISE.
2. PROVIDE STRUCTURAL STEEL CONFORMING TO AASHTO M 270 (ASTM A 709), GRADE 70W UNPAINTED DESIGNATION FOR THE TOP AND BOTTOM GIRDER FLANGES.
3. IF GIRDERS CANNOT BE SHIPPED IN THE LENGTHS SHOWN ON THE PLANS, FIELD SPLICE(S) MAY BE PERMITTED AT THE REQUEST OF THE CONTRACTOR, BUT NO COMPENSATION WILL BE ALLOWED FOR THE SPLICES.
4. DO NOT USE FORM SUPPORT SYSTEMS THAT WILL CAUSE UNACCEPTABLE OVERSTRESS OR DEFORMATION TO PERMANENT BRIDGE MEMBERS.
5. ALL FASTENERS ARE 7/8 INCH DIAMETER, HIGH STRENGTH BOLTS, CONFORMING TO ASTM F3125, GRADE A325, TYPE 3, EXCEPT AS NOTED.
6. PREPARE BEARING AREAS AS SPECIFIED IN PUBLICATION 408, SECTION 1001.3(K)9.
7. DO NOT MAKE WELDS BY MANUAL SHIELDED METAL ARC PROCESS FOR PRIMARY GIRDER WELDS, SUCH AS FLANGE–TO–WEB WELDS OR FOR SHOP SPLICES OF WEB AND FLANGES.
8. THREADED STUDS FOR THE SUPPORT OF THE OVERHANG DECK FORMING BRACKET IS PERMITTED PROVIDED THE THREADED STUD IS ATTACHED WITH THE SAME WELDING PROCESS AS THE STUD.
9. PROVIDE WELDED STUD SHEAR CONNECTORS MANUFACTURED FROM STEEL CONFORMING TO ASTM A 108.
10. SET ANCHOR BOLTS TO TEMPLATE OR IN PREFORMED HOLES. DO NOT DRILL UNLESS SPECIFICALLY INDICATED ON PLANS. FILL THE PREFORMED HOLE WITH NON–SHRINK GROUT.
11. PAINT PORTION OF STRUCTURAL STEEL INDICATED IN ACCORDANCE WITH PUBLICATION 408, SECTION 1060.
12. STABILITY OF PARTIAL GIRDERS AND COMPLETE GIRDERS IS TO BE MAINTAINED BY THE CONTRACTOR DURING ERECTION, UNTIL ALL GIRDERS AND DIAPHRAGMS ARE IN–PLACE AND ALL BOLTS ARE PROPERLY INSTALLED. ERECTION LOADS INCLUDING SELF WEIGHT OF THE STEEL MEMBERS, WIND LOADING AND CONSTRUCTION LIVE LOAD EFFECTS ARE TO BE EVALUATED BY THE CONTRACTOR FOR STABILITY, STRESSES AND DEFLECTIONS ON THE STEEL MEMBERS DURING ANY STAGE OF ERECTION.
13. THE STEEL SUPERSTRUCTURE SHALL BE DETAILED AND FABRICATED FOR STEEL DEAD LOAD FIT (SDLF). GIRDER WEBS SHALL BE PLUMB UNDER THE DEAD LOAD OF THE GIRDERS BEFORE ANY OTHER LOADS ARE APPLIED.

REINFORCING STEEL NOTES:

1. PROVIDE 2 INCH CONCRETE COVER ON REINFORCEMENT BARS, EXCEPT AS NOTED.
2. PROVIDE GRADE 60 REINFORCING STEEL BARS THAT MEET THE REQUIREMENTS OF ASTM A 615, A 996 OR A 706. GRADE 40 REINFORCING STEEL BARS MAY BE SUBSTITUTED WITH A PROPORTIONAL INCREASE IN CROSS–SECTIONAL AREA, IF APPROVED BY THE ENGINEER. DO NOT USE RAIL STEEL A 996 REINFORCEMENT BARS IN ABUTMENTS, FOOTINGS, BARRIERS OR WHERE BENDING OR WELDING OF THE REINFORCEMENT BARS IS INDICATED.

REINFORCING STEEL NOTES (CONTINUED):

3. WELDING OF REINFORCING BARS DURING FABRICATION OR CONSTRUCTION IS NOT PERMITTED UNLESS SPECIFIED.
4. USE ONLY EPOXY–COATED REINFORCING STEEL BARS.
5. GALVANIZED REINFORCING STEEL BARS MAY BE SUBSTITUTED FOR EPOXY–COATED REINFORCING STEEL BARS AT NO ADDITIONAL COST TO THE CITY.
6. PROVIDE MINIMUM EMBEDMENT AND SPLICE LENGTHS IN ACCORDANCE WITH BC–736M, UNLESS OTHERWISE INDICATED.
7. SCHEDULES OF REINFORCEMENT ARE FOR THE CONTRACTOR'S GUIDANCE ONLY, AND THE CITY IS NOT RESPONSIBLE FOR THEIR ACCURACY. THE CONTRACTOR MUST VERIFY AND SUBMIT ALL SCHEDULES TO THE ENGINEER FOR REVIEW PRIOR TO THE FABRICATION OF REINFORCEMENT BARS.

PROTECTIVE COATING & PAINTING NOTES:

1. FABRICATED STRUCTURAL STEEL: PROVIDE A HULL RED, GLOSS FINISH COAT, CONFORMING TO FEDERAL STANDARD COLOR #10075. PRIOR TO PAINTING, SUBMIT A SAMPLE COLOR CHIP AND PAINT PROCESSES TO THE REPRESENTATIVE FOR REVIEW AND APPROVAL.
2. PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES, EPOXY RESIN: PROVIDE A LIGHT GRAY, GLOSS FINISH COAT, CONFORMING TO FEDERAL STANDARD COLOR #16493. PRIOR TO PAINTING, SUBMIT A SAMPLE COLOR CHIP AND PAINT PROCESSES TO THE REPRESENTATIVE FOR REVIEW AND APPROVAL.
3. PICKET FENCE: PROVIDE A BLACK, GLOSS FINISH COAT, CONFORMING TO FEDERAL STANDARD COLOR #17038. PRIOR TO PAINTING, SUBMIT A SAMPLE COLOR CHIP AND PAINT PROCESSES TO THE REPRESENTATIVE FOR REVIEW AND APPROVAL.
4. LIGHT POLE: PROVIDE A BROWN, SEMI–GLOSS FINISH COAT, CONFORMING TO FEDERAL STANDARD COLOR #20040. PRIOR TO PAINTING, SUBMIT A SAMPLE COLOR CHIP AND PAINT PROCESSES TO THE REPRESENTATIVE FOR REVIEW AND APPROVAL.

RAILROAD REQUIREMENTS:

1. THROUGHOUT THE DURATION OF ALL CONSTRUCTION PHASE ACTIVITIES, ADHERE TO THE CURRENT VERSION OF AMTRAK'S EP3014 – MAINTENANCE AND PROTECTION OF RAILROAD TRAFFIC DURING CONTRACTOR OPERATIONS.
2. THROUGHOUT THE DURATION OF ALL EARTHWORK, EXCAVATION, AND SHEETING ACTIVITIES ADJACENT TO AMTRAK'S AND CONRAIL'S TRACKS, TRACK MONITORING MUST TAKE PLACE. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR MUST SUBMIT THE TRACK MONITORING PLAN FOR AMTRAK'S AND CONRAIL'S DIVISION MANAGER REVIEW AND MUST RECEIVE AMTRAK'S AND CONRAIL'S APPROVAL PRIOR TO STARTING THE WORK.
3. THROUGHOUT THE DURATION OF ALL CONSTRUCTION PHASE ACTIVITIES, ADHERE TO THE CURRENT VERSIONS OF CONRAIL'S CHECKLISTS AND CONRAIL'S CE – 6 SPECIFIC REQUIREMENTS OF CONSOLIDATED RAIL CORPORATION FOR WORK ON ITS RIGHT OF WAY.
4. WHENEVER WORK IS PERFORMED IN THE VICINITY OF ELECTRIFIED TRACKS AND/OR HIGH VOLTAGE WIRES, PARTICULAR CARE MUST BE EXERCISED, AND RAILROAD'S REQUIREMENTS REGARDING CLEARANCE TO BE MAINTAINED BETWEEN EQUIPMENT AND TRACKS AND/OR ENERGIZED WIRES, AND OTHERWISE REGARDING WORK IN THE VICINITY OF ELECTRIFIED TRACKS MUST BE STRICTLY OBSERVED. NO EMPLOYEES OR EQUIPMENT WILL BE PERMITTED TO WORK NEAR OVERHEAD WIRES, EXCEPT WHEN PROTECTED BY A CLASS 'A' EMPLOYEE OF THE RAILROAD. THE CONTRACTOR MUST SUPPLY AN ADEQUATE LENGTH OF GROUNDING CABLE (4/0 COPPER WITH APPROVED CLAMPS) FOR EACH PIECE OF EQUIPMENT WORKING NEAR OR ADJACENT TO ANY OVERHEAD WIRE PER AMTRAK SPECIFICATION 16064.

UTILITY NOTES:

1. COORDINATE, LOCATE, AND CONDUCT ALL WORK RELATED TO PUBLIC AND PRIVATE UTILITIES IN ACCORDANCE WITH PUBLICATION 408, SECTIONS 105.06 AND 107.12.
2. THE CITY DOES NOT ASSUME RESPONSIBILITY FOR REIMBURSEMENT, PARTICIPATION IN DESIGN AND/OR REVISION, OR LIABILITY FOR ACCURACY OF TYPE, SIZE, AND LOCATION OF ANY UTILITY.
3. FOR UTILITY DETAILS, SEE UTILITY COMPANY DRAWINGS AND SPECIFICATIONS.

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2	GENERAL PLAN – ELEVATION
3	TYPICAL SECTIONS & LOAD RATING TABLES
4	EXISTING CONDITIONS
5	INDEX & GENERAL NOTES
6	FOUNDATION NOTES & GEOTECHNICAL VALUES
7	TABULATION OF STRUCTURE QUANTITIES
8	STAKE–OUT PLAN
9	EXCAVATION & EXISTING PIER REMOVAL – 1
10	EXCAVATION & EXISTING PIER REMOVAL – 2
11	EXCAVATION & EXISTING PIER REMOVAL – 3
12	EXCAVATION & EXISTING PIER REMOVAL – 4
13	STRUCTURE BACKFILL – 1
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NUMBER	REVISIONS	BY	DATE

SECTION DETAIL
A
00
SHEET # LOCATION

SECTION/DETAIL VIEW INDICATOR

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE060861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE B–0185–2001 / L–201

INDEX & GENERAL NOTES

RECOMMENDED 9/1/2020

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

DRAWN BY:	CWS/EJP	DATE:	5/20/2020
CHECKED BY:	HNB	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	5 OF 62

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FOUNDATION NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLISHING ANY PORTIONS OF THE EXISTING SUBSTRUCTURES THAT WILL CONFLICT WITH THE PROPOSED SUBSTRUCTURES AS PART OF THE PAY ITEM FOR REMOVAL OF EXISTING BRIDGE. UNLESS NOTED OTHERWISE, THE MINIMUM REMOVAL LIMIT IS 2 FEET BELOW THE BPCE OR TO THE PROPOSED GROUND LINE.
2. DRIVE TWO (2) TEST PILES FOR THE EAST ABUTMENT IN ACCORDANCE WITH SECTION 1005.3 OF PUBLICATION 408. PERFORM DYNAMIC PILE LOAD (PDA) TESTING ON ALL TEST PILES. TEST PILES ARE NOT REQUIRED FOR THE WEST ABUTMENT, PROVIDED ALL MANDATORY PRE-DRILLING EXTENDS BELOW THE TOP OF ROCK.
3. FOR ALL PILES OF THE EAST ABUTMENT, PREDRILL AT LEAST 10 FEET MEASURED FROM THE RAIL BED (MAXIMUM PREDRILLING ELEVATION 84.0). DRIVE PILES TO THE TOP OF ROCK ELEVATION. IF THE TOP OF ROCK IS ENCOUNTERED BEFORE REACHING THE MINIMUM PILE LENGTH OF 25.5 FEET, PERFORM PREDRILLING AS NECESSARY TO PROVIDE THE MINIMUM PILE LENGTH.
4. IF PILES AT EAST ABUTMENT ATTAIN REFUSAL IN THE SAPROLITE LAYER BEFORE REACHING TOP OF BEDROCK AND BEFORE ATTAINING A MINIMUM LENGTH OF 25.5 FEET, PERFORM PREDRILLING AS NECESSARY TO PROVIDE THE MINIMUM PILE LENGTH.
5. PERFORM PDA TESTING FOR ALL PILES OF EAST ABUTMENT ATTAINING REFUSAL IN THE SAPROLITE LAYER BEFORE REACHING BEDROCK AND VERIFY AXIAL CAPACITY.
6. PERFORM RE-DRIVE TESTING FOR ALL PILES OF THE EAST ABUTMENT ATTAINING REFUSAL IN THE SAPROLITE LAYER BEFORE REACHING BEDROCK TO CONFIRM THERE IS NO RELAXATION. ALLOW A MINIMUM OF THREE DAYS BETWEEN THE END OF INITIAL DRIVING AND RE-DRIVE TESTING IN ACCORDANCE WITH PENNDOT DESIGN MANUAL, PART 4, SECTION 10.7.3.8.3dP.
7. CONTROL PILE DRIVING IN ACCORDANCE WITH PENNDOT DESIGN MANUAL, PART 4, SECTION PP1.7.5.1, METHOD A. FOR PILES WITH PRE-DRILLING EXTENDING BELOW TOP OF ROCK, DRIVE TO CASE 1 ABSOLUTE REFUSAL PER SECTION 1005.3(b).5.a OF PUBLICATION 408. FOR ALL OTHER PILES, DRIVE TO CASE 2 ABSOLUTE REFUSAL. THE MAXIMUM DRIVING STRESS IN THE PILES SHALL NOT EXCEED 45 KSI, IN ACCORDANCE WITH PENNDOT DESIGN MANUAL, PART 4, SECTION 10.7.8.
8. FOR PILES OF THE WEST ABUTMENT LOCATED WITHIN 10 FEET OF THE EXISTING BRICK SEWER, PREDRILL AT LEAST 10 FEET BELOW THE BOTTOM OF THE BRICK SEWER (PREDRILLING ELEVATION OF 56.30). FOR THE REMAINING PILES, PREDRILL TO ACHIEVE A MINIMUM PILE LENGTH OF 26.0 FEET (PREDRILLING ELEVATION OF 61.58).
9. PERFORM ALL MANDATORY PREDRILLING IN ACCORDANCE WITH THE SPECIAL PROVISION FOR MANDATORY PREDRILLING FOR DRIVEN PILES.
10. IF NECESSARY, PERFORM PREDRILLING TO ADVANCE PILES THROUGH UNFORESEEN OBSTRUCTIONS IN ACCORDANCE WITH THE SPECIAL PROVISION FOR PREDRILLING FOR UNFORESEEN OBSTRUCTIONS; EARTH DRILLING; OBSTRUCTION DRILLING; PILE EXTRACTION AND RE-DRIVING.
11. PROVIDE SUFFICIENT DEWATERING SO THAT THE EXCAVATIONS ARE DRY ENOUGH FOR INSPECTION AND CONCRETE PLACEMENT. THE CONTRACTOR IS RESPONSIBLE FOR THE IMPLEMENTATION OF ADEQUATE DEWATERING MEASURES.
12. FOUNDATION SUBGRADE MUST BE INSPECTED AND APPROVED BY THE REPRESENTATIVE.
13. FOUNDATION SUBGRADE FOR THE WINGWALLS MUST BE INSPECTED AND APPROVED BY THE DISTRICT GEOTECHNICAL ENGINEER.
14. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEMS IN ACCORDANCE WITH THE SPECIAL PROVISION. THE FOLLOWING SOIL PARAMETERS ARE PROVIDED FOR THE DESIGN OF TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEMS, BUT THE CONTRACTOR MUST VERIFY THAT THE PARAMETERS ARE APPROPRIATE FOR THE SPECIFIC TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM TO BE USED. EFFECTS OF SURCHARGE AND RETAINED SLOPING EARTH CONDITION MUST BE CONSIDERED IN TEMPORARY EXCAVATION SUPPORT DESIGN.

    SOIL TYPE: SILT / SAND
    COHESION, c = 0
    INTERNAL FRICTION ANGLE, ϕ = 28°
    MOIST UNIT WEIGHT, γ_m = 100 PCF
    SATURATED UNIT WEIGHT, γ_s = 105 PCF
    GROUND WATER ELEVATION = 84.4 FT

15. ALL TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEMS LOCATED WITHIN 10 FEET OF THE RAIL TRACKS MUST BE DESIGNED FOR AT-REST EARTH PRESSURES. ALSO, RAILROAD LOADING MUST BE INCORPORATED IN SHORING DESIGN.
16. THE DESIGN AND CONSTRUCTION OF ALL TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEMS FOR THE WEST ABUTMENT SHALL AVOID DISTURBANCE TO THE EXISTING BRICK SEWER.
17. ANY TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM ADJACENT TO EXISTING MASONRY WALLS ON EAST APPROACH MUST BE DESIGNED FOR AT-REST EARTH PRESSURES.

FOUNDATION NOTES (CONTINUED):

18. THE CONTRACTOR SHALL MONITOR VERTICAL AND LATERAL MOVEMENTS OF THE EXISTING MASONRY WALLS DURING EXCAVATION AND ANY OTHER CONSTRUCTION ACTIVITIES INCLUDING PILE DRIVING. AT LEAST FOUR MONITORING POINTS SHALL BE ESTABLISHED AT EACH EXISTING MASONRY WALL AND THEY SHALL BE CONTINUOUSLY MONITORED THROUGHOUT CONSTRUCTION. PROVIDE MONITORING EQUIPMENT CAPABLE OF ACCURATELY AND INSTANTANEOUSLY DETECTING VERTICAL AND HORIZONTAL MOVEMENTS OF 0.05 INCH. THE CONTRACTOR SHALL STOP ALL WORK AND REPORT TO THE REPRESENTATIVE IF ANY MOVEMENT OVER THE 0.05 INCH THRESHOLD IS DETECTED IN THE EXISTING MASONRY WALLS.
19. CONSTRUCT ALL TEMPORARY SLOPES NO STEEPER THAN 1.5H:1V. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF ALL TEMPORARY SLOPES.
20. ALL EXCAVATIONS MUST CONFORM TO CURRENT OSHA AND OTHER APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
21. BLASTING SHALL NOT BE USED AS A METHOD OF EXCAVATION FOR FOUNDATIONS.
22. REMOVE ALL UNSUITABLE MATERIALS FROM THE FOUNDATION SUBGRADE PRIOR TO CONSTRUCTION. OVER-EXCAVATE SOFT/LOOSE OR OTHERWISE UNSUITABLE BEARING MATERIALS TO FIRM STRATUM AND BACKFILL WITH COMPACTED STRUCTURAL FILL. USE PENNDOT NO. 2A COARSE AGGREGATE OR EQUAL AS STRUCTURAL FILL.
23. PERFORM ALL OVER-EXCAVATION AND BACKFILLING UNDER THE DIRECTION OF A LICENSED GEOTECHNICAL ENGINEER.
24. ANY EXCAVATION BELOW THE TLPE MUST BE BACKFILLED BY PENNDOT NO. 2A COARSE AGGREGATE OR EQUAL AS STRUCTURAL FILL.
25. PLACE ULTRA-LIGHTWEIGHT BACKFILL (ULTRA-LIGHTWEIGHT FOAMED GLASS AGGREGATE) WITHIN AND BEHIND THE PREFABRICATED MODULAR WINGWALLS IN ACCORDANCE WITH THE DRAWINGS AND SPECIAL PROVISIONS.
26. USE HP14X102 GRADE 50 STEEL PILES WITH HEAVY DUTY TIP REINFORCEMENT IN ACCORDANCE WITH BC-757M.
27. PILE CAPACITY HAS BEEN REDUCED TO ACCOUNT FOR POTENTIAL CORROSION.
28. PILES MAY ACHIEVE ABSOLUTE REFUSAL IN SOFT OR COMPLETELY DECOMPOSED BEDROCK.

ABUTMENT PILE FOUNDATION VALUES

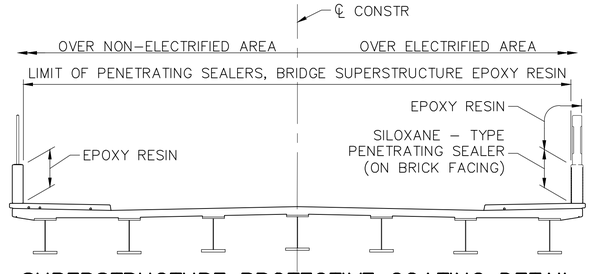
	WEST ABUTMENT	EAST ABUTMENT
APPLICABLE CORE BORINGS	B5, B14, B15	B7, B8, B9
PILE TYPE	HP14x102	
TIP REINFORCEMENT	HEAVY DUTY TIP REINFORCEMENT	
DRIVING METHOD	PP1.7.5.1 – METHOD A	
APPROXIMATE ADJACENT GROUND ELEVATION (FEET)	92.0	94.0
BOTTOM OF PILE CAP ELEVATION (FEET)	87.58	88.3
MANDATORY PRE-DRILLING ELEVATION (FEET)	56.30–61.58	84.0
TOP OF ROCK ELEVATION (FEET)	72.2–74.7	47.2–62.8
ESTIMATED PILE TIP ELEVATION (FEET)	56.3–61.58	47.2–62.8
NUMBER OF SOIL LAYERS	3	2
AVERAGE $N1_{60}$	6/34/>50	25/>50
LAYER THICKNESS (FEET)	7.28/7.0/3.3	11.4/21.9
INTERNAL FRICTION ANGLE	28°/32°/38°	32°/38°
MOIST UNIT WEIGHT (PCF)	100/120/125	120/125
SATURATED UNIT WEIGHT (PCF)	105/125/135	125/135
BEARING STRATUM	MICA SCHIST	
AVERAGE RECOVERY/RQD (%)	53/29	89/18
ULTIMATE AXIAL RESISTANCE (KIPS/PILE)	804	804
AXIAL RESISTANCE FACTOR	0.5	0.5
FACTORED STRENGTH LATERAL RESISTANCE (KIPS/PILE)	27.0	33.0
FACTORED SERVICE LATERAL RESISTANCE (KIPS/PILE)	18.0	20.5
LATERAL RESISTANCE FACTOR	1.0	1.0
MINIMUM PILE LENGTH (FEET)	26.0	25.5
ESTIMATED PILE LENGTH (FEET)	26.0–31.28	27.1–41.1
ESTIMATED SETTLEMENT (INCH)	NEGLIGIBLE	

WINGWALL FOUNDATION VALUES

		WING A	WING B	WING C	WING D
TOP OF LEVELING PAD ELEVATIONS (TLPE)		90.24	90.70	91.80	91.80
APPLICABLE CORE BORINGS		B1, B14	B3, B15	B9, B13	B7, B10
FOUNDATION BEARING MATERIAL		SILT/SAND			
NUMBER OF SOIL LAYERS (A)		3			
LAYER THICKNESS (FT)		14.2/–/2.6	4.4/13.7/3.8	3.3/12.8/28.5	4.3/8.8/20.0
AVERAGE CORRECTED N–VALUE (BLOWS/FOOT)		9 />50	7/26 />50	9/26 />50	10/25 />50
COEFFICIENT OF SLIDING FRICTION BETWEEN FOOTING AND SUBGRADE		0.53/0.62/0.78			
DESIGN WALL HEIGHT (FT)		25.5			
MINIMUM FOOTING WIDTH (FT)		18.0			
MINIMUM DEPTH OF EMBEDMENT (FT)		3.0			
BEARING RESISTANCE PARAMETERS	γ_m (PCF)	100/120/125			
	γ_s (PCF)	105/125/135			
	c (TCF)	0			
	ϕ (DEG)	28°/32°/38°			
ELASTIC MODULUS, Es (KSF)		220/320/500			
POISSON'S RATIO, v		0.30			
ULTIMATE BEARING RESISTANCE (KSF) (B)		10.3			
RESISTANCE FACTOR, BEARING		0.45			
RESISTANCE FACTOR, SLIDING		1.0			
FACTORED APPLIED BEARING PRESSURE (KSF) (B)		2.289			
GLOBAL STABILITY, FACTOR OF SAFETY		1.85			
COMPUTED SETTLEMENT (INCH) (C)		0.38			

NOTES:

A. NUMBER OF SOIL LAYERS IS 2 FOR WING A.
B. FOR THE CONTROLLING LIMIT STATE.
C. MAXIMUM ALLOWABLE SETTLEMENT IS 1.0 INCH.



SUPERSTRUCTURE PROTECTIVE COATING DETAIL
NOT TO SCALE

SUBSTRUCTURE UNIT	PILE TYPE	PILE TIP (NONE/NORMAL/HEAVY DUTY)	PILE TIP ELEVATION	FACTORED DESIGN LOAD (KIPS)	ULTIMATE PILE CAPACITY AT END OF DRIVING (KIPS)	WEAP OR PDA
WEST ABUTMENT						
EAST ABUTMENT						

LIST OF ABBREVIATIONS:

ABAND	–	ABANDON
ABUT	–	ABUTMENT
APPROX	–	APPROXIMATE
BLDG	–	BUILDING
BOT	–	BOTTOM
BPCE	–	BOTTOM OF PILE CAP ELEVATION
BRG(S)	–	BEARING(S)
CL	–	CENTERLINE
CLR	–	CLEARANCE
CMU	–	CONCRETE MASONRY UNIT
CONC	–	CONCRETE
CONSTR	–	CONSTRUCTION
DIA	–	DIAMETER
DRWY	–	DRIVEWAY
DS	–	DISTRICT STANDARD
E	–	EAST
EF	–	EACH FACE
EL	–	ELEVATION
ELECT	–	ELECTRICAL
EXIST	–	EXISTING
EXP	–	EXPANSION
FDN	–	FOUNDATION
FF	–	FRONT FACE
FIX	–	FIXED BEARING
HORIZ	–	HORIZONTAL
INV	–	INVERT
JT	–	JOINT
LT	–	LEFT
MAX	–	MAXIMUM
MIN	–	MINIMUM
PG	–	PROFILE GRADE
PL	–	PLATE
PROP	–	PROPOSED
R/W	–	RIGHT-OF-WAY
RAD	–	RADIUS
RDWY	–	ROADWAY
RF	–	REAR FACE
RR	–	RAILROAD
RT	–	RIGHT
SUH	–	SEWER UTILITY HOLE
SPA	–	SPACE OR SPACING
STA	–	STATION
STD	–	STANDARD
STIFF	–	STIFFENER
TESPS	–	TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM
TLPE	–	TOP OF LEVELING PAD ELEVATION
TYP	–	TYPICAL
UNO	–	UNLESS NOTED OTHERWISE
VERT	–	VERTICAL
W	–	WEST
WP	–	WORK POINT

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201
FOUNDATION NOTES & GEOTECHNICAL VALUES

RECOMMENDED 9/1/2020

PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	CWS/EJP	DATE:	8/18/2020
CHECKED BY:	AYB	DATE:	8/18/2020
SCALE:	AS NOTED	SHEET:	6 OF 62

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TABLE OF STRUCTURE BID ITEMS AND APPROXIMATE QUANTITIES

QUANTITY	ITEM NUMBER / UNIT	(INFORM) QUANTITY	DESCRIPTION	WEST APPROACH SLAB / WEST MOMENT SLAB	WEST ABUTMENT	SPAN	EAST ABUTMENT	EAST APPROACH SLAB / EAST MOMENT SLAB
EITHER LS	8200–0001 / LS	BRIDGE STRUCTURE, AS–DESIGNED, L–201						
	SY	348	BRIDGE APPROACH SLAB (2)	174				174
	CY	703	CLASS A CEMENT CONCRETE (2),(4)		355		348	
	CY	96	CLASS AA CEMENT CONCRETE (2), (5)		16	70	10	
	CY	191	CLASS AAAP CEMENT CONCRETE (2),(6)			191		
	SY	700	PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (EPOXY RESIN) (2),(8)		287	130	283	
	SY	699	PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALERS, BRIDGE SUPERSTRUCTURE) (2),(7)			699		
	LF	130	NEOPRENE STRIP SEAL DAM, (4" MOVEMENT) (2)	65				65
	EACH	14	LAMINATED NEOPRENE BEARING PAD (2)		7		7	
	LB	381962	FABRICATED STRUCTURAL STEEL (2),(9)			381962		
	EACH	2583	SHEAR CONNECTORS (2)			2583		
	SF	86	CONCRETE SURFACE ARCHITECTURAL TREATMENT (2)			86		
	LF	452	PARAPET MOUNTED PROTECTIVE FENCE, STEEL WITH PICKETS (2)	60 48		69		60 215
	SY	93	BRICK FACING (2)			93		
	CY	26	CLASS AA LIGHTWEIGHT CEMENT CONCRETE (2),(10)			26		
	LF	1279	2" PVC CONDUIT IN STRUCTURE (2)			1279		
AND 7283	0204–0100 / CY	CLASS 3 EXCAVATION			2392		4846	
AND 13	1001–0611 / LF	6" STRUCTURE FOUNDATION DRAIN			13			
AND 1084	0205–0292 / CY	STRUCTURE BACKFILL			498		586	
AND 7347	9000–0056 / CY	ULTRA–LIGHTWEIGHT FOAMED GLASS AGGREGATE			2561		4786	
AND 958	– / CY	EMBANKMENT MATERIAL (11)					958	
AND 5625	9000–0020 / SF	PREFABRICATED MODULAR WINGWALL			2700		2925	
AND 36	0675–0001 / CY	RANDOM STONE SLOPE WALL			36			
AND 5	0703–0025 / CY	NO. 57 COARSE AGGREGATE (3)			2		3	
AND 169418	1002–0052 / LB	REINFORCEMENT BARS, EPOXY COATED		14676	37948	67857	34261	14676
AND 1000	9000–0057 / LF	MANDATORY PRE–DRILLING FOR DRIVEN PILES			800		200	
AND 2075	1005–1845 / LF	STEEL BEAM BEARING PILES, HP 14X102 PRODUCTION PILE			814		1261	
AND 63	5005–1270 / EACH	STEEL BEAM (HEAVY DUTY) PILE TIP REINFORCEMENT, HP 14X102			28		35	
AND 2	1005–1745 / EACH	STEEL HP 14X102 TEST PILES					2	
AND 1	9000–0050 / LS	PRE AND POST–CONSTRUCTION SURVEYS						
AND 1	9000–0025 / LS	MASS POUR CONCRETE						

QUANTITY	ITEM NUMBER / UNIT	DESCRIPTION	WEST APPROACH SLAB	WEST ABUTMENT	SPAN	EAST ABUTMENT	EAST APPROACH SLAB
AND 1	9000–0026 / LS	LOCATE BRICK SEWER					
AND 40000	9000–0014 / DOLL	RELOCATE CATCH BASIN					
AND 50000	9000–0015 / DOLL	RELOCATE 12" DRAINAGE PIPE					
AND 1	9000–0027 / LS	LOCATE AND PROTECT AMTRAK C&S DUCTS					
AND 200	9000–0029 / LF	PREDRILLING FOR UNFORESEEN OBSTRUCTIONS, EARTH DRILLING		100		100	
AND 20	9000–0030 / LF	PREDRILLING FOR UNFORESEEN OBSTRUCTIONS, OBSTRUCTION DRILLING		10		10	
AND 45000	9005–0003 / DOLL	PILE EXTRACTION AND RE–DRIVING					
AND 1	5018–0050 / LS	REMOVAL OF PORTION OF EXISTING BRIDGE IN URBAN AREA					
AND 3000	1091–0335 / DOLL	EPOXY INJECTION CRACK SEAL					
AND 2	9000–0006 / EACH	BRONZE INSCRIPTION TABLET			2		
AND 22	9000–0032 / EACH	DYNAMIC PILE LOAD TESTING				22	
AND 10000	9000–0007 / DOLL	SOIL SAMPLE COLLECTION, TESTING, AND ANALYSIS					
AND 50000	9000–0051 / DOLL	EXCAVATION, TRANSPORTATION AND DISPOSAL OF RESIDUAL AND HAZARDOUS WASTE					
AND 30000	9005–0004 / DOLL	MOBILIZATION FOR PREDRILLING FOR UNFORESEEN OBSTRUCTIONS					
AND 10000	9000–0031 / DOLL	OVEREXCAVATION AND BACKFILLING WITH PENNDOT NO. 2A AGGREGATE					
AND 1	9000–0054 / LS	BONDING AND GROUNDING					
AND 1	9000–0011 / LS	TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM					
OR	8001–0001 / LS	PRESTRESSES CONCRETE BRIDGE STRUCTURE					
OR	8100–0001 / LS	STEEL BRIDGE STRUCTURE					

NOTE:

*SEE SPECIAL PROVISIONS

QUANTITY NOTES:

1. ITEMS INCLUDED IN BRIDGE STRUCTURE LUMP SUM ITEM 8200–0001 ARE GIVEN FOR INFORMATION ONLY.
2. INCLUDES GEOTEXTILES, CLASS 1.
3. INCLUDES CONCRETE IN ABUTMENTS BELOW BRIDGE SEAT AND FOOTINGS
4. INCLUDES CONCRETE IN PILASTER CAP, PARAPET AND SUBSTRUCTURE ABOVE STEM
5. INCLUDES CONCRETE IN DECK SLAB, HAUNCH AND END DIAPHRAGMS.
6. INCLUDES THE EXPOSED CONCRETE SURFACES OF BRIDGE DECK, SIDEWALK AND TO INSIDE AND TOP SURFACES OF BARRIER.
7. INCLUDES STEM FRONT FACE, BRIDGE SEAT, BACKWALL FRONT FACE, BACKWALL TOP, NORTH AND SOUTH FACE OF ABUTMENT
8. INCLUDES STEEL GIRDERS,STIFFENERS AND STEEL DIAPHRAGM
9. INCLUDES PROTECTIVE BARRIER AND PILASTERS.
10. FOR INFORMATION ONLY

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B–0185–2001 / L–201

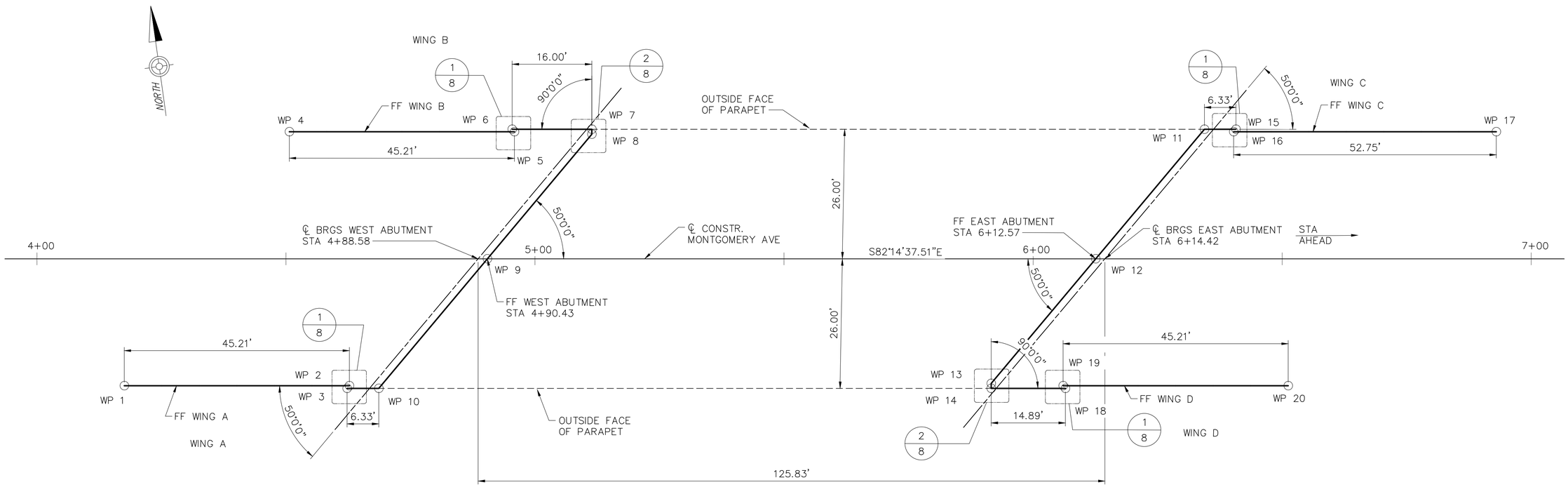
TABULATION OF STRUCTURE QUANTITIES

RECOMMENDED 9/1/2020

PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	ALS/PT	DATE:	8/18/2020
CHECKED BY:	JAK	DATE:	8/18/2020
SCALE:	AS NOTED	SHEET:	7 OF 62

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STAKE–OUT PLAN

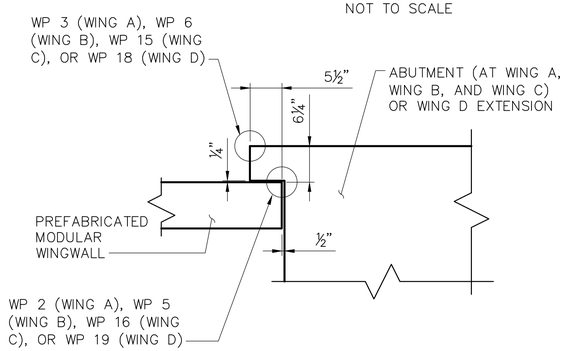
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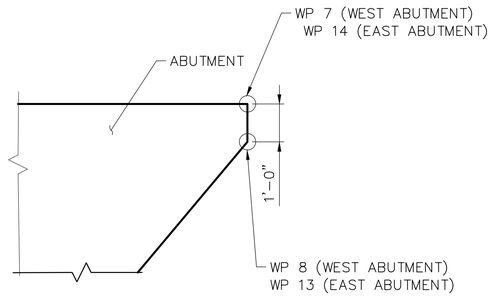
WORK POINT DATA				
WP	STATION	OFFSET	COORDINATE	
			NORTHING	EASTING
WP 1	4+17.53	25.48' RT	247289.5013	2687612.5392
WP 2	4+62.74	25.48' RT	247283.4000	2687657.3341
WP 3	4+62.28	26.00' RT	247282.9458	2687656.8096
WP 4	4+50.66	25.48' LT	247335.5226	2687652.2408
WP 5	4+95.87	25.48' LT	247329.4213	2687697.0356
WP 6	4+95.41	26.00' LT	247329.9992	2687696.6518
WP 7	5+11.41	26.00' LT	247327.8399	2687712.5054
WP 8	5+11.41	25.00' LT	247326.8490	2687712.3705
WP 9	4+90.43	0.00'	247304.9088	2687688.2109
WP 10	4+68.62	26.00' RT	247282.0911	2687663.0850
WP 11	6+34.39	26.00' LT	247311.2434	2687834.3543
WP 12	6+12.57	0.00'	247288.4257	2687809.2284
WP 13	5+91.59	25.00' RT	247266.4855	2687785.0688
WP 14	5+91.59	26.00' RT	247265.4946	2687784.9339
WP 15	6+40.72	26.00' LT	247310.3887	2687840.6298
WP 16	6+40.26	25.48' LT	247309.9345	2687840.1054
WP 17	6+93.01	25.48' RT	247302.8154	2687892.3728
WP 18	6+06.48	26.00' RT	247263.4851	2687799.6877
WP 19	6+06.02	25.48' RT	247264.063	2687799.3038
WP 20	6+51.23	25.48' RT	247257.9617	2687844.0987

HORIZONTAL CONTROL IS BASED ON PENNSYLVANIA STATE PLANE COORDINATES NORTH AMERICAN DATUM OF 1983 (2007 ADJUSTMENT)(NSRS 2007) SOUTH ZONE.

FOUR (4) PLACE COORDINATES ARE USED FOR COMPUTATIONAL PURPOSES ONLY AND DO NOT IMPLY A PRECISION BEYOND TWO (2) PLACES.

BENCHMARKS PROVIDED BY THE CITY OF PHILADELPHIA, 9th SURVEY DISTRICT: TOP RIM OF FIRE HYDRANT AT THE NORTHEAST CORNER OF 31st STREET AND BALTZ STREET. ELEVATION = 62.35.





1/8 DETAIL

(WING B SHOWN, ALL OTHER WINGS SIMILAR)
NOT TO SCALE

2/8 DETAIL

(WEST ABUTMENT SHOWN, EAST ABUTMENT SIMILAR)
NOT TO SCALE

NOTES:

1. FOR GENERAL PLAN, SEE SHEET 1.
2. FOR GENERAL ELEVATION, SEE SHEET 2.
3. FOR TYPICAL SECTION, SEE SHEET 3.

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE B–0185–2001 / L–201

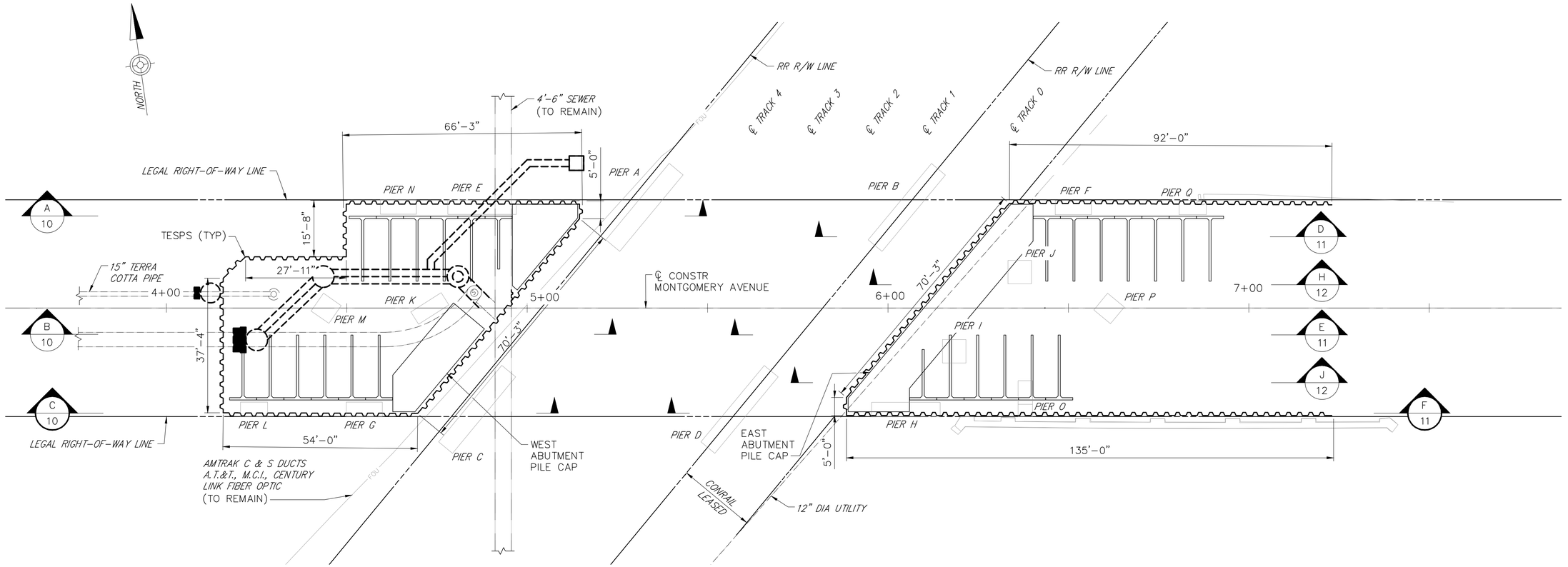
STAKE–OUT PLAN

RECOMMENDED 9/1/2020

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

DRAWN BY:	AYB/ALS	DATE:	5/20/2020
CHECKED BY:	HNB	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	8 OF 62

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Plotted 7/29/2020 2:40:11 PM by STUM, AMELIA L.



PLAN

SCALE: 1"=15'-0"

NOTES:

1. WORK THIS SHEET WITH SHEETS 10 THRU 14.
2. FOR ABUTMENT DETAILS, SEE SHEETS 15 THRU 24.
3. FOR PREFABRICATED MODULAR WINGWALL DETAILS, SEE SHEETS 25 AND 26.
4. THE TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM IS CONCEPTUAL AND IS THE RESPONSIBILITY OF THE CONTRACTOR. THE DIMENSIONS PROVIDED ARE APPROXIMATE AND FOR INFORMATION ONLY. FOR SPECIFICATIONS, SEE CONTRACTOR SPECIAL PROVISIONS.

BAR SCALE KEY

SCALE: 1"=15'

15' 0 15'

MODJESKI AND MASTERS, INC.
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SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

NUMBER	REVISIONS	BY	DATE

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE B-0185-2001 / L-201

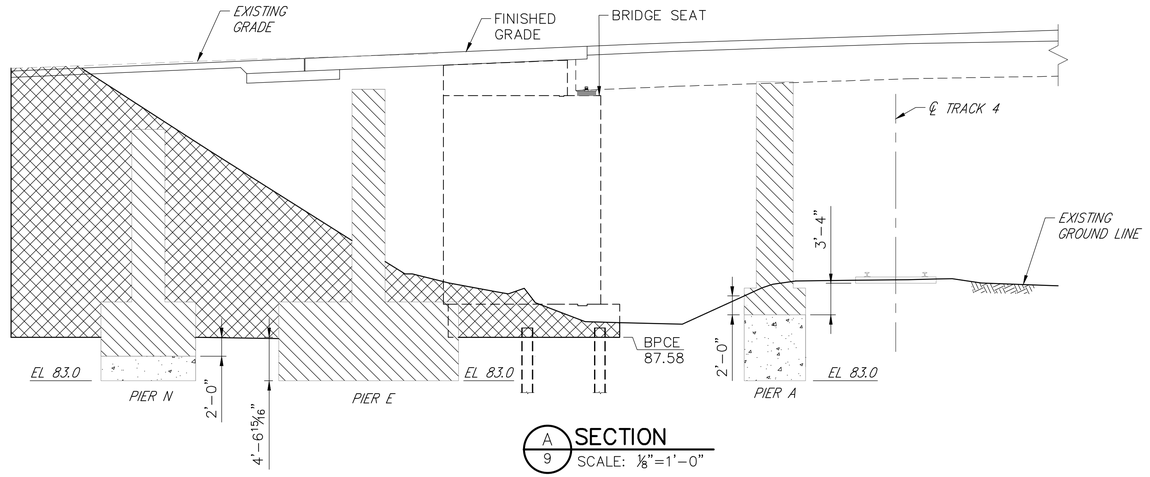
EXCAVATION & EXISTING PIER REMOVAL - 1

RECOMMENDED 9/1/2020

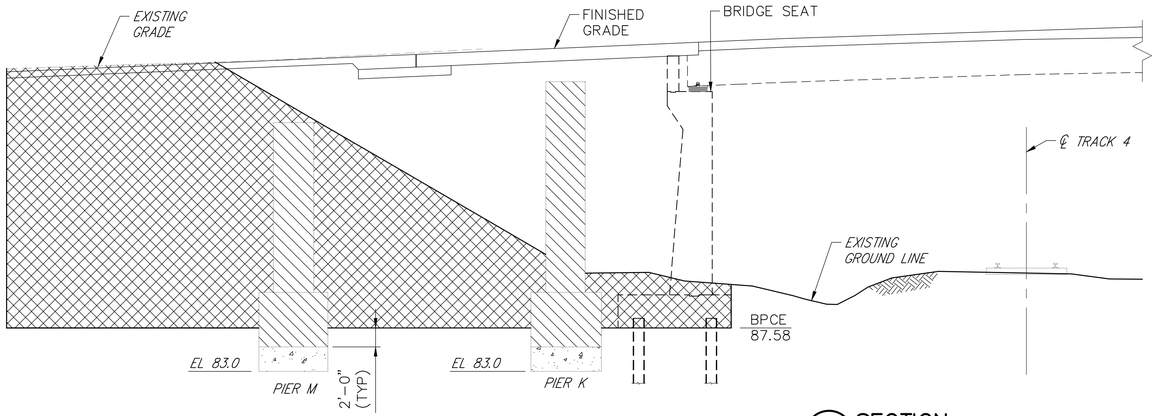
PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	PT/ALS/EJP	DATE:	5/20/2020
CHECKED BY:	AYB	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	9 OF 62

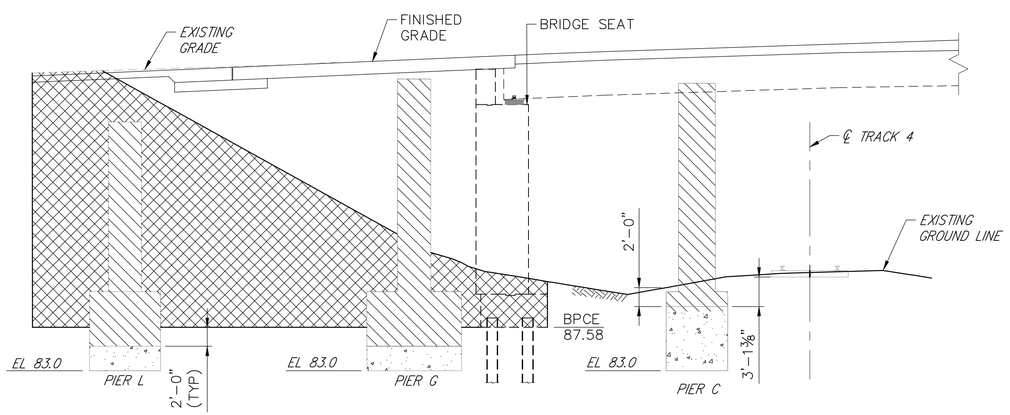
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A/9 SECTION
SCALE: 1/8"=1'-0"



B/9 SECTION
SCALE: 1/8"=1'-0"



C/9 SECTION
SCALE: 1/8"=1'-0"

WEST APPROACH

(TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM AND PREFABRICATED MODULAR WINGWALL NOT SHOWN FOR CLARITY)

LEGEND:

CLASS 3 EXCAVATION

LIMITS OF EXISTING BRIDGE PIER REMOVAL

NOTES:

1. NO PAYMENT WILL BE ALLOWED IN EXCESS OF SPECIFIED LIMITS AND FOR ADDITIONAL BACKFILL REQUIRED.
2. WORK THIS SHEET WITH SHEETS 9, 11 THRU 14.
3. FOR ADDITIONAL EXCAVATION AND BACKFILL INFORMATION NOT SHOWN HERE, SEE RC-11M.

BAR SCALE KEY
SCALE: 1/8"=1'-0"
8' 0 8'

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

NUMBER	REVISIONS	BY	DATE

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP. STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201
EXCAVATION & EXISTING PIER REMOVAL - 2

RECOMMENDED 9/1/2020

PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

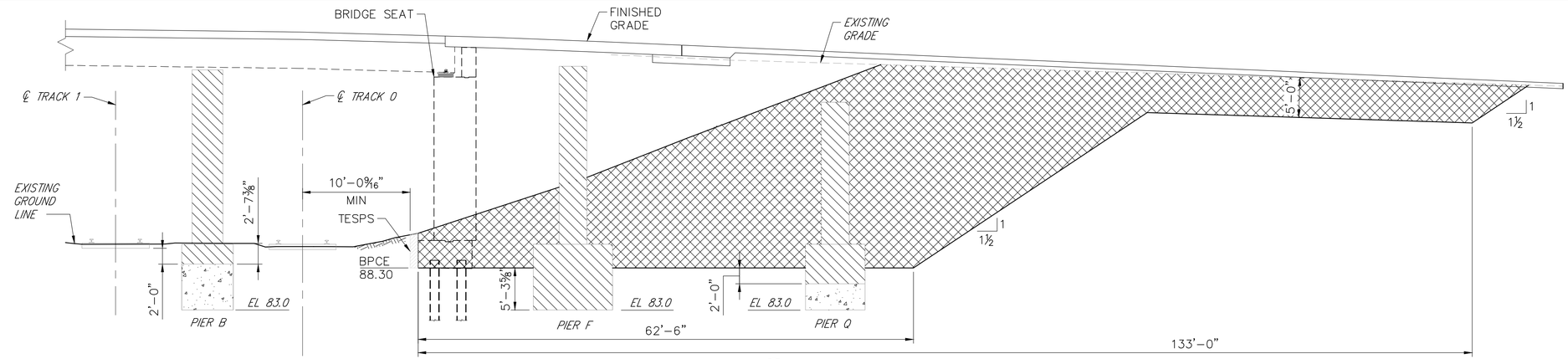
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CHECKED BY:	AYB	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	10 OF 62

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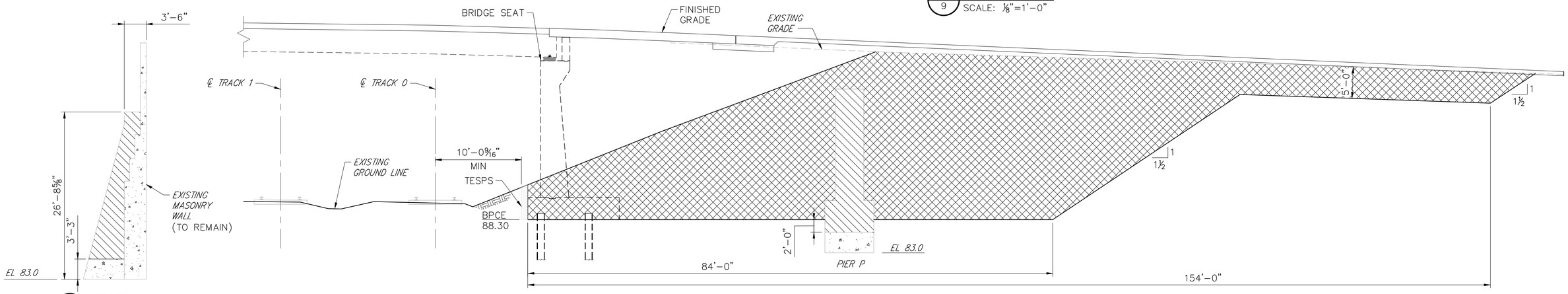
LEGEND:

CLASS 3 EXCAVATION

LIMITS OF EXISTING BRIDGE PIER REMOVAL



D/9 SECTION
SCALE: ⅛"=1'-0"

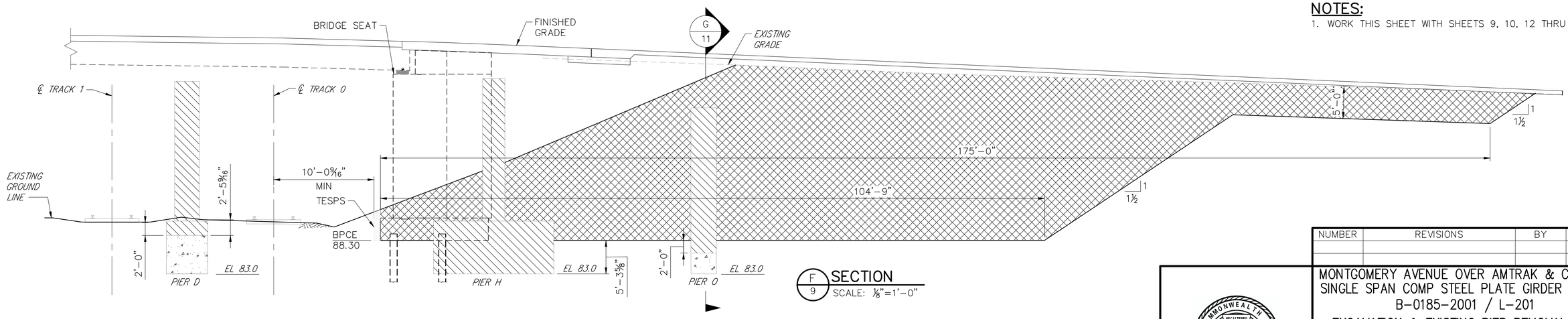


G/11 SECTION
SCALE: ⅛"=1'-0"

E/9 SECTION
SCALE: ⅛"=1'-0"

NOTES:

1. WORK THIS SHEET WITH SHEETS 9, 10, 12 THRU 14.



F/9 SECTION
SCALE: ⅛"=1'-0"

BAR SCALE KEY
SCALE: ⅛"=1'-0"
8' 0 8'

EAST APPROACH
(TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM AND PREFABRICATED MODULAR WINGWALL NOT SHOWN FOR CLARITY)

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — CHRISTOPHER W. SMITH — ENGINEER PE062861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE B-0185-2001 / L-201

EXCAVATION & EXISTING PIER REMOVAL – 3

RECOMMENDED 9/1/2020

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

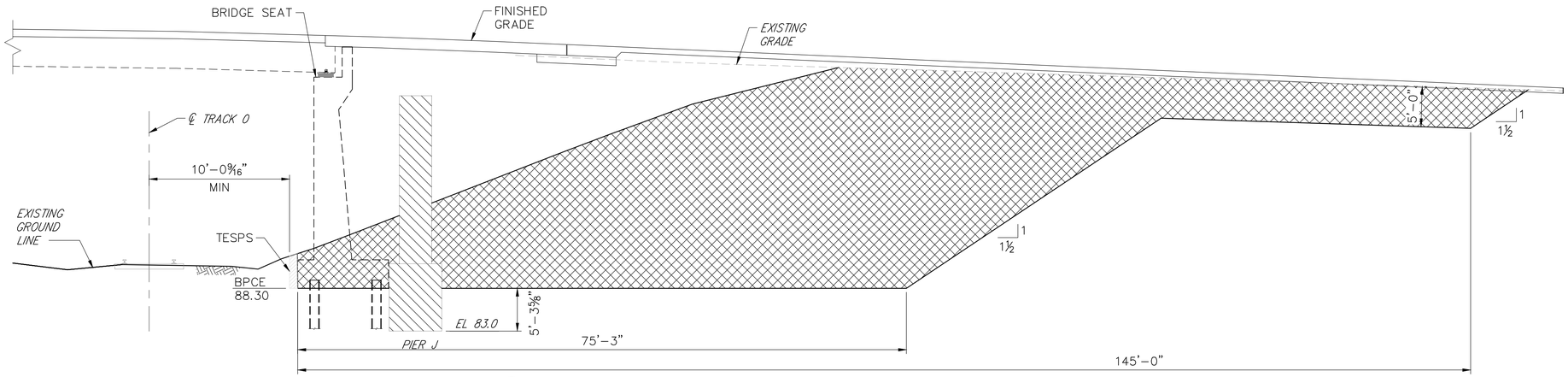
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CHECKED BY:	AYB	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	11 OF 62

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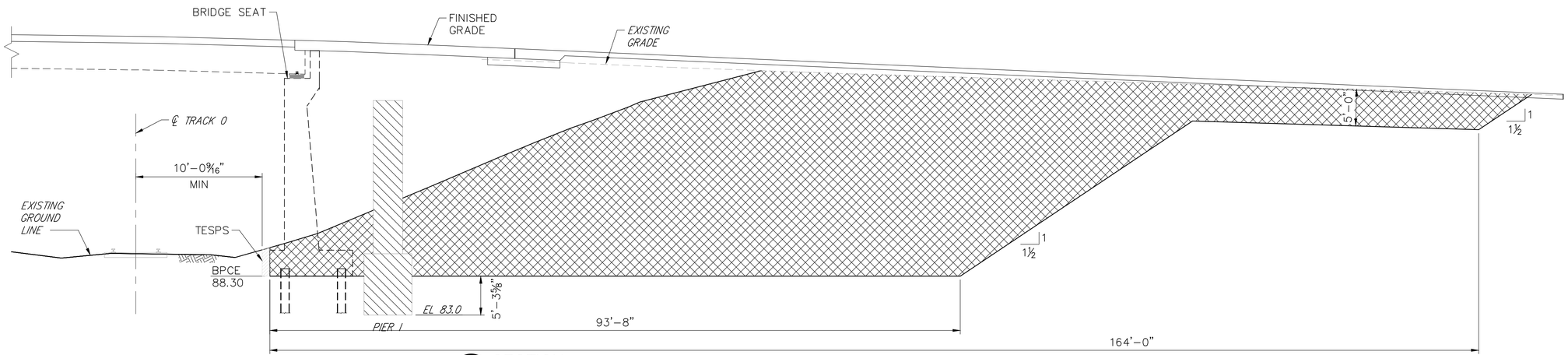
LEGEND:

CLASS 3 EXCAVATION

LIMITS OF EXISTING BRIDGE PIER REMOVAL



H/9 SECTION
SCALE: ⅛"=1'–0"



J/9 SECTION
SCALE: ⅛"=1'–0"

EAST APPROACH

(TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM AND PREFABRICATED MODULAR WINGWALL NOT SHOWN FOR CLARITY)

BAR SCALE KEY

SCALE: ⅛"=1'–0"

8' 0 8'

NOTES:

1. NO PAYMENT WILL BE ALLOWED IN EXCESS OF SPECIFIED LIMITS AND FOR ADDITIONAL BACKFILL REQUIRED.
2. WORK THIS SHEET WITH SHEETS 9 THRU 11, 13, AND 14.
3. FOR ABUTMENT DETAILS, SEE SHEETS 15 THRU 24.
4. FOR PREFABRICATED MODULAR WINGWALL DETAILS, SEE SHEETS 25 AND 26.
5. FOR ADDITIONAL EXCAVATION AND BACKFILL INFORMATION NOT SHOWN HERE, SEE RC–11M.

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER PE062861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B–0185–2001 / L–201

EXCAVATION & EXISTING PIER REMOVAL – 4

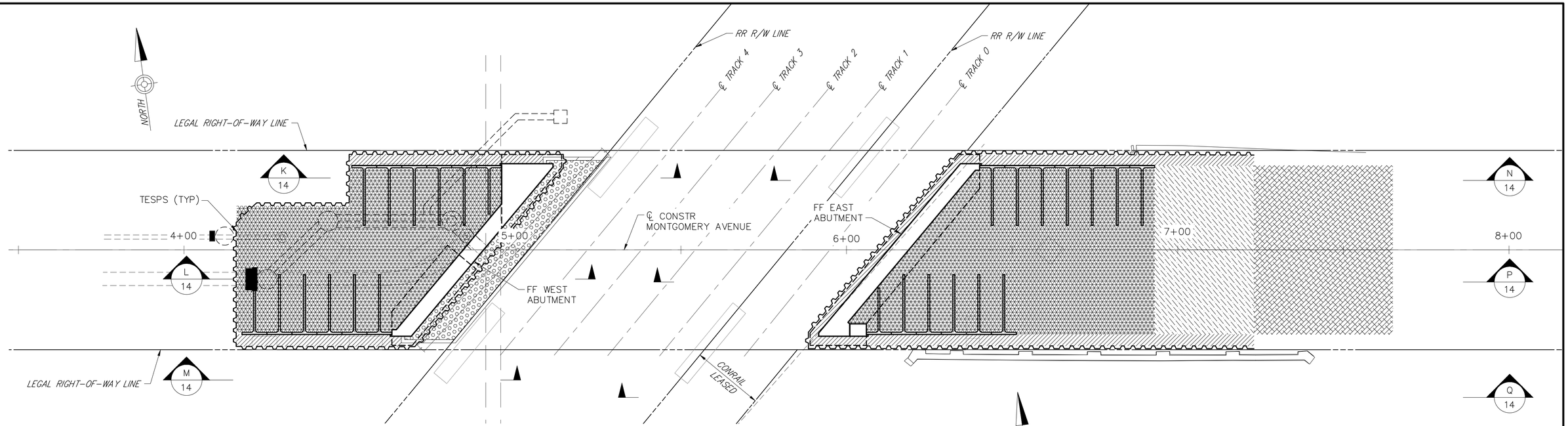
RECOMMENDED 9/1/2020

PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

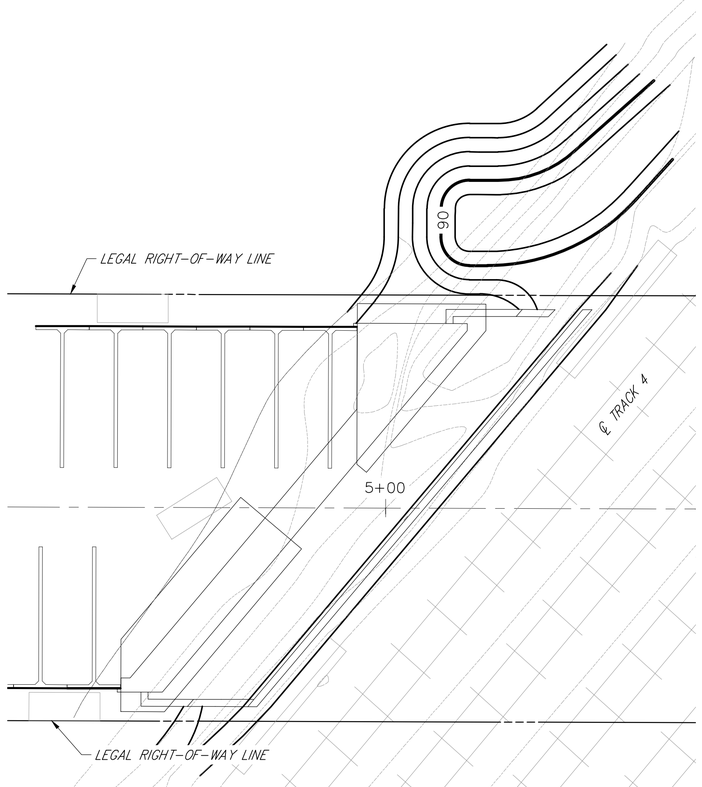
DRAWN BY:	PT/ALS/EJP	DATE:	5/20/2020
CHECKED BY:	AYB	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	12 OF 62

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
SUITE 308
PHILADELPHIA, PA 19125

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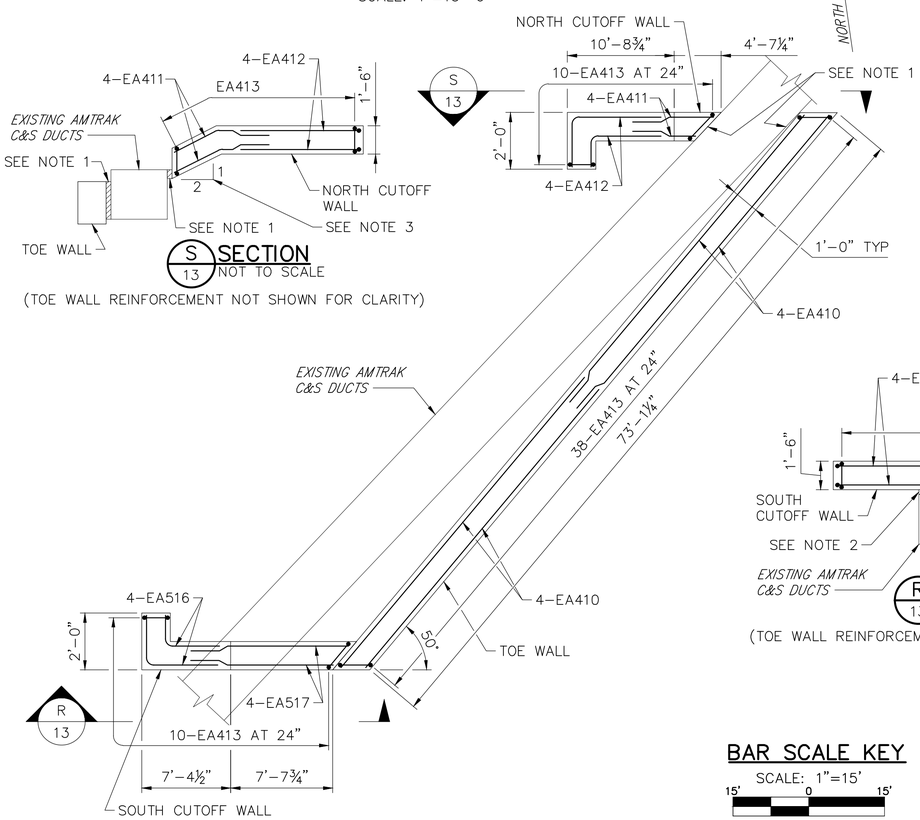
PLAN
SCALE: 1"=15'-0"



GRADING PLAN
(WEST ABUTMENT)
(ALL GRADING NOT SHOWN WILL MATCH EXISTING)
NOT TO SCALE

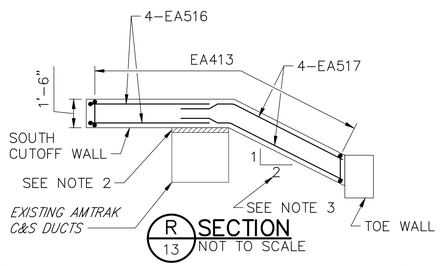
S 13 SECTION
NOT TO SCALE

(TOE WALL REINFORCEMENT NOT SHOWN FOR CLARITY)



CUTOFF WALL AND TOE WALL PLAN
(WEST ABUTMENT)
NOT TO SCALE

REQUIRED LAP LENGTH	
SIZE	REQUIRED LAP LENGTH
#4	2'-10"
#5	3'-7"



R 13 SECTION
NOT TO SCALE

(TOE WALL REINFORCEMENT NOT SHOWN FOR CLARITY)

LEGEND:

- STRUCTURE BACKFILL
- ULTRA-LIGHTWEIGHT FOAMED GLASS AGGREGATE (TOP), EMBANKMENT MATERIAL (BOT)
- ULTRA-LIGHTWEIGHT FOAMED GLASS AGGREGATE
- BLANKET OF RANDOM STONE
- ULTRA-LIGHTWEIGHT FOAMED GLASS AGGREGATE (TOP), STRUCTURE BACKFILL (BOT)

NOTES:

1. PLACE PREMOLDED EXPANSION JOINT FILLER FULL DEPTH AT INTERFACE BETWEEN EXISTING AMTRAK C&S DUCT AND ADJACENT NORTH CUTOFF AND TOE WALLS.
2. PLACE 1" PREFORMED CELLULAR POLYSTYRENE BENEATH THE PORTION OF SOUTH CUTOFF WALL THAT SPANS ABOVE THE EXISTING AMTRAK C&S DUCT.
3. SLOPE IS MEASURED PERPENDICULAR TO THE ABUTMENT SKEW.
4. FOR ADDITIONAL INFORMATION, SEE RC-12M.
5. WORK THIS SHEET WITH SHEETS 10, 11, 12 AND 14.
6. FOR DIMENSIONS AND DETAILS OF RANDOM STONE SLOPE WALL NOT SHOWN, SEE BC-781M.
7. FOR PROPOSED CATCH BASIN DETAILS, SEE SHEET 43.
8. FOR RELOCATED BRICK SEWER INFORMATION, SEE SEWER LINING AND INLET REPLACEMENT PROJECT PLANS.

BAR SCALE KEY
SCALE: 1"=15'

15' 0 15'

MODJESKI AND MASTERS, INC.
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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

NUMBER	REVISIONS	BY	DATE

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201

STRUCTURE BACKFILL – 1

RECOMMENDED 9/1/2020

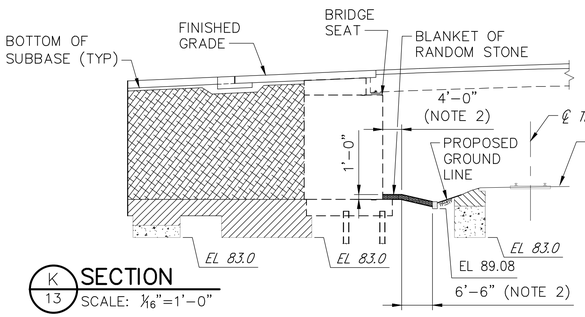
PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

DRAWN BY:	AYB/ALS/EJP	DATE:	8/18/2020
CHECKED BY:	PT	DATE:	8/18/2020
SCALE:	AS NOTED	SHEET:	13 OF 62

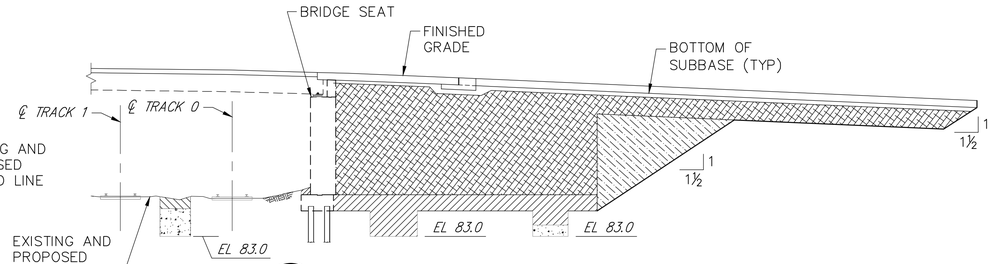
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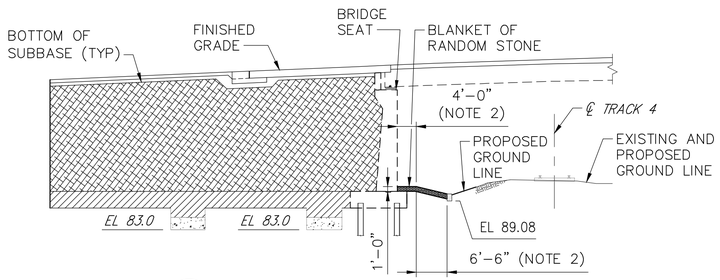
- STRUCTURE BACKFILL
- EMBANKMENT MATERIAL
- ULTRA-LIGHTWEIGHT FOAMED GLASS AGGREGATE
- BLANKET OF RANDOM STONE



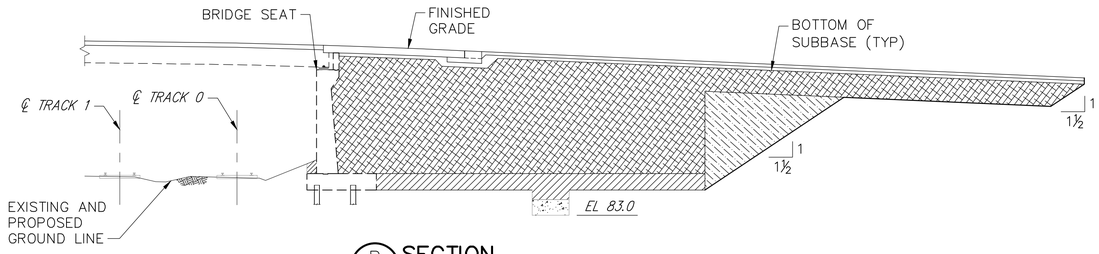
K 13 SECTION
SCALE: 1/16"=1'-0"



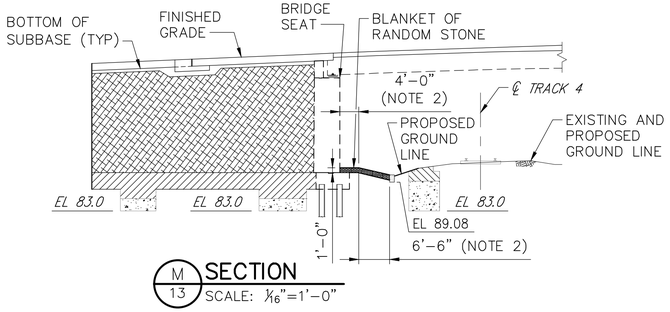
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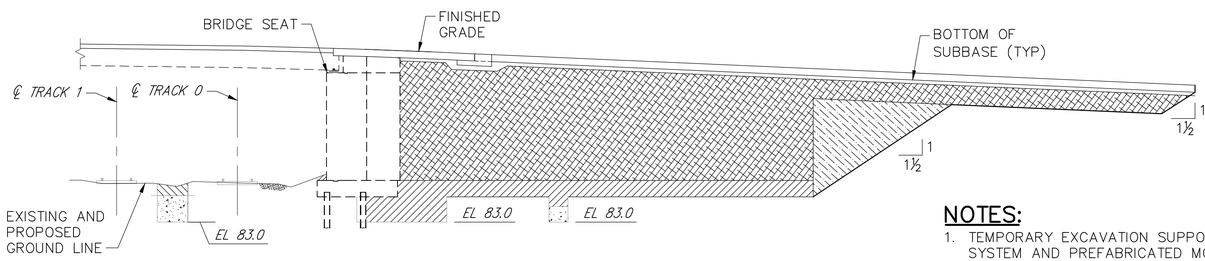
L 13 SECTION
SCALE: 1/16"=1'-0"



P 13 SECTION
SCALE: 1/16"=1'-0"



M 13 SECTION
SCALE: 1/16"=1'-0"



Q 13 SECTION
SCALE: 1/16"=1'-0"

NOTES:

1. TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM AND PREFABRICATED MODULAR WINGWALL NOT SHOWN FOR CLARITY.
2. MEASURED PERPENDICULAR TO THE SKEW.
3. WORK THIS SHEET WITH SHEETS 9 THRU 13.

BAR SCALE KEY

SCALE: 1/16"=1'-0"

8' 0 8'

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — CHRISTOPHER W. SMITH — ENGINEER — PE062861

NUMBER	REVISIONS	BY	DATE

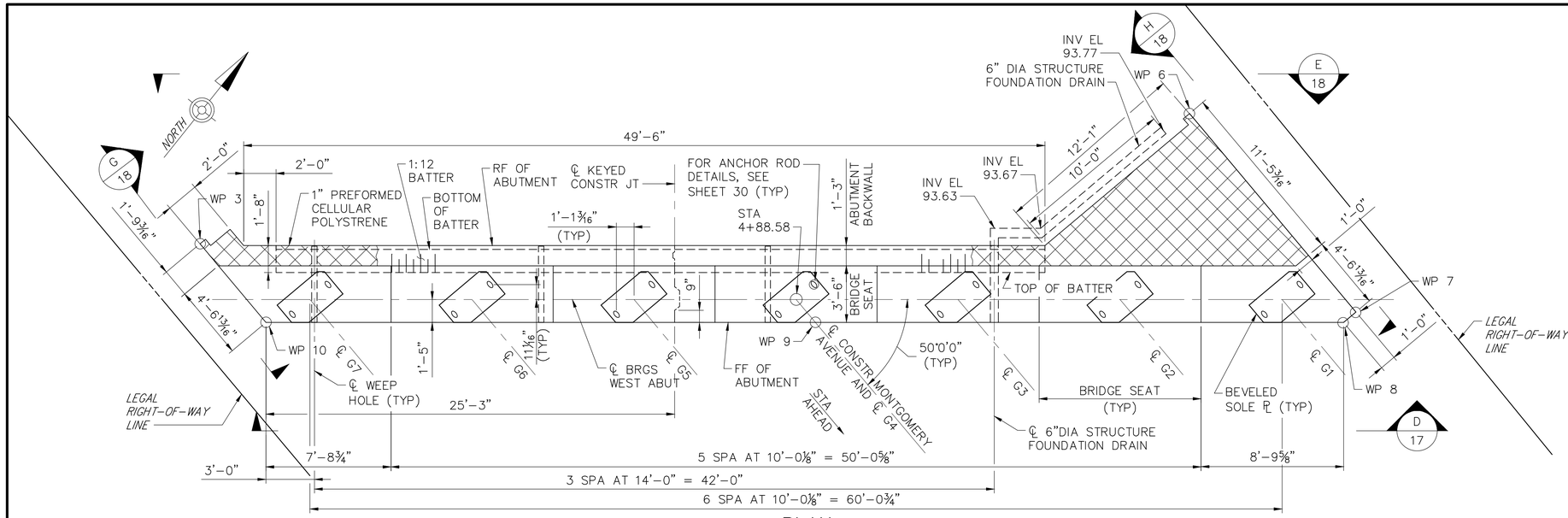
MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201
STRUCTURE BACKFILL – 2

RECOMMENDED 9/1/2020

PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

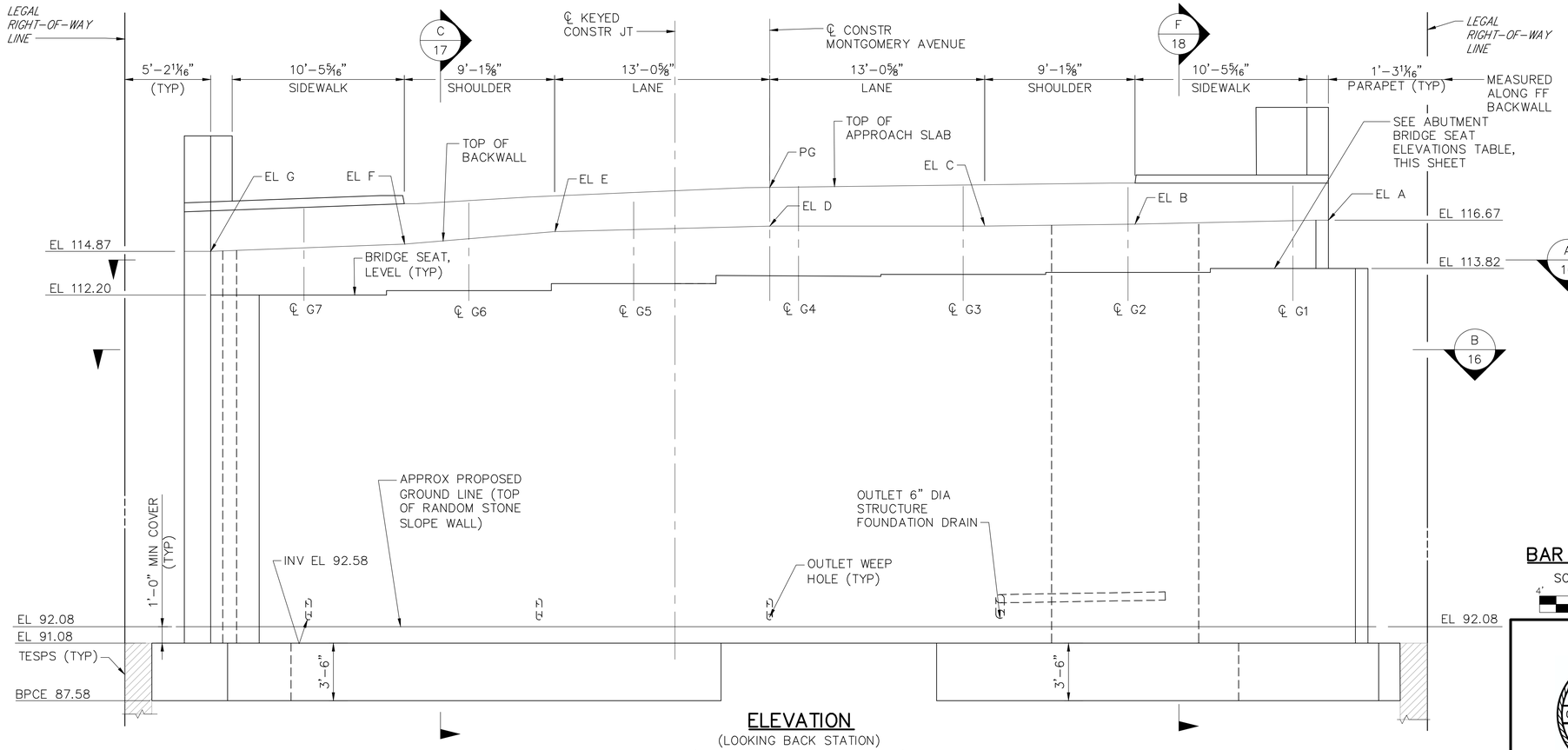
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CHECKED BY:	AYB	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	14 OF 62

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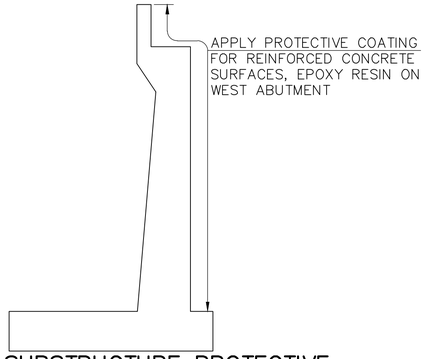
PLAN

SCALE: ¼" = 1'-0"



ELEVATION

(LOOKING BACK STATION)
(PILES NOT SHOWN FOR CLARITY)
SCALE: ¼" = 1'-0"



SUBSTRUCTURE PROTECTIVE COATING DETAIL

NOT TO SCALE

FRONT FACE OF BACKWALL ELEVATIONS

LOCATION	ELEVATION (FT)
A	116.67
B	116.42
C	116.31
D	116.15
E	115.59
F	115.20
G	114.87

ABUTMENT BRIDGE SEAT ELEVATIONS

GIRDER	ELEVATION AT ℄ GIRDER (FT)
G1	113.82
G2	113.58
G3	113.47
G4	113.34
G5	112.91
G6	112.48
G7	112.20

NOTES:

1. FOR KEYED CONSTRUCTION JOINT DETAILS, SEE BC-735M.
2. FOR ADDITIONAL DRAINAGE DETAILS, SEE BC-751M.
3. FOR RANDOM STONE SLOPE DETAILS, SEE BC-781M.
4. FOR NOTES, DIMENSIONS, AND DETAILS OF THE ABUTMENT WATERPROOFING, SEE BC-788M.
5. FOR MASS POUR CONCRETE SPECIFICATIONS, SEE SPECIAL PROVISIONS.
6. FOR GENERAL NOTES, SEE SHEET 5.
7. FOR STAKE-OUT PLAN, SEE SHEET 8.
8. WORK THIS SHEET WITH SHEETS 16 THRU 19.
9. FOR BEARING AND ANCHOR ROD DETAILS, SEE SHEET 30.
10. FOR LIMITS OF EXCAVATION, BACKFILL AND EXISTING PIER REMOVAL, SEE SHEETS 9 THRU 14.
11. FOR APPROACH SLAB DETAILS, SEE SHEETS 38 THRU 40.

BAR SCALE KEY

SCALE: ¼"=1'-0"

4' 0 4'

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — CHRISTOPHER W. SMITH — ENGINEER — PE062861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE B-0185-2001 / L-201

WEST ABUTMENT – 1

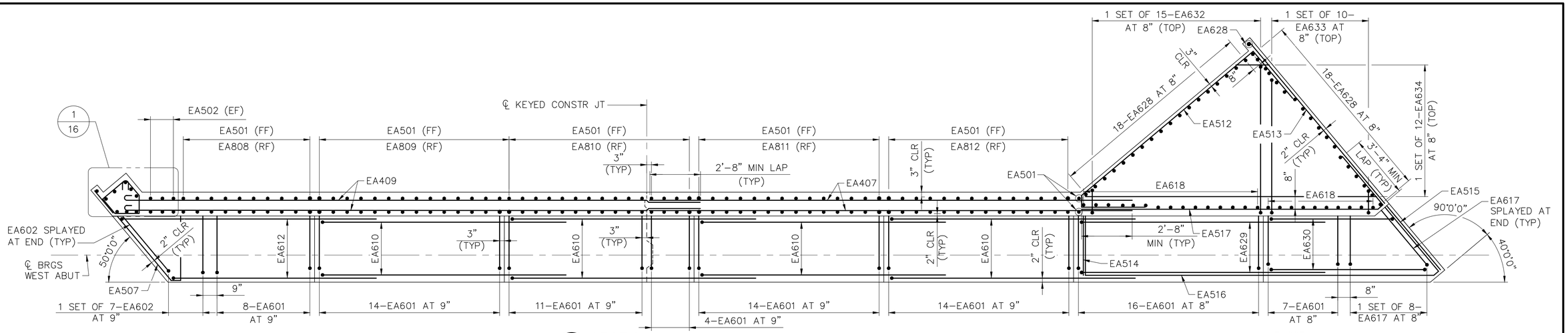
RECOMMENDED 9/1/2020

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

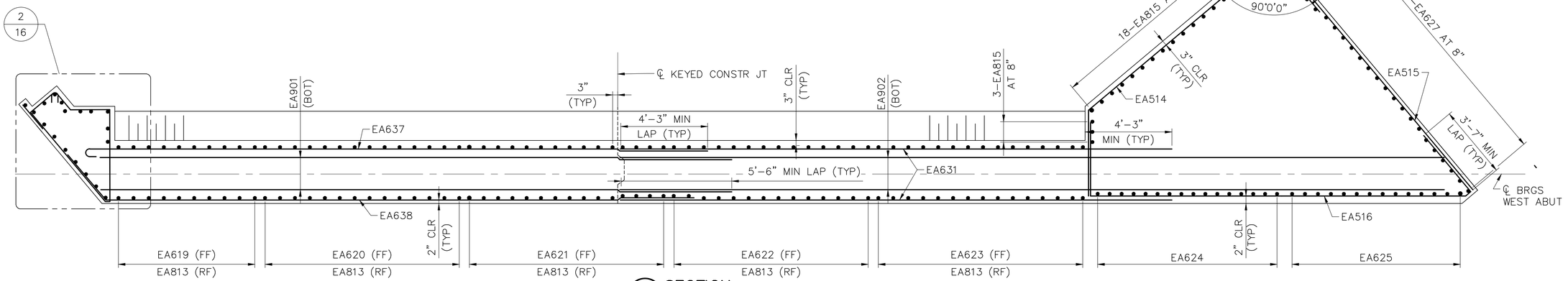
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CHECKED BY:	MDC	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	15 OF 62

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
SUITE 308
PHILADELPHIA, PA 19125

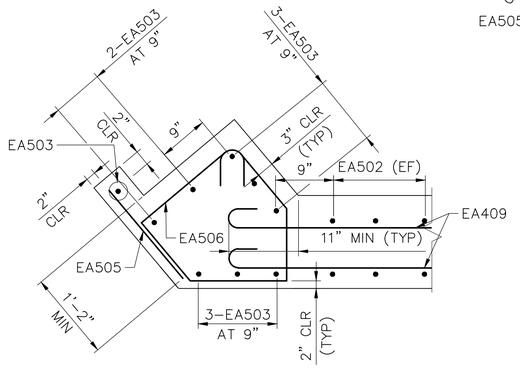
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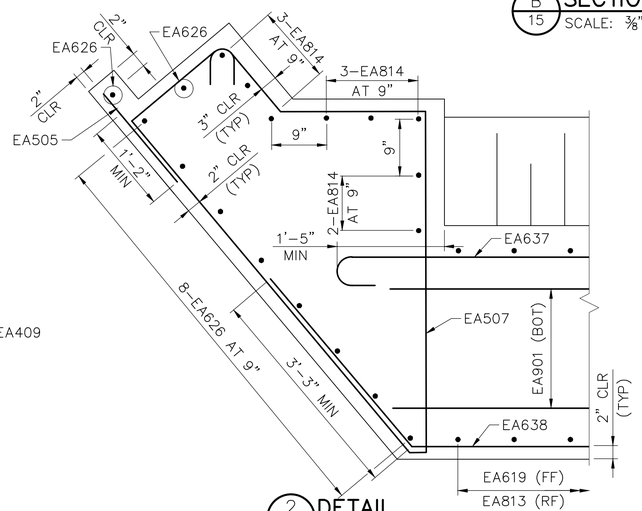
A/15 **SECTION**
(BRIDGE SEAT REINFORCEMENT ONLY SHOWN IN STEM AND NOT IN BACKWALL FOR CLARITY)
SCALE: ⅜"=1'–0"



B/15 **SECTION**
SCALE: ⅜"=1'–0"



1/16 **DETAIL**
SCALE: 1"=1'–0"



2/16 **DETAIL**
SCALE: 1"=1'–0"

BAR SCALE KEY

SCALE: ⅜"=1'–0"
2' 0 2'

SCALE: 1"=1'–0"
1' 0 1'

NOTES:

1. ALL REINFORCEMENT SPACING PROVIDED IS THE MAXIMUM PERMITTED.
2. FOR ADDITIONAL NOTES, SEE SHEET 15.
3. FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 44 THRU 50.

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
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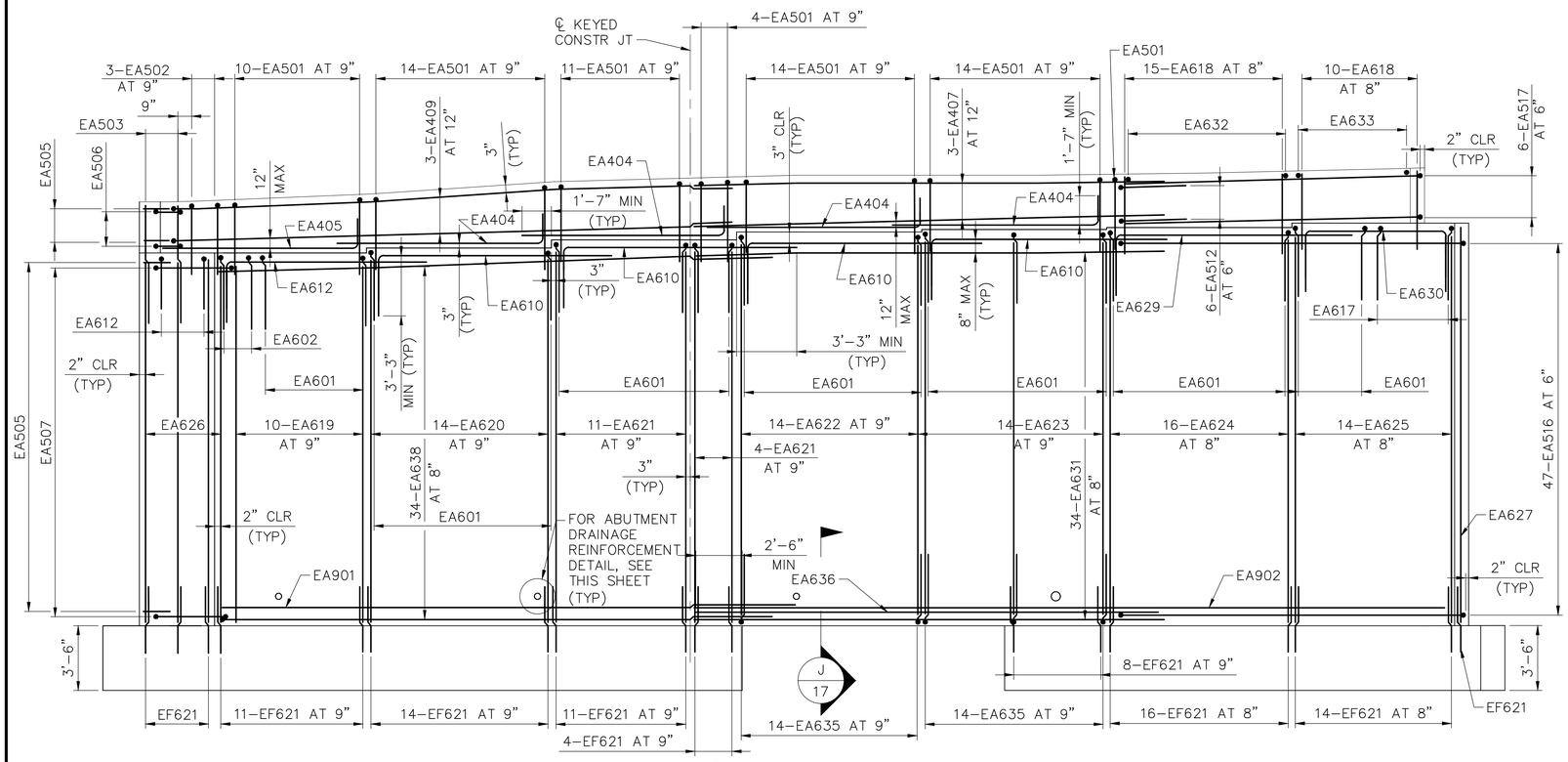
MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B–0185–2001 / L–201
WEST ABUTMENT – 2

RECOMMENDED 9/1/2020

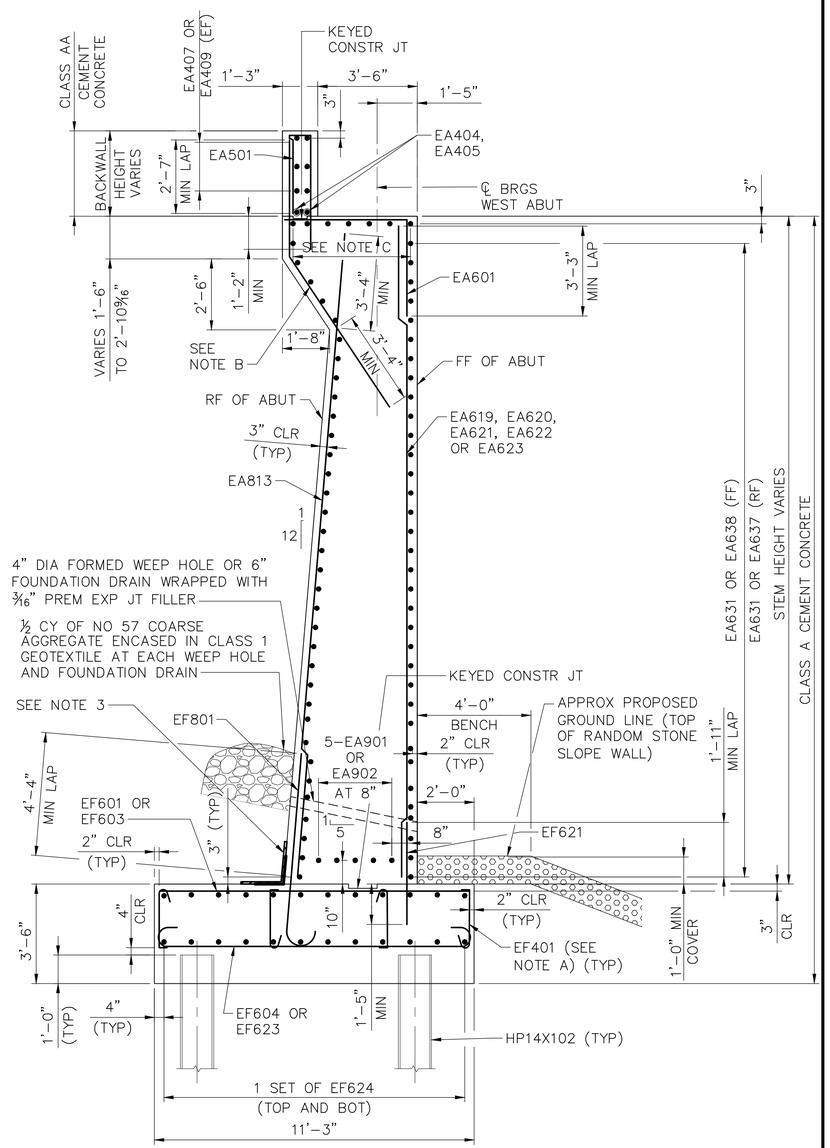
PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	AYB/ALS	DATE:	5/20/2020
CHECKED BY:	MDC	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	16 OF 62

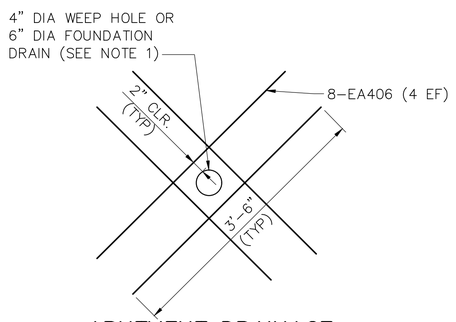
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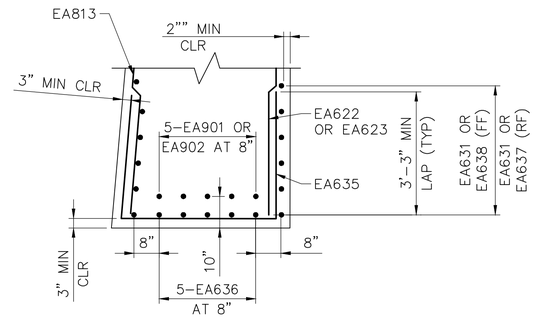
D 15 **SECTION**
(LOOKING BACK STATION)
(PILES AND PILE CAP REINFORCEMENT NOT SHOWN FOR CLARITY)
SCALE: ¼" = 1'–0"



C 15 **SECTION**
SCALE: ⅜"=1'–0"



ABUTMENT DRAINAGE REINFORCEMENT DETAIL
SCALE: 1"=1'–0"



J 17 **SECTION**
SCALE: ¼" = 1'–0"

NOTE A:
TIE TOP AND BOTTOM MAT OF REINFORCING STEEL WITH EF401 TIE BARS AT 4'–0" MAXIMUM SPACING BOTH DIRECTIONS. ALTERNATE 90° AND 135° AT TOP IN ALTERNATE TIES.

NOTE B:
EA808, EA809, EA810, EA811 OR EA812.

NOTE C:
7–EA610 AT 9" OR 1 SET OF 7–EA612 AT 9".

NOTES:
1. ADJUST REINFORCEMENT, AS REQUIRED, FOR INSTALLATION OF ANCHOR BOLTS, WEEP HOLES, AND FOUNDATION DRAIN.
2. ALL REINFORCEMENT PROVIDED IS THE MAXIMUM PERMITTED.
3. FOR NOTES, DIMENSIONS, AND DETAILS OF THE ABUTMENT WATERPROOFING MEMBRANE AND 1" THICK PREFORMED CELLULAR POLYSTYRENE, SEE BC–788M.
4. FOR ADDITIONAL NOTES, SEE SHEET 15.
5. FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 44 THRU 50.

BAR SCALE KEY
SCALE: ¼"=1'–0"
4' 0 4'
SCALE: ⅜"=1'–0"
2' 0 2'
SCALE: 1"=1'–0"
1' 0 1'

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

NUMBER	REVISIONS	BY	DATE

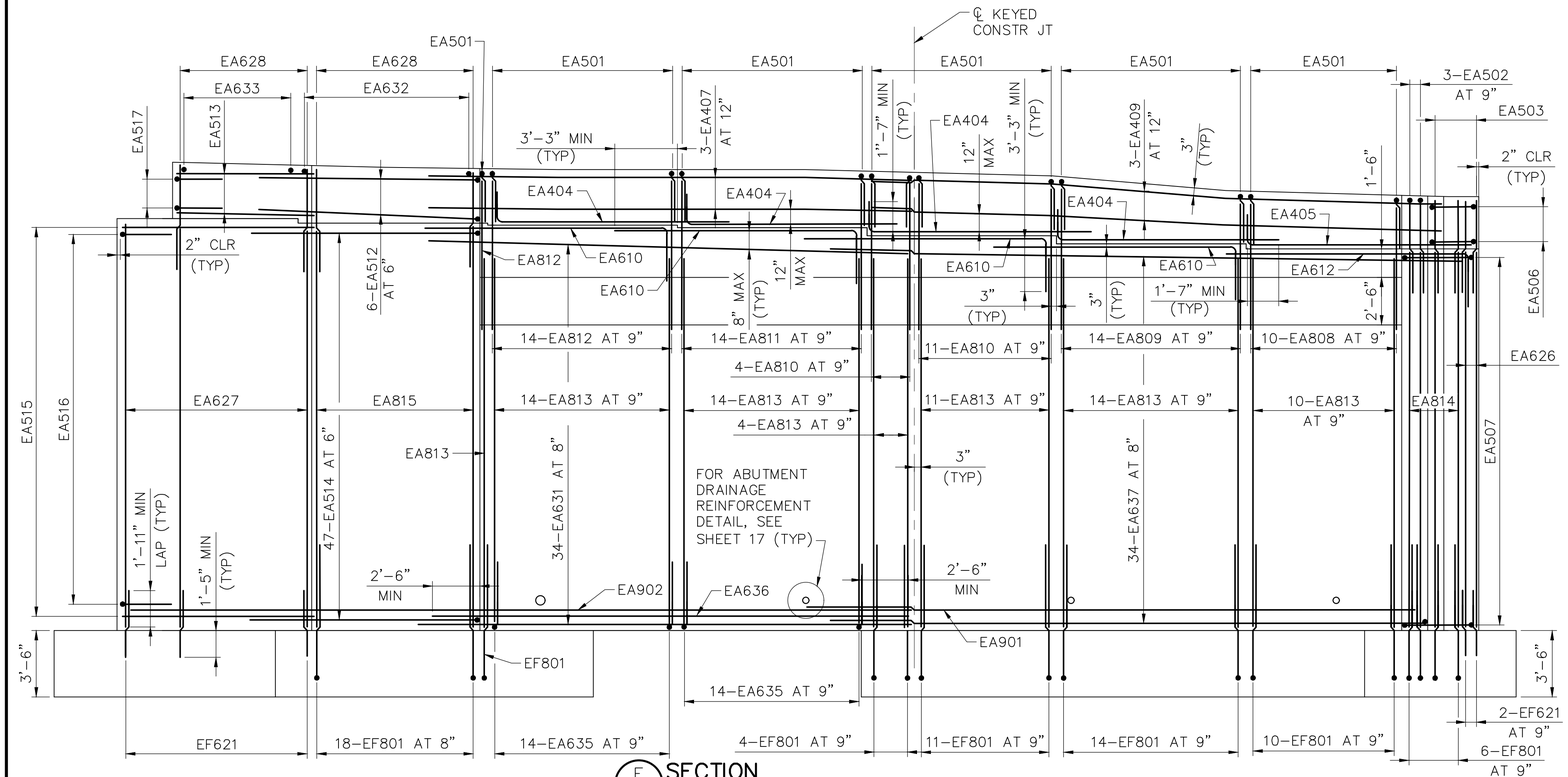
MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B–0185–2001 / L–201
WEST ABUTMENT – 3

RECOMMENDED 9/1/2020

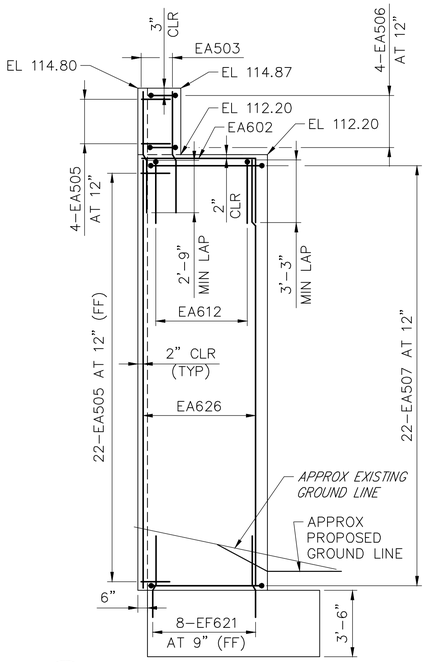
PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	AYB/ALS	DATE:	5/20/2020
CHECKED BY:	MDC	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	17 OF 62

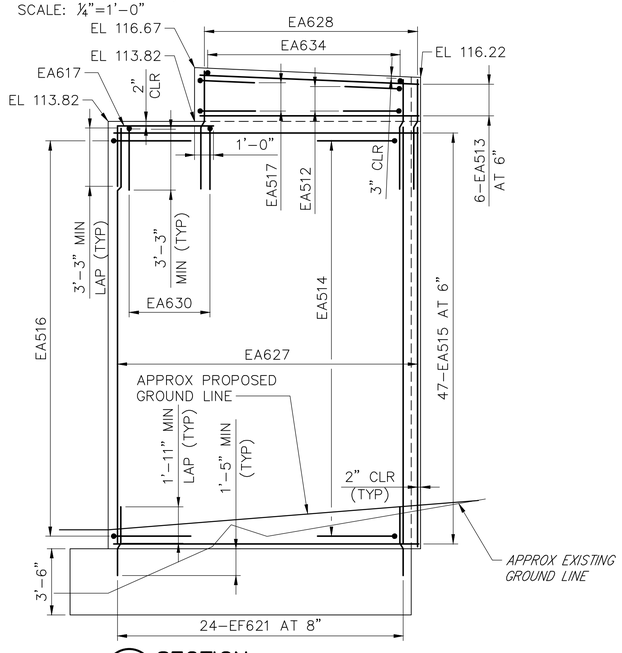
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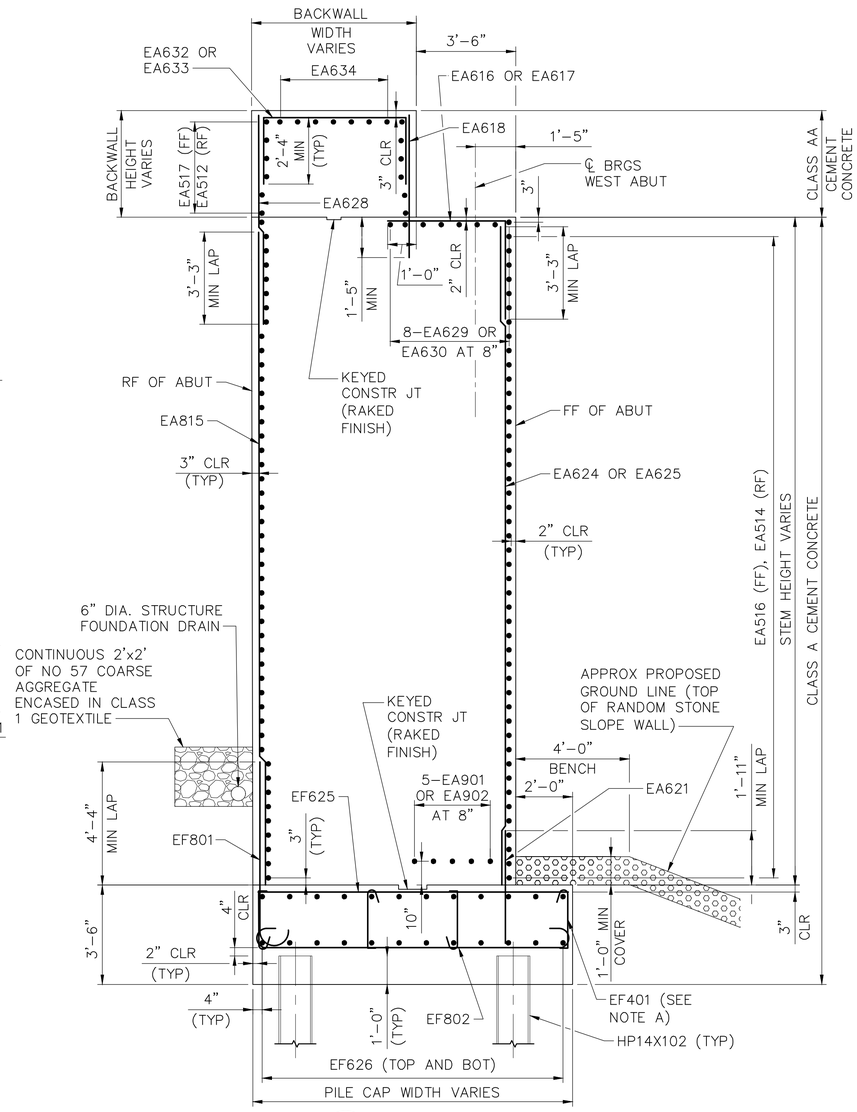
E 15 SECTION
(LOOKING AHEAD STATION)
(PILES AND PILE CAP REINFORCEMENT NOT SHOWN FOR CLARITY)
SCALE: ¼"=1'-0"



G 15 SECTION
(PILES AND PILE CAP REINFORCEMENT NOT SHOWN FOR CLARITY)
SCALE: ¼"=1'-0"



H 15 SECTION
(PILES AND PILE CAP REINFORCEMENT NOT SHOWN FOR CLARITY)
SCALE: ¼"=1'-0"



F 15 SECTION
SCALE: ⅜"=1'-0"

NOTE A:

TIE TOP AND BOTTOM MAT OF REINFORCING STEEL WITH EF401 TIE BARS AT 4'-0" MAXIMUM SPACING BOTH DIRECTIONS. ALTERNATE 90° AND 135° AT TOP IN ALTERNATE TIES.

NOTES:

1. ALL REINFORCEMENT PROVIDED IS THE MAXIMUM PERMITTED.
2. FOR ADDITIONAL NOTES, SEE SHEET 15.
3. FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 44 THRU 50.

BAR SCALE KEY

SCALE: ¼"=1'-0"
4' 0 4'

SCALE: ⅜"=1'-0"
2' 0 2'

SCALE: ½"=1'-0"
2' 0 2'

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

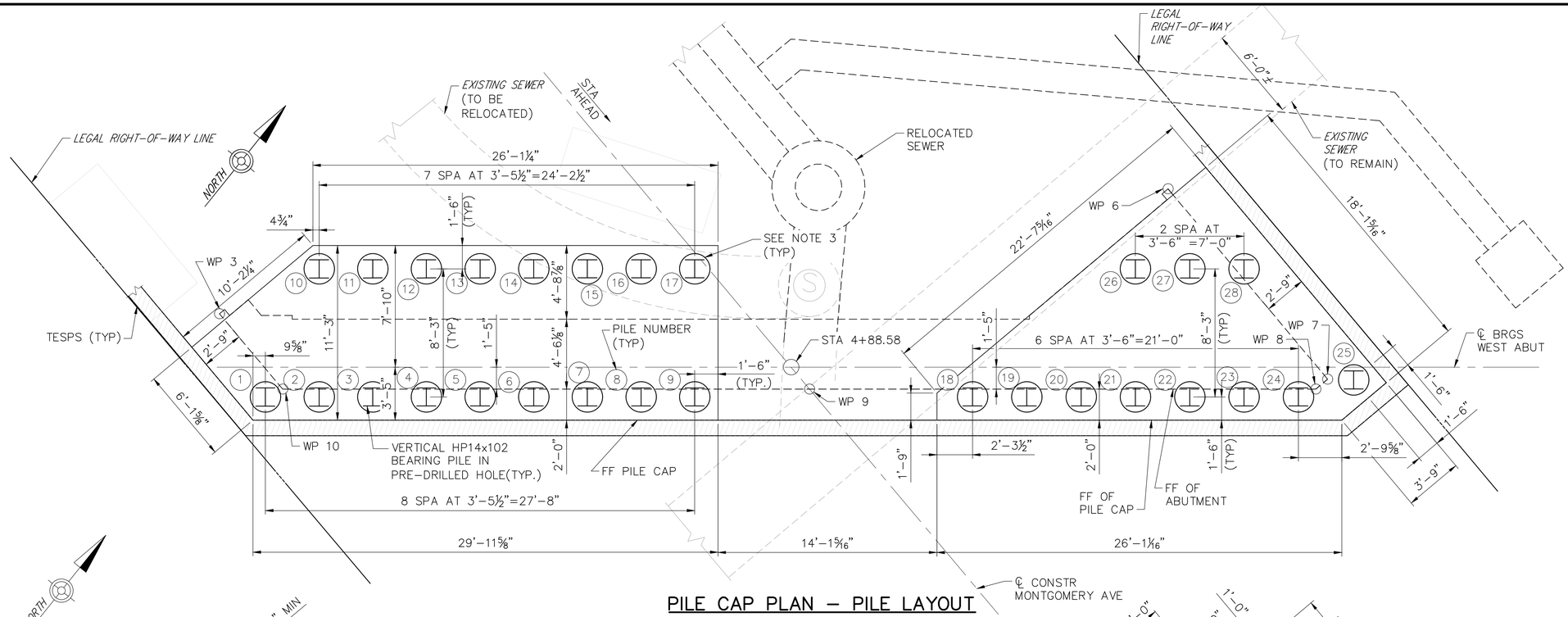
MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201
WEST ABUTMENT – 4

RECOMMENDED 9/1/2020

PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

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CHECKED BY:	MDC	DATE:	8/18/2020
SCALE:	AS NOTED	SHEET:	18 OF 62

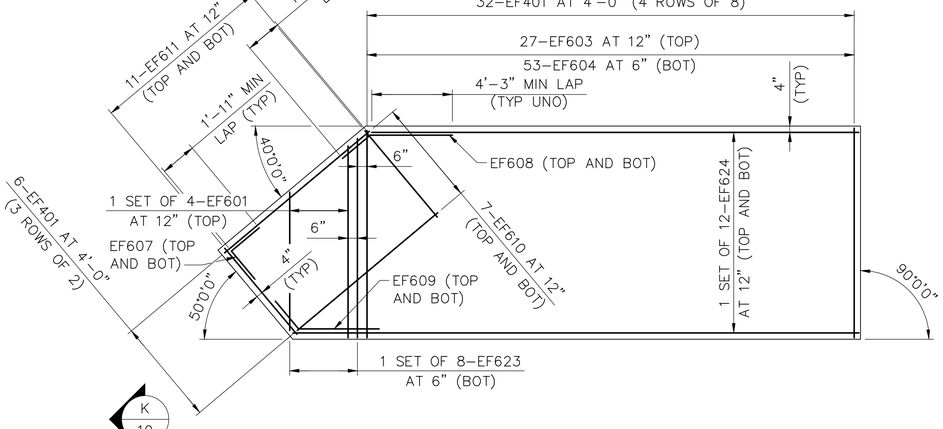
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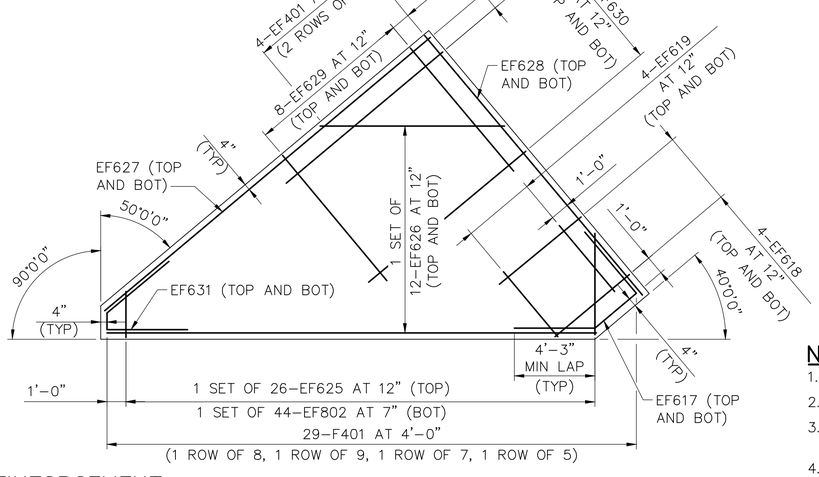


PILE CAP PLAN – PILE LAYOUT

SCALE: 1/4" = 1'-0"

ABUTMENT PILE ELEVATIONS		
PILE NUMBER	MANDATORY PREDRILLING ELEVATION (FT)	ESTIMATED PILE TIP ELEVATION (FT)
1	61.58	61.58
2	61.58	61.58
3	61.58	61.58
4	61.58	61.58
5	61.58	61.58
6	61.58	61.58
7	56.30	56.30
8	56.30	56.30
9	56.30	56.30
10	61.58	61.58
11	61.58	61.58
12	61.58	61.58
13	61.58	61.58
14	61.58	61.58
15	61.58	61.58
16	61.58	61.58
17	56.30	56.30
18	56.30	56.30
19	56.30	56.30
20	56.30	56.30
21	56.30	56.30
22	61.58	61.58
23	61.58	61.58
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25	61.58	61.58
26	56.30	56.30
27	56.30	56.30
28	56.30	56.30



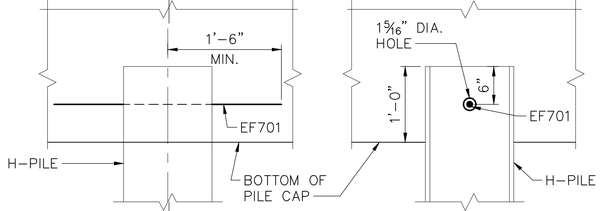


PILE CAP PLAN – REINFORCEMENT

SCALE: 1/4" = 1'-0"

NOTES:

1. ALL PILE SPACING PROVIDED IS THE MAXIMUM PERMITTED.
2. ALL REINFORCEMENT SPACING PROVIDED IS THE MAXIMUM PERMITTED.
3. PILE ANCHORAGE REQUIRED FOR PILES 10 THRU 17. SEE H-PILE ANCHORAGE DETAIL, THIS SHEET.
4. FOR ADDITIONAL NOTES, SEE SHEET 15.
5. FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 44 THRU 50.



H-PILE ANCHORAGE DETAIL

SCALE: 1" = 1'-0"

K 19 SECTION

SCALE: 1"= 1'-0"

GEOTECHNICAL NOTES:

1. MAXIMUM FACTORED DESIGN PILE LOAD: (LRFD STR-I LIMIT STATE MAXIMUM, FINAL):
   - AXIAL RESISTANCE = 402 KIPS/PILE
   - ACTUAL AXIAL LOAD = 248 KIPS/PILE
   - LATERAL RESISTANCE = 27.0 KIPS/PILE
   - ACTUAL LATERAL LOAD = 22.9 KIPS/PILE
2. MAXIMUM FACTORED DESIGN PILE LOAD: (LRFD SER-I LIMIT STATE MAXIMUM, FINAL):
   - LATERAL RESISTANCE = 18.0 KIPS/PILE
   - ACTUAL LATERAL LOAD = 17.7 KIPS/PILE

BAR SCALE KEY

SCALE: 1/4"=1'-0"

4' 0 4'

SCALE: 1"=1'-0"

1' 0 1'

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — CHRISTOPHER W. SMITH — ENGINEER — PE062861

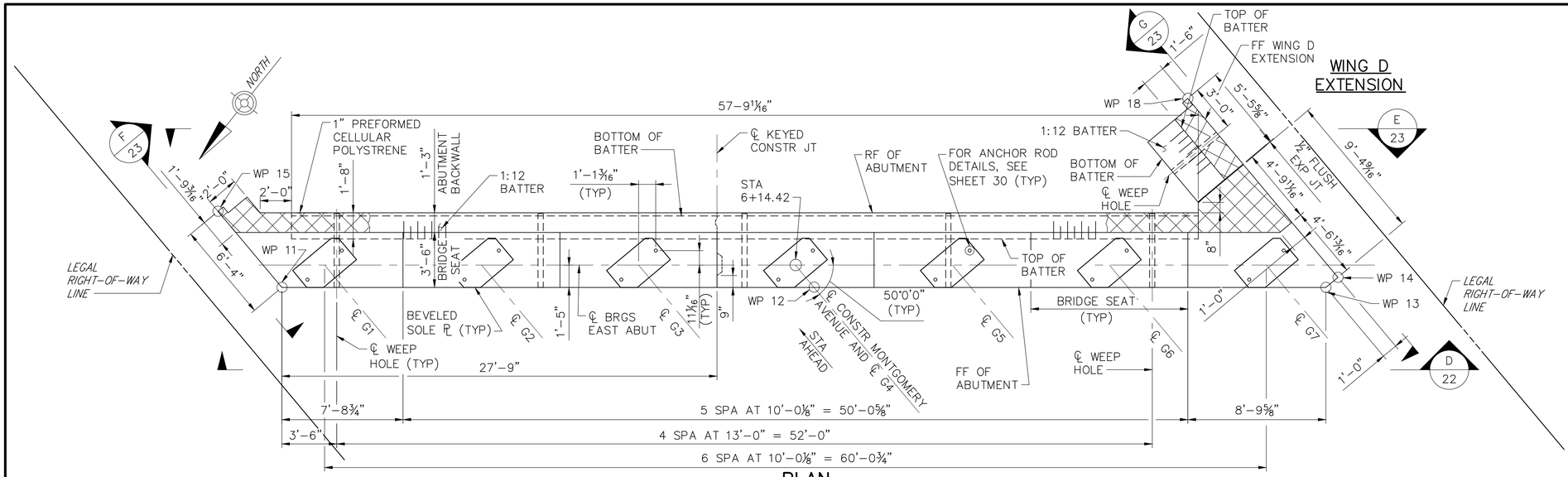
MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201
WEST ABUTMENT – 5

RECOMMENDED 9/1/2020

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

DRAWN BY:	AYB/ALS	DATE:	5/20/2020
CHECKED BY:	MDC	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	19 OF 62

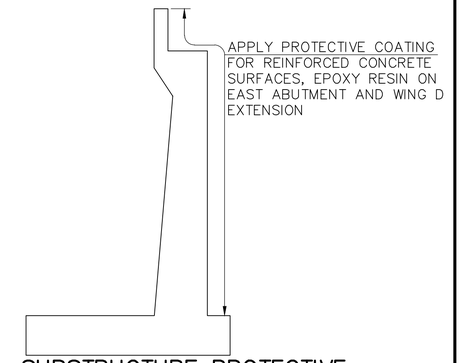
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Plotted 8/14/2020 2:53:06 PM by WAMPLER, JEFFREY A.



WING D EXTENSION

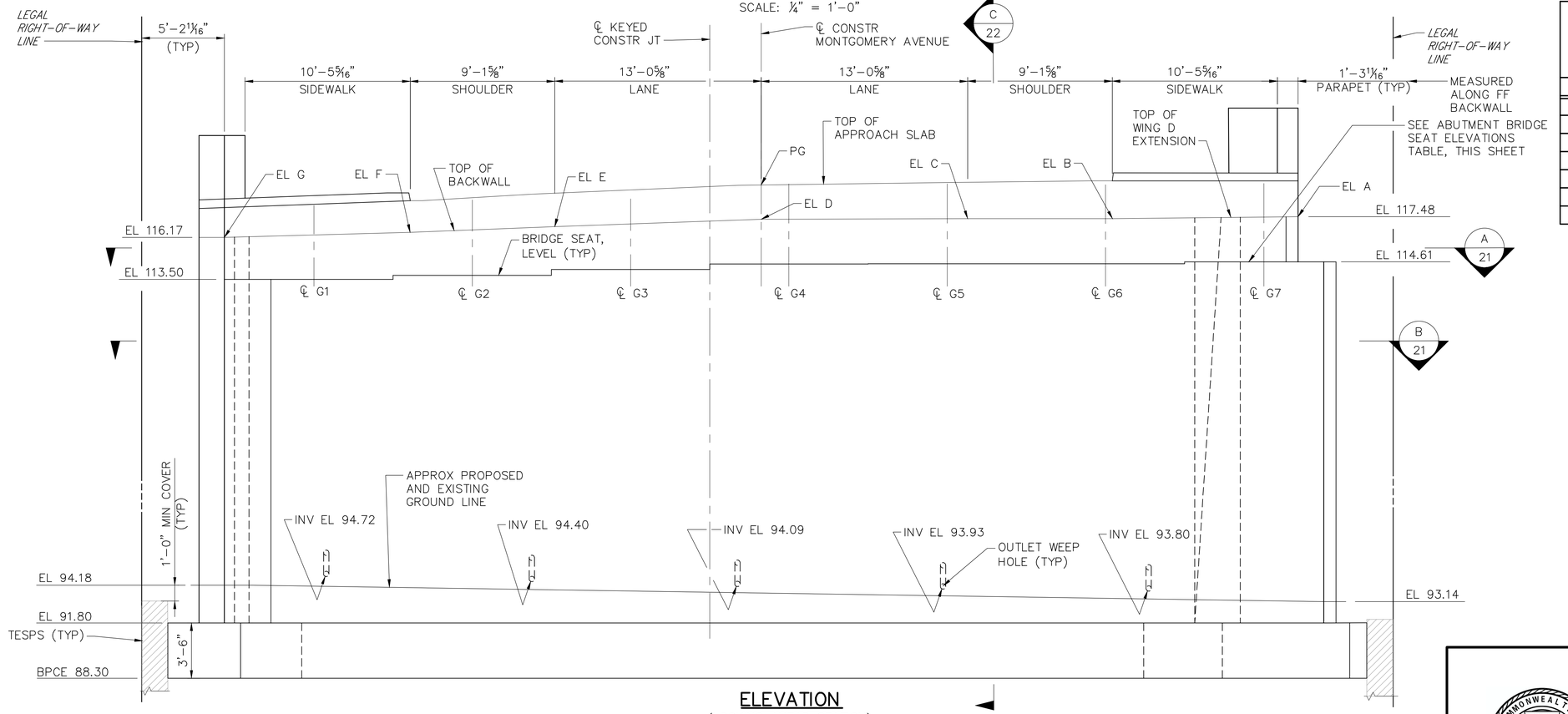
PLAN

SCALE: ¼" = 1'–0"



SUBSTRUCTURE PROTECTIVE COATING DETAIL

NOT TO SCALE



ELEVATION

(LOOKING AHEAD STATION)
(PILES NOT SHOWN FOR CLARITY)
SCALE: ¼" = 1'–0"

BAR SCALE KEY

SCALE: ¼"=1'–0"

4' 0 4'

FRONT FACE OF BACKWALL ELEVATIONS

LOCATION	ELEVATION (FT)
A	117.48
B	117.35
C	117.35
D	117.31
E	116.84
F	116.48
G	116.17

ABUTMENT BRIDGE SEAT ELEVATIONS

GIRDER	ELEVATION AT ℄ GIRDER (FT)
G1	113.50
G2	113.75
G3	114.12
G4	114.47
G5	114.49
G6	114.49
G7	114.61

NOTES:

1. FOR KEYED CONSTRUCTION JOINT DETAILS, SEE BC–735M.
2. FOR ADDITIONAL DRAINAGE DETAILS, SEE BC–751M.
3. FOR NOTES, DIMENSIONS, AND DETAILS OF THE ABUTMENT WATERPROOFING, SEE BC–788M.
4. FOR MASS POUR CONCRETE SPECIFICATIONS, SEE SPECIAL PROVISIONS.
5. FOR GENERAL NOTES, SEE SHEET 5.
6. FOR STAKE–OUT PLAN, SEE SHEET 8.
7. WORK THIS SHEET WITH SHEETS 21 THRU 24.
8. FOR BEARING AND ANCHOR ROD DETAILS, SEE SHEET 30.
9. FOR LIMITS OF EXCAVATION, BACKFILL AND EXISTING PIER REMOVAL, SEE SHEETS 9 THRU 14.
10. FOR APPROACH SLAB DETAILS, SEE SHEETS 44 THRU 50.

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE B–0185–2001 / L–201

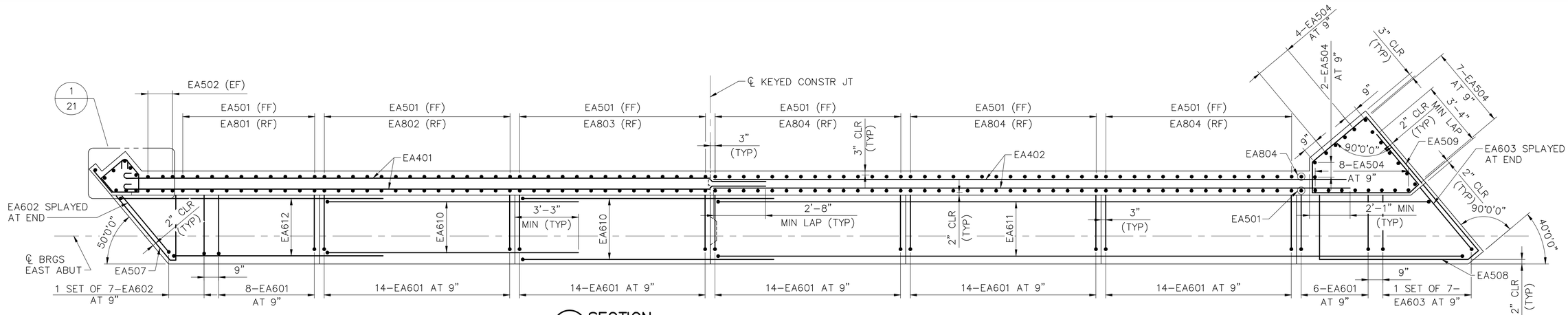
EAST ABUTMENT – 1

RECOMMENDED 9/1/2020

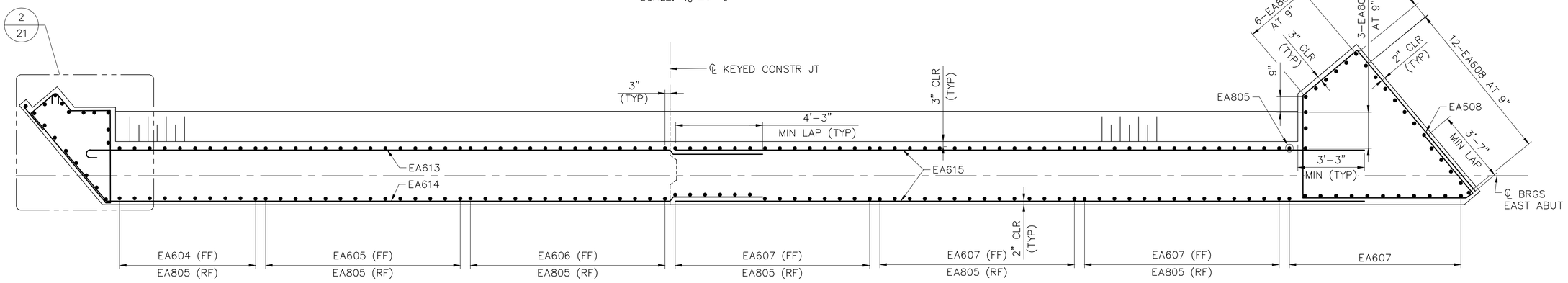
PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

DRAWN BY:	AYB/ALS	DATE:	5/20/2020
CHECKED BY:	MDC	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	20 OF 62

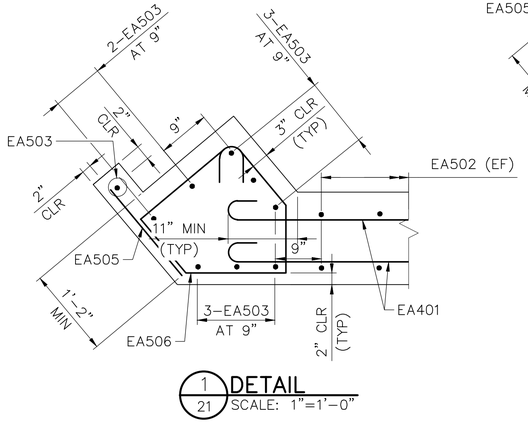
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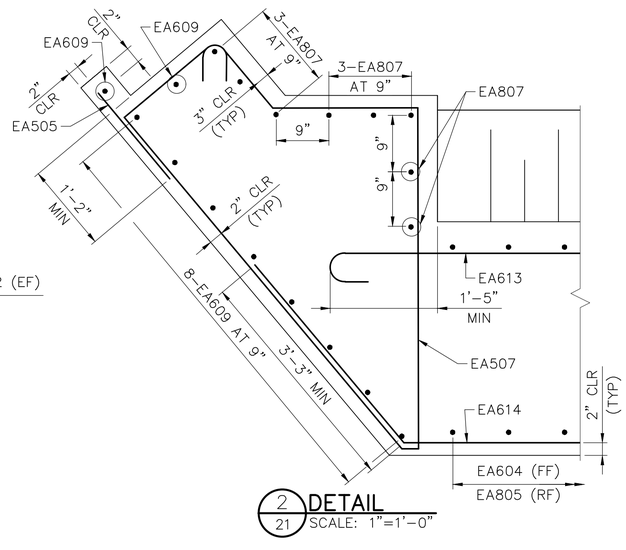
A/20 SECTION
(BRIDGE SEAT REINFORCEMENT ONLY SHOWN IN STEM AND NOT IN BACKWALL FOR CLARITY)
SCALE: 3/8"=1'-0"



B/20 SECTION
SCALE: 3/8"=1'-0"



1/21 DETAIL
SCALE: 1"=1'-0"



2/21 DETAIL
SCALE: 1"=1'-0"

BAR SCALE KEY

SCALE: 3/8"=1'-0"
2' 0 2'

SCALE: 1"=1'-0"
1' 0 1'

NOTES:

1. ALL REINFORCEMENT SPACING PROVIDED IS THE MAXIMUM PERMITTED.
2. FOR ADDITIONAL NOTES, SEE SHEET 20.
3. FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 44 THRU 50.

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
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PE062861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE B-0185-2001 / L-201

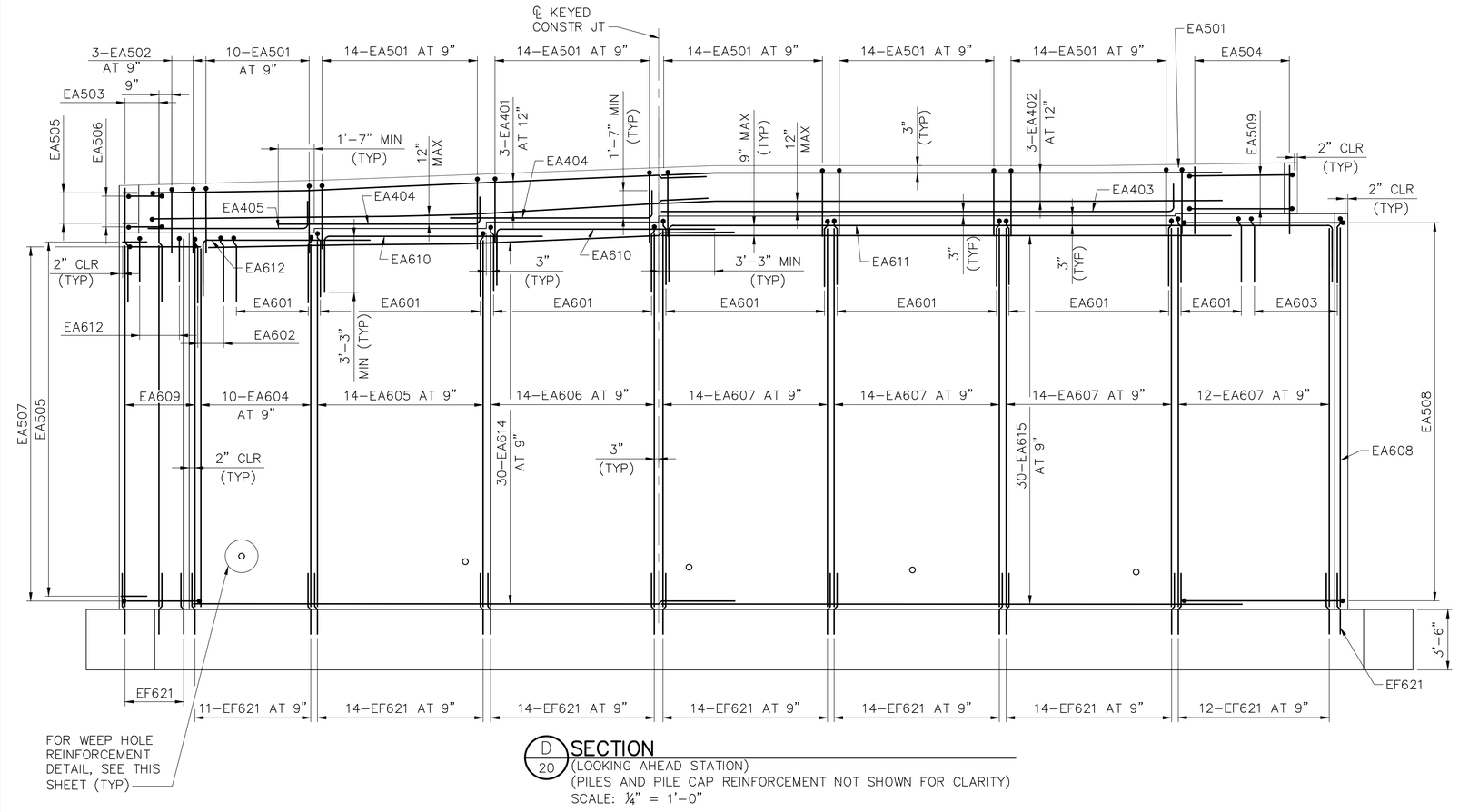
EAST ABUTMENT – 2

RECOMMENDED 9/1/2020

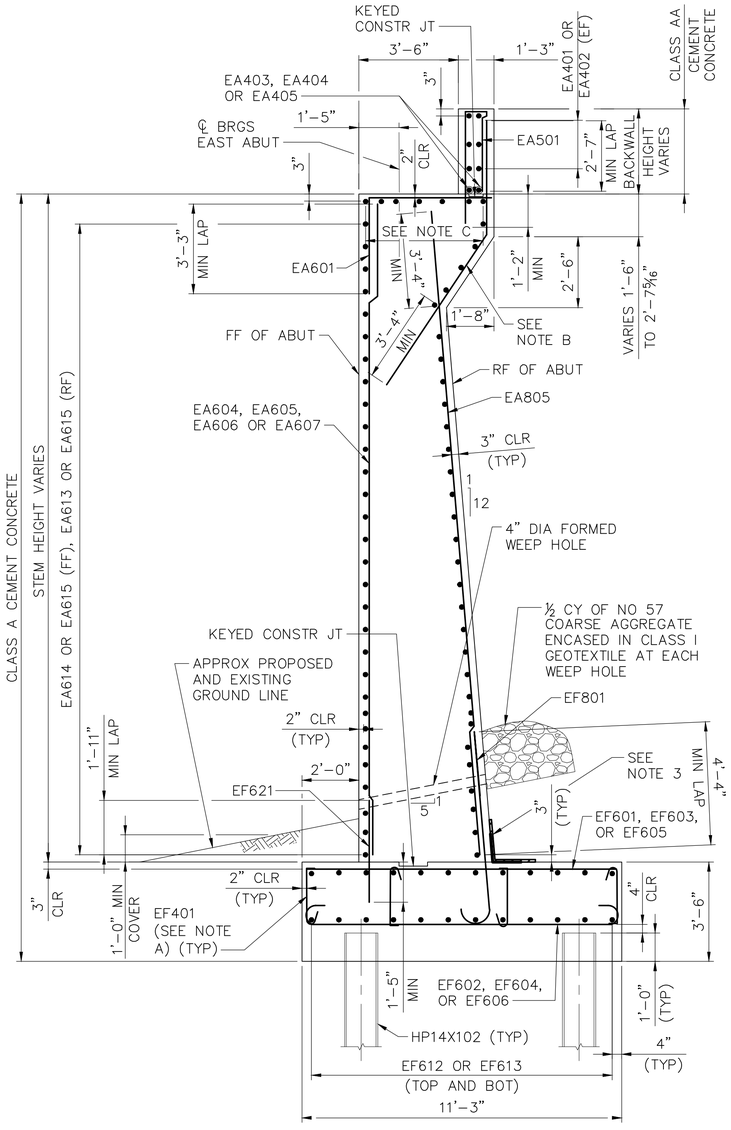
PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

DRAWN BY:	AYB/ALS	DATE:	5/20/2020
CHECKED BY:	MDC	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	21 OF 62

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Plotted 8/12/2020 8:40:06 AM by WAMPLER, JEFFREY A.



D/20 **SECTION**
(LOOKING AHEAD STATION)
(PILES AND PILE CAP REINFORCEMENT NOT SHOWN FOR CLARITY)
SCALE: ¼" = 1'–0"



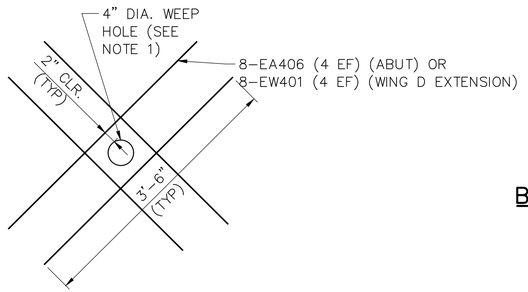
C/20 **SECTION**
SCALE: ⅜"=1'–0"

NOTE A:
TIE TOP AND BOTTOM MAT OF REINFORCING STEEL WITH EF401 TIE BARS AT 4'–0" MAXIMUM SPACING BOTH DIRECTIONS. ALTERNATE 90° AND 135° AT TOP IN ALTERNATE TIES.

NOTE B:
EA801, EA802, EA803 OR EA804.

NOTE C:
7–EA610 AT 9", 1 SET OF 7–EA611 AT 9", OR 1 SET OF 7–EA612 AT 9".

NOTES:
1. ADJUST REINFORCEMENT, AS REQUIRED, FOR INSTALLATION OF ANCHOR RODS AND WEEP HOLES.
2. ALL REINFORCEMENT PROVIDED IS THE MAXIMUM PERMITTED.
3. FOR NOTES, DIMENSIONS, AND DETAILS OF THE ABUTMENT WATERPROOFING MEMBRANE AND 1" THICK PREFORMED CELLULAR POLYSTYRENE, SEE BC–788M.
4. FOR ADDITIONAL NOTES, SEE SHEET 20.
5. FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 44 THRU 50.



WEEP HOLE REINFORCEMENT DETAIL
SCALE: 1"=1'–0"

BAR SCALE KEY
SCALE: ¼"=1'–0"
4' 0 4'
SCALE: ⅜"=1'–0"
2' 0 2'
SCALE: 1"=1'–0"
1' 0 1'

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

NUMBER	REVISIONS	BY	DATE

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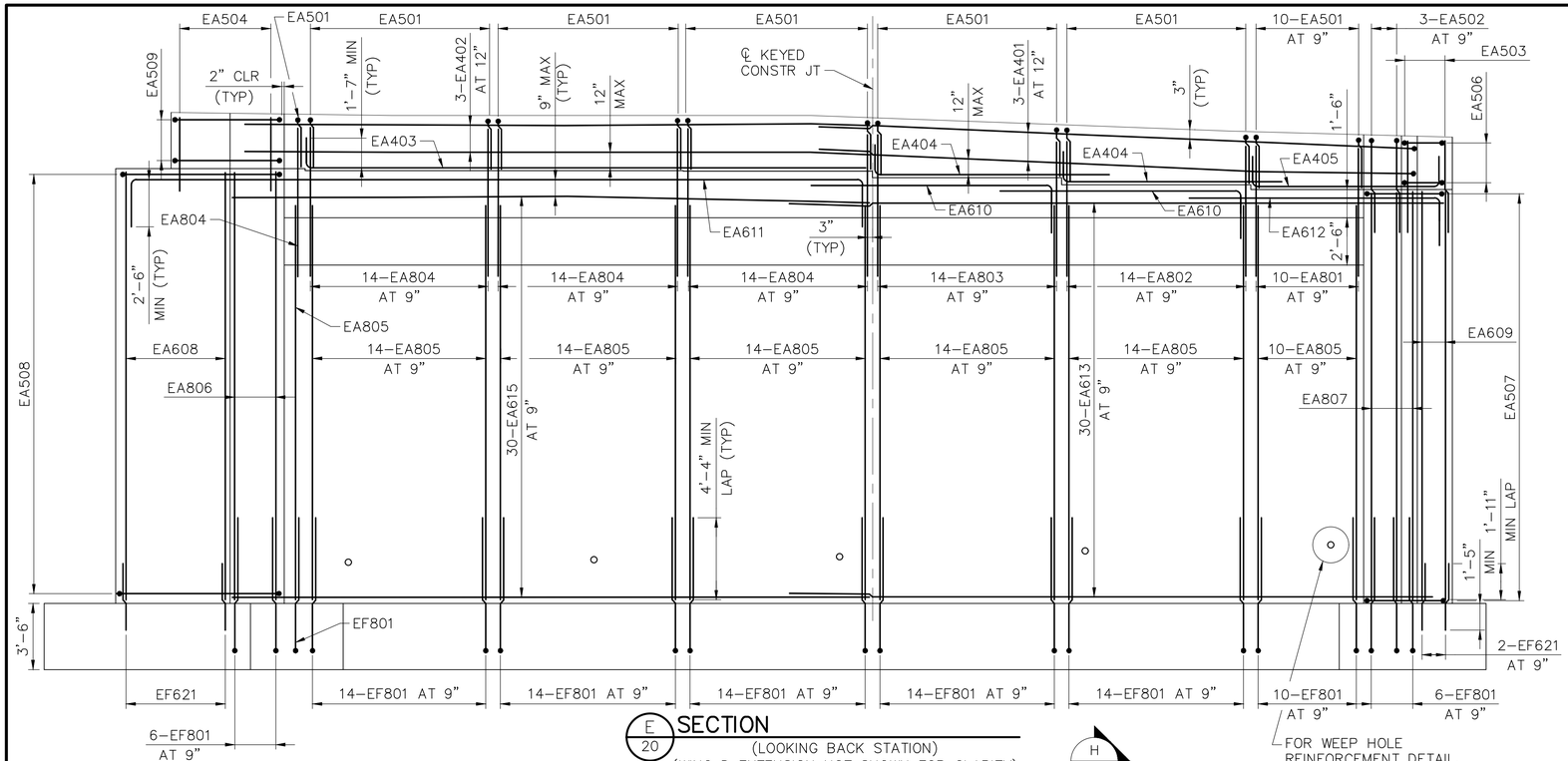
MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B–0185–2001 / L–201
EAST ABUTMENT – 3

RECOMMENDED 9/1/2020

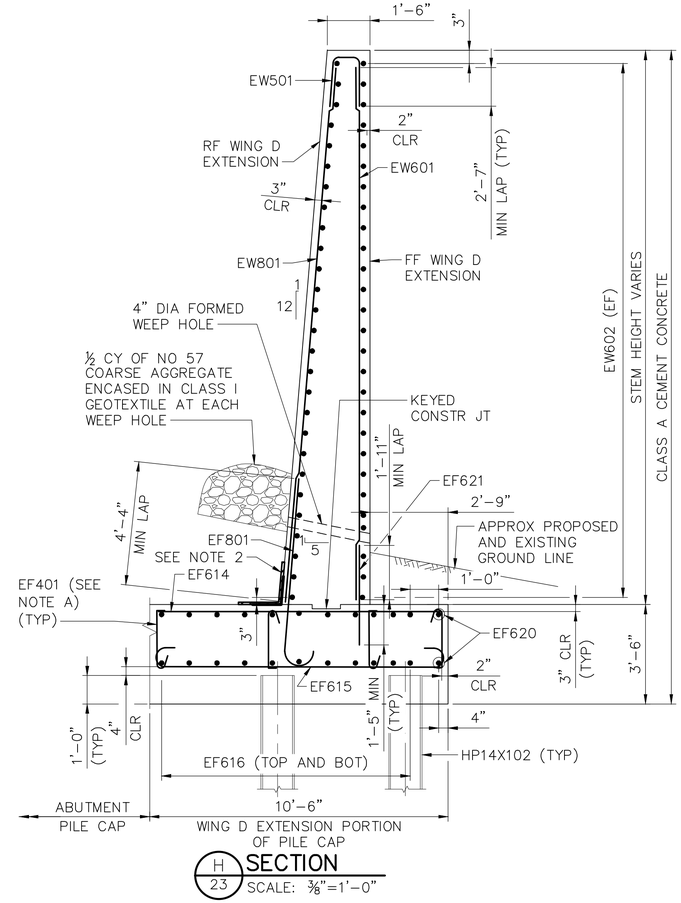
PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

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CHECKED BY:	MDC	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	22 OF 62

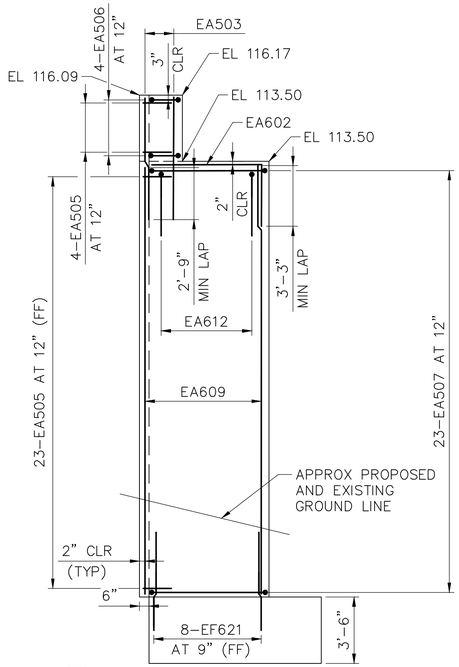
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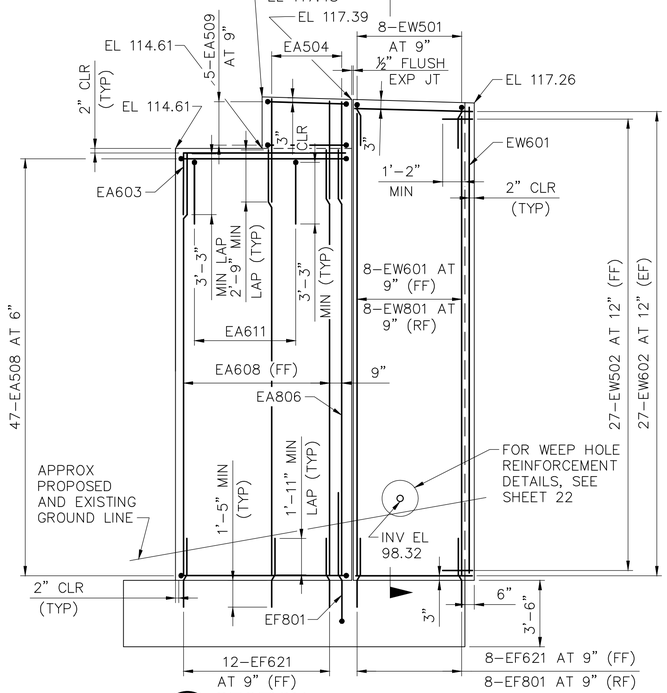
E 20 **SECTION**
(LOOKING BACK STATION)
(WING D EXTENSION NOT SHOWN FOR CLARITY)
(PILES AND PILE CAP REINFORCEMENT NOT SHOWN FOR CLARITY)



H 23 **SECTION**
SCALE: ⅜"=1'–0"



F 20 **SECTION**
(PILES AND PILE CAP REINFORCEMENT NOT SHOWN FOR CLARITY)
SCALE: ¼"=1'–0"



G 20 **SECTION**
(PILES AND PILE CAP REINFORCEMENT NOT SHOWN FOR CLARITY)
SCALE: ¼"=1'–0"

NOTE A:

TIE TOP AND BOTTOM MAT OF REINFORCING STEEL WITH F401 TIE BARS AT 4'–0" MAXIMUM SPACING BOTH DIRECTIONS. ALTERNATE 90° AND 135° AT TOP IN ALTERNATE TIES.

NOTES:

1. ALL REINFORCEMENT PROVIDED IS THE MAXIMUM PERMITTED.
2. FOR NOTES, DIMENSIONS, AND DETAILS OF THE WING EXTENSION WATERPROOFING MEMBRANCE AND 1" THICK PREFORMED CELL POLYSTYRENE, SEE BC–788M.
3. FOR ADDITIONAL NOTES, SEE SHEET 20.
4. FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 44 THRU 49.

BAR SCALE KEY

SCALE: ¼"=1'–0"
4' 0 4'

SCALE: ⅜"=1'–0"
2' 0 2'

SCALE: ½"=1'–0"
2' 0 2'

NUMBER	REVISIONS	BY	DATE

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1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — CHRISTOPHER W. SMITH — ENGINEER — PE062861

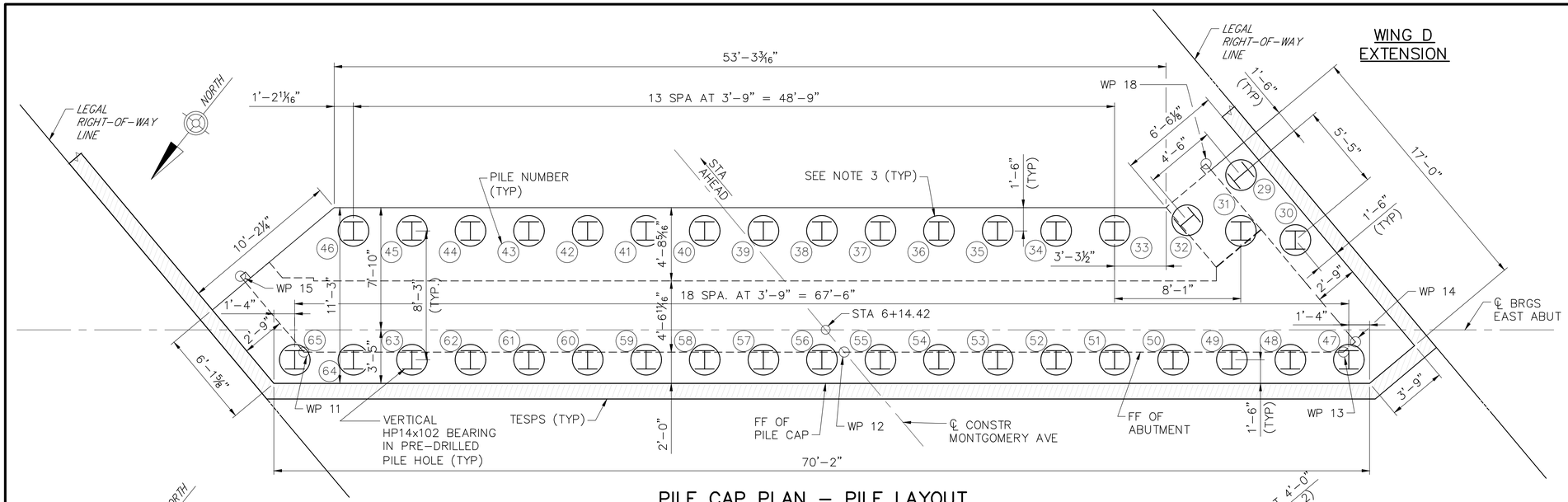
MONTGOMERY AVENUE OVER AMTRAK & CONRAIL SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B–0185–2001 / L–201
EAST ABUTMENT – 4

RECOMMENDED 9/1/2020

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

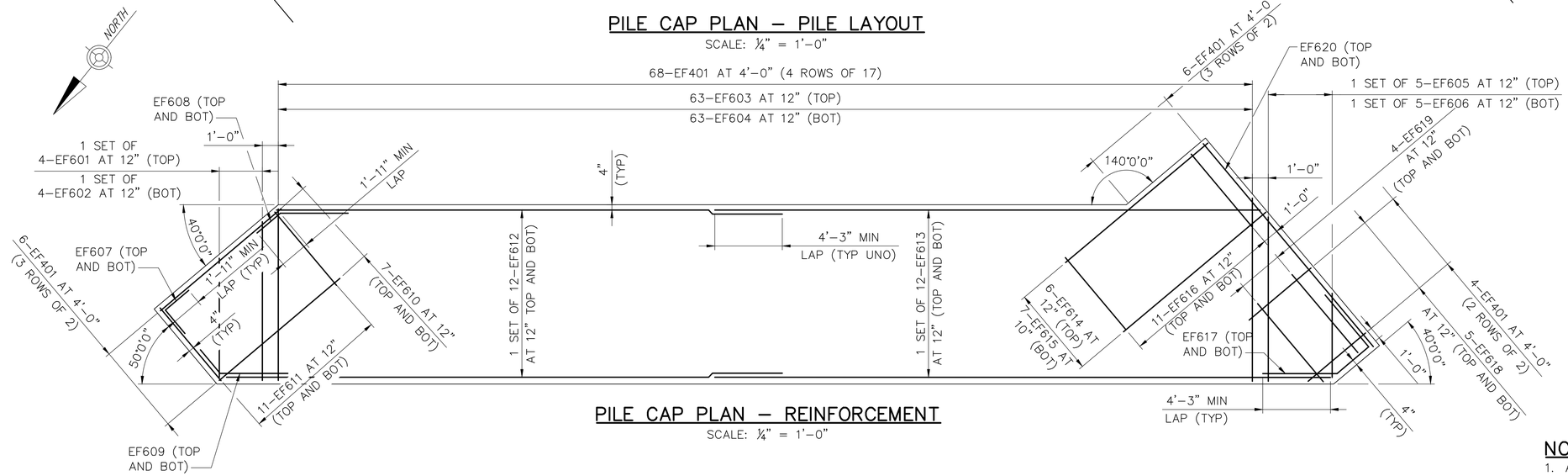
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CHECKED BY:	MDC	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	23 OF 62

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PILE CAP PLAN – PILE LAYOUT

SCALE: ¼" = 1'-0"



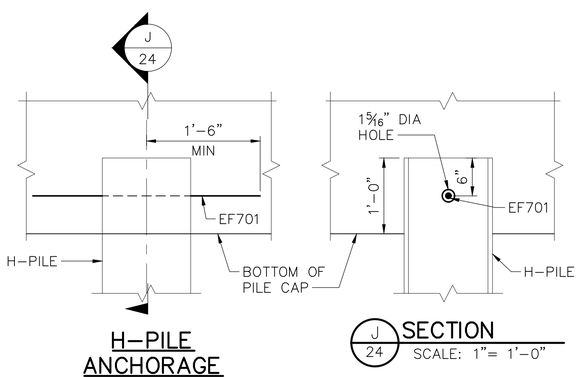
PILE CAP PLAN – REINFORCEMENT

SCALE: ¼" = 1'-0"

ABUTMENT PILE ELEVATIONS		
PILE NUMBER	MANDATORY PREDRILLING ELEVATION (FT)	ESTIMATED PILE TIP ELEVATION (FT)
29	84.00	55.00
30	84.00	55.00
31	84.00	55.00
32	84.00	55.00
33	84.00	55.00
34	84.00	55.00
35	84.00	55.00
36	84.00	62.80
37	84.00	62.80
38	84.00	62.80
39	84.00	62.80
40	84.00	62.80
41	84.00	62.80
42	84.00	47.20
43	84.00	47.20
44	84.00	47.20
45	84.00	47.20
46	84.00	47.20
47	84.00	55.00
48	84.00	55.00
49	84.00	55.00
50	84.00	55.00
51	84.00	55.00
52	84.00	55.00
53	84.00	62.80
54	84.00	62.80
55	84.00	62.80
56	84.00	62.80
57	84.00	62.80
58	84.00	62.80
59	84.00	62.80
60	84.00	47.20
61	84.00	47.20
62	84.00	47.20
63	84.00	47.20
64	84.00	47.20
65	84.00	47.20

NOTES:

1. ALL PILE SPACING PROVIDED IS THE MAXIMUM PERMITTED.
2. ALL REINFORCEMENT SPACING PROVIDED IS THE MAXIMUM PERMITTED.
3. PILE ANCHORAGE REQUIRED FOR PILES (30) TO (46). SEE H-PILE ANCHORAGE DETAIL, THIS SHEET.
4. USE PILES (45) AND (48) AS TEST PILES.
5. FOR ADDITIONAL NOTES, SEE SHEET 20.
6. FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 44 THRU 50.



H-PILE ANCHORAGE DETAIL

SCALE: 1" = 1'-0"

GEOTECHNICAL NOTES:

1. MAXIMUM FACTORED DESIGN PILE LOAD: (LRFD STR-I LIMIT STATE, MAXIMUM, FINAL):
   - AXIAL RESISTANCE = 402 KIPS/PILE
   - ACTUAL AXIAL LOAD = 250 KIPS/PILE (ABUTMENT)
   - ACTUAL AXIAL LOAD = 160 KIPS/PILE (WING D EXTENSION)
   - LATERAL RESISTANCE = 33.0 KIPS/PILE
   - ACTUAL LATERAL LOAD = 25.0 KIPS/PILE (ABUTMENT)
   - ACTUAL LATERAL LOAD = 32.2 KIPS/PILE (WING D EXTENSION)
2. MAXIMUM FACTORED DESIGN PILE LOAD: (LRFD SER-I LIMIT STATE MAXIMUM, FINAL):
   - LATERAL RESISTANCE = 20.5 KIPS/PILE
   - ACTUAL LATERAL LOAD = 19.1 KIPS/PILE (ABUTMENT)
   - ACTUAL LATERAL LOAD = 20.1 KIPS/PILE (WING D EXTENSION)

BAR SCALE KEY

SCALE: ¼"=1'-0"

4' 0 4'

SCALE: 1"=1'-0"

1' 0 1'

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — CHRISTOPHER W. SMITH — ENGINEER — PE062861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201

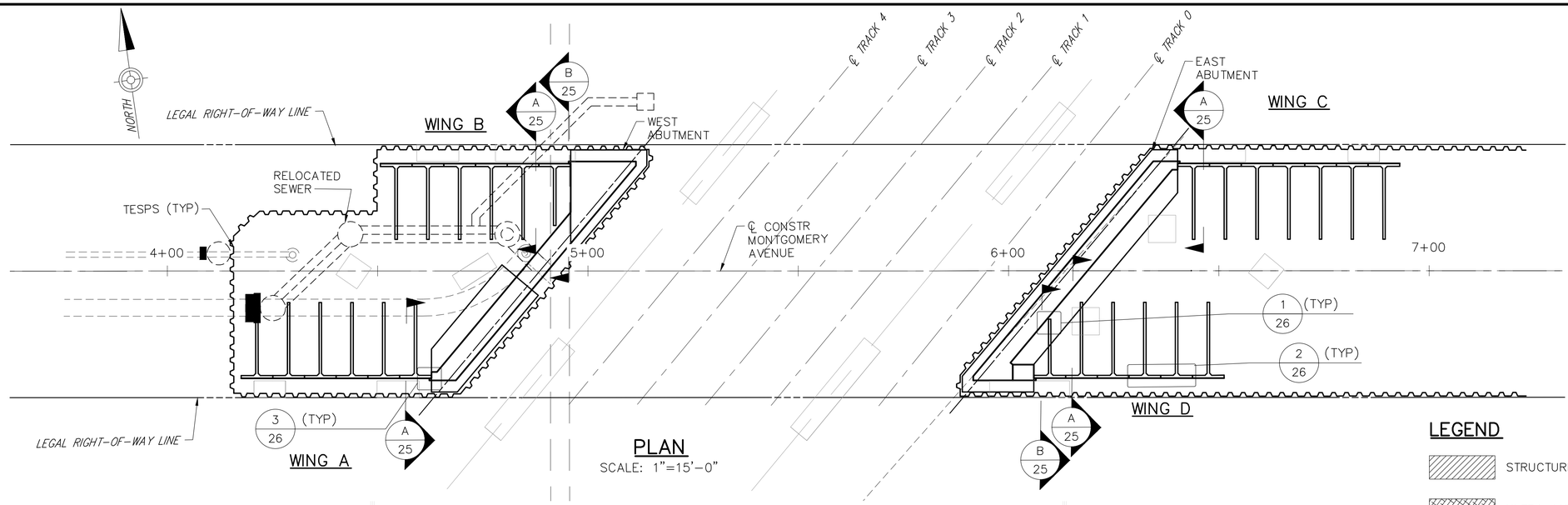
EAST ABUTMENT – 5

RECOMMENDED 9/1/2020

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

DRAWN BY:	AYB/ALS	DATE:	5/20/2020
CHECKED BY:	MDC	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	24 OF 62

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PLAN
SCALE: 1"=15'-0"

TOP OF LEVELING PAD ELEVATIONS	
LOCATION	ELEVATION
WING A	90.24
WING B	90.70
WING C	91.80
WING D	91.80

LEGEND

STRUCTURE BACKFILL

ULTRA-LIGHTWEIGHT FOAMED GLASS AGGREGATE

NOTE A:

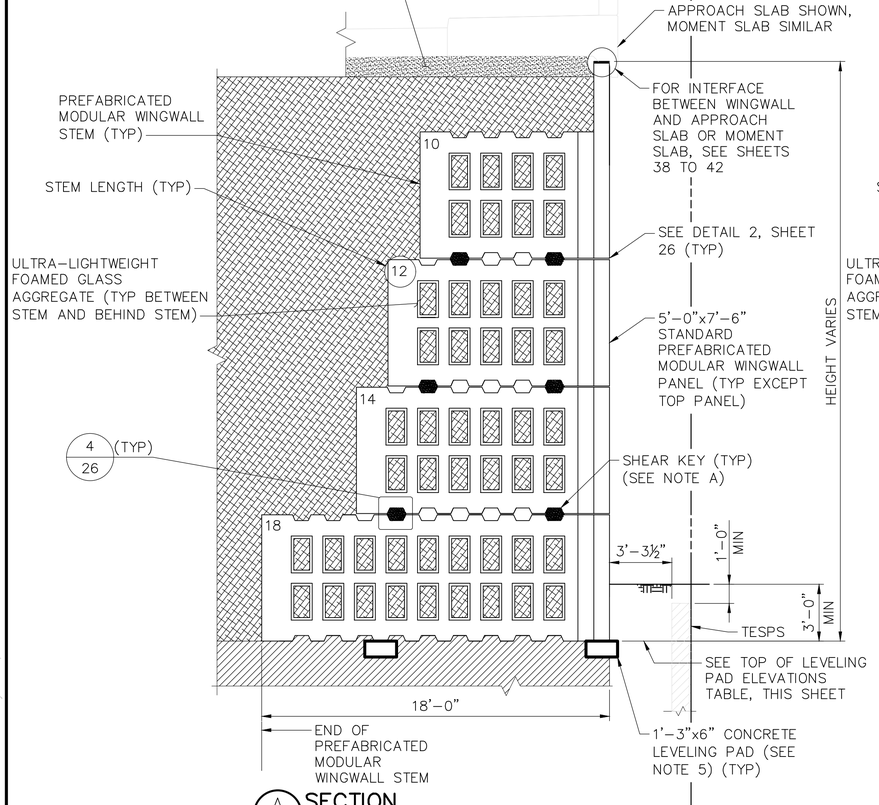
PROVIDE AT LEAST TWO SHEAR KEYS FOR EACH PREFABRICATED MODULAR WINGWALL PANEL. THE RECOMMENDED SHEAR KEY LOCATIONS ARE SHOWN; HOWEVER THE LOCATION OF A SHEAR KEY ALONG THE STEM IS NOT CRITICAL AND DOES NOT HAVE TO BE PLACED EXACTLY AS SHOWN.

NOTE B:

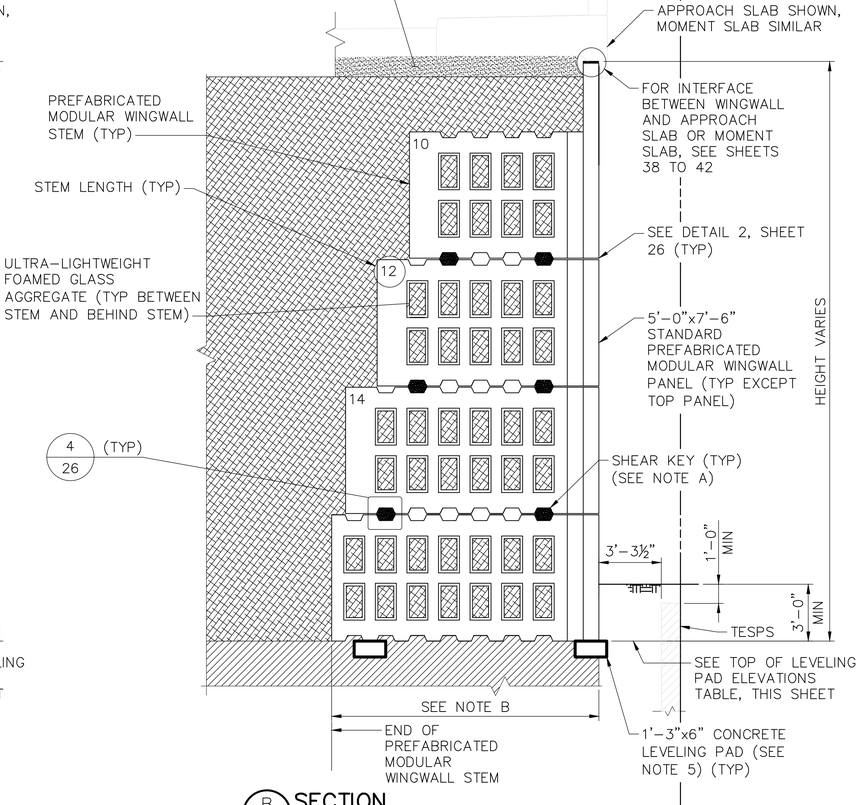
FIELD MEASURE AVAILABLE SPACE TO THE ABUTMENT REAR FACE PRIOR TO FABRICATING PREFABRICATED MODULAR WINGWALL PANEL. PROVIDE AT LEAST 3 INCHES OF CLEARANCE BETWEEN THE END OF PREFABRICATED MODULAR WINGWALL STEM AND ABUTMENT REAR FACE.

NOTES:

1. ULTRA-LIGHTWEIGHT FOAMED GLASS AGGREGATE DESIGN ANGLE OF INTERNAL FRICTION, ø=41°.
2. MINIMUM FACTOR OF SAFETY FOR GLOBAL STABILITY=1.5.
3. MAXIMUM ALLOWABLE SETTLEMENT=1.0 INCH.
4. FOR PREFABRICATED MODULAR WINGWALL, PROVIDE CONCRETE WITH A 28-DAY MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI.
5. USE CLASS A CEMENT CONCRETE FOR THE CONCRETE LEVELING PADS. PROVIDE CONCRETE LEVELING PADS ALONG THE ENTIRE LENGTH OF PREFABRICATED MODULAR WINGWALLS.
6. FOR GENERAL NOTES, SEE SHEET 5.
7. FOR CONCEPTUAL TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM LIMITS, SEE SHEET 9.
8. FOR LIMITS OF EXCAVATION AND BACKFILL AND EXISTING PIER REMOVAL, SEE SHEETS 9 THRU 14.
9. WORK THIS SHEET WITH SHEET 26.
10. FOR APPROACH SLAB AND MOMENT SLAB DETAILS, SEE SHEETS 38 THRU 42.



A 25 SECTION
(ALL PANELS EXCEPT FIRST PANEL ADJACENT TO ABUTMENT AT WING B AND WING D)
SCALE: ¼"=1'-0"



B 25 SECTION
(FIRST PANEL ADJACENT TO ABUTMENT AT WING B AND WING D)
SCALE: ¼"=1'-0"

BAR SCALE KEY

SCALE: 1"=15'
15' 0 15'

SCALE: ¼"=1'-0"
4' 0 4'

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

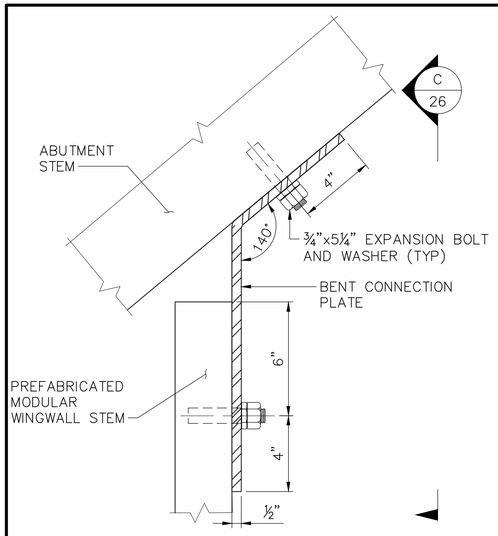
MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201
WINGWALLS – 1

RECOMMENDED 9/1/2020

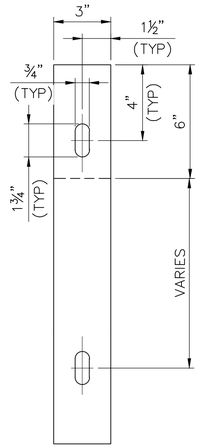
PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	AYB/ALS	DATE:	8/18/2020
CHECKED BY:	HNB	DATE:	8/18/2020
SCALE:	AS NOTED	SHEET:	25 OF 62

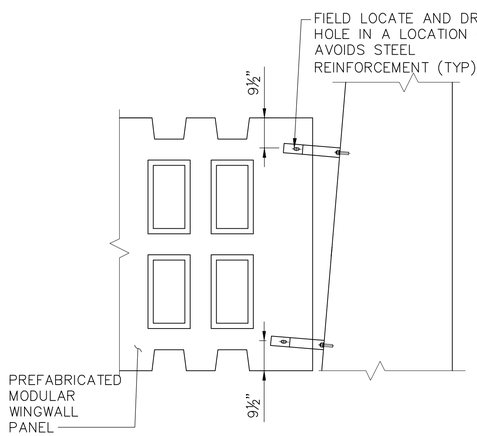
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Plotted 8/24/2020 2:06:51 PM by STUM, AMELIA L.



1 / 25 DETAIL
SCALE: 3"=1'-0"



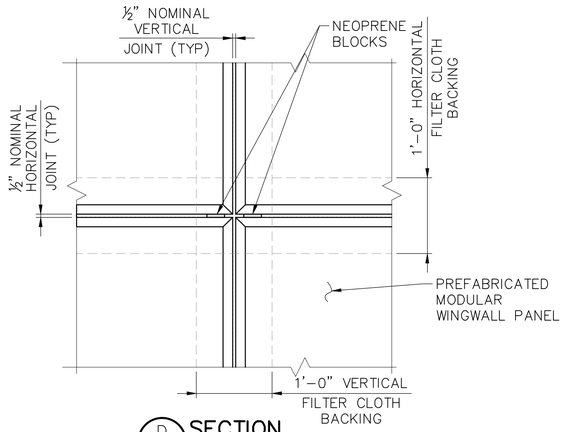
BENT CONNECTION PLATE DETAIL
SCALE: 3"=1'-0"



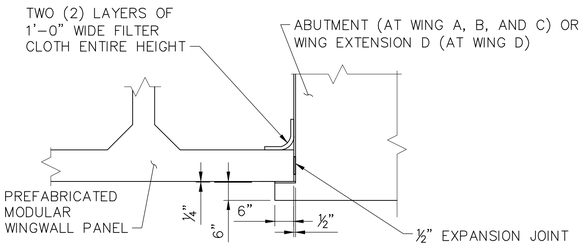
C / 26 SECTION
NOT TO SCALE

SUMMARY OF RECOMMENDED FOUNDATION DESIGN PARAMETERS

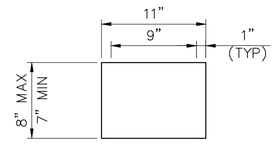
WING	APPLICABLE BORINGS	BEARING STRATUM	FOUNDATION SOIL: INTERNAL ANGLE OF FRICTION, ϕF (DEGREES)	FOUNDATION SOIL: COHESION, C (PSF)	FOUNDATION SOIL: MOIST UNIT WEIGHT OF SOIL, γm (PCF)	FOUNDATION SOIL: SATURATED UNIT WEIGHT OF SOIL, γsat (PCF)	FOUNDATION SOIL: MODULUS OF ELASTICITY, ES (KSI)	BEARING CAPACITY RESISTANCE FACTOR, ϕb	SLIDING RESISTANCE FACTOR, ϕT	AVERAGE CORRECTED N-VALUE (N160)
A	B-1, B-14	SILT/SILTY SAND	28/38	0/0	100/125	105/135	220/500	0.45	1.0	9/>50
B	B-3, B-15	SILT/SILTY SAND/SILTY SAND	28/32/38	0/0/0	100/120/125	105/125/135	220/320/500	0.45	1.0	7/26/>50
C	B-9, B-13	SILT/SILTY SAND/SILTY SAND	28/32/38	0/0/0	100/120/125	105/125/135	220/320/500	0.45	1.0	9/26/>50
D	B-7, B-10	SILT/SILTY SAND/SILTY SAND	28/32/38	0/0/0	100/120/125	105/125/135	220/320/500	0.45	1.0	10/25/>50



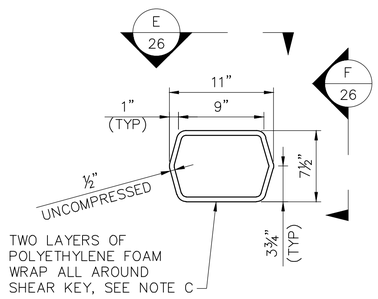
D / 26 SECTION
NOT TO SCALE



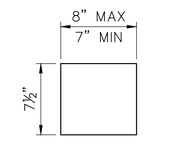
3 / 25 DETAIL
(WING A SHOWN, OTHER WINGS SIMILAR)
NOT TO SCALE



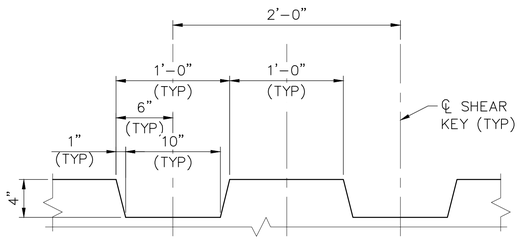
E / 26 SECTION
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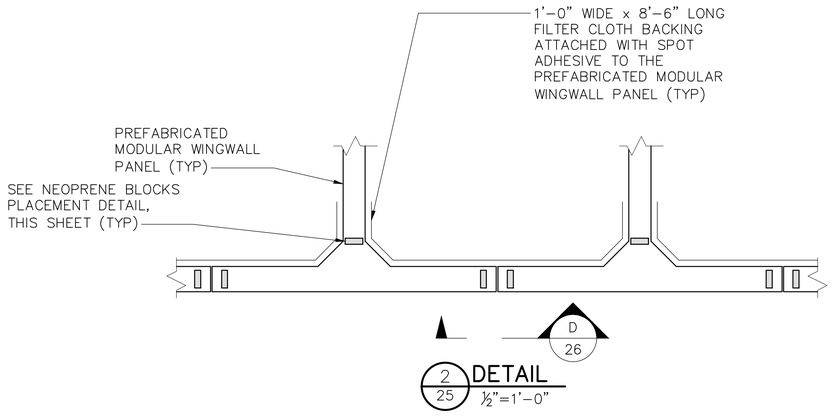
4 / 25 DETAIL
NOT TO SCALE



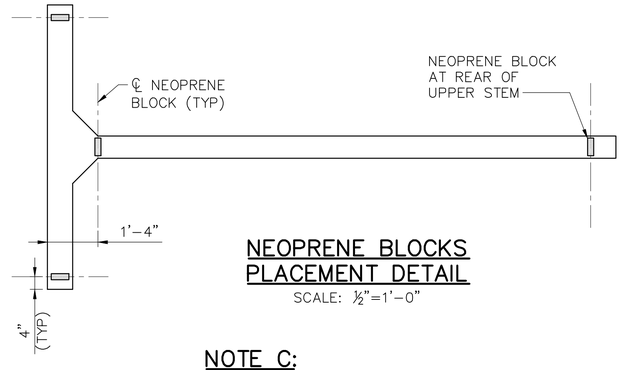
F / 26 SECTION
NOT TO SCALE



SHEAR KEY BLOCK OUT DETAIL



2 / 25 DETAIL
½"=1'-0"



NEOPRENE BLOCKS PLACEMENT DETAIL
SCALE: ½"=1'-0"

NOTE C:

FOAM WRAP MAY BE ADDED OR REMOVED TO AID IN SHIMMING AND ALIGNING. HOWEVER, SHEAR KEY MUST FIT SNUG IN THE SHEAR KEY BLOCKOUT WHEN WINGWALL PANEL IS IN ITS FINAL POSITION.

NOTES:

1. WORK THIS SHEET WITH SHEET 25.

BAR SCALE KEY
SCALE: ½"=1'-0"
2' 0 2'
SCALE: 3"=1'-0"
0.5' 0 0.5'

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — CHRISTOPHER W. SMITH — ENGINEER — PE062861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE B-0185-2001 / L-201

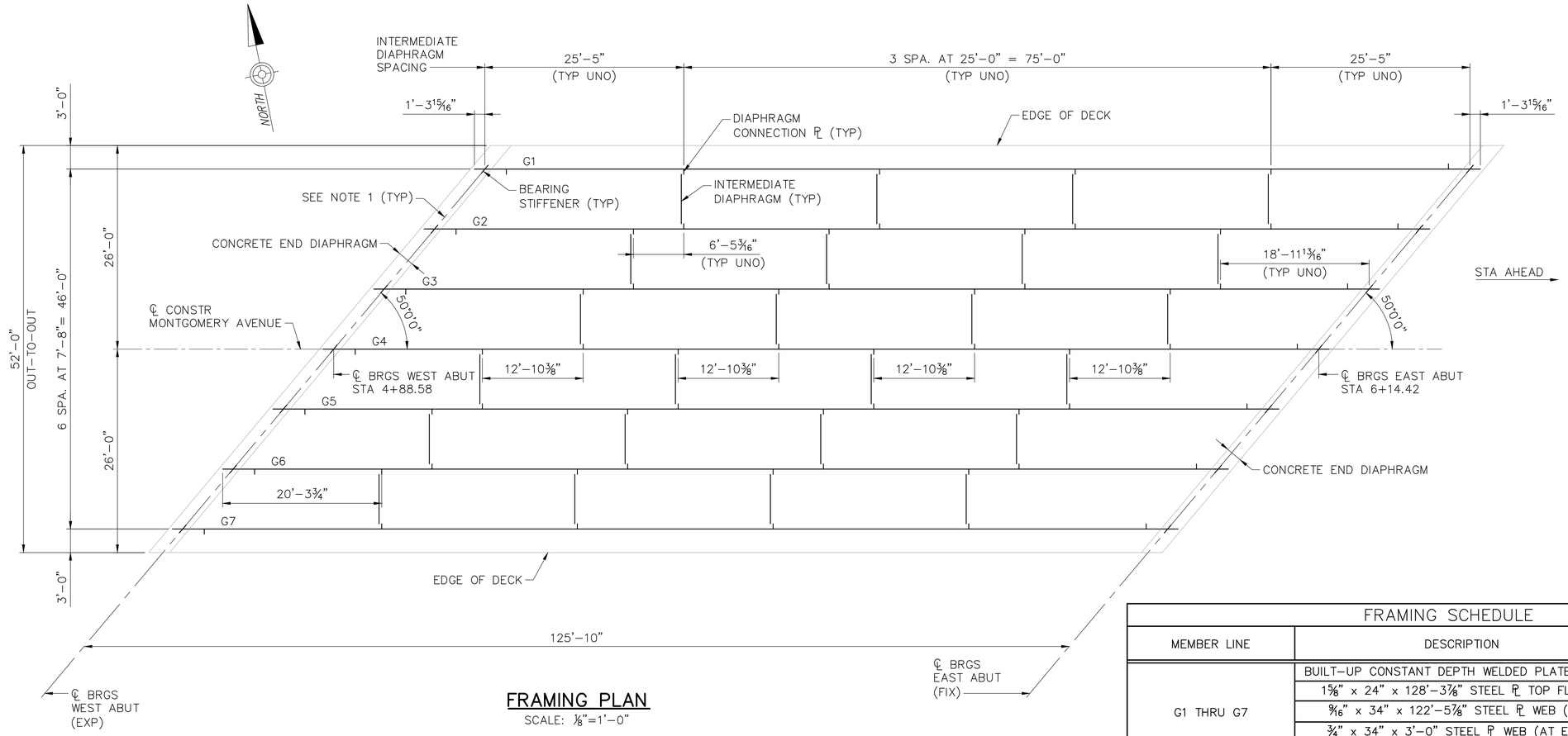
WINGWALLS – 2

RECOMMENDED 9/1/2020

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

DRAWN BY:	AYB/ALS	DATE:	5/20/2020
CHECKED BY:	HNB	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	26 OF 62

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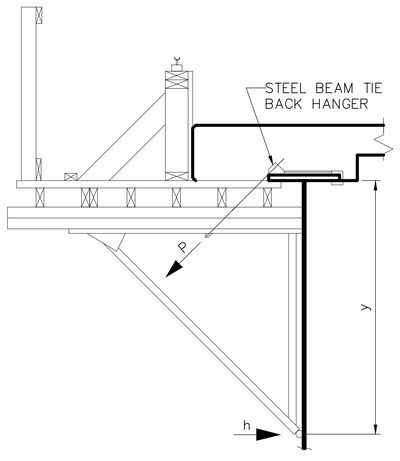
FRAMING PLAN

SCALE: 1/8"=1'-0"

FRAMING SCHEDULE		
MEMBER LINE	DESCRIPTION	REMARKS
G1 THRU G7	BUILT-UP CONSTANT DEPTH WELDED PLATE GIRDER	HYBRID
	1 5/8" x 24" x 128'-3 7/8" STEEL ℄ TOP FLANGE	GRADE 70W
	9/16" x 34" x 122'-5 7/8" STEEL ℄ WEB (TYP)	GRADE 50W
	3/4" x 34" x 3'-0" STEEL ℄ WEB (AT ENDS)	GRADE 50W
	2 3/8" x 26" x 128'-5 7/8" STEEL ℄ BOTTOM FLANGE	GRADE 70W
INTERMEDIATE DIAPHRAGM	3/8" x 1'-8" STEEL BENT ℄	GRADE 50W

NOTES:

1. ERECT TEMPORARY BRACING BETWEEN GIRDERS NEAR THE GIRDER ENDS SUCH THAT THE SPACING BETWEEN THE TEMPORARY BRACING AND THE FIRST INTERIOR DIAPHRAGM IS LESS THAN OR EQUAL TO 25 FEET. THE DESIGN OF THE TEMPORARY BRACING IS THE RESPONSIBILITY OF THE CONTRACTOR. DESIGN THE TEMPORARY BRACING IN ACCORDANCE WITH AASHTO LRFD AND DM-4. LEAVE THE TEMPORARY BRACING IN PLACE UNTIL THE END DIAPHRAGM CONCRETE HAS REACHED ITS SPECIFIED 28-DAY COMPRESSIVE STRENGTH. SUBMIT THE DESIGN OF THE TEMPORARY BRACING TO THE REPRESENTATIVE FOR APPROVAL.
2. FOR GENERAL NOTES, SEE SHEET 5.
3. FOR GIRDER ELEVATION AND DETAILS, SEE SHEET 28.
4. FOR INTERMEDIATE DIAPHRAGM DETAILS, SEE SHEET 28.
5. FOR BEARING DETAILS, SEE SHEET 30.
6. FOR CONCRETE END DIAPHRAGM DETAILS, SEE SHEET 33.



TYPICAL OVERHANG FORMING DETAIL

NOT TO SCALE

NOMINAL DEPTH y (INCHES)	MAXIMUM PERMISSIBLE HORIZONTAL LOAD h (KIP/FT)
36	1.250

MAXIMUM PERMISSIBLE JACK SPACING 4 FT

NOTE:

THE FASCIA GIRDERS ARE DESIGNED FOR A TEMPORARY CONSTRUCTION LOAD APPLIED TO THE WEB AT A MAXIMUM 4 FT INTERVAL. THIS LOAD (SEE TABLE) APPROXIMATES THE HORIZONTAL COMPONENT OF A DECK OVERHANG FORM SUPPORT BRACKET AND CONSISTS OF AN ALLOWANCE FOR THE WEIGHT OF THE CONCRETE, FORMS AND INCIDENTAL LOADS, PLUS THE DECK FINISHING MACHINE. WHERE A TRANSVERSE STIFFENER SPACING, LESS THAN THAT REQUIRED FOR THE FINAL DESIGN SHEAR, IS INDICATED FOR CONSTRUCTABILITY. THE SPACING FOR THE FINAL DESIGN SHEAR MAY BE USED IF THE OVERHANG FORMS ARE SUPPORTED FROM THE BOTTOM FLANGE OF THE FASCIA GIRDER, OR IF THE GIRDER WEB IS ADEQUATELY BRACED TO PREVENT BUCKLING DUE TO LOADS FROM WEB-BEARING FORM SUPPORT BRACKETS. THE CONTRACTOR HAS THE OPTION TO MODIFY THE OVERHANG BRACKET FROM THAT DESCRIBED HEREIN PROVIDED WORKING DRAWINGS INCLUDING CALCULATIONS, SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA, ARE SUBMITTED FOR REVIEW AND ACCEPTANCE AND SHOW THE MODIFICATIONS DO NOT CAUSE UNACCEPTABLE DEFORMATIONS OR STRESSES IN THE BRIDGE AND IT IS UNDERSTOOD THE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR THE SATISFACTORY COMPLETION OF THE BRIDGE.

BAR SCALE KEY

SCALE: 1/8"=1'-0"

8' 0 8'

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER W. SMITH — PE062861

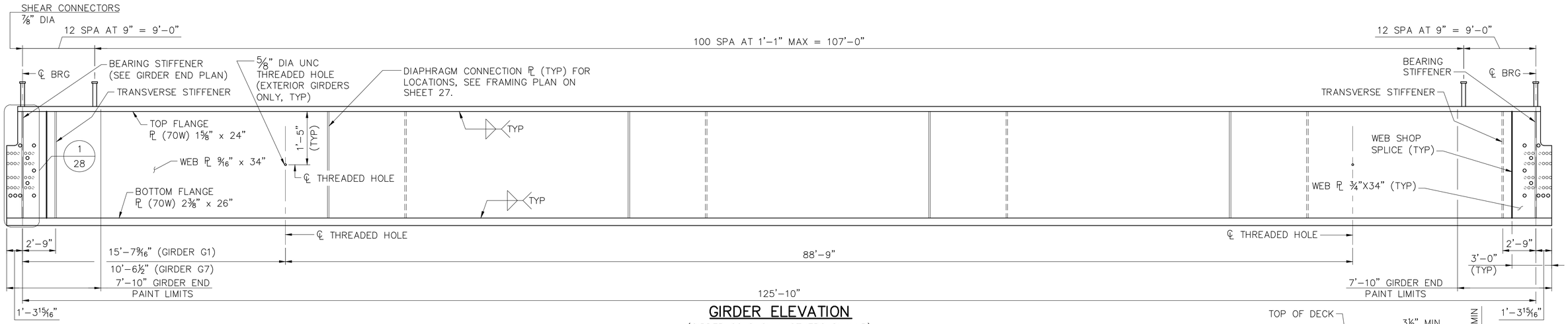
MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201
FRAMING PLAN

RECOMMENDED 9/1/2020

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

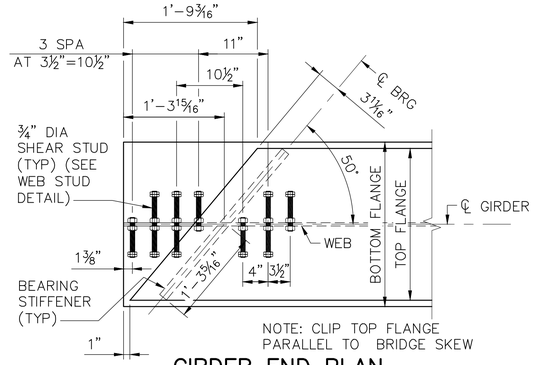
DRAWN BY:	HNB/JAW	DATE:	5/20/2020
CHECKED BY:	AYB	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	27 OF 62

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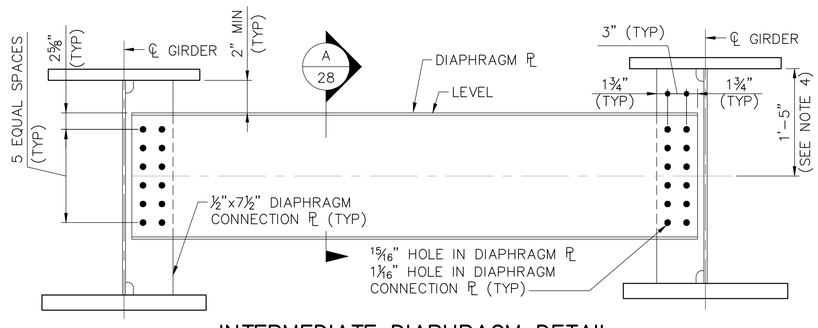
GIRDER ELEVATION

(GIRDER G2 SHOWN, OTHERS SIMILAR)
NOT TO SCALE



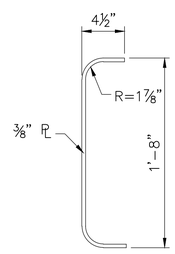
GIRDER END PLAN

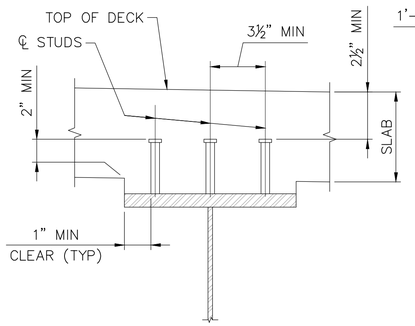
(WEST END OF GIRDER SHOWN, EAST END SIMILAR BUT OPPOSITE HAND)
SCALE: 1" = 1'-0"



INTERMEDIATE DIAPHRAGM DETAIL

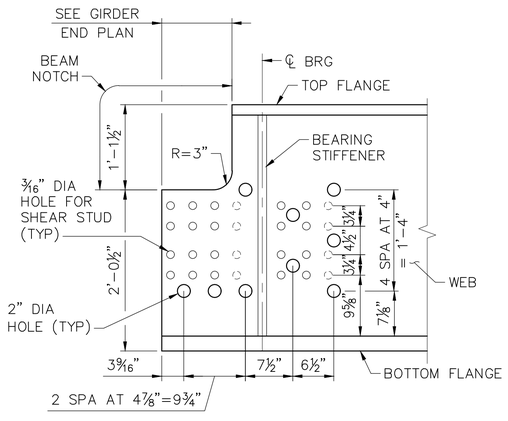
SCALE: 1" = 1'-0"





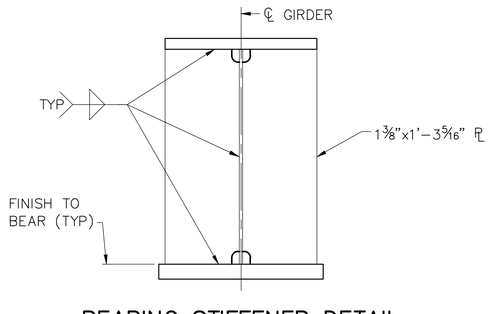
SHEAR CONNECTOR DETAIL

NOT TO SCALE



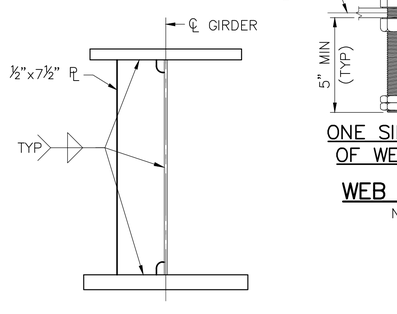
1/28 DETAIL

(WEST END OF GIRDER SHOWN, EAST END SIMILAR BUT OPPOSITE HAND)
SCALE: 1½"=1'-0"



BEARING STIFFENER DETAIL

SCALE: 1" = 1'-0"

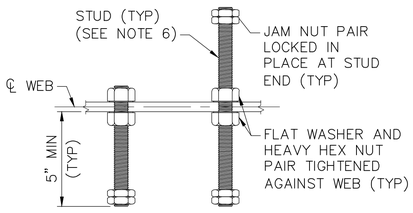


DIAPHRAGM CONNECTION PLATE AND TRANSVERSE STIFFENER DETAIL

SCALE: 1" = 1'-0"

A/28 SECTION

SCALE: 1½"=1'-0"



WEB STUD DETAIL

NOT TO SCALE

BAR SCALE KEY

SCALE: 1"=1'-0"

1' 0 1'

SCALE: 1½"=1'-0"

1' 0 1'

NOTES:

1. PROVIDE STRUCTURAL STEEL FOR TOP AND BOTTOM GIRDER FLANGES CONFORMING TO AASHTO M270 (ASTM A709), GRADE HPS 70W UNPAINTED DESIGNATION.
2. PROVIDE DRIP BARS ON THE GIRDER ENDS AT THE WEST ABUTMENT AND EAST ABUTMENT.
3. UNDER STEEL DEAD LOAD, BEAM ENDS AND ALL BEARINGS ARE TO BE VERTICAL TO WITHIN APPLICABLE AASHTO/AWS FABRICATION AND CONNECTION TOLERANCES.
4. ALIGN THE CENTERLINE OF THE DIAPHRAGM WITH THE HALF DEPTH OF THE GIRDER CLOSEST TO THE CENTERLINE OF CONSTRUCTION.
5. FOR NOTES, DIMENSIONS, AND DETAILS OF GIRDERS NOT SHOWN, SEE BC-753M.
6. PROVIDE STUDS CUT FROM ASTM F1554 GRADE 55 ALL THREAD ROD.
7. FOR NOTES, DIMENSIONS, AND DETAILS OF INTERMEDIATE DIAPHRAGMS NOT SHOW, SEE BC-754M.
8. FOR GENERAL NOTES, SEE SHEET 5.
9. FOR FRAMING PLAN, SEE SHEET 27
10. FOR CAMBER DETAILS, SEE SHEET 29.
11. FOR BEARING DETAILS, SEE SHEET 30.
12. FOR END DIAPHRAGM DETAILS, SEE SHEETS 33 AND 34.
13. FOR GROUNDING AND BONDING DETAILS, SEE ELECTRIFICATION MODIFICATION PLANS SHEETS ET-13 THRU ET-15.

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — CHRISTOPHER W. SMITH — ENGINEER PE062861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE B-0185-2001 / L-201

GIRDER ELEVATION & DETAILS

RECOMMENDED 9/1/2020

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

DRAWN BY:	HNB/JAW	DATE:	8/18/2020
CHECKED BY:	AYB	DATE:	8/18/2020
SCALE:	AS NOTED	SHEET:	28 OF 62

File: Q:\3436.10\CADD\Structural\Final Design\S226000028FXX_GIRDER ELEVATION
Plotted 8/19/2020 1:50:06 PM by STUM, AMELIA L.

CAMBER ORDINATES (INCHES)												
GIRDER NUMBER	CAMBER	℄ BEARING WEST ABUTMENT	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	℄ BEARING EAST ABUTMENT
G1 EXTERIOR	A	0.00	0.86	1.62	2.22	2.59	2.72	2.59	2.21	1.62	0.86	0.00
	B	0.00	1.68	3.17	4.34	5.08	5.33	5.07	4.33	3.16	1.67	0.00
	C	0.00	1.08	2.06	2.83	3.33	3.50	3.33	2.84	2.07	1.09	0.00
	D	0.00	5.14	9.13	11.99	13.70	14.27	13.70	11.99	9.13	5.14	0.00
	TOTAL	0.00	8.76	15.98	21.38	24.70	25.82	24.69	21.37	15.98	8.76	0.00
G2 INTERIOR	A	0.00	0.86	1.63	2.23	2.61	2.74	2.61	2.23	1.63	0.86	0.00
	B	0.00	1.78	3.37	4.60	5.39	5.66	5.39	4.60	3.37	1.79	0.00
	C	0.00	0.61	1.18	1.66	2.00	2.15	2.10	1.82	1.35	0.73	0.00
	D	0.00	5.14	9.13	11.99	13.70	14.27	13.70	11.99	9.13	5.14	0.00
	TOTAL	0.00	8.39	15.31	20.48	23.70	24.82	23.80	20.64	15.48	8.52	0.00
G3 INTERIOR	A	0.00	0.86	1.63	2.23	2.61	2.74	2.61	2.23	1.63	0.86	0.00
	B	0.00	1.79	3.38	4.62	5.41	5.68	5.41	4.62	3.38	1.79	0.00
	C	0.00	0.39	0.75	1.04	1.25	1.34	1.30	1.14	0.85	0.46	0.00
	D	0.00	5.14	9.13	11.99	13.70	14.27	13.70	11.99	9.13	5.14	0.00
	TOTAL	0.00	8.18	14.89	19.88	22.97	24.03	23.02	19.98	14.99	8.25	0.00
G4 INTERIOR	A	0.00	0.86	1.63	2.23	2.61	2.74	2.61	2.23	1.63	0.86	0.00
	B	0.00	1.79	3.38	4.62	5.41	5.68	5.41	4.62	3.38	1.79	0.00
	C	0.00	0.34	0.64	0.88	1.02	1.07	1.02	0.88	0.64	0.34	0.00
	D	0.00	5.06	9.06	11.93	13.65	14.23	13.66	11.96	9.12	5.13	0.00
	TOTAL	0.00	8.05	14.71	19.66	22.69	23.72	22.70	19.69	14.77	8.12	0.00
G5 INTERIOR	A	0.00	0.86	1.63	2.23	2.61	2.74	2.61	2.23	1.63	0.86	0.00
	B	0.00	1.79	3.38	4.62	5.41	5.68	5.41	4.62	3.38	1.79	0.00
	C	0.00	0.46	0.85	1.13	1.30	1.33	1.24	1.04	0.75	0.39	0.00
	D	0.00	4.59	8.71	11.61	13.38	14.00	13.48	11.83	9.03	5.08	0.00
	TOTAL	0.00	7.70	14.57	19.59	22.70	23.75	22.74	19.72	14.79	8.12	0.00
G6 INTERIOR	A	0.00	0.86	1.63	2.23	2.61	2.74	2.61	2.23	1.63	0.86	0.00
	B	0.00	1.78	3.36	4.60	5.38	5.65	5.38	4.60	3.36	1.78	0.00
	C	0.00	0.73	1.35	1.82	2.08	2.14	1.98	1.65	1.17	0.60	0.00
	D	0.00	4.09	8.11	11.09	12.93	13.63	13.19	11.60	8.88	5.01	0.00
	TOTAL	0.00	7.46	14.45	19.74	23.00	24.16	23.16	20.08	15.04	8.25	0.00
G7 EXTERIOR	A	0.00	0.86	1.62	2.21	2.59	2.72	2.59	2.22	1.62	0.86	0.00
	B	0.00	1.67	3.15	4.31	5.05	5.31	5.06	4.33	3.16	1.68	0.00
	C	0.00	1.11	2.09	2.85	3.33	3.47	3.29	2.78	2.01	1.05	0.00
	D	0.00	3.61	7.21	10.36	12.30	13.11	12.77	11.29	8.67	4.91	0.00
	TOTAL	0.00	7.25	14.07	19.73	23.27	24.61	23.71	20.62	15.46	8.50	0.00

CAMBER ORDINATES LEGEND:

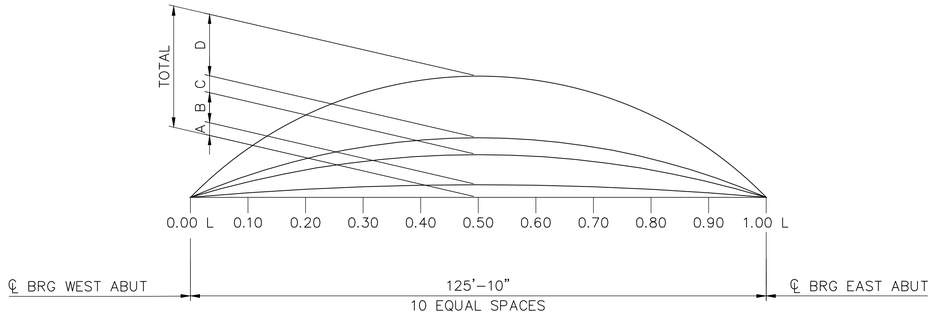
A = CAMBER DUE TO WEIGHT OF STEEL.

B = CAMBER DUE TO CONCRETE DECK AND STAY-IN-PLACE FORMS (DOES NOT INCLUDE FUTURE WEARING SURFACE).

C = CAMBER DUE TO LIGHTWEIGHT CONCRETE PROTECTIVE BARRIER, SIDEWALK, PARAPET, PILASTERS AND PARAPET MOUNTED PROTECTIVE FENCE.

D = CAMBER DUE TO VERTICAL CURVATURE.

TOTAL = TOTAL CAMBER.



CAMBER DIAGRAM

(GIRDER G7 SHOWN, GIRDERS G1 THRU G6 SIMILAR)
NOT TO SCALE

NOTES:

1. POSITIVE CAMBER IS UPWARD.
2. FOR GENERAL NOTES, SEE SHEET 5.
3. FOR FRAMING PLAN, SEE SHEET 27.
4. FOR GIRDER ELEVATIONS AND DETAILS, SEE SHEET 28.

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

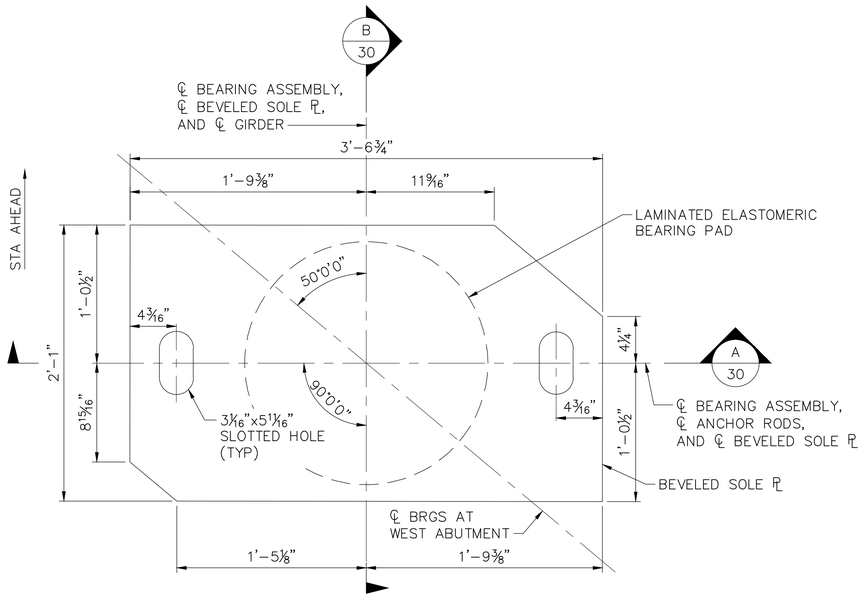
MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201
GIRDER CAMBER

RECOMMENDED 9/1/2020

PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

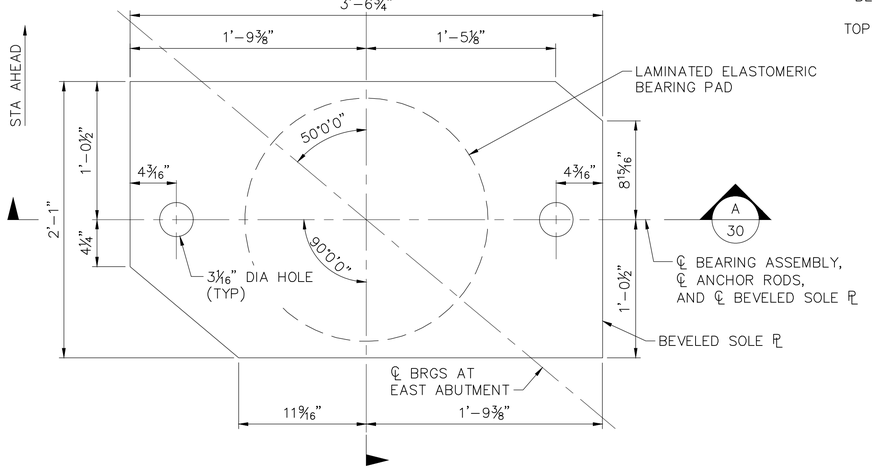
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CHECKED BY:	HNB	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	29 OF 62

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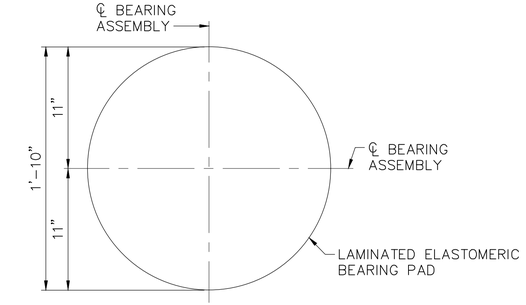
PLAN–WEST ABUTMENT ELASTOMERIC BEARING

(ANCHOR RODS AND GIRDER NOT SHOWN FOR CLARITY)
NOT TO SCALE

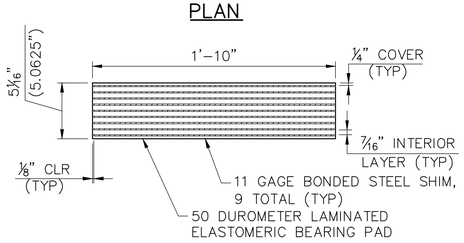


PLAN–EAST ABUTMENT ELASTOMERIC BEARING

(ANCHOR RODS AND GIRDER NOT SHOWN FOR CLARITY)
NOT TO SCALE



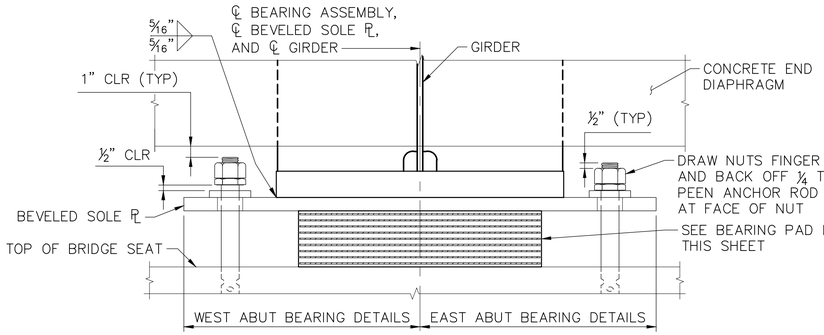
PLAN



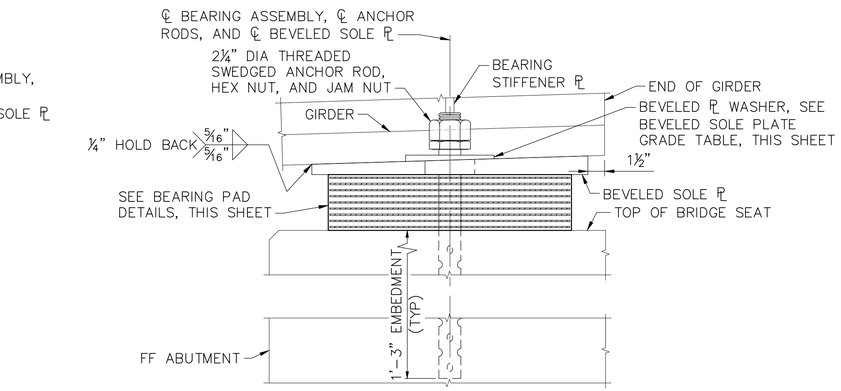
ELEVATION

BEARING PAD DETAILS

NOT TO SCALE

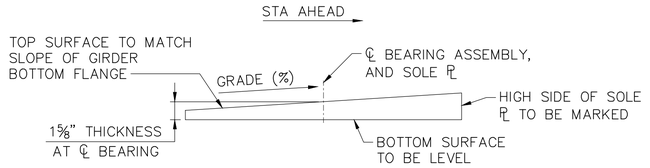


A 30 SECTION
NOT TO SCALE



B 30 SECTION
NOT TO SCALE

(BEARING AT WEST ABUTMENT SHOWN, BEARING
AT EAST ABUTMENT SIMILAR UNLESS NOTED)



BEVELED SOLE PLATE DETAIL

(SEE BEVELED SOLE PLATE GRADE TABLE, THIS SHEET)
NOT TO SCALE

BEVELED SOLE PLATE GRADE		
GIRDER	LOCATION	GRADE
G1	WEST ABUTMENT	+3.523%
	EAST ABUTMENT	−4.036%
G2	WEST ABUTMENT	+3.910%
	EAST ABUTMENT	−3.649%
G3	WEST ABUTMENT	+4.296%
	EAST ABUTMENT	−3.263%
G4	WEST ABUTMENT	+4.297%
	EAST ABUTMENT	−2.876%
G5	WEST ABUTMENT	+4.297%
	EAST ABUTMENT	−2.490%
G6	WEST ABUTMENT	+4.297%
	EAST ABUTMENT	−2.104%
G7	WEST ABUTMENT	+4.297%
	EAST ABUTMENT	−1.717%

NOTES:

1. SMOOTH CUT AND DEBURR STEEL SHIMS.
2. GRIT BLAST AND DEGREASE STEEL SHIMS.
3. PROVIDE INTERNAL SHIMS AS PER ASTM A1011 GRADE 36.
4. ELASTOMERIC BEARING PAD THICKNESS SHOWN IS UNCOMPRESSED.
5. NO FIELD WELD OR SHOP WELD SHALL BE MADE WHILE THE ELASTOMERIC BEARING PAD IS IN CONTACT WITH STEEL UNLESS THERE IS AT LEAST 1½" OF STEEL BETWEEN THE ELASTOMER AND WELD.
6. DO NOT EXPOSE THE ELASTOMER TO INSTANTANEOUS TEMPERATURES GREATER THAN 300°F. ANY DAMAGE TO ELASTOMERIC BEARING DUE TO WELDING WILL BE CAUSE FOR REJECTION.
7. ANCHOR RODS TO BE ASTM F1554, GRADE 105. ANCHOR RODS, NUTS, AND WASHERS TO BE HOT DIP GALVANIZED.
8. CONSTRUCTION TOLERANCES OF 0.005 AND 0.003 RADIANS WERE INCLUDED ABOUT THE TRANSVERSE AND LONGITUDINAL AXIS, RESPECTIVELY, OF THE GIRDER FOR THE BEARING DESIGN.
9. SANDBLAST CLEAN THE CONCRETE BEARING SURFACE BELOW THE ELASTOMERIC BEARING PAD TO ACHIEVE A ROUGH TEXTURE.
10. FOR ADDITIONAL BEARING NOTES, DIMENSIONS, AND DETAILS, SEE BC–755M.
11. FOR ABUTMENT DETAILS, SEE SHEETS 15 THRU 24.
12. FOR GIRDER DETAILS, SEE SHEET 28.
13. FOR CONCRETE END DIAPHRAGM DETAILS, SEE SHEET 33

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
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PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
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CHRISTOPHER W. SMITH
ENGINEER
PE062861

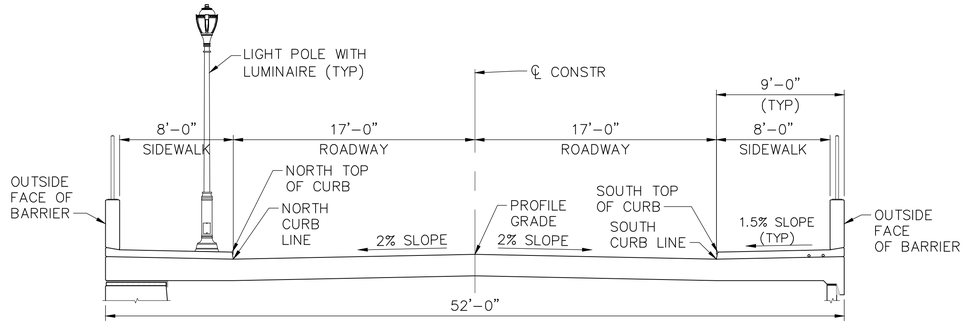
MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B–0185–2001 / L–201
BEARING DETAILS

RECOMMENDED 9/1/2020

PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

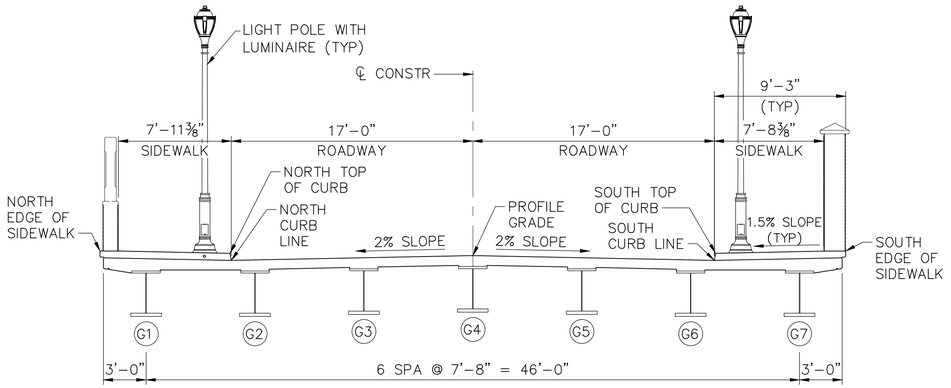
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CHECKED BY:	PT	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	30 OF 62

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TYPICAL APPROACH SLAB SECTION

SCALE: 3/16" = 1'–0"



TYPICAL BRIDGE SECTION

SCALE: 3/16" = 1'–0"

FINISHED DECK ELEVATIONS AT 10 FT INTERVALS

STATION	NORTH EDGE OF SIDEWALK	NORTH TOP OF CURB	NORTH CURB LINE	PROFILE GRADE	SOUTH CURB LINE	SOUTH TOP OF CURB	SOUTH EDGE OF SIDEWALK
4+65.72	–	–	–	116.87	–	–	117.15
4+70.00	–	–	–	117.05	–	–	117.33
4+73.41	–	–	–	117.20	–	117.36	117.48
4+73.48	–	–	–	117.20	116.86	117.36	117.48
4+80.00	–	–	–	117.48	117.14	117.64	117.76
4+87.74	–	–	–	117.81	117.47	117.97	118.09
4+90.00	–	–	–	117.91	117.57	118.07	118.19
5+00.00	–	–	–	118.34	118.00	118.50	118.62
5+02.01	–	–	118.08	118.42	118.08	118.58	118.70
5+02.08	–	118.58	118.08	118.42	118.08	118.58	118.70
5+09.77	118.98	118.86	118.36	118.70	118.36	118.86	118.98
5+10.00	118.99	118.87	118.37	118.71	118.37	118.87	118.99
5+20.00	119.30	119.18	118.68	119.02	118.68	119.18	119.30
5+30.00	119.55	119.43	118.93	119.27	118.93	119.43	119.55
5+40.00	119.74	119.62	119.12	119.46	119.12	119.62	119.74
5+50.00	119.86	119.74	119.24	119.58	119.24	119.74	119.86
5+60.00	119.93	119.81	119.31	119.65	119.31	119.81	119.93
5+70.00	119.94	119.82	119.32	119.66	119.32	119.82	119.94
5+80.00	119.89	119.77	119.27	119.61	119.27	119.77	119.89
5+90.00	119.78	119.66	119.16	119.50	119.16	119.66	119.78
5+93.23	119.73	119.61	119.11	119.45	119.11	119.61	119.73
6+00.00	119.61	119.49	118.99	119.33	118.99	119.49	–
6+00.92	119.59	119.47	118.97	119.31	118.97	119.47	–
6+00.99	119.59	119.47	118.97	119.31	118.97	–	–
6+10.00	119.38	119.26	118.76	119.10	–	–	–
6+15.26	119.23	119.11	118.61	118.95	–	–	–
6+20.00	119.09	118.97	118.47	118.81	–	–	–
6+29.52	118.76	118.64	118.14	118.48	–	–	–
6+29.59	118.75	118.63	–	118.47	–	–	–
6+30.00	118.74	–	–	118.46	–	–	–
6+37.28	118.44	–	–	118.16	–	–	–

FINISHED WEST APPROACH SLAB ELEVATIONS AT 10 FT INTERVALS

STATION	NORTH EDGE OF SIDEWALK	NORTH TOP OF CURB	NORTH CURB LINE	PROFILE GRADE	SOUTH CURB LINE	SOUTH TOP OF CURB	SOUTH EDGE OF SIDEWALK
4+36.66	–	–	–	115.62	–	–	115.90
4+40.00	–	–	–	115.76	–	–	116.04
4+43.30	–	–	–	115.90	–	116.06	116.18
4+43.37	–	–	–	115.91	115.57	116.07	116.19
4+50.00	–	–	–	116.19	115.85	116.35	116.47
4+57.64	–	–	–	116.52	116.18	116.68	116.80
4+60.00	–	–	–	116.62	116.28	116.78	116.90
4+65.82	–	–	–	116.87	116.53	117.03	117.15
4+70.00	–	–	–	117.05	116.71	117.21	–
4+71.90	–	–	116.64	116.98	116.64	117.14	–
4+71.97	–	117.14	116.64	116.98	116.64	117.14	–
4+73.30	–	117.35	116.85	117.19	116.85	117.35	–
4+73.37	–	117.36	116.86	117.20	116.86	–	–
4+78.61	117.63	117.51	117.01	117.35	–	–	–
4+80.00	117.76	117.64	117.14	117.48	–	–	–
4+87.64	118.09	117.97	117.47	117.81	–	–	–
4+88.58	118.13	118.01	117.51	117.85	–	–	–
4+90.00	118.19	118.07	117.57	117.91	–	–	–
4+95.00	118.41	118.29	117.79	118.13	–	–	–

FINISHED EAST APPROACH SLAB ELEVATIONS AT 10 FT INTERVALS

STATION	NORTH EDGE OF SIDEWALK	NORTH TOP OF CURB	NORTH CURB LINE	PROFILE GRADE	SOUTH CURB LINE	SOUTH TOP OF CURB	SOUTH EDGE OF SIDEWALK
5+93.55	–	–	–	119.45	–	–	119.73
6+00.00	–	–	–	119.33	–	–	119.61
6+01.03	–	–	–	119.31	–	119.47	119.59
6+01.10	–	–	–	119.31	118.97	119.47	119.59
6+10.00	–	–	–	119.10	118.76	119.26	119.38
6+14.42	–	–	–	118.98	118.64	119.14	119.26
6+15.36	–	–	–	118.95	118.61	119.11	119.23
6+20.00	–	–	–	118.81	118.47	118.97	119.09
6+24.39	–	–	–	118.66	118.32	118.82	118.94
6+29.63	–	–	118.13	118.47	118.13	118.63	–
6+29.70	–	118.63	118.13	118.47	118.13	118.63	–
6+30.00	–	118.62	118.12	118.46	118.12	118.62	–
6+31.03	–	118.58	118.08	118.42	118.08	118.58	–
6+31.10	–	118.57	118.07	118.41	118.07	–	–
6+37.18	118.45	118.33	117.83	118.17	–	–	–
6+39.00	118.37	118.25	117.75	118.09	–	–	–
6+40.00	118.33	118.21	117.71	118.05	–	–	–
6+45.36	118.08	117.96	117.46	117.80	–	–	–
6+50.00	117.89	117.77	117.27	117.61	–	–	–

FINISHED DECK ELEVATIONS AT ℄ GIRDER

GIRDER NUMBER	℄ BRGS WEST ABUT		℄ BRGS EAST ABUT	
	STATION	ELEVATION	STATION	ELEVATION
G1	5+07.88	118.41	6+33.72	118.09
G2	5+01.45	118.09	6+27.29	118.25
G3	4+95.01	117.98	6+20.85	118.63
G4	4+88.58	117.85	6+14.42	118.98
G5	4+82.15	117.42	6+07.99	119.00
G6	4+75.71	116.99	6+01.55	118.99
G7	4+69.28	116.80	5+95.12	119.20

BAR SCALE KEY

SCALE: 3/16"=1'–0"

4' 0 4'

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

NUMBER	REVISIONS	BY	DATE

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B–0185–2001 / L–201

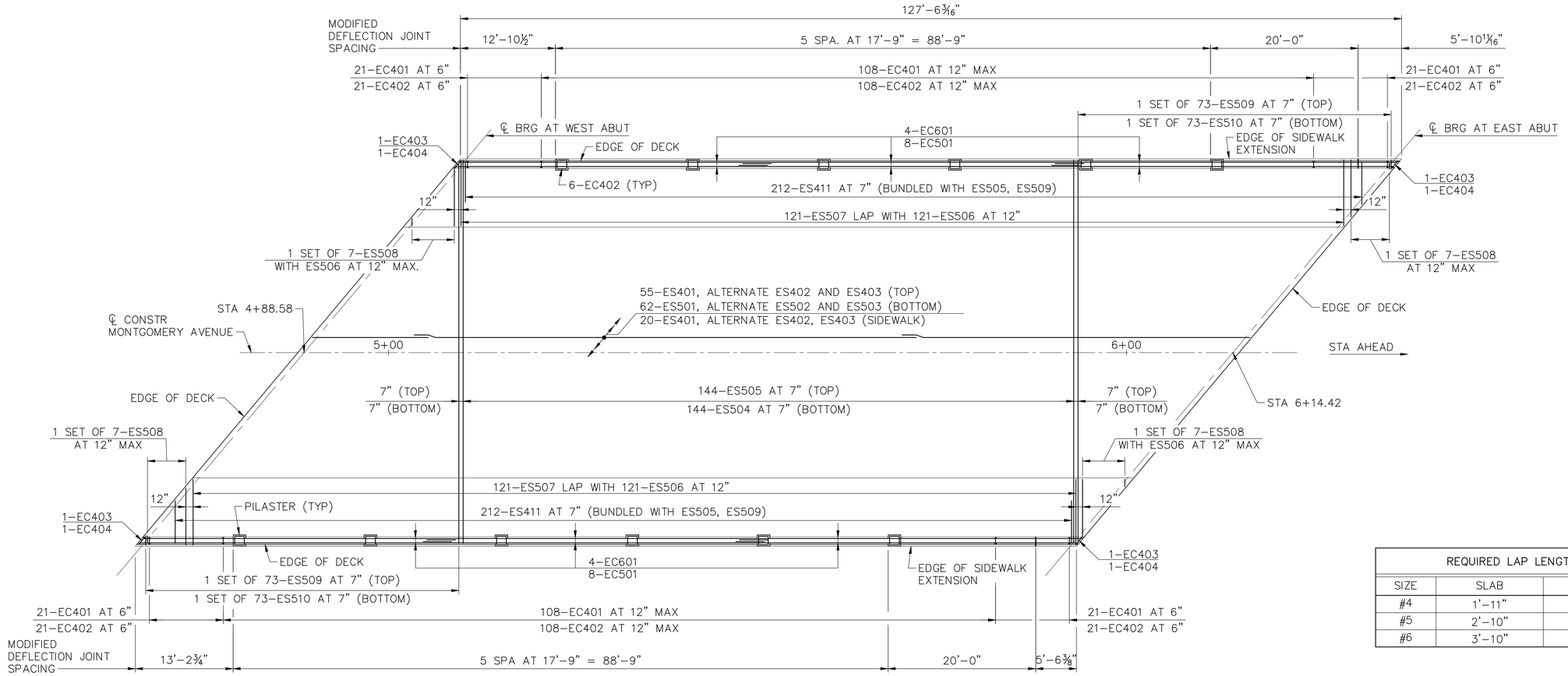
FINISHED DECK ELEVATIONS

RECOMMENDED 9/1/2020

PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	AYB/JAW	DATE:	5/20/2020
CHECKED BY:	PT	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	31 OF 62

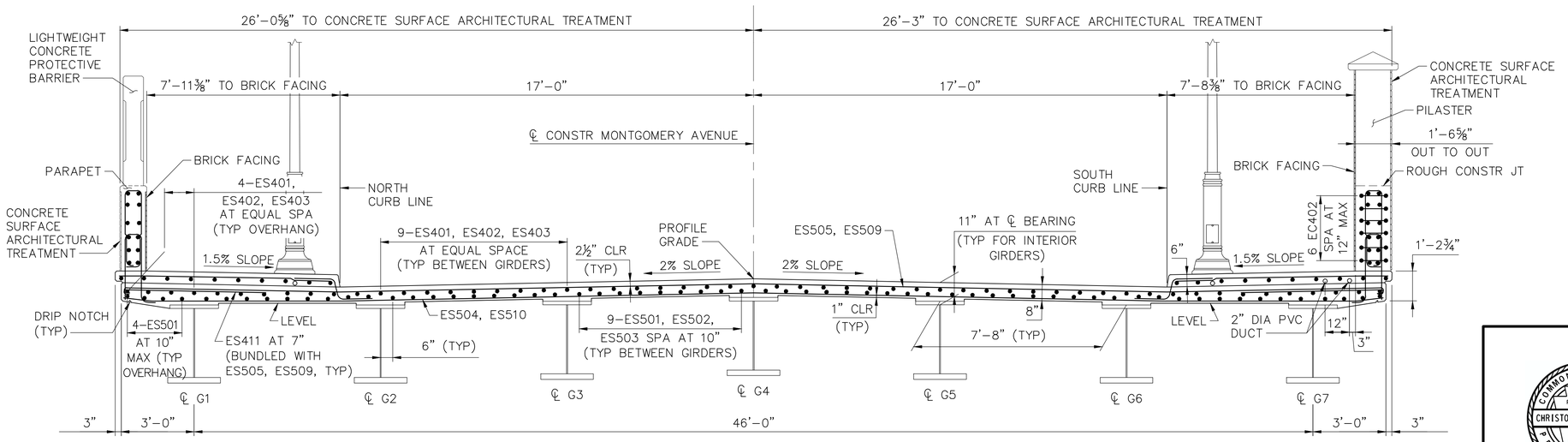
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PLAN

(CONCRETE END DIAPHRAGM NOT SHOWN FOR CLARITY)
SCALE: 1/8"=1'-0"

REQUIRED LAP LENGTH		
SIZE	SLAB	BARRIER
#4	1'-11"	–
#5	2'-10"	3'-7"
#6	3'-10"	4'-4"



TYPICAL DECK SECTION

(SECTION OVER ELECTRIFIED AREA SHOWN, SECTION OVER NON ELECTRIFIED AREA SIMILAR)
SCALE: 3/8"=1'-0"

BAR SCALE KEY

SCALE: 3/16"=1'-0"
4' 0 4'

SCALE: 3/8"=1'-0"
2' 0 2'

NOTES:

1. FOR MODIFIED DEFLECTION JOINT DETAILS, SEE BC-752M.
2. FOR DRIP NOTCH DETAILS, SEE BC-775M.
3. FOR CONDUIT DETAILS, SEE LIGHTING PLANS.
4. FOR GENERAL NOTES, SEE SHEET 5.
5. FOR FINISHED DECK ELEVATIONS, SEE SHEET 31.
6. WORK THIS SHEET WITH SHEETS 33 AND 34.
7. FOR PARAPET MOUNTED PROTECTIVE FENCE AND LIGHTWEIGHT CONCRETE PROTECTIVE BARRIER DETAILS, SEE SHEETS 35 THRU 37.

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

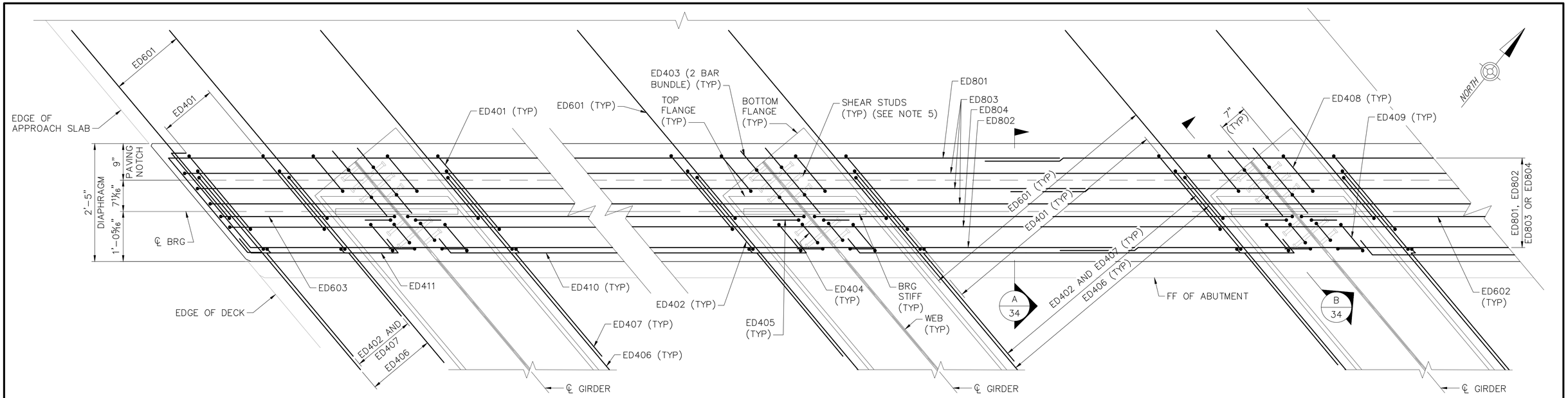
MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201
SLAB PLAN

RECOMMENDED 9/1/2020

PREPARED FOR
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PHILADELPHIA, PA

DRAWN BY:	HNB/JAW	DATE:	5/20/2020
CHECKED BY:	AYB	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	32 OF 62

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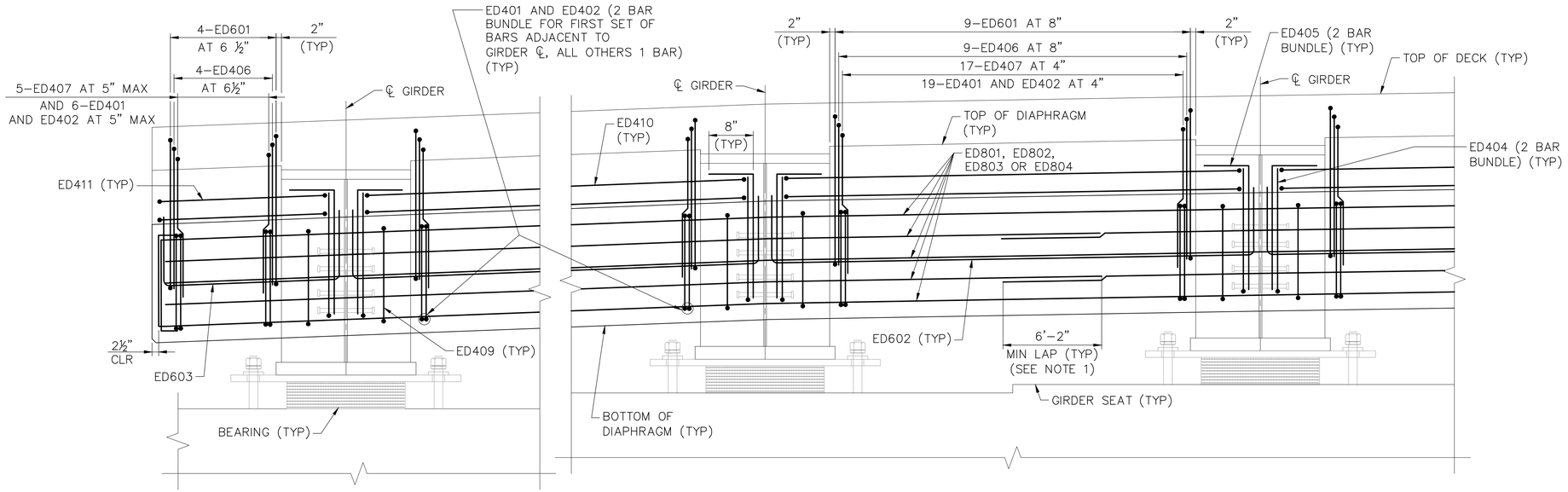


TYPICAL OVERHANG

TYPICAL BETWEEN GIRDERS

PLAN – END DIAPHRAGM

SCALE: 1"=1'–0"
(WEST ABUTMENT END DIAPHRAGM SHOWN)
(REINFORCEMENT SIMILAR AT EAST ABUTMENT END DIAPHRAGM)



TYPICAL OVERHANG

TYPICAL BETWEEN GIRDERS

ELEVATION – END DIAPHRAGM

SCALE: 1"=1'–0"
(LOOKING BACKSTATION AT WEST ABUTMENT END DIAPHRAGM)
(REINFORCEMENT SIMILAR AT THE EAST ABUTMENT END DIAPHRAGM)

BAR SCALE KEY

SCALE: 1"=1'–0"

1' 0 1'

NOTES:

1. ALTERNATE ED801, ED802, ED803 AND ED804 LAP SPLICE LOCATIONS FOR ADJACENT BARS. SPLICES TO OCCUR BETWEEN GIRDERS G3 AND G4, AND G4 AND G5.
2. ASSUMED JACKING LOCATIONS ARE WITHIN 2'–6" FROM THE CENTERLINE OF GIRDER (MEASURED ALONG THE CENTERLINE BEARING) FOR REGIONS BETWEEN GIRDERS AND WITHIN THE REINFORCEMENT CAGE OF THE END DIAPHRAGMS FOR OVERHANG REGIONS.
3. FOR GENERAL NOTES, SEE SHEET 5
4. FOR FRAMING PLAN, SEE SHEETS 27.
5. FOR GIRDER DETAILS, SEE SHEET 28.
6. FOR BEARING DETAILS, SEE SHEET 30.
7. WORK THIS SHEET WITH SHEETS 32 AND 34.
8. FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 44 THRU 50.

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER W. SMITH — PE062861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE B-0185-2001 / L-201

MISCELLANEOUS SUPERSTRUCTURE DETAILS – 1

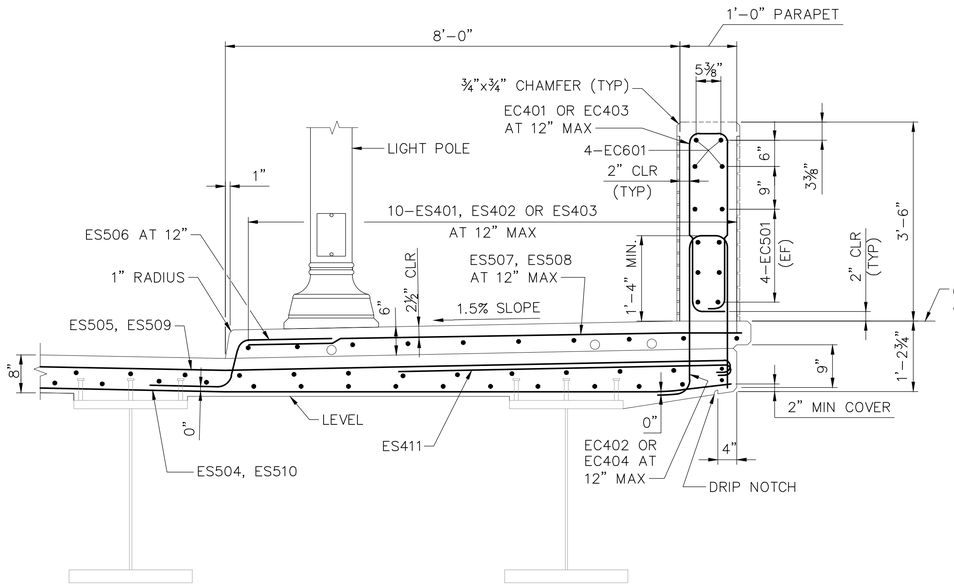
RECOMMENDED 9/1/2020

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

DRAWN BY:	TAH/JAW/ALS	DATE:	5/20/2020
CHECKED BY:	MDC	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	33 OF 62

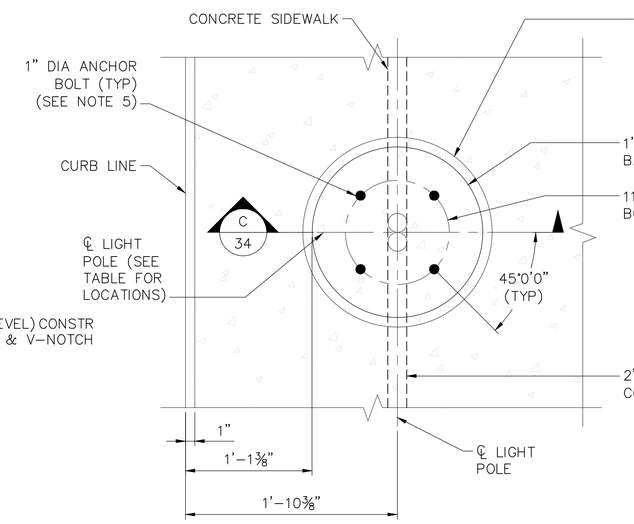
MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

File: Q:\3436.10\CADD\Structural\Final Design\S22600033OFXX_MISC SUPSTRUC DETAILS-1
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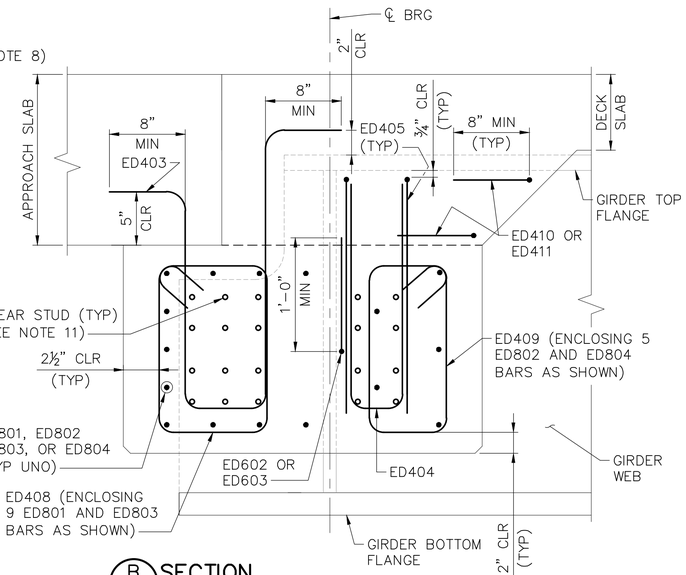
TYPICAL SIDEWALK SECTION

(SIDEWALK WITH PARAPET SHOWN, SIDEWALK WITH PILASTER SIMILAR)
(PILASTER AND PROTECTIVE BARRIER REINFORCEMENT HAS NOT BEEN SHOWN FOR CLARITY)
SCALE: ¾"=1'-0"



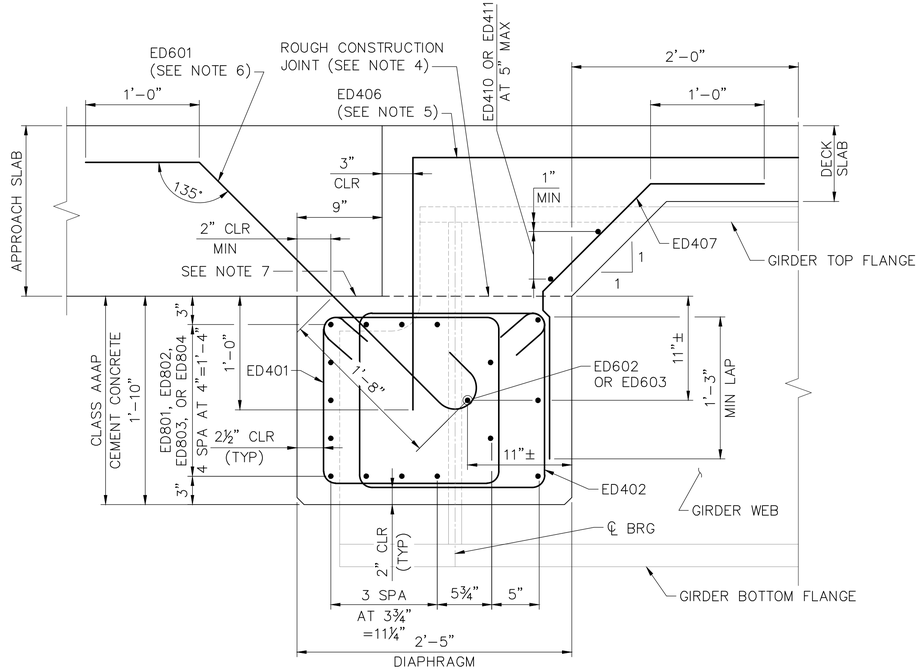
LIGHT POLE BASE PLAN

SCALE: 1½"=1'-0"



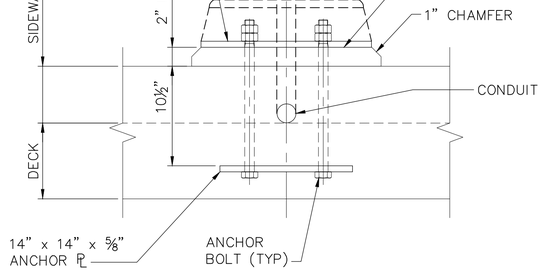
B/33 SECTION

(APPROACH SLAB REINFORCEMENT, DECK SLAB REINFORCEMENT, AND ABUTMENT BACKWALL NOT SHOWN FOR CLARITY)
(REINFORCEMENT SIMILAR ON OPPOSITE SIDE OF GIRDER WEB)
SCALE: 1½" = 1'-0"



A/33 SECTION

(APPROACH SLAB REINFORCEMENT, DECK SLAB REINFORCEMENT, AND ABUTMENT BACKWALL NOT SHOWN FOR CLARITY)
SCALE: 1½" = 1'-0"



C/34 SECTION

SCALE: 1½" = 1'-0"

(SIDEWALK AND DECK REINFORCEMENT NOT SHOWN FOR CLARITY)

NOTES:

1. ANCHOR BOLTS SHALL BE ASTM F1554 GRADE 55, MECHANICALLY GALVANIZED AS PER PUBLICATION 408 SECTION 1105.02(A)3.
2. SET ANCHOR BOLTS ACCURATELY BY THE TEMPLATE PROVIDED BY THE MANUFACTURER, TO THE CORRECT ELEVATION AND ALIGNMENT AND SECURELY BRACE AGAINST DISPLACEMENT BEFORE THE SURROUNDING CONCRETE IS PLACED.
3. SET LIGHTING POLES TRULY VERTICAL WITH BASES LEVEL.
4. PLACE PORTION OF DIAPHRAGM TO THE CONSTRUCTION JOINT ELEVATION INDICATED. WAIT TWO HOURS MINIMUM BEFORE PLACING DECK CONCRETE.
5. PLACE TOP LEG OF BAR PARALLEL TO AND ON THE SAME PLANE AS THE TOP LONGITUDINAL DECK SLAB REINFORCEMENT.
6. PLACE PARALLEL TO GIRDERS AND SPACE BETWEEN GIRDER FLANGES. PLACE TOP LEG OF BAR PARALLEL TO AND ON THE SAME PLANE AS THE TOP LONGITUDINAL APPROACH SLAB REINFORCEMENT.
7. COAT WITH AN APPROVED EPOXY BONDING COMPOUND PRIOR TO PLACING APPROACH SLAB CONCRETE.
8. CONCRETE TO BE CLASS AAAP CEMENT CONCRETE.
9. FOR DETAILS OF LIGHT POLE, SEE LIGHTING PLAN.
10. FOR GENERAL NOTES, SEE SHEET 5.
11. FOR GIRDER DETAILS, SEE SHEET 28.
12. WORK THIS SHEET WITH SHEETS 32 AND 33.
13. FOR PAVING NOTCH AND WATERSTOP DETAILS, SEE SHEET 40.
14. FOR LIGHTWEIGHT CONCRETE PROTECTIVE BARRIER AND PARAPET DETAILS, SEE SHEETS 35 THRU 37.
15. FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 44 THRU 50.

LIGHT POLE LOCATIONS

STATION	OFFSET
4+85.39	18.86' LT, RT
5+35.39	18.86' LT, RT
5+90.39	18.86' LT, RT
6+44.39	18.86' LT, RT

BAR SCALE KEY

SCALE: ¾"=1'-0"
1' 0 1'

SCALE: 1"=1'-0"
1' 0 1'

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

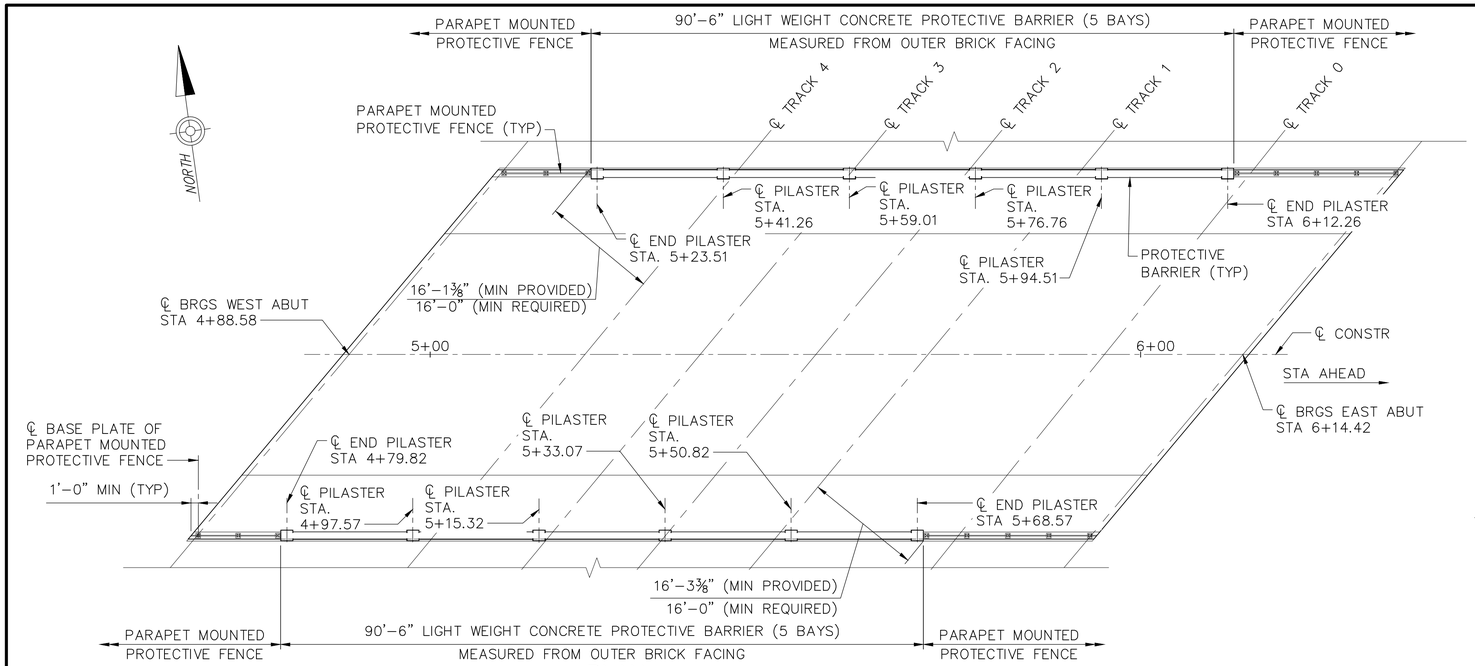
MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201
MISCELLANEOUS SUPERSTRUCTURE DETAILS – 2

RECOMMENDED 9/1/2020

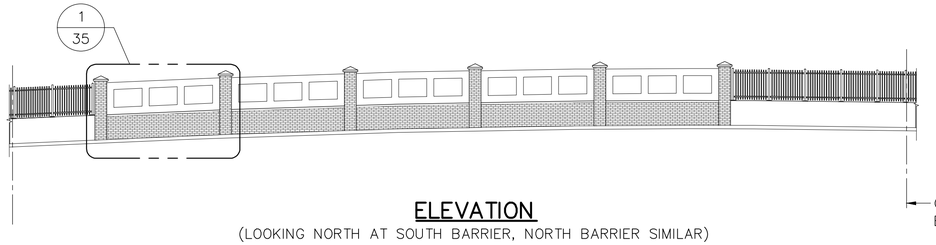
PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	HNB/JAW/EJP	DATE:	8/18/2020
CHECKED BY:	AYB/MDC	DATE:	8/18/2020
SCALE:	AS NOTED	SHEET:	34 OF 62

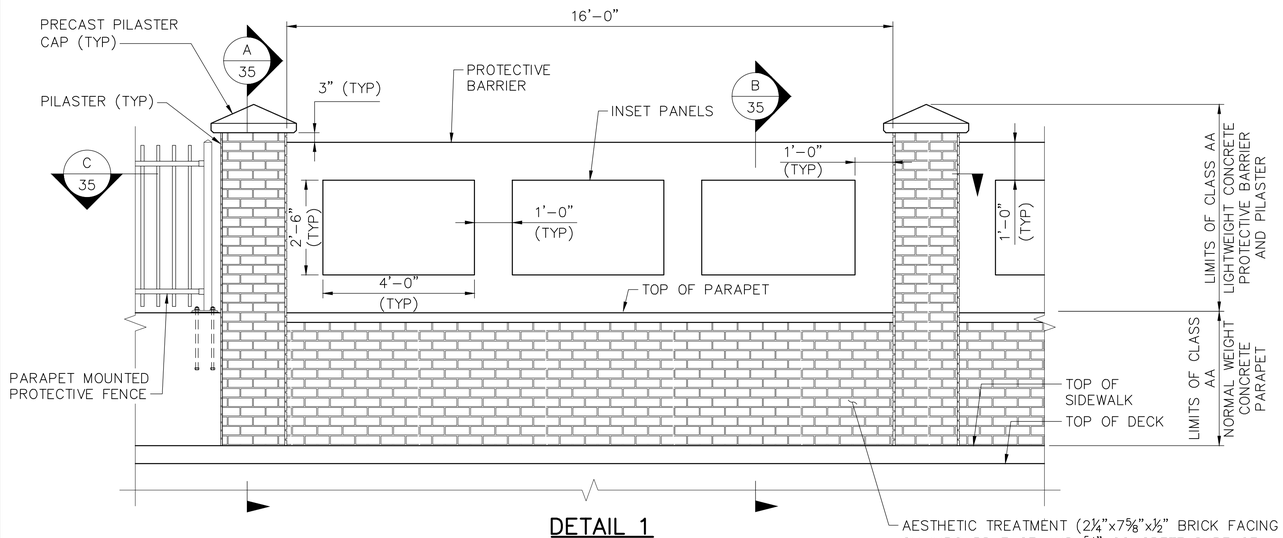
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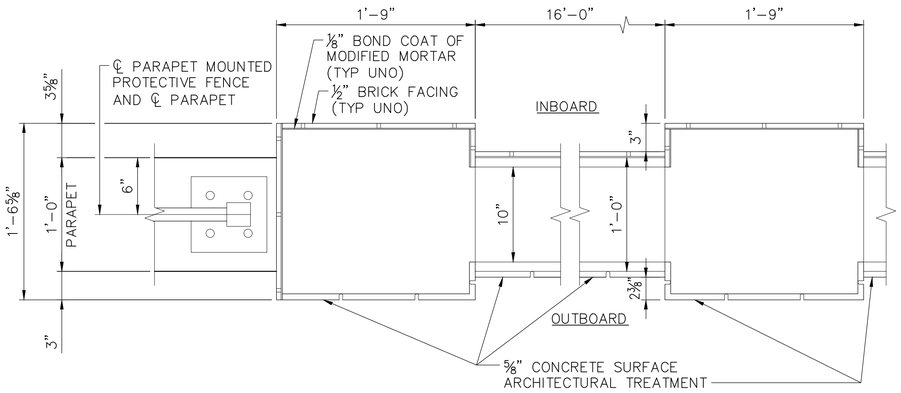
PLAN
SCALE: 3⁄32" = 1'-0"



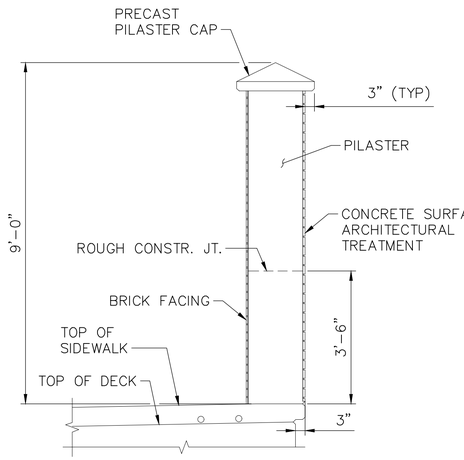
ELEVATION
(LOOKING NORTH AT SOUTH BARRIER, NORTH BARRIER SIMILAR)
SCALE: 3⁄32" = 1'-0"



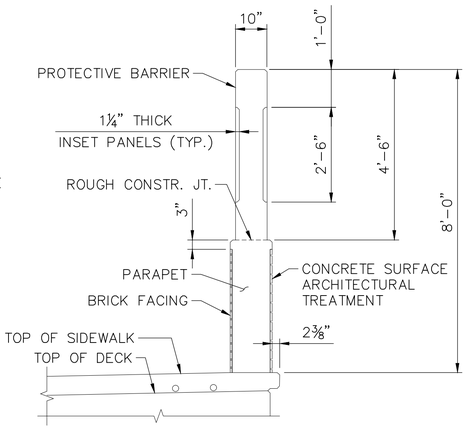
DETAIL 1
SCALE: ½" = 1'-0"



C SECTION
35 SCALE: 1½"=1'-0"



A SECTION
35 SCALE: ½"=1'-0"



B SECTION
35 SCALE: ½"=1'-0"

BAR SCALE KEY

SCALE: 3⁄32"=1'-0"
8' 0 8'

SCALE: ½"=1'-0"
2' 0 2'

SCALE: 1½"=1'-0"
1' 0 1'

NOTES:

1. FOR ADDITIONAL BRICK FACING INFORMATION, SEE SPECIAL PROVISIONS.
2. FOR ADDITIONAL CONCRETE SURFACE ARCHITECTURAL TREATMENT INFORMATION, SEE SPECIAL PROVISIONS.
3. FOR GROUNDING AND BONDING DETAILS, SEE ELECTRIFICATION MODIFICATION PLANS SHEETS ET-13 THRU ET-15.
4. FOR TYPICAL SECTION, SEE SHEET 3.
5. FOR GENERAL NOTES, SEE SHEET 5.
6. FOR DEFLECTION JOINT SPACING, SEE SHEET 32. INSTALL DEFLECTION JOINT THROUGH AESTHETIC TREATMENT AND STRUCTURAL CONCRETE.
7. WORK THIS SHEET WITH SHEETS 36 AND 37.
8. FOR PROTECTIVE BARRIER AND PILASTER DETAILS, SEE SHEET 36.
9. FOR PARAPET MOUNTED PROTECTIVE FENCE DETAILS, SEE SHEET 37.

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

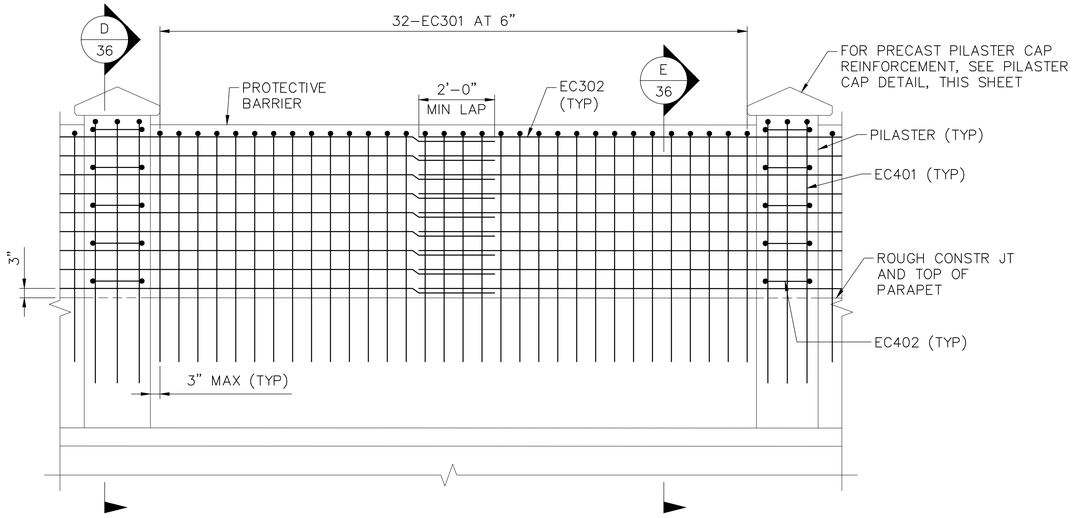
MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201
PROTECTIVE BARRIER & PICKET FENCE – 1

RECOMMENDED 9/1/2020

PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

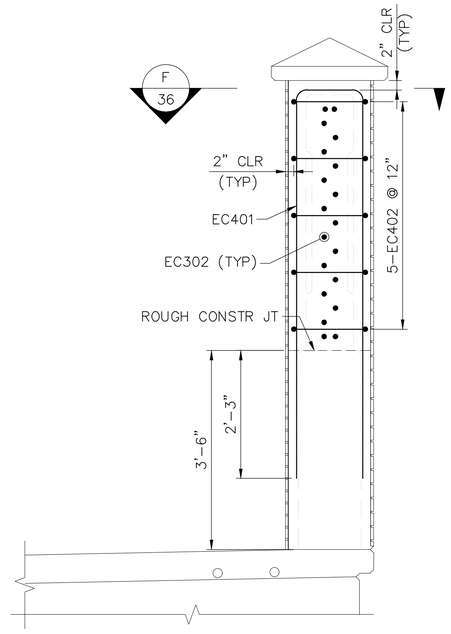
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SCALE:	AS NOTED	SHEET:	35 OF 62

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PILASTER AND PROTECTIVE BARRIER REINFORCEMENT ELEVATION

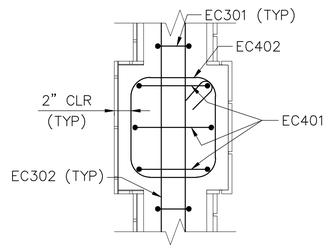
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D SECTION

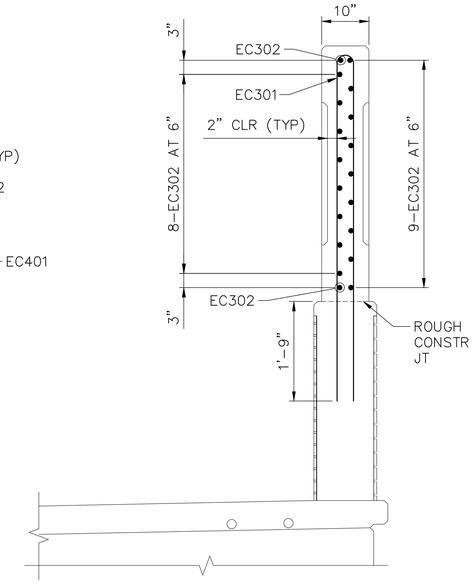
36 SCALE: ¾"=1'–0"

(PILASTER CAP, PARAPET, SIDEWALK AND DECK REINFORCEMENT NOT SHOWN FOR CLARITY)



F SECTION

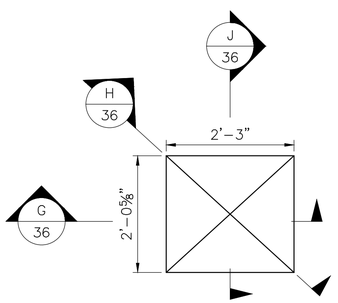
36 SCALE: ¾"=1'–0"



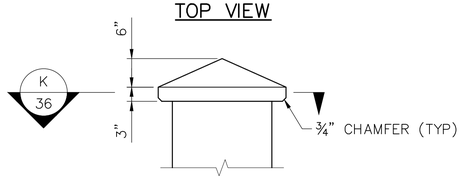
E SECTION

36 SCALE: ¾"=1'–0"

(PARAPET, SIDEWALK AND DECK REINFORCEMENT NOT SHOWN FOR CLARITY)



TOP VIEW



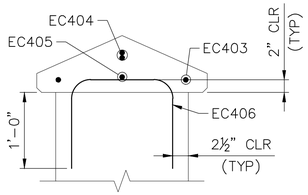
FRONT VIEW

PILASTER CAP DETAIL

(PILASTER REINFORCEMENT NOT SHOWN FOR CLARITY)

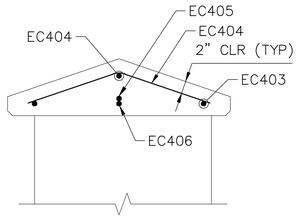
SCALE: ¾" = 1'–0"

NOTE:
ALL BARS SHOWN ARE CAST WITH PILASTER CAP (TYP).



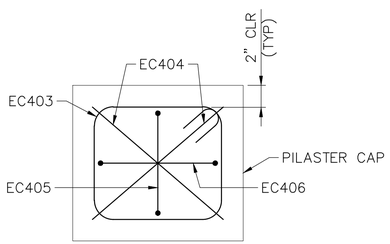
G SECTION

36 SCALE: 1"=1'–0"



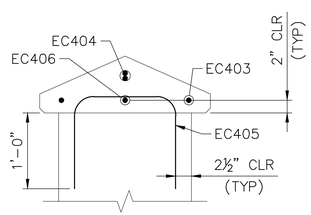
H SECTION

36 SCALE: 1"=1'–0"



K SECTION

36 SCALE: 1"=1'–0"



J SECTION

36 SCALE: 1"=1'–0"

BAR SCALE KEY

SCALE: ¾"=1'–0"

1' 0 1'

SCALE: ½"=1'–0"

2' 0 2'

SCALE: 1"=1'–0"

1' 0 1'

NOTES:

1. FOR GENERAL NOTES, SEE SHEET 5.
2. FOR REINFORCEMENT BAR SCHEDULE, SEE SHEET 47.
3. WORK THIS SHEET WITH SHEETS 35 AND 37.

NUMBER	REVISIONS	BY	DATE

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201

PROTECTIVE BARRIER & PICKET FENCE – 2

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — CHRISTOPHER W. SMITH — ENGINEER — PE062861

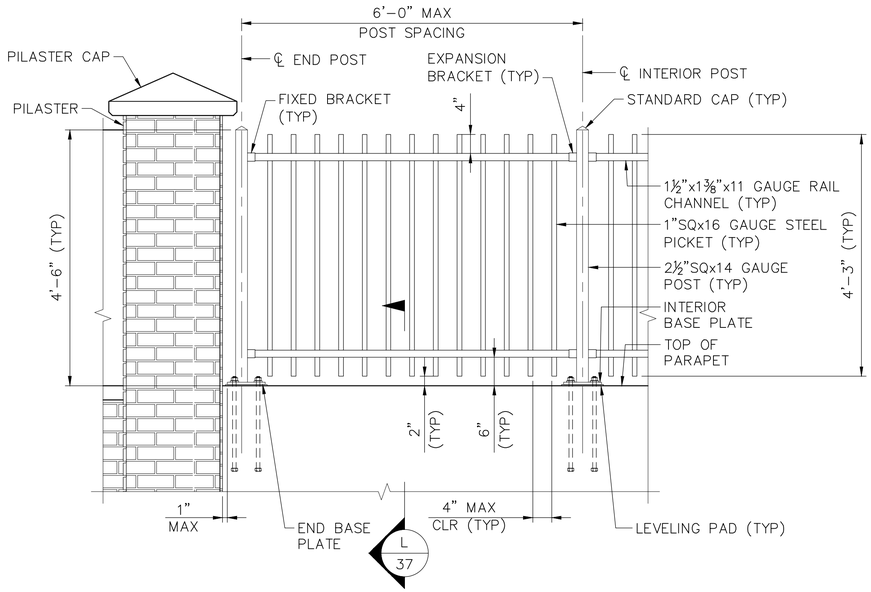
RECOMMENDED 9/1/2020

PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	PT/JAW	DATE:	5/20/2020
CHECKED BY:	ENL/MDC	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	36 OF 62

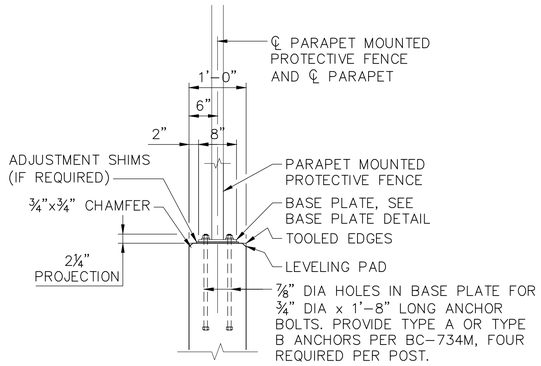
MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
SUITE 308
PHILADELPHIA, PA 19125

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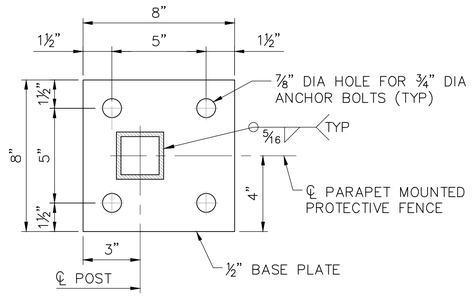


TYPICAL PARAPET MOUNTED PROTECTIVE FENCE ELEVATION

SCALE: ¾" = 1'-0"

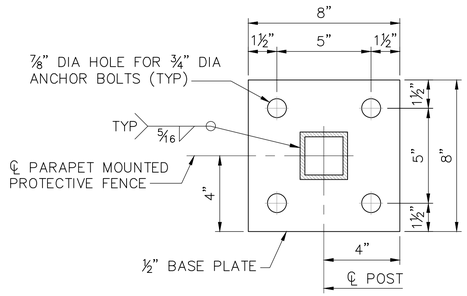


L
37
SECTION
SCALE: ¾"=1'-0"



END BASE PLATE DETAIL

SCALE: 3" = 1'-0"



INTERIOR BASE PLATE DETAIL

SCALE: 3" = 1'-0"

NOTES:

1. PROVIDE ASTM A709, GRADE 36 (OR A36) STEEL BASE PLATE IN ACCORDANCE WITH PUBLICATION 408, SECTION 1105.02 (a)2.
2. PROVIDE ASTM F1554, GRADE 36 ANCHOR BOLTS IN ACCORDANCE WITH PUBLICATION 408, SECTION 1105.02 (c) 3, GALVANIZED IN ACCORDANCE WITH SECTION 1050.02 (S).
3. PROVIDE SHIMS FROM APPROVED MATERIAL.
4. PARAPET MOUNTED PROTECTIVE FENCE AND BASE PLATES TO BE PAINTED.
5. ONLY TOUCH-UP PAINTING OF MATERIAL IS PERMITTED.
6. PLACE POSTS, PICKETS AND ANCHOR BOLTS TRULY VERTICAL. PLACE RAILS PARALLEL TO GRADE.
7. PLACE ANCHOR BOLTS WITH PARAPET AND ACCURATELY SET AND BRACE AGAINST DISPLACEMENT BEFORE THE SURROUNDING CONCRETE IS PLACED. LEVEL THE BASE PLATE AND THEN PLACE THE LEVELING PAD USING RAPID SET CONCRETE.
8. SECURE STANDARD POST CAPS TO THE BACK AND FRONT FACE OF POSTS USING TAMPER-PROOF SCREWS.
9. ANY SCREWS, BOLTS, NUTS, RIVETS, WASHERS, ETC. USED FOR FASTENING THE PICKET FENCE SHALL BE COLOR COORDINATED WITH THE ENTIRE ASSEMBLY.
10. SPACE PICKETS EVENLY. MAXIMUM CLEAR OPENING BETWEEN PICKETS AND PICKET AND POST IS 4".
11. SUBMIT SHOP DRAWINGS FOR APPROVAL.
12. PAINT ALL RAILING COMPONENTS BLACK IN ACCORDANCE WITH PUBLICATION 408.
13. COAT ALL SURFACES OF THE BASE PLATES IN CONTACT WITH THE CONCRETE WITH CAULKING COMPOUND PRIOR TO ERECTION. AFTER ERECTION AND ALIGNMENT, SEAL OPENINGS BETWEEN METAL AND CONCRETE SURFACES WITH A CAULK COMPOUND MEETING REQUIREMENTS OF SECTION 705, PUBLICATION 408.
14. FOR ANCHORAGE DETAILS NOT SHOWN, SEE BC-734M.
15. FOR GROUNDING AND BONDING DETAILS, SEE ELECTRIFICATION MODIFICATION PLANS SHEETS ET-13 THRU ET-15.
16. FOR PAINTING NOTES AND GENERAL NOTES, SEE SHEET 5.
17. WORK THIS SHEET WITH SHEETS 35, 36, 38 THRU 42.

BAR SCALE KEY

SCALE: 3/4" = 1'-0"

1' 0 1'

SCALE: 3" = 1'-0"

0.5' 0 0.5'

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

NUMBER	REVISIONS	BY	DATE

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201

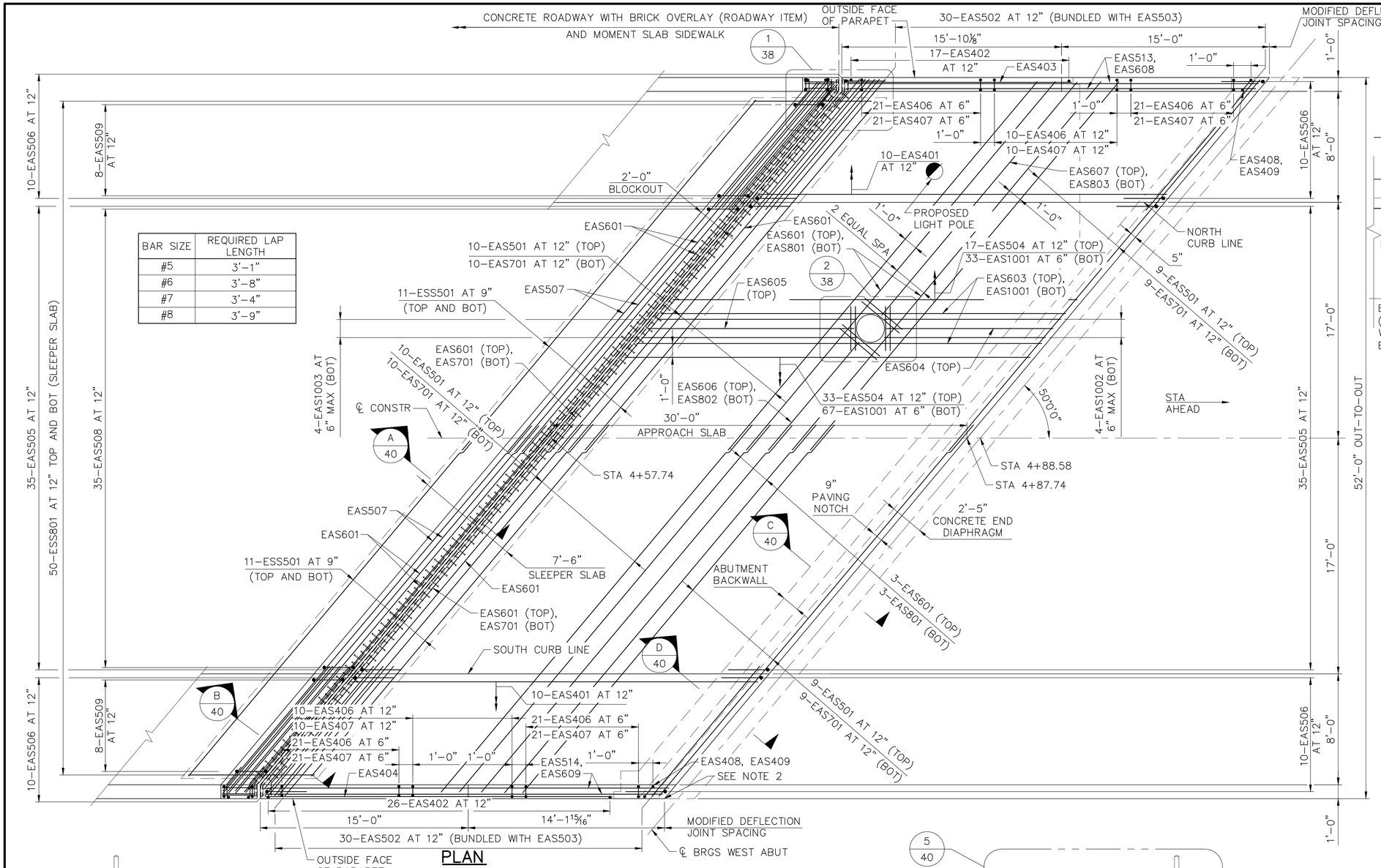
PROTECTIVE BARRIER & PICKET FENCE – 3

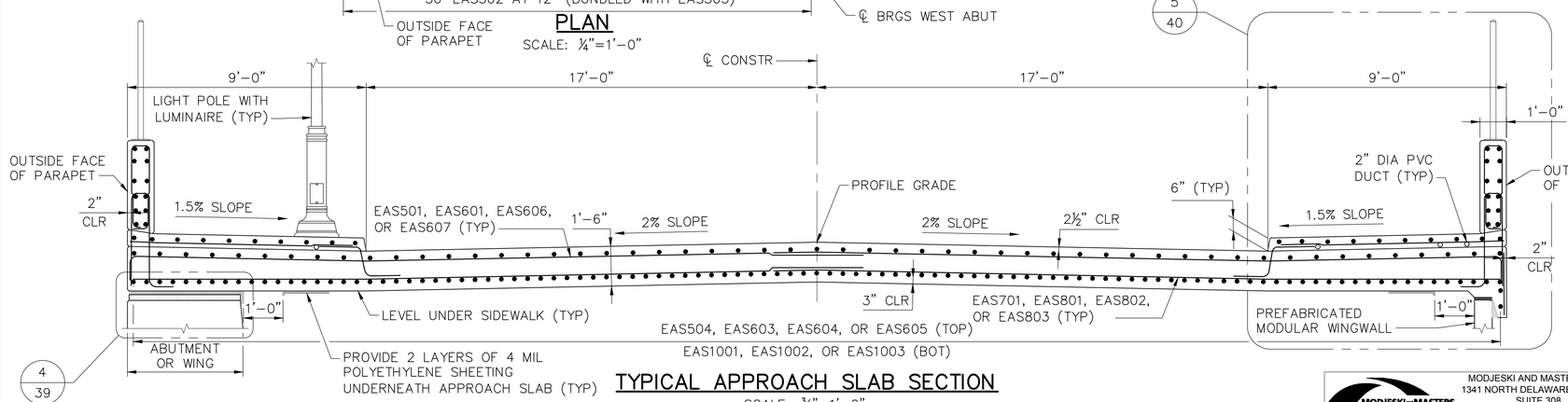
RECOMMENDED 9/1/2020

PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	PT/JAW	DATE:	8/18/2020
CHECKED BY:	ENL/MDC	DATE:	8/18/2020
SCALE:	AS NOTED	SHEET:	37 OF 62

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Plotted 8/19/2020 9:45:01 AM by STUM, AMELIA L.





TYPICAL APPROACH SLAB SECTION
SCALE: ⅜"=1'–0"

BAR SCALE KEY

SCALE: ⅜"=1'–0"
2' 0 2'
SCALE: ¼"=1'–0"
4' 0 4'

NOTES:

1. WORK THIS SHEET WITH SHEET 39 AND 40.
2. FOR NEOPRENE STRIP SEAL DAM, BENT SLIDING PLATE AND STEEL EXTRUSION DIMENSIONS AND DETAILS, SEE BC–767M.
3. FOR OPEN JOINT DETAILS IN BARRIER ADN SIDEWALK, SEE BC–752M. OMIT CAULKING COMPOUND IN AREA OF SAW CUT FOR JOINT SEAL.
4. FOR LIGHT POLE DETAILS, SEE LIGHTING PLAN.
5. FOR GENERAL NOTES, SEE SHEETS 5 AND 6.
6. FOR ABUTMENT DETAILS, SEE SHEETS 15 THRU 24.
7. FOR PREFABRICATED MODULAR WINGWALL DETAILS, SEE SHEETS 25 AND 26.
8. FOR CONCRETE END DIAPHRAGM DETAILS, SEE SHEETS 33 AND 34.
9. FOR LIGHT POLE CONNECTION DETAILS, SEE SHEET 34.
10. FOR PARAPET DETAILS, SEE SHEET 35 THRU 37.
11. FOR MOMENT SLAB DETAILS, SEE SHEET 41 AND 42.
12. FOR REINFORCEMENT BAR SCHEDULE, SEE SHEET ##.

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — CHRISTOPHER W. SMITH — ENGINEER — PE062861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B–0185–2001 / L–201
APPROACH SLAB – 1

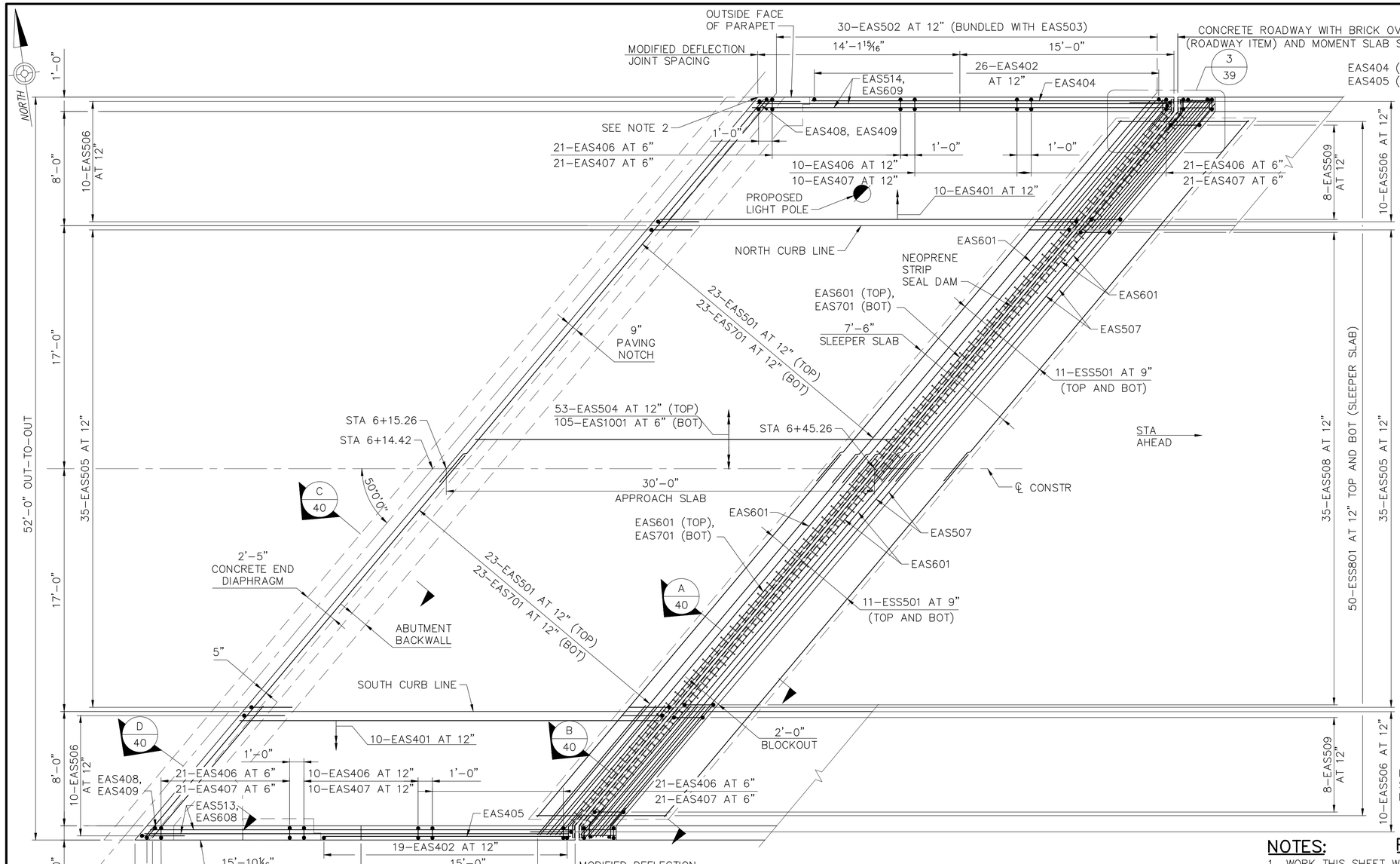
RECOMMENDED 9/1/2020

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

DRAWN BY:	AYB/JAW	DATE:	8/18/2020
CHECKED BY:	JAK	DATE:	8/18/2020
SCALE:	AS NOTED	SHEET:	38 OF 62

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

File: Q:\34.36.10\CADD\Structural\Final Design\S22600038FXX_W APP SLAB
Plotted 8/19/2020 9:36:39 AM by STUM, AMELIA L.



PLAN
SCALE: ¼"=1'–0"

TYPICAL PARAPET MOUNTED PROTECTIVE FENCE ELVATION AT EXPANSION JOINT
NOT TO SCALE

TYPICAL APPROACH SLAB SECTION
SCALE: ⅜"=1'–0"

NOTES:
1. WORK THIS SHEET WITH SHEETS 38 AND 40.
2. FOR NEOPRENE STRIP SEAL DAM, BENT SLIDING PLATE AND STEEL EXTRUSION DIMENSIONS AND DETAILS, SEE BC–767M.

BAR SCALE KEY
SCALE: ⅜"=1'–0"
2' 0 2'
SCALE: ¼"=1'–0"
4' 0 4'

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER W. SMITH — PE062861

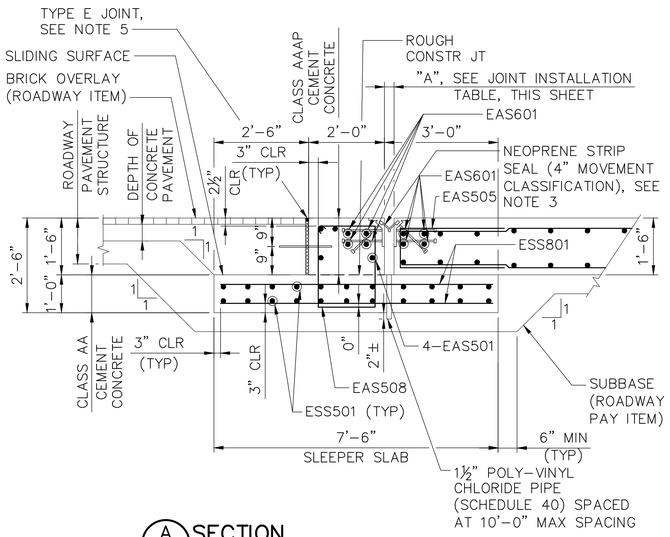
MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP. STEEL PLATE GIRDER BRIDGE
B–0185–2001 / L–201
APPROACH SLAB – 2

RECOMMENDED 9/1/2020

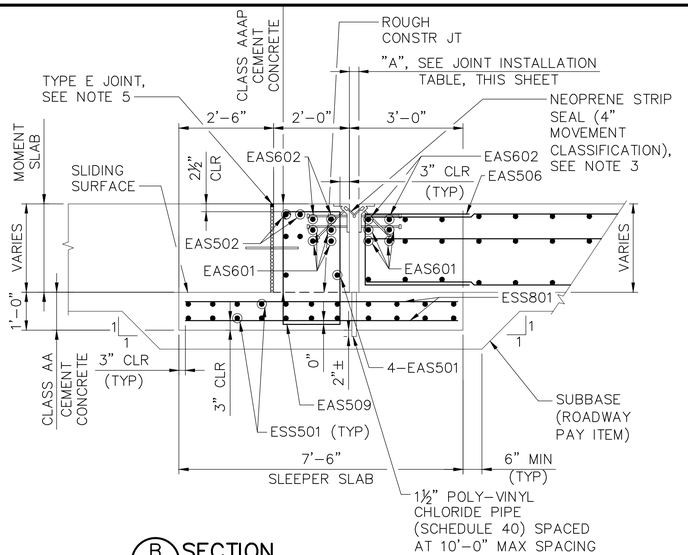
PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

DRAWN BY:	AYB/JAW	DATE:	8/18/2020
CHECKED BY:	JAK	DATE:	8/18/2020
SCALE:	AS NOTED	SHEET:	39 OF 62

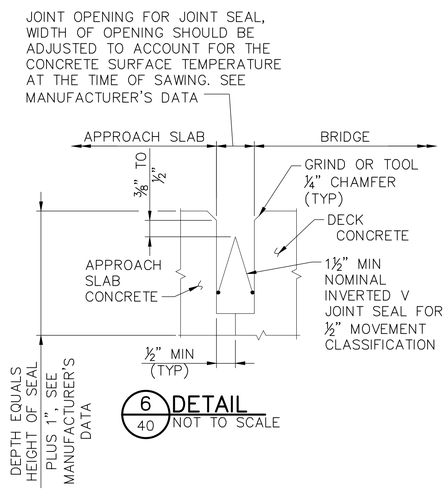
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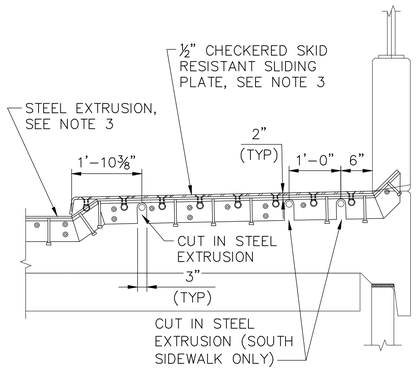
A 38&39 SECTION
(APPROACH SLAB REINFORCEMENT NOT LABELED FOR CLARITY)
NOT TO SCALE



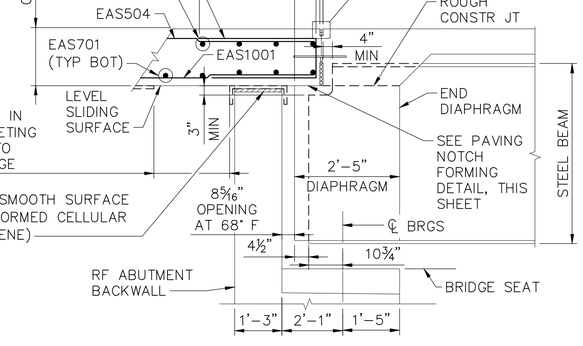
B 38&39 SECTION
(APPROACH SLAB REINFORCEMENT NOT LABELED FOR CLARITY)
NOT TO SCALE



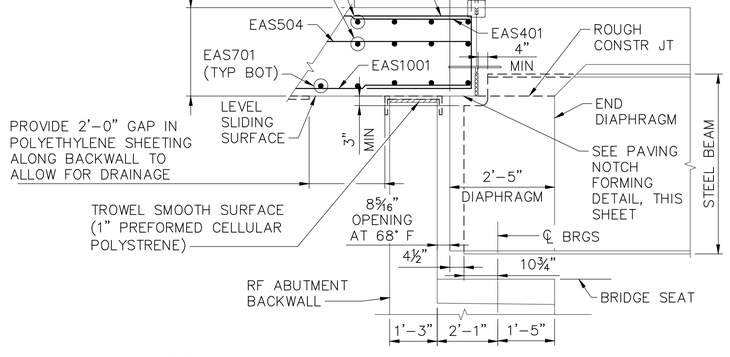
6/40 DETAIL
NOT TO SCALE



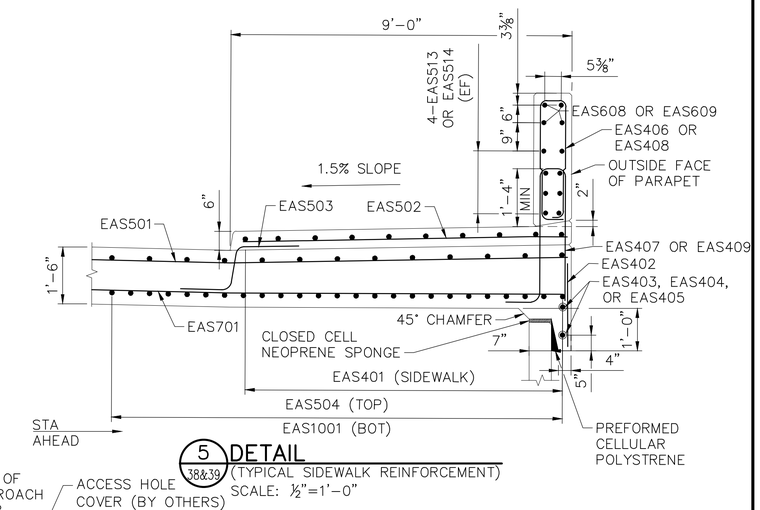
JOINT ELEVATION AT SIDEWALK
(REINFORCEMENT NOT SHOWN FOR CLARITY)
(SOUTH SIDEWALK SHOWN, NORTH SIDEWALK SIMILAR)
SCALE: ½"=1'-0"



C 38&39 SECTION
(CONCRETE END DIAPHRAGM REINFORCEMENT NOT SHOWN FOR CLARITY)
NOT TO SCALE



D 38&39 SECTION
(CONCRETE END DIAPHRAGM REINFORCEMENT NOT SHOWN FOR CLARITY)
NOT TO SCALE

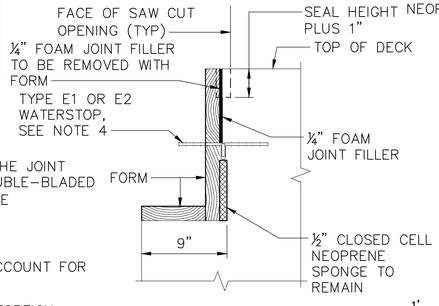


5 38&39 DETAIL
(TYPICAL SIDEWALK REINFORCEMENT)
SCALE: ½"=1'-0"

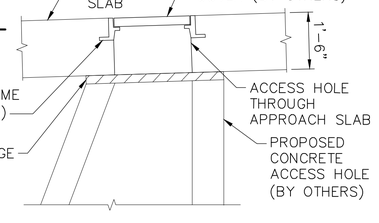
DIMENSION "A" TABLE (INSTALLATION DIMENSION "A" @ VARIOUS TEMPERATURES)															
LOCATION	TEMPERATURE (°F)														
	−10	−5	5	15	25	32	40	50	60	68	80	85	95	105	110
WEST	1.27	1.32	1.41	1.50	1.60	1.66	1.74	1.83	1.93	2.00	2.11	2.16	2.25	2.35	2.39
EAST	1.86	1.86	1.88	1.90	1.92	1.93	1.95	1.97	1.99	2.00	2.02	2.03	2.05	2.07	2.08

JOINT PREPARATION NOTES:

1. THE JOINT OPENING IS TO BE FORMED BY A TWO-STAGE SAWING OPERATION WHERE ACCESSIBLE. WHERE ACCESSIBILITY IS LIMITED, THE JOINT OPENING SHALL BE FORMED. THE FIRST SAW CUT IS DESIGNED TO CONTROL CRACKING. THE SECOND SAW CUT IS MADE USING A DOUBLE-BLADED WATER-COOLED SAW CAPABLE OF HOLDING A TOLERANCE OF ±1/16" TO CREATE THE PROPER OPENING FOR THE PREFORMED NEOPRENE COMPRESSION SEAL OR INVERTED V JOINT SEAL.
2. WATER BLAST OPENING IMMEDIATELY FOLLOWING SAW CUTTING OPERATION TO REMOVE ANY RESIDUAL SLURRY BEFORE IT DRIES.
3. THE DEPTH OF THE JOINT OPENING EQUALS THE HEIGHT OF THE SEAL PLUS 1". ADJUST THE WIDTH OF THE SECOND SAW CUT TO ACCOUNT FOR THE CONCRETE SURFACE TEMPERATURE AT THE TIME OF SAWING, SEE MANUFACTURER'S PRODUCT INFORMATION.
4. BEFORE INSTALLING THE SEAL, ABRASIVE BLAST THE BONDING SURFACES TO THOROUGHLY CLEAN THE JOINT OPENING AND REMOVE FOREIGN MATERIAL, INCLUDING BROKEN CONCRETE. USE WATER AND OIL FREE COMPRESSED AIR TO BLOW OUT RESIDUE FROM THE SEAL GROOVE OPENING.
5. PREPARE BONDING SURFACES AND INSTALL JOINT SEAL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
6. DO NOT EXCEED 3% ELONGATION OF THE SEAL, IF STRETCHING OCCURS.



PAVING NOTCH FORMING DETAIL
SCALE: 1½"=1'-0"



ACCESS HOLE ELEVATION
(REINFORCEMENT NOT SHOWN FOR CLARITY)
SCALE: ½"=1'-0"

NOTES:

1. WORK THIS SHEET WITH SHEETS 38 AND 39.
2. TROWEL SMOOTH AND PLACE TWO LAYERS OF 4 MIL. POLYETHYLENE SHEETING AS BOND BREAKER.
3. FOR NEOPRENE STRIP SEAL DAM, STEEL EXTRUSION, BARRIER SLIDING BENT PLATE, AND SIDEWALK CHECKERED SKID RESISTANT SLIDING PLATE DETAILS, SEE BC-767M.
4. FOR WATERSTOP DETAILS, SEE BC-735M.
5. FOR TYPE E JOINT DETAILS, SEE RC-20M.

BAR SCALE KEY
SCALE: ½"=1'-0"
2' 0 2'
SCALE: 1½"=1'-0"
1' 0 1'

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — CHRISTOPHER W. SMITH — ENGINEER — PE062861

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

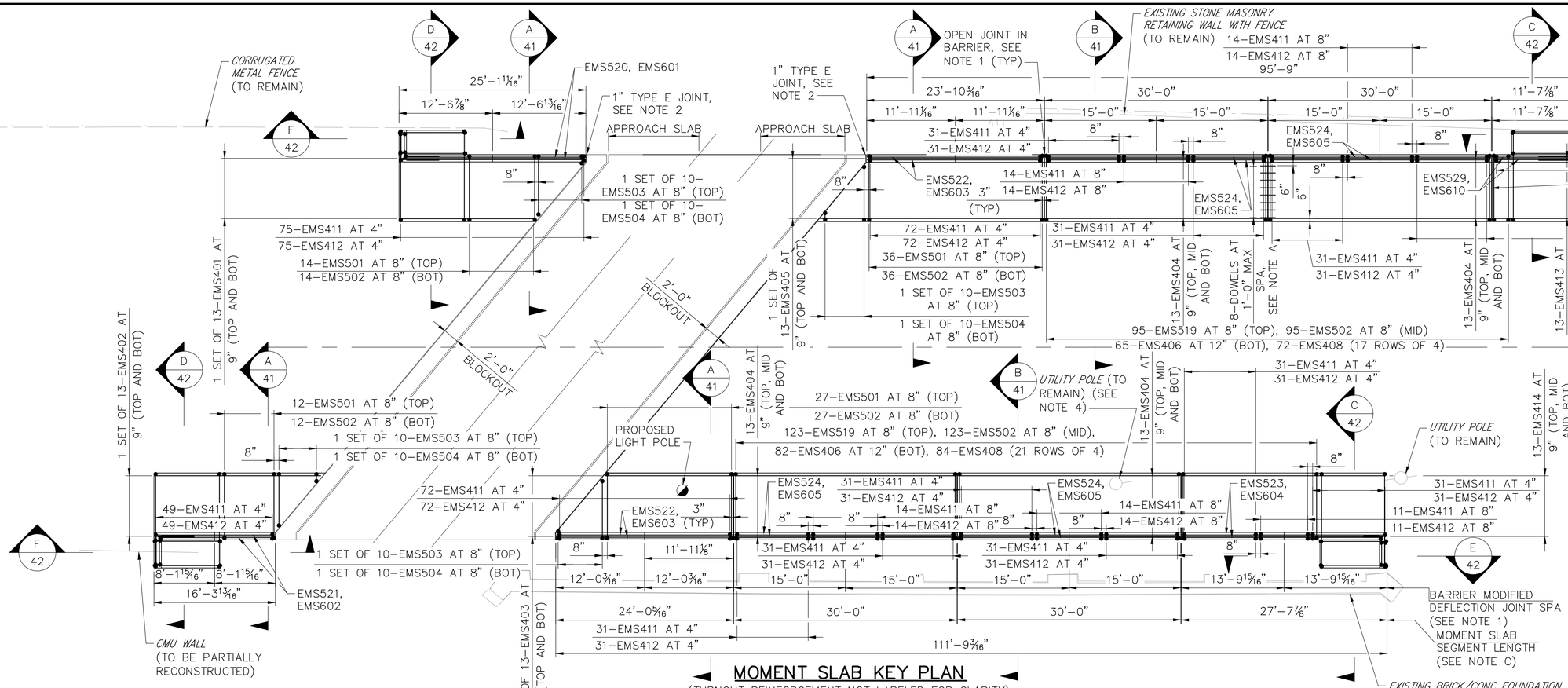
MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201
APPROACH SLAB - 3

RECOMMENDED 9/1/2020

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

DRAWN BY:	AYB	DATE:	8/18/2020
CHECKED BY:	JAK	DATE:	8/18/2020
SCALE:	AS NOTED	SHEET:	40 OF 62

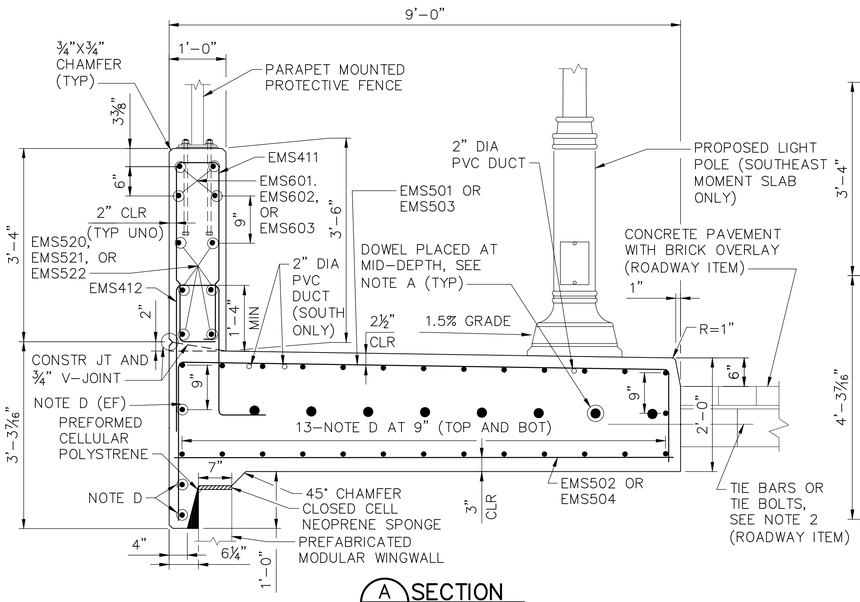
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Plotted 8/19/2020 9:48:29 AM by STUM, AMELIA L.



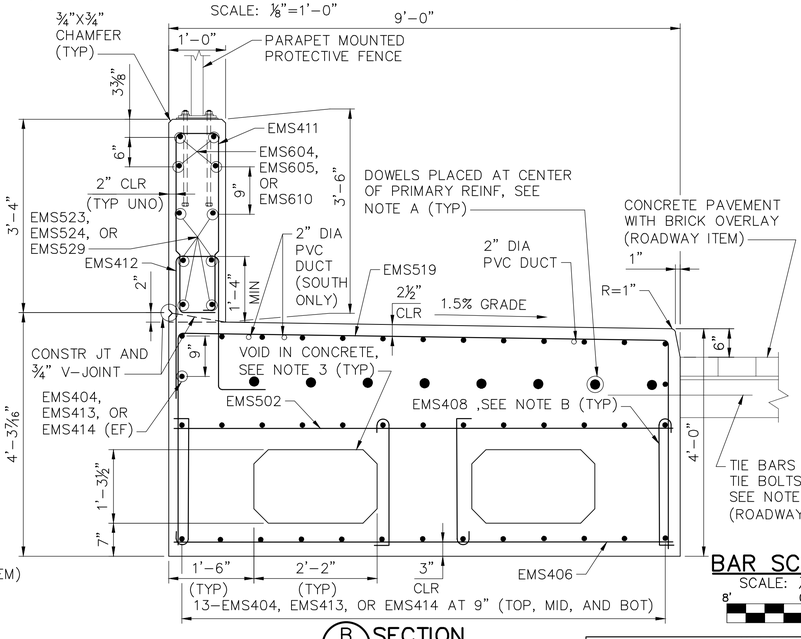
MOMENT SLAB KEY PLAN

(TURNOUT REINFORCEMENT NOT LABELED FOR CLARITY)
(PARAPET MOUNTED PROTECTIVE FENCE NOT SHOWN FOR CLARITY)

SCALE: 1/8"=1'-0"



A 41 SECTION
NOT TO SCALE



B 41 SECTION
(EAST SIDE ONLY)
NOT TO SCALE

BAR SCALE KEY

SCALE: 1/8"=1'-0"

8' 0 8'

NOTES:

1. FOR MODIFIED DEFLECTION JOINT DETAILS AND OPEN JOINT DETAILS, SEE BC-752M.
2. PLACE DOWELS BETWEEN ALL MOMENT SLAB SEGMENTS. FOR DOWEL DETAILS, TIE BARS OR TIE BOLTS DETAILS, AND TYPE D OR E JOINT DETAILS, SEE RC-20M AND RC-27M.
3. FORM VOID IN MOMENT SLAB CONCRETE WITH PREFORMED CELLULAR POLYSTRENE.
4. PROVIDE EXPANSION-TYPE MATERIAL AT THE INTERFACE BETWEEN THE BASE OF THE UTILITY POLE AND MOMENT SLAB. RE-SPACE MOMENT SLAB REINFORCEMENT AROUND UTILITY POLE TO AVOID INTERFERENCE, AS NEEDED.
5. CONTRACTOR IS PERMITTED TO PROVIDE A PRECAST BARRIER IN PLACE OF THE CAST-IN-PLACE BARRIER. CONTRACTOR MUST SUBMIT SHOP DRAWINGS FOR REVIEW AND ACCEPTANCE IN ACCORDANCE WITH PUBLICATION 408. THE SHOP DRAWINGS MUST COMPLETELY DETAIL THE ENTIRE MOMENT SLAB AND BARRIER ALONG THE REQUIRED LENGTH.
   a. CONTRACTOR IS RESPONSIBLE FOR LIFTING, HANDLING AND TRANSPORTATION STRESSES.
   b. CONTRACTOR IS RESPONSIBLE FOR TEMPORARY BRACING DESIGN CALCULATIONS AND DETAILS.
   c. LIFTING INSERTS:
      1. PROVIDE GALVANIZED LIFTING INSERTS.
      2. PROVIDE LIFTING INSERTS WITH A MINIMUM CAPACITY OF AT LEAST TWO TIMES THE CALCULATED LOAD ON THE INSERT.
      3. PROVIDE A MINIMUM OF TWO LIFTING INSERTS PER BARRIER SECTION.
6. FOR LIGHT POLE DETAILS, SEE LIGHTING PLAN.
7. FOR GENERAL NOTES, SEE SHEETS 5 AND 6.
8. FOR PREFABRICATED MODULAR WINGWALL DETAILS, SEE SHEETS 25 AND 26.
9. FOR LIGHT POLE CONNECTION DETAILS, SEE SHEET 34.
10. FOR PARAPET DETAILS, SEE SHEETS 35 THRU 37.
11. FOR APPROACH SLAB DETAILS, SEE SHEETS 38, 39, AND 40.
12. FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 44 THRU 50.
13. FOR ROADWAY CONCRETE PAVEMENT AND SIDEWALK DETAILS, SEE CONSTRUCTION PLANS.

NOTE A:

USE TYPE D OR E JOINT PER RC-20M AND RC-27M. USE SAME JOINT AS PROVIDED IN PAVEMENT. PROVIDE DOWELS AT EXPANSION JOINT BETWEEN MOMENT SLAB SEGMENTS. SPACE DOWELS AT 1'-0" MAXIMUM.

NOTE B:

TIE TOP AND BOTTOM MAT OF REINFORCING STEEL WITH EMS408 TIE BARS AT 4'-0" MAXIMUM SPACING BOTH DIRECTIONS. ALTERNATE 90° AND 135° AT TOP IN ALTERNATE TIES.

NOTE C:

OPEN JOINT IN MOMENT SLAB AND BARRIER. FOR OPEN JOINT DETAILS, SEE BC-752M. MOMENT SLAB JOINTS MUST OCCUR AT A PAVEMENT JOINT. A MAXIMUM OF TWO PLACEMENT JOINTS MAY OCCUR BETWEEN MOMENT SLAB JOINTS.

NOTE D:

EMS401, EMS402, EMS403, OR EMS405

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — CHRISTOPHER W. SMITH — ENGINEER PE062861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201
MOMENT SLAB – 1

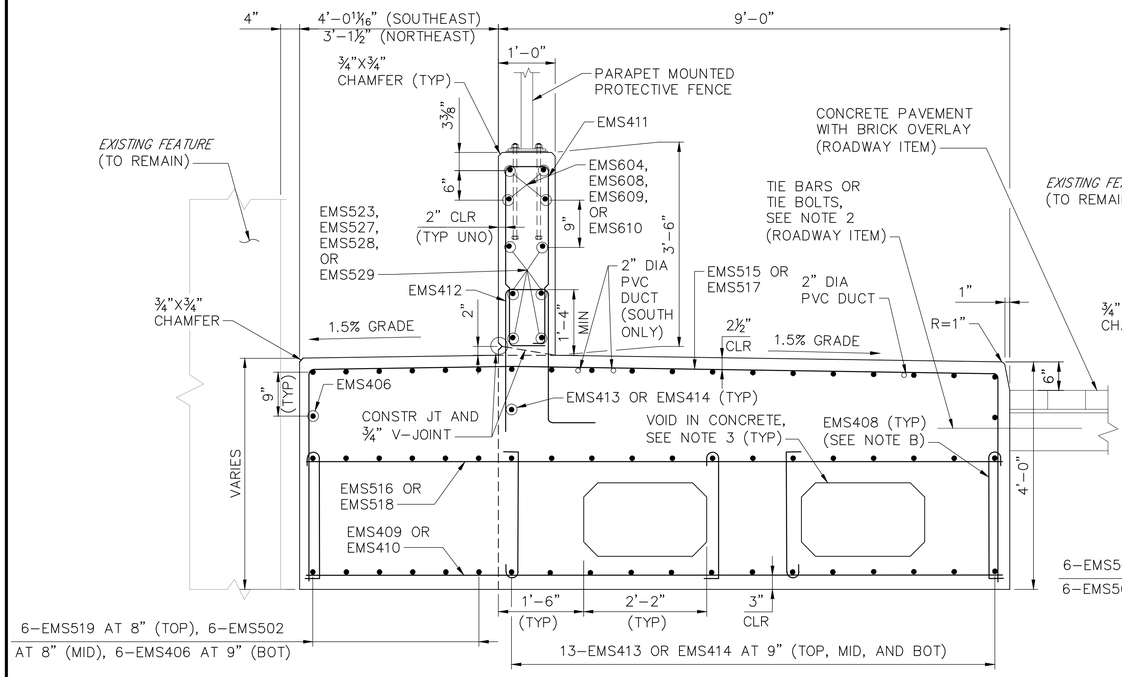
RECOMMENDED 9/1/2020

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

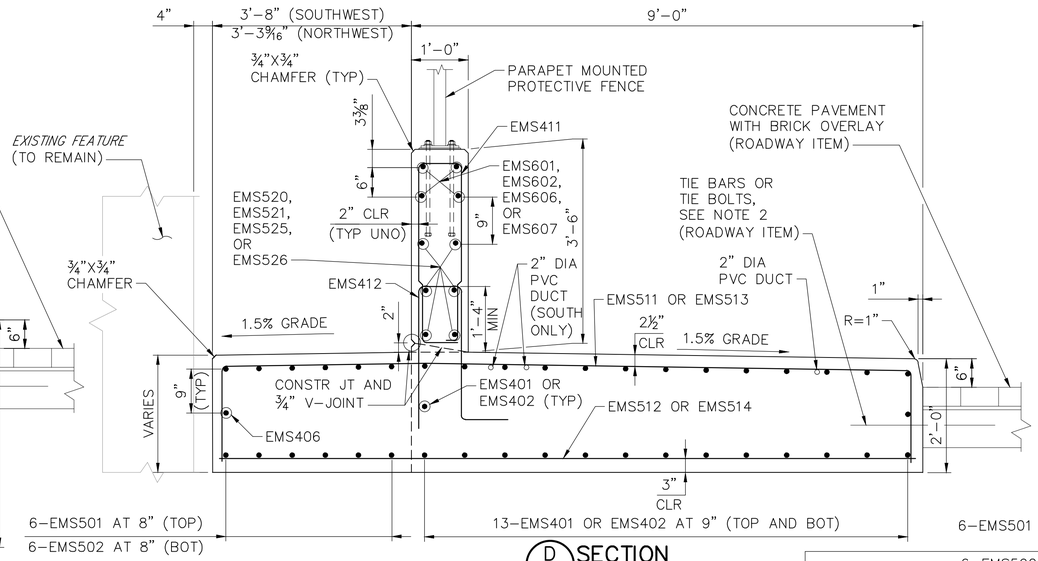
DRAWN BY:	AYB	DATE:	5/20/2020
CHECKED BY:	JAK	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	41 OF 62

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

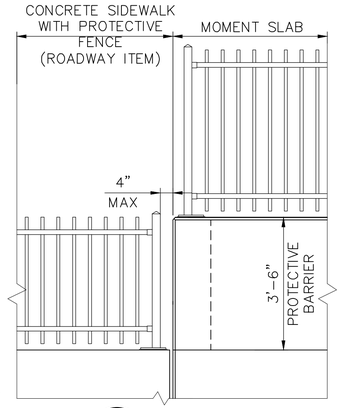
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C 41 SECTION NOT TO SCALE

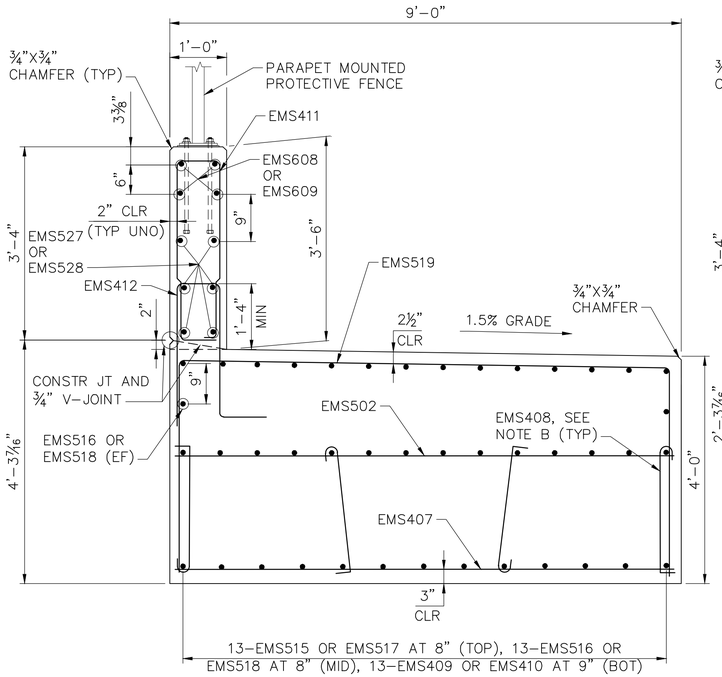


D 41 SECTION NOT TO SCALE

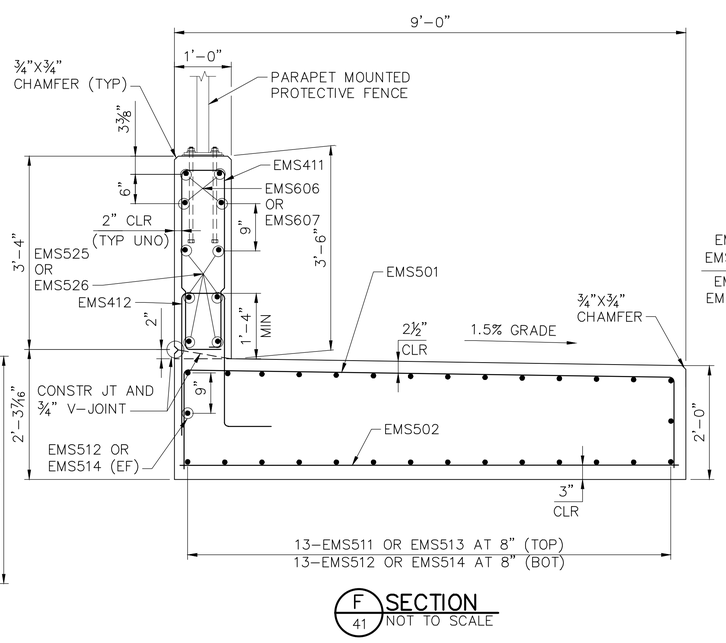


G 42 SECTION NOT TO SCALE

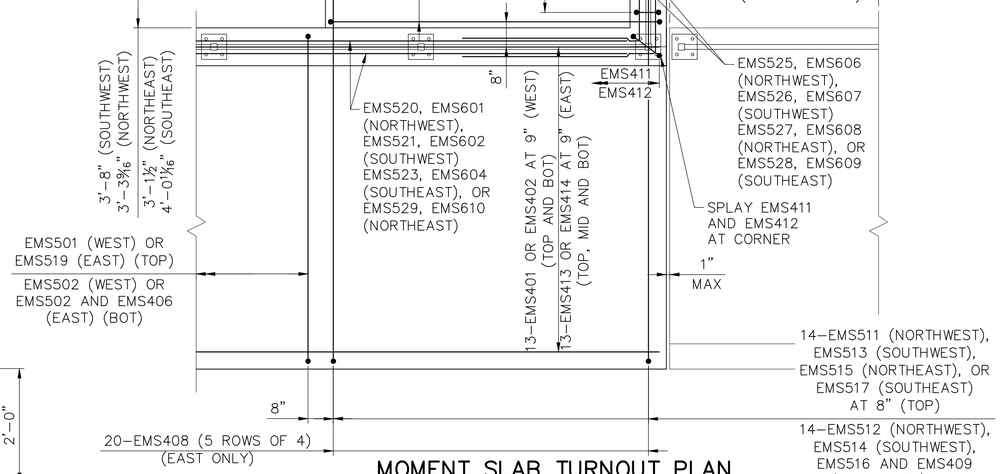
REQUIRED LAP LENGTH	
SIZE	BARRIER
#5	3'–7"
#6	4'–4"



E 41 SECTION NOT TO SCALE



F 41 SECTION NOT TO SCALE



MOMENT SLAB TURNOUT PLAN

(NORTHEAST TURNOUT SHOWN, ALL OTHER TURNOUTS SIMILAR)
NOT TO SCALE

NOTE B:

TIE TOP AND BOTTOM MAT OF REINFORCING STEEL WITH EMS408 TIE BARS AT 4'–0" MAXIMUM SPACING BOTH DIRECTIONS. ALTERNATE 90° AND 135° AT TOP IN ALTERNATE TIES.

NOTES:

1. WORK THIS SHEET WITH SHEET 41.

NUMBER	REVISIONS	BY	DATE

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B–0185–2001 / L–201

MOMENT SLAB – 2

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — CHRISTOPHER W. SMITH — ENGINEER PE067861

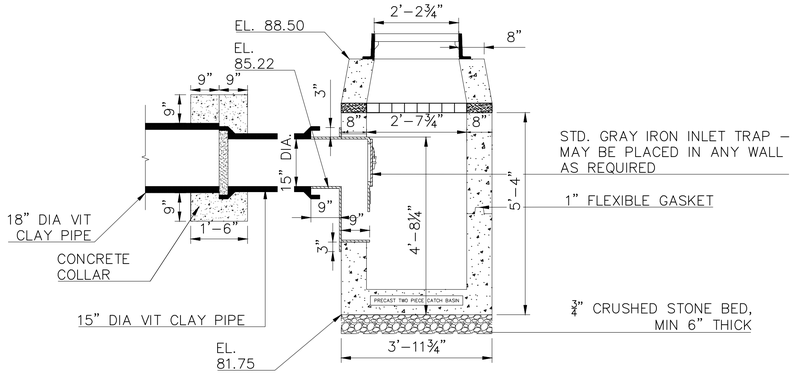
RECOMMENDED 9/1/2020

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

DRAWN BY:	AYB	DATE:	5/20/2020
CHECKED BY:	JAK	DATE:	5/20/2020
SCALE:	AS NOTED	SHEET:	42 OF 62

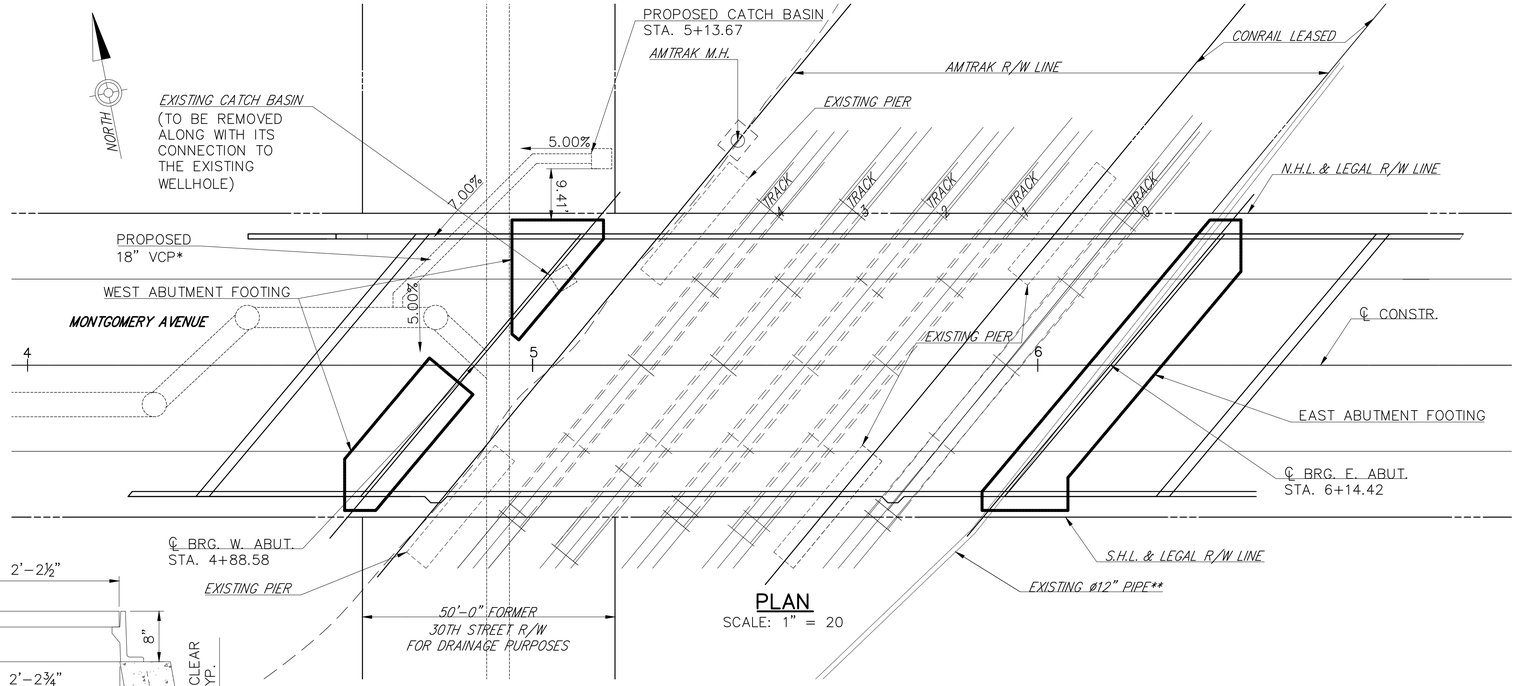
MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE, SUITE 308
PHILADELPHIA, PA 19125

File: Q:\3436.10\CADD\Structural\Final Design\S22600420FXX_MOMENT SLAB-2
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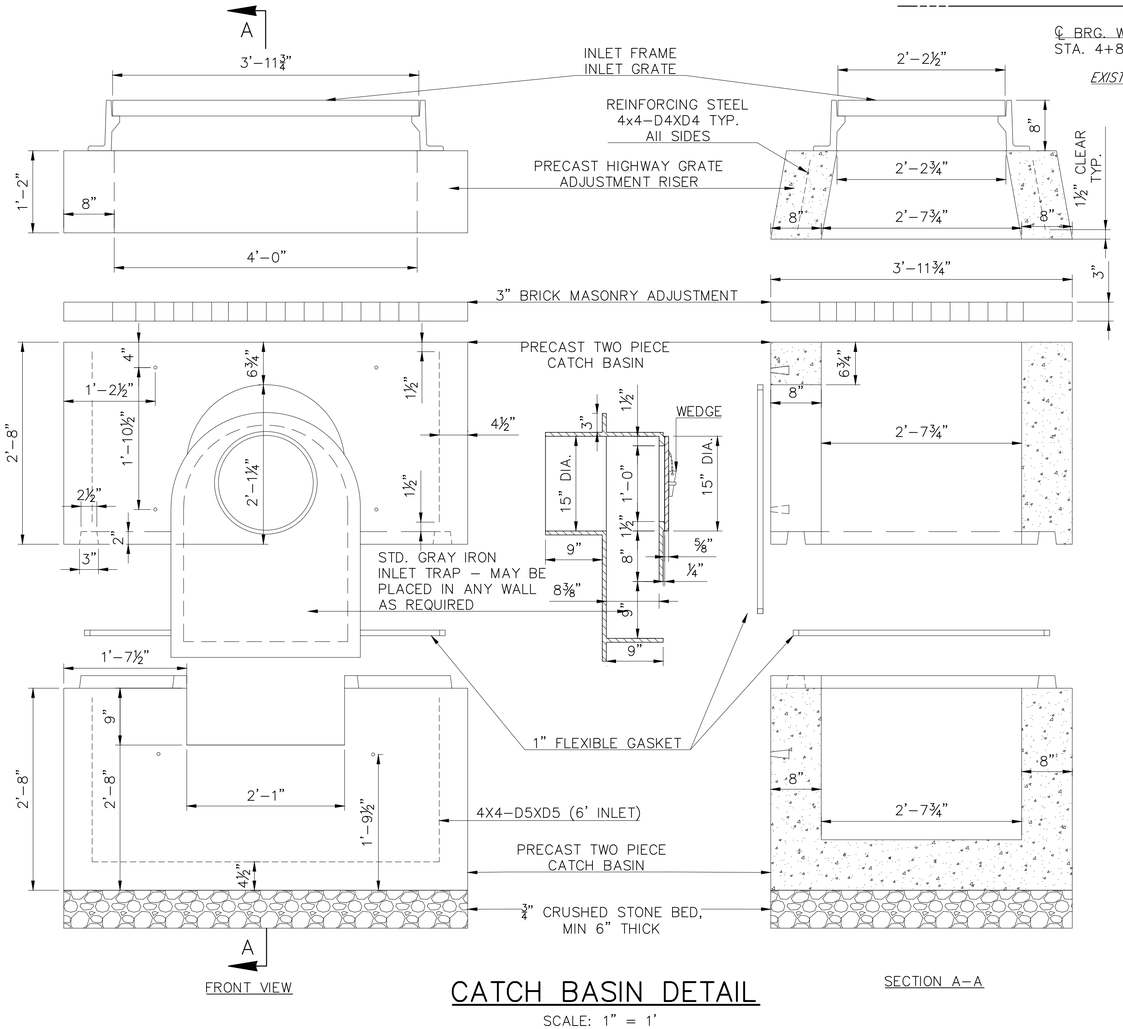
CATCH BASIN ELEVATION

SCALE: 1/2" = 1'



PLAN

SCALE: 1" = 20



CATCH BASIN DETAIL

SCALE: 1" = 1'

NOTES:

- FOR DIMENSIONS AND DETAILS NOT SHOWN, SEE RC–45M , RC–46M, AND THE LATEST VERSION OF THE PHILADELPHIA WATER DEPATRMENT'S SEWER STANDARD DETAILS & SPECIFICATIONS.
- RCP – REINFORCED CONCRETE PIPE

* CONSTRUCT SADDLE CONNECTION OF 18" RCP TO SEWER USING PWD STANDARD DETAILS.

** EXPOSE EXISTING PRIVATELY OWNED 12" PIPE. RELOCATE THE PIPE IF THE PIPE CONTAINS SIGNIFICANT WATER FLOW, OTHERWISE CAP AND ABANDON THE EXISTING PIPE.

BAR SCALE KEY

20 0 20
SCALE: 1"=20'

1' 0 1'
SCALE: 1"=1'

2' 0 2'
SCALE: ½"=1'–0"

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VADIM L. FLEYSH
ENGINEER
No. PE–056844

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE B–0185–2001 / L–201

DRAINAGE PLAN

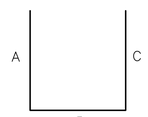
RECOMMENDED 9/1/2020

PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS PHILADELPHIA, PA

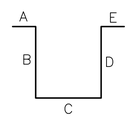
DRAWN BY:	BAC	DATE:	8/24/2020
CHECKED BY:	TZD	DATE:	8/24/2020
SCALE:	AS NOTED	SHEET:	43 OF 62

REINFORCEMENT BAR SCHEDULE

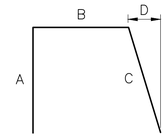
MARK	SIZE	TYPE	NUMBER	LENGTH	A	B	C	D	E	F	G	H	J	K	R
WEST ABUTMENT															
EA404	4	10	8	13'–4"	1'–7"	11'–9"									
EA405	4	10	2	12'–0"	1'–7"	10'–5"									
EA406	4	STR	80	3'–6"											
EA407	4	STR	6	25'–5¼"											
EA409	4	14	6	30'–11½"	6"	30'–5½"		3½"							
EA410	4	STR	8	37'–8¼"											
EA411	4	11	4	7'–9¾"	2'–10"	4'–11¾"	2'–1⅝"								
EA412	4	17	4	11'–11⅞"	1'–6"	3⅛"	10'–2¾"								1½"
EA413	4	39	58	3'–9"	10"	2¾"	4"	6"	4"						1½"
EA501	5	4	68	7'–9"	4'–1"	11"	2'–9"								
EA502	5	4	3	11'–5"	5'–3"	11"	5'–3"								
EA503	5	STR	9	5'–4"											
EA505	5	STR	26	1'–6"											
EA506	5	60	4	6'–11¾"	1'–7"	1'–7"	1'–0"	1'–7"	7¼"		3¾"	3⅛"	1'–0¼"	7¾"	
EA507	5	62	22	16'–11"	5'–5"	1'–8"	1'–8"	2'–5"	4'–10"	3½"	3¾"	3⅛"	4'–1¾"	1'–3⅜"	
EA512	5	61	6	19'–6"	3'–4"	11"	11'–11"	8'–10½"	3'–4"						
EA513	5	STR	6	11'–5¼"											
EA514	5	7	47	19'–9"	3'–7"	11'–9"	4'–5"	3'–0¾"							
EA515	5	STR	47	11'–1¼"											
EA516	5	17	4	8'–7 15/16"	1'–6"	3 15/16"	6'–10"								1⅞"
EA517	5	11	4	11'–11 9/16"	3'–7"	8'–4 9/16"	3'–7⅞"								
EA601	6	10	88	7'–8"	3'–3"	4'–5"									
EA602	6	10	7	7'–8" TO 9'–1"	3'–3"	4'–5" TO 5'–10"									
EA610	6	10	28	16'–1½"	3'–3"	12'–10½"									
EA612	6	10	7	14'–3" TO 16'–8½"	3'–3"	11'–0" TO 13'–5½"									
EA617	6	10	8	7'–8" TO 9'–5"	3'–3"	4'–5" TO 6'–2"									
EA618	6	STR	25	5'–0"											
EA619	6	STR	10	19'–10"											
EA620	6	STR	14	20'–1"											
EA621	6	STR	15	20'–6⅛"											
EA622	6	STR	14	20'–11¼"											
EA623	6	STR	14	21'–1"											
EA624	6	STR	16	21'–2¼"											
EA625	6	STR	14	21'–5"											
EA627	6	STR	25	21'–9"											
EA628	6	STR	37	6'–1"											
EA629	6	10	8	16'–0"	3'–3"	12'–9"									
EA630	6	4	8	14'–1" TO 15'–0"	3'–3"	7'–7" TO 8'–6"									
EA631	6	STR	68	27'–1½"											
EA632	6	4	15	5'–11" TO 12'–8"	2'–4"	1'–3" TO 8'–0"	2'–4"								
EA633	6	4	10	5'–11" TO 11'–8"	2'–4"	1'–3" TO 7'–0"	2'–4"								
EA634	6	STR	12	1'–9¾" TO 15'–11½"											
EA635	6	4	28	10'–10½"	3'–3"	4'–4½"	3'–3"								
EA636	6	STR	5	25'–2"											
EA637	6	14	34	31'–4¾"	11¼"	30'–5½"		5¼"							
EA638	6	11	34	33'–0"	3'–3"	29'–9"	19'–1½"								
EA808	8	11	10	10'–9"	4'–1"	6'–8"	5'–1"								
EA809	8	11	14	11'–2"	4'–6"	6'–8"	5'–1"								
EA810	8	11	15	11'–7"	4'–11"	6'–8"	5'–1"								
EA811	8	11	14	12'–2"	5'–6"	6'–8"	5'–1"								
EA812	8	11	14	12'–4"	5'–8"	6'–8"	5'–1"								
EA813	8	STR	73	19'–7½"											
EA814	8	STR	8	19'–9¾"											
EA815	8	STR	21	21'–2¼"											



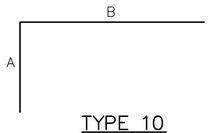
TYPE 4



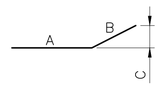
TYPE 5



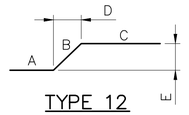
TYPE 7



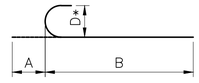
TYPE 10



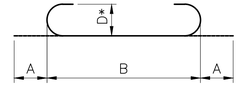
TYPE 11



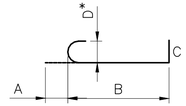
TYPE 12



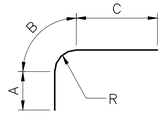
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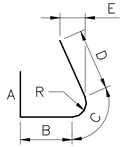
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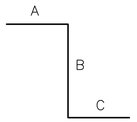
TYPE 16



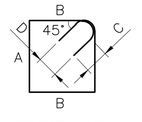
TYPE 17



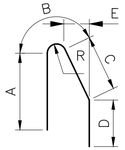
TYPE 18



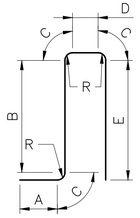
TYPE 22



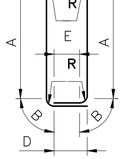
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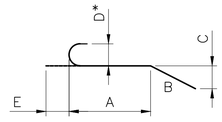
TYPE 30



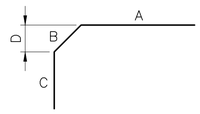
TYPE 38



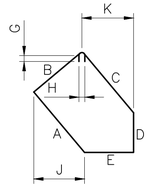
TYPE 39



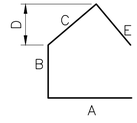
TYPE 47



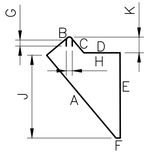
TYPE 58



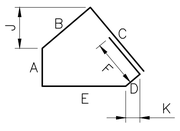
TYPE 60



TYPE 61



TYPE 62



TYPE 63

NOTES:

1. ALL REINFORCEMENT BAR DIMENSIONS ARE OUT TO OUT OF BARS EXCEPT "D" ON STANDARD 180° HOOKS AND "R", WHICH IS SHOWN TO THE INSIDE OF THE BAR.
2. DIMENSIONS ALONG CURVED PORTIONS OF BAR ARE MEASURED ALONG THE OUTSIDE EDGE.
3. FOR REINFORCEMENT BAR FABRICATION DETAILS, SEE BC–736M.
4. FOR GENERAL NOTES, SEE SHEET 5.

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — CHRISTOPHER W. SMITH — ENGINEER — PE062861

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
SUITE 308
PHILADELPHIA, PA 19125

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B–0185–2001 / L–201

REINFORCEMENT BAR SCHEDULE – 1

RECOMMENDED 9/1/2020

PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	AAT/RSJ	DATE:	8/18/2020
CHECKED BY:	AYB	DATE:	8/18/2020
SCALE:	AS NOTED	SHEET:	44 OF 62

File: \\mmdc10\projects_2\34360\CADD\Structural\Final Design\S2260044OFXX_REIN SCHED-1
Plotted 8/19/2020 1:18:28 PM by JOHNSON, RYAN S.

REINFORCEMENT BAR SCHEDULE

MARK	SIZE	TYPE	NUMBER	LENGTH	A	B	C	D	E	F	G	H	J	K	R
WEST ABUTMENT (CONTINUED)															
EA901	9	STR	5	31'–0⅝"											
EA902	9	STR	5	41'–2"											
EF401	4	18	71	3'–0⅜"	8"	1'–11"	2⅜"	3"	3"						1"
EF601	6	STR	4	7'–5½" TO 10'–0"											
EF603	6	STR	27	10'–11"											
EF604	6	15	53	12'–3"	8"	10'–11"		4½"							
EF607	6	10	2	3'–10"	1'–11"	1'–11"									
EF608	6	11	2	6'–2"	4'–3"	1'–11"	1'–6"								
EF609	6	11	2	6'–2"	4'–3"	1'–11"	1'–5"								
EF610	6	STR	14	9'–6"											
EF611	6	STR	22	5'–5½"											
EF617	6	7	2	12'–4"	4'–3"	3'–5"	4'–8"	2'–3¾"							
EF618	6	STR	8	5'–2"											
EF619	6	STR	8	6'–6"											
EF621	6	STR	111	3'–8"											
EF623	6	15	8	9'–1½" TO 12'–3"	8"	7'–9½" TO 10'–11"		4½"							
EF624	6	STR	24	25'–9½" TO 29'–10"											
EF625	6	STR	26	2'–6½" TO 15'–11½"											
EF626	6	STR	24	9'–10¾' TO 28'–7⅝"											
EF627	6	STR	2	22'–3½"											
EF628	6	STR	2	17'–9½"											
EF629	6	STR	16	7'–3"											
EF630	6	STR	14	8'–3"											
EF631	6	7	2	9'–11"	4'–3"	1'–5"	4'–3"	2'–8¾"							
EF701	7	STR	8	3'–0"											
EF801	8	14	63	8'–4"	1'–3"	7'–1"		7"							
EF802	8	15	44	4'–4½" TO 17'–9½"	11"	2'–6½" TO 15'–11½"		6"							

NOTES:

1. FOR GENERAL NOTES, SEE SHEET 5.
2. FOR BAR MARK LEGEND AND ADDITIONAL NOTES, SEE SHEET 44.

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE036261

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B–0185–2001 / L–201

REINFORCEMENT BAR SCHEDULE – 2

RECOMMENDED 9/1/2020

PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	AAT/RSJ	DATE:	8/18/2020
CHECKED BY:	AYB	DATE:	8/18/2020
SCALE:	AS NOTED	SHEET:	45 OF 62

File: \\mmdc10\projects_2\34361O\CADD\Structural\Final Design\S226000450FXX_REINF SCHED-2
Plotted 8/19/2020 1:21:58 PM by JOHNSON, RYAN S.

REINFORCEMENT BAR SCHEDULE

MARK	SIZE	TYPE	NUMBER	LENGTH	A	B	C	D	E	F	G	H	J	K	R
EAST ABUTMENT															
EA401	4	14	6	33'–3½"	6"	32'–9½"		3½"							
EA402	4	STR	6	32'–8"											
EA403	4	10	2	31'–1"	1'–7"	29'–6"									
EA404	4	10	4	13'–4"	1'–7"	11'–9"									
EA405	4	10	2	12'–0"	1'–7"	10'–5"									
EA406	4	STR	80	3'–6"											
EA501	5	4	81	7'–9"	4'–1"	11"	2'–9"								
EA502	5	4	3	11'–5"	5'–3"	11"	5'–3"								
EA503	5	STR	9	5'–4"											
EA504	5	STR	21	5'–2½"											
EA505	5	STR	27	1'–6"											
EA506	5	60	4	6'–11¾"	1'–7"	1'–7"	1'–0"	1'–7"	7¼"		3¾"	3⅛"	1'–0¼"	7¾"	
EA507	5	62	23	16'–11"	5'–5"	1'–8"	1'–8"	2'–5"	4'–10"	3½"	3¾"	3⅛"	4'–1¾"	1'–3⅜"	
EA508	5	63	47	29'–5"	4'–9"	3'–6"	8'–11"	8"	8'–0"	3'–7"			2'–3"	6⅛"	
EA509	5	63	5	18'–1"	1'–3"	3'–6"	4'–4"	8"	5'–0"	3'–4"			2'–3"	6⅛"	
EA601	6	10	84	7'–8"	3'–3"	4'–5"									
EA602	6	10	7	7'–8" TO 9'–1"	3'–3"	4'–5" TO 5'–10"									
EA603	6	10	7	7'–8" TO 9'–3"	3'–3"	4'–5" TO 6'–0"									
EA604	6	STR	11	21'–2½"											
EA605	6	STR	14	21'–5½"											
EA606	6	STR	14	21'–10"											
EA607	6	STR	54	22'–3¾"											
EA608	6	STR	12	22'–2"											
EA609	6	STR	10	23'–1"											
EA610	6	10	14	16'–1½"	3'–3"	12'–10½"									
EA611	6	4	7	43'–0" TO 45'–0¼"	3'–3"	36'–6" TO 38'–6¼"	3'–3"								
EA612	6	10	7	14'–3" TO 16'–8½"	3'–3"	11'–0" TO 13'–5½"									
EA613	6	14	30	33'–8¾"	11¼"	32'–9½"		5¼"							
EA614	6	11	30	35'–0"	3'–3"	31'–9"	19'–1½"								
EA615	6	STR	60	35'–0"											
EA801	8	11	10	10'–9"	4'–1"	6'–8"	5'–1"								
EA802	8	11	14	11'–0"	4'–4"	6'–8"	5'–1"								
EA803	8	11	14	11'–5"	4'–9"	6'–8"	5'–1"								
EA804	8	11	43	11'–10"	5'–2"	6'–8"	5'–1"								
EA805	8	STR	81	21'–9"											
EA806	8	STR	9	22'–3¾"											
EA807	8	STR	8	21'–1"											
EF401	4	18	84	3'–0⅜"	8"	1'–11"	2⅜"	3"	3"						1"
EF601	6	STR	4	7'–5½" TO 10'–0"											
EF602	6	15	4	8'–9½" TO 11'–4"	8"	7'–5½" TO 10'–0"		4½"							
EF603	6	STR	63	10'–11"											
EF604	6	15	63	12'–3"	8"	10'–11"		4½"							
EF605	6	STR	5	5'–3½" TO 10'–4"											
EF606	6	15	5	6'–7½" TO 11'–10"	8"	5'–3½" TO 10'–4"		4½"							
EF607	6	11	2	3'–10"	1'–11"	1'–11"									
EF608	6	11	2	6'–2"	4'–3"	1'–11"	1'–6"								
EF609	6	11	2	6'–2"	4'–3"	1'–11"	1'–5"								
EF610	6	STR	14	9'–6"											
EF611	6	STR	22	5'–5½"											
EF612	6	STR	24	32'–0" TO 35'–0"											

NOTES:

1. FOR GENERAL NOTES, SEE SHEET 5.
2. FOR BAR MARK LEGEND AND ADDITIONAL NOTES, SEE SHEET 44.

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B–0185–2001 / L–201
REINFORCEMENT BAR SCHEDULE – 3

RECOMMENDED 9/1/2020

PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	AAT/RSJ	DATE:	8/18/2020
CHECKED BY:	AYB	DATE:	8/18/2020
SCALE:	AS NOTED	SHEET:	46 OF 62

File: \\mmdc10\projects_2\3436.10\CADD\Structural\Final Design\S22600046FXX_REINF SCHED-3
Plotted 8/19/2020 11:28:46 PM by JOHNSON, RYAN S.

REINFORCEMENT BAR SCHEDULE

MARK	SIZE	TYPE	NUMBER	LENGTH	A	B	C	D	E	F	G	H	J	K	R
EAST ABUTMENT (CONTINUED)															
EF613	6	STR	24	31'–0" TO 35'–0"											
EF614	6	STR	6	10'–2"											
EF615	6	15	7	11'–6"	8"	10'–2"		4½"							
EF616	6	STR	22	5'–0"											
EF617	6	7	2	12'–4"	4'–3"	3'–5"	4'–8"	2'–3¾"							
EF618	6	STR	10	5'–2""											
EF619	6	STR	8	6'–6"											
EF620	6	STR	2	16'–9"											
EF621	6	STR	124	3'–8"											
EF701	7	STR	17	3'–0"											
EF801	8	14	101	8'–4"	1'–3"	7'–1"		7"							
EW501	5	4	8	7'–2"	3'–0"	1'–2"	3'–0"								
EW502	5	STR	27	1'–6⅞"											
EW601	6	STR	9	25'–7 1/16"											
EW602	6	STR	54	5'–1⅝"											
EW801	8	STR	8	25'–7 1/16"											

NOTES:

1. FOR GENERAL NOTES, SEE SHEET 5.
2. FOR BAR MARK LEGEND AND ADDITIONAL NOTES, SEE SHEET 44.

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B–0185–2001 / L–201

REINFORCEMENT BAR SCHEDULE – 4

RECOMMENDED 9/1/2020

PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	AAT/RSJ	DATE:	8/18/2020
CHECKED BY:	AYB	DATE:	8/18/2020
SCALE:	AS NOTED	SHEET:	47 OF 62

File: \\mmdc10\projects_2\34.36.10\CADD\Structural\Final Design\S226000470FXX_REINF SCHED-4
Plotted 8/19/2020 1:31:06 PM by JOHNSON, RYAN S.

REINFORCEMENT BAR SCHEDULE

MARK	SIZE	TYPE	NUMBER	LENGTH	A	B	C	D	E	R	REMARKS
DECK											
ES401	4	STR	55	25'–0"							
ES402	4	STR	55	60'–0"							
ES403	4	STR	55	48'–0"							
ES411	4	14	424	6'–4"	6"	5'–10"		4"			
ES501	5	STR	62	25'–0"							
ES502	5	STR	62	60'–0"							
ES503	5	STR	62	48'–0"							
ES504	5	STR	144	51'–8"							
ES505	5	15	144	52'–10"	7"	51'–8"		5"			
ES506	5	12	242	6'–9¼"	2'–10"	1'–1¼"	2'–10"	7¾"	10¾"		
ES509	5	15	146	2'–5" TO 52'–8¾"	7"	1'–3" TO 51'–6¾"		5"			
ES510	5	STR	146	1'–3" TO 51'–6¾"							
SIDEWALK											
ES401	4	STR	20	25'–0"							
ES402	4	STR	20	60'–0"							
ES403	4	STR	20	48'–0"							
ES507	5	STR	242	8'–11"							
ES508	5	STR	28	1'–0" TO 7'–10"							
PARAPET											
EC401	4	39	296	7'–9½"	2'–9"	4"	3"	5½"	3"	2"	
EC402	4	38	296	6'–11½"	1'–6"	2'–4"	4"	3"	2'–6½"	2"	
EC403	4	39	4	7'–9½"	2'–9"	4"	3"	5½"	3"	2"	
EC404	4	38	4	6'–11½"	1'–6"	2'–4"	4"	3"	2'–6½"	2"	
EC501	5	STR	48	44'–6⅛"							
EC601	6	STR	24	45'–6"							
PROTECTIVE BARRIER											
EC301	3	4	320	12'–11½"	6'–4"	3½"	6'–4"				
EC302	3	STR	76	46'–1"							
EC401	4	4	36	14'–8⅜"	6'–10"	1'–0⅜"	6'–10"				
EC402	4	25	60	5'–4¼"	1'–1⅜"	1'–3¼"	3"	2½"			
EC403	4	25	12	7'–9¼"	1'–11"	1'–8⅝"	3"	2½"			
EC404	4	11	24	2'–7"	1'–3½"	1'–3½"	8⅝"				
EC405	4	4	12	3'–6⅝"	1'–2½"	1'–1⅝"	1'–2½"				
EC406	4	4	12	3'–8"	1'–2"	1'–4"	1'–2"				
DIAPHRAGM											
ED401	4	25	252	6'–9"	1'–5½"	1'–6½"	4½"	2"			
ED402	4	25	252	6'–11½"	1'–5½"	1'–7¾"	4½"	2"			
ED403	4	5	56	6'–6¾"	8"	1'–11⅜"	9½"	2'–5⅞"	8"		
ED404	4	4	56	4'–11½"	2'–2⅝"	6¼"	2'–2⅝"				
ED405	4	10	112	2'–8⅜"	2'–2⅝"	6"					
ED406	4	10	124	5'–7⅜"	2'–2⅝"	3'–4¾"					
ED407	4	58	224	3'–7⅝"	1'–0"	1'–3⅛"	1'–4⅜"	10⅛"			
ED408	4	25	28	5'–7¾"	1'–6½"	1'–0⅜"	3"	2"			
ED409	4	25	28	5'–1¼"	1'–6½"	9⅛"	3"	2"			
ED410	4	30	24	8'–3¾"	8"	3⅜"	6'–8⅜"	8"	5'–1⅝"		
ED411	4	30	8	3'–6¼"	8"	3⅜"	1'–10⅞"	8"	1'–5⅝"		
ED601	6	47	124	5'–4¹³⁄₁₆"	3'–2⅛"	1'–0"	8⅛"	6"	1'–0"		
ED602	6	4	12	11'–7⅝"	1'–0"	9'–7⅝"	1'–0"				
ED603	6	4	4	4'–9¾"	1'–0"	2'–9¾"	1'–0"				

REINFORCEMENT BAR SCHEDULE

MARK	SIZE	TYPE	NUMBER	LENGTH	A	B	C	D	E	R	REMARKS
DIAPHRAGM (CONTINUED)											
ED801	8	30	16	34'–9" TO 44'–9⅛"	31'–2⅝" TO 41'–2¾"	6¾"	1'–11⅝"	1'–0"	1'–7⅛"		
ED802	8	30	16	35'–3⅞" TO 45'–3⅜"	1'–0"	6¾"	1'–11⅝"	31'–9⅛" TO 41'–9¼"	1'–7⅛"		
ED803	8	4	24	33'–4½" TO 43'–4⅝"	31'–8½" TO 41'–0⅝"	1'–4"	1'–0"				
ED804	8	4	8	33'–0½" TO 43'–0⅝"	31'–8½" TO 41'–0⅝"	1'–0"	1'–0"				

NOTES:

1. FOR GENERAL NOTES, SEE SHEET 5.
2. FOR BAR MARK LEGEND AND ADDITIONAL NOTES, SEE SHEET 44.

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201
REINFORCEMENT BAR SCHEDULE – 5

RECOMMENDED 9/1/2020

PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	AAT/RSJ	DATE:	8/18/2020
CHECKED BY:	HNB/PT/TAH	DATE:	8/18/2020
SCALE:	AS NOTED	SHEET:	48 OF 62

File: \\mmdc10\projects_2\3436.10\CADD\Structural\Final Design\S226000480FXX_REINF SCHED-5
Plotted 8/19/2020 1:54:20 PM by JOHNSON, RYAN S.

REINFORCEMENT BAR SCHEDULE

MARK	SIZE	TYPE	NUMBER	LENGTH	A	B	C	D	E	F	G	H	R	REMARKS
APPROACH SLABS														
EAS401	4	STR	40	29'–6"										
EAS402	4	STR	100	2'–3"										
EAS403	4	STR	2	16'–4"										
EAS404	4	STR	4	24'–0"										
EAS405	4	STR	2	18'–0"										
EAS406	4	39	232	7'–9½"	2'–9"	4"	3"	5½"	3"				2"	
EAS407	4	38	232	9'–5"	1'–9"	3'–2"	4"	3"	3'–3"				2"	
EAS408	4	39	4	7'–10"	2'–9"	3"	7½"	5½"	3"				2"	
EAS409	4	38	4	9'–2½"	0'–6"	3'–2"	3"	7½"	4'–2"				2"	
EAS410	4	STR	8	2'–3¾"										
EAS501	5	STR	100	35'–3"										
EAS502	5	STR	128	11'–3"										
EAS503	5	22	144	7'–0½"	3'–1"	1'–6½"	2'–5"							
EAS504	5	STR	103	29'–6"										
EAS505	5	4	140	7'–2½"	3'–1"	1'–0½"	3'–1"							
EAS506	5	4	80	8'–0½"	3'–1"	1'–10½"	3'–1"							
EAS508	5	25	70	7'–6"	2'–0½"	1'–6"	2½"	3¾"						
EAS509	5	25	32	8'–7"	2'–7"	1'–6"	2½"	3¾"						
EAS511	5	11	36	2'–5"	1'–7"	10"	1'–0"							
EAS512	5	STR	8	3'–2"										
EAS513	5	STR	32	30'–0"										
EAS514	5	STR	32	28'–9"										
EAS515	5	STR	32	2'–3¾"										
EAS601	6	STR	21	35'–6"										
EAS602	6	STR	16	11'–3"										
EAS603	6	STR	2	29'–6"										
EAS604	6	STR	1	12'–0"										
EAS605	6	STR	1	15'–0"										
EAS606	6	STR	1	11'–0"										
EAS607	6	STR	1	22'–0"										
EAS608	6	STR	16	30'–0"										
EAS609	6	STR	16	28'–9"										
EAS610	6	STR	16	2'–3¾"										
EAS701	7	STR	88	35'–4"										
EAS801	8	STR	5	35'–6"										
EAS802	8	STR	1	11'–0"										
EAS803	8	STR	1	22'–0"										
ESS501	5	STR	88	33'–3"										
ESS801	8	STR	200	7'–0"										
EAS1001	10	STR	207	29'–6"										
EAS1002	10	STR	4	12'–10"										
EAS1003	10	STR	4	14'–6"										

NOTES:

1. FOR GENERAL NOTES, SEE SHEET 5.
2. FOR BAR MARK LEGEND AND ADDITIONAL NOTES, SEE SHEET 44.

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001 / L-201

REINFORCEMENT BAR SCHEDULE – 6

RECOMMENDED 9/1/2020

PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	AAT/RSJ	DATE:	8/18/2020
CHECKED BY:	AYB	DATE:	8/18/2020
SCALE:	AS NOTED	SHEET:	49 OF 62

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Plotted 8/19/2020 2:01:07 PM by JOHNSON, RYAN S.

REINFORCEMENT BAR SCHEDULE

MARK	SIZE	TYPE	NUMBER	LENGTH	A	B	C	D	E	F	G	H	R	REMARKS
MOMENT SLABS														
EMS401	4	STR	28	18'–0" TO 24'–9½"										
EMS402	4	STR	28	16'–0" TO 22'–6"										
EMS403	4	STR	28	17'–0" TO 23'–6"										
EMS404	4	STR	164	29'–6"										
EMS405	4	STR	28	23'–4" TO 30'–0"										
EMS406	4	STR	167	8'–6"										
EMS408	4	16	196	2'–9"	4½"	2'–0"	4½"	4½"						
EMS409	4	STR	14	11'–8"										
EMS410	4	STR	14	12'–7"										
EMS411	4	39	680	7'–9½"	2'–9"	4"	3"	5½"	3"				2"	
EMS412	4	38	680	9'–5"	1'–9"	3'–2"	4"	3"	3'–3"				2"	
EMS413	4	STR	41	11'–2"										
EMS414	4	STR	41	27'–2"										
EMS501	5	4	89	11'–10½"	1'–8"	8'–8"	1'–6½"							
EMS502	5	STR	331	8'–8"										
EMS503	5	4	40	3'–1" TO 9'–2 ½"	1'–6½" TO 1'–8"	1'–0" TO 7'–0"	1'–6½"							
EMS504	5	STR	40	1'–0" TO 7'–0"										
EMS511	5	4	14	15'–2"	1'–7½"	12'–0"	1'–6½"							
EMS512	5	STR	16	12'–0"										
EMS513	5	4	14	15'–6"	1'–7½"	12'–4"	1'–6½"							
EMS514	5	STR	16	12'–4"										
EMS515	5	4	14	18'–11½"	3'–7½"	11'–9½"	3'–6½"							
EMS516	5	STR	16	11'–9½"										
EMS517	5	4	14	19'–11"	3'–7½"	12'–9"	3'–6½"							
EMS518	5	STR	16	12'–9"										
EMS519	5	4	230	15'–10½"	3'–8"	8'–8"	3'–6½"							
EMS520	5	STR	6	23'–9"										
EMS521	5	STR	6	14'–11"										
EMS522	5	STR	12	23'–4"										
EMS523	5	STR	6	27'–2"										
EMS524	5	STR	24	29'–6"										
EMS525	5	17	6	8'–10⅜"	3'–10"	2⅜"	4'–10"						1½"	
EMS526	5	17	6	9'–2⅞"	4'–2½"	2⅜"	4'–10"						1½"	
EMS527	5	17	6	8'–6½"	3'–6"	2⅜"	4'–10"						1½"	
EMS528	5	17	6	9'–5⅜"	4'–5"	2⅜"	4'–10"						1½"	
EMS529	5	STR	6	11'–2"										
EMS601	6	STR	4	23'–9"										
EMS602	6	STR	4	14'–11"										
EMS603	6	STR	8	23'–4"										
EMS604	6	STR	4	27'–2"										
EMS605	6	STR	16	29'–6"										
EMS606	6	17	4	8'–10⅜"	3'–10"	2⅜"	4'–10"						2¼"	
EMS607	6	17	4	9'–2⅞"	4'–2½"	2⅜"	4'–10"						2¼"	
EMS608	6	17	4	8'–6½"	3'–6"	2⅜"	4'–10"						2¼"	
EMS609	6	17	4	9'–5⅜"	4'–5"	2⅜"	4'–10"						2¼"	
EMS610	6	STR	6	11'–2"										

NOTES:

1. FOR GENERAL NOTES, SEE SHEET 5.
2. FOR BAR MARK LEGEND AND ADDITIONAL NOTES, SEE SHEET 44.

NUMBER	REVISIONS	BY	DATE

MODJESKI AND MASTERS, INC.
1341 NORTH DELAWARE AVENUE,
SUITE 308
PHILADELPHIA, PA 19125

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER W. SMITH
ENGINEER
PE062861

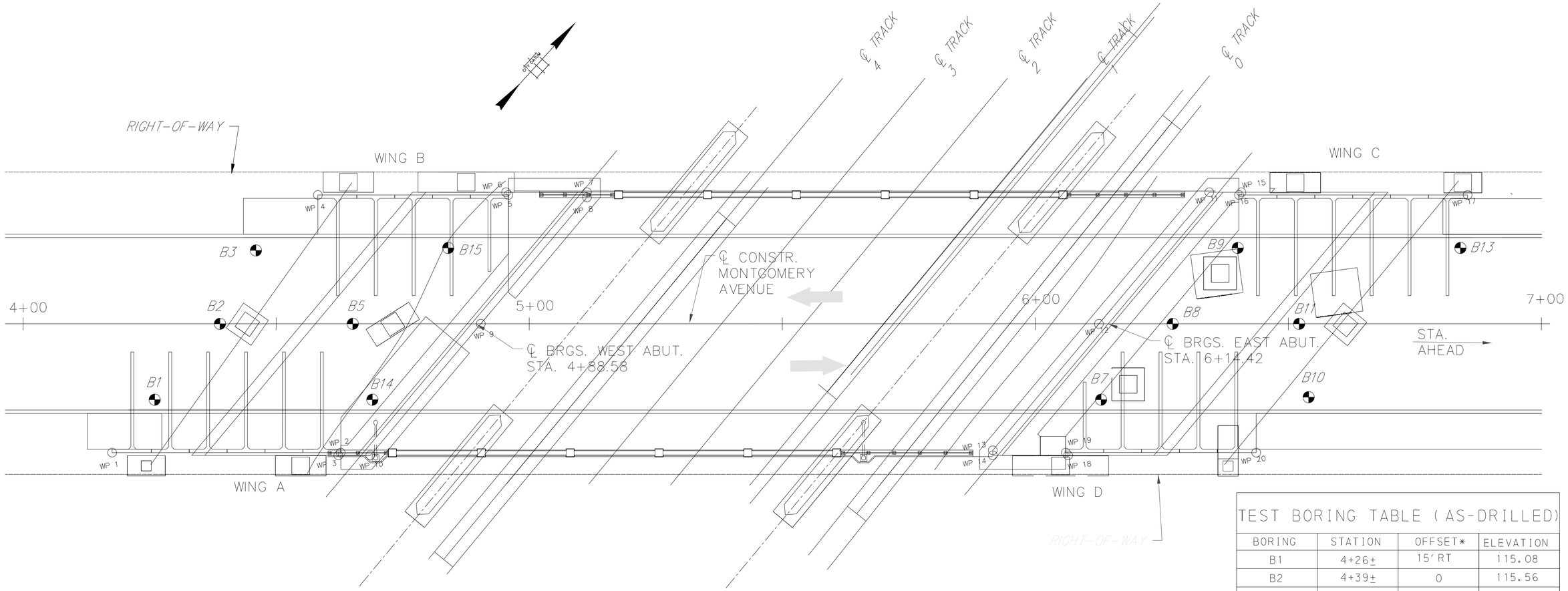
MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B–0185–2001 / L–201
REINFORCEMENT BAR SCHEDULE – 7

RECOMMENDED 9/1/2020

PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	AAT/RSJ	DATE:	8/18/2020
CHECKED BY:	AYB	DATE:	8/18/2020
SCALE:	AS NOTED	SHEET:	50 OF 62

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Plotted 8/19/2020 2:03:11 PM by JOHNSON, RYAN S.



GENERALPLAN

0 10 20 FT

SCALE:

TEST BORING TABLE (AS-DRILLED)

BORING	STATION	OFFSET*	ELEVATION
B1	4+26±	15′ RT	115.08
B2	4+39±	0	115.56
B3	4+46±	14.5′ LT	115.43
B4	ELIMINATED	N.A.	N.A.
B5	4+65±	0	116.88
B6	ELIMINATED	N.A.	N.A.
B7	6+13±	15′ RT	117.14
B8	6+27±	0	116.94
B9	6+40±	15′ LT	116.94
B10	6+54±	15.4′ RT	115.26
B11	6+52±	0	115.94
B12	ELIMINATED	N.A.	N.A.
B13	6+84±	15′ LT	114.16
B14	4+69±	15′ RT	116.83
B15	4+84±	15′ LT	117.17

*DENOTES OFFSET FROM CL CONSTR.

THE SUBSURFACE EXPLORATION DATA WHICH ARE PRESENTED ON THESE DRAWINGS (INCLUDING BORING LOGS, EARTH SAMPLES, ROCK CORES, CLASSIFICATION OF MATERIALS, AND DEPTH OF THE BORINGS) ACCURATELY REPRESENT THE CONDITIONS ENCOUNTERED BY THE TEST BORING PROGRAM AT EACH BORING LOCATION.

Darin L Gatti 9/10/2020

PROFESSIONAL ENGINEER DATE

THE CLASSIFICATION OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED

Darin L Gatti

PROFESSIONAL ENGINEER

TEST BORING NOTES:

* PENETRATION TEST AND SPLIT-BARREL SAMPLING OF SOILS, ASTM D1586, 140 LB. HAMMER, 30 IN DROP RECORDING NUMBER OF BLOWS OBTAINED FOR EACH 6 IN. *PENETRATION, USUALLY FOR A TOTAL OF 18 IN, PENETRATION OF THE STANDARD 2 IN. O.D. AND 1-3/8 IN. I.D. *SPLIT BARREL SAMPLER. PENETRATION RESISTANCE (N) IS THE TOTAL NUMBER OF BLOWS REQUIRED FOR *THE SECOND AND THIRD 6 IN. PENETRATION.

* THIN WALLED TUBE SAMPLING, ASTM D1587, SAMPLES ARE OBTAINED BY PRESSING THIN-WALLED STEEL, BRASS OR ALUMINUM TUBES INTO SOIL.

STANDARD THIN-WALLED STEEL TUBES:		
O.D. IN.	2	3
I.D. IN.	1.94	2.87

* DIAMOND CORE DRILLING, ASTM D2113, DIAMOND CORE DRILLING IS USED TO RECOVER INTACT SAMPLE OF ROCK AND SOME HARD SOILS GENERALLY WITH THE USE OF A:
  BWM DOUBLE TUBE CORE BARREL
  NWM DOUBLE TUBE CORE BARREL

* SOIL SAMPLES HAVE NOT BEEN LABORATORY CLASSIFIED.

NOTES:

* WORK THIS SHEET WITH NOS. 48 THROUGH 58.
* THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE STREETS DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
* STATIONS, OFFSETS, AND O.G. ELEVATIONS ARE FURNISHED BY THE CITY.
* THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
* BPCE - BOTTOM OF PILE CAP ELEVATION
* EPTE - ESTIMATED PILE TIP ELEVATION
* MPDE - MAXIMUM PRE-DRILLING ELEVATION
* TLPE - TOP OF LEVELING PAD ELEVATION
* TOR - TOP OF ROCK

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL DARIN L. GATTI ENGINEER 035696-E

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP. STEEL PLATE GIRDER BRIDGE
B-0185-2001/L-201
TEST BORING PLAN

RECOMMENDED

PREPARED BY
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	RCD/JF	DATE:	05/21/2002
CHECKED BY:	JF	DATE:	06/04/2002
SCALE:	AS NOTED	SHEET:	51 OF 62

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-1
SHEET 1 OF 3
DATE: START 3/26/03
O.G. END: 3/26/03
ELEV. 115.1

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 4+26 OFFSET FROM CENTERLINE 15' R
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 37 FT TIME: 0 HRS. DATE: 03/26/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 17 FT TIME: 24 HRS. DATE: 03/27/03
NOT ENCOUNTERED ☐

ELEVATION	DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%)	RQD (%)	POCKET PENT./ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
115										4" BRICK OVER 10" CONCRETE OVER GRAY COARSE-FINE SAND, TRACE SILT, TRACE FINE GRAVEL, TRACE CONCRETE FRAGMENTS	ADVANCED AUGER TO 2 FT
	2.0										2.0
		S-1	10 10 4 3	13"	54		sp / a-3			GRAY COARSE-FINE SAND, TRACE SILT, LITTLE MEDIUM-FINE GRAVEL, TRACE CONCRETE FRAGMENTS	
	3.0									BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT, TRACE CONCRETE FRAGMENTS	
110	4.0	S-2	15 9 3 3	8"	33		sw / a-1-b			BROWN COARSE-FINE SAND, TRACE SILT, LITTLE COARSE-FINE GRAVEL, TRACE CONCRETE FRAGMENTS	
	6.0	S-3	3 2 3 3	6"	25		sm / a-1-b			BROWN MEDIUM-FINE SAND & SILT, WITH CINDERS & ASH, TRACE BRICK & CONCRETE FRAGMENTS	
105	8.0	S-4	2 2 2 2	6"	25		sm / a-1-b				
	10.0	S-5	2 3 2 2	6"	25		ml / a-4			Brown SILT & CINDERS & ASH	
	12.0	S-6	1 1 1 2	6"	25		sm / a-1-b				
100	14.0	S-7	2 3 2 2	12"	50		ml / a-4			DARK BROWN SILT, TRACE MEDIUM-FINE SAND	
	16.0	S-8	2 3 3 2	10"	42		mh / a-5			REDDISH BROWN CLAYEY SILT, LITTLE MEDIUM-FINE SAND, TRACE MEDIUM-FINE GRAVEL	
	18.0	S-9	2 2 3 3	14"	58		mh / a-5				
95	20.0										20.0

NOTE:

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-1
SHEET 2 OF 3
DATE: START 3/26/03
O.G. END: 3/26/03
ELEV. 115.1

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 4+26 OFFSET FROM CENTERLINE 15' R
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 37 FT TIME: 0 HRS. DATE: 03/26/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 17 FT TIME: 24 HRS. DATE: 03/27/03
NOT ENCOUNTERED ☐

TLPE WING A 90.24

ELEVATION	DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%)	RQD (%)	POCKET PENT./ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
115											
		S-10	2 2 3 4	6"	25			mh / a-5		BROWN & REDDISH BROWN CLAYEY SILT, LITTLE MEDIUM-FINE SAND, TRACE MEDIUM-FINE GRAVEL	
110	22.0	S-11	2 3 4 4	8"	33			mh / a-5			
	24.0	S-12	3 4 4 4	5"	21			mh / a-5			
	26.0	S-13	3 3 4 4	14"	58			mh / a-5			
105	28.0	S-14	3 3 4 4	8"	33			mh / a-5		BROWN CLAYEY SILT, LITTLE MEDIUM-FINE SAND, SOME WOOD FRAGMENTS, TRACE BRICK FRAGMENTS	
	30.0	S-15	4 4 4 4	9"	38			mh / a-5		REDDISH BROWN CLAYEY SILT, LITTLE COARSE-FINE SAND, LITTLE FINE GRAVEL	
	32.0	S-16	3 4 3 3	24"	100			sc / a-2-6		DARK BROWN MICACEOUS MEDIUM-FINE SAND & CLAYEY SILT, TRACE MEDIUM-FINE GRAVEL	
100	34.0	S-17	3 4 5 4	18"	75			sm / a-1-b		DARK BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT, TRACE FINE GRAVEL	
	36.0	S-18	3 4 5 5	20"	83			mh / a-5		DARK BROWN CLAYEY SILT, SOME MEDIUM-FINE SAND, TRACE FINE GRAVEL	
	38.0	S-19	3 3 3 3	12"	50			mh / a-5			
95	40.0										40.0

NOTE:

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-1
SHEET 3 OF 3
DATE: START 3/26/03
O.G. END: 3/26/03
ELEV. 115.1

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 4+26 OFFSET FROM CENTERLINE 15' R
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 37 FT TIME: 0 HRS. DATE: 03/26/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 17 FT TIME: 24 HRS. DATE: 03/27/03
NOT ENCOUNTERED ☐

TOR 73.00

ELEVATION	DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%)	RQD (%)	POCKET PENT./ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
75		S-20	12 50/5"	8"				sm / a-1-b		BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT	
	42.0										42.0
	42.1	S-21	50/1"	1"				sw / a-1-b		GRAY COARSE-FINE SAND, SOME COARSE-FINE ROCK FRAGMENTS	42.1
70		R-1	NA	5"	100 43	NA	NA	NA		MODERATELY WEATHERED, MEDIUM TO CLOSELY FRACTURED MICA SCHIST	
	47.1										
65		R-2	NA	5"	100 63	NA	NA	NA			
	52.1									END OF BORING @ 52'-0"	52.1
60											

NOTE:

THE SUBSURFACE EXPLORATION DATA WHICH ARE PRESENTED ON THESE DRAWINGS (INCLUDING BORING LOGS, EARTH SAMPLES, ROCK CORES, CLASSIFICATION OF MATERIALS, AND DEPTH OF THE BORINGS) ACCURATELY REPRESENT THE CONDITIONS ENCOUNTERED BY THE TEST BORING PROGRAM AT EACH BORING LOCATION.

Darin L. Gatti 9/10/2020

PROFESSIONAL ENGINEER DATE

THE CLASSIFICATION OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED

Darin L. Gatti

PROFESSIONAL ENGINEER

TEST BORING NOTES:

- PENETRATION TEST AND SPLIT-BARREL SAMPLING OF SOILS, ASTM D1586, 140 LB. HAMMER, 30 IN DROP RECORDING NUMBER OF BLOWS OBTAINED FOR EACH 6 IN. PENETRATION, USUALLY FOR A TOTAL OF 18 IN, PENETRATION OF THE STANDARD 2 IN. O.D. AND 1-3/8 IN. I.D. SPLIT BARREL SAMPLER. PENETRATION RESISTANCE (N) IS THE TOTAL NUMBER OF BLOWS REQUIRED FOR THE SECOND AND THIRD 6 IN. PENETRATION.
- THIN WALLED TUBE SAMPLING, ASTM D1587, SAMPLES ARE OBTAINED BY PRESSING THIN-WALLED STEEL, BRASS OR ALUMINUM TUBES INTO SOIL.

  STANDARD THIN-WALLED STEEL TUBES:

O.D. IN.	2	3
I.D. IN.	1.94	2.87

- DIAMOND CORE DRILLING, ASTM D2113, DIAMOND CORE DRILLING IS USED TO RECOVER INTACT SAMPLE OF ROCK AND SOME HARD SOILS GENERALLY WITH THE USE OF A:
  BWM DOUBLE TUBE CORE BARREL
  NWM DOUBLE TUBE CORE BARREL
- SOIL SAMPLES HAVE NOT BEEN LABORATORY CLASSIFIED.

NOTES:

- WORK THIS SHEET WITH NOS. 49 & 51 THROUGH 58.
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE STREETS DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- STATIONS, OFFSETS, AND O.G. ELEVATIONS ARE FURNISHED BY THE CITY.
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- BPCE – BOTTOM OF PILE CAP ELEVATION
- EPTE – ESTIMATED PILE TIP ELEVATION
- MPDE – MAXIMUM PRE-DRILLING ELEVATION
- TOR – TOP OF ROCK

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — DARIN L. GATTI — ENGINEER — 035696-E

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001/L-201

TEST BORING LOGS

RECOMMENDED

PREPARED BY
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	RCD/MW	DATE:	6/29/2004
CHECKED BY:	HH/CJM	DATE:	7/27/2005
SCALE:	AS NOTED	SHEET:	52 OF 62

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-2
SHEET 1 OF 3
DATE: START 4/8/03
END: 4/8/03
O.G. ELEV. 115.6

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 4+39 OFFSET FROM CENTERLINE 0
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 38 FT TIME: 0 HRS. DATE: 04/08/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 45 FT TIME: 24 HRS. DATE: 04/09/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	%(RECOVERY)(%) / ROD (%)	POCKET PENT./ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
2.0								" Brick over 4" Sand over 10" Concrete	ADVANCED AUGER TO 2 FT
		5		58		sm		BROWN MEDIUM-FINE SAND, SOME SILT, TRACE BRICK & CONCRETE FRAGMENTS	
4.0	S-1	3 6 6	14"			a-1-b			
		2		100		sp		BROWN MICACEOUS MEDIUM-FINE SAND, LITTLE SILT, TRACE BRICK & CONCRETE FRAGMENTS	
6.0	S-2	2 2 2	24"			a-1-b			
		2		83		sm		BROWN MEDIUM-FINE SAND, SOME SILT, TRACE BRICK FRAGMENTS & CINDERS	
8.0	S-3	2 2 2	20"			a-1-b			
		2		50		ml		BROWN SILT, LITTLE MEDIUM-FINE SAND, TRACE BRICK FRAGMENTS & CINDERS	
10.0	S-4	3 2 2	12"			a-4			
		3		42		ml		BROWN SILT & CINDERS & ASH, LITTLE MEDIUM-FINE SAND, TRACE BRICK FRAGMENTS	
12.0	S-5	3 2 2	10"			a-4			
		1		67		ml			
14.0	S-6	2 2 1	16"			a-4			
		2		67		ml		BROWN SILT, LITTLE MEDIUM-FINE SAND, TRACE CINDERS & ASH	
16.0	S-7	2 1 2	16"			a-4			
		1		83		sm		BROWN MEDIUM-FINE SAND, SOME SILT, TRACE BRICK FRAGMENTS & CINDERS	
18.0	S-8	1 2 2	20"			a-1-b			
		2		83		mh		REDDISH BROWN CLAYEY SILT, TRACE MEDIUM-FINE SAND, TRACE FINE GRAVEL	
20.0	S-9	1 1 2	20"			a-5			

NOTE:

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-2
SHEET 2 OF 3
DATE: START 4/8/03
END: 4/8/03
O.G. ELEV. 115.6

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 4+39 OFFSET FROM CENTERLINE 0
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 38 FT TIME: 0 HRS. DATE: 04/08/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 45 FT TIME: 24 HRS. DATE: 04/09/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	%(RECOVERY)(%) / ROD (%)	POCKET PENT./ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
		2		75		mh		REDDISH BROWN CLAYEY SILT, TRACE MEDIUM-FINE SAND, TRACE FINE GRAVEL & BRICK FRAGMENTS	
22.0	S-10	3 2 2	18"			a-5			
		2		88		mh		REDDISH BROWN CLAYEY SILT, LITTLE MEDIUM-FINE SAND, LITTLE FINE GRAVEL	
24.0	S-11	2 2 3	21"			a-5			
		2		42		mh			
26.0	S-12	3 4 4	10"			a-5			
		3		33		mh		REDDISH BROWN CLAYEY SILT, TRACE MEDIUM-FINE SAND, TRACE FINE GRAVEL	
28.0	S-13	3 4 4	8"			a-5			
		3		46		mh			
30.0	S-14	3 3 5	11"			a-5			
		3		58		mh			
32.0	S-15	3 3 4	14"			a-5			
		3		33		mh			
34.0	S-16	3 4 4	8"			a-5			
		4		38		sp			
35.0	S-17	4 4 10	9"			a-1-b		BROWN MICACEOUS MEDIUM-FINE SAND, LITTLE SILT, TRACE ROCK FRAGMENTS	
36.0	S-18	11 14 17 18	17"	71		sp a-1-b			
38.0	S-19	6 6 9 6	11"	46		sm a-1-b		BROWN & DARK BROWN MEDIUM-FINE SAND, SOME SILT, SOME MEDIUM-FINE GRAVEL	
40.0									

NOTE:

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-2
SHEET 3 OF 3
DATE: START 4/8/03
END: 4/8/03
O.G. ELEV. 115.6

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 4+39 OFFSET FROM CENTERLINE 0
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 38 FT TIME: 0 HRS. DATE: 04/08/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 45 FT TIME: 24 HRS. DATE: 04/09/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	%(RECOVERY)(%) / ROD (%)	POCKET PENT./ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
		11		46		sm		BROWN & OLIVE BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT	
42.0	S-20	14 17 18	11"			a-1-b			
		7		50		sm			
44.0	S-21	10 7 11	12"			a-1-b			
		16		27		sm			
46.0	S-22	17 41 50/4"	6"			a-1-b			
		50/4"		100		sm			
48.0	S-23		4"			a-1-b			
48.1	S-24	50/1"	1"			SM a-1-b		BROWN & GRAY MEDIUM-FINE ROCK FRAGMENTS / MODERATELY WEATHERED, VERY CLOSELY FRACTURED MICA SCHIST	
				78					
53.1	R-1	NA	3.92	6	NA	NA	NA		
				93				MODERATELY WEATHERED, CLOSELY TO MEDIUM FRACTURED MICA SCHIST	
58.1	R-2	NA	4.67	86	NA	NA	NA		

NOTE:

ELEVATION: 115, 110, 105, 100

ELEVATION: 115, 110, 105, 100

ELEVATION: 95, 90, 85, 80

ELEVATION: 95, 90, 85, 80

TOR 67.50

ELEVATION: 75, 70, 65, 60

ELEVATION: 75, 70, 65, 60

TEST BORING NOTES:

- PENETRATION TEST AND SPLIT-BARREL SAMPLING OF SOILS, ASTM D1586, 140 LB. HAMMER, 30 IN DROP RECORDING NUMBER OF BLOWS OBTAINED FOR EACH 6 IN. PENETRATION, USUALLY FOR A TOTAL OF 18 IN, PENETRATION OF THE STANDARD 2 IN. O.D. AND 1-3/8 IN. I.D. SPLIT BARREL SAMPLER. PENETRATION RESISTANCE (N) IS THE TOTAL NUMBER OF BLOWS REQUIRED FOR THE SECOND AND THIRD 6 IN. PENETRATION.

- THIN WALLED TUBE SAMPLING, ASTM D1587, SAMPLES ARE OBTAINED BY PRESSING THIN-WALLED STEEL, BRASS OR ALUMINUM TUBES INTO SOIL.
  STANDARD THIN-WALLED STEEL TUBES:
  O.D. IN. 2 3
  I.D. IN. 1.94 2.87

- DIAMOND CORE DRILLING, ASTM D2113, DIAMOND CORE DRILLING IS USED TO RECOVER INTACT SAMPLE OF ROCK AND SOME HARD SOILS GENERALLY WITH THE USE OF A:
  BWM DOUBLE TUBE CORE BARREL
  NWM DOUBLE TUBE CORE BARREL

- SOIL SAMPLES HAVE NOT BEEN LABORATORY CLASSIFIED.

NOTES:

- WORK THIS SHEET WITH NOS. 48, 50, & 51 THROUGH 58
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE STREETS DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- STATIONS, OFFSETS, AND O.G. ELEVATIONS ARE FURNISHED BY THE CITY.
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- BPCE – BOTTOM OF PILE CAP ELEVATION
- EPTE – ESTIMATED PILE TIP ELEVATION
- MPDE – MAXIMUM PRE-DRILLING ELEVATION
- TOR – TOP OF ROCK

THE CLASSIFICATION OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED

Darin L. Gatti

PROFESSIONAL ENGINEER

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — DARIN L. GATTI — ENGINEER — 035696-E

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001/L-201
TEST BORING LOGS

RECOMMENDED

PREPARED BY
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	RCD/MW	DATE:	6/29/2004
CHECKED BY:	HH/CJM	DATE:	7/27/2005
SCALE:	AS NOTED	SHEET:	53 OF 62

ENGINEERS FIELD BORING LOG

FORM NO: D-481 (12/89) REPRODUCE LOCALLY

BORING NO. B-3 | SHEET 1 OF 4 | DATE: START 3/13/03 | O.G. END: 3/14/03 | ELEV. 115.4

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 4+46 OFFSET FROM CENTERLINE 14.5, L
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 47 FT TIME: 0 HRS. DATE: 03/14/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 28.5 FT TIME: 48 HRS. DATE: 3/17/03
NOT ENCOUNTERED ☐

ELEVATION	DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%)	ROD (%)	POCKET PEN./ TORVANE (TSF)	USCS	AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
115	0.0										2" ASPHALT OVER 3" CONCRETE OVER BROWN & GRAY MEDIUM-FINE SAND WITH CONCRETE FRAGMENTS	ADVANCED AUGER TO 2 FT
	2.0											2.0
		S-1	5 13 16 2	12"	50			sm a-1-b			GRAY COARSE-FINE SAND, SOME SILT, SOME MEDIUM-FINE GRAVEL, SOME CINDERS, BRICK & CONCRETE FRAGMENTS, TRACE SILT	
110	4.0											4.0
		S-2	2 3 3 2	15"	63			sm a-1-b			BROWN COARSE-FINE SAND, SOME CLAYEY SILT	
	6.0											
		S-3	2 3 3 2	12"	50			sm a-1-b				
105	8.0											
		S-4	2 2 2 2	6"	25			sm a-1-b				
	10.0											
		S-5	2 2 3 3	9"	38			sm a-1-b				
	12.0											
		S-6	2 2 2 2	12"	50			sm a-1-b				
	14.0											
100		S-7	2 2 1 1	4"	17			mh a-5				
	15.0										BROWN CLAYEY SILT, TRACE FINE SAND	
	16.0	S-8	2 2 2 2	18"	75			mh a-5				
	18.0										BROWN CLAYEY SILT, SOME BRICK FRAGMENTS, TRACE FINE SAND	
		S-9	4 2 2 1	10"	42			mh a-5				
95	20.0											20.0

NOTE:

ENGINEERS FIELD BORING LOG

FORM NO: D-481 (12/89) REPRODUCE LOCALLY

BORING NO. B-3 | SHEET 2 OF 4 | DATE: START 3/13/03 | O.G. END: 3/14/03 | ELEV. 115.4

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 4+46 OFFSET FROM CENTERLINE 14.5, L
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 47 FT TIME: 0 HRS. DATE: 03/14/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 28.5 FT TIME: 48 HRS. DATE: 3/17/03
NOT ENCOUNTERED ☐

ELEVATION	DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%)	ROD (%)	POCKET PEN./ TORVANE (TSF)	USCS	AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
95	22.0	S-10	3 2 2 3	13"	54			mh a-5			REDDISH BROWN COARSE-FINE SAND & CLAYEY SILT, LITTLE MEDIUM-FINE GRAVEL	
		S-11	2 2 2 2	18"	75			mh a-5				
TLPE WING B 90.70	24.0										BROWN CLAYEY SILT, TRACE MEDIUM-FINE SAND	
		S-12	2 3 3 3	19"	79			mh a-5				
90	26.0											
		S-13	3 5 5 4	12"	50			sm a-1-b				
	27.0										BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT	
	28.0											
		S-14	5 4 5 7	11"	46			mh a-5			REDDISH BROWN COARSE-FINE SAND & CLAYEY SILT, TRACE MEDIUM-FINE GRAVEL	
85	29.0										BROWN MICACEOUS MEDIUM-FINE SAND, LITTLE SILT, SOME COARSE GRAVEL	
	30.0											
		S-15	7 5 5 6	12"	50			ml a-4			BROWN SILT, LITTLE MEDIUM-FINE SAND	
	32.0											
		S-16	6 5 5 5	15"	62			sm a-1-b			BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT	
	33.0										GRAY SILT, LITTLE MEDIUM-FINE SAND, TRACE MEDIUM-FINE GRAVEL	
80	34.0	S-17	3 3 3 3	14"	58			ml a-4				
	36.0	S-18	4 5 8 8	16"	67			ml a-4				
	38.0	S-19	10 13 17 22	17"	71			sm a-1-b			BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT	
	40.0											

NOTE:

ENGINEERS FIELD BORING LOG

FORM NO: D-481 (12/89) REPRODUCE LOCALLY

BORING NO. B-3 | SHEET 3 OF 4 | DATE: START 3/13/03 | O.G. END: 3/14/03 | ELEV. 115.4

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 4+46 OFFSET FROM CENTERLINE 14.5, L
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 47 FT TIME: 0 HRS. DATE: 03/14/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 28.5 FT TIME: 48 HRS. DATE: 3/17/03
NOT ENCOUNTERED ☐

ELEVATION	DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%)	ROD (%)	POCKET PEN./ TORVANE (TSF)	USCS	AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
75	42.0	S-20	14 17 21 28	12"	50			sm a-1-b				
		S-21	7 12 14 11	13"	54			sm a-1-b				
	44.0										BROWN MICACEOUS COARSE-FINE SAND, SOME SILT	
		S-22	13 50/3"	2"	12			sm a-1-b				
70	46.0											
		S-23	50/1"	1"	100			sm a-1-b			LIGHT GRAY COARSE-FINE SAND, SOME SILT, TRACE FINE ROCK FRAGMENTS	
	48.0											
		S-24	50/1"	1"	100			sm a-1-b			GRAY & BROWN COARSE-FINE SAND, SOME SILT, LITTLE MEDIUM-FINE ROCK FRAGMENTS	
	50.0											
65	51.0	S-25	50/1"	1"	100			sm a-1-b				
TOR 64.30	51.1	S-26	50/1"	1"				sm a-1-b			MODERATELY TO SLIGHTLY WEATHERED, CLOSELY TO MEDIUM FRACTURED MICA SCHIST	
		R-1	NA	5'	100 92	NA	NA	NA				
	56.1										MODERATELY WEATHERED, CLOSELY FRACTURED MICA SCHIST	
60		R-2	NA	5'	100	NA	NA	NA				

NOTE:

ENGINEERS FIELD BORING LOG

FORM NO: D-481 (12/89) REPRODUCE LOCALLY

BORING NO. B-3 | SHEET 4 OF 4 | DATE: START 3/13/03 | O.G. END: 3/14/03 | ELEV. 115.4

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 4+46 OFFSET FROM CENTERLINE 14.5, L
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 47 FT TIME: 0 HRS. DATE: 03/14/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 28.5 FT TIME: 48 HRS. DATE: 3/17/03
NOT ENCOUNTERED ☐

ELEVATION	DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%)	ROD (%)	POCKET PEN./ TORVANE (TSF)	USCS	AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
55	61.1					45				61.1	END OF BORING @ 61'-0"	
50												
45												
40												

NOTE:

TEST BORING NOTES:

- PENETRATION TEST AND SPLIT-BARREL SAMPLING OF SOILS, ASTM D1586, 140 LB. HAMMER, 30 IN DROP RECORDING NUMBER OF BLOWS OBTAINED FOR EACH 6 IN. PENETRATION, USUALLY FOR A TOTAL OF 18 IN, PENETRATION OF THE STANDARD 2 IN. O.D. AND 1-3/8 IN. I.D. SPLIT BARREL SAMPLER. PENETRATION RESISTANCE (N) IS THE TOTAL NUMBER OF BLOWS REQUIRED FOR THE SECOND AND THIRD 6 IN. PENETRATION.
- THIN WALLED TUBE SAMPLING, ASTM D1587, SAMPLES ARE OBTAINED BY PRESSING THIN-WALLED STEEL, BRASS OR ALUMINUM TUBES INTO SOIL.
  STANDARD THIN-WALLED STEEL TUBES:
  O.D. IN. 2 3
  I.D. IN. 1.94 2.87
- DIAMOND CORE DRILLING, ASTM D2113, DIAMOND CORE DRILLING IS USED TO RECOVER INTACT SAMPLE OF ROCK AND SOME HARD SOILS GENERALLY WITH THE USE OF A:
  BWM DOUBLE TUBE CORE BARREL
  NWM DOUBLE TUBE CORE BARREL
- SOIL SAMPLES HAVE NOT BEEN LABORATORY CLASSIFIED.

NOTES:

- WORK THIS SHEET WITH NOS. 48 THROUGH 49 & 51 THROUGH 58
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE STREETS DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- STATIONS, OFFSETS, AND O.G. ELEVATIONS ARE FURNISHED BY THE CITY.
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- BPCE – BOTTOM OF PILE CAP ELEVATION
- EPTE – ESTIMATED PILE TIP ELEVATION
- MPDE – MAXIMUM PRE-DRILLING ELEVATION
- TOR – TOP OF ROCK

THE CLASSIFICATION OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED

PROFESSIONAL ENGINEER

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — DARIN L. GATTI — ENGINEER — 035696-E

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001/L-201
TEST BORING LOGS

RECOMMENDED

PREPARED BY
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	RCD/MW	DATE:	6/29/2004
CHECKED BY:	HH/CJM	DATE:	7/27/2005
SCALE:	AS NOTED	SHEET:	54 OF 62

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-5
SHEET 1 OF 3
DATE: START 3/28/03
O.G. END: 3/31/03
ELEV. 116.9

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 4+65 OFFSET FROM CENTERLINE 0
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 39 FT TIME: 0 HRS. DATE: 03/31/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 39 FT TIME: 48 HRS. DATE: 04/02/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO. / TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%)	RQD (%)	POCKET PEN'/ TORVANE (TSF)	USCS	AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
										ADVANCED AUGER 4 FT TO PLUMB AND STABILIZE THE AUGERS	CORED THROUGH EXISTING BRIDGE DECK CONSISTING OF 2.5" ASPHALT OVER 8" CONCRETE. 20FT FROM BRIDGE DECK TO GROUND BELOW
24.0										24.0	
	S-1	2 2 2	12"	67			ml	a-4		BROWN SILT, TRACE MEDIUM-FINE SAND	
25.5										25.5	
	S-2	3 3 4	10"	56			ml	a-4		BROWN SILT, SOME BRICK FRAGMENTS, LITTLE MEDIUM-FINE SAND, TRACE FINE GRAVEL	
27.0										27.0	
	S-3	4 2 4	8"	44			ml	a-4		BROWN SILT, LITTLE MEDIUM-FINE SAND, LITTLE CONCRETE FRAGMENTS, TRACE BRICK FRAGMENTS	
28.5										28.5	
	S-4	2 3 2	8"	44				a-4		RED BRICK FRAGMENTS, TRACE MEDIUM-FINE SAND	
30.0										30.0	
	S-5	4 2 2	14"	78			ml	a-4		BROWN SILT, SOME BRICK FRAGMENTS, LITTLE MEDIUM-FINE SAND, TRACE ASH	
31.5										31.5	
	S-6	2 2 2	10"	56			sm	a-1-b		BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT, LITTLE MEDIUM-FINE GRAVEL	
33.0										33.0	
	S-7	1 2 2	8"	44			mh	a-5		BROWN MICACEOUS CLAYEY SILT, SOME MEDIUM-FINE SAND, TRACE BRICK FRAGMENTS	
34.5										34.5	
	S-8	2 1 2	10"	56			mh	a-5		BROWN MICACEOUS CLAYEY SILT, SOME COARSE-FINE SAND, LITTLE MEDIUM-FINE GRAVEL	
36.0										36.0	
	S-9	2 2 1	6"	33			mh	a-5		BROWN MICACEOUS CLAYEY SILT, SOME COARSE-FINE SAND, TRACE FINE GRAVEL	
37.5										37.5	
	S-10	8 7 9	14"	78			sm	a-1-b		BROWN & GRAY MICACEOUS MEDIUM-FINE SAND, SOME SILT	
39.0											
	S-11	11 11	10"	56			sm				

NOTE:

BPCE WEST ABUT
87.58

ELEVATION 95 90 85 80

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-5
SHEET 2 OF 3
DATE: START 3/28/03
O.G. END: 3/31/03
ELEV. 116.9

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 4+65 OFFSET FROM CENTERLINE 0
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 39 FT TIME: 0 HRS. DATE: 03/31/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 39 FT TIME: 48 HRS. DATE: 04/02/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO. / TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%)	RQD (%)	POCKET PEN'/ TORVANE (TSF)	USCS	AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
40.5		15						a-1-b			
	S-12	14 20 45	8"		44		sm	a-1-b			
42.0											
	S-13	4 8 24	5"		28		sm	a-1-b			
43.5											
	S-14	50/2"	2"		100		sm	a-1-b			
45.0										45.0	
	S-15	50/3"	3"		100		sp	a-1-b		BROWN MEDIUM-FINE SAND, TRACE SILT, TRACE FINE ROCK FRAGMENTS	
46.5										46.5	
	S-16	50/3"	3"		100		sp	a-1-b		LIGHT GRAY MEDIUM-FINE SAND, LITTLE SILT, TRACE FINE ROCK FRAGMENTS	
48.0											
	S-17	50/3"	0"		0		sp	a-1-b			
49.5											
	S-18	50/3"	3"		100		sp	a-1-b			
51.0											
	S-19	50/2"	2"		100		sp	a-1-b			
52.5											
	S-20	50/2"	2"		100		sp	a-1-b			
54.0										54.0	
54.1	S-21	50/1"	1"		100		GP	a-1-a	22	54.1 LIGHT GRAY MEDIUM-FINE ROCK FRAGMENTS MODERATELY WEATHERED, CLOSELY TO WIDELY FRACTURED MICA SCHIST	
	R-1	NA	3.75'		75	NA	NA	NA			
59.1					53						

NOTE:

TOR
62.80

ELEVATION 75 70 65 60

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-5
SHEET 3 OF 3
DATE: START 3/28/03
O.G. END: 3/31/03
ELEV. 116.9

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 4+65 OFFSET FROM CENTERLINE 0
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 39 FT TIME: 0 HRS. DATE: 03/31/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 39 FT TIME: 48 HRS. DATE: 04/02/03
NOT ENCOUNTERED ☐

MPDE/EPTE
56.30

DEPTH (FT.)	SAMPLE NO. / TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%)	RQD (%)	POCKET PEN'/ TORVANE (TSF)	USCS	AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
	R-2	NA	0'		NA	NA	NA				
64.1					0					64.1	

NOTE:

ELEVATION 55 50 45 40

TEST BORING NOTES:

- PENETRATION TEST AND SPLIT-BARREL SAMPLING OF SOILS, ASTM D1586, 140 LB. HAMMER, 30 IN DROP RECORDING NUMBER OF BLOWS OBTAINED FOR EACH 6 IN. PENETRATION, USUALLY FOR A TOTAL OF 18 IN, PENETRATION OF THE STANDARD 2 IN. O.D. AND 1-3/8 IN. I.D. SPLIT BARREL SAMPLER. PENETRATION RESISTANCE (N) IS THE TOTAL NUMBER OF BLOWS REQUIRED FOR THE SECOND AND THIRD 6 IN. PENETRATION.

- THIN WALLED TUBE SAMPLING, ASTM D1587, SAMPLES ARE OBTAINED BY PRESSING THIN-WALLED STEEL, BRASS OR ALUMINUM TUBES INTO SOIL.

  STANDARD THIN-WALLED STEEL TUBES:

O.D. IN.	2	3
I.D. IN.	1.94	2.87

- DIAMOND CORE DRILLING, ASTM D2113, DIAMOND CORE DRILLING IS USED TO RECOVER INTACT SAMPLE OF ROCK AND SOME HARD SOILS GENERALLY WITH THE USE OF A:
  BWM DOUBLE TUBE CORE BARREL
  NWM DOUBLE TUBE CORE BARREL

- SOIL SAMPLES HAVE NOT BEEN LABORATORY CLASSIFIED.

NOTES:

- WORK THIS SHEET WITH NOS. 48 THROUGH 50 & 52 THROUGH 58
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE STREETS DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- STATIONS, OFFSETS, AND O.G. ELEVATIONS ARE FURNISHED BY THE CITY.
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- BPCE – BOTTOM OF PILE CAP ELEVATION
- EPTE – ESTIMATED PILE TIP ELEVATION
- MPDE – MAXIMUM PRE-DRILLING ELEVATION
- TOR – TOP OF ROCK

THE CLASSIFICATION OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED

Darin L. Gatti

PROFESSIONAL ENGINEER

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DARIN L. GATTI
ENGINEER
035696-E

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001/L-201

TEST BORING LOGS

RECOMMENDED

PREPARED BY
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	RCD/MW	DATE:	6/29/2004
CHECKED BY:	HH/CJM	DATE:	7/27/2005
SCALE:	AS NOTED	SHEET:	55 OF 62

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-7
SHEET 1 OF 3
DATE: START 3/21/03
O.G. END: 3/21/03
ELEV. 117.1

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+13 OFFSET FROM CENTERLINE 15' R
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A : DEPTH: N/A : WATER: DEPTH: 38 FT TIME: 0 HRS. DATE: 03/21/03
CHECKED BY: C. WESTEN : DATE: DEPTH: 37 FT TIME: 24 HRS. DATE: 3/22/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO. / TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%) / RQD (%)	POCKET PENT/ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
23.0	S-1	2 3 5	14"	78		sm / a-1-b		BROWN COARSE-FINE SAND, SOME SILT, LITTLE BRICK FRAGMENTS & CINDERS, TRACE FINE GRAVEL	CORED THROUGH EXISTING BRIDGE DECK CONSISTING OF 2" ASPHALT OVER 11" CONCRETE. 2.5FT FROM BRIDGE DECK TO GROUND BELOW
24.5	S-2	4 4 4	12"	67		mh / a-5		24.5 BROWN CLAYEY SILT, LITTLE COARSE-FINE SAND, TRACE FINE GRAVEL	
26.0	S-3	2 3 4	16"	89		sm / a-1-b		26.0 BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT, LITTLE BRICK FRAGMENTS, TRACE FINE GRAVEL	
27.5	S-4	5 5 5	10"	56		sp / a-1-b		27.5 BROWN MICACEOUS MEDIUM-FINE SAND, LITTLE SILT, TRACE FINE ROCK FRAGMENTS	
29.0	S-5	7 10 10	16"	89		ml / a-4		29.0 BROWN & GRAY SILT, LITTLE MEDIUM-FINE SAND, TRACE FINE GRAVEL	
30.5	S-6	12 20 11	13"	72		ml / a-4			
32.0	S-7	6 9 10	16"	89		ml / a-4			
33.5	S-8	**4 10 14**	**12"**	**67**		sm / a-1-b		33.5 BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT, LITTLE FINE GRAVEL	
35.0	S-9	**7 10 17**	13"	**72**		sm / a-1-b			
36.5	S-10	14 17 18	12"	67		sm / a-1-b			
38.0	S-11	21 53 50/2"	14"	100		sm / a-1-b		38.0 LIGHT GRAY MICACEOUS MEDIUM-FINE SAND, SOME SILT, TRACE FINE ROCK FRAGMENTS	
39.5	S-12	48 50/2"	8"	100		sm / a-1-b		39.5 BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT	
41.0	S-13	24 16 35	16"	89		sm / a-1-b			
47.5		50				sm		42.50 BROWN & DARK GRAY MICACEOUS MEDIUM-FINE SAND,	

TLPE WING D 91.80
BPCE EAST ABUT 88.30
MPDE 84.00
ELEVATION: 90, 85, 80, 75

NOTE:

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-7
SHEET 2 OF 3
DATE: START 3/21/03
O.G. END: 3/21/03
ELEV. 117.1

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+13 OFFSET FROM CENTERLINE 15' R
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A : DEPTH: N/A : WATER: DEPTH: 38 FT TIME: 0 HRS. DATE: 03/21/03
CHECKED BY: C. WESTEN : DATE: DEPTH: 37 FT TIME: 24 HRS. DATE: 3/22/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO. / TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%) / RQD (%)	POCKET PENT/ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
44.0	S-14	50/4"	10"	100		a-1-b		SOME SILT, TRACE MEDIUM-FINE ROCK FRAGMENTS	
45.5	S-15	50/2"	2"	100		sm / a-1-b			
47.0	S-16	29 34 50/3"	16"	94		sm / a-1-b			
48.5	S-17	25 41 50/4"	15"	94		sm / a-1-b			
50.0	S-18	18 14 32	16"	89		sm / a-1-b			
51.5	S-19	12 43 50/3"	12"	80		sm / a-1-b		51.5	
53.0	S-20	18 50/6"	12"	100		sm / a-1-b		BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT	
54.5	S-21	19 28 39	16"	89		sm / a-1-b		54.5	
56.0	S-22	50/3"	3"	100		sm / a-1-b		BROWN MICACEOUS FINE SAND & SILT	
57.5	S-23	50/4"	4"	100		sm / a-1-b			
59.0	S-24	33 50/2"	2"	25		sm / a-1-b		59.0	
60.5	S-25	50/4"	4"	100		sp / a-1-b		GRAY MICACEOUS FINE SAND, LITTLE SILT	
62.0	S-26	50/3"	3"	100		sp / a-1-b		62.0	
62.1	S-27	50/1"	1"	73		gr / a-1-a		62.1 GRAY MEDIUM-FINE SAND & ROCK FRAGMENTS, LITTLE SILT	

TOR/EPTE 55.00
ELEVATION: 70, 65, 60, 55

NOTE:

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-7
SHEET 3 OF 3
DATE: START 3/21/03
O.G. END: 3/21/03
ELEV. 117.1

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+13 OFFSET FROM CENTERLINE 15' R
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A : DEPTH: N/A : WATER: DEPTH: 38 FT TIME: 0 HRS. DATE: 03/21/03
CHECKED BY: C. WESTEN : DATE: DEPTH: 37 FT TIME: 24 HRS. DATE: 3/22/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO. / TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%) / RQD (%)	POCKET PENT/ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
								MODERATELY WEATHERED, CLOSELY FRACTURED MICA SCHIST	
67.1	R-1	NA	3.67'	7	NA	NA	NA		
72.1	R-2	NA	5'	100 27	NA	NA	NA	72.1	

ELEVATION: 50, 45, 40, 35

NOTE:

TEST BORING NOTES:

- PENETRATION TEST AND SPLIT-BARREL SAMPLING OF SOILS, ASTM D1586, 140 LB. HAMMER, 30 IN DROP RECORDING NUMBER OF BLOWS OBTAINED FOR EACH 6 IN. PENETRATION, USUALLY FOR A TOTAL OF 18 IN, PENETRATION OF THE STANDARD 2 IN. O.D. AND 1-3/8 IN. I.D. SPLIT BARREL SAMPLER. PENETRATION RESISTANCE (N) IS THE TOTAL NUMBER OF BLOWS REQUIRED FOR THE SECOND AND THIRD 6 IN. PENETRATION.
- THIN WALLED TUBE SAMPLING, ASTM D1587, SAMPLES ARE OBTAINED BY PRESSING THIN-WALLED STEEL, BRASS OR ALUMINUM TUBES INTO SOIL.
  STANDARD THIN-WALLED STEEL TUBES:
  O.D. IN. 2 3
  I.D. IN. 1.94 2.87
- DIAMOND CORE DRILLING, ASTM D2113, DIAMOND CORE DRILLING IS USED TO RECOVER INTACT SAMPLE OF ROCK AND SOME HARD SOILS GENERALLY WITH THE USE OF A:
  BWM DOUBLE TUBE CORE BARREL
  NWM DOUBLE TUBE CORE BARREL
- SOIL SAMPLES HAVE NOT BEEN LABORATORY CLASSIFIED.

NOTES:

- WORK THIS SHEET WITH NOS. 48 THROUGH 51 & 53 THROUGH 58.
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE STREETS DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- STATIONS, OFFSETS, AND O.G. ELEVATIONS ARE FURNISHED BY THE CITY.
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- BPCE – BOTTOM OF PILE CAP ELEVATION
- EPTE – ESTIMATED PILE TIP ELEVATION
- MPDE – MAXIMUM PRE-DRILLING ELEVATION
- TOR – TOP OF ROCK

THE CLASSIFICATION OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED

PROFESSIONAL ENGINEER

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL DARIN L. GATTI ENGINEER 035696-E

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001/L-201
TEST BORING LOGS

RECOMMENDED

PREPARED BY
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	RCD/MW	DATE:	6/29/2004
CHECKED BY:	HH/CJM	DATE:	7/27/2005
SCALE:	AS NOTED	SHEET:	56 OF 62

FORM NO. D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-8
SHEET 1 OF 3
DATE: START 4/3/03
O.G. END: 4/3/03
ELEV. 116.9

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+27 OFFSET FROM CENTERLINE 0
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A : DEPTH: N/A : WATER: DEPTH: 44 FT TIME: 0 HRS. DATE: 04/03/03
CHECKED BY: C. WESTEN : DATE: DEPTH: 44 FT TIME: 24 HRS. DATE: 04/09/03
NOT ENCOUNTERED ☐

ELEVATION	DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY%	ROD (%)	POCKET PEN*/ TORVANE (TSF)	USCS	AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
95	18.0										ADVANCED AUGERS 1 FT TO PLUMB AND STABILIZE	CORED THROUGH EXISTING BRIDGE DECK CONSISTING OF 2" ASPHALT OVER 9" CONCRETE. 17FT FROM BRIDGE DECK TO GROUND BELOW
		S-1	3 2 2 2	18"	75			sm	a-1-b		BROWN MEDIUM-FINE SAND, SOME SILT, LITTLE BRICK FRAGMENTS & ASH, TRACE FINE GRAVEL	
	20.0	S-2	1 2 2 2	12"	50			ml	a-4		BROWN SILT, TRACE FINE SAND	
	22.0	S-3	2 5 6 6	24"	100			mh	a-5		BROWN CLAYEY SILT & MEDIUM-FINE SAND, TRACE FINE GRAVEL, BRICK FRAGMENTS & ASH	
	24.0	S-4	3 3 5 7	10"	42			ml	a-4		BROWN SILT, SOME ASH, LITTLE MEDIUM-FINE SAND, LITTLE MEDIUM-FINE GRAVEL, TRACE GLASS FRAGMENTS	
90	26.0	S-5	4 3 4 3	16"	67			ml	a-4			
	28.0	S-6	4 6 6 5	9"	38			sm	a-1-b		BROWN COARSE-FINE SAND & SILT, LITTLE MEDIUM-FINE GRAVEL	
BPCE EAST ABUT 88.30	30.0	S-7	6 6 6 7	18"	75			sm	a-1-b		BROWN & GRAY MICACEOUS MEDIUM-FINE SAND, SOME SILT	
85	32.0	S-8	5 5 6 6	14"	58			sm	a-1-b			
MPDE 84.00	34.0	S-9	4 6 8 11	16"	67			sm	a-1-b			
80	36.0		5 10		100			sm	a-1-b			

ELEVATION: 95, 90, 85, 80

NOTE:

FORM NO. D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-8
SHEET 2 OF 3
DATE: START 4/3/03
O.G. END: 4/3/03
ELEV. 116.9

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+27 OFFSET FROM CENTERLINE 0
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A : DEPTH: N/A : WATER: DEPTH: 44 FT TIME: 0 HRS. DATE: 04/03/03
CHECKED BY: C. WESTEN : DATE: DEPTH: 44 FT TIME: 24 HRS. DATE: 04/09/03
NOT ENCOUNTERED ☐

ELEVATION	DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY%	ROD (%)	POCKET PEN*/ TORVANE (TSF)	USCS	AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
	38.0	S-10	16 19	24"				sp	a-1-b		BROWN & GRAY MICACEOUS MEDIUM-FINE SAND, LITTLE SILT	
		S-11	12 32 32 33	14"	58			sp	a-1-b			
	40.0	S-12	37 50/4"	8"	80			sm	a-1-b		BROWN & GRAY MICACEOUS MEDIUM-FINE SAND, SOME SILT	
	42.0	S-13	19 20 26 46	18"	75			sm	a-1-b			
75	44.0	S-14	37 50/4"	14"	100			sm	a-1-b			
	46.0	S-15	50/4"	4"	100			sm	a-1-b			
	48.0	S-16	50/3"	3"	100			sm	a-1-b			
	50.0	S-17	50/3"	3"	100			sm	a-1-b		BROWN MICACEOUS FINE SAND, SOME SILT	
	52.0	S-18	50/2"	2"	100			sm	a-1-b		BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT, TRACE ROCK FRAGMENTS	
TOR/EPTE 62.80	54.0	S-19	50/1"	1"				sm	a-1-b		MODERATELY WEATHERED, CLOSELY-MEDIUM FRACTURED MICA SCHIST	
65	57.1	R-1	NA	5'	100	NA	NA	NA				
60												

ELEVATION: 75, 70, 65, 60

NOTE:

FORM NO. D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-8
SHEET 3 OF 3
DATE: START 4/3/03
O.G. END: 4/3/03
ELEV. 116.9

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+27 OFFSET FROM CENTERLINE 0
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A : DEPTH: N/A : WATER: DEPTH: 44 FT TIME: 0 HRS. DATE: 04/03/03
CHECKED BY: C. WESTEN : DATE: DEPTH: 44 FT TIME: 24 HRS. DATE: 04/09/03
NOT ENCOUNTERED ☐

ELEVATION	DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY%	ROD (%)	POCKET PEN*/ TORVANE (TSF)	USCS	AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
55	42.1				72						MODERATELY-COMPLETELY WEATHERED, VERY CLOSELY FRACTURED MICA SCHIST	
		R-2	NA	5'	100	NA	NA	NA				
50	44.0				0							
45	59.0											
40	64.0											

ELEVATION: 55, 50, 45, 40

NOTE:

TEST BORING NOTES:

- PENETRATION TEST AND SPLIT-BARREL SAMPLING OF SOILS, ASTM D1586, 140 LB. HAMMER, 30 IN DROP RECORDING NUMBER OF BLOWS OBTAINED FOR EACH 6 IN. PENETRATION, USUALLY FOR A TOTAL OF 18 IN, PENETRATION OF THE STANDARD 2 IN. O.D. AND 1-3/8 IN. I.D. SPLIT BARREL SAMPLER. PENETRATION RESISTANCE (N) IS THE TOTAL NUMBER OF BLOWS REQUIRED FOR THE SECOND AND THIRD 6 IN. PENETRATION.
- THIN WALLED TUBE SAMPLING, ASTM D1587, SAMPLES ARE OBTAINED BY PRESSING THIN-WALLED STEEL, BRASS OR ALUMINUM TUBES INTO SOIL.
  STANDARD THIN-WALLED STEEL TUBES:
  O.D. IN. 2 3
  I.D. IN. 1.94 2.87
- DIAMOND CORE DRILLING, ASTM D2113, DIAMOND CORE DRILLING IS USED TO RECOVER INTACT SAMPLE OF ROCK AND SOME HARD SOILS GENERALLY WITH THE USE OF A:
  BWM DOUBLE TUBE CORE BARREL
  NWM DOUBLE TUBE CORE BARREL
- SOIL SAMPLES HAVE NOT BEEN LABORATORY CLASSIFIED.

NOTES:

- WORK THIS SHEET WITH NOS. 48 THROUGH 52 & 54 THROUGH 58
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE STREETS DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- STATIONS, OFFSETS, AND O.G. ELEVATIONS ARE FURNISHED BY THE CITY.
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- BPCE – BOTTOM OF PILE CAP ELEVATION
- EPTE – ESTIMATED PILE TIP ELEVATION
- MPDE – MAXIMUM PRE-DRILLING ELEVATION
- TOR – TOP OF ROCK

THE CLASSIFICATION OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED

Darin L. Gatti

PROFESSIONAL ENGINEER

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — DARIN L. GATTI — ENGINEER — 035696-E

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001/L-201
TEST BORING LOGS

RECOMMENDED

PREPARED BY
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	RCD/MW	DATE:	6/29/2004
CHECKED BY:	HH/CJM	DATE:	7/27/2005
SCALE:	AS NOTED	SHEET:	57 OF 62

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-9
SHEET 1 OF 4
DATE: START 3/18/03
O.G. END: 3/19/03
ELEV. 116.2

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+40 OFFSET FROM CENTERLINE 15' L
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 48.5 FT TIME: 0 HRS. DATE: 03/19/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 31 FT TIME: 48 HRS. DATE: 03/21/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%) / ROD (%)	POCKET PEN./ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
								ADVANCED AUGERS 4 FT TO PLUMB & STABILIZE	CORED THROUGH EXISTING BRIDGE DECK CONSISTING OF 2" ASPHALT OVER 11" CONCRETE, 16FT FROM BRIDGE DECK TO GROUND BELOW
20.0	S-1	15 3 2	18"	18 /	sp	sm a-1-b		20.0 BROWN MICACEOUS MEDIUM-FINE SAND, LITTLE SILT, TRACE CINDERS, BRICK & CONCRETE FRAGMENTS	
21.5	S-2	2 2 2	18"	18 /	sp	sm a-1-b			
23.0	S-3	3 4 3	15"	83 /	sm	sm a-1-b		23.0 BROWN MICACEOUS MEDIUM-FINE SAND WITH CINDERS, SOME SILT, TRACE BRICK & CONCRETE FRAGMENTS	
TLPE WING C 91.80								24.5	
26.0	S-4	3 2 3	12"	67 /	ml	sm a-1-b		BROWN SILT, TRACE FINE SAND	
27.5	S-5	2 5 3	18"	100 /	ml	ml a-5		26.0 BROWN SILT, LITTLE FINE SAND, TRACE CINDERS, BRICK & CONCRETE FRAGMENTS	
BPCE EAST ABUT 88.30		4		67 /		sm		27.5 BROWN COARSE-FINE SAND, SOME SILT, TRACE FINE GRAVEL	
29.0	S-6	5 5	12"	/		a-1-b		29.0	
30.5	S-7	4 3 4	14"	78 /		mh a-4		GRAY & BROWN CLAYEY SILT, LITTLE MEDIUM-FINE SAND, TRACE MEDIUM-FINE GRAVEL	
32.0	S-8	4 4 4	18"	100 /		sm a-1-b		30.5 BROWN & BLACK MICACEOUS MEDIUM-FINE SAND & SILT	
MPDE 84.00									
33.5	S-9	2 3 4	18"	100 /		sm a-1-b			
35.0	S-10	7 11 14	18"	100 /		sm a-1-b			
	S-11	6 9	18"	100 /		sm a-1-b			

NOTE:

ELEVATION: 100, 95, 90, 85

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-9
SHEET 2 OF 4
DATE: START 3/18/03
O.G. END: 3/19/03
ELEV. 116.2

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+40 OFFSET FROM CENTERLINE 15' L
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 48.5 FT TIME: 0 HRS. DATE: 03/19/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 31 FT TIME: 48 HRS. DATE: 03/21/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%) / ROD (%)	POCKET PEN./ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
36.5		13		/		a-1-b		36.5 BROWN & GRAY MICACEOUS MEDIUM-FINE SAND, SOME SILT	
38.0	S-12	27 19 28	18"	100 /		sm a-1-b			
39.5	S-13	18 30 23	18"	100 /		sm a-1-b			
41.0	S-14	12 32 50/5"	9"	53 /		sm a-1-b			
42.5	S-15	26 35 50/3"	12"	80 /		sm a-1-b			
44.0	S-16	44 50/5"	11"	100 /		sm a-1-b			
45.5	S-17	50/3"	3"	100 /		sm a-1-b			
47.0	S-18	50/1"	1"	100 /		sm a-1-b		47.0 BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT, TRACE FINE ROCK FRAGMENTS	
48.5	S-19	50/3"	3"	100 /		sm a-1-b		48.5 GRAYISH BROWN MICACEOUS MEDIUM-FINE SAND, LITTLE SILT, TRACE MEDIUM-FINE ROCK FRAGMENTS	
50.0	S-20	50/3"	3"	100 /		sp a-1-b			
51.0	S-21	50/2"	2"	100 /		sp a-1-b			
53.0	S-22	50/2"	2"	100 /		sp a-1-b			
54.5	S-23	50/1"	1"	100 /		sp a-1-b		54.5 GRAY MICACEOUS MEDIUM-FINE SAND, SOME SILT, LITTLE MEDIUM-FINE ROCK FRAGMENTS	
56.0	S-24	50/1"	1"	100 /		sm a-1-b			

NOTE:

ELEVATION: 80, 75, 70, 65

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-9
SHEET 3 OF 4
DATE: START 3/18/03
O.G. END: 3/19/03
ELEV. 116.2

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+40 OFFSET FROM CENTERLINE 15' L
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 48.5 FT TIME: 0 HRS. DATE: 03/19/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 31 FT TIME: 48 HRS. DATE: 03/21/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%) / ROD (%)	POCKET PEN./ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
57.5	S-25	50/2"	2"	100 /		sm a-1-b			
59.0	S-26	50/1"	1"	100 /		sm a-1-b			
60.5	S-27	50/2"	2"	100 /		sm a-1-b			
62.0	S-28	50/2"	2"	100 /		sm a-1-b			
63.5	S-29	50/2"	2"	100 /		sm a-1-b			
49.0	S-30	50/2"	2"	100 /		sm a-1-b			
66.5	S-31	50/2"	2"	100 /		sm a-1-b			
68.0	S-32	50/2"	2"	100 /		sm a-1-b		68.0 GRAY COARSE-FINE SAND & ROCK FRAGMENTS	
TOR/EPTE 47.20	S-33	50/1"	1"	100 /		gw a-1-a		69.0 HIGHLY-MODERATELY WEATHERED, VERY CLOSELY FRACTURED MICA SCHIST	
74.0	R-1	NA	3.33'	67 / 0 92		NA	NA	NA	

NOTE:

ELEVATION: 60, 55, 50, 45

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-9
SHEET 4 OF 4
DATE: START 3/18/03
O.G. END: 3/19/03
ELEV. 116.2

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+40 OFFSET FROM CENTERLINE 15' L
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 48.5 FT TIME: 0 HRS. DATE: 03/19/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 31 FT TIME: 48 HRS. DATE: 03/21/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%) / ROD (%)	POCKET PEN./ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
79.0	R-2	NA	4.58'	/ 0	NA	NA	NA	79.0 END OF BORING @ 79'-0"	

NOTE:

ELEVATION: 40, 35, 30, 25

TEST BORING NOTES:

- PENETRATION TEST AND SPLIT-BARREL SAMPLING OF SOILS, ASTM D1586, 140 LB. HAMMER, 30 IN DROP RECORDING NUMBER OF BLOWS OBTAINED FOR EACH 6 IN. PENETRATION, USUALLY FOR A TOTAL OF 18 IN, PENETRATION OF THE STANDARD 2 IN. O.D. AND 1-3/8 IN. I.D. SPLIT BARREL SAMPLER. PENETRATION RESISTANCE (N) IS THE TOTAL NUMBER OF BLOWS REQUIRED FOR THE SECOND AND THIRD 6 IN. PENETRATION.
- THIN WALLED TUBE SAMPLING, ASTM D1587, SAMPLES ARE OBTAINED BY PRESSING THIN-WALLED STEEL, BRASS OR ALUMINUM TUBES INTO SOIL.
  STANDARD THIN-WALLED STEEL TUBES:
  O.D. IN. 2 3
  I.D. IN. 1.94 2.87
- DIAMOND CORE DRILLING, ASTM D2113, DIAMOND CORE DRILLING IS USED TO RECOVER INTACT SAMPLE OF ROCK AND SOME HARD SOILS GENERALLY WITH THE USE OF A:
  BWM DOUBLE TUBE CORE BARREL
  NWM DOUBLE TUBE CORE BARREL
- SOIL SAMPLES HAVE NOT BEEN LABORATORY CLASSIFIED.

THE CLASSIFICATION OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED

Darin L. Gatti

PROFESSIONAL ENGINEER

NOTES:

- WORK THIS SHEET WITH NOS. 48 THROUGH 53 & 55 THOUGH 58.
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE STREETS DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- STATIONS, OFFSETS, AND O.G. ELEVATIONS ARE FURNISHED BY THE CITY.
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- BPCE – BOTTOM OF PILE CAP ELEVATION
- EPTE – ESTIMATED PILE TIP ELEVATION
- MPDE – MAXIMUM PRE-DRILLING ELEVATION
- TOR – TOP OF ROCK

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — DARIN L. GATTI — 035696-E

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001/L-201
TEST BORING LOGS

RECOMMENDED

PREPARED BY
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	RCD/MW	DATE:	6/29/2004
CHECKED BY:	HH/CJM	DATE:	7/27/2005
SCALE:	AS NOTED	SHEET:	58 OF 62

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-10
SHEET 1 OF 4
DATE: START 3/11/03
END: 3/11/03
O.G. ELEV. 115.3

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+54 OFFSET FROM CENTERLINE 14.5' R
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 34 FT TIME: 0 HRS. DATE: 03/11/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 28 FT TIME: 24 HRS. DATE: 03/12/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%) RQD (%)	POCKET PENT/ TORVANE (TSF)	USCS AASHTO	H2O CONTENT	24.0 DESCRIPTION	REMARKS
1.0								2.5" ASPHALT OVER 4" BRICK OVER 8" BELGIAN BLOCK	
	S-1	6 7	12"	100		qw a-1-b		1.0 C-1 NA 5' BROWN COARSE-FINE SAND, SOME COARSE-FINE GRAVEL, TRACE SILT	
2.0								2.0	
	S-2	4 3 3 4	20"	83		ml a-4		BROWN SILT & CINDERS & ASH, LITTLE MEDIUM-FINE SAND, TRACE BRICK & CONCRETE FRAGMENTS	
4.0								4.0	
	S-3	2 3 3 3	20"	83		ml a-4		BROWN SILT, SOME BRICK FRAGMENTS, LITTLE MEDIUM-FINE SAND	
6.0									
	S-4	4 3 3 4	18"	75		ml a-4			
8.0								8.0	
	S-5	2 2 2 2	10"	42		ml a-4		BROWN SILT, LITTLE MEDIUM-FINE SAND, TRACE FINE GRAVEL & ROCK FRAGMENTS	
10.0								10.0	
	S-6	2 3 3 4	16"	67		ml a-4		BROWN SILT, SOME CINDERS & ASH, LITTLE MEDIUM-FINE SAND & BRICK FRAGMENTS, TRACE FINE GRAVEL & GLASS FRAGMENTS	
12.0									
	S-7	2 3 3 2	12"	50		ml a-4			
14.0									
	S-8	2 2 2 2	10"	46		ml a-4			
16.0								16.0	
	S-9	2 3 3 2	11"	46		sc a-2-6		REDDISH BROWN MEDIUM-FINE SAND & CLAYEY SILT, TRACE FINE GRAVEL	
18.0								18.0	
	S-10	2 1 2 2	18"	75		sm a-1-b		BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT	
19.0								19.0	
20.0								BROWN MICACEOUS MEDIUM-FINE SAND & SILT, TRACE CINDERS & ASH	

NOTE:

ELEVATION: 115 110 105 100

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-10
SHEET 2 OF 4
DATE: START 3/11/03
END: 3/11/03
O.G. ELEV. 115.3

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+52 OFFSET FROM CENTERLINE 14.5' R
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 34 FT TIME: 0 HRS. DATE: 03/11/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 28 FT TIME: 24 HRS. DATE: 03/12/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%) RQD (%)	POCKET PENT/ TORVANE (TSF)	USCS AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
22.0	S-11	2 2 4 4	21"	83		sm a-1-b		22.0 BROWN SILT, SOME CINDER & ASH, LITTLE MEDIUM-FINE SAND	
	S-12	2 2 3 4	10"	42		ml a-4			
24.0								24.0 DARK BROWN SILT, SOME CINDER & ASH, TRACE MEDIUM-FINE SAND	
	S-13	2 2 2 4	15"	63		ml a-4		25.0 BROWN SILT, LITTLE MEDIUM-FINE SAND, TRACE FINE GRAVEL	
26.0									
	S-14	5 7 7 8	11"	46		ml a-4			
28.0									
	S-15	3 5 4 4	14"	58		ml a-4		30.0 BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT	
30.0									
	S-16	5 6 6 7	18"	75		sm a-1-b			
32.0									
	S-17	5 8 10 12	16"	67		sm a-1-b			
34.0									
	S-18	9 13 15 17	17"	71		sm a-1-b			
36.0									
	S-19	16 50/5"	11"	100		sm a-1-b			
38.0									
40.0	S-20	25 50/5"	6"	55		sm a-1-b			

NOTE:

TLPE WING D
91.80

ELEVATION: 95 90 85 80

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-10
SHEET 3 OF 4
DATE: START 3/11/03
END: 3/11/03
O.G. ELEV. 115.3

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+52 OFFSET FROM CENTERLINE 14.5' R
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 34 FT TIME: 0 HRS. DATE: 03/11/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 28 FT TIME: 24 HRS. DATE: 03/12/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%) RQD (%)	POCKET PENT/ TORVANE (TSF)	USCS AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
42.0	S-21	17 50/5"	11"	100		sm a-1-b			
	S-22	50/4"	4"	100		sm a-1-b			
44.0								44.0	
	S-23	50/4"	4"	100		sm a-1-b		BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT, TRACE ROCK FRAGMENTS	
46.0									
	S-24	50/2"	2"	100		sm a-1-b			
48.0								48.0	
	R-1	NA	1.75'	35		NA	NA	COMPLETELY-HIGHLY WEATHERED, VERY CLOSELY FRACTURED MICA SCHIST	
53.0				0				53.0	
	R-2	NA	4.58'	92		NA	NA	MODERATELY WEATHERED, VERY CLOSELY-CLOSELY FRACTURED MICA SCHIST	
58.0				8 22					

NOTE:

TOR
67.30

ELEVATION: 75 70 65 60

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-10
SHEET 4 OF 4
DATE: START 3/11/03
END: 3/11/03
O.G. ELEV. 115.3

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+52 OFFSET FROM CENTERLINE 14.5' R
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 34 FT TIME: 0 HRS. DATE: 03/11/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 28 FT TIME: 24 HRS. DATE: 03/12/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%) RQD (%)	POCKET PENT/ TORVANE (TSF)	USCS AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
63.0	R-3	NA	1.08'	NA 0	NA	NA	NA	63.0 END OF BORING @ 63'-0"	

NOTE:

ELEVATION: 55 50 45 40

TEST BORING NOTES:

- PENETRATION TEST AND SPLIT-BARREL SAMPLING OF SOILS, ASTM D1586, 140 LB. HAMMER, 30 IN DROP RECORDING NUMBER OF BLOWS OBTAINED FOR EACH 6 IN. PENETRATION, USUALLY FOR A TOTAL OF 18 IN, PENETRATION OF THE STANDARD 2 IN. O.D. AND 1-3/8 IN. I.D. SPLIT BARREL SAMPLER. PENETRATION RESISTANCE (N) IS THE TOTAL NUMBER OF BLOWS REQUIRED FOR THE SECOND AND THIRD 6 IN. PENETRATION.
- THIN WALLED TUBE SAMPLING, ASTM D1587, SAMPLES ARE OBTAINED BY PRESSING THIN-WALLED STEEL, BRASS OR ALUMINUM TUBES INTO SOIL.
  STANDARD THIN-WALLED STEEL TUBES:
  O.D. IN. 2 3
  I.D. IN. 1.94 2.87
- DIAMOND CORE DRILLING, ASTM D2113, DIAMOND CORE DRILLING IS USED TO RECOVER INTACT SAMPLE OF ROCK AND SOME HARD SOILS GENERALLY WITH THE USE OF A:
  BWM DOUBLE TUBE CORE BARREL
  NWM DOUBLE TUBE CORE BARREL
- SOIL SAMPLES HAVE NOT BEEN LABORATORY CLASSIFIED.

THE CLASSIFICATION OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED

Darin L. Gatti

PROFESSIONAL ENGINEER

NOTES:

- WORK THIS SHEET WITH NOS. 48 THROUGH 54 & 56 THROUGH 58
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE STREETS DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
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- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- BPCE – BOTTOM OF PILE CAP ELEVATION
- EPTE – ESTIMATED PILE TIP ELEVATION
- MPDE – MAXIMUM PRE-DRILLING ELEVATION
- TOR – TOP OF ROCK

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DARIN L. GATTI
ENGINEER
035696-E

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001/L-201
TEST BORING LOGS

RECOMMENDED

PREPARED BY
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	RCD/MW	DATE:	6/29/2004
CHECKED BY:	HH/CJM	DATE:	7/27/2005
SCALE:	AS NOTED	SHEET:	59 OF 62

ENGINEERS FIELD BORING LOG

FORM NO: D-481 (12/89) REPRODUCE LOCALLY

BORING NO. B-11 | SHEET 1 OF 4 | DATE: START 4/2/03 | O.G. ELEV. 115.9 | END: 4/2/03

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+52 OFFSET FROM CENTERLINE 0
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 38 FT TIME: 0 HRS. DATE: 04/02/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 28.5 FT TIME: 24 HRS. DATE: 04/03/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%)	ROD (%)	POCKET PENT/ TORVANE (TSF)	USCS	AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
9.0										ADVANCED AUGERS 1 FT TO PLUMB & STABILIZE	CORED THROUGH EXITING BRIDGE DECK CONSISTING OF 2.5" ASPHALT OVER 8" CONCRETE . 8FT FROM BRIDGE DECK TO GROUND BELOW
	S-1	2 2 2 2	18"	75			ml	a-4		9.0 BROWN SILT, TRACE MEDIUM-FINE SAND, TRACE BRICK & CONCRETE FRAGMENTS	
11.0	S-2	2 2 2 2	12"	50			ml	a-4			
13.0	S-3	2 2 2 2	19"	79			ml	a-4		13.0 BROWN SILT, SOME MEDIUM-FINE SAND	
15.0	S-4	2 2 3 3	19"	79			sm	a-1-b		15.0 BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT, LITTLE CINDERS & ASH, TRACE MEDIUM-FINE GRAVEL, TRACE BRICK FRAGMENTS	
17.0	S-5	2 3 3 4	24"	100			sm	a-1-b			
19.0	S-6	2 3 4 6	20"	83			sm	a-1-b			
21.0	S-7	3 4 6 6	20"	83			sm	a-1-b		21.0 BROWN COARSE-FINE SAND, SOME SILT, SOME BRICK FRAGMENTS, TRACE MEDIUM-FINE GRAVEL	
23.0	S-8	3 4 5 4	24"	100			ml	a-4		23.0 DARK GRAY SILT, TRACE MEDIUM-FINE SAND, TRACE CERAMIC FRAGMENTS	
25.0	S-9	3 4 4 4	14"	58			mh	a-5		25.0 BROWN CLAYEY SILT, TRACE MEDIUM-FINE SAND	
27.0		5 6	6"	25			sm			27.0 BROWN MICACEOUS MEDIUM-FINE SAND & SILT, TRACE MEDIUM-FINE GRAVEL, TRACE BRICK FRAGMENTS	

NOTE:

ELEVATION: 105, 100, 95, 90

ENGINEERS FIELD BORING LOG

FORM NO: D-481 (12/89) REPRODUCE LOCALLY

BORING NO. B-11 | SHEET 2 OF 4 | DATE: START 4/2/03 | O.G. ELEV. 115.9 | END: 4/2/03

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+52 OFFSET FROM CENTERLINE 0
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 38 FT TIME: 0 HRS. DATE: 04/02/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 28.5 FT TIME: 24 HRS. DATE: 04/03/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%)	ROD (%)	POCKET PENT/ TORVANE (TSF)	USCS	AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
	S-10	9 11	6"	25				a-1-b			
29.0	S-11	8 8 8 8	10"		42		sp	a-1-b		29.0 BROWN MICACEOUS MEDIUM-FINE SAND, LITTLE SILT, TRACE MEDIUM-FINE GRAVEL	
31.0	S-12	10 8 10 14	22"		92		sm	a-1-b		31.0 BROWN & GRAY MICACEOUS MEDIUM-FINE SAND, SOME SILT	
33.0	S-13	21 31 18 39	24"		100		sm	a-1-b			
35.0	S-14	40 50/3"	9"		88		sm	a-1-b			
29.0	S-15	17 24 34 48	19"		79		sm	a-1-b			
39.0	S-16	14 15 20 16	12"		50		sm	a-1-b			
41.0	S-17	16 47 50/2"	12"		86		sm	a-1-b			
43.0	S-18	35 50/3"	9"		100		sm	a-1-b			
45.0	S-19	29 50/4"	10"		100		sm	a-1-b			
47.0		50/5"	5"	100			sm			47.0 GRAY MICACEOUS MEDIUM-FINE SAND, SOME SILT	

NOTE:

ELEVATION: 85, 80, 75, 70

ENGINEERS FIELD BORING LOG

FORM NO: D-481 (12/89) REPRODUCE LOCALLY

BORING NO. B-11 | SHEET 3 OF 4 | DATE: START 4/2/03 | O.G. ELEV. 115.9 | END: 4/2/03

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+52 OFFSET FROM CENTERLINE 0
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 38 FT TIME: 0 HRS. DATE: 04/02/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 28.5 FT TIME: 24 HRS. DATE: 04/03/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%)	ROD (%)	POCKET PENT/ TORVANE (TSF)	USCS	AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
	S-20		5"	100				a-1-b			
49.0	S-21	30 50/4"	10"		100		sm	a-1-b		49.0 GRAY MICACEOUS FINE SAND, SOME SILT	
51.0	S-22	50/2"	2"	100			sm	a-1-b			
53.0	S-23	50/4"	4"	100			sm	a-1-b			
55.0	S-24	50/2"	2"	100			sm	a-1-b		55.0 GRAY MICACEOUS FINE SAND, SOME SILT, TRACE FINE ROCK FRAGMENTS	
57.0	S-25	50/5"	5"	100			sm	a-1-b		59.0	
59.0	S-26	50/2"	2"	100			sm	a-1-b		60.0 GRAY MICACEOUS FINE SAND, SOME SILT, LITTLE FINE ROCK FRAGMENTS	
TOR 55.90					53					MODERATELY WEATHERED, VERY CLOSELY-CLOSELY FRACTURED MICA SCHIST	
60.0	R-1	NA	2.67'			NA	NA	NA			
57.0	R-2	NA	4.17'		83	NA	NA	NA			

NOTE:

ELEVATION: 65, 60, 55, 50

ENGINEERS FIELD BORING LOG

FORM NO: D-481 (12/89) REPRODUCE LOCALLY

BORING NO. B-11 | SHEET 4 OF 4 | DATE: START 4/2/03 | O.G. ELEV. 115.9 | END: 4/2/03

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+52 OFFSET FROM CENTERLINE 0
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. Blemings/Lippincott & Jacobs
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 38 FT TIME: 0 HRS. DATE: 04/02/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 28.5 FT TIME: 24 HRS. DATE: 04/03/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%)	ROD (%)	POCKET PENT/ TORVANE (TSF)	USCS	AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
70.0					7					70.0 MODERATELY WEATHERED, VERY CLOSELY-MEDIUM FRACTURED MICA SCHIST	
	R-3	NA	5'	100		NA	NA	NA			
75.0					35					75.0	

NOTE:

ELEVATION: 45, 40, 35, 30

TEST BORING NOTES:

- PENETRATION TEST AND SPLIT-BARREL SAMPLING OF SOILS, ASTM D1586, 140 LB. HAMMER, 30 IN DROP RECORDING NUMBER OF BLOWS OBTAINED FOR EACH 6 IN. PENETRATION, USUALLY FOR A TOTAL OF 18 IN, PENETRATION OF THE STANDARD 2 IN. O.D. AND 1-3/8 IN. I.D. SPLIT BARREL SAMPLER. PENETRATION RESISTANCE (N) IS THE TOTAL NUMBER OF BLOWS REQUIRED FOR THE SECOND AND THIRD 6 IN. PENETRATION.
- THIN WALLED TUBE SAMPLING, ASTM D1587, SAMPLES ARE OBTAINED BY PRESSING THIN-WALLED STEEL, BRASS OR ALUMINUM TUBES INTO SOIL.
  STANDARD THIN-WALLED STEEL TUBES:
  O.D. IN. 2 3
  I.D. IN. 1.94 2.87
- DIAMOND CORE DRILLING, ASTM D2113, DIAMOND CORE DRILLING IS USED TO RECOVER INTACT SAMPLE OF ROCK AND SOME HARD SOILS GENERALLY WITH THE USE OF A:
  BWM DOUBLE TUBE CORE BARREL
  NWM DOUBLE TUBE CORE BARREL
- SOIL SAMPLES HAVE NOT BEEN LABORATORY CLASSIFIED.

THE CLASSIFICATION OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED

Darin L. Gatti

PROFESSIONAL ENGINEER

NOTES:

- WORK THIS SHEET WITH NOS. 48 THROUGH 55, 57, & 58.
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE STREETS DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- STATIONS, OFFSETS, AND O.G. ELEVATIONS ARE FURNISHED BY THE CITY.
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- BPCE – BOTTOM OF PILE CAP ELEVATION
- EPTE – ESTIMATED PILE TIP ELEVATION
- MPDE – MAXIMUM PRE-DRILLING ELEVATION
- TOR – TOP OF ROCK

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — DARIN L. GATTI — ENGINEER — 035696-E

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001/L-201
TEST BORING LOGS

RECOMMENDED

PREPARED BY
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	RCD/MW	DATE:	6/29/2004
CHECKED BY:	HH/CJM	DATE:	7/27/2005
SCALE:	AS NOTED	SHEET:	60 OF 62

ENGINEERS FIELD BORING LOG

FORM NO: D-481 (12/89) REPRODUCE LOCALLY

BORING NO. B-13 | SHEET 1 OF 4 | DATE: START 3/12/03 | END: 3/12/03 | O.G. ELEV. 114.2

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+84 OFFSET FROM CENTERLINE 15' L
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 34 FT TIME: 0 HRS. DATE: 03/12/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 27 FT TIME: 24 HRS. DATE: 03/13/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO. / TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%) / ROD (%)	POCKET PENT/ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
0.0				0		sm / a-1-b		4" BRICK OVER 16" CONCRETE	ADVANCED AUGER TO 2 FT
2.0	S-1	50/2"	0"						2.0
	S-2	3 3 3 4	12"	50		ml / a-4		BROWN MEDIUM-FINE SAND, SOME SILT, LITTLE COAL FRAGMENTS, TRACE CINDER, ASH, BRICK & CONCRETE FRAGMENTS	
4.0									4.0
	S-3	3 2 3 2	18"	75		mh / a-5		BROWN SILT, LITTLE MEDIUM-FINE SAND, TRACE BRICK & CONCRETE FRAGMENTS	
6.0									6.0
	S-4	3 3 4 9	19"	79		mh / a-5		BROWN CLAYEY SILT, SOME COARSE-FINE SAND, TRACE MEDIUM-FINE GRAVEL, TRACE CINDERS, BRICK & CONCRETE FRAGMENTS	
8.0									
	S-5	3 2 3 2	23"	96		sm / a-1-b			
10.0									10.0
	S-6	2 3 3 2	24"	100		sm / a-1-b		BROWN MICACEOUS COARSE-FINE SAND, SOME SILT, TRACE MEDIUM-FINE GRAVEL	
12.0									12.0
	S-7	3 3 3 3	20"	83		sm / a-1-b		BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT, TRACE MEDIUM-FINE GRAVEL, TRACE CINDERS	
14.0									14.0
	S-8	2 3 3 3	24"	100		sm / a-1-b		BROWN MICACEOUS MEDIUM-FINE SAND & SILT, WITH CINDERS	
16.0									16.0
	S-9	4 4 3 4	16"	67		sc / a-2-6		BROWN MICACEOUS COARSE-FINE SAND & CLAYEY SILT, TRACE FINE GRAVEL	
18.0									18.0
	S-10	2 3 4 3	17"	71		ml / a-4		BROWN SILT, TRACE FINE SAND, TRACE FINE GRAVEL	
20.0									20.0

NOTE:

ELEVATION: 110, 105, 100, 95

ENGINEERS FIELD BORING LOG

FORM NO: D-481 (12/89) REPRODUCE LOCALLY

BORING NO. B-13 | SHEET 2 OF 4 | DATE: START 3/12/03 | END: 3/12/03 | O.G. ELEV. 114.2

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+84 OFFSET FROM CENTERLINE 15' L
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 34 FT TIME: 0 HRS. DATE: 03/12/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 27 FT TIME: 24 HRS. DATE: 03/13/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO. / TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%) / ROD (%)	POCKET PENT/ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
22.0	S-11	4 4 4 4	21"	88		ml / a-4		DARK BROWN SILT, SOME FINE SAND, TRACE MEDIUM-FINE GRAVEL	
	S-12	2 4 4 6	22"	92		ml / a-4		BROWN SILT, SOME MEDIUM-FINE SAND, TRACE FINE GRAVEL	
24.0									
	S-13	2 3 5 7	24"	100		ml / a-4			
26.0									26.0
	S-14	8 8 9 10	18"	75		sm / a-1-b		BROWN MICACEOUS COARSE-FINE SAND, SOME SILT, TRACE CLAY, TRACE MEDIUM-FINE GRAVEL	
28.0									28.0
	S-15	6 4 3 5	19"	79		sm / a-1-b		BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT	
30.0									
	S-16	5 9 14 17	12"	50		sm / a-1-b			
32.0									
	S-17	6 7 13 30	12"	50		sm / a-1-b			
34.0									
	S-18	14 24 25 36	9"	38		sm / a-1-b			
36.0									36.0
	S-19	29 33 50/5"	17"	100		sm / a-1-b		BROWN MICACEOUS COARSE-FINE SAND, SOME SILT, TRACE FINE ROCK FRAGMENTS	
38.0									38.0
	S-20	27 33 50/3"	15"	100		sm / a-1-b		BROWN & OLIVE BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT, TRACE FINE ROCK FRAGMENTS	
40.0									

NOTE:

TLPE WING C 91.80

ELEVATION: 110, 105, 100, 95 / 90, 85, 80, 75

ENGINEERS FIELD BORING LOG

FORM NO: D-481 (12/89) REPRODUCE LOCALLY

BORING NO. B-13 | SHEET 3 OF 4 | DATE: START 3/12/03 | END: 3/12/03 | O.G. ELEV. 114.2

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+84 OFFSET FROM CENTERLINE 15' L
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 34 FT TIME: 0 HRS. DATE: 03/12/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 27 FT TIME: 24 HRS. DATE: 03/13/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO. / TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%) / ROD (%)	POCKET PENT/ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
42.0	S-21	26 50/3"	9"	100		sm / a-1-b			
	S-22	32 50/3"	9"	100		sp / a-1-b		GRAY MEDIUM-FINE SAND, LITTLE SILT, TRACE FINE ROCK FRAGMENTS	
44.0	S-23	36 50/3"	9"	100		sp / a-1-b			
46.0	S-24	50/2"	2"	100		sm / a-1-b			
48.0	S-25	50/1"	1"	100		sm / a-1-b		GRAY MEDIUM-FINE SAND, SOME SILT, SOME MEDIUM-FINE ROCK FRAGMENTS	
49.0	R-1	NA	0"	0	NA	NA	NA	NO RECOVERY	CORED USING 10 FT NX CORE BARREL, ATTEMP TO RETRIEVE CORE SAMPLE WITH THE CORE BARREL WAS UNSUCCESSFUL.
53.0				0				COMPLETELY-HIGHLY WEATHERED, VERY CLOSELY FRACTURED MICA SCHIST	
59.0									CORE BARREL DROPPED TO 59 FT WITH NO OBSTRUCTIONS.

NOTE:

TOR 55.20

ELEVATION: 70, 65, 60, 55

ENGINEERS FIELD BORING LOG

FORM NO: D-481 (12/89) REPRODUCE LOCALLY

BORING NO. B-13 | SHEET 4 OF 4 | DATE: START 3/12/03 | END: 3/12/03 | O.G. ELEV. 114.2

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 6+84 OFFSET FROM CENTERLINE 15' L
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 34 FT TIME: 0 HRS. DATE: 03/12/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 27 FT TIME: 24 HRS. DATE: 03/13/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO. / TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%) / ROD (%)	POCKET PENT/ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
	R-2	NA	2.67'	0	NA	NA	NA		
65.0									65.0
65.1	S-26	50/1"	1"			sp / a-1-b		GRAY MEDIUM-FINE SAND, LITTLE SILT	ATTEMP TO RETRIEVE CORE SAMPLE WITH THE CORE BARREL WAS UNSUCCESSFUL. CORE BARREL DROPPED TO 69.1 FT WITH ON OBSTRUCTIONS.
	R-3	NA	0'	0	NA	NA	NA	NO RECOVERY	
69.1									69.1
								END OF BORING @ 69'-0"	

NOTE:

ELEVATION: 50, 45, 40, 35

TEST BORING NOTES:

- PENETRATION TEST AND SPLIT-BARREL SAMPLING OF SOILS, ASTM D1586, 140 LB. HAMMER, 30 IN DROP RECORDING NUMBER OF BLOWS OBTAINED FOR EACH 6 IN. PENETRATION, USUALLY FOR A TOTAL OF 18 IN, PENETRATION OF THE STANDARD 2 IN. O.D. AND 1-3/8 IN. I.D. SPLIT BARREL SAMPLER. PENETRATION RESISTANCE (N) IS THE TOTAL NUMBER OF BLOWS REQUIRED FOR THE SECOND AND THIRD 6 IN. PENETRATION.
- THIN WALLED TUBE SAMPLING, ASTM D1587, SAMPLES ARE OBTAINED BY PRESSING THIN-WALLED STEEL, BRASS OR ALUMINUM TUBES INTO SOIL.
  STANDARD THIN-WALLED STEEL TUBES:
  O.D. IN. 2 3
  I.D. IN. 1.94 2.87
- DIAMOND CORE DRILLING, ASTM D2113, DIAMOND CORE DRILLING IS USED TO RECOVER INTACT SAMPLE OF ROCK AND SOME HARD SOILS GENERALLY WITH THE USE OF A:
  BWM DOUBLE TUBE CORE BARREL
  NWM DOUBLE TUBE CORE BARREL
- SOIL SAMPLES HAVE NOT BEEN LABORATORY CLASSIFIED.

THE CLASSIFICATION OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED

Darin L. Gatti

PROFESSIONAL ENGINEER

NOTES:

- WORK THIS SHEET WITH NOS. 48 THROUGH 56, 58.
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE STREETS DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- STATIONS, OFFSETS, AND O.G. ELEVATIONS ARE FURNISHED BY THE CITY.
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- BPCE – BOTTOM OF PILE CAP ELEVATION
- EPTE – ESTIMATED PILE TIP ELEVATION
- MPDE – MAXIMUM PRE-DRILLING ELEVATION
- TOR – TOP OF ROCK

NUMBER	REVISIONS	BY	DATE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — DARIN L. GATTI — ENGINEER — 035696-E

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001/L-201
TEST BORING LOGS

RECOMMENDED

PREPARED BY
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	RCD/MW	DATE:	6/29/2004
CHECKED BY:	HH/CJM	DATE:	7/27/2005
SCALE:	AS NOTED	SHEET:	61 OF 62

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-14
SHEET 1 OF 2
DATE: START 3/24/03
END: 3/24/03
O.G. ELEV. 116.8

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 4+69 OFFSET FROM CENTERLINE 15' R
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 38.5 FT TIME: 0 HRS. DATE: 03/24/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 34 FT TIME: 48 HRS. DATE: 03/26/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%) / ROD (%)	POCKET PEN'/ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
								ADVANCED AUGERS 4 FT TO PLUMB & STABILIZE	CORED THROUGH EXISTING BRIDGE DECK CONSISTING OF 2" ASPHALT OVER 10" CONCRETE. 23 FT FROM BRIDGE DECK TO GROUND BELOW
27.0	S-1	2 3 2	14"	78		sp a-1-b		27.0 BROWN MICACEOUS MEDIUM-FINE SAND, LITTLE SILT, TRACE MEDIUM-FINE GRAVEL, TRACE BRICK & CONCRETE FRAGMENTS	
28.5	S-2	3 3 3	9"	50		mh a-5		28.0 BROWN CLAYEY SILT, SOME COARSE-FINE SAND, LITTLE FINE GRAVEL, TRACE BRICK FRAGMENTS & ASH	
30.0	S-3	4 3 3	7"	39		sm a-1-b		30.0 DARK GRAY MEDIUM-FINE SAND, SOME SILT, TRACE CINDERS & ASH	
31.5	S-4	4 3 3	18"	100		sm a-1-b		31.5 BROWN COARSE-FINE SAND & SILT, LITTLE MEDIUM-FINE GRAVEL	
33.0	S-5	2 3 2	18"	100		sm a-1-b			
34.5	S-6	9 5 3	8"	44		ml a-4		34.5 BROWN SILT, LITTLE MEDIUM-FINE SAND, TRACE MEDIUM-FINE GRAVEL, TRACE ROCK FRAGMENTS	
36.0	S-7	2 2 9	12"	67		mh a-5		36.0 BROWN CLAYEY SILT, LITTLE MEDIUM-FINE SAND, TRACE FINE GRAVEL	
37.5	S-8	12 7 15	6"	33		sp a-1-b		38.5 BROWN & LIGHT GRAY MEDIUM-FINE SAND, TRACE SILT, TRACE COARSE-FINE ROCK FRAGMENTS,	
39.0	S-9	22 50/2"	8"	100		sp a-1-b			
40.5	S-10	50/2"	2"	100		sp a-1-b		40.5 BROWN MEDIUM-FINE SAND, LITTLE SILT	
42.0	S-11	50/1"	1"	100		sm a-1-b		42.0 BROWN FINE SAND & SILT 42.1 MODERATELY WEATHERED, CLOSELY FRACTURED MICA	

NOTE:

TLPE WING A 90.24
BPCE WEST ABUT 87.58
TOR 74.70
ELEVATION: 90, 85, 80, 75

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-14
SHEET 2 OF 2
DATE: START 3/24/03
END: 3/24/03
O.G. ELEV. 116.8

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 4+69 OFFSET FROM CENTERLINE 15' R
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 38.5 FT TIME: 0 HRS. DATE: 03/24/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 32 FT TIME: 48 HRS. DATE: 03/26/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%) / ROD (%)	POCKET PEN'/ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
								SCHIST	
47.1	R-1	NA	5'	22	NA	NA	NA	47.1 NO RECOVERY	47.1'-52.1': CORE BARREL GOT " JAMMED" IN HOLE.
52.1	R-2	NA	0'	0	NA	NA	NA	52.2	
52.2	S-12	50/1"	1"						

NOTE:

EPTE/MPDE 61.58
ELEVATION: 70, 65, 60, 55

CORED THROUGH EXISTING BRIDGE DECK CONSISTING OF 2" ASPHALT OVER 10" CONCRETE. 23 FT FROM BRIDGE DECK TO GROUND

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-15
SHEET 1 OF 2
DATE: START 3/27/03
END: 3/27/03
O.G. ELEV. 117.2

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 4+84 OFFSET FROM CENTERLINE 15' L
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 38 FT TIME: 0 HRS. DATE: 03/27/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 20.5 FT TIME: 24 HRS. DATE: 03/28/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%) / ROD (%)	POCKET PEN'/ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
								ADVANCED AUGERS 3 FT TO PLUMB & STABILIZE	CORED THROUGH EXISTING BRIDGE DECK CONSISTING OF 2" ASPHALT OVER 10" CONCRETE. 25FT FROM BRIDGE DECK TO GROUND BELOW
28.0	S-1	2 1 1	12"	67		mh a-5		28.0 BROWN & GRAY CLAYEY SILT, LITTLE MEDIUM-FINE SAND, TRACE FINE GRAVEL & ASH	
29.5	S-2	5 3 2	3"	17		mh a-5			
31.0	S-3	3 2 2	18"	100		ml a-4		31.0 BROWN SILT, TRACE MEDIUM-FINE SAND, TRACE FINE GRAVEL	
32.5	S-4	1 2 1	14"	78		ml a-4			
34.0	S-5	4 6 7	12"	67		sp a-1-b		34.0 BROWN MICACEOUS MEDIUM-FINE SAND, LITTLE SILT	
35.5	S-6	4 4 8	12"	67		sp a-1-b			
37.0	S-7	11 36 20	6"	33		sp a-1-b		37.0 BROWN & LIGHT GRAY MICACEOUS MEDIUM-FINE SAND, LITTLE MEDIUM-FINE ROCK FRAGMENTS, TRACE SILT	
38.5	S-8	16 21 20	10"	56		sp a-1-b		38.5 BROWN & LIGHT GRAY MICACEOUS MEDIUM-FINE SAND, SOME SILT, TRACE COARSE-FINE ROCK FRAGMENTS	
40.0	S-9	7 8 15	10"	56		sm a-1-b		40.5 BROWN MICACEOUS MEDIUM-FINE SAND, SOME SILT	
41.5	S-10	8 10 7	9"	50		sm a-1-b			
43.0	S-11	5 7 50/4"	4"	29		sm a-1-b			
44.5	S-12	50/1"	0"	0		a-1-b a-1-b		44.5 BROWN MICACEOUS MEDIUM-FINE SAND, LITTLE FINE ROCK FRAGMENTS, SOME SILT 45.0	

NOTE:

TLPE WING B 90.70
BPCE WEST ABUT 87.58
TOR 72.20
ELEVATION: 90, 85, 80, 75

FORM NO: D-481
(12/89)
REPRODUCE LOCALLY

ENGINEERS FIELD BORING LOG

BORING NO. B-15
SHEET 2 OF 2
DATE: START 3/27/03
END: 3/27/03
O.G. ELEV. 117.2

PROJECT NAME MONTGOMERY AVE BRIDGE COUNTY PHILADELPHIA
STATE RT. NO. N/A SECT. N/A SEGMENT N/A OFFSET N/A
STATION 4+84 OFFSET FROM CENTERLINE 15' L
INSPECTOR (SIGNED) DRILLERS NAME/COMPANY E. BLEMINGS/LIPPINCOTT & JACOBS
EQUIPMENT USED TRUCK MOUNTED CME-55; SPLIT SPOON SAMPLER; NX CORE BARREL
DRILLING METHODS 3-1/4" HOLLOW STEM AUGERS
CASING: SIZE: N/A ; DEPTH: N/A ; WATER: DEPTH: 38 FT TIME: 0 HRS. DATE: 03/27/03
CHECKED BY: C. WESTEN ; DATE: DEPTH: 20.5 FT TIME: 24 HRS. DATE: 03/28/03
NOT ENCOUNTERED ☐

DEPTH (FT.)	SAMPLE NO./ TYPE/CORE RUN	BLOWS/0.5 FT. ON SAMPLER	RECOVERY (INCHES OR FT.)	RECOVERY(%) / ROD (%)	POCKET PEN'/ TORVANE (TSF)	USCS / AASHTO	H2O CONTENT	DESCRIPTION	REMARKS
	R-1	NA	3.5'	70 / 38	NA	NA	NA	MODERATELY WEATHERED, CLOSELY FRACTURED MICA SCHIST	
50.0	R-2	NA	3.5'	70 / 60	NA	NA	NA	55.0	
55.0									

NOTE:

EPTE/MPDE 61.58
ELEVATION: 70, 65, 60, 50

TEST BORING NOTES:

- PENETRATION TEST AND SPLIT-BARREL SAMPLING OF SOILS, ASTM D1586, 140 LB. HAMMER, 30 IN DROP RECORDING NUMBER OF BLOWS OBTAINED FOR EACH 6 IN. PENETRATION, USUALLY FOR A TOTAL OF 18 IN, PENETRATION OF THE STANDARD 2 IN. O.D. AND 1-3/8 IN. I.D. SPLIT BARREL SAMPLER. PENETRATION RESISTANCE (N) IS THE TOTAL NUMBER OF BLOWS REQUIRED FOR THE SECOND AND THIRD 6 IN. PENETRATION.
- THIN WALLED TUBE SAMPLING, ASTM D1587, SAMPLES ARE OBTAINED BY PRESSING THIN-WALLED STEEL, BRASS OR ALUMINUM TUBES INTO SOIL.
  STANDARD THIN-WALLED STEEL TUBES:
  O.D. IN. 2 3
  I.D. IN. 1.94 2.87
- DIAMOND CORE DRILLING, ASTM D2113, DIAMOND CORE DRILLING IS USED TO RECOVER INTACT SAMPLE OF ROCK AND SOME HARD SOILS GENERALLY WITH THE USE OF A:
  BWM DOUBLE TUBE CORE BARREL
  NWM DOUBLE TUBE CORE BARREL
- SOIL SAMPLES HAVE NOT BEEN LABORATORY CLASSIFIED.

THE CLASSIFICATION OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED

PROFESSIONAL ENGINEER

NOTES:

- WORK THIS SHEET WITH NOS. 48 THROUGH 58.
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE STREETS DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- STATIONS, OFFSETS, AND O.G. ELEVATIONS ARE FURNISHED BY THE CITY.
- THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.
- BPCE – BOTTOM OF PILE CAP ELEVATION
- EPTE – ESTIMATED PILE TIP ELEVATION
- MPDE – MAXIMUM PRE-DRILLING ELEVATION
- TOR – TOP OF ROCK

NUMBER	REVISIONS	BY	DATE

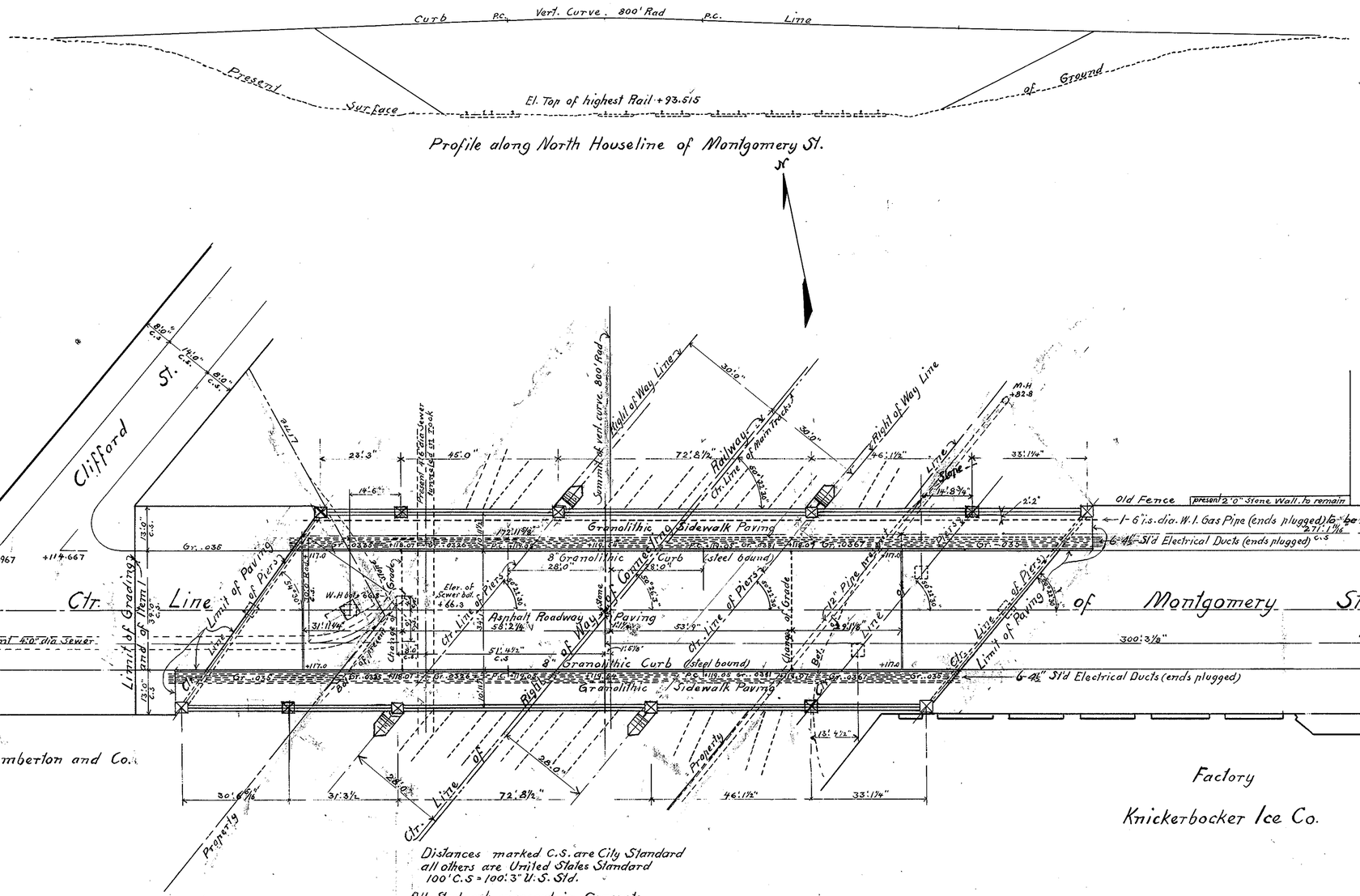
COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — DARIN L. GATTI — ENGINEER — 035696-E

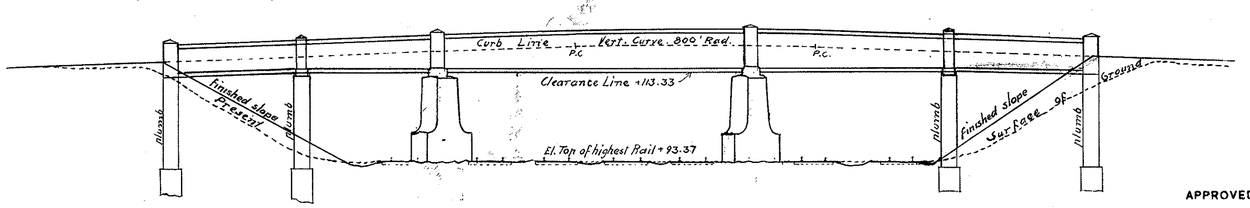
MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
SINGLE SPAN COMP STEEL PLATE GIRDER BRIDGE
B-0185-2001/L-201
TEST BORING LOGS

RECOMMENDED

PREPARED BY
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
PHILADELPHIA, PA

DRAWN BY:	RCD/MW	DATE:	6/29/2004
CHECKED BY:	HH/CJM	DATE:	7/27/2005
SCALE:	AS NOTED	SHEET:	62 OF 62





Profile along South Houseline of Montgomery St.

APPROVED Aug. 9, 1912

(Signed) A. C. Shand
Chief Engineer P. R. R.

BRIDGE ON LINE OF 185 MONTGOMERY STREET OVER THE CONNECTING RAILWAY

29 th. WARD

GENERAL PLAN

SCALE 1 in. 20 ft.

APPROVED Oct. 29, 1912

M L Cooke
Director, Department of Public Works

Approved by the Board of Surveyors Aug. 19, 1912.

E. B. Webster
Chief Engineer & Surveyor

James W. Phillips
Assistant Engineer - Bridges -

CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC WORKS
BUREAU OF SURVEYS
BRIDGE DIVISION

Made July 7-12 by H. J. Beck
Traced July 7-12 by H. J. Beck
Checked Oct 5-12 by Louis F. Wehmeyer

Compartment No 16

Drawing No 9677

Pier's A, B, C and D revised Mar. 29, 1913, for details see dwg. No. 9847.

Notes.
Piers A, B, C, D, E, F, G, M, L, J and K to contain steel cofferdams. Piers A, B, C and D, core composed of 4 L's - 6 x 6 x 3/8". All other piers, core composed of 4 L's - 6 x 6 x 3/8".
All concrete 1-3-6.
No granolithic face will be required but exposed faces to be scrubbed or bushhammered.

PIER E
PIER N
PIER K
PIER M
PIER A
PIER B
PIER C
PIER D
PIER J
PIER F
PIER Q
PIER I
PIER O
PIER H
PIER P
PIER L
PIER G

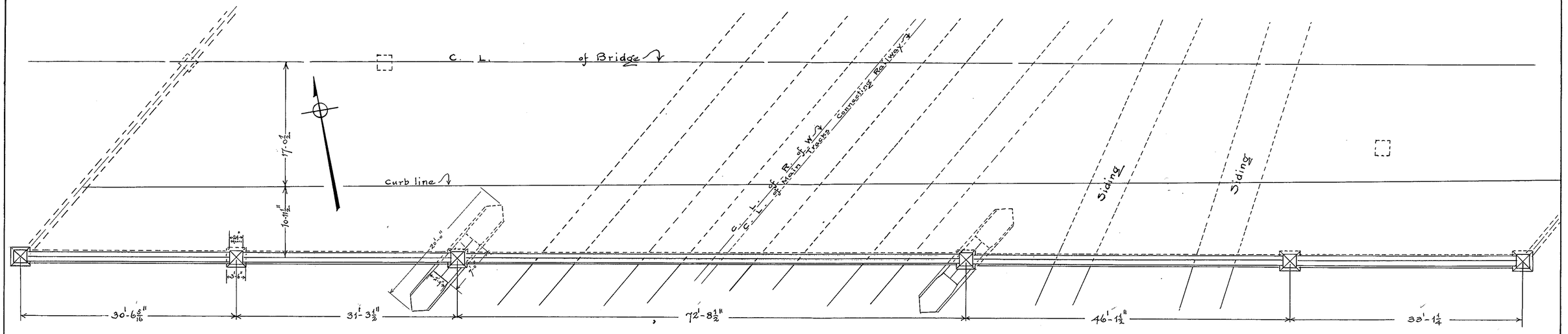
Bottom Neat Line +91.33
Foundation +83.0
Steel Column
Steel Column core
Bearing No. 1
Bearing No. 2
Bearing No. 3
Bearing No. 4
Bearing No. 5
Bearing No. 6
Bearing No. 7
Bearing No. 8
Bearing No. 9
Bearing No. 10
Bearing No. 11
Bearing No. 12
Center Line of Girders
Center Line of Piers
Center Line of Montgomery Street
South House Line of Montgomery St.
Present 4'-0" Sewer - Ele. Inv. +88.84
Present 4'-6" Sewer
4'-6" Sewer
Ele. +85.76 abt.

BORINGS
Scale 1 in. = 10 ft.

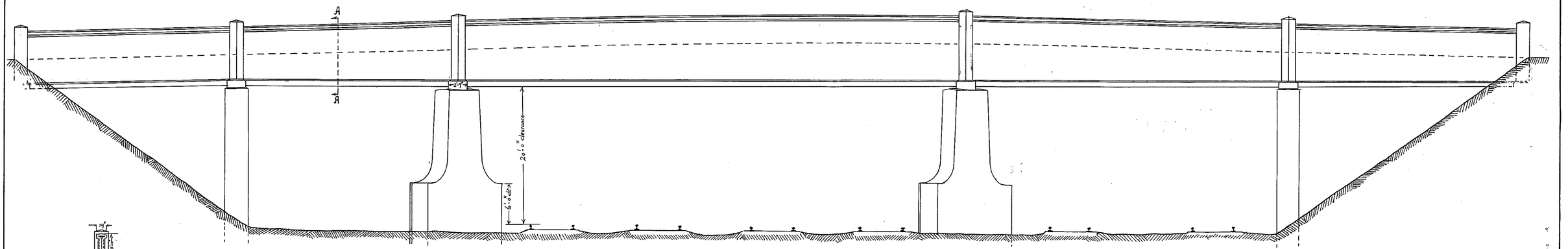
BRIDGE ON LINE OF 185
MONTGOMERY STREET
OVER
THE CONNECTING RAILWAY
29TH & 32ND WARDS
MASONRY PLAN
SCALE 1/8 in. = 1 ft.

APPROVED Oct. 29, 1912
M. L. Cooke
Director, Department of Public Works
APPROVED Oct. 28, 1912
Chief Engineer
Assistant Engineer - Bridges 10/26/12

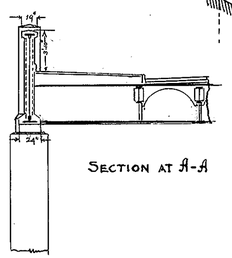
CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC WORKS
BUREAU OF SURVEYS
BRIDGE DIVISION
Made Oct 23, 1912 by F.H.C. + E.F.T.
Traced " 25/12 by E.F.T.
Checked " 30 " by Jesse F. McManigle
Compartment No. 16
Drawing No. 9736



HALF PLAN



ELEVATION



SECTION AT A-A

Approved Nov. 12. 1912
S. C. Webster
Chief Engineer
Henry A. Quimby
Assistant Engineer, Bridges
11/13/12

Approved by the Art Jury, Nov. 11. 1912

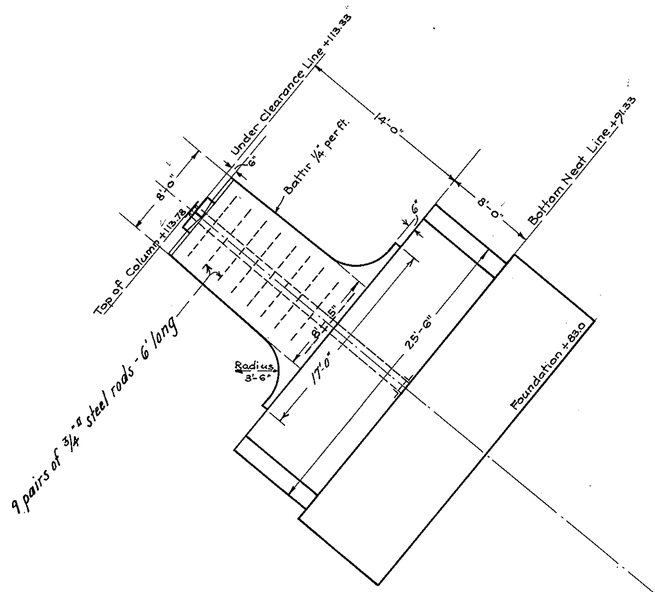
BRIDGE ON LINE OF **185**

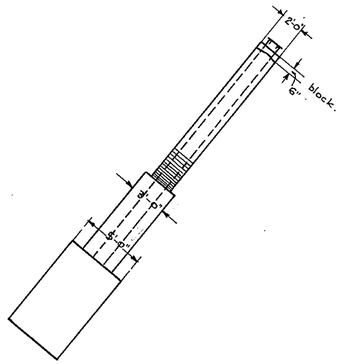
MONTGOMERY STREET
OVER
THE CONNECTING RAILWAY
29th & 32nd WARDS

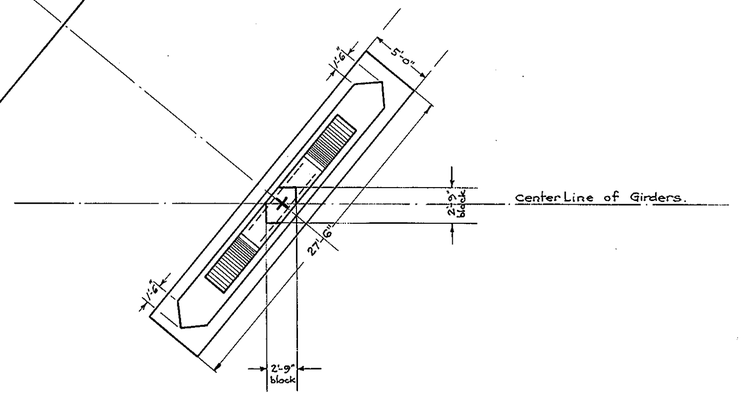
ARCHITECTURAL PLAN
SCALE ⅛ in. = 1 ft.

CITY OF PHILADELPHIA
DEP'T OF PUBLIC WORKS
BUREAU OF SURVEYS
BRIDGE DIVISION

MADE OCT. 5. 1912 by F. B.
TRACED " 27. 1912 by F. B.
CHECKED Nov. 7-12 Edwin T. Mehrmeyer
COMPART. NO. 16
DRAWING NO. 9678







PIER A

PIERS B, C, AND D SIMILAR.

Approved by Mr. A.C. Shand,
Chief Engineer of Penn. R.R. Co.
by letter of May 7, 1913.

APPROVED May 20, 1913.
W. L. Goore
Director, Department of Public Works

APPROVED May 20, 1913.
C. C. Thurston
Chief Engineer

Henry H. Quimby
Assistant Engineer - Bridges -
Apr. 29, 1913

BRIDGE ON THE LINE OF MONTGOMERY STREET OVER THE CONNECTING RAILWAY

185

29th. & 32nd. Wards.

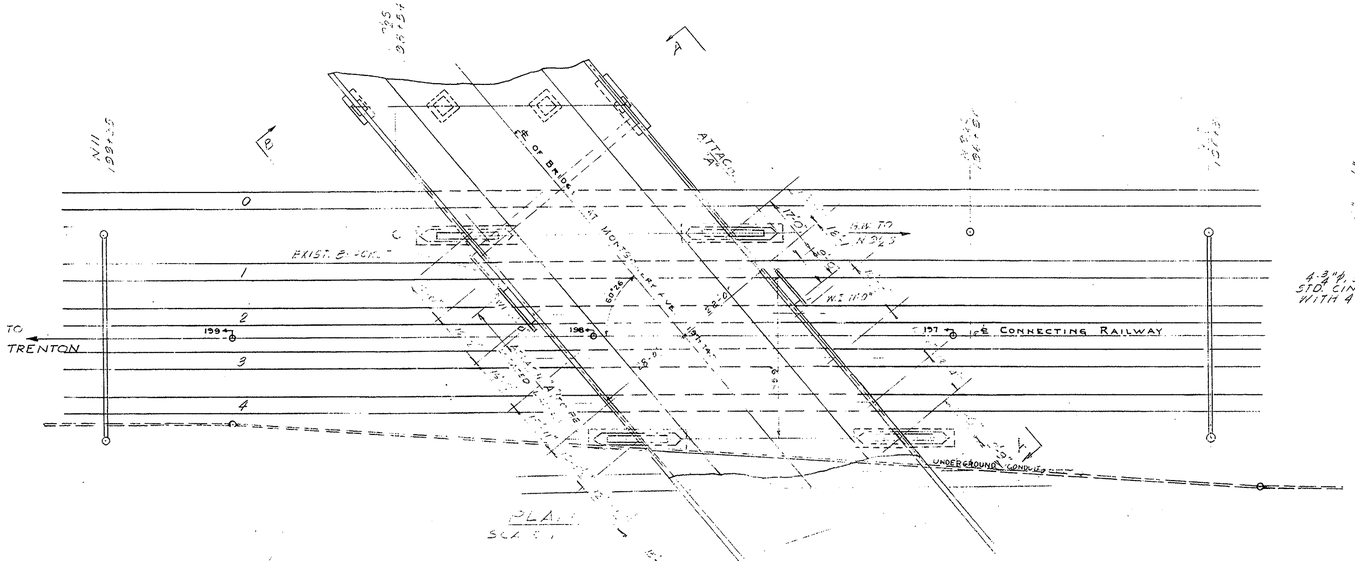
REVISION OF PIERS A, B, C, AND D

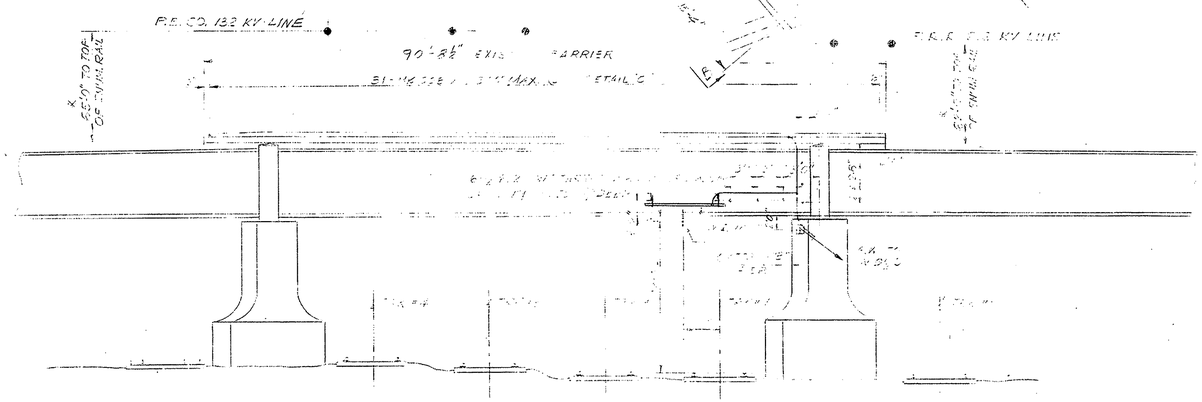
Scale 1/8 in = 1 ft.

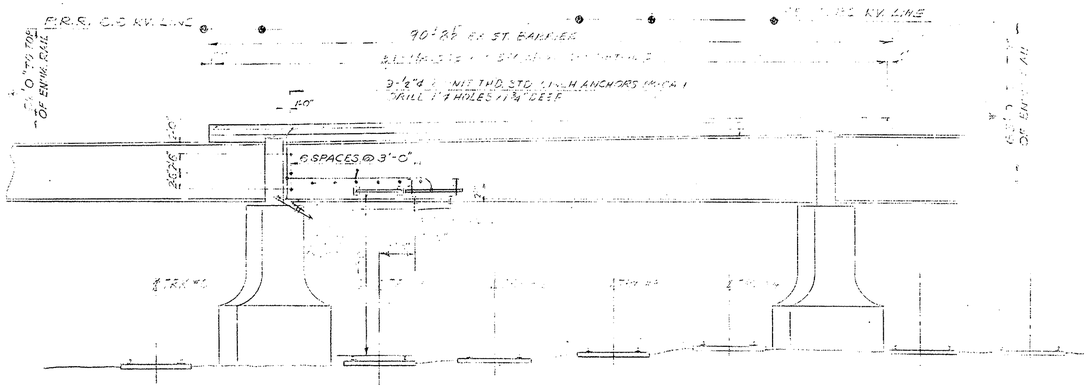
CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC WORKS
BUREAU OF SURVEYS
BRIDGE DIVISION

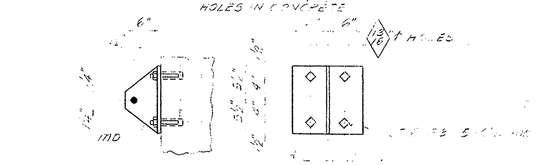
Computed April 25 1913 by C.G. Thornburg
Drawn April 26, 1913 by do.
Traced April 28, 1913 by do.
Checked April 28, 1913 by E.F. Thuring Jr.
Compartment No. 16

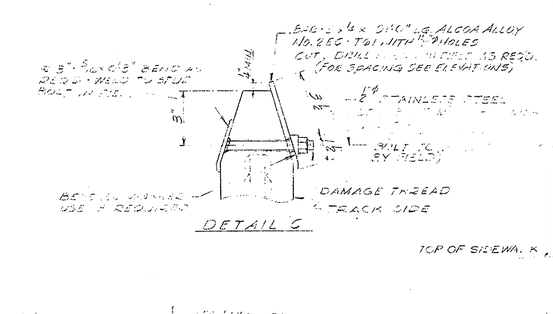
Drawing No. 9847

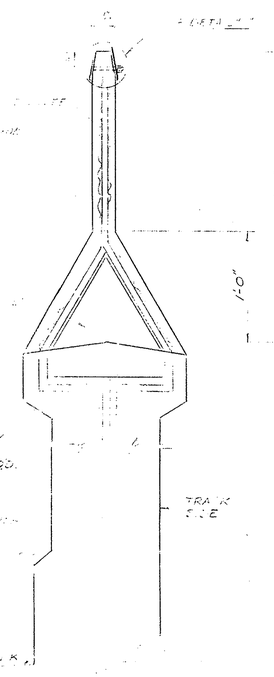


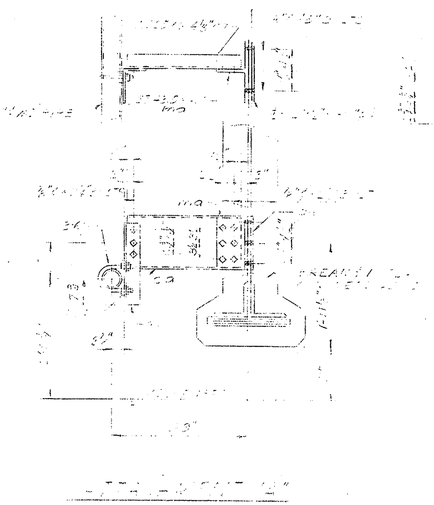












BILL OF MATERIAL

MARK	DWG. NO.	DESCRIPTION	QUA
		ATTACHMENT "A" (4 LISTED) 4 REQ'D	
mu	THIS DWG	ST T 1F 45.5 x 1'-0"	4
aa	"	12L 25 x 2 - 49	4
aa	"	L 6x4 x ⅜ x 1'-5⅜"	4
pa		R 12"x½"x 1'-0"	4
		BOLTS, ⅞ø x 3'LG. WITH H.H.N.W.	24
		BOLTS, ⅞ø x 2½ LG. WITH H.H.N.	24
		BOLTS, ⅞ø x 2½ LG WITH H.H.S.W.	12
18-25	EPHASE	U - BOLT	4
PS-1	14E133	PIPE SADDLE	1
WI-11		[illegible]	2
		BONDING	
12.6	THIS DWG	ST C WF 32.5 x 0'-11"	1
	"	⅞ ø, 3 UNIT, THRD. STD. CINCH ANCH.	4
	"	⅞ ø x 1'-4" LG. H.S. BOLT WITH H.H.W.	4
	"	BAR 5"x¼"x 3'-0" LG. ALCOA ALLOY NO. 2 EC-T61	1
33BX	"	[illegible]	02
	"	BEVELED WASHER FOR ⅞ BOLT AS REQ'D.	
	"	E 3 x ⅜ G x 0'-3"	01
CA-1	"	2'-0" 2 UNIT TH[illegible] CINCH ANCHOR	15

NOTES:
FOR GENERAL NOTES FOR CATENARY ATTACH. SEE DWG. 14H-835
* ELEV. OF EXISTING TRANSMISSION NOT SHOWN
SCALE:
FOR MATERIAL LIST SEE 45ML-61-SHEET No. 1

APPROVED _____ ELECTRICAL ENGINEER

ISSUE NO.	DATE	DWN	CHKD	CORRECT	REMARKS	APPROVED
3	12-30	RH			P.R.R. APPROVAL	
2	12-30	RH				
1	12-30	RH				

SCALE: AS NOTED

GIBBS & HILL, INC.
CONSULTING ENGINEERS
NEW YORK

45H-3036 -3

THE PENNSYLVANIA RAILROAD
EASTERN REGION ELECTRIFICATION
PHILADELPHIA DISTRICT

MONTGOMERY AVENUE OVERHEAD BRIDGE
P.R.R. BR. NO. 86.36 CITY OF PHILA. BR. NO. 185
CATENARY ATTACHMENT DETAILS

OFFICE OF ASST. CHIEF ENGR. - STRUCTURES
PHILA., PA.
APPROVED
ASST. CHIEF ENGR. - STRUCTURES

SCALE:
APPROVED
CHIEF ENGINEER

DETAIL OF STRINGER CONNECTION AT END GIRDERS.

Backs of angles (bottom flanges) of all main girders from Pier G to Pier H and from Pier E to Pier F, Rock elevation = 113.83.

Girders, floor beams, and stringers to be provided with chairs or wall plates as may be necessary to set them at the required elevations.

Note: Top and bottom flanges of all main girders are similar except where otherwise shown. Intermediate stiffeners of all girders are 3½"x3½"x⅜" with fillers to correspond.

DETAIL OF STEEL COLUMN USED IN CONCRETE PIERS
SCALE: ½"=1'-0"

Floor beams F_0 to F_6 inclusive are symmetrical about their center lines. Intermediate stiffeners of all floor beams are 3½"x3½"x⅜".

PLAN OF BRIDGE
SCALE: 1"=20'-0"

APPROVED Oct. 23, 1912
M. L. Cooke
Director, Department of Public Works
APPROVED Oct. 29, 1912
Chief Engineer

BRIDGE ON LINE OF 185
MONTGOMERY STREET
OVER
THE CONNECTING RAILWAY
OF THE WHARVES
STEEL WORK
SCALE: 1/8" = 1 FOOT

DEPARTMENT OF PUBLIC WORKS
BUREAU OF BRIDGES
BRIDGE DIVISION
DRAWN BY
TRACED BY
CHECKED BY
16

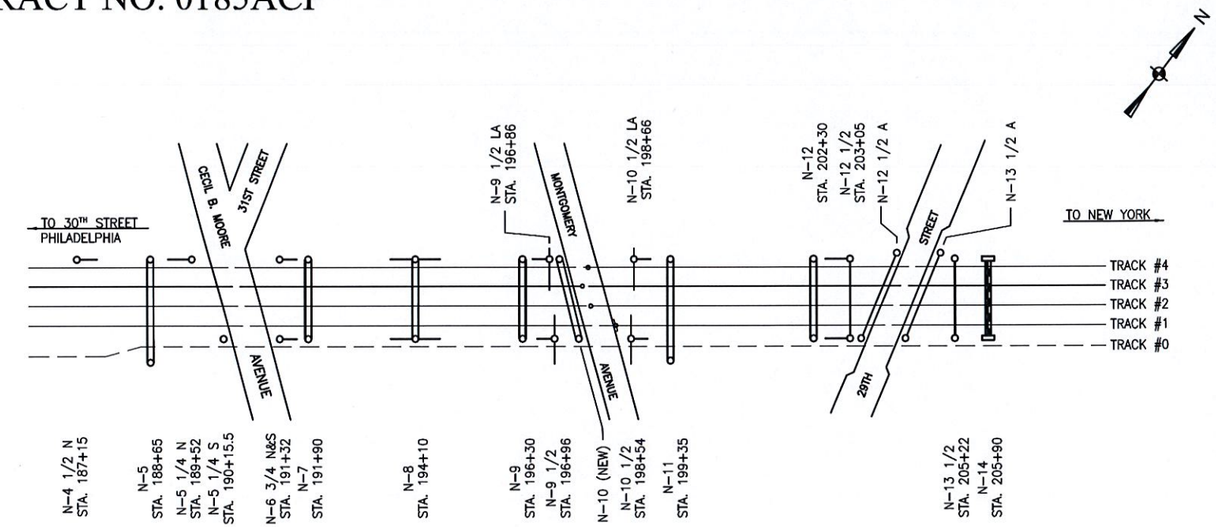
MONTGOMERY AVENUE OVER AMTRAK AND CONRAIL ELECTRIFICATION MODIFICATION

CITY OF PHILADELPHIA

CONTRACT NO. 0185ACP

INDEX OF DRAWINGS

SHEET NO.	DRAWING NO.	DESCRIPTION
1	ET-01	COVER SHEET AND INDEX OF DRAWINGS
2	ET-02	EXISTING LOCATION PLAN, GENERAL NOTES
3	ET-03	TEMPORARY LOCATION PLAN
4	ET-04	FINAL LOCATION PLAN
5	ET-05	FEEDER AND SIGNAL WIRING PROFILE – NEAR SIDE
6	ET-06	FEEDER AND SIGNAL WIRING PROFILE – FAR SIDE
7	ET-07	CATENARY WIRING PROFILE – TRACK #1
8	ET-08	CATENARY WIRING PROFILE – TRACK #2
9	ET-09	CATENARY WIRING PROFILE – TRACK #3
10	ET-10	CATENARY WIRING PROFILE – TRACK #4
11	ET-11	CATENARY SED – N-10
12	ET-11A	CATENARY SED – N-9
13	ET-11B	CATENARY SED – N-11
14	ET-11C	CATENARY SED – N-12
15	ET-11D	PARTIAL SED – N-9 1/2LA
16	ET-12	TEMPORARY DEMOLITION SHIELD GROUNDING
17	ET-13	FINAL BONDING AND GROUNDING SHEET 1
18	ET-14	FINAL BONDING AND GROUNDING SHEET 2
19	ET-15	FINAL BONDING AND GROUNDING SHEET 3
20	ET-16	ASSEMBLY BOM BONDING AND GROUNDING
21	ET-17	CATENARY ASSEMBLIES SHEET 1
22	ET-18	CATENARY ASSEMBLIES SHEET 2
23	ET-19	POLE DETAILS
24	ET-20	FOUNDATION DETAILS
25	ET-21	CROSS BEAM DETAILS
26	ET-22	SAG BRACE DETAILS
27	ET-23	MESSENGER SUPPORT ASSEMBLY
28	ET-24	POLE CLAMP & MISC. STEEL PARTS
29	ET-25	STEEL SUPPORT ASSEMBLY
30	ET-26	SUMMARY OF MATERIAL SHEET 1
31	ET-27	SUMMARY OF MATERIAL SHEET 2



KEY PLAN
SCALE: N.T.S.

SUGGESTED SEQUENCE OF WORK

1. INSTALL CATENARY FOUNDATIONS. (IF REQUIRED EXISTING C&S CABLES. SHALL BE SHIFTED TO ALLOW FOR CONSTRUCTION OF PROPOSED FOUNDATIONS.
2. INSTALL CATENARY POLES.
3. INSTALL BONDING AND GROUNDING SYSTEM.
4. INSTALL K-FRAME AND CATENARY SUPPORTING ASSEMBLIES.
5. TRANSFER EXISTING BRIDGE SUPPORTS TO NEW CATENARY STRUCTURE.
6. REPROFILE EXISTING CATENARY.
7. REMOVE EXISTING BRIDGE .
8. ERECT NEW BRIDGE.
9. BOND NEW BRIDGE TO AMTRAK GROUNDING NETWORK .

REFERENCE DRAWINGS

ET-1146-D-2, ET-148-E19, 11B-1206-8, 14E-433, 11B-1227, ET-305, ET-1029-E-10, ET1-100, ET-1087-E-1, 14E-61-7, ET-1078E-6, ET-652-E-10, ET-1095E-2, ET-76-E-1, ET-90E-3, ET-170-E-3, ET-145-E-24, ET-1124E-2, ET-1183-E, ET-146-E, ET1-003, ET-148E, ET-516-E

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER
No. PE077414
Ben Malamed
May 12, 2017

100% SUBMISSION
MAY 2017

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION
COVER SHEET AND INDEX OF DRAWINGS

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

DRAWN	VA	DATE 04/12/2017
CHECKED	YS	DATE 04/12/2017
SHEET NO. 01 OF 31	ET-01	

BPAA-0185ACP

No	Revisions	Date	By

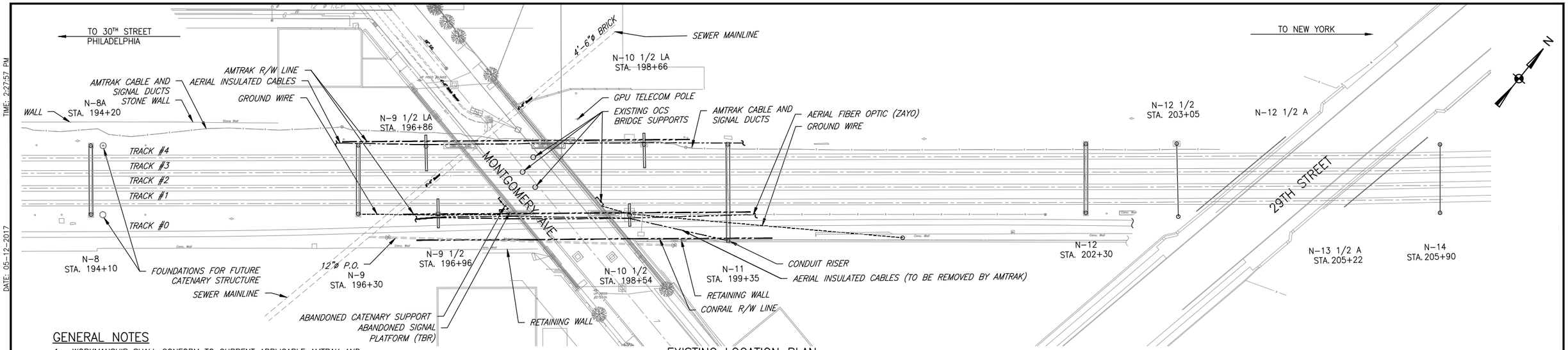
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OFFICE OF
Chief Engineer
Engineering
National Railroad Passenger Corporation
30TH Street Station–Philadelphia, Pennsylvania 19104

Approved	Date

SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

FILENAME: X:\ENG\PROJECTS\USO1T15A14 CITY OF PHIL MONTGOMERY AVE WO #1\08.0 TECHNICAL-WORKING\WORKING DWG\ET-01_COVER SHEET 100%.DWG
DATE: 05-11-2017
TIME: 2:23:12 PM



EXISTING LOCATION PLAN

SCALE IN FEET

40' 20' 0 40' 80'

GENERAL NOTES

1. WORKMANSHIP SHALL CONFORM TO CURRENT APPLICABLE AMTRAK AND AREMA SPECIFICATIONS.
2. ALL MATERIAL AS SHOWN AND SPECIFIED ON THE DRAWINGS SHALL BE FURNISHED AND INSTALLED BY AMTRAK, UNLESS OTHERWISE NOTED.
3. WHEREVER A MANUFACTURED ITEM IS LISTED ON THE DRAWING, AN APPROVED EQUAL IS ACCEPTABLE.
4. THE LOADS GIVEN IN LOADING DIAGRAMS ARE WORKING LOADS (WITHOUT A FACTOR OF SAFETY), UNITS ARE IN POUNDS.
5. THE CONTRACTOR SHALL PERFORM ALL WORK ON AMTRAK RIGHT-OF-WAY AND ADJACENT TO AMTRAK TRACKS IN ACCORDANCE WITH THE PROCEDURES PROVIDED IN AMTRAK ENGINEERING PRACTICE NUMBER EP3014. EXCAVATION AND SHORING ADJACENT TO AMTRAK RAILROAD TRACKS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH AMTRAK I & C SPECIFICATIONS SECTION 02261A, REQUIREMENTS FOR TEMPORARY SHEETING AND SHORING TO SUPPORT AMTRAK TRACKS.
6. ALL UNDERGROUND UTILITIES, CABLE, AND FACILITIES MUST BE LOCATED AND PROTECTED BEFORE ANY EXCAVATIONS, DRILLING, BORING/DIRECTIONAL DRILLING, GROUND PENETRATING ACTIVITIES, OR CONSTRUCTION TAKE PLACE. THIS INCLUDES RAILROAD AND COMMERCIAL UTILITIES, CABLES, DUCT LINES, AND FACILITIES. THESE ACTIVITIES WILL NOT BE PERFORMED IN CLOSE PROXIMITY TO THE AMTRAK DUCT LINES UNLESS MONITORED BY ON-SITE AMTRAK COMMUNICATIONS AND SIGNAL (C&S) DEPARTMENT PERSONNEL. HAND DIGGING MAY BE REQUIRED, AS DIRECTED BY AMTRAK THROUGH THE ON-SITE AMTRAK C&S SUPPORT PERSONNEL. AMTRAK MAINTAINS THE RIGHT TO ACCESS ALL EXISTING CABLES AND CONDUITS THROUGHOUT CONSTRUCTION. AMTRAK ALSO RESERVES THE RIGHT TO UPGRADE AND INSTALL NEW CABLES AND CONDUITS IN THE AFFECTED AREA. THE "ONE-CALL" PROCESS; CONTACT AMTRAK ENGINEERING TO HAVE ALL AMTRAK UNDERGROUND UTILITIES AND ASSETS LOCATED. PRECAUTIONS MUST BE TAKEN TO PREVENT ANY INTERRUPTION TO AMTRAK'S OPERATION.
7. STRUCTURAL MEMBERS AND CATENARY SUPPORT CLAMPS SHALL BE SHIPPED WITH ALL PARTS COMPLETELY ASSEMBLED AND MARKED WITH APPROPRIATE BEAM OR COLUMN SIZE.

CAISSON NOTES

1. CASING SHALL BE MARKED WITH THEIR IDENTIFYING STRUCTURE NUMBERS.
2. REBAR CAGES SHALL BE FULLY ASSEMBLED AND SHIPPED WITHIN THEIR RESPECTIVE CASING.
3. REBAR CAGE ASSEMBLY SHALL CONSIST OF TACK WELDING CIRCULAR TIES TO VERTICAL BARS AT THE FOUR QUADRANTS SHOWN PER THE CONTRACT DRAWINGS. THE REMAINDER OF THE ASSEMBLY SHALL BE TIE WIRED AT A MINIMUM OF TWO WRAPS PER CONNECTION.
4. FOUNDATION ANCHOR RODS SHALL BE SHIPPED ON A SEPARATE SKID FOR EACH FOUNDATION LOCATION.
5. FOUNDATION ANCHOR RODS SHALL BE SHIPPED WITH THREAD PROTECTORS.
6. FOUNDATION ANCHOR RODS SHALL BE FULLY GALVANIZED ALONG WITH ALL ASSOCIATED NUTS, WASHERS AND EMBEDMENT ASSEMBLIES.
7. FOUNDATION ANCHOR ROD EMBEDMENT PLATE SHALL BE FULLY GALVANIZED.

STRUCTURAL STEEL NOTES

1. PROVIDE STEEL IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATIONS FOR STRUCTURAL STEEL BUILDING-ALLOWABLE STRESS DESIGN (LATEST VERSION) (INCLUDING FABRICATION AND ERECTION) AND THE AMERICAN RAILWAY ENGINEERING AND MAINTENANCE OF WAY ASSOCIATION'S MANUAL FOR RAILWAY ENGINEERING (LATEST EDITION).
2. ALL STRUCTURAL STEEL PARTS SHALL CONFORM TO ASTM A992, GRADE 50 FOR ROLLED SHAPES AND ASTM A-36 FOR ALL OTHER SHAPES.
3. ALL STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 UNLESS NOTED OTHERWISE. THREADED RODS AND ATTACHED HARDWARE SHALL BE COMPLETELY GALVANIZED IN ACCORDANCE WITH ASTM A153.
4. BOLTS SHALL BE ASTM F3125 GRADE A325 UNLESS OTHERWISE NOTED. BOLTS SHALL BE 7/8"ø IN 15/16"ø HOLES UNLESS OTHERWISE NOTED. BOLT HOLES SHALL BE STANDARD ROUND HOLES WITH A DIAMETER 1/16" LARGER THAN THE BOLT DIAMETER UNLESS OTHERWISE NOTED.
5. NUTS SHALL BE AMERICAN STANDARD SEMI-FINISHED HEAVY HEXAGONAL CONFORMING TO ASTM A563 AND ANSI B 18.2.2.
6. NUTS AND WASHERS SHALL CONFORM TO ASTM A563 & F436, AND SHALL BE GALVANIZED PER ASTM A153 UNLESS OTHERWISE NOTED.
7. ALL WELDING IS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE AMERICAN WELDING SOCIETY (INCLUDING THE STRUCTURAL STEEL WELDING CODE D1.1, LATEST EDITION). WELD METAL SHALL MATCH BASE METAL USING PROPER SERIES E70XX ELECTRODES PER AWS A5.1 AND IN ACCORDANCE WITH ASTM A233.
8. FIELD WELDS SHALL NOT BE PERMITTED UNLESS AUTHORIZED BY THE ENGINEER.
9. SUBMIT ELECTRONIC VERSIONS (PDF) OF SHOP DRAWINGS FOR REVIEW TO THE ENGINEER PRIOR TO FABRICATION. REVIEW OF SHOP DRAWINGS IS FOR THE PURPOSE OF REVIEWING THE GENERAL CONFORMANCE TO THE OVERALL STRUCTURAL DESIGN.
10. HAND MARKS SHALL BE STAMPED ONTO EACH MEMBER 1/2" HIGH, 1/32" MIN INDENTATION.

CONCRETE NOTES

1. CONCRETE COMPRESSION STRENGTH TO BE 4000PSI AT 28 DAYS.
2. REINFORCING STEEL WILL BE ASTM A615, GRADE 60.
3. CHAMFER ALL EDGES 1 IN. UNLESS OTHERWISE SPECIFIED.

ABBREIVIATIONS

#	POUNDS	O/H	OVERHEAD
BOB	BOTTOM OF BASE	PL	PLATE
BOS	BOTTOM OF STEEL	PWR	POWER
BOM	BILL OF MATERIALS	QTY	QUANTITY
BLDG	BUILDING	R/W	RIGHT OF WAY
℄	CENTERLINE	REF	REFERENCE
CW	CONTACT WIRE	REQ'D	REQUIRED
DIA	DIAMETER	S	SOUTH
DWG	DRAWING	SCH	SCHEDULE
ELEV	ELEVATION	SE	SUPER ELEVATION
ELECT	ELECTRIC	SIG	SIGNAL
EXIST	EXISTING	STA	STATION
°F	FAHRENHEIT	STD	STANDARD
FND	FOUNDATION	STR	STRUCTURE
GALV	GALVINIZED	SW	SWITCH
HD	HARD DRAWN	TBR	TO BE REMOVED
HDG	HOT DIP GALVANIZED	T	TENSION
HS	HIGH STRENGTH	THR'D	THREADED
HT	HEIGHT	TOC	TOP OF CONCRETE
LG	LONG	T/F	TOP OF FOUNDATION
MAX	MAXIMUM	T/R	TOP OF RAIL
MH	MANHOLE	TRK	TRACK
MIN	MINIMUM	TYP	TYPICAL
ML	MAINLINE	UON	UNLESS OTHERWISE NOTED
MOD	MODIFIED	W	WEIGHT
MW	MESSENGER WIRE	W/	WITH
N	NORTH	W/R	WIRE RUN
OCS	OVERHEAD CONTACT SYSTEM	WP	WORKING POINT

DIVISION OF WORK

ITEM NO.	DESCRIPTION	MATERIALS	FAB	ERECTION	LABOR
1	NEW CATENARY STRUCTURES	C	C	A	A
2	CATENARY MODIFICATIONS	A	A	A	A
3	DEMOLITION SHIELD AND CONSTRUCTION SHIELD	C	C	C	C
4	FOUNDATIONS FOR NEW STRUCTURES	C	C	C	C
5	MISCELLANEOUS STRUCTURAL STEEL	C	C	A	A
6	BONDING OF THE BRIDGE & DEMOLITION SHIELD	C	C	C	C
7	FINAL CONNECTION TO AMTRAK GROUND WIRE	A	A	A	A

A-AMTRAK
C-CONTRACTOR

NOTE:

RELOCATION OF (ZAYO) FIBER OPTIC CABLE BY ZAYO.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
BEN MALAMED
No.PE077474

100% SUBMISSION
MAY 2017

No	Revisions	Date	By

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OFFICE OF
Chief Engineer
Engineering
National Railroad Passenger Corporation
30TH Street Station-Philadelphia, Pennsylvania 19104

Approved	Date

SYSTRA
SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION

EXISTING LOCATION PLAN, GENERAL NOTES

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

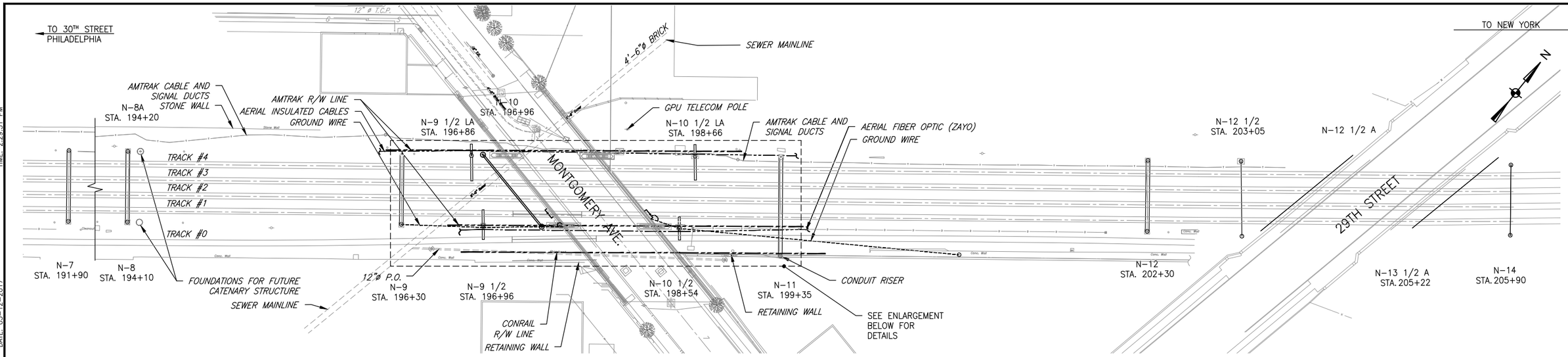
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CHECKED	YS	DATE 04/12/2017

BPAA-0185ACP

SHEET NO. 02 OF 31

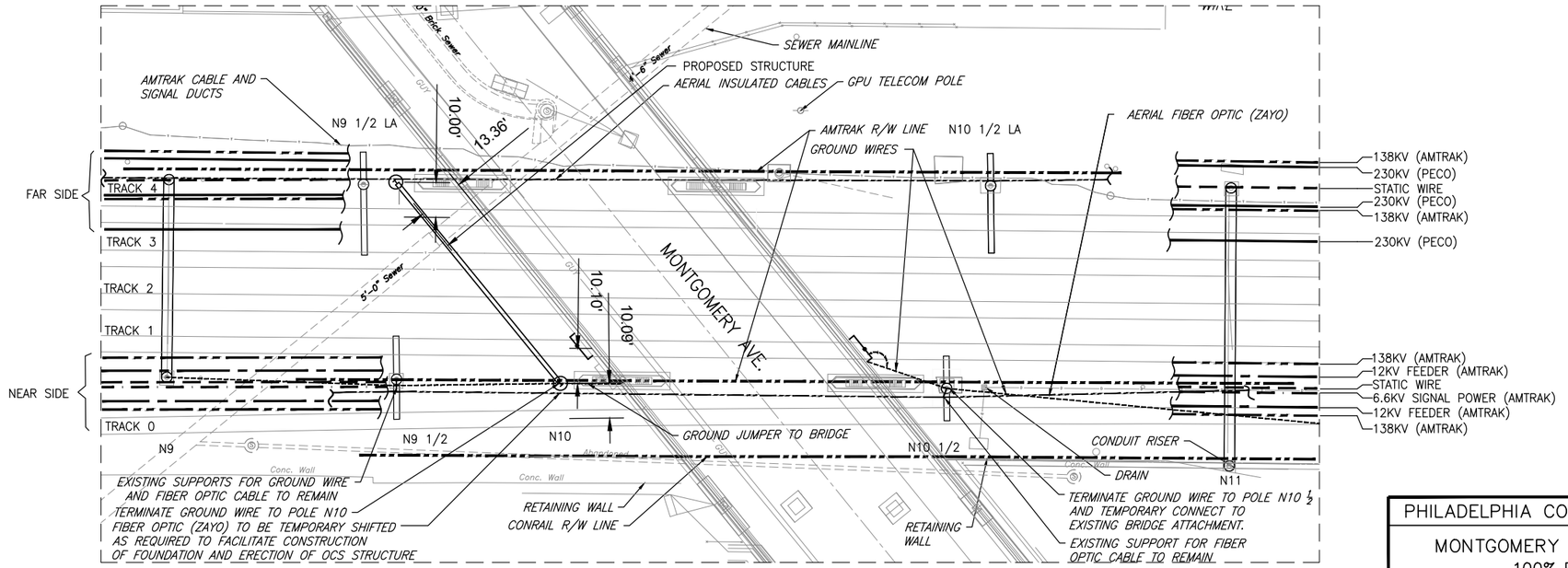
ET-02

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DATE: 05-12-2017
TIME: 2:27:57 PM



TEMPORARY LOCATION PLAN

SCALE IN FEET
40' 20' 0 40' 80'



ENLARGED DRAWING

SCALE IN FEET
20' 10' 0 20' 40'

LEGEND:
- STATIC WIRE =
- 138KV (AMTRAK) =
- 230KV (PECO) =
- 12KV FEEDER (AMTRAK) =
- 6.6 SIGNAL POWER (AMTRAK) =
- CATENARY (AMTRAK) =

NOTE:
1. FOR WIRING PROFILES, SEE DRAWINGS ET-05, ET-06, ET-07, ET-08, ET-09 & ET-10.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER
No.PE077474

100% SUBMISSION
MAY 2017

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION
TEMPORARY LOCATION PLAN

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

DRAWN	VA	DATE 04/12/2017
CHECKED	YS	DATE 04/12/2017

BPAA-0185ACP

SHEET NO. 03 OF 31

ET-03

No	Revisions	Date	By

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OFFICE OF
Chief Engineer
Engineering
National Railroad Passenger Corporation
30TH Street Station–Philadelphia, Pennsylvania 19104

Approved	Date

SYSTRA
SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

TIME: 2:29:31 PM
DATE: 05-12-2017
FILENAME: X:\ENG\PROJECTS\US01T15A14 CITY OF PHIL MONTGOMERY AVE WO #1\08.0 TECHNICAL-WORKING\WORKING DWG\ET-03_PROP INT LOCATION PLAN 100%.DWG

TO 30TH STREET
PHILADELPHIA

TO NEW YORK

N

SEWER MAINLINE

4'-6"ø BRICK

N-10 1/2 LA
STA. 198+66

GPU TELECOM POLE

AMTRAK CABLE AND
SIGNAL DUCTS
STONE WALL

N-8A
STA. 194+20

AMTRAK R/W LINE
AERIAL INSULATED CABLES
GROUND WIRE

N-9 1/2 LA
STA. 196+86

N-10
STA. 196+96

GROUND WIRE

AMTRAK CABLE AND
SIGNAL DUCTS

AERIAL FIBER OPTIC (ZAYO)
GROUND WIRE

N-12 1/2
STA. 203+05

N-12 1/2 A

TRACK #4
TRACK #3
TRACK #2
TRACK #1
TRACK #0

MONTGOMERY AVE.

29TH STREET

N-7
STA. 191+90

N-8
STA. 194+10

FOUNDATIONS FOR FUTURE
CATENARY STRUCTURE

SEWER MAINLINE

12"ø P.O.

N-9
STA. 196+30

N-9 1/2
STA. 196+96

N-10 1/2
STA. 198+54

N-11
STA. 199+35

N-12
STA. 202+30

N-13 1/2 A
STA. 205+22

N-14
STA. 205+90

CONRAIL R/W LINE
RETAINING WALL

RETAINING WALL

CONDUIT RISER

SEE ENLARGEMENT
BELOW FOR
DETAILS

FINAL LOCATION PLAN

SCALE IN FEET
40' 20' 0 40' 80'

6'-0" Brick Sewer

PROPOSED STRUCTURE

5'-0" Sewer

AERIAL INSULATED CABLES

GPU TELECOM POLE

AMTRAK CABLE AND
SIGNAL DUCTS

AERIAL FIBER OPTIC (ZAYO)

N9 1/2 LA

SLACK TENSION GROUND WIRE

AMTRAK R/W LINE

N10 1/2 LA

10.00'

16.22'

10.10'

10.09'

FAR SIDE

TRACK 4
TRACK 3
TRACK 2
TRACK 1

NEAR SIDE

TRACK 0

MONTGOMERY AVE.

5'-0" Sewer

138KV (AMTRAK)
230KV (PECO)
STATIC WIRE
230KV (PECO)
138KV (AMTRAK)
230KV (PECO)

138KV (AMTRAK)
12KV FEEDER (AMTRAK)
STATIC WIRE
6.6KV SIGNAL POWER (AMTRAK)
12KV FEEDER (AMTRAK)
138KV (AMTRAK)

N9

N9 1/2

N10

N10 1/2

Conc. Wall

GROUND WIRE

FIBER OPTIC (ZAYO)

SEWER MAINLINE

RETAINING WALL

CONRAIL R/W LINE

GROUND WIRE
DRAIN
RETAINING
WALL
CONDUIT RISER

N11

SLACK TENSION GROUND WIRE

ENLARGED DRAWING

SCALE IN FEET
20' 10' 0 20' 40'

LEGEND:

STATIC WIRE =
138KV (AMTRAK) =
230KV (PECO) =
12KV FEEDER (AMTRAK) =
6.6 SIGNAL POWER (AMTRAK) =
CATENARY (AMTRAK) =

NOTE:

1. FOR WIRING PROFILES, SEE DRAWINGS ET-05, ET-06, ET-07, ET-08, ET-09 & ET-10.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER
No.PE077414

100% SUBMISSION
APRIL 2020

No	Revisions	Date	By

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OFFICE OF
Chief Engineer
Engineering
National Railroad Passenger Corporation
30TH Street Station–Philadelphia, Pennsylvania 19104

Approved	Date

SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION
FINAL LOCATION PLAN

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

DRAWN	VA	DATE 04/02/2020
CHECKED	YS	DATE 04/02/2020

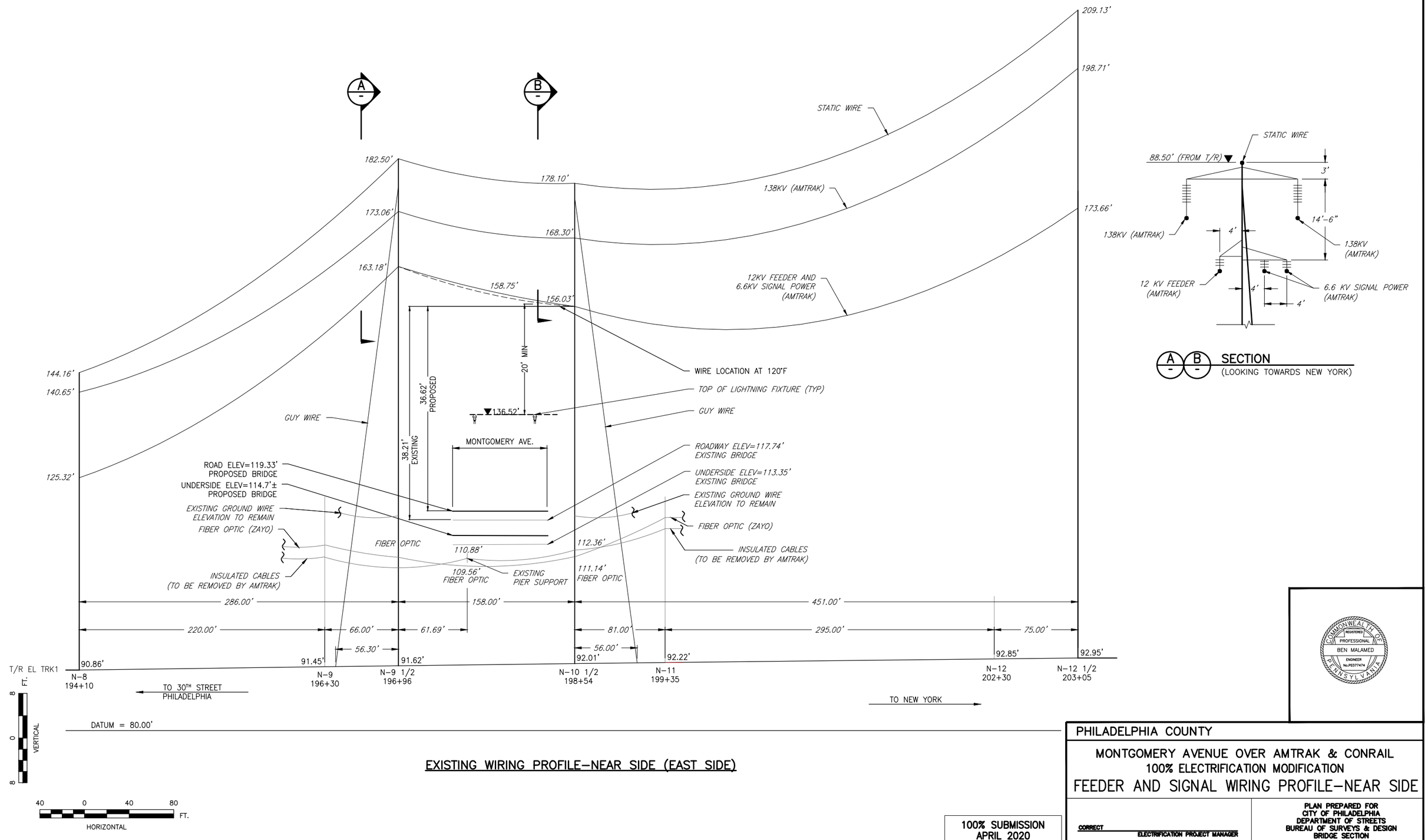
BPAA-0185ACP

SHEET NO. 04 OF 31

ET-04

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DATE: 06-12-2020
TIME: 9:16:10 AM

FILENAME: X:\ENG\PROJECTS\USO1T15A14 CITY OF PHIL MONTGOMERY AVE WO #1\08.0 TECHNICAL-WORKING\WORKING DWG\REVISED DRAWINGS\ET-05_WIRE PROFILE NEAR SIDE 100%.DWG
DATE: 06-12-2020
TIME: 9:16:23 AM



A B SECTION
(LOOKING TOWARDS NEW YORK)

EXISTING WIRING PROFILE–NEAR SIDE (EAST SIDE)

100% SUBMISSION
APRIL 2020

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER No.PE077474

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION

FEEDER AND SIGNAL WIRING PROFILE–NEAR SIDE

CORRECT ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

DRAWN	VA	DATE 04/02/2020
CHECKED	YS	DATE 04/02/2020

BPAA–0185ACP

SHEET NO. 05 OF 31

ET–05

No	Revisions	Date	By

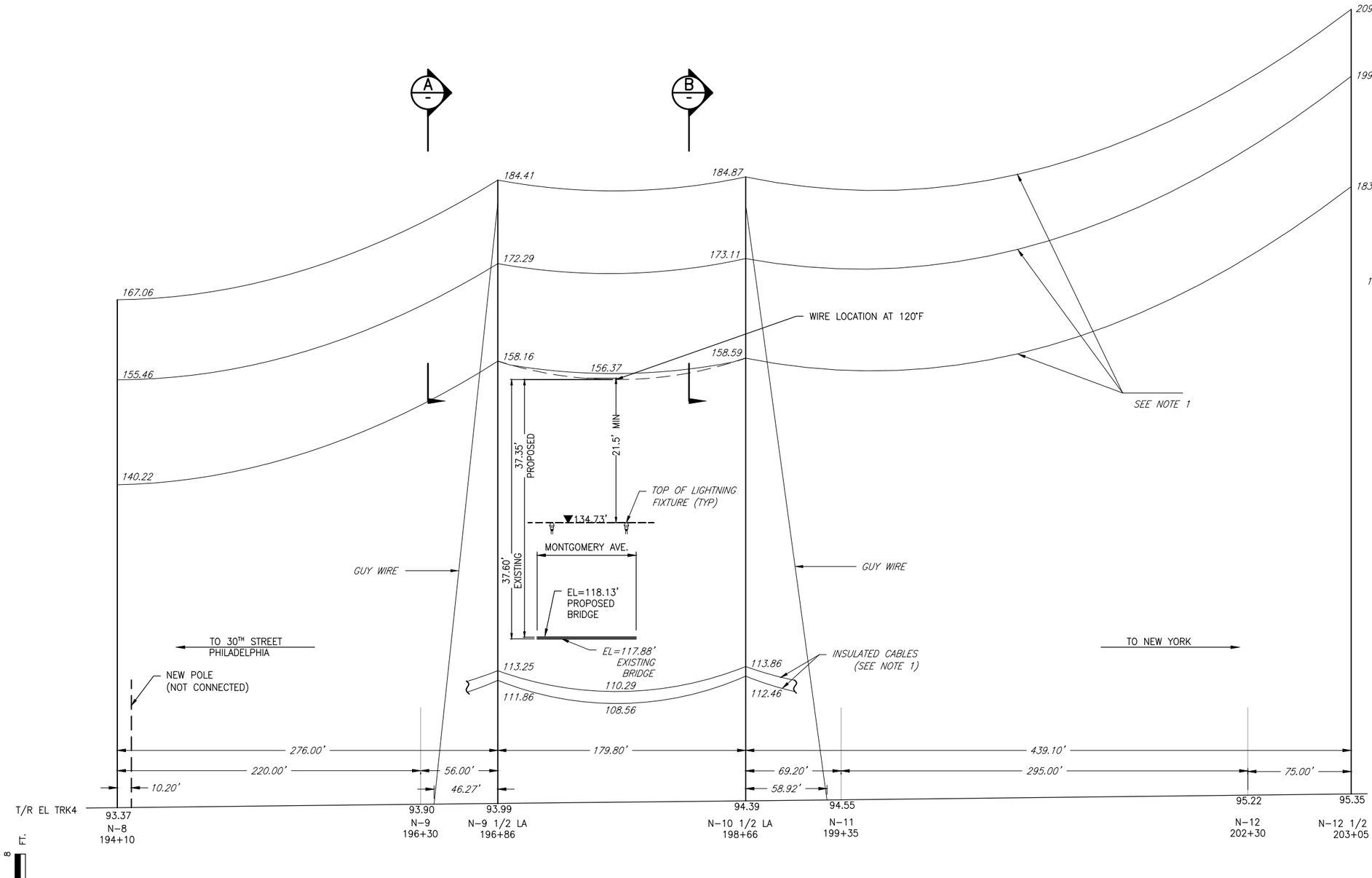
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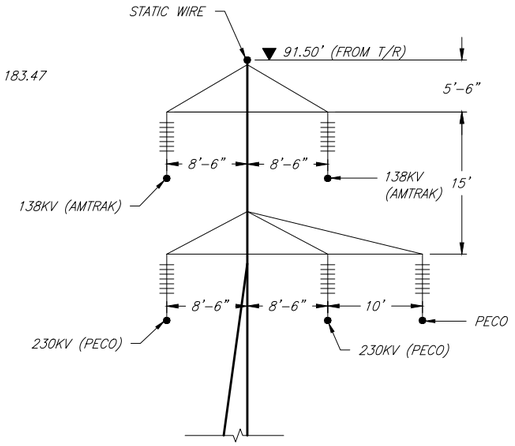
OFFICE OF
Chief Engineer
Engineering
National Railroad Passenger Corporation
30TH Street Station–Philadelphia, Pennsylvania 19104

Approved	Date

SYSTRA
SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

FILENAME: X:\ENG\PROJECTS\US01T115A14 CITY OF PHIL MONTGOMERY AVE WO #1\08.0 TECHNICAL-WORKING\WORKING DWG\REVISED DRAWINGS\ET-06_WIRE PROFILE FAR SIDE 100%.DWG
DATE: 06-12-2020
TIME: 9:16:30 AM





A B SECTION
(LOOKING TOWARDS NEW YORK)

NOTE:

1. NO CHANGES IN EXISTING ELEVATIONS FOR INSULATED CABLES AND BARE WIRES.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER
No.PE077474

WIRING PROFILE-FAR SIDE (WEST SIDE)

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APRIL 2020

No	Revisions	Date	By

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OFFICE OF
Chief Engineer
Engineering
National Railroad Passenger Corporation
30TH Street Station-Philadelphia, Pennsylvania 19104

Approved	Date

SYSTRA
SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION

FEEDER AND SIGNAL WIRING PROFILE-FAR SIDE

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

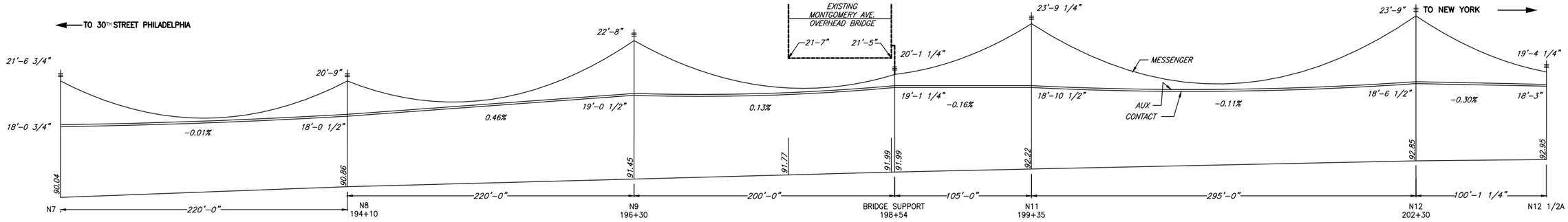
DRAWN	VA	DATE 04/02/2020
CHECKED	YS	DATE 04/02/2020

BPAA-0185ACP

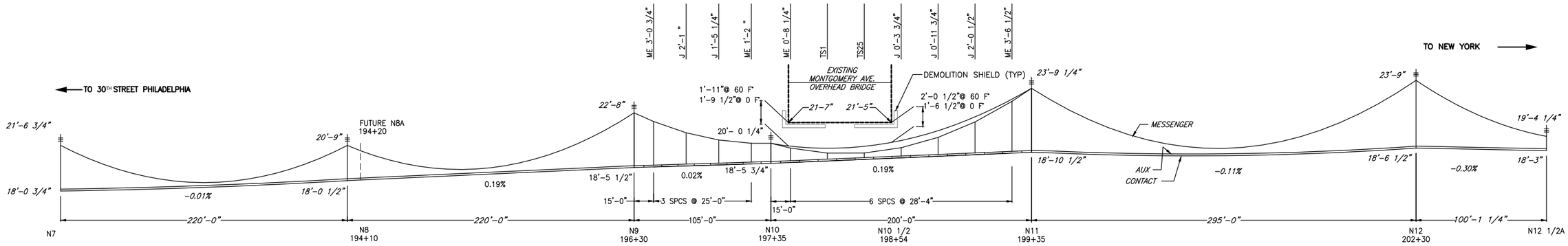
SHEET NO. 06 OF 31

ET-06

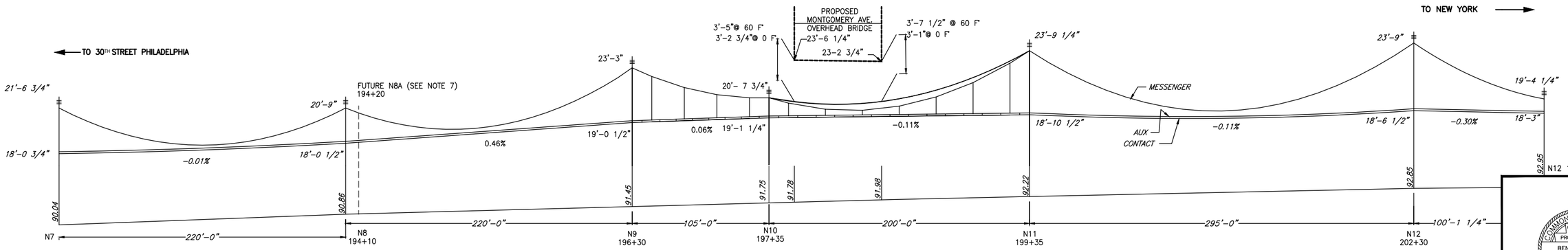
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DATE: 06-12-2020
TIME: 9:16:41 AM



EXISTING CATENARY PROFILE – TRACK 1
SCALE: AS SHOWN



TEMPORARY CATENARY PROFILE – TRACK 1
SCALE: AS SHOWN



FINAL CATENARY PROFILE – TRACK 1
SCALE: AS SHOWN

WIRE PARAMETERS		
WIRE	DESCRIPTION	TENSION @ 60°F
MESSENGER	5/8"ø BRONZE, 19 STRAND	5410 LBS.
AUXILIARY	4/0 COPPER GROOVED	1200 LBS.
CONTACT	336.4 MCM BRONZE T-55 GROOVED	5000 LBS.

SCALE IN FEET: 0, 4, 8

0 40 80 120
SCALE IN FEET

TEMPORARY – BILL OF MATERIALS			
MARK	DESCRIPTION	REF. DWG.	QUANTITY
J	HANGER ASSEMBLY	ET-017	5
TS1	HANGER ASSEMBLY	ET-017	1
TS25	HANGER ASSEMBLY	ET-017	1
ME	HANGER ASSEMBLY	ET-017	4
H	HANGER ASSEMBLY	ET-017	22

NOTES:
1. ITALIC FONT MEANS NO CHANGE TO THE EXISTING CONDITIONS.
2. HANGER LENGTHS ARE CALCULATED FOR CATENARY WEIGHT OF 2.650 LBS/FT
3. ALL CATENARY WIRES MEASURED FROM T/R.
4. ALL TENSIONS ARE ASSUMED TO BE CORRECT BASED ON AMTRAK STANDARDS.
5. CLEARANCE SHOWS THE DISTANCE BETWEEN THE BOTTOM OF BRIDGE AND CATENARY MESSENGER WIRE.
6. THE CONTRACTOR HAS TO INSTALL A DEMOLITION SHIELD AND RESPECT THE CLEARANCE IN ACCORDANCE WITH AMTRAK AND AREMA STANDARDS.
7. GRADIENT COULD BE IMPROVED WHEN FUTURE N8A STRUCTURE WILL BE IN PLACE
8. HANGERS FOR FINAL PHASE WILL REMAIN THE SAME AS TEMPORARY.

100% SUBMISSION APRIL 2020

No	Revisions	Date	By

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OFFICE OF
Chief Engineer
Engineering
National Railroad Passenger Corporation
30TH Street Station–Philadelphia, Pennsylvania 19104

Approved	Date

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SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER
No.PE077474

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION
CATENARY WIRING PROFILE–TRACK 1

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

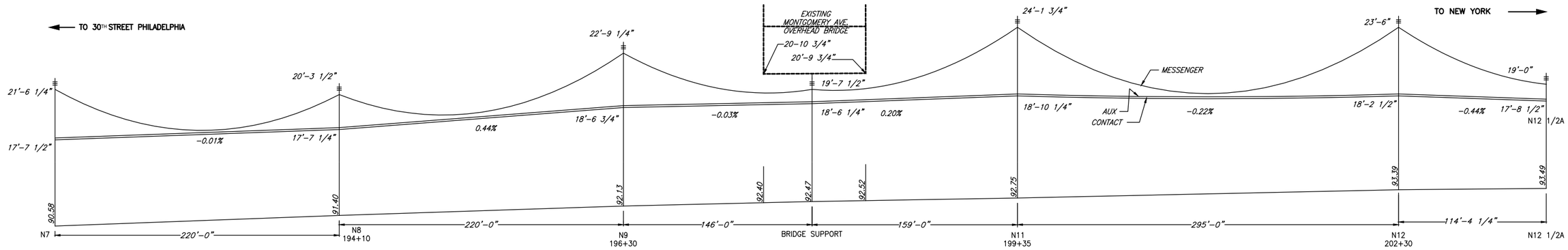
DRAWN	VA	DATE 04/02/2020
CHECKED	YS	DATE 04/02/2020

BPAA–0185ACP

SHEET NO. 07 OF 31

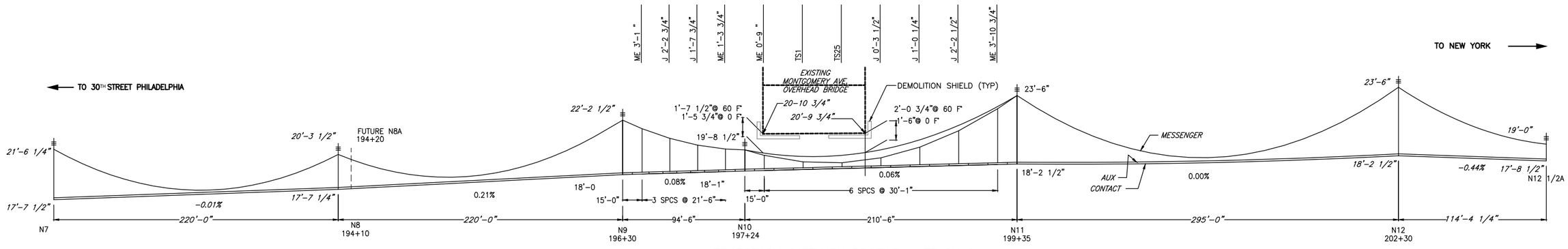
ET–07

FILENAME: X:\ENG\PROJECTS\US01T15A14 CITY OF PHIL MONTGOMERY AVE WO #1\08.0 TECHNICAL-WORKING\WORKING DWG\REVISED DRAWINGS\ET-08_CATENARY PROFILE_TRACK 2 100%.DWG
DATE: 06-12-2020
TIME: 9:16:51 AM



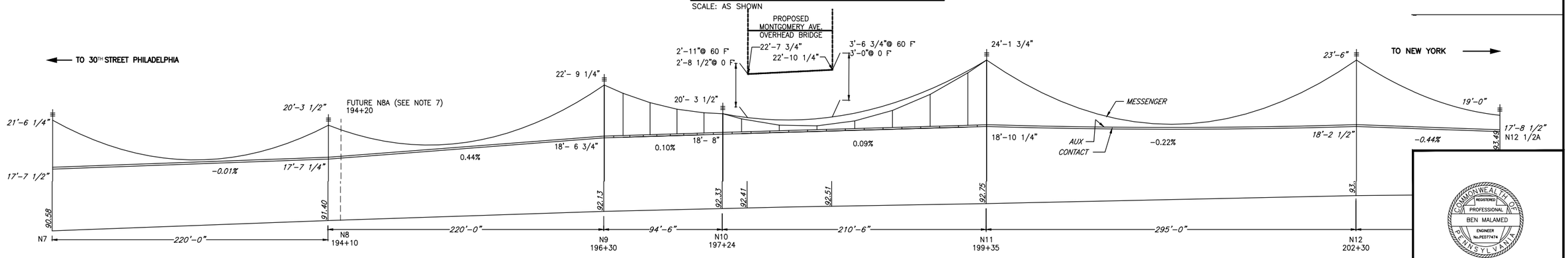
EXISTING CATENARY PROFILE – TRACK 2

SCALE: AS SHOWN



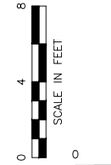
TEMPORARY CATENARY PROFILE – TRACK 2

SCALE: AS SHOWN



FINAL CATENARY PROFILE – TRACK 2

SCALE: AS SHOWN





WIRE PARAMETERS		
WIRE	DESCRIPTION	TENSION @ 60°F
MESSENGER	5/8"ø BRONZE, 19 STRAND	5410 LBS.
AUXILIARY	4/0 COPPER GROOVED	1200 LBS.
CONTACT	336.4 MCM BRONZE T-55 GROOVED	5000 LBS.

TEMPORARY – BILL OF MATERIALS			
MARK	DESCRIPTION	REF. DWG.	QUANTITY
J	HANGER ASSEMBLY	ET-17	5
TS1	HANGER ASSEMBLY	ET-17	1
TS25	HANGER ASSEMBLY	ET-17	1
ME	HANGER ASSEMBLY	ET-17	4
H	HANGER ASSEMBLY	ET-17	22

NOTES:

1. ITALIC FONT MEANS NO CHANGE TO THE EXISTING CONDITIONS.
2. HANGER LENGTHS ARE CALCULATED FOR CATENARY WEIGHT OF 2.650 LBS/FT
3. ALL CATENARY WIRES MEASURED FROM T/R.
4. ALL TENSIONS ARE ASSUMED TO BE CORRECT BASED ON AMTRAK STANDARDS.
5. CLEARANCE SHOWS THE DISTANCE BETWEEN THE BOTTOM OF BRIDGE AND CATENARY MESSENGER WIRE.
6. THE CONTRACTOR HAS TO INSTALL A DEMOLITION SHIELD AND RESPECT THE CLEARANCE IN ACCORDANCE WITH AMTRAK AND AREMA STANDARDS.
7. GRADIENT COULD BE IMPROVED WHEN FUTURE N8A STRUCTURE WILL BE IN PLACE
8. HANGERS FOR FINAL PHASE WILL REMAIN THE SAME AS TEMPORARY.

100% SUBMISSION
APRIL 2020

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER
No. PE077474

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION

CATENARY WIRING PROFILE–TRACK 2

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

DRAWN	VA	DATE 04/02/2020
CHECKED	YS	DATE 04/02/2020

BPAA–0185ACP

SHEET NO. 08 OF 31

ET–08

No	Revisions	Date	By

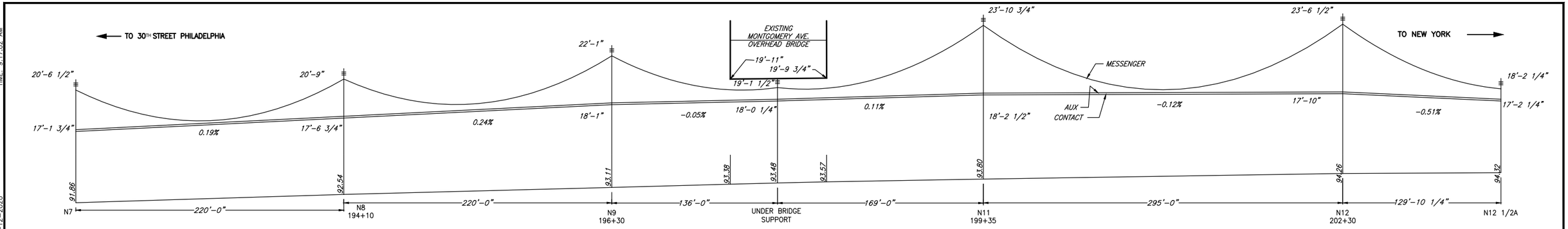
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National Railroad Passenger Corporation
30TH Street Station–Philadelphia, Pennsylvania 19104

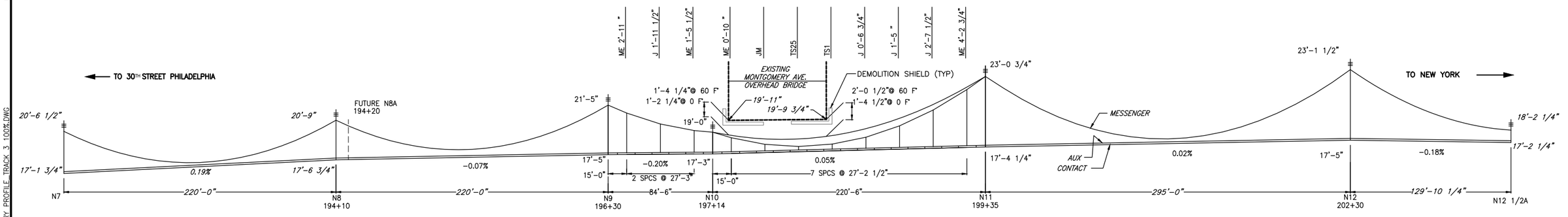
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1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103



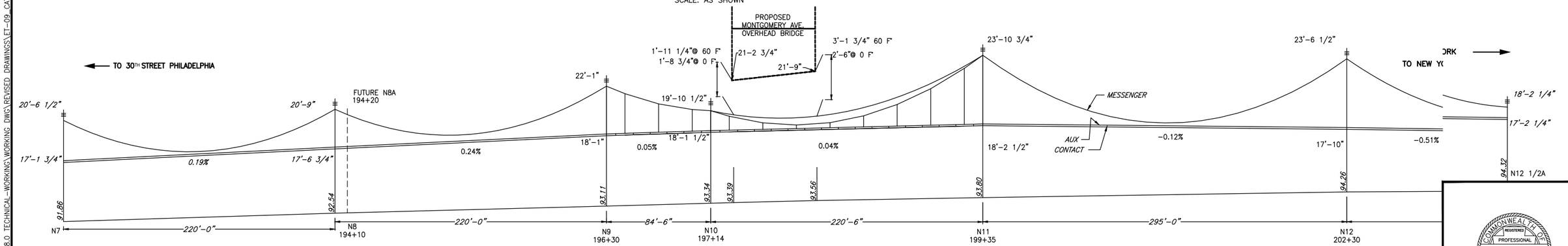
EXISTING CATENARY PROFILE – TRACK 3

SCALE: AS SHOWN



TEMPORARY CATENARY PROFILE – TRACK 3

SCALE: AS SHOWN



FINAL CATENARY PROFILE – TRACK 3

SCALE: AS SHOWN

WIRE PARAMETERS

WIRE	DESCRIPTION	TENSION @ 60°F
MESSENGER	5/8"ø BRONZE, 19 STRAND	5410 LBS.
AUXILIARY	4/0 COPPER GROOVED	1200 LBS.
CONTACT	336.4 MCM BRONZE T-55 GROOVED	5000 LBS.

SCALE IN FEET: 0, 4, 8

SCALE IN FEET: 0, 40, 80, 120

TEMPORARY – BILL OF MATERIALS

MARK	DESCRIPTION	REF. DWG.	QUANTITY
J	HANGER ASSEMBLY	ET-17	4
TS1	HANGER ASSEMBLY	ET-17	1
TS25	HANGER ASSEMBLY	ET-17	1
JM	HANGER ASSEMBLY	ET-17	1
ME	HANGER ASSEMBLY	ET-17	4
H	HANGER ASSEMBLY	ET-17	22

NOTES:

1. ITALIC FONT MEANS NO CHANGE TO THE EXISTING CONDITIONS.
2. HANGER LENGTHS ARE CALCULATED FOR CATENARY WEIGHT OF 2.650 LBS/FT
3. ALL CATENARY WIRES MEASURED FROM T/R.
4. ALL TENSIONS ARE ASSUMED TO BE CORRECT BASED ON AMTRAK STANDARDS.
5. CLEARANCE SHOWS THE DISTANCE BETWEEN THE BOTTOM OF BRIDGE AND CATENARY MESSENGER WIRE.
6. THE CONTRACTOR HAS TO INSTALL A DEMOLITION SHIELD AND RESPECT THE CLEARANCE IN ACCORDANCE WITH AMTRAK AND AREMA STANDARDS.
7. GRADIENT COULD BE IMPROVED WHEN FUTURE N8A STRUCTURE WILL BE IN PLACE
8. HANGERS FOR FINAL PHASE WILL REMAIN THE SAME AS TEMPORARY.

100% SUBMISSION APRIL 2020

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — BEN MALAMED — No. PE077474

No	Revisions	Date	By

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National Railroad Passenger Corporation
30TH Street Station–Philadelphia, Pennsylvania 19104

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PHILADELPHIA, PA 19103

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION
CATENARY WIRING PROFILE–TRACK 3

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

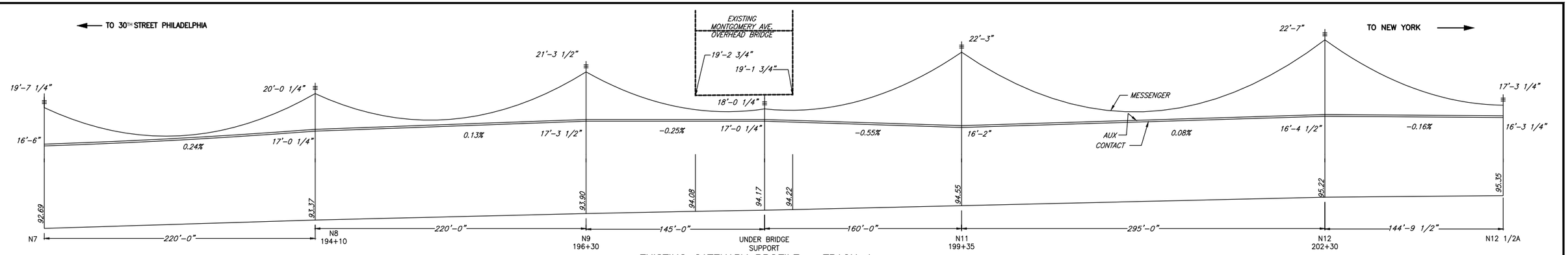
DRAWN	VA	DATE 04/02/2020
CHECKED	YS	DATE 04/02/2020

BPAA–0185ACP

SHEET NO. 09 OF 31

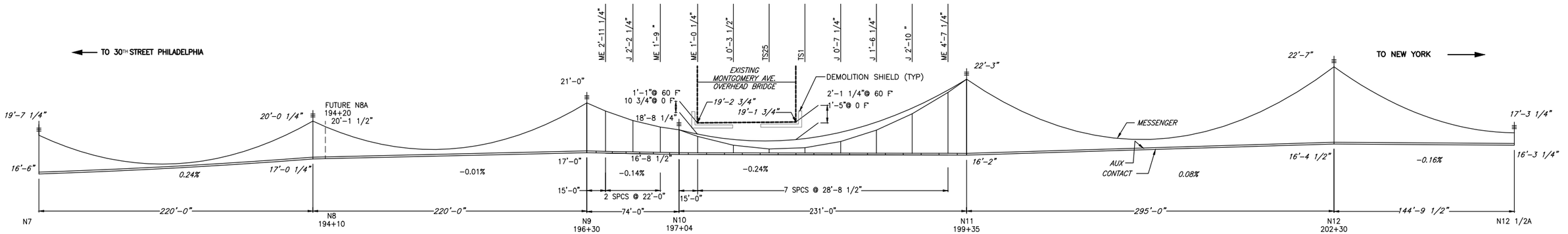
ET–09

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DATE: 06-12-2020
TIME: 9:17:02 AM



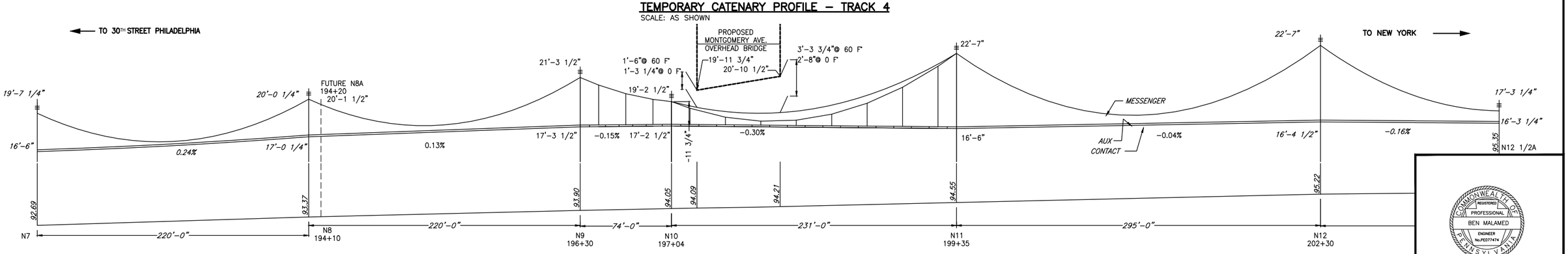
EXISTING CATENARY PROFILE – TRACK 4

SCALE: AS SHOWN



TEMPORARY CATENARY PROFILE – TRACK 4

SCALE: AS SHOWN



FINAL CATENARY PROFILE – TRACK 4

SCALE: AS SHOWN

WIRE PARAMETERS

WIRE	DESCRIPTION	TENSION @ 60°F
MESSENGER	5/8"ø BRONZE, 19 STRAND	5410 LBS.
AUXILIARY	4/0 COPPER GROOVED	1200 LBS.
CONTACT	336.4 MCM BRONZE T-55 GROOVED	5000 LBS.

SCALE IN FEET: 0, 4, 8

0 40 80 120

SCALE IN FEET

TEMPORARY – BILL OF MATERIALS

MARK	DESCRIPTION	REF. DWG.	QUANTITY
J	HANGER ASSEMBLY	ET-17	5
TS1	HANGER ASSEMBLY	ET-17	1
TS25	HANGER ASSEMBLY	ET-17	1
ME	HANGER ASSEMBLY	ET-17	4
H	HANGER ASSEMBLY	ET-17	22

NOTES:

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6. THE CONTRACTOR HAS TO INSTALL A DEMOLITION SHIELD AND RESPECT THE CLEARANCE IN ACCORDANCE WITH AMTRAK AND AREMA STANDARDS.
7. GRADIENT COULD BE IMPROVED WHEN FUTURE N8A STRUCTURE WILL BE IN PLACE
8. HANGERS FOR FINAL PHASE WILL REMAIN THE SAME AS TEMPORARY.

100% SUBMISSION APRIL 2020

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — BEN MALAMED — ENGINEER No.PE077474

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION
CATENARY WIRING PROFILE–TRACK 4

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

DRAWN	VA	DATE 04/02/2020
CHECKED	YS	DATE 04/02/2020

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SHEET NO. 10 OF 31

ET–10

No	Revisions	Date	By

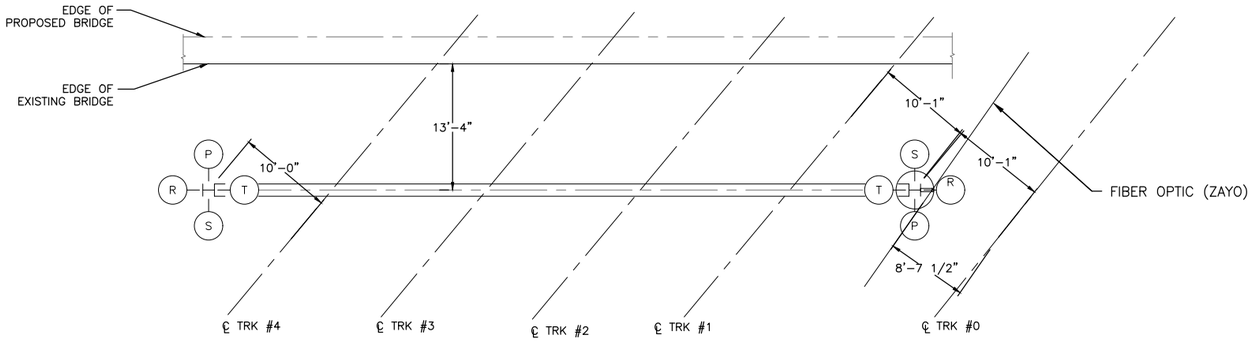
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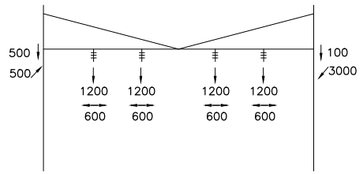
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Engineering
National Railroad Passenger Corporation
30TH Street Station–Philadelphia, Pennsylvania 19104

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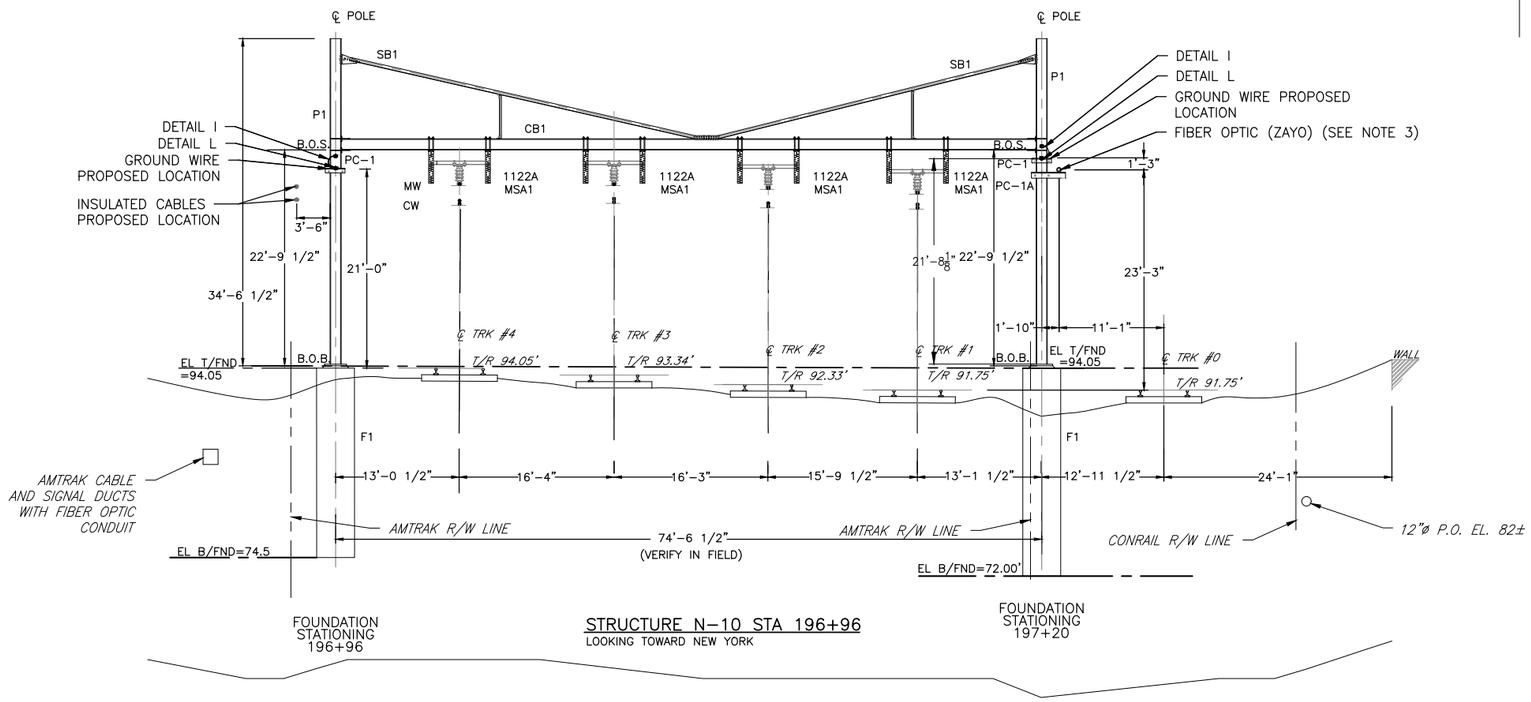
SYSTRA
SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

FILENAME: X:\ENG\PROJECTS\US01T15A14 CITY OF PHIL MONTGOMERY AVE WO #1\08.0 TECHNICAL-WORKING\WORKING DWG\REVISED DRAWINGS\ET-10_CATENARY PROFILE_TRACK 4 100%.DWG
DATE: 06-12-2020
TIME: 9:17:12 AM





LOADING DIAGRAM
LOOKING TOWARD NEW YORK



STRUCTURE N-10 STA 196+96
LOOKING TOWARD NEW YORK

WIRE HEIGHTS – TEMPORARY CONDITION				
WIRE	#4	#3	#2	#1
BOTTOM OF STEEL	23' -0 3/4"	23' – 9 1/4"	24' 9 1/2"	25' – 4 1/2"
MESSENGER WIRE	18'-8 1/4"	19'-0"	19'-8 1/2"	20'-0 1/4"
CONTACT WIRE	16'-8 1/2"	17'-3"	18'-1"	18'-5 3/4"

WIRE HEIGHTS – FINAL CONDITION				
WIRE	#4	#3	#2	#1
BOTTOM OF STEEL	23' -0 3/4"	23' – 9 1/4"	24' 9 1/2"	25' – 4 1/2"
MESSENGER WIRE	19'-2 1/2"	19'-10 1/2"	20'-3 1/2"	20'-7 3/4"
CONTACT WIRE	17'-2 1/2"	18'-1 1/2"	18'-8"	19'-1 1/4"

BILL OF MATERIALS			
MARK	DESCRIPTION	REF DWG	QUANTITY
1122A	POST INSULATOR ASSEMBLY	ET-17	4
P1	POLE DETAILS	ET-19	2
F1	FOUNDATION DETAILS	ET-20	2
CB1	CROSS BEAM DETAILS	ET-21	1
SB1	SAG BRACE DETAILS	ET-22	2
MSA1	MESSENGER SUPPORT ASSEMBLY	ET-23	4
PC-1	POLE CLAMP DETAILS	ET-24	2
PC-1A	INSULATED CABLE SUPPORT	ET-24	1
DETAIL I	GROUND CONNECTION	ET-15	2
DETAIL L	GROUND WIRE TERMINATION	ET-15	2

WORK STATEMENT:

1. INSTALL FOUNDATIONS (F1) AND POLES (P1).
2. INSTALL CROSS BEAM (CB1) AND SAG BRACE (SB1).
3. INSTALL POLE CLAMPS (PC1).
4. INSTALL FIBER OPTIC SUPPORT ASSEMBLY (PC-1A).
5. INSTALL MESSENGER SUPPORT ASSEMBLY (MSA1).
6. INSTALL GROUND WIRE AND GROUND STRUCTURE TO BRIDGE.
7. INSTALL MESSENGER SUPPORT INSULATOR.
8. REPROFILE CATENARY WIRES FOR TRACK 1, 2, 3 & 4.

GENERAL NOTES:

1. FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS SEE ET-002.
2. ALL CATENARY WIRE HEIGHTS ARE MEASURED FROM ITS CORRESPONDING T/R ELEVATION.
3. HARDWARE TO BE PROVIDED BY ZAYO.
4. FOR DETAIL I & DETAIL L SEE DWG ET-15.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER
No.PE077474

SCALE IN FEET
8' 4' 0 8' 16'

100% SUBMISSION
MAY 2017

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION
CATENARY SED – N-10

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

DRAWN	VA	DATE 04/12/2017
CHECKED	YS	DATE 04/12/2017

BPAA-0185ACP

SHEET NO. 11 OF 31

ET-11

No	Revisions	Date	By

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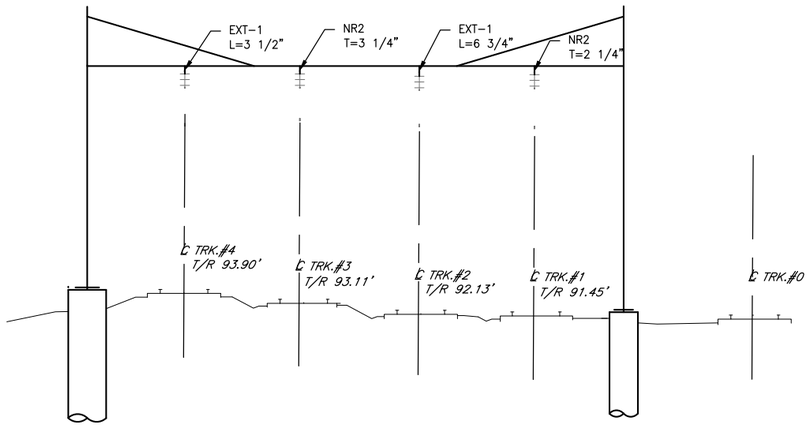
OFFICE OF
Chief Engineer
Engineering
National Railroad Passenger Corporation
30TH Street Station–Philadelphia, Pennsylvania 19104

Approved	Date

SYSTRA
SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

FILENAME: X:\ENG\PROJECTS\USO1T15A14 CITY OF PHIL MONTGOMERY AVE WO #1\08.0 TECHNICAL-WORKING\WORKING DWG\ET-11_CATENARY SED_N-10 100%.DWG
DATE: 05-12-2017
TIME: 2:32:16 PM

FILENAME: X:\ENG\PROJECTS\US01T15A14 CITY OF PHIL MONTGOMERY AVE WO #1\08.0 TECHNICAL-WORKING\WORKING DWG\ET-11A CATENARY SED_N-9 100%.DWG
DATE: 05-12-2017
TIME: 2:32:26 PM



STRUCTURE N-9 STA 196+30
LOOKING TOWARD NEW YORK

WIRE HEIGHTS – EXISTING CONDITION				
WIRE	#4	#3	#2	#1
BOTTOM OF STEEL	23"-7"	24"-3"	25'-2 1/4"	25'-10 3/4"
MESSENGER WIRE	21'-3 1/2"	22'-1"	22'-9 1/4"	23'-3"
CONTACT WIRE	17'-3 1/2"	18'-1"	18'-6 3/4"	19'-0 1/2"

WIRE HEIGHTS – TEMPORARY CONDITION				
WIRE	#4	#3	#2	#1
BOTTOM OF STEEL	23"-7"	24"-3"	25'-2 1/4"	25'-10 3/4"
MESSENGER WIRE	21'-0"	21'-5"	22'-2 1/2"	22'-8"
CONTACT WIRE	17'-0"	17'-5"	18'-0"	18'-5 1/2"

WIRE HEIGHTS – FINAL CONDITION				
WIRE	#4	#3	#2	#1
BOTTOM OF STEEL	23"-7"	24"-3"	25'-2 1/4"	25'-10 3/4"
MESSENGER WIRE	21'-3 1/2"	22'-1"	22'-9 1/4"	23'-3"
CONTACT WIRE	17'-3 1/2"	18'-1"	18'-6 3/4"	19'-0 1/2"

BILL OF MATERIALS			
MARK	DESCRIPTION	REF. DWG.	QUANTITY
EXT-1	EXTENSION ASSEMBLY	ET-18	2
NR2	EXTENSION ASSEMBLY	ET-18	2

WORK STATEMENT:

TEMPORARY STAGE

TRACK 1. ADD NR2 EXTENSION TO EXISTING MESSENGER SUSPENSION ASSEMBLY.

TRACK 2. ADD EXT-1 EXTENSION TO EXISTING MESSENGER SUSPENSION ASSEMBLY.

TRACK 3. ADD NR2 EXTENSION TO EXISTING MESSENGER SUSPENSION ASSEMBLY.

TRACK 4. ADD EXT-1 EXTENSION TO EXISTING MESSENGER SUSPENSION ASSEMBLY.

FINAL STAGE

TRACK 1. REMOVE NR2 EXTENSION AND RECONNECT EXISTING MESSENGER SUSPENSION ASSEMBLY TO RESTORE ORIGINAL CATENARY ELEVATION.

TRACK 2. REMOVE EXT-1 EXTENSION AND RECONNECT EXISTING MESSENGER SUSPENSION ASSEMBLY TO RESTORE ORIGINAL CATENARY ELEVATION.

TRACK 3. REMOVE NR2 EXTENSION AND RECONNECT EXISTING MESSENGER SUSPENSION ASSEMBLY TO RESTORE ORIGINAL CATENARY ELEVATION.

TRACK 4. REMOVE EXT-1 EXTENSION AND RECONNECT EXISTING MESSENGER SUSPENSION ASSEMBLY TO RESTORE ORIGINAL CATENARY ELEVATION.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER
No.PE077474

SCALE IN FEET
8' 4' 0 8' 16'

100% SUBMISSION
MAY 2017

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION
CATENARY SED – N-9

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

DRAWN	VA	DATE 04/12/2017
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SHEET NO. 12 OF 31

ET-11A

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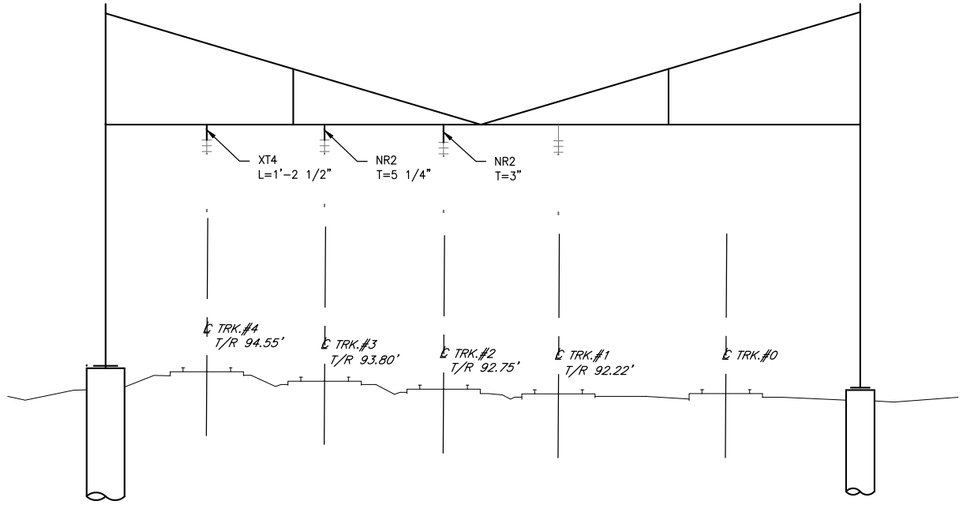
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SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

WIRE HEIGHTS – EXISTING CONDITION				
WIRE	#4	#3	#2	#1
BOTTOM OF STEEL	25"–8"	26"–4 1/4"	27'–4"	27'–7 3/4"
MESSENGER WIRE	22'–3"	23'–10 3/4"	24'–1 3/4"	23'–9 1/4"
CONTACT WIRE	16'–2"	18'–2 1/2"	18'–10 1/4"	18'–10 1/2"

WIRE HEIGHTS – TEMPORARY CONDITION				
WIRE	#4	#3	#2	#1
BOTTOM OF STEEL	25"–8"	26"–4 1/4"	27'–4"	27'–7 3/4"
MESSENGER WIRE	22'–3"	23'–0 3/4"	23'–6"	23'–9 1/4"
CONTACT WIRE	16'–2"	17'–4 1/4"	18'–2 1/2"	18'–10 1/2"

WIRE HEIGHTS – FINAL CONDITION				
WIRE	#4	#3	#2	#1
BOTTOM OF STEEL	25"–8"	26"–4 1/4"	27'–4"	27'–7 3/4"
MESSENGER WIRE	22'–7"	23'–10 3/4"	24'–1 3/4"	23'–9 1/4"
CONTACT WIRE	16'–6"	18'–2 1/2"	18'–10 1/4"	18'–10 1/2"

BILL OF MATERIALS			
MARK	DESCRIPTION	REF. DWG.	QUANTITY
NR2	EXTENSION ASSEMBLY	ET–18	2
XT4	EXTENSION ASSEMBLY	ET–18	1



STRUCTURE N–11 STA 199+35
LOOKING TOWARD NEW YORK

SCALE IN FEET
8′ 4′ 0 8′ 16′

WORK STATEMENT:

TEMPORARY STAGE

TRACK 2. ADD NR2 EXTENSION TO EXISTING MESSENGER SUSPENSION ASSEMBLY.

TRACK 3. ADD NR2 EXTENSIONTO EXISTING MESSENGER SUSPENSION ASSEMBLY.

FINAL STAGE

TRACK 2. REMOVE NR2 EXTENSION AND RECONNECT EXISTING MESSENGER SUSPENSION ASSEMBLY TO RESTORE ORIGINAL CATENARY ELEVATION.

TRACK 3. REMOVE NR2 EXTENSION AND RECONNECT EXISTING MESSENGER SUSPENSION ASSEMBLY TO RESTORE ORIGINAL CATENARY ELEVATION.

TRACK 4. REPLACE EXISTING STRAP XT4 WITH NEW TO INCREASE CATENARY ELEVATION.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER
No.PE077474

100% SUBMISSION
MAY 2017

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PHILADELPHIA, PA 19103

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION
CATENARY SED – N–11

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

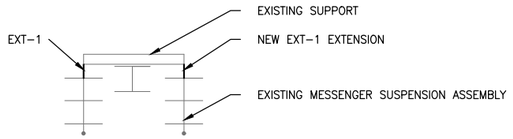
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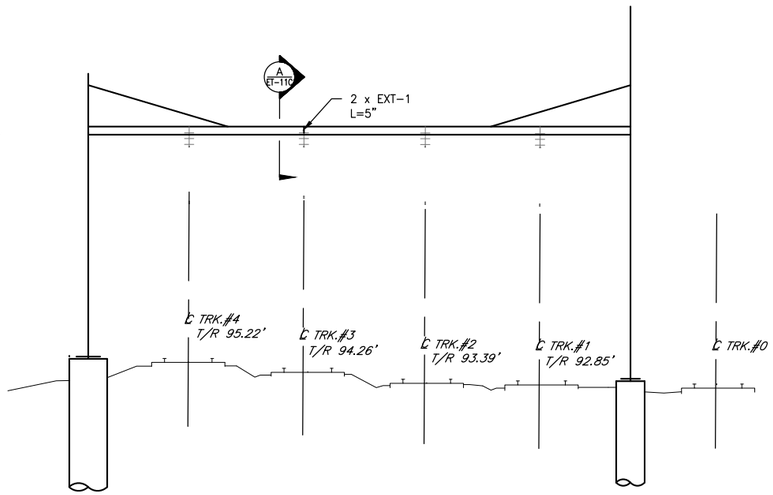
SHEET NO. 13 OF 31

ET–11B

FILENAME: X:\ENG\PROJECTS\US01T15A14 CITY OF PHIL MONTGOMERY AVE WO #1\08.0 TECHNICAL–WORKING\WORKING DWG\ET–11B CATENARY SED N–11 100%.DWG
DATE: 05–12–2017
TIME: 2:32:35 PM



SECTION A
NTS



STRUCTURE N-12 STA 202+30
LOOKING TOWARD NEW YORK

WIRE HEIGHTS – EXISTING CONDITION				
WIRE	#4	#3	#2	#1
BOTTOM OF STEEL	23"-7 1/2"	24"-7 1/4"	25'-4"	25'-10 3/4"
MESSENGER WIRE	22'-7"	23'-6 1/2"	23'-6"	23'-9"
CONTACT WIRE	16'-4 1/2"	17'-10"	18'-2 1/2"	18'-6 1/2"

WIRE HEIGHTS – TEMPORARY CONDITION				
WIRE	#4	#3	#2	#1
BOTTOM OF STEEL	23"-7 1/2"	24"-7 1/4"	25'-4"	25'-10 3/4"
MESSENGER WIRE	22'-7"	23'-1 1/2"	23'-6"	23'-9"
CONTACT WIRE	16'-4 1/2"	17'-5"	18'-2 1/2"	18'-6 1/2"

WIRE HEIGHTS – FINAL CONDITION				
WIRE	#4	#3	#2	#1
BOTTOM OF STEEL	23"-7 1/2"	24"-7 1/4"	25'-4"	25'-10 3/4"
MESSENGER WIRE	22'-7"	23'-6 1/2"	23'-6"	23'-9"
CONTACT WIRE	16'-4 1/2"	17'-10"	18'-2 1/2"	18'-6 1/2"

BILL OF MATERIALS			
MARK	DESCRIPTION	REF. DWG.	QUANTITY
EXT-1	EXTENSION ASSEMBLY	ET-018	2

WORK STATEMENT:

TEMPORARY STAGE

TRACK 3. ADD EXT-1 EXTENSION TO EXISTING MESSENGER SUSPENSION ASSEMBLIES.

FINAL STAGE

TRACK 3. REMOVE EXT-1 EXTENSION AND RECONNECT EXISTING MESSENGER SUSPENSION ASSEMBLIES TO RESTORE ORIGINAL CATENARY ELEVATION.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
BEN MALAMED
No. PE077474

SCALE IN FEET
8' 4' 0 8' 16'

100% SUBMISSION
MAY 2017

No	Revisions	Date	By

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OFFICE OF
Chief Engineer
Engineering
National Railroad Passenger Corporation
30TH Street Station–Philadelphia, Pennsylvania 19104

Approved	Date

SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION
CATENARY SED – N-12

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

DRAWN	VA	DATE 04/12/2017
CHECKED	YS	DATE 04/12/2017

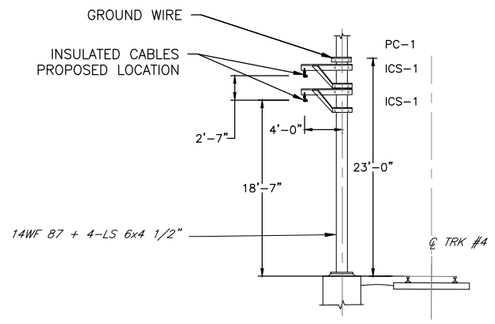
BPAA-0185ACP

SHEET NO. 14 OF 31

ET-11C

FILENAME: X:\ENG\PROJECTS\USO1T15A14 CITY OF PHIL MONTGOMERY AVE WO #1\08.0 TECHNICAL-WORKING\WORKING DWG\ET-11C_CATENARY SED_N-12 100%.DWG
DATE: 05-12-2017
TIME: 2:32:45 PM

BILL OF MATERIALS			
MARK	DESCRIPTION	REF DWG	QUANTITY
PC–1	POLE CLAMP DETAILS	ET–24	1
ICS–1	STEEL SUPPORT ASSEMBLY	ET–25	2



N–9 1/2 LA

GENERAL NOTES:

1. FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS SEE ET–02.
2. ALL WIRE HEIGHTS ARE MEASURED FROM ITS CORRESPONDING T/R ELEVATION.
3. HARDWARE TO BE PROVIDED BY AMTRAK C&S DEPARTMENT.

SCALE IN FEET
8′ 4′ 0 8′ 16′

100% SUBMISSION
MAY 2017

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
BEN MALAMED
No. PE077474

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION
PARTIAL SED N–9 1/2LA

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

DRAWN	VA	DATE 04/12/2017
CHECKED	YS	DATE 04/12/2017

BPAA–0185ACP

SHEET NO. 15 OF 31

ET–11D

No	Revisions	Date	By

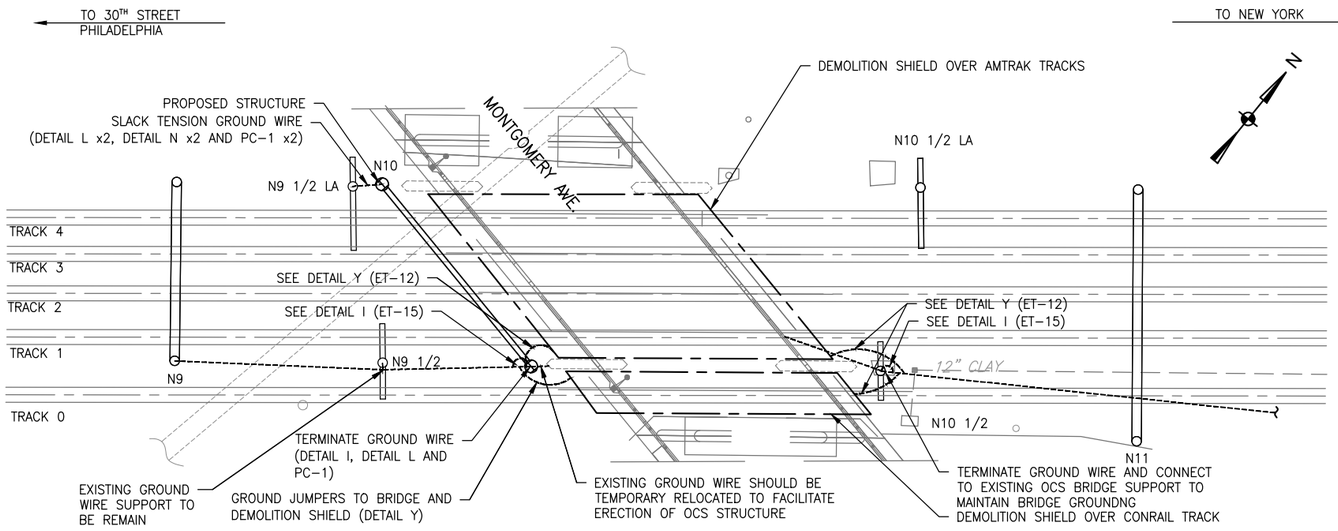
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Engineering
National Railroad Passenger Corporation
30TH Street Station–Philadelphia, Pennsylvania 19104

Approved	Date

SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

FILENAME: X:\ENG\PROJECTS\US01T115A14 CITY OF PHIL MONTGOMERY AVE WO #1\08.0 TECHNICAL–WORKING\WORKING DWG\ET–11D_CATENARY SED_N–10 100%.DWG
DATE: 05–12–2017
TIME: 2:32:56 PM



PLAN VIEW OF DEMOLITION SHIELD AND GROUND WIRE ROUTING

SCALE IN FEET
20' 10' 0 20' 40'

GENERAL NOTES:

1.) TEMPORARY PROTECTION SHIELDS SHALL BE USED, WITH CERTAIN EXCEPTIONS, DURING DEMOLITION OF EXISTING BRIDGES OR ERECTION OF NEW BRIDGES IN ORDER THAT WORK ON THE BRIDGE STRUCTURE CAN PROCEED OVER THE ELECTRIFICATION FACILITIES WITHOUT REQUIRING THE WIRES TO BE DEENERGIZED. ELECTRIFICATION FACILITIES SHALL BE DEENERGIZED DURING THE TIME THE STRUCTURAL FRAME AND THE TEMPORARY PROTECTION SHIELD ARE BEING ERECTED OVER OR OTHERWISE NEAR THE WIRES. THE ABOVE WORK SHALL BE DONE UNDER THE DIRECTION OF A QUALIFIED RAILROAD EMPLOYEE.
IN CASES WHERE THERE IS INSUFFICIENT ELECTRICAL CLEARANCE BETWEEN THE WIRES AND THE BRIDGE STRUCTURE FOR ERECTION OF THE TEMPORARY PROTECTION SHIELD, ALL WORK OVER THE WIRES SHALL BE PERFORMED WITH THE WIRES DEENERGIZED AND UNDER THE PROTECTION OF A QUALIFIED RAILROAD EMPLOYEE.
THE TEMPORARY PROTECTION BARRIER SHALL BE INSTALLED WHETHER OR NOT A TEMPORARY PROTECTION SHIELD IS USED.

2.) DETAILS OF ANY PROPOSED SHIELD AND BARRIER SHALL BE SUBMITTED TO THE RAILROAD FOR APPROVAL, AND WORK ON ANY SHIELD OR BARRIER SHALL NOT BE STARTED BEFORE SUCH APPROVAL IS OBTAINED.

3.) THE TEMPORARY PROTECTION SHIELD SHALL BE OF SOLID CONSTRUCTION (TONGUE AND GROOVE OR EQUAL) AND SHALL BE PROVIDED WITH A SOLID PROTECTION BARRIER HAVING A MINIMUM HEIGHT OF 6'-6" ABOVE THE SURFACE OF THE SIDEWALK OR CURB OF THE BRIDGE TO PROTECT WORKMAN AGAINST CONTACT WITH RAILROAD WIRES PASSING UNDER THE BRIDGE AND TO PREVENT DAMAGE TO THE WIRES.

4.) THE TEMPORARY PROTECTION SHIELD AND BARRIER SHALL EXTEND NOT LESS THAN 10 FEET BEYOND THE CENTERLINE OF TRACK UNDER THE BRIDGE MEASURED IN A HORIZONTAL PLANE AND NORMAL TO THE TRACK, AND SHALL PREVENT DAMAGE TO THE WIRES.

5.) THE PROTECTION SHIELD SHALL BE DESIGNED FOR A MINIMUM LIVE LOAD OF 100 LB. PER SQUARE FOOT. IF THE SHIELD IS TO SERVE AS A FORM OR IS TO CARRY ANY PART OF THE OVERHEAD STRUCTURE DURING ERECTION, IT SHALL BE DESIGNED FOR THE SUPERIMPOSED LOADS. IF THE SHIELD IS TO BE USED FOR PROTECTION DURING DEMOLITION OF AN OVERHEAD STRUCTURE, IT SHALL BE DESIGNED FOR A MINIMUM LIVE LOAD OF 100 LB. PER SQUARE FOOT AND A VERTICAL WIND LOAD OF 30 LBS./SQUARE FOOT.

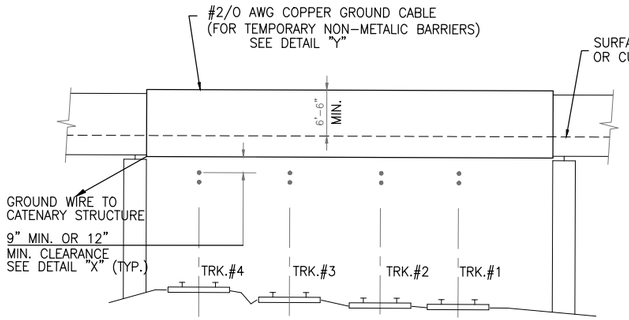
6.) NON-METALLIC TEMPORARY PROTECTION BARRIERS SHALL BE PROVIDED WITH 2/0 AWG SIZE COPPER GROUND CABLE CONNECTED TO THE RAILROAD GROUND SYSTEM PER DETAIL "Y", THIS DRAWING.

7.) TEMPORARY PROTECTION SHIELDS OF TIMBER CONSTRUCTION SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 12 INCHES TO THE RAILROAD WIRES. THE CORRESPONDING CLEARANCE TO STEEL CONSTRUCTION SHALL BE 9 INCHES.

8.) WHERE STRINGERS TRANSVERSE TO THE BRIDGE ARE USED, THE MINIMUM HORIZONTAL CLEARANCE BETWEEN STRINGERS AND RAILROAD WIRES SHALL BE 4 FEET AS SHOWN IN DETAIL "X".

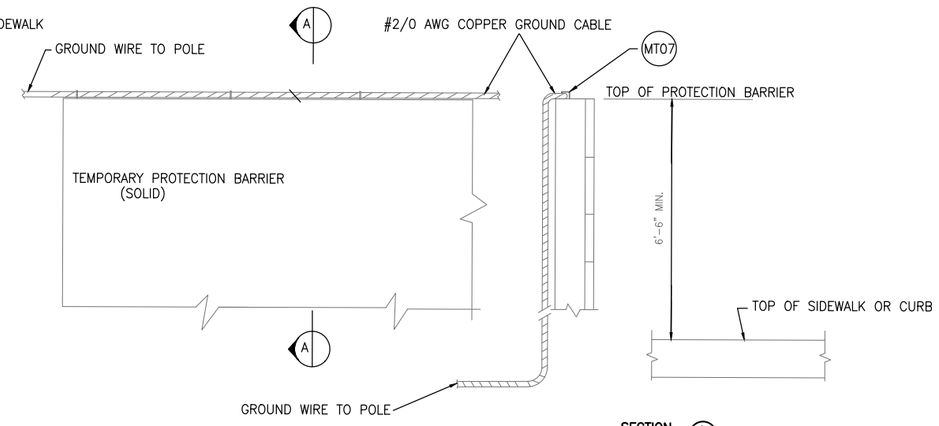
9.) TEMPORARY PROTECTION BARRIERS SHALL REMAIN IN PLACE AT LEAST UNTIL PERMANENT PROTECTION BARRIERS AND GROUNDING ARE COMPLETED.

10.) ANY MODIFICATION OF THE ELECTRICAL REQUIREMENTS SHOWN ON THIS DRAWING SHALL BE SUBMITTED TO THE ELECTRICAL ENGINEER FOR APPROVAL.



WEST ELEVATION VIEW (AS SHOWN)
N.T.S.

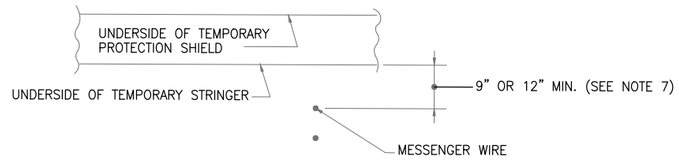
EAST ELEVATION VIEW (OPP. HAND)
N.T.S.



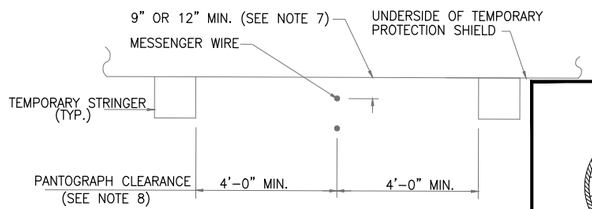
APPLICATION OF GROUND CABLE TO TEMPORARY PROTECTION BARRIER

DETAIL "Y"
N.T.S.

SECTION A
N.T.S.



STRINGERS LONGITUDINAL TO THE BRIDGE



TEMPORARY STRINGERS TRANSVERSE TO THE BRIDGE

DETAIL "X"
N.T.S.

NOTES:
1. THIS DRAWING IS IN ACCORDANCE WITH STANDARD AMTRAK DRAWING ET-1447-D-2 IS GENERAL IN NATURE AND PROVIDES THE CONTRACTOR TYPICAL INFORMATION WITH REGARD TO TEMPORARY SHIELDING AND GROUNDING.
2. FOR BILL OF MATERIALS FOR TEMPORARY PHASE SEE ET-27.
3. FOR DETAILS SEE DWG ET-14, ET-15 & ET-16.

100% SUBMISSION
MAY 2017

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER
No.PE077474

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION

TEMPORARY DEMOLITION SHIELD GROUNDING

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

DRAWN	VA	DATE 04/12/2017
CHECKED	YS	DATE 04/12/2017

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SHEET NO. 16 OF 31

ET-12

No	Revisions	Date	By

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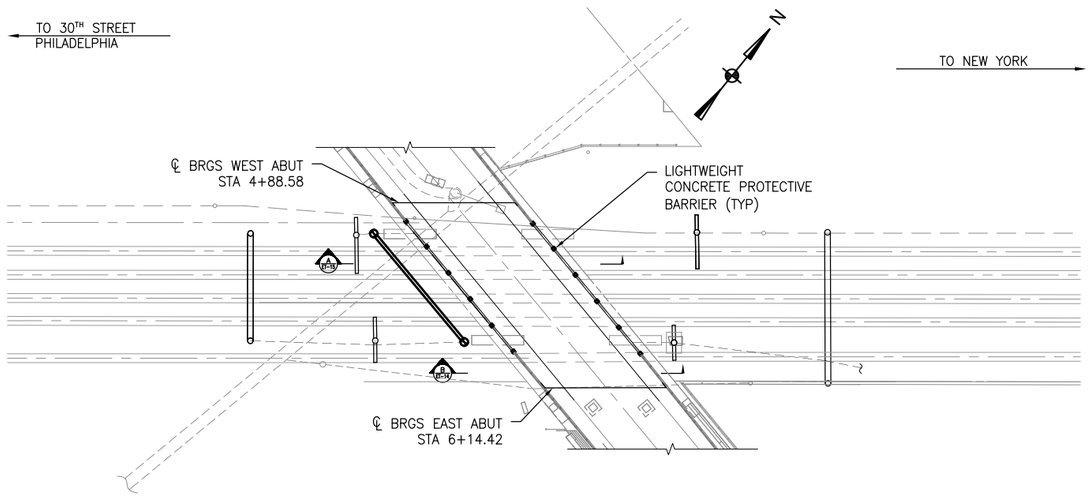
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Chief Engineer
Engineering
National Railroad Passenger Corporation
30TH Street Station-Philadelphia, Pennsylvania 19104

Approved	Date

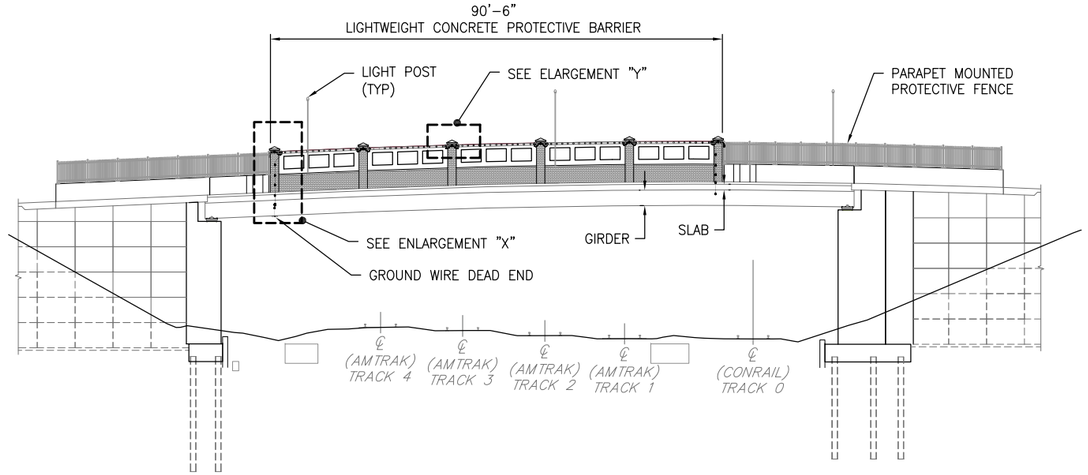
SYSTRA
SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

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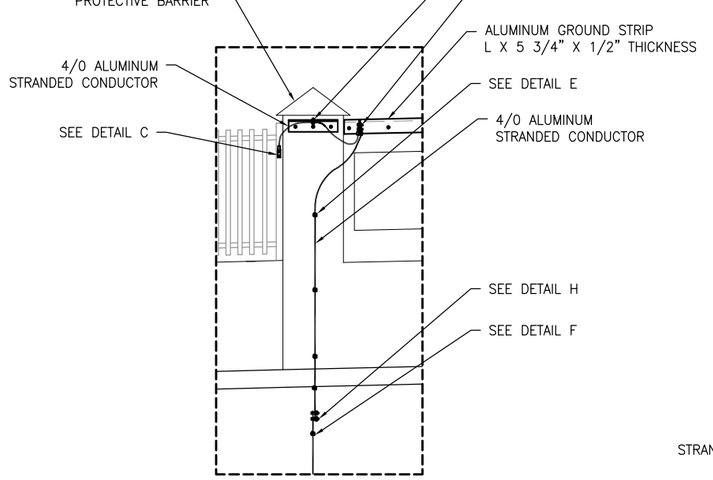
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TIME: 10:15:35



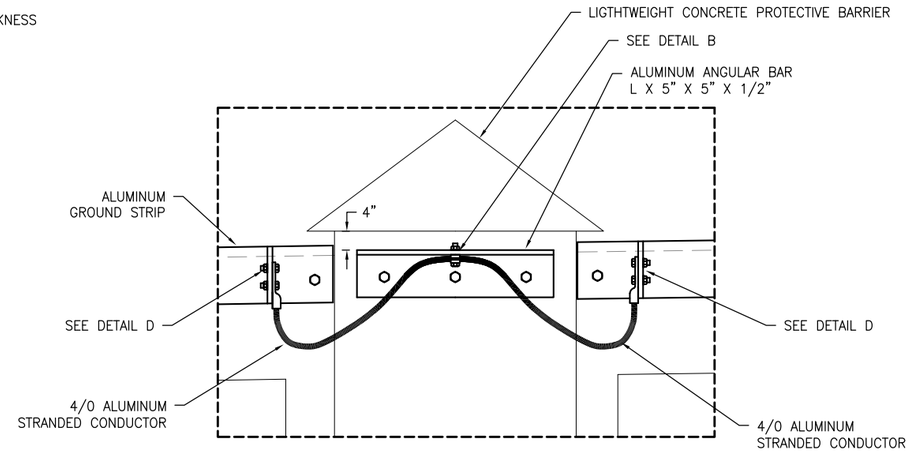
PLAN
SCALE IN FEET
20′ 10′ 0 20′ 40′



WEST ELEVATION
(LOOKING NEW YORK)
SCALE: 1″=15′-0″



ENLARGEMENT "X"
SCALE: N.T.S.



ENLARGEMENT "Y"
SCALE: N.T.S.

100% SUBMISSION
APRIL 2020

COMMONWEALTH OF PENNSYLVANIA
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BEN MALAMED
ENGINEER
No. PE077474

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION
FINAL BONDING AND GROUNDING SHEET 1

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
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BRIDGE SECTION

SCALE: AS SHOWN

DRAWN	VA	DATE 04/02/2020
CHECKED	YS	DATE 04/02/2020

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SHEET NO. 17 OF 31

ET-13

No	Revisions	Date	By

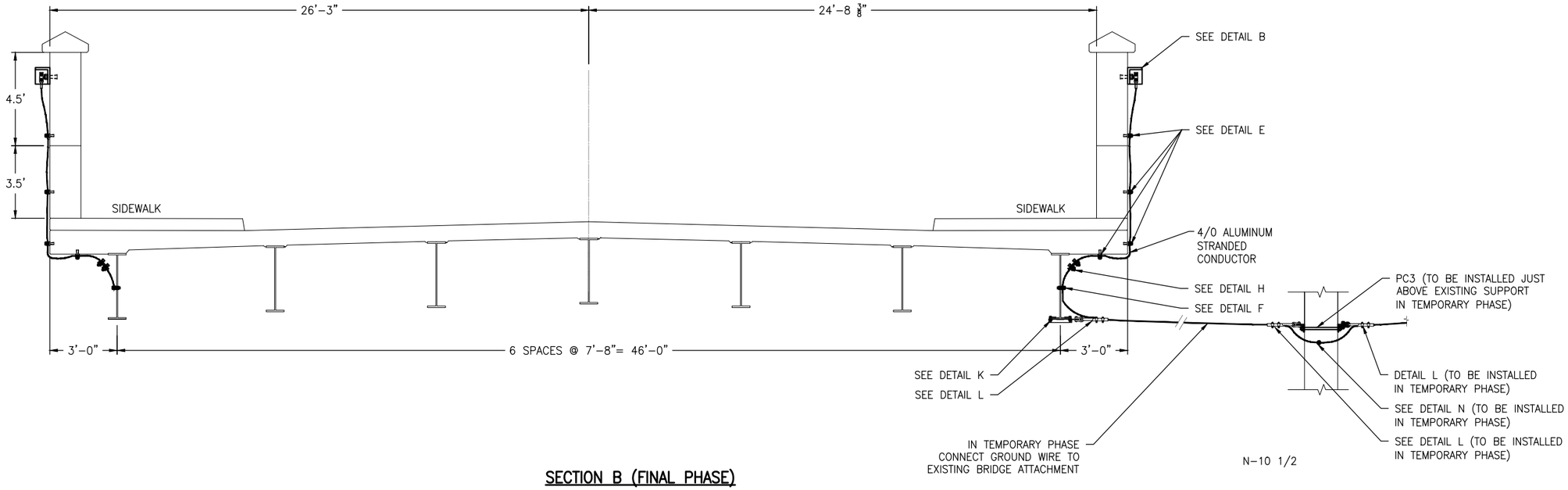
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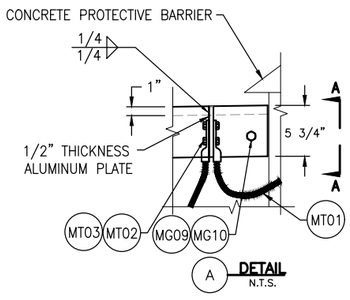
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PHILADELPHIA, PA 19103

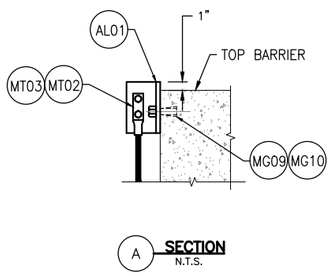
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DATE: 06-12-2020
TIME: 9:17:42 AM



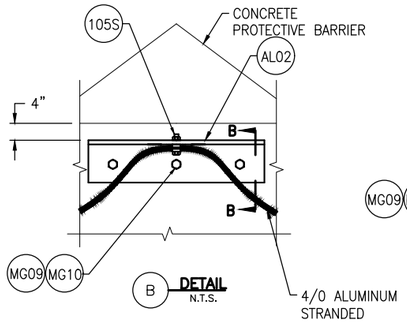
SECTION B (FINAL PHASE)



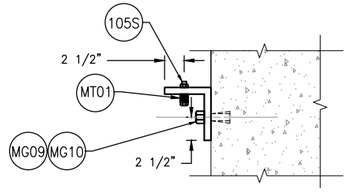
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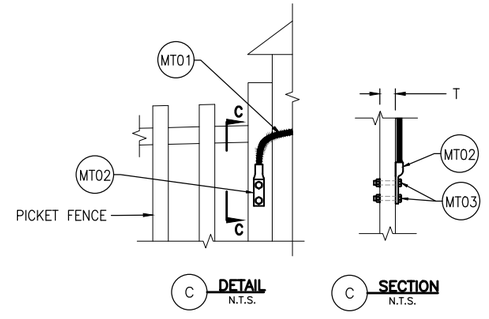
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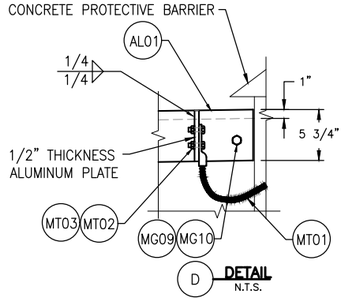


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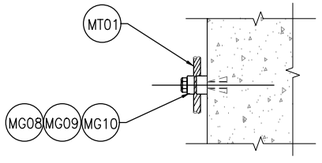


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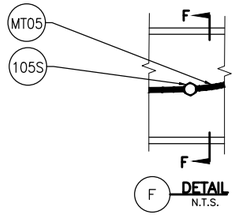
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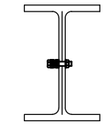
D DETAIL N.T.S.



E DETAIL N.T.S.



F DETAIL N.T.S.



F SECTION N.T.S.

NOTES:

1. FOR ASSEMBLY BILL OF MATERIAL SEE DWG ET-16.
2. FOR DETAILS SEE DWG ET-15 & ET-24.
3. INSTALL 2 DETAILS C AT FENCE EXPANSION JOINT.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER
No.PE077474

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National Railroad Passenger Corporation
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Approved	Date

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1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION
FINAL BONDING AND GROUNDING SHEET 2

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

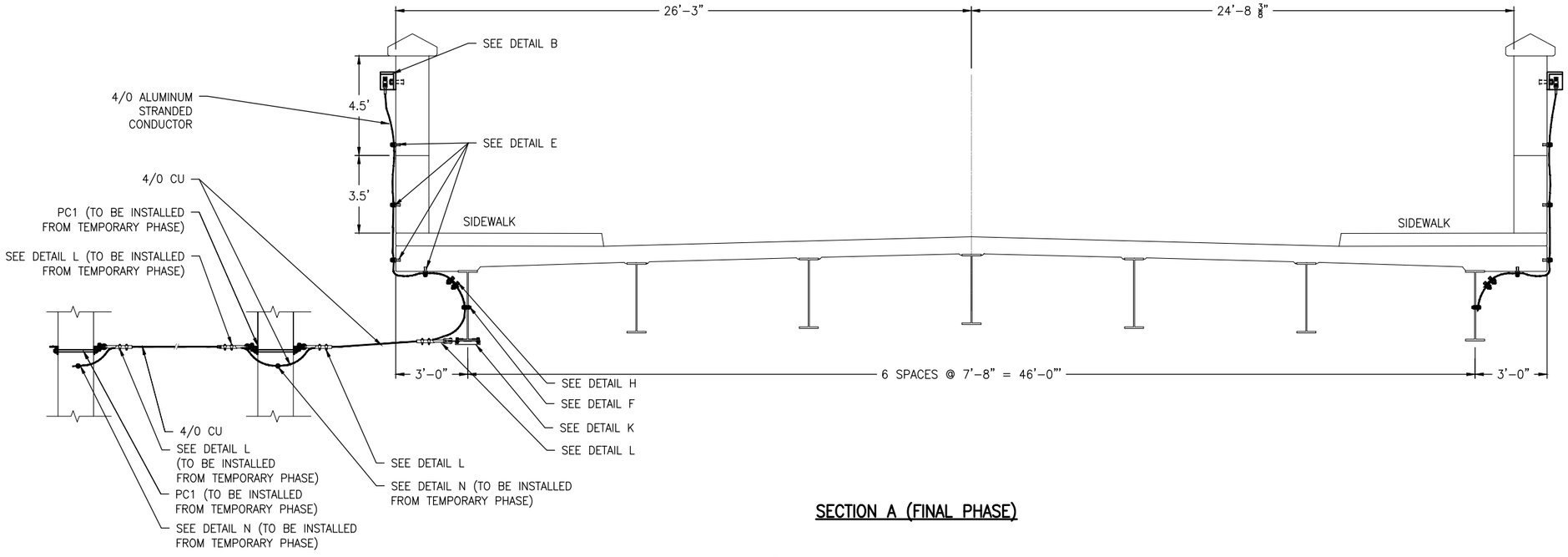
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CHECKED	YS	DATE 04/02/2020

BPAA-0185ACP

SHEET NO. 18 OF 31

ET-14

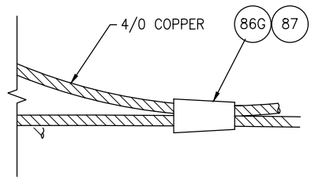
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TIME: 9:17:52 AM



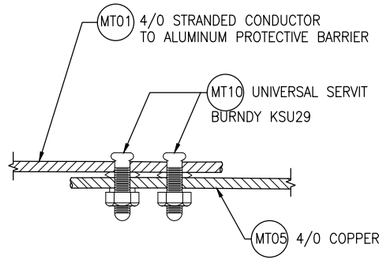
SECTION A (FINAL PHASE)

STRUCTURE N-9 1/2

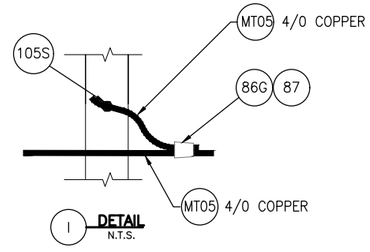
STRUCTURE N-10



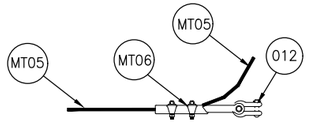
G DETAIL N.T.S.



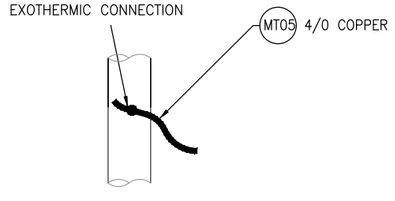
H DETAIL N.T.S.



I DETAIL N.T.S.



L DETAIL N.T.S.



N DETAIL N.T.S.

NOTES:

1. FOR ASSEMBLY BILL OF MATERIAL SEE DWG ET-16.
2. FOR DETAILS SEE DWG ET-14 & ET-24.

100% SUBMISSION APRIL 2020

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — BEN MALAMED — No.PE077474

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL 100% ELECTRIFICATION MODIFICATION

FINAL BONDING AND GROUNDING SHEET 3

CORRECT ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR CITY OF PHILADELPHIA DEPARTMENT OF STREETS BUREAU OF SURVEYS & DESIGN BRIDGE SECTION

SCALE: AS SHOWN

DRAWN	VA	DATE 04/02/2020
CHECKED	YS	DATE 04/02/2020

BPAA-0185ACP

SHEET NO. 19 OF 31

ET-15

No	Revisions	Date	By

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OFFICE OF
Chief Engineer
Engineering
National Railroad Passenger Corporation
30TH Street Station-Philadelphia, Pennsylvania 19104

Approved	Date

SYSTRA
SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

TIME: 9:18:02 AM
DATE: 06-12-2020
FILENAME: X:\ENG\PROJECTS\US01115A14 CITY OF PHIL MONTGOMERY AVE WO #1\08.0 TECHNICAL-WORKING\WORKING DWG\REVISED DRAWINGS\ET-16_ASSEMBLY BOM BONDING & GROUNDING 100%.DWG

ITEMS PER ASSEMBLY – BONDING AND GROUNDING

ITEM	DESCRIPTION	CATALOG REFERENCE	SUGGESTED SUPPLIER (OR APPROVED EQUAL)	UNIT	QUANTITY											
					DET-A	DET-B	DET-C	DET-D	DET-E	DET-F	DET-G	DET-H	DET-I	DET-L	DET-N	DET-Y
MT01	4/0, 19 STRAND, BARE ALUMINUM STRANDED CONDUCTOR	-----	ALCOA CO. PITTSBURGH, PA	FT.	AS REQD.	AS REQD.	AS REQD.	AS REQD.	AS REQD.			AS REQD.				
MT02	TERMINAL CONNECTOR, COMPRESSION TYPE, FOR 4/0 ALUMINUM STRANDED CONDUCTOR	YA28A5	BURNDY CORP. NORWALK, CT	EA.	2		1	1								
MT03	BOLT, 1/2" X 3" LONG STAINLESS STEEL WITH LOCKWASHER	-----	HAYDON BOLTS, INC. PHILADELPHIA, PA	EA.	2		2	2								
MT04	GROUND CLAMP FOR CABLE TO 2 1/2" IPS TUBE, TIN PLATED FOR ALUMINUM CONDUCTOR	GC-111-7C	CONNECTORS LEEDS, AL	EA.												
MT05	4/0, 19 STRAND, COPPER CABLE	-----	BURNDY CORP. NORWALK, CT.	FT.						AS REQD.	AS REQD.	AS REQD.	AS REQD.	AS REQD.	AS REQD.	
MT06	DEADEND CLAMP FOR 4/0 TO 500MCM CU	CUW34-4	BURNDY CORP. NORWALK, CT.	EA.										1		
MT07	STAPLE, ROLLED DIAMOND POINT	J6496	JOSLYN CORP. FRANKLIN PK., IL	EA.												15
MT10	UNIVERSAL SERVIT (RUN COPPER & ALUMINUM 1STR-250KCMIL 2/0-4/0, TAP 8 STR-250 6-4/0)	KSU29	BURNDY CORP. NORWALK, CT.	EA.								2				
017A	CLIP CABLE, WIRELOCK 9/16". AMTRAK DWG ET-556E4, REF. 44 045 09709	-----	-----	EA.												3
012	SHACKLE, CHAIN W/ BOLT, NUT & COTTER PIN, AMTRAK REFERENCE DWG. ET-305-E.	S-4	AMTRAK PIECE MARK S-4	EA.										1		
105S	UNIVERSAL SERVIT, BURNDY, KC31 (1-350 (⅝"-11" STUD DIA) "TIN PLATED"	KC31	BURNDY CORP. NORWALK, CT.	EA.		1				1			1			
MG04	2/0 COPPER CABLE, BARE, 37 STRAND		COPPERWELD CORP. PITTSBURGH, PA	FT.												AS REQD.
MG08	GROUND CLAMP – BURNDY TYPE GB29G69HEX T8	10020194 GF-25	BURNDY CORP. NORWALK, CT.	EA.					1							
MG09	CONCRETE DROP IN ANCHOR ZINC PLATED FOR 5/8' BOLT	-----	-----	EA.	1	3		1	1							
MG10	BOLT, 5/8" X 3" LONG STAINLESS STEEL WITH LOCKWASHER	-----	HAYDON BOLTS, INC. PHILADELPHIA, PA	EA.	1	3		1	1							
ST01	STEEL BEAM CLAMP	ET-24	-----	EA												
AL01	ALUMINUM GROUND STRIP L X 5 3/4" X 1/2" THICKNESS	ET-13	-----	FT	AS REQD.			AS REQD.								
AL02	ALUMINUM ANGULAR BAR L X 5" X 5" X 1/2"	ET-13		FT		AS REQD.										
86G	CONNECTOR 4/O TO 4/O. AMP 275187-6	AMP 275187-6		EA.							1		1			
87	CARTRIDGE, WHITE FOR INSTALATION OF COPPER TAPS,	AMP 69338-5		EA.							1		1			
PC-1	POLE CLAMP	ET-24	-----	EA.												
PC-3	POLE CLAMP	ET-24	-----	EA.												
	EXOTHERMIC CONNECTION			EA.											1	

TOTAL QUANTITIES OF ASSEMBLIES – BONDING AND GROUNDING

			UNIT	QUANTITY											
				DET-A	DET-B	DET-C	DET-D	DET-E	DET-F	DET-G	DET-H	DET-I	DET-L	DET-N	DET-Y
	TOTAL QUANTITIES FOR TEMPORARY PHASE		EA.									2	5	4	4
	TOTAL QUANTITIES FOR FINAL PHASE		EA.	4	12	16	16	16	4	2	8	2	3		

NOTES:

1. FOR SUMMARY BOM OF TEMPORARY PHASE SEE ET-27.
2. FOR SUMMARY BOM OF FINAL PHASE SEE ET-26.
3. FOR SUMMARY BOM OF STEEL SEE ET-27.

100% SUBMISSION
APRIL 2020

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
BEN MALAMED
No.PE077474

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION

ASSEMBLY BOM – BONDING AND GROUNDING

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE:

DRAWN	VA	DATE 04/02/2020
CHECKED	YS	DATE 04/02/2020

BPAA-0185ACP

SHEET NO. 20 OF 31

ET-16

No	Revisions	Date	By

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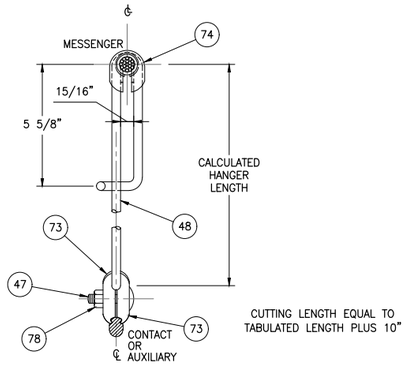
OFFICE OF
Chief Engineer
Engineering
National Railroad Passenger Corporation
30TH Street Station–Philadelphia, Pennsylvania 19104

Approved	Date

SYSTRA
SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

BILL OF MATERIAL				
ITEM	MARK	DESCRIPTION	AMTRAK REF. DWG.	QTY
47	SSB22	BOLT, STAINLESS STEEL	ET-148E	1
73	BC26B	GROOVE WIRE TO 0.34"ø HANGER ROD, CLIP	ET-1078E	2
74	FHS	MESSENGER SADDLE	ET-652E	1
48	---	0.34"ø LOOP HANGER	ET-652E	*
78	ERM	NUT ERM, 1/2 UNC SLOTTED SELF-LOCKING WASHER, 316 SS W/ ANTI-GALLING	-----	1

* - FOR LENGTH SEE TABULATION OR CATENARY PROFILES

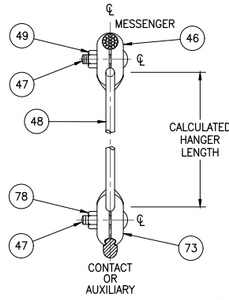


CUTTING LENGTH EQUAL TO TABULATED LENGTH PLUS 10"

ASSEMBLY "ME"
SCALE: N.T.S.

BILL OF MATERIAL				
ITEM	MARK	DESCRIPTION	AMTRAK REF. DWG.	QTY
47	SSB22	BOLT, STAINLESS STEEL	ET-148E	2
78	BC24B	5/8"ø TO 0.34"ø HANGER ROD, CLIP	ET-1087E	2
73	BC26B	GROOVE WIRE TO 0.34"ø HANGER ROD, CLIP	ET-1078E	2
48	-	0.34"ø HANGER HOOK TYPE	ET-1096E	*
49	ERM	NUT ERM, 1/2 UNC SLOTTED SELF-LOCKING WASHER, 316 SS W/ ANTI-GALLING	-----	2

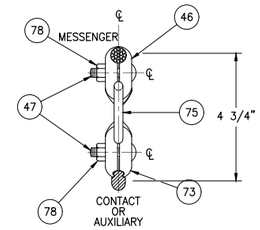
* - FOR LENGTH SEE TABULATION OR CATENARY PROFILES



CUTTING LENGTH EQUAL TO TABULATED LENGTH PLUS 2 1/2"

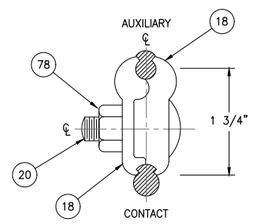
ASSEMBLY "J"
SCALE: N.T.S.

BILL OF MATERIAL				
ITEM	MARK	DESCRIPTION	AMTRAK REF. DWG.	QTY
47	SSB22	BOLT, STAINLESS STEEL	ET-148E	2
46	BC24B	5/8"ø TO 0.34"ø HANGER ROD, CLIP	ET-1087E	2
73	BC26B	GROOVE WIRE TO 0.34"ø HANGER ROD, CLIP	ET-1078E	2
75	JR	BRONZE RING HANGER	ET-1095E	1
78	ERM	NUT ERM, 1/2 UNC SLOTTED SELF-LOCKING WASHER, 316 SS W/ ANTI-GALLING	-----	2



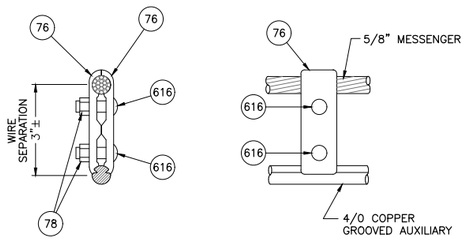
ASSEMBLY "JM"
SCALE: N.T.S.

BILL OF MATERIAL				
ITEM	MARK	DESCRIPTION	AMTRAK REF. DWG.	QTY
20	SSB34	BOLT, STAINLESS STEEL	ET-148E	1
18	HC29A	INTERMEDIATE CATENARY CLIP	ET-1029E	2
78	ERM	NUT ERM, 1/2 UNC SLOTTED SELF-LOCKING WASHER, 316 SS W/ ANTI-GALLING	-----	1



ASSEMBLY "H"
SCALE: N.T.S.

BILL OF MATERIALS				
ITEM	MARK	DESCRIPTION	AMTRAK DWG.	QTY No.
616	BB32	BOLT, CARRIAGE, BRONZE, WITH HEX. NUT,	ET-148-E	2
76	TS1	CLIP, GROOVED WIRE TO 5/8" MESSENGER, BRONZE	ET-76-E	2
78	ERM	NUT ERM, 1/2 UNC SLOTTED SELF-LOCKING WASHER, 316 SS W/ ANTI-GALLING	ET-100	2

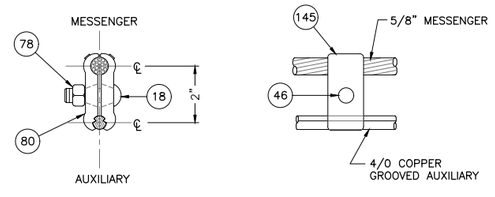


MAIN HANGER REF: TS1

THIS CLIP ALLOWS SLIGHT ADJUSTMENT OF THE LOWER WIRE BY ABOUT 1/4"

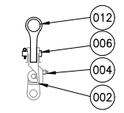
SCALE: N.T.S.

BILL OF MATERIALS				
ITEM	MARK	DESCRIPTION	AMTRAK DWG.	QTY No.
616	BB32	BOLT, CARRIAGE, BRONZE, WITH HEX. NUT,	ET-148-E	1
80	TS25	CLIP, GROOVED WIRE TO 5/8" MESSENGER, BRONZE	ET-170-E	2
78	ERM	NUT ERM, 1/2 UNC SLOTTED SELF-LOCKING WASHER, 316 SS W/ ANTI-GALLING	ET-100	1



HANGER REF: TS25
SCALE: N.T.S.

BILL OF MATERIALS NA-74 (MOD)				
ITEM	MARK	DESCRIPTION	AMTRAK REF. DWG.	QTY
006	NP-1	PIN (INSULATOR) STEEL GALV, SPEC ASTM 123-37, 5/8"X1 7/8"	11B-1206	1
004	JB	J BOLT	ET-148E	1
012	S4	SHACKLE	ET-305E	1
002	MK-1	CLAMP	ET-1146-D	1



NA-74 (MOD)
SCALE: N.T.S.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER
No.PE077474

100% SUBMISSION
MAY 2017

No	Revisions	Date	By

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OFFICE OF
Chief Engineer
Engineering
National Railroad Passenger Corporation
30TH Street Station-Philadelphia, Pennsylvania 19104

Approved	Date

SYSTRA
SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION
CATENARY ASSEMBLIES - SHEET 1

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

DRAWN	VA	DATE 04/12/2017
CHECKED	YS	DATE 04/12/2017

BPAA-0185ACP

SHEET NO. 21 OF 31

ET-17

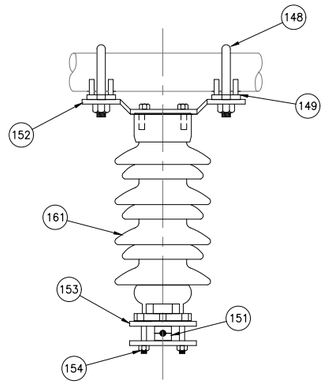
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DATE: 05-12-2017
TIME: 2:33:54 PM

BILL OF MATERIAL 1122A				
ITEM	MARK	DESCRIPTION	AMTRAK REF. DWG.	QTY
161	3T	RIGID INSULATOR	ET1-003	1
154	BB7	5/8" BRONZE BOLT W/ LOCKWASHER	ET-146-E	2
151	MD5	MESSENGER SADDLE	11B-1236	2
149	PS1A	PIPE SADDLE	14E-133	2
152	TP1	BENT PLATE	ET-1183-E	1
153	TP2	BENT PLATE	ET-1183-E	1
148	UB60	U-BOLT	ET-145-E	2

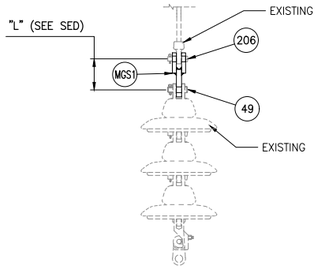
BILL OF MATERIALS EXT-1				
ITEM	MARK	DESCRIPTION	REF. DWG.	QTY
MGS1		EXTENSION ADAPTER	ET-24	1
49	NP-1	PIN, STEEL, GALV, SPEC ATSM-123-37, 5/8" x 1 7/8"	11B-1206	1
206	BG-1	BOLT, 3/4"X2 3/4" GALV STEEL W/ HEX HEAD & NUT & COTTER PIN	ET-145-E	1

BILL OF MATERIALS NR2				
ITEM	MARK	DESCRIPTION	AMTRAK REF. DWG.	QTY
006	NP-1	PIN (INSULATOR) STEEL GALV, SPEC ASTM 123-37, 5/8"X1 7/8"	11B-1206	1
007	NR-2	HANGER ROD, 0.72"ø BRONZE THREADED	14E-433	1
008	EE-1	EYE END BRONZE FORGING	11B-1227	1
014	CE-1	CLEVIS END	11B-1227	1
206	BG-1	BOLT, 3/4"X2 3/4" GALV STEEL W/ HEX HEAD & NUT & COTTER PIN	ET-145-E	1

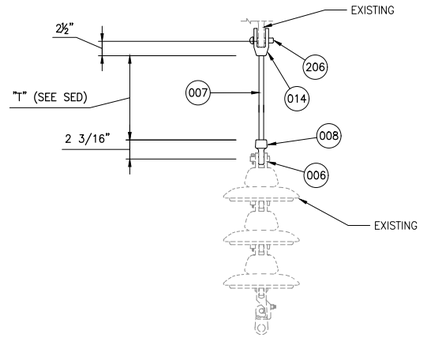
BILL OF MATERIALS XT4				
ITEM	MARK	DESCRIPTION	REF. DWG.	QTY
49	XT4	STRAP, CATENARY LINK, ALUMINUM BRONZE	11B1223	1



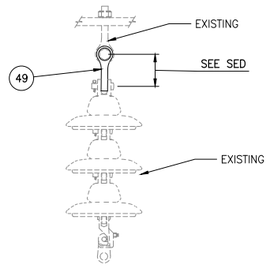
ASSEMBLY 1122A
SCALE: N.T.S.



EXT-1
EXTENSION ASSEMBLY
FOR EXISTING MESSENGER SUSPENSION
SCALE: N.T.S.



NR2
EXTENSION ASSEMBLY
FOR EXISTING MESSENGER SUSPENSION
SCALE: N.T.S.



XT4
EXTENSION ASSEMBLY
FOR EXISTING MESSENGER SUSPENSION
SCALE: N.T.S.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER No.PE077474

100% SUBMISSION
MAY 2017

No	Revisions	Date	By

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OFFICE OF
Chief Engineer
Engineering
National Railroad Passenger Corporation
30TH Street Station-Philadelphia, Pennsylvania 19104

Approved	Date

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1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION
CATENARY ASSEMBLIES - SHEET 2

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

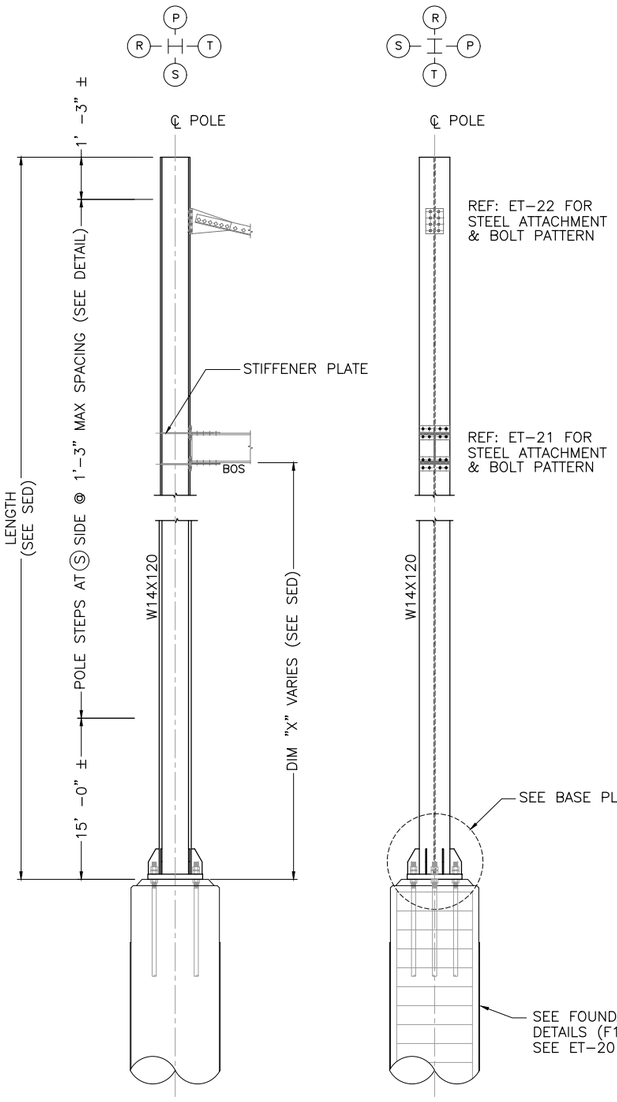
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CHECKED	YS	DATE 04/12/2017

BPAA-0185ACP

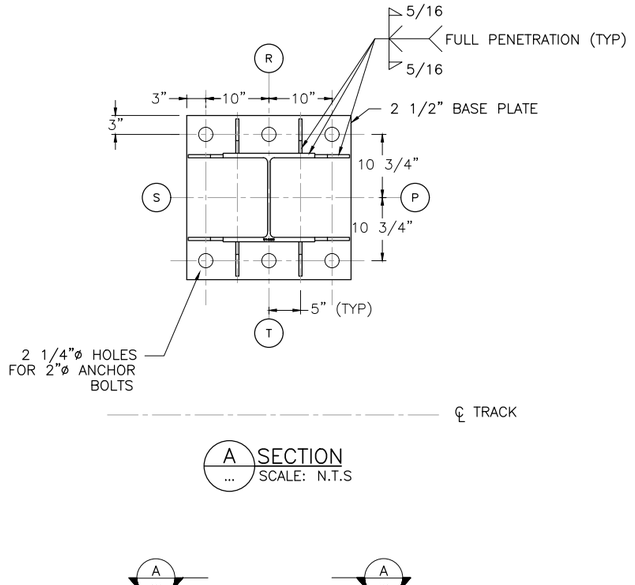
SHEET NO. 22 OF 31

ET-18

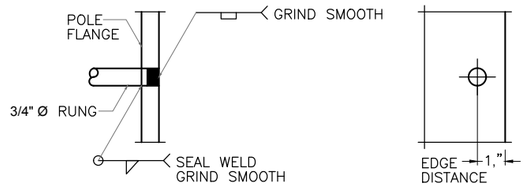
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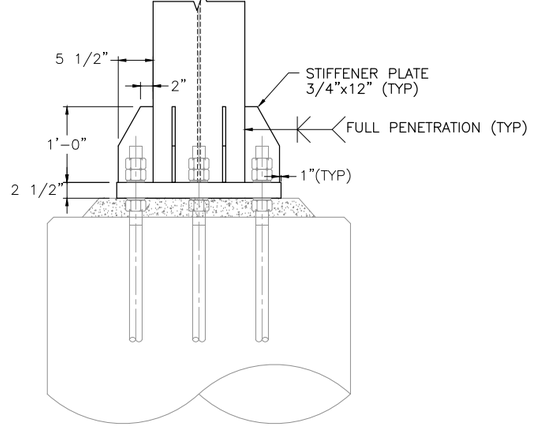
POLE DETAILS (P1)
SCALE: N.T.S



A SECTION
SCALE: N.T.S



POLE STEP DETAIL
SCALE: N.T.S



BASE PLATE DETAILS
SCALE: N.T.S

NOTES:

1. SEE ET-02 FOR GENERAL, STRUCTURAL STEEL AND CONCRETE NOTES.
2. FIELD VERIFY DISTANCE BETWEEN FOUNDATIONS AND BOTTOM OF STEEL.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER No.PE077474

100% SUBMISSION
MAY 2017

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AMTRAK

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Chief Engineer
Engineering
National Railroad Passenger Corporation
30TH Street Station–Philadelphia, Pennsylvania 19104

Approved	Date

SYSTRA
SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION
POLE DETAILS

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

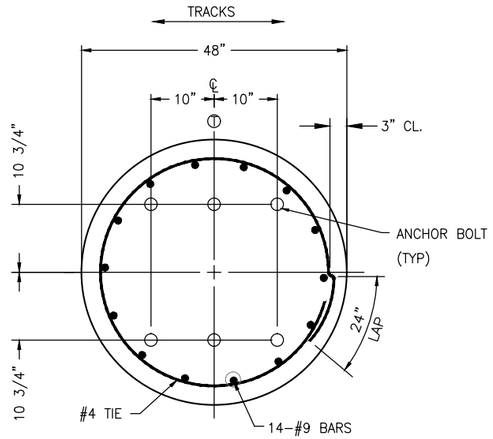
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CHECKED	YS	DATE 04/12/2017

BPAA-0185ACP

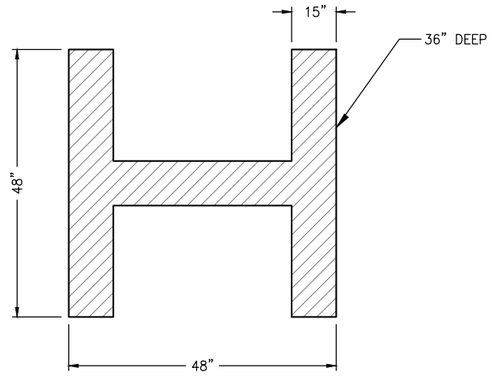
SHEET NO. 24 OF 31

ET-19

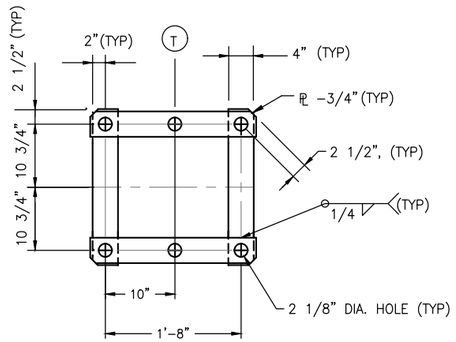
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DATE: 05-12-2017
TIME: 2:34:13 PM



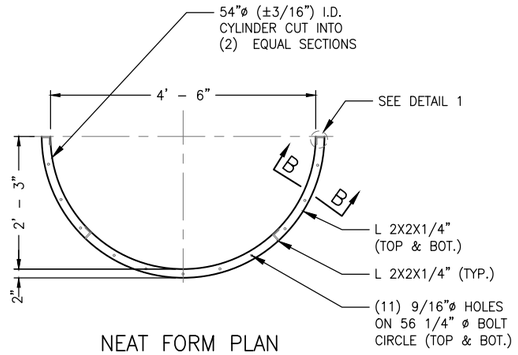
SECTION A
SCALE: 1"=1'-0"



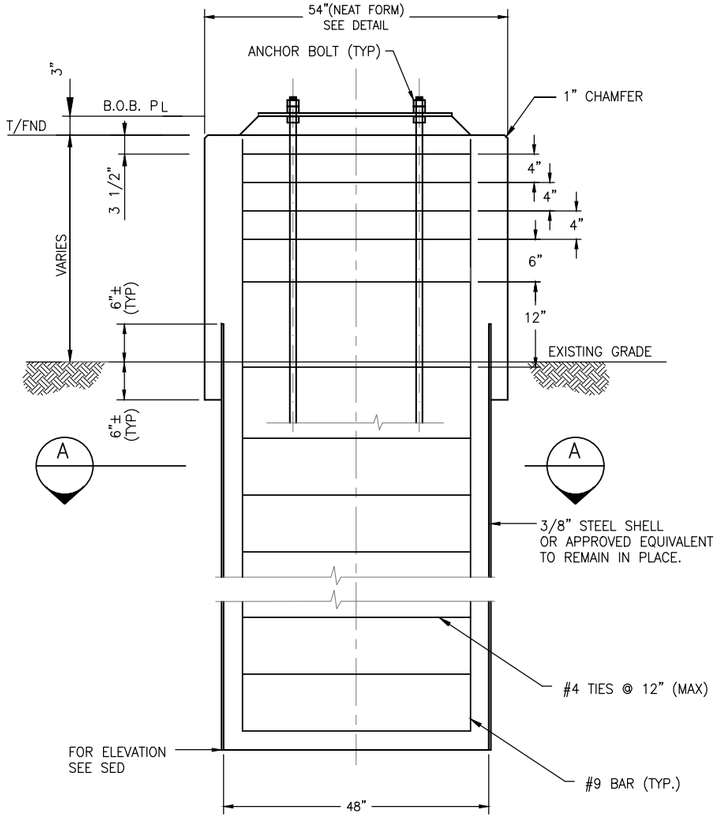
EXPLORATORY TRENCHES
SCALE: NTS



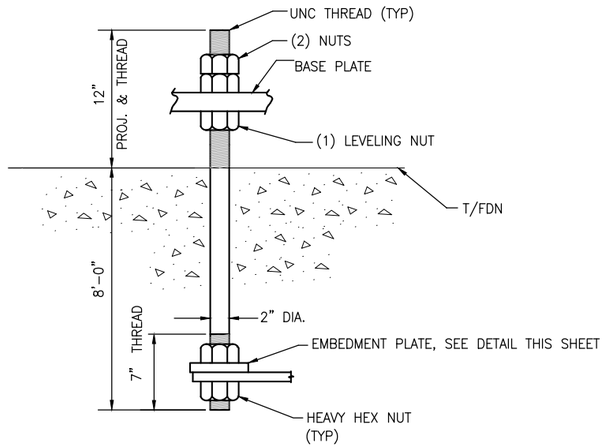
EMBEDMENT PLATE DETAIL
SCALE 1" = 1'-0"



NEAT FORM PLAN
SCALE: NTS

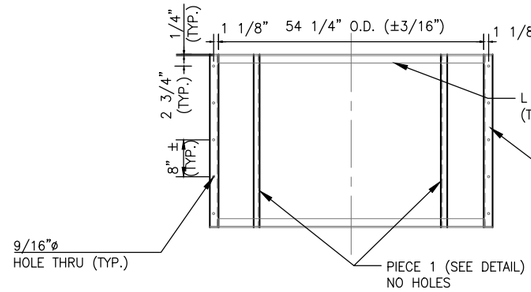


DETAIL FOUNDATION (F1)
SCALE: NTS

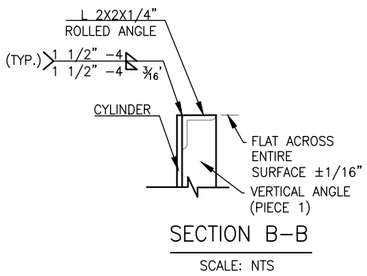


DETAIL ANCHOR BOLT
SCALE: NTS

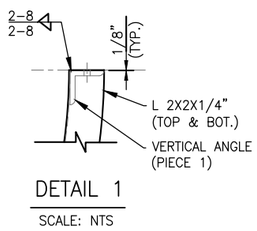
NOTE:
FOR TOP AND BOTTOM ELEVATIONS SED DRAWING ET-11.



NEAT FORM ELEVATION
SCALE: NTS
NOTE: MULTIPLE UNITS CAN BE USED TO FORM REQUIRED HEIGHTS



SECTION B-B
SCALE: NTS



DETAIL 1
SCALE: NTS

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ENGINEER
No.PE077474

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION
FOUNDATION DETAILS

100% SUBMISSION
MAY 2017

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
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BRIDGE SECTION

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SHEET NO. 24 OF 31

ET-20

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AMTRAK

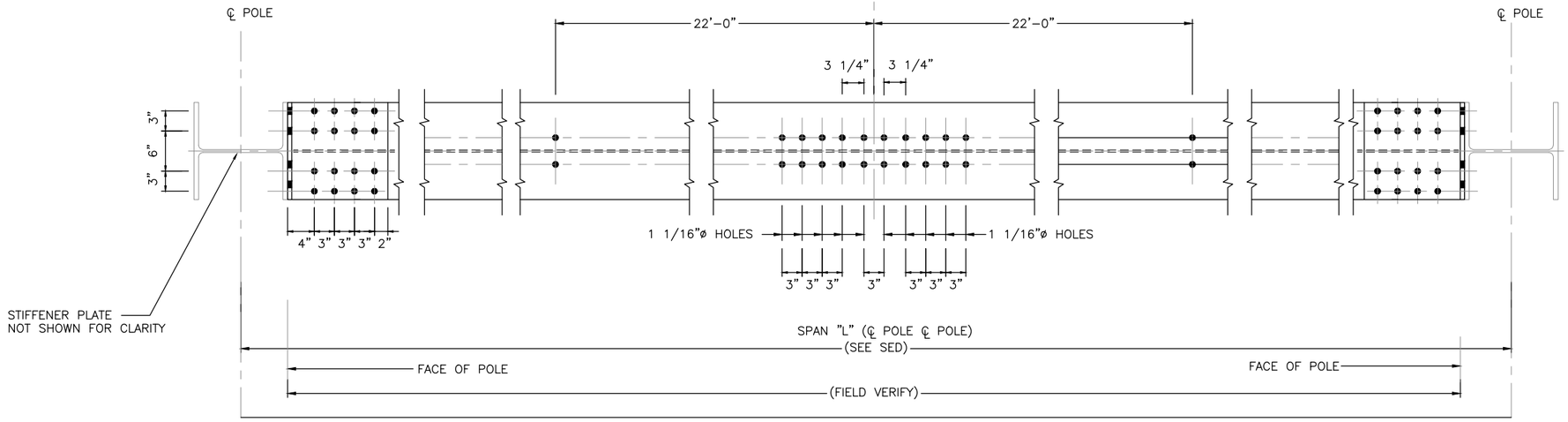
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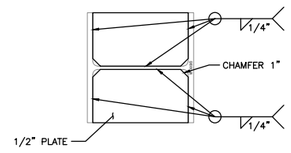
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SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

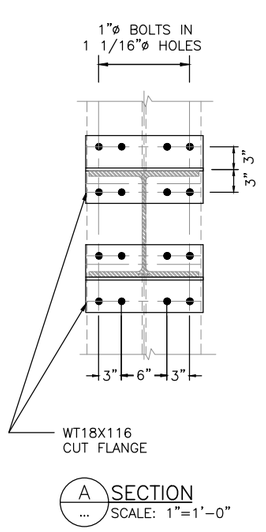
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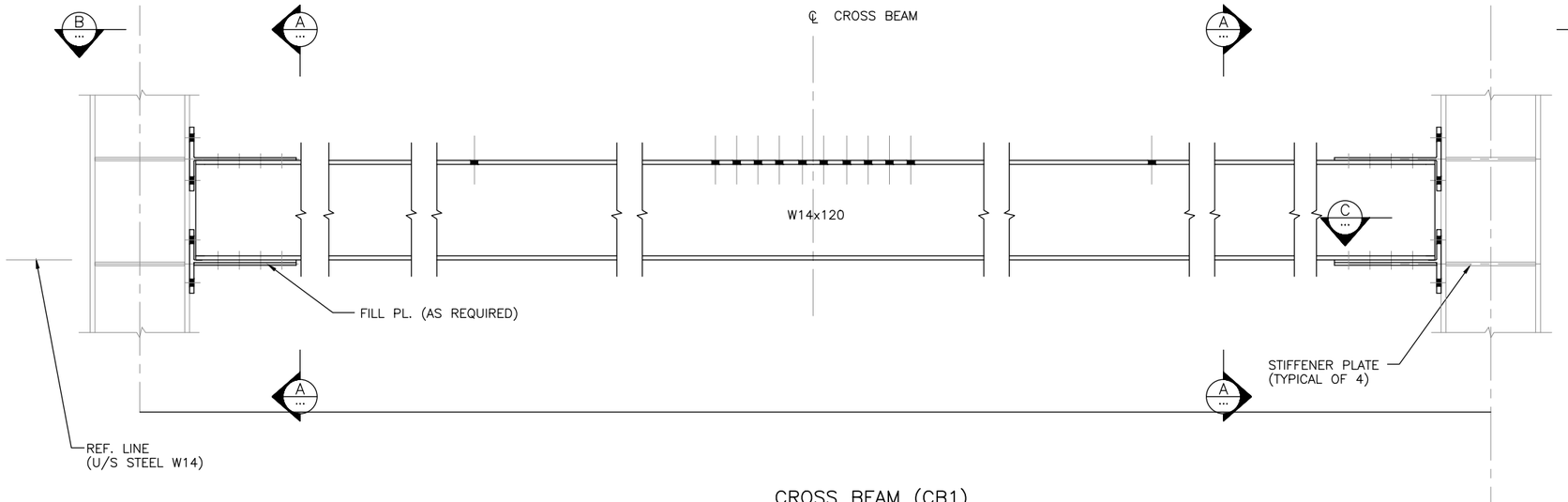
B SECTION
SCALE: 1"=1'-0"



C STIFFENER PLATE
SCALE: 1/8"=1"



A SECTION
SCALE: 1"=1'-0"



CROSS BEAM (CB1)
SCALE: N.T.S.

NOTE:
PROVIDE 3" SHOP CAMBER.

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PHILADELPHIA, PA 19103

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER
No.PE077474

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION
CROSS BEAM DETAILS

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

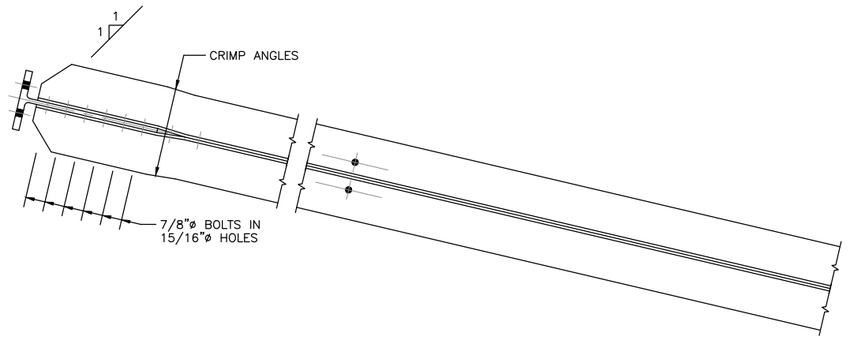
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CHECKED	YS	DATE 04/12/2017

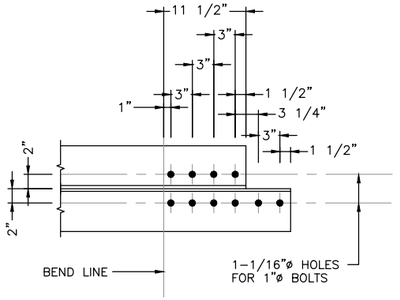
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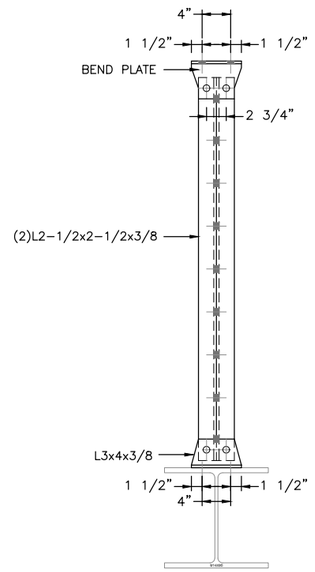
SHEET NO. 25 OF 31

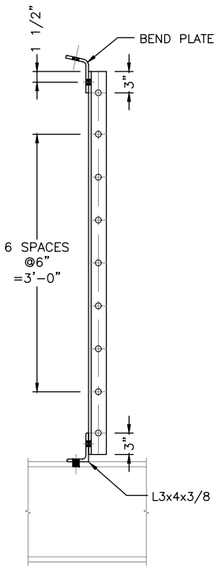
ET-21

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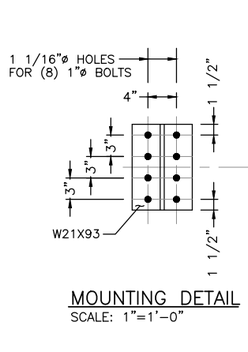




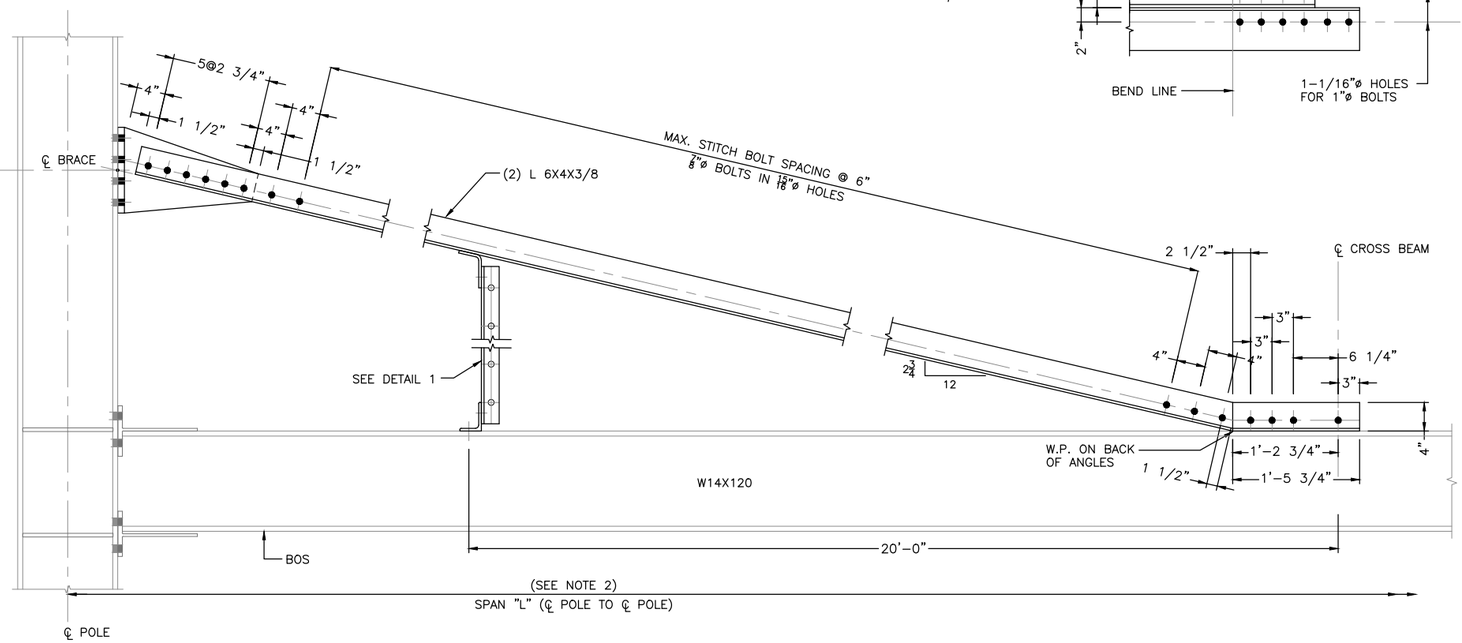




1 DETAIL
SCALE: 1"=1'-0"



MOUNTING DETAIL
SCALE: 1"=1'-0"



SAG BRACE (SB1)
SCALE: 1"=1'-0"

NOTES:

1. FOR STRUCTURAL STEEL NOTES SEE DWG ET-02.
2. FIELD VERIFY DIMENSION PRIOR TO FABRICATION

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MAY 2017

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National Railroad Passenger Corporation
30TH Street Station-Philadelphia, Pennsylvania 19104

Approved	Date

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1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER No.PE077474

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION

SAG BRACE DETAILS

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

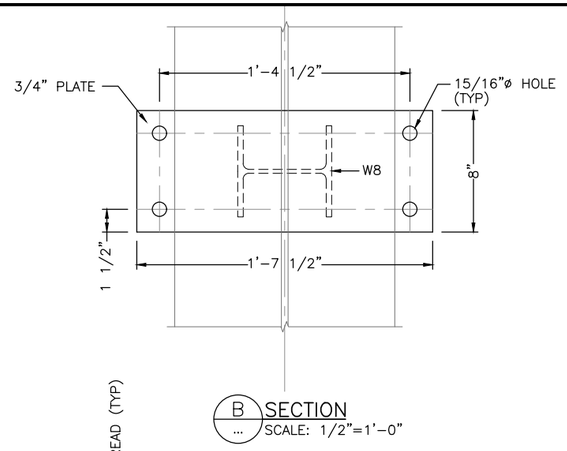
DRAWN	VA	DATE 04/12/2017
CHECKED	YS	DATE 04/12/2017

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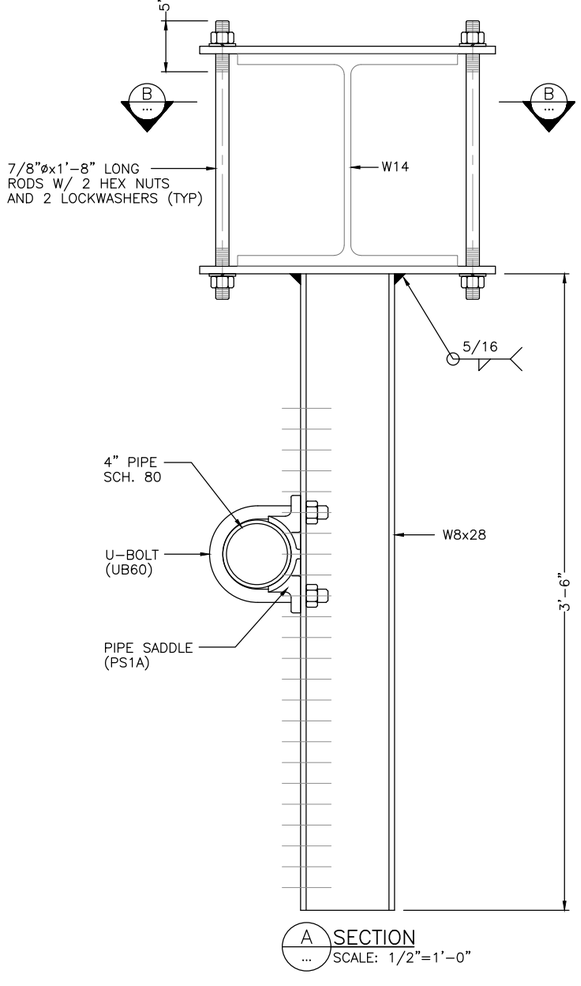
SHEET NO. 26 OF 31

ET-22

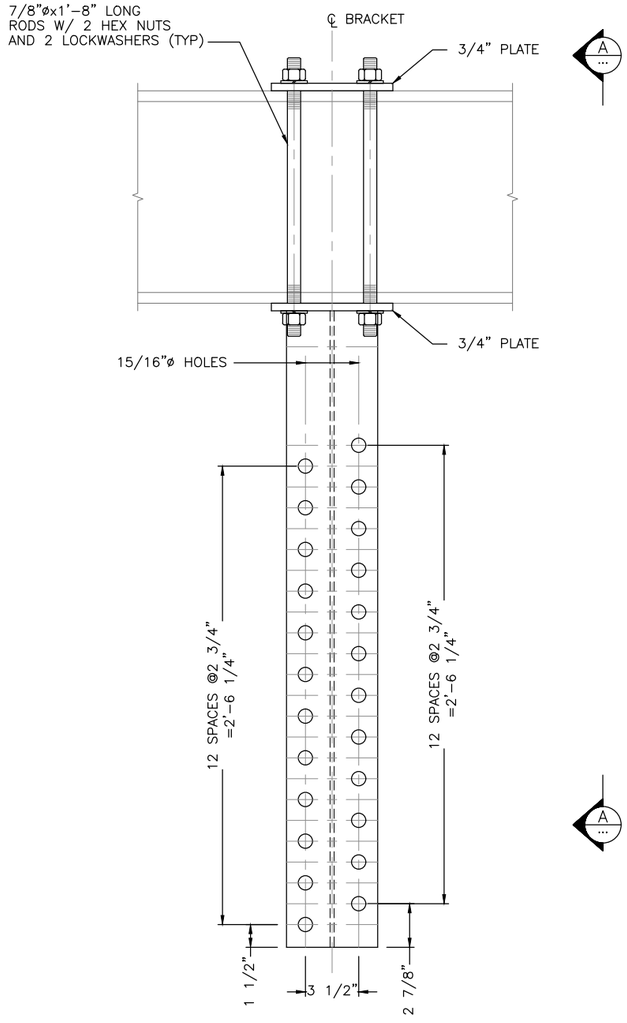
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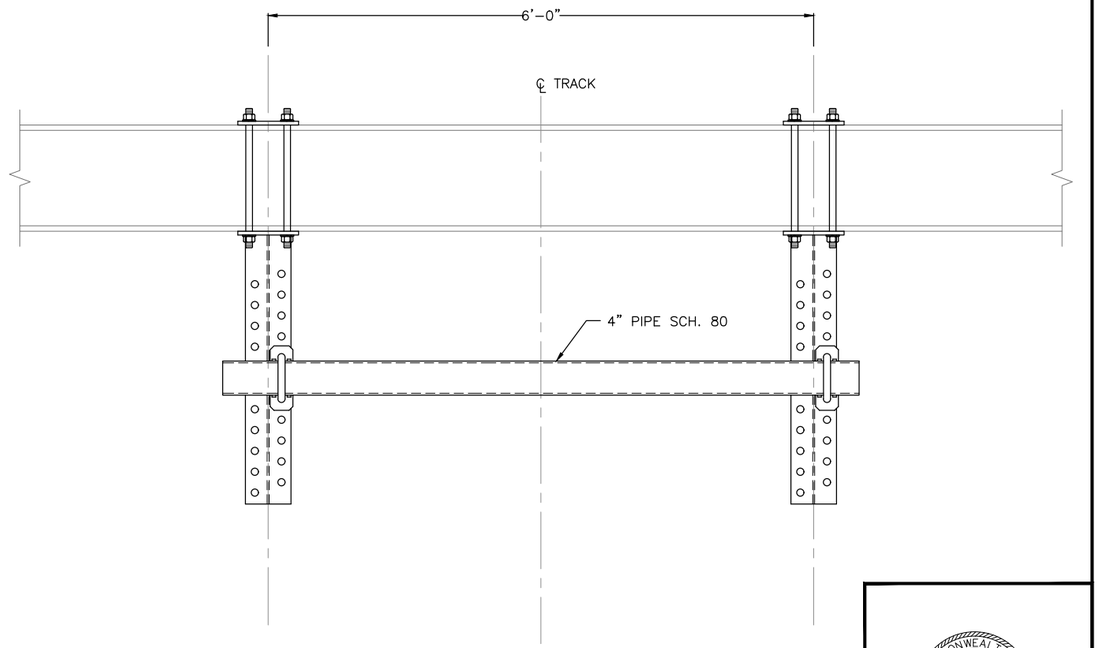


B SECTION
SCALE: 1/2"=1'-0"



A SECTION
SCALE: 1/2"=1'-0"





MESSENGER SUPPORT ASSEMBLY (MSA1)
SCALE: 1"=1'-0"

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER
No.PE077474

100% SUBMISSION
MAY 2017

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION
MESSENGER SUPPORT ASSEMBLY

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

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SHEET NO. 27 OF 31

ET-23

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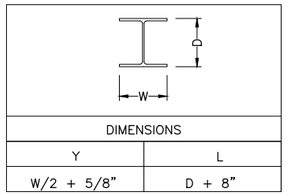
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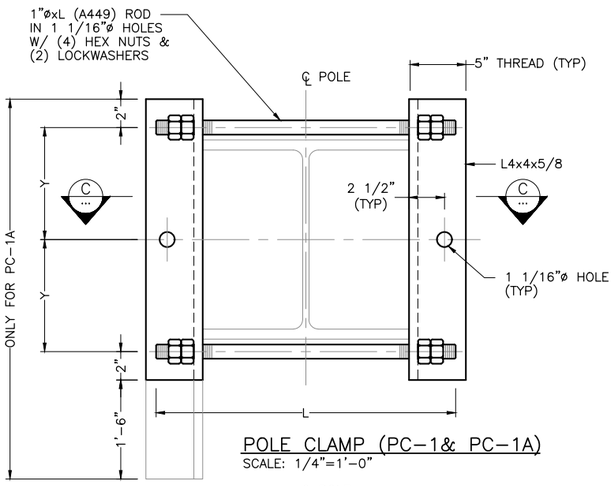
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PHILADELPHIA, PA 19103

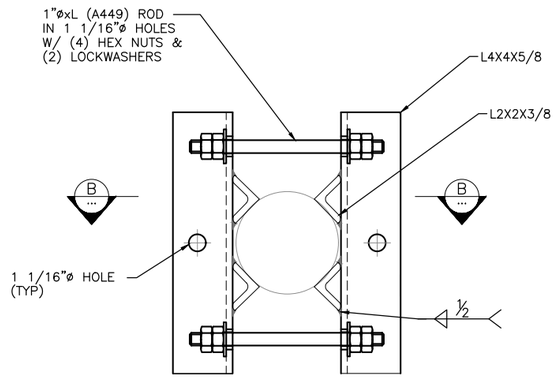
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DATE: 05-12-2017
TIME: 2:34:43 PM



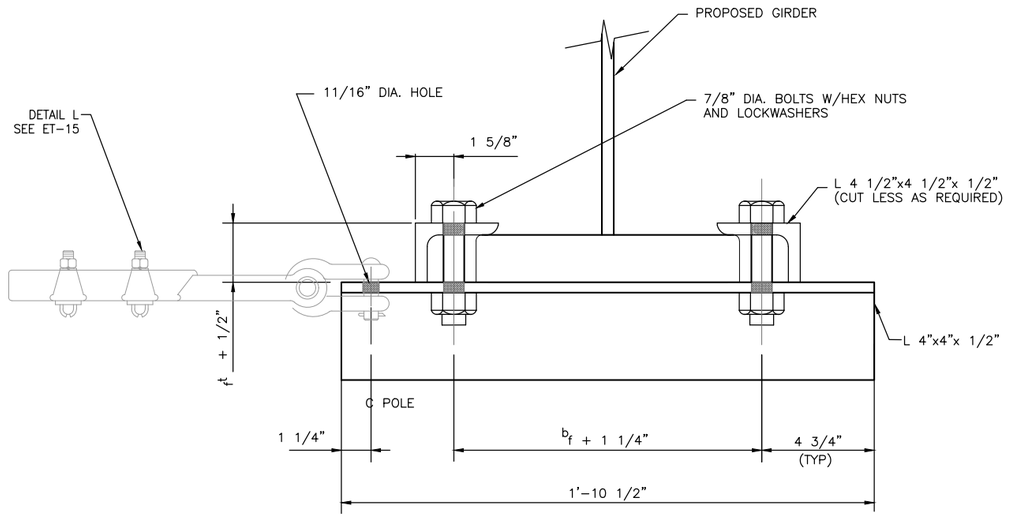
DIMENSIONS	
Y	L
W/2 + 5/8"	D + 8"



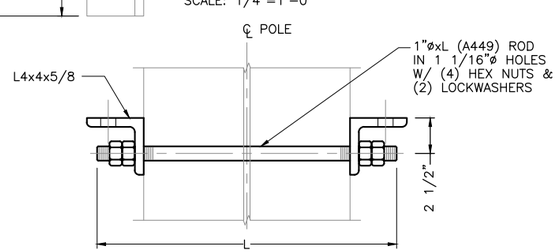
POLE CLAMP (PC-1& PC-1A)
SCALE: 1/4"=1'-0"



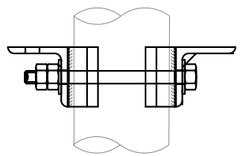
POLE CLAMP (PC3)
SCALE: 1/4"=1'-0"



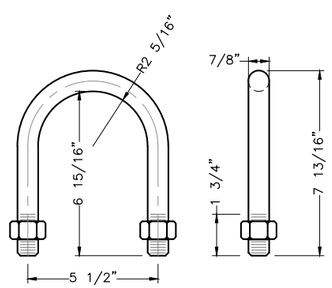
DETAIL K (ST01)
SCALE: N.T.S.



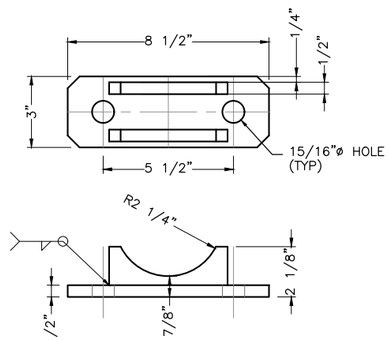
C SECTION
SCALE: 1/4"=1'-0"



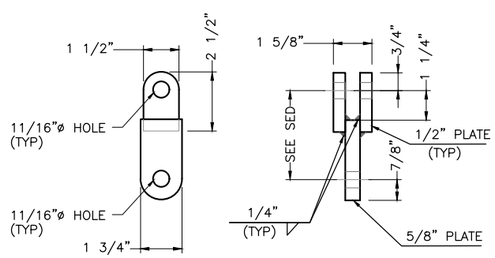
B SECTION
SCALE: 1/4"=1'-0"



U-BOLT DETAILS (UB60)
SCALE: N.T.S.



PIPE SADDLE (PS1A)
SCALE: N.T.S.



ITEM MGS1
SCALE: N.T.S.

100% SUBMISSION
MAY 2017

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
BEN MALAMED
No. PE077474

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION

POLE CLAMP AND MISC. STEEL PARTS

CORRECT
ELECTRIFICATION PROJECT MANAGER

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BRIDGE SECTION

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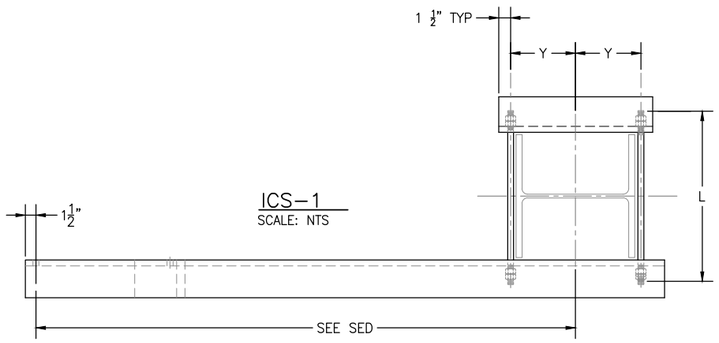
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PHILADELPHIA, PA 19103

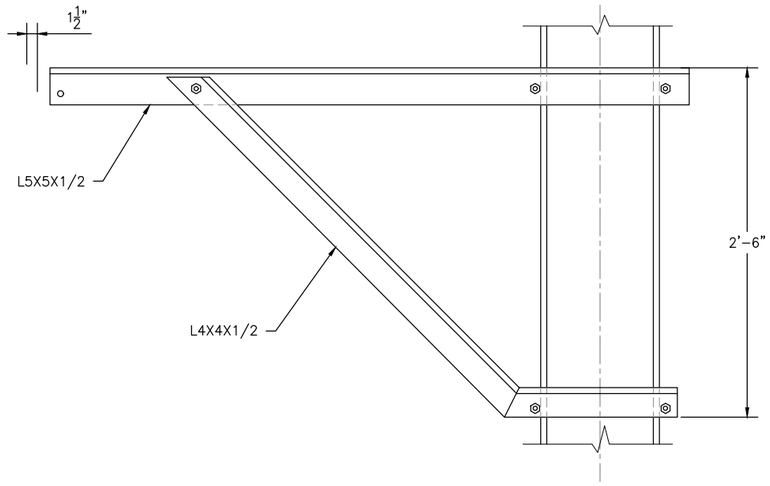
FILENAME: X:\ENG\PROJECTS\USO1115A14 CITY OF PHIL MONTGOMERY AVE WO #1\08.0 TECHNICAL-WORKING\WORKING DWG\ET-24_POLES CLAMP & MISC.STEEL PARTS 100%.DWG
DATE: 05-12-2017
TIME: 2:34:48 PM

FILENAME: X:\ENG\PROJECTS\US01T15A14 CITY OF PHIL MONTGOMERY AVE WO #1\08.0 TECHNICAL-WORKING\WORKING DWG\ET-25 STEEL SUPPORT ASS 100%.DWG
DATE: 05-12-2017
TIME: 2:34:59 PM

DIMENSIONS	
Y	L
W/2 + 5/8"	D + 8"



ICS-1
SCALE: NTS



PLAN
SCALE: NTS

SECTION A
SCALE: NTS

NOTES:

1. ALL THREADED RODS SHALL COMPLY TO ASTM A449.
2. THREADED RODS SHALL BE 1" DIAMETER WITH (4) HEX NUTS & LOCK WASHER.

100% SUBMISSION
MAY 2017

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER
No. PE077474

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION

STEEL SUPPORT ASSEMBLY

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE: AS SHOWN

DRAWN	VA	DATE 04/12/2017
CHECKED	YS	DATE 04/12/2017

BPAA-0185ACP

SHEET NO. 29 OF 31

ET-25

No	Revisions	Date	By

AMTRAK

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OFFICE OF
Chief Engineer
Engineering
National Railroad Passenger Corporation
30TH Street Station-Philadelphia, Pennsylvania 19104

Approved	Date

SYSTRA
SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

ITEM NO	AMTRAK STOCK NO.	DESCRIPTION	AMTRAK MARK NUMBER	TOTAL ORDER QUANTITY	UNIT OF MEASURE	REFERENCE DRAWING	SUGGESTED VENDOR
004	44 562 0160X	BOLT, HOOK 0.500 X 02.375, 1/2 X 2-3/8 13 UNC-2A , BRONZE, CLASS B, JB, AMTRAK 445620160X	JB	4	EA	ET-148-E19	FASTENING PRODUCTS CO, INC.
006	44 562 23809	PIN, INSULATOR, STEEL, GALV., SPEC. ASTM-123-37, 5/8" X 1-7/8", AMTRAK 4456223809	NP-1	9	EA	11B-1206-8	FASTENING PRODUCTS CO, INC.
007	2103002855X	ROD, 0.72" DIA, BZ., THREADED (UNIT IN FT). TO ORDER BY LBS (1.62LB / FT) (MINIMUM PURCHASE 1000LBS), AMTRAK 210300285X	NR-2	4	FT	14E-433	INTEGRATED NONFERROUS METALS COMPANY
008	44 075 04508	EYE,END, FORGING, FOR HANGER ROD BRIDESBURG FOUNDRY, EE-1, AMTRAK # 4407504508,	EE-1	4	EA	11B-1227	BRIDESBURG FOUNDRY COMPANY
012	44 562 27009	CHAIN SHACKLE, FORGED STEEL, GALVANIZED. WITH BOLT, NUT, COTTER PIN S4, AMTRAK 4456227009	S-4	3	EA	ET-305	PENNFAB, INC.
014	44 045 08001	CLEVIS, END BZ. FORGING F/HANGER ROD, BRIDESBURG FOUNDRY CE-1, AMTRAK # 4404508001	CE-1	13	EA	11B-1227	BRIDESBURG FOUNDRY COMPANY
018	44 562 15702	CLIP, INTERMEDIATE, GROOVED WIRE TO GROOVED WIRE AL., BZ. CASTING, BRIDESBURG FOUNDRY HC-29A, AMTRAK # 4456215702	HC-29A	194	EA	ET-1029-E-10	BRIDESBURG FOUNDRY COMPANY
020	44 210 00659	BOLT, CARRIAGE SQUARENECK , ROUND HEAD 1/2" x 1- 5/8" 13 UNC-2A, 316 STAINLESS STL, SSB-34, ET1- 100, TO BE USED WITH NUT ITEM # 44 210 00657	SSB-34	97	EA	ET1-100	
046	44 562 17708	CLIP, 5/8" MESS. TO .34 ROD, BRONZE, BOLTED TYPE, BRIDESBURG FOUNDRY BC-24-B, AMTRAK # 4456217708	BC-24B	44	EA	ET-1087-E-1	BRIDESBURG FOUNDRY COMPANY
047	44-210-00658	BOLT, CARRIAGE SQUARENECK , ROUND HEAD 1/2" X 2" 13 UNC-2A, 316 STAINLESS STL, SSB-22, ET1- 100	SSB22	75	EA	ET1-100	
048	21 030 02550	ROD, .34" DIA. BRONZE, FOR HANGERS ORDERED BY LBS (.344/FT), AMTRAK 2103002550		172	FT		INTEGRATED NONFERROUS METALS COMPANY
057	44 562 10004	CLAMP BODY STRAND TO 1/2" ROD, BZ. BRIDESBURG FOUNDRY XC-6, AMTRAK 4456210004	XC6	9	EA	14E-61-7	BRIDESBURG FOUNDRY COMPANY
065	4428503870	#VALUE!	XT-4	1	EA	11B-1223	
073	44 562 17900	CLIP, GROOVED WIRE, 0.34" DIA, BZ, ASTMB-48, BRIDESBURG FOUNDRY BC-26B, AMTRAK # 4456217900,	BC-26B	79	EA	ET-1078E-6	BRIDESBURG FOUNDRY COMPANY
074	44 562 25708	SADDLE, FLEXIBLE HANGER, BZ. CASTING BRIDESBURG FOUNDRY FHS, AMTRAK 4456225708	FHS	18	EA	ET-652-E-10	BRIDESBURG FOUNDRY COMPANY
075		HANGER RINGS, 0.34" DIA. ROD, BRONZE, 0.344LBS/FT, MARK # JR,	JR	1	EA	ET-1095E-2	

ITEM NO	AMTRAK STOCK NO.	DESCRIPTION	AMTRAK MARK NUMBER	TOTAL ORDER QUANTITY	UNIT OF MEASURE	REFERENCE DRAWING	SUGGESTED VENDOR
076	44 562 16801	CLIP,TANGENT (GROOVED WIRE TO 5/8") MESS., BRONZE, BRIDESBURG FOUNDRY TS-1, AMTRAK # 4456216801	TS-1	9	EA	ET-76-E-1	BRIDESBURG FOUNDRY COMPANY
078	44 210 00657	LOCKNUT, 1/2 -13 UNC, LANFRANCO INC. NUT STYLE: ERM, TWO LOCKING SLOTS + SPRING WASHER, NUT A/F: 0.748", WASHER OD: 1.063", NUT MATERIAL: STN STEEL A4-80(AISI 316L WITH ANTI-GALLING SURFACE.TREATMENT. J. LANFRANCO DWG NO JL 06201052, AMTRAK 4421000657		172	EA	ET1-100	BBA PROJECT, INC.***USE SUFFIX B***
080	44 562 15905	CLIP, 5/8" DIA MESS. TO 4/0 AWG WIRE BZ.BRIDESBURG FOUNDRY TS-25 AMTRAK # 4456215905	TS-25	18	EA	ET-170-E-3	BRIDESBURG FOUNDRY COMPANY
86G		CONNECTOR 4/O TO 4/O. AMP 275187-6		4	EA		
087	44 423 00607	CARTRIDGE, WHITE FOR INSTALATION OF COPPER TAPS, AMP#69338-5 (AUTOGEN 40-0100-01), AMTRAK 4442300607		4	EA		TNT ELECTRIC SUPPLY, INC.
105S		SERVIT POST, BURNDY , KC31 (1-350 (5/8"-11" STUD DIA))	0.00	20	EA		
148		BOLT "U" STEEL, GALV.SPEC P-119, 7/8" DIA x 5 1/2" OPENING	UB-60	16	EA	ET-145-E-24	
149		SADDLE PIPE, STEEL, GALV (FABRICATED)	PS-1A	16	EA		
151	44 562 26305	SADDLE, 5/8" MESSENGER, DUCTILE IRON D-5 ET-1124-E-2	MD (MD-5)	8	EA	ET-1124E-2	
152	44 562 24406	PLATE, STEEL, GALV. BENT, 8" x 1/2" x 1'-6"	TP-1	4	EA	ET-1183-E	
153	44 562 24502	PLATE, STEEL, GALV. 3" X 1/2" X 8" AMTRAK # TP-2	TP-2	4	EA	ET-1183-E	PENNFAB, INC.
154	44 562 05002	BOLT, 5/8" W/LOCKWASHER	BB-7	18	EA	ET-146-E	
161	44 135 00804	INSULATOR PORCELAIN, SPEC CE 560-B	3T	4	EA	ET1-003	
206	4456204501	BOLT , STEEL GALV. HH, SPEC. P-119, 3/4"X2 3/4", WITH NUT AND COTTER, AMTRAK 4456204501	BG-1	9	EA	ET-145-E-24	FASTENING PRODUCTS CO, INC.
616	4403003052	BOLT, CARRIAGE 0.500X02.000 ROUND HD 1/2 X 2 13 UNC-2A SQUARE NECK BRONZE SPECIAL, AMTRAK # 4403003052	BB-32	9	EA	ET 148E	T / A METAL FASTENERS
687	44 030 03706	BOLT, MACHINE 0.625X02.500 HEX HEAD 5/8 X 2-1/2 11 UNC-2A BRONZE, CLASS B SPECIAL W/ HEX NUT	BB-42	18	EA	ET-516-E	FASTENING PRODUCTS CO, INC.
MG08		#N/A	0.00	18	EA		
MT01		4/0, 19 STRAND, BARE ALUMINUM STRANDED CONDUCTOR	0.00	418	FT		
MT02		TERMINAL CONNECTOR, COMPRESSION TYPE, FOR 4/0 ALUMINUM STRANDED CONDUCTOR	0.00	43	EA		
MT03		BOLT, 1/2" X 3" LONG STAINLESS STEEL WITH LOCKWASHER	0.00	77	EA		
MT05		4/0 COPPER CABLE	0.00	682	FT		
MT06		DEAD END CLAMP, FOR 4/0 TO 500 MCM CU BURNDY CUW34-4	0.00	3	EA		
MT10		UNIVERSAL SERVIT BURNDY KSU29 (RUN COPPER & ALUMINUM 1STR-250KCMIL 2/0-4/0, TAP 8 STR-250 6-4/0)	0.00	18	EA		

NOTE:

1. FOR TEMPORARY BONDING AND GROUNDING MATERIAL AND STEEL & FOUNDATIONS MATERIAL SEE ET-27.

100% SUBMISSION
APRIL 2020

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BEN MALAMED
ENGINEER
No.PE077474

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION

SUMMARY OF MATERIAL SHEET 1

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE:

DRAWN	VA	DATE 04/02/2020
CHECKED	YS	DATE 04/02/2020

BPAA-0185ACP

SHEET NO. 30 OF 31

ET-26

No	Revisions	Date	By

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OFFICE OF
Chief Engineer
Engineering
National Railroad Passenger Corporation
30TH Street Station-Philadelphia, Pennsylvania 19104

Approved	Date

SYSTRA
SYSTRA Consulting, Inc.
1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

FILENAME: X:\ENG\PROJECTS\US01T15A14 CITY OF PHIL MONTGOMERY AVE WO #1\08.0 TECHNICAL-WORKING\WORKING DWG\REVISED DRAWINGS\ET-26_SUMMARY OF MATERIAL 1 100%.DWG DATE: 06-12-2020 TIME: 10:22:53 AM

SUMMARY BILL OF MATERIALS FOR BONDING AND GROUNDING – TEMPORARY PHASE					
ITEM	DESCRIPTION	CATALOG REFERENCE	SUGGESTED SUPPLIER (OR APPROVED EQUAL)	UNIT	QTY
MT07	STAPLE, ROLLED DIAMOND POINT	J6496	JOSLYN CORP. FRANKLIN PK., IL	EA.	60
017A	CLIP CABLE, WIRELOCK 9/16". AMTRAK DWG ET–556E4, REF. 44 045 09709	–––––	–––––	EA.	16
MG04	2/0 COPPER CABLE, BARE, 37 STRAND	–––––	COPPERWELD CORP. PITTSBURGH, PA	FT.	200
105S	UNIVERSAL SERVIT, BURNDY, KC31 (1–350 (⅝"–11" STUD DIA) "TIN PLATED"	KC31	BURNDY CORP. NORWALK, CT.	EA.	5
MT05	4/0, 19 STRAND, COPPER CABLE	–––––	BURNDY CORP. NORWALK, CT.	FT.	200
MT06	DEAEND CLAMP FOR 4/0 TO 500MCM CU	CUW34–4	BURNDY CORP. NORWALK, CT.	EA	5
12	SHACKLE, CHAIN W/BOLT, NUT & COTTER PIN, AMTRAK REFERENCE DWG. ET–305–E	S–4	AMTRAK PIECE MARK S–4	EA	5
86G	CONNECTOR 4/O TO 4/O. AMP 275187–6		AMP 275187–6	EA.	5
87	CARTRIDGE, WHITE FOR INSTALATION OF COPPER TAPS,		AMP 69338–5	EA.	5
	EXOTHERMIC CONNECTION MOLD HAH–2Q–20C WELD METAL 115		ERICO	EA.	8

SUMMARY BILL OF MATERIALS FOR STEEL & FOUNDATIONS				QUANTITIES		
ITEM	DESCRIPTION	DWG No.	UNIT	TEMP. PHASE	FINAL PHASE	TOTAL
P1	POLE W14X120	ET–19	EA.	2		2
F1	FOUNDATION 48" DIA	ET–20	EA.	2		2
CB1	CROSS BEAM W14X120	ET–21	EA.	1		1
SB1	SAG BRACE L6X4X3/8	ET–22	EA.	2		2
MSA1	MESSENGER SUPPORT ASSEMBLY	ET–23	EA.	4		4
PC–1	POLE CLAMP	ET–24	EA.	3		3
PC–1A	STEEL SUPPORT ASSEMBLY	ET–24	EA.	1		1
PC–3	POLE CLAMP	ET–24	EA.	1		1
DET–K	CROSS BEAM CLAMP	ET–24	EA.		2	2
ICS–1	STEEL SUPPORT ASSEMBLY	ET–25	EA.	2		2
MGS1	EXTENSION ADAPTER	ET–24	EA.	4		4

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
BEN MALAMED
No. PE077474

100% SUBMISSION
MAY 2017

No	Revisions	Date	By

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OFFICE OF
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National Railroad Passenger Corporation
30TH Street Station–Philadelphia, Pennsylvania 19104

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1600 MARKET STREET, SUITE 1310
PHILADELPHIA, PA 19103

PHILADELPHIA COUNTY

MONTGOMERY AVENUE OVER AMTRAK & CONRAIL
100% ELECTRIFICATION MODIFICATION

SUMMARY OF MATERIAL SHEET 2

CORRECT
ELECTRIFICATION PROJECT MANAGER

PLAN PREPARED FOR
CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
BUREAU OF SURVEYS & DESIGN
BRIDGE SECTION

SCALE:

DRAWN	VA	DATE 04/12/2017
CHECKED	YS	DATE 04/12/2017

BPAA–0185ACP

SHEET NO. 31 OF 31

ET–27

FILENAME: X:\ENG\PROJECTS\USO1T115A14 CITY OF PHIL MONTGOMERY AVE WO #1\08.0 TECHNICAL–WORKING\WORKING DWG\ET–27_SUMMARY OF MATERIAL 2 100% DWG
DATE: 05–12–2017
TIME: 2:35:18 PM