



7000 Geerdes Boulevard
King of Prussia, PA 19406
August 30, 2018

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
P.O Box 3265
Harrisburg, PA 17105-3265

Philadelphia County
City of Philadelphia
S.R. 3021, Section GFB, Reconstruction of Grays Ferry Avenue Bridge
DOT # 531 153 U
PUC Docket # A-2014-2403893
MPMS # 69913

Dear Secretary Chiavetta,

The final structure plans were mailed as part of the original package along with the final construction plans and previous cover letters to the parties of record. However, the final structure plans were inadvertently not included with the package that was electronically filed with the PUC. With the exception of this cover letter, this is the complete package that was sent to the parties of record. Please use this complete filing instead.

Sincerely,


Mary Ann Lang, District Utility Manager
Engineering District 6-0
Department of Transportation



August 29, 2018

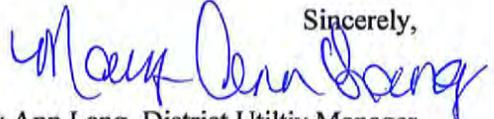
Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
P. O. Box 3265
Harrisburg, PA 17105-3265

Re: Philadelphia County
S.R. 3021, Section GFB
Reconstruction of Grays Ferry Avenue Bridge
~~DOT # 140-622-M~~ Corrected DOT # 531 153 U
~~PUC Docket # A-2016-2523983~~ Corrected PUC Docket # A-2014-2403893
MPMS #69913

Dear Secretary Chiavetta,

The letter and filing dated August 28, 2018 submitting the relevant final structure and construction plans for review and approval contained incorrect references to the PUC Docket Number and DOT Number. The incorrect references have been crossed out, and the correct ones have been provided in red.

We apologize for any inconvenience this may have caused.

Sincerely,

Mary Ann Lang, District Utility Manager
Engineering District 6-0
Department of Transportation

Attachments

cc: Parties of Record
Mark Chappell, P.E., Chief, Right-of-Way & Utilities Section
Gina D'Alfonso, Office of Chief Counsel
Ron Hull, Supervisor, Rail Safety Engineering Section, PUC



pennsylvania

DEPARTMENT OF TRANSPORTATION

7000 Geerdes Boulevard
King of Prussia, PA 19406
August 28, 2018

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
P.O. Box 3265
Harrisburg, PA 17105-3265

Philadelphia County
City of Philadelphia
S.R. 3021, Section GFB, Reconstruction of Grays Ferry Avenue Bridge
DOT # 140 622 M
PUC Docket # A-2016-2523983
MPMS # 69913

Dear Secretary Chiavetta,

We are submitting the relevant final structure and construction plans for review and approval. As permitted by PUC filing rules, this is being submitted electronically in lieu of mailing it to the PUC.

Please review and approve these plans so that we may proceed with the construction of the project. A Certificate of Service, as required by the Rules of Procedure found in the Pennsylvania Code, is attached.

Should you have any questions or concerns, please feel free to contact me at 610-205-6530.

Sincerely,

Mary Ann Lang, District Utility Manager
Engineering District 6-0
Department of Transportation

Attachments

cc: Parties of Record
Mark Chappell, P.E., Chief, Right-of-Way and Utilities Section, 7th Floor, CKB
Gina M. D'Alfonso, Office of Chief Counsel, 9th Floor, CKB
Ron Hull, Supervisor, Rail Safety Engineering Section, PUC, 3rd Floor, CKB



CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of the foregoing document upon the participants listed below, in accordance with the requirements of §1.54, by first class mail, postage prepaid:

Application of the Department of Transportation of the Commonwealth of Pennsylvania for approval to add a multi-user trail to the public crossing by adding new bridge railing and protective fence to the roadway where Grays Ferry Avenue (S.R. 3021) crosses over the tracks owned by National Railroad Passenger Corporation (AMTRAK), (DOT #531153U) in Philadelphia County and the allocation of costs incident thereto.

Application
Docket No. **A-2014-2403893**

ELECTRONICALLY FILED

CERTIFICATE OF SERVICE

I hereby certify that I have this day served in a true copy of the foregoing document upon the participants listed below, in accordance with the requirements of §1.54, by first class main, postage prepaid:

Ken McClain, District Executive
PENNDOT Engineering District 6-0
7000 Geerdes Blvd.
King of Prussia, PA 19406

Earl Watson
National Railroad Passenger Corp.
30th Street Station – Box 64
2955 Market Street
Philadelphia, PA 19104

Senior Attorney
City of Philadelphia Law Department
1515 Arch Street – 16th floor
Philadelphia, PA 19102

City Solicitor
City of Philadelphia Law Dept.
1515 Arch Street – 16th floor
Philadelphia, PA 19102

Carlo Verdi, Project Engineer
Teleport Communications America , LLC
175 W. Main Street
Freehold, NJ 07728

John Dohalick, Permit Coordinator
Comcast Cable Communications
2320 Trenton Road
Levittown, PA 19056

Thomas Sprigle, Construction Manager
Lightower Fiber Networks
401 N. Broad Street – Suite 936
Philadelphia, PA 19108

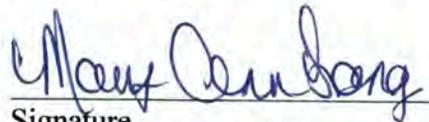
Bill Hensil, Program Manager
PECO Energy Co.
1050 W. Swedesford Road
Berwyn, PA 19312

Monica Lyv, Senior Staff Engineer
Philadelphia Gas Works
800 W. Montgomery Ave.
Planning Section – 2nd floor
Philadelphia, PA 19122

John Alessandrini
Verizon Business Local
630 Clark Ave.
King of Prussia, PA 19406

Vahe Hovsepian, Design Manager
Philadelphia Water Department
Aramark Tower
1101 Market St., 5th floor
Philadelphia, PA 19107

Dated this 28th day of August, 2018



Signature

Mary Ann Lang

District Utility Manager

File: 531153U-AMTRK-R13

DISTRICT	COUNTY	TOWNSHIP	CITY	ROUTE	SECTION	TOTAL SHEETS
6-0	PHILADELPHIA		PHILADELPHIA	3021	GFB	33

ECMS NO 69913
PWD PROJECT WORK NO S-40991-RD

COMMONWEALTH OF PENNSYLVANIA



DEPARTMENT OF TRANSPORTATION

DRAWINGS FOR CONSTRUCTION OF

STATE ROUTE 3021 SECTION GFB
IN PHILADELPHIA COUNTY

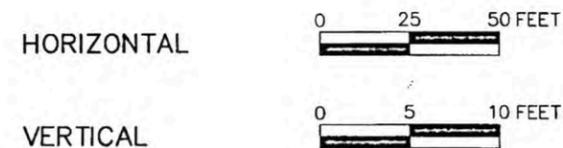
FROM STA 203+50.00 TO STA 240+50.00 LENGTH 3590.11 FT 0.680 MI
FROM SEG 0064 OFFSET 0350 TO SEG 0070/0071 OFFSET 3600

ALSO INCLUDED:

TRAFFIC CONTROL PLAN	23 SHEETS
SIGNING AND PAVEMENT MARKING PLAN	8 SHEETS
EROSION & SEDIMENTATION POLLUTION CONTROL PLAN	13 SHEETS
HIGHWAY LIGHTING PLAN	9 SHEETS
TRAFFIC SIGNAL PLAN	8 SHEETS
INTERCONNECT PLAN	2 SHEETS
STRUCTURE PLANS S-32166	53 SHEETS
STRUCTURE PLANS S-37737	17 SHEETS
EXISTING STRUCTURE PLANS S-10597	60 SHEETS
EXISTING STRUCTURE PLANS S-17347	3 SHEETS

PUC APPLICATION DOCKET NUMBER A-2014-2403893

SCALE



DESIGN DESIGNATION - GRAYS FERRY AVENUE SR 3021

TRAFFIC DATA

HIGHWAY CLASSIFICATION	URBAN MINOR ARTERIAL
ROADWAY TYPOLOGY	COMMUNITY ARTERIAL
DESIGN SPEED	30 MPH
PAVEMENT WIDTH	37' (WB) 26' (EB)
SHOULDER WIDTH	3'(L)/4'(R) (WB) 2'(L)/2.1'(R) (EB)
MEDIAN WIDTH	2.75'
BIKE LANE	6' (WB) 10' BARRIER-SEPARATED MULTI-USE TRAIL (EB)

CURRENT ADT	24,995 (2018)
DESIGN YEAR ADT	27,617 (2038)
DHV	2,209 (2038)
D	55
T	16%

PREPARED BY:
MODJESKI and MASTERS, INC
1341 NORTH DELAWARE AVENUE
SUITE 308
PHILADELPHIA, PA 19125



Anthony B. Temeles

DATE: 8/9/2018

PREPARED BY:
MCMAHON ASSOCIATES, INC.
425 COMMERCE DRIVE
FORT WASHINGTON, PA 19034



Brian D. Di Biase

DATE: 8/8/18

RECOMMENDED DATE: 8/15/18
Russ M. Miles
DISTRICT EXECUTIVE

RECOMMENDED DATE: 8/17/18
Gregory D. P. Kelly
DEPUTY SECRETARY

APPROVED DATE: 8/17/18
Ann S. Filand
SECRETARY OF TRANSPORTATION
(ON BEHALF OF THE GOVERNOR
AS WELL AS THE SECRETARY)

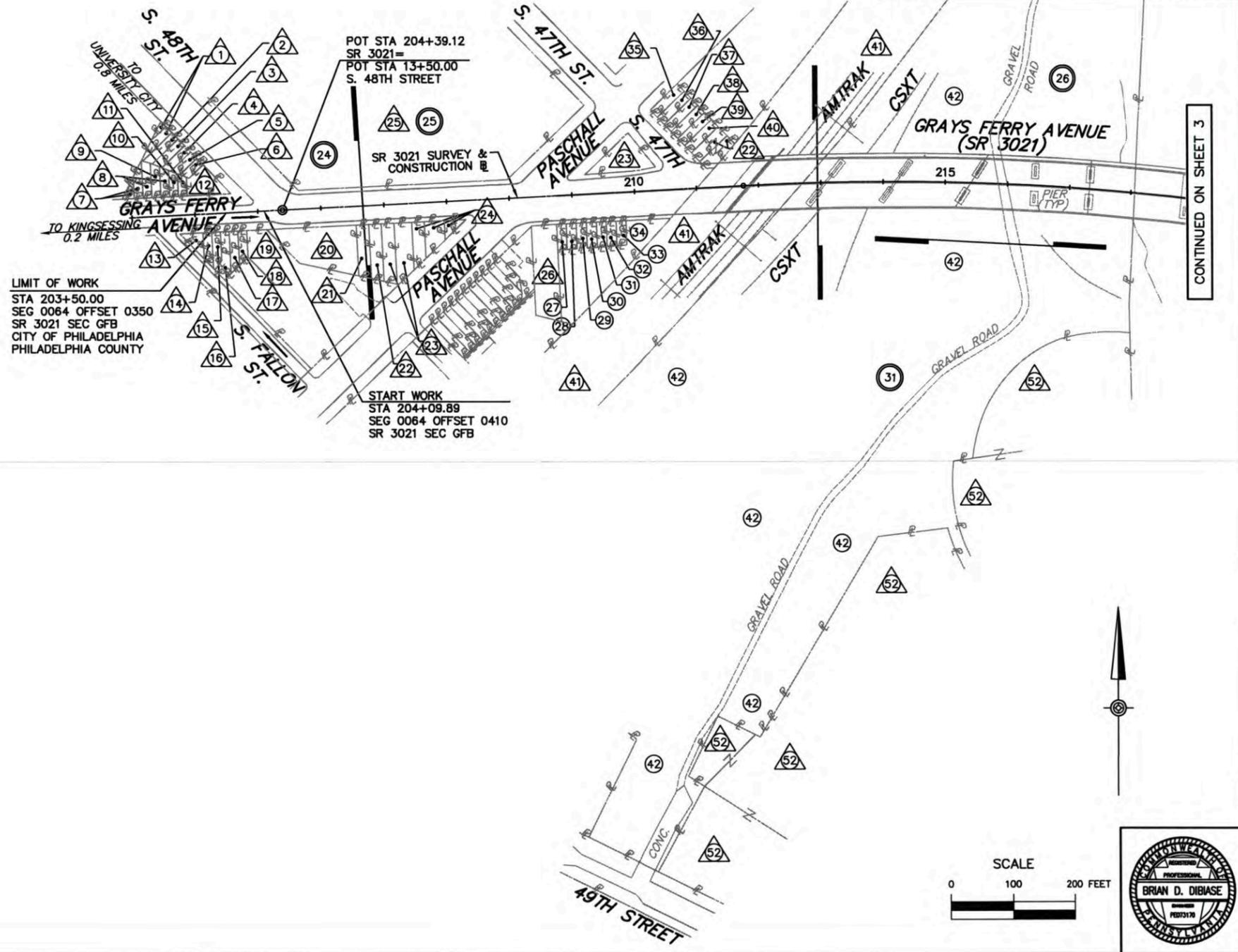
TABULATION OF PROPERTY OWNERS

PARCEL NO	OWNER	PARCEL NO	OWNER
1	RYAN RICKY MC COY	24	DOUGLAS T. CLICK & DEVIN C. CLICK
2	ABBY REAL ESTATE VENTURES	25	CITY OF PHILADELPHIA DEPARTMENT OF RECREATION
3	LYNNE FRANCES BARD	26	FRANK TINNEY & LOELEN TINNEY
4	BABIKER S. ABUBAKER & MUBARAK S. AHMAD	27	THE NEIGHBORHOOD GARDENS ASSOCIATION/ A PHILADELPHIA LAND TRUST, A PA. NON PROFIT CORPORATION
5	DOROTHY ROZZLE	28	CHARLIE P. HUGHES AND OLA MAE HUGHES, H/W
6	GLENN MOYER	29	JUNIOUS TURNER & MABEL BAZEMORE
7	RUSSELL STITH	30	MATILDA I. MASSIAH
8	MORRIS SAMPSON & SHELIA B. SAMPSON	31	EUGENE VINSON AND FLOSSIE VINSON, H/W
9	CHARMANE D. SAMPSON	32	CLARA M. WIGGINS, WIFE OF EDWARD WIGGINS
10	LEANORA WILLIAMS	33	ANNIE MASON, SINGLEWOMAN
11	GAYLE TAYLOR	34	WALTER BENTON AND CARRIE BENTON, H/W
12	BIANCA MCCOY	35	MUNDY A. WILKES & PORTLAND M. BRADLEY
13	KINGSESSING HEIGHTS COMMERCIAL LP	36	GUY MICHAEL THIGPEN
14	DONALD HOUSER	37	KIMYATTA FRAZIER & SHAMONE FRAZIER
15	JANIS E. DAWKINS	38	BURRELL COUSINS MARIE ALLEN COUSINS
16	TONY DPHAX KING & ROSE KING	39	CASSANDRA REVEL
17	LORETTA STAFFORD	40	HASAN E. CURRIE
18	TONY E. SMITH	41	AMTRAK
19	S V GEORGENO	42	CSXT
20	HERMANN MENARD	43	PHILADELPHIA AUTHORITY FOR INDUSTRIAL DEVELOPMENT
21	JAMES E. COOLEY & EMMA L. COOLEY	46	REDEVELOPMENT AUTHORITY OF THE CITY OF PHILADELPHIA
22	HAST INVESTMENT PARTNERS LP	52	PHILADELPHIA AUTHORITY FOR INDUSTRIAL DEVELOPMENT
23	CITY OF PHILADELPHIA		

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	3021	GFB	2 OF 33
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS	DATE	BY	

INDEX MAP

SHEET INDEX BLOCK	
DESCRIPTION	SHEET
TITLE SHEET	1
INDEX MAP	2 TO 3
GENERAL NOTES, UTILITY LIST, LOCATION MAP	4 TO 5
TYPICAL SECTIONS	6 TO 7
CONSTRUCTION DETAILS	8 TO 10
GRADING PLAN SHEETS	11 TO 12
LANDSCAPE PLAN SHEETS	13 TO 14
GEOMETRY PLAN	15
ADA CURB RAMP PLAN SHEETS	16 TO 17
REFERENCE CIRCLES	18
SUMMARY SHEETS	19 TO 21
TABULATION SHEETS	22 TO 25
PLAN SHEETS	26 TO 33



LEGEND

- PLAN
- PARCEL IDENTIFICATION NUMBER
- △ PARCEL IDENTIFICATION NUMBER - NO TAKE

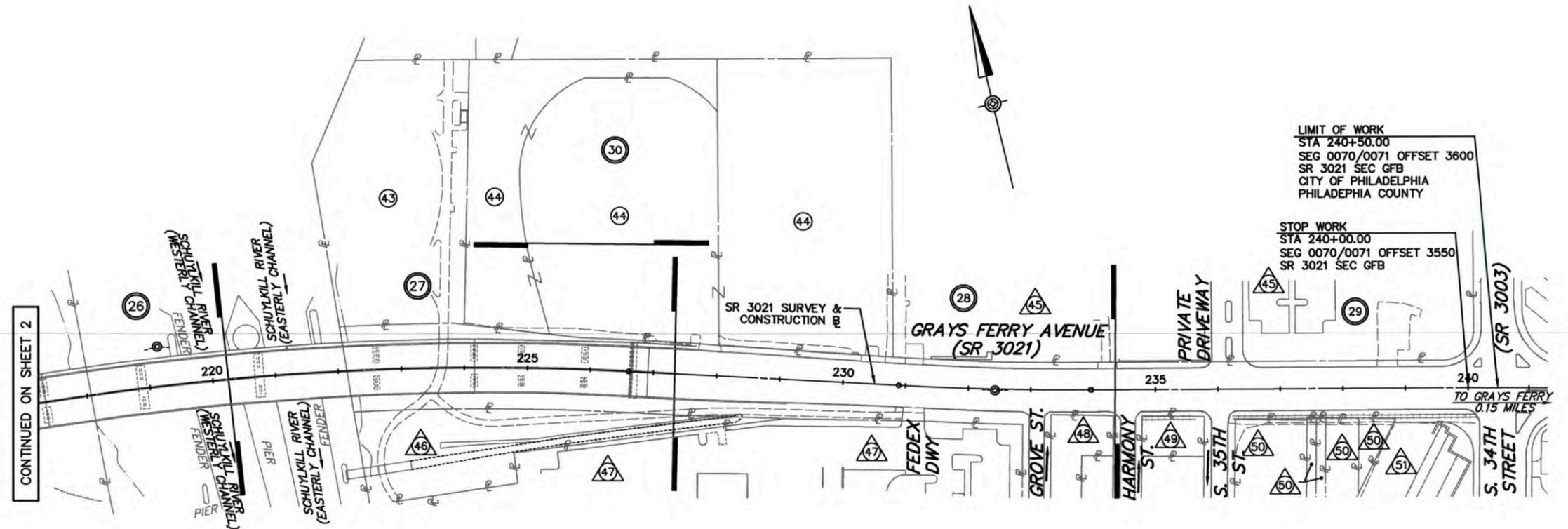


TABULATION OF PROPERTY OWNERS

PARCEL NO	OWNER
43	PHILADELPHIA AUTHORITY FOR INDUSTRIAL DEVELOPMENT
44	WASTE MANAGEMENT OF PENNSYLVANIA, INC
45	TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA
46	REDEVELOPMENT AUTHORITY OF THE CITY OF PHILADELPHIA
47	AERO PHIL, FE, LLC
48	GRAYS GROVE CORP
49	B & J REALTY, LLC
50	PHILADELPHIA AUTHORITY FOR INDUSTRIAL DEVELOPMENT
51	BALTIMORE & OHIO RAILROAD COMPANY

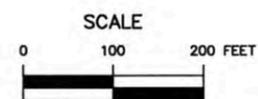
DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
6-0	PHILADELPHIA	3021	GFB	3 OF 33	
CITY OF PHILADELPHIA					
REVISION NUMBER	REVISIONS			DATE	BY

INDEX MAP



LEGEND

- PLAN
- PARCEL IDENTIFICATION NUMBER
- PARCEL IDENTIFICATION NUMBER - NO TAKE



UTILITY LIST

PENNSYLVANIA ONE CALL SYSTEM, INC.
(EMERGENCY 1-800-242-1776)
SERIAL# **WARD#27-20161190974 & WARD#36-20161190975**

TELEPORT COMMUNICATIONS AMERICA, LLC
MR. JAY EVERLY
PROJECT MANAGER
175 WEST MAIN STREET
FREEHOLD, NEW JERSEY 07728
(215) 279-4199

VERIZON PENNSYLVANIA, LLC
MS. LAURA M. LIPPINCOTT
SECTION MANAGER
1050 VIRGINIA DRIVE, FLOOR 4
FORT WASHINGTON, PA 19034
(215) 591-6495

COMCAST CABLE COMMUNICATIONS
MR. JOHN DOHALICK
REGIONAL PERMIT COORDINATOR
2320 TRENTON ROAD
LEVITTOWN, PA 19056
(215) 918-3131

PECO ENERGY COMPANY
MR. BILL HENSIL
PROGRAM MANAGER
1050 W SWEDSFORD ROAD
BERWYN, PA 19312
(610) 725-7129

CROWN CASTLE
MR. JARED KOST
ASSET SPECIALIST
2000 CORPORATE DRIVE
CANONSBURG, PA 15317
(724) 416-2373

PHILADELPHIA WATER DEPARTMENT
MR. VAHE HOVSEPIAN
DESIGN MANAGER
ARAMARK TOWER
1101 MARKET STREET, 2ND FLOOR
PHILADELPHIA, PA 19107
(215) 685-6278

LEVEL 3 COMMUNICATIONS/CENTURYLINK
MR. KARL BRENTON
3020 MARKET STREET
PHILADELPHIA, PA 19104
(215) 630-1614

PHILADELPHIA GAS WORKS
MS. MONICA LYV
SENIOR STAFF ENGINEER
800 W MONTGOMERY AVENUE
PHILADELPHIA, PA 19122
(215) 684-6116

TABULATION OF SEGMENT EQUALITIES

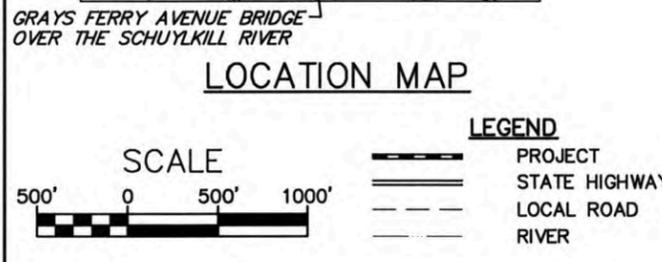
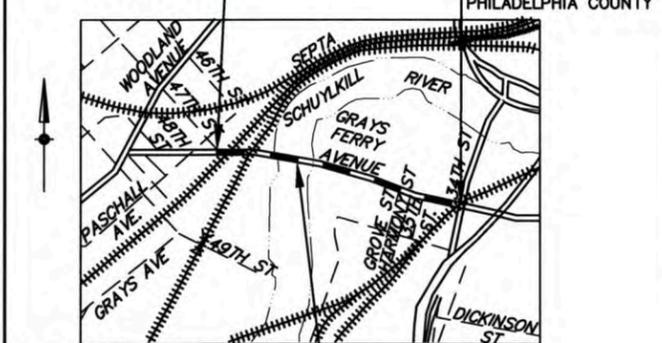
SEGMENT 0064 OFFSET 0000 = STA. 200+00.00
SEGMENT 0064 OFFSET 0432 = STA. 204+50.00
SEGMENT 0070/0071 OFFSET 0000 = STA. 204+50.00
SEGMENT 0070/0071 OFFSET 3600 = STA. 240+50.00

LIST OF ALL EQUALITIES

NONE

LIMIT OF WORK
STA 203+50.00
SEG 0064 OFFSET 0350
SR 3021, SEC GFB
CITY OF PHILADELPHIA
PHILADELPHIA COUNTY

LIMIT OF WORK
STA 240+50.00
SEG 0070 OFFSET 3600
SEG 0071 OFFSET 3600
SR 3021, SEC GFB
CITY OF PHILADELPHIA
PHILADELPHIA COUNTY



TABULATION OF OVERALL AND CONSTRUCTION LENGTH

LOCATION	STATION TO STATION	OVERALL LENGTH		CONSTRUCTION LENGTH	
		FEET	MILES	FEET	MILES
SR 3021	STA 203+50.00 TO STA 240+50.00	3700.00	0.701	-	-
	STA 204+09.89 TO STA 240+00.00	-	-	3590.11	0.680
	TOTAL	3700.00	0.701	3590.11	0.680

PHILADELPHIA WATER DEPARTMENT (PWD) GENERAL NOTES

- #### SEWER NOTES (PWD PROJECT WORK NO. S-40991-RD)
- ALL WORK TO BE DONE IN ACCORDANCE WITH THE CITY OF PHILADELPHIA WATER DEPARTMENT STANDARD DETAILS & STANDARD SPECIFICATIONS FOR SEWERS, 1985 EDITION.
 - IN ADDITION TO BEING PRE-QUALIFIED BY PENNDOT, THE CONTRACTOR PERFORMING THE SEWER WORK MUST HAVE PERFORMED SIMILAR WORK FOR THE PHILADELPHIA WATER DEPARTMENT ON A MINIMUM OF TWO PROJECTS IN THE LAST FIVE YEARS.
 - THE APPROVED WORK SHALL BE DONE IN THE PRESENCE OF A PWD INSPECTOR.
 - THE CONTRACTOR PERFORMING THIS WORK IS TO NOTIFY THE PWD CONSTRUCTION DIVISION, 1101 MARKET STREET, 2ND FLOOR, PHONE (215) 685-6341, AT LEAST 7 DAYS IN ADVANCE FOR ASSIGNMENT OF AN INSPECTOR TO THE JOB.
 - THE CONTRACTOR MUST PROVIDE OFFICE SPACE FOR USE BY THE PWD INSPECTOR DURING CONSTRUCTION.
 - APPROVAL OF THESE PLANS BY THE WATER DEPARTMENT IS STRICTLY LIMITED TO THE DESIGN OF SEWERS 15-INCHES IN DIAMETER AND LARGER SHOWN WITHIN THE LIMITS OF THE CITY OF PHILADELPHIA PUBLIC RIGHT OF WAY. ADDITIONAL APPROVALS AND PERMITS ARE REQUIRED FOR ALL DRAINAGE CONNECTIONS TO THE EXISTING PWD FACILITIES.
 - CONTACT MR. ERIK SMITH, PWD-WATER TRANSPORT RECORDS, 1101 MARKET STREET, 2ND FLOOR, PHONE (215) 685-6270, FOR ADDITIONAL APPROVALS AND PERMITS REQUIRED FOR ALL SEWER CONNECTIONS TO THE EXISTING AND/OR PROPOSED PWD FACILITIES.
 - THE ELEVATION OF THE EXISTING SEWER AT THE CONNECTION POINT MUST BE FIELD-CHECKED PRIOR TO CONSTRUCTING THE NEW SEWER.
 - FIELD-FABRICATED WYE BRANCHES AND BENDS ARE NOT PERMITTED.
 - A LIST OF ALL MATERIALS AND SUPPLIERS MUST BE SUBMITTED TO THE PWD CONSTRUCTION BRANCH FOR APPROVAL.
 - THE CONTRACTOR OR ENGINEER IS RESPONSIBLE FOR OBTAINING ALL ADDITIONAL PERMITS AND APPROVALS FROM ALL AFFECTED CITY AGENCIES AND UTILITIES.
 - ALL DRAINAGE LATERAL CONNECTION TO EXISTING OR PROPOSED RCP IS TO BE MADE WITH RESILIENT SADDLE CONNECTION.
 - ANY CHANGE TO, OR DEVIATION FROM, THE FINAL APPROVED DESIGN PLANS DURING CONSTRUCTION MUST BE APPROVED BY THE ASSIGNED PWD-CONSTRUCTION DIVISION ENGINEER AND BY THE PWD-DESIGN BRANCH PROJECT ENGINEER.
 - PWD RESERVES THE RIGHT TO REQUEST ADDITIONAL BORINGS DURING CONSTRUCTION SHOULD THE SOIL EXCAVATED IN THAT AREA APPEAR TO BE UNSUITABLE.
 - ALL SEWER WORK MUST BE PERFORMED IN TRENCHES. OPEN CUT OR BENCHING WILL NOT BE PERMITTED. OAK TIMBER SHORING MUST BE USED TO SUPPORT ADJACENT STRUCTURES AND UNDERGROUND UTILITIES, AND IN ACCORDANCE WITH OSHA STANDARDS CFR29, PART 1926-650 SUBPART - P EXCAVATIONS. ANY TRENCH WHERE THE CUT IS DEEPER THAN 10 FEET WILL REQUIRE A DETAILED SHORING PLAN PREPARED BY A REGISTERED PROFESSIONAL ENGINEER TO BE SUBMITTED TO PWD FOR APPROVAL BEFORE WORK CAN BEGIN.
 - PLACE AND COMPACT BACKFILL IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR EXCAVATION, REFILLING, GRADING, LANDSCAPING AND REPAVING.
 - THE ABANDONED SEWER MANHOLE FRAMES AND COVERS, INLET GRATES, AND TRAPS SHALL BE REMOVED AND DELIVERED INTACT TO THE PWD SEWER MAINTENANCE YARD AT FOX STREET AND ABBOTSFORD AVENUE.
 - ALL ACTIVE DRAINAGE LATERALS TO BE RECONNECTED TO THE NEW SEWER.
 - THE ABANDONED INLET LATERAL SHALL BE SEALED AT THE INLET AND AT THE SEWER WITH A DOUBLE RING OF BRICK MASONRY, AND THE INLET VOID BACKFILLED WITH SELECTED EARTH MATERIAL, TAMPED TO GRADE AND PAVED.
 - THE THICKNESS OF THE EXISTING SEWER PIPE AND THE CHARACTERISTICS AND EXTENT OF THE PIPE CRADLES ARE UNKNOWN.
 - ALL PIPES LARGER THAN 16-INCHES IN DIAMETER TO BE ABANDONED MUST BE FILLED WITH CONTROLLED DENSITY FILL (FLOWABLE FILL-CLASS F FLY ASH SLURRY BACKFILL) WITH A COMPRESSIVE STRENGTH OF 75 PSI MAXIMUM, IN ACCORDANCE WITH THE PENNDOT SPECIFICATION PUBLICATION 408, 2016 OR LATEST REVISION FOR FLOWABLE BACKFILL, NON-STRUCTURAL.
 - SEAL ENDS OF SEWERS TO BE ABANDONED WITH VITRIFIED PIPE STOPPERS AND OPEN ENDS OF STORM WATER CONDUITS WITH A 9" THICK BRICK BULKHEAD.
 - IN AREAS WHERE PROPOSED SEWER IS SHALLOW, INLET TRAP INVERT MAY REQUIRE ADJUSTMENT. CONTRACTOR TO PERFORM CALCULATIONS PRIOR TO MANUFACTURING PRECAST CATCH BASINS. SUBMIT SHOP DRAWINGS TO PWD.
 - ALL PRIVATE INLETS DIRECTLY CONNECTED TO THE SEWER MUST BE TRAPPED.

SUMMARY OF PROJECT COORDINATES

BASED ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE

ROUTE	STATION	POINT	COORDINATES		BEARING
			NORTH	EAST	
GRAYS FERRY AVENUE SURVEY & CONSTRUCTION E	200+00.00	PI (BEGIN STATION)	231664.4113	2679973.2195	N87°02'19"E
	211+75.63	PC	231725.1506	2681147.2827	
	219+25.38	PI	231763.8866	2681896.0319	
	226+60.87	PT	231552.4661	2682615.3560	S73°37'16"E
	230+89.07	PC	231431.7178	2683026.1825	
	232+42.66	PI	231388.4072	2683173.5401	S76°49'13"E
	233+96.17	PT	231353.3877	2683323.0850	
	243+24.76	PI (END STATION)	231141.6653	2684227.2104	

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

SUMMARY OF CONTROL POINT COORDINATES

BASED ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE

POINT	DESCRIPTION	STATION	OFFSET	COORDINATES	
				NORTH	EAST
101	PK NAIL	221+20.92	42.09' LT	231714.1265	2682096.1239
102	PK NAIL	214+66.50	41.13' LT	231771.6953	2681438.6361
103	PK NAIL	209+28.18	27.00' LT	231739.3288	2680898.7607
107	PK NAIL	233+29.18	43.03' RT	231327.2834	2683247.6274

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

GENERAL NOTES (CONT'D)

ALL UTILITY FACILITIES WILL BE ADJUSTED OR ALTERED WHERE REQUIRED BY THEIR RESPECTIVE OWNERS, UNLESS OTHERWISE NOTED.

THREE WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR MUST CONTACT THE PA ONE CALL SYSTEM, INC. PHONE 1-800-242-1776, SERIAL NO. _____, FOR CITY OF PHILADELPHIA, WARD #27, AND SERIAL NO. _____ FOR CITY OF PHILADELPHIA, WARD #36.

TEMPORARY CONSTRUCTION EASEMENT. AN EASEMENT TO USE THE LAND AS NECESSARY DURING CONSTRUCTION OF THE PROJECT. THE EASEMENT IS REQUIRED ONLY UNTIL THE CONSTRUCTION OR WORK INDICATED BY THE PLAN IS COMPLETED, UNLESS SOONER RELINQUISHED IN WRITING BY THE DEPARTMENT.

ALL PROJECT MEASUREMENTS ARE US STANDARD MEASUREMENTS. TO CONVERT TO THE CITY OF PHILADELPHIA DISTRICT STANDARD, FOR THIS AREA OF THE SECOND SURVEY DISTRICT, A FACTOR OF 0.20 IS TO BE USED. THAT IS 100.20 FEET US STANDARD EQUALS 100.00 FEET PHILADELPHIA DISTRICT STANDARD MEASUREMENTS.

ALL PROJECT MEASUREMENTS ARE US STANDARD MEASUREMENTS. TO CONVERT TO THE CITY OF PHILADELPHIA DISTRICT STANDARD, FOR THIS AREA OF THE SEVENTH SURVEY DISTRICT, A FACTOR OF 0.15 IS TO BE USED. THAT IS 100.15 FEET US STANDARD EQUALS 100.00 FEET PHILADELPHIA DISTRICT STANDARD MEASUREMENTS.

THE DATUM FOR THIS PLAN IS BASED ON NORTH AMERICAN VERTICAL DATUM 1988. THERE IS A DIFFERENCE OF -1.402m (-4.601 ft) BETWEEN THE NORTH AMERICAN VERTICAL DATUM 1988 (USED FOR ELEVATIONS SHOWN ON THESE DRAWINGS AND THE DATUM USED BY THE CITY OF PHILADELPHIA SURVEY DISTRICT

ELEV 10.00' NAVD 88 = ELEV 5.399' CITY OF PHILADELPHIA

THE HORIZONTAL SURVEY DATUM IS BASED ON THE PENNSYLVANIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (NAD 83)

THE VERTICAL CONTROL IS BASED ON THE NAVD-88 DATUM.

THE AVERAGE COMBINED SCALE FACTOR IS 0.999998632.

THE HALF CIRCLED NUMBER INDICATES A SCALED DIMENSION.

INDICATES PROPOSED MONUMENTED DIMENSIONS.

SR 3021 PREVIOUSLY KNOWN AS LR 67309.

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

DO NOT INTERFERE WITH THE OPERATION OF ANY FIRE HYDRANT, FIRE CALL BOX OR POLICE CALL BOX.

THE DEPARTMENT OF TRANSPORTATION DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS OF EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THE PLANS, NOR DOES THE DEPARTMENT GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN.

EARTHWORK SUMMARY ENTIRE PROJECT

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

CUBIC YARDS OF EXCAVATION						CU. YDS. OF COMPLETED EMB.	CU. YDS. OF BORROW EXC.	TONS WASTE
CLASS 1	CLASS 1A	CLASS 1B	CLASS 2	CLASS 3	CLASS 4			
241	-	-	-	810	94	997	930	1200

* INCLUDES ALL BORROW ITEMS
** INCLUDES COMPONENT OF LS STRUCTURE ITEM 8610-0001
*** INCLUDES ITEM 9000-0074

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	3021	GFB	4 OF 33

GENERAL NOTES

THE LEGAL RIGHT-OF-WAY ON SR 3021, FORMERLY LR 67309 FROM STATION 203+50.00 TO STATION 218+05.97 IS VARIABLE BASED ON THE PLAN REVISIONS THE LINE AND GRADES ON A PORTION OF CITY PLAN NO. 246, GRAYS FERRY AVENUE FROM PASCHALL AVENUE TO WOODLAND AVENUE AND FORTY-SEVENTH STREET FROM GRAYS FERRY AVENUE TO PASCHALL AVENUE. AUTHORIZED BY ORDINANCE OF COUNCIL FOR THE 27TH WARD, CITY OF PHILADELPHIA, APPROVED JUNE 29, 1970. PLAN PREPARED BY URBAN ENGINEERS, AUGUST 31, 1970. PLAN CONFIRMED AND SIGNED BY THE BOARD OF SURVEYORS JULY 16, 1973. STA 218+05.97 IS THE PIERHEAD AND BULKHEAD LINE, APPROVED BY THE SECRETARY OF WAR, SEPTEMBER 10, 1940.

THE LEGAL RIGHT-OF-WAY ON SR 3021, FORMERLY LR 67309 FROM STATION 218+05.97 TO STATION 222+13.95 IS ONE HUNDRED THIRTY-SIX AND NINE HUNDRED AND SEVENTY-SEVEN THOUSANDTHS (136.997') PHILADELPHIA DISTRICT STANDARD MEASUREMENT AS SHOWN ON THE BOARD OF VIEWERS PLAN FOR LR 67309, SECTION 2 DATED JULY 20, 1970.

THE LEGAL RIGHT-OF-WAY ON SR 3021, FORMERLY LR 67309 FROM STATION 222+13.95 TO STATION 240+50.00 IS VARIABLE BASED ON THE PLAN REVISIONS THE LINE AND GRADES ON A PORTION OF CITY PLAN NO. 18-S, GRAYS FERRY AVENUE FROM THIRY-FORTH STREET TO THE SCHUYLKILL RIVER. AUTHORIZED BY ORDINANCE OF COUNCIL FOR THE 36TH WARD, CITY OF PHILADELPHIA, APPROVED JUNE 29, 1970. PLAN PREPARED BY URBAN ENGINEERS, AUGUST 31, 1970. PLAN CONFIRMED AND SIGNED BY THE BOARD OF SURVEYORS JULY 16, 1973. STA 222+13.95 IS THE PIERHEAD AND BULKHEAD LINE, APPROVED BY THE SECRETARY OF WAR, SEPTEMBER 10, 1940.

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

BD-601M	APRIL 29, 2016
BC-701M	SEPTEMBER 30, 2016
BC-716M	SEPTEMBER 30, 2016
BC-720M	SEPTEMBER 30, 2016
BC-721M	SEPTEMBER 30, 2016
BC-722M	SEPTEMBER 30, 2016
BC-734M	AUGUST 4, 2017
BC-735M	SEPTEMBER 30, 2016
BC-736M	SEPTEMBER 30, 2016
BC-751M	SEPTEMBER 30, 2016
BC-752M	SEPTEMBER 30, 2016
BC-755M	SEPTEMBER 30, 2016
BC-767M	SEPTEMBER 30, 2016
BC-783M	SEPTEMBER 30, 2016
BC-788M	SEPTEMBER 30, 2016
RC-10M	JUNE 1, 2010
RC-28M	SEPTEMBER 15, 2016
RC-45M	SEPTEMBER 15, 2016
RC-46M	SEPTEMBER 15, 2016
RC-50M	AUGUST 4, 2017
RC-57M	JUNE 1, 2010
RC-58M	AUGUST 4, 2017
RC-64M	JUNE 1, 2010
RC-67M	JUNE 10, 2013
RC-70M	SEPTEMBER 15, 2016
RC-72M	AUGUST 4, 2017
RC-75M	JUNE 1, 2010
RC-77M	JUNE 1, 2010
RC-80M	JUNE 1, 2010
RC-81M	JUNE 1, 2010
RC-82M	JUNE 1, 2010
RC-83M	JUNE 1, 2010
RC-84M	JUNE 1, 2010
TC-8600 SERIES	JUNE 13, 2013
TC-8700 SERIES	JUNE 13, 2013
TC-8800 SERIES	DECEMBER 12, 2011

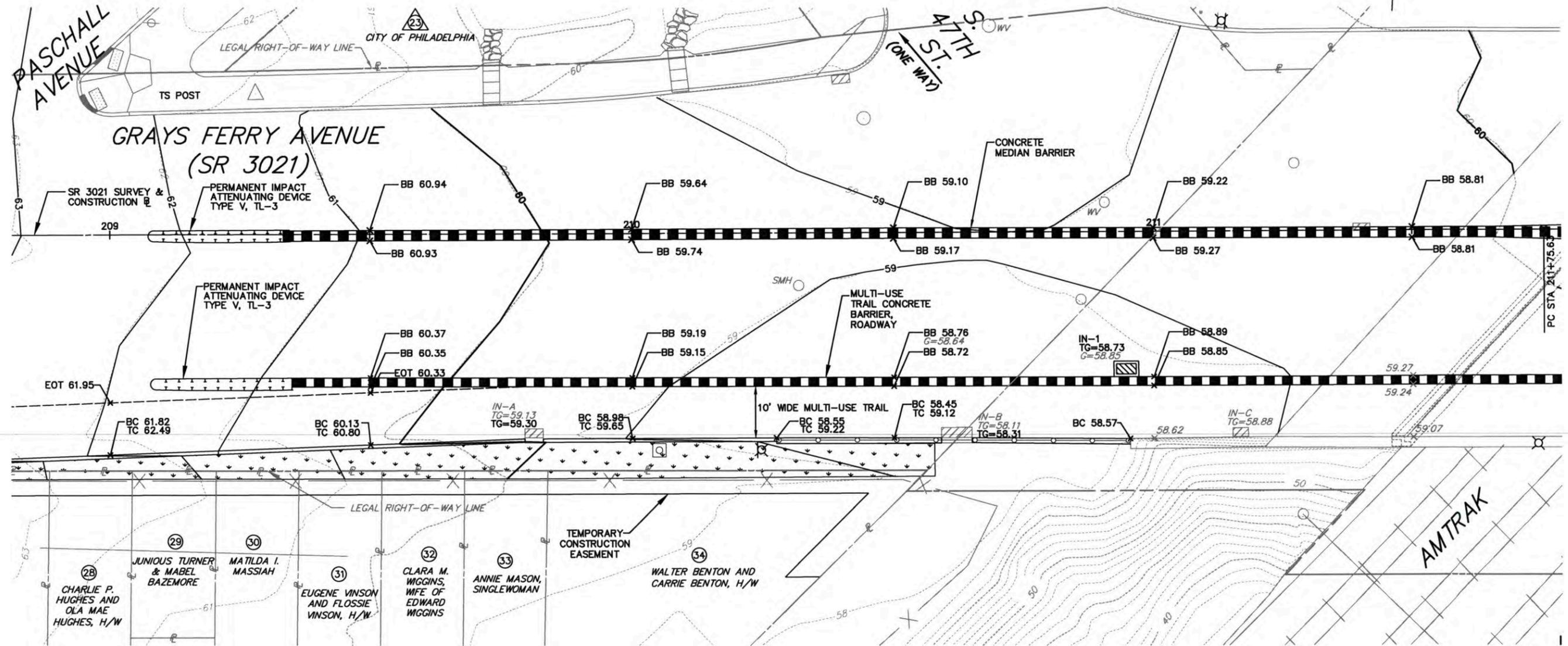


DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	3021	GFB	11 OF 33
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS	DATE	BY	

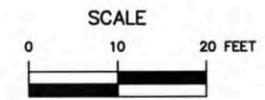
NOTES:

1. FOR DETAILED CURBLINE AND CURB RAMP GRADING AT PASCHALL AVE, REFER TO ADA PLANS INCLUDED IN THE PLAN SET.

GRADING PLAN



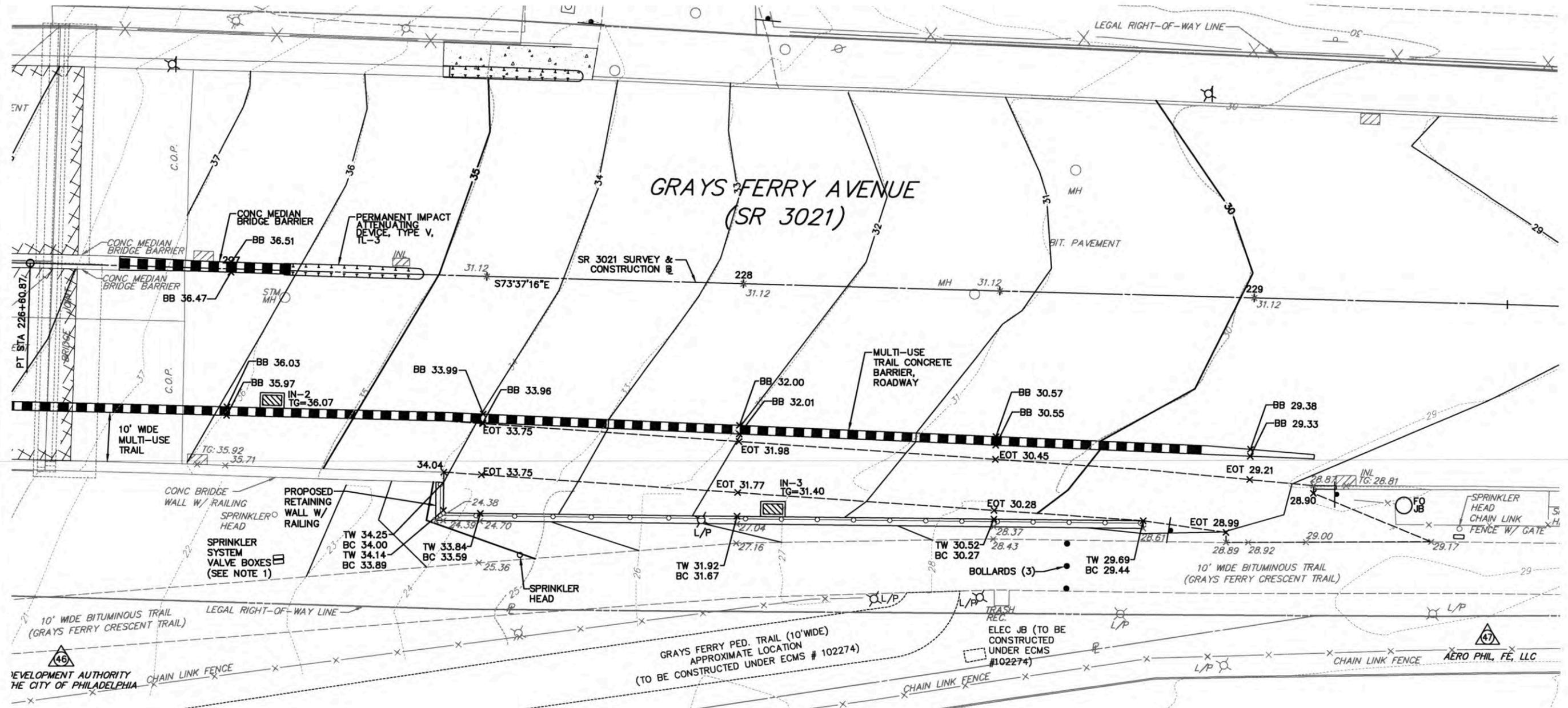
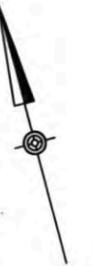
GRADING LEGEND			
-394-	EXISTING ONE FOOT CONTOUR	BC	PROPOSED BOTTOM OF CURB ELEVATION
-394-	PROPOSED ONE FOOT CONTOUR	TC	PROPOSED TOP OF CURB ELEVATION
x414.75	PROPOSED SPOT ELEVATION	EOT	PROPOSED EDGE OF TRAIL ELEVATION
x414.75	EXISTING SPOT ELEVATION	BB	PROPOSED BOTTOM OF BARRIER ELEVATION
		TW	PROPOSED TOP OF WALL ELEVATION



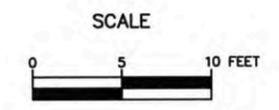
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	3021	GFB	12 OF 33
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS	DATE	BY	

NOTES:
 1. SEE LANDSCAPING PLANS FOR PLANTING AND SPRINKLER REMOVAL AND REPLACEMENT INFORMATION.

GRADING PLAN



GRADING LEGEND			
-394-	EXISTING ONE FOOT CONTOUR	BC	PROPOSED BOTTOM OF CURB ELEVATION
-394-	PROPOSED ONE FOOT CONTOUR	TC	PROPOSED TOP OF CURB ELEVATION
x414.75	PROPOSED SPOT ELEVATION	EOT	PROPOSED EDGE OF TRAIL ELEVATION
x414.75	EXISTING SPOT ELEVATION	BB	PROPOSED BOTTOM OF BARRIER ELEVATION
		TW	PROPOSED TOP OF WALL ELEVATION



P&S&E Submission August 2018

TABULATION OF PROPERTY OWNERS

PARCEL NO	OWNER	PARCEL NO	OWNER
21	JAMES E. COOLEY & EMMA L. COOLEY	33	ANNIE MASON, SINGLEWOMAN
22	HAST INVESTMENT PARTNERS LP	34	WALTER BENTON AND CARRIE BENTON, H/W
23	CITY OF PHILADELPHIA	35	MUNDY A. WILKES & PORTLAND M. BRADLEY
24	DOUGLAS T. CLICK & DEVIN C. CLICK	36	GUY MICHAEL THIGPEN
25	CITY OF PHILADELPHIA DEPARTMENT OF RECREATION	37	KIMYATTA FRAZIER & SHAMONE FRAZIER
26	FRANK TINNEY & LOELEN TINNEY	38	BURRELL COUSINS & MARIE ALLEN COUSINS
27	THE NEIGHBORHOOD GARDENS ASSOCIATION / A PHILADELPHIA LAND TRUST, A PA. NON PROFIT CORPORATION	39	CASSANDRA REVEL
28	CHARLIE P. HUGHES AND OLA MAE HUGHES, H/W	40	HASAN W. CURRIE
29	JUNIOUS TURNER & MABEL BAZEMORE	41	AMTRAK
30	MATILDA I. MASSIAH	42	CSXT
31	EUGENE VINSON AND FLOSSIE VINSON, H/W		
32	CLARA M. WIGGINS, WIFE OF EDWARD WIGGINS		

BM #2 ELEV. 61.915
41.64' RT STA. 210+05.10
"X" MARK ON NORTH SIDE OF TOP MOST FLANGE OF HYDRANT LOCATED AT SOUTH SIDE OF GRAYS FERRY AVENUE BETWEEN PASCHALL AVENUE AND 47TH STREET.

NOTES:

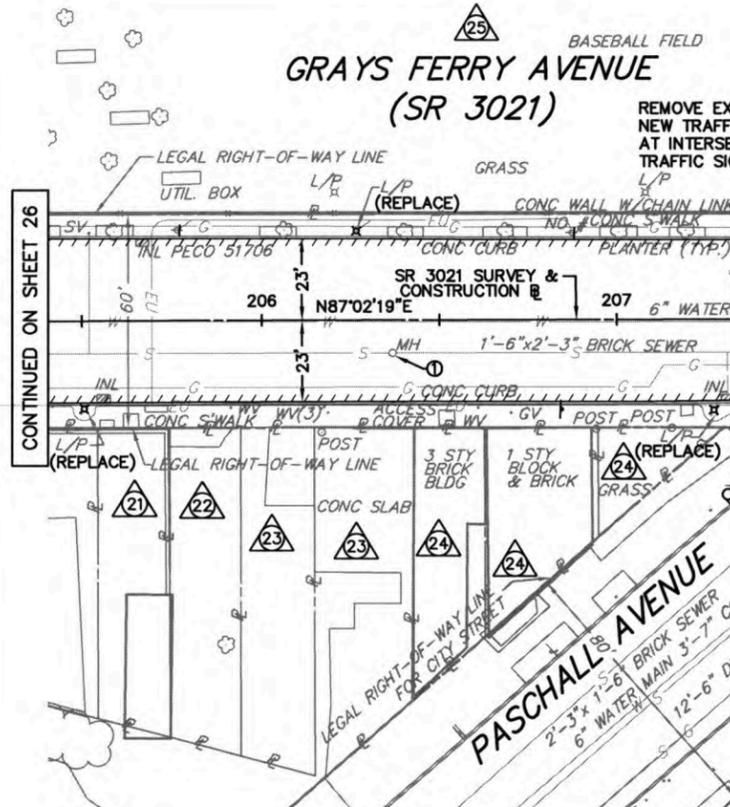
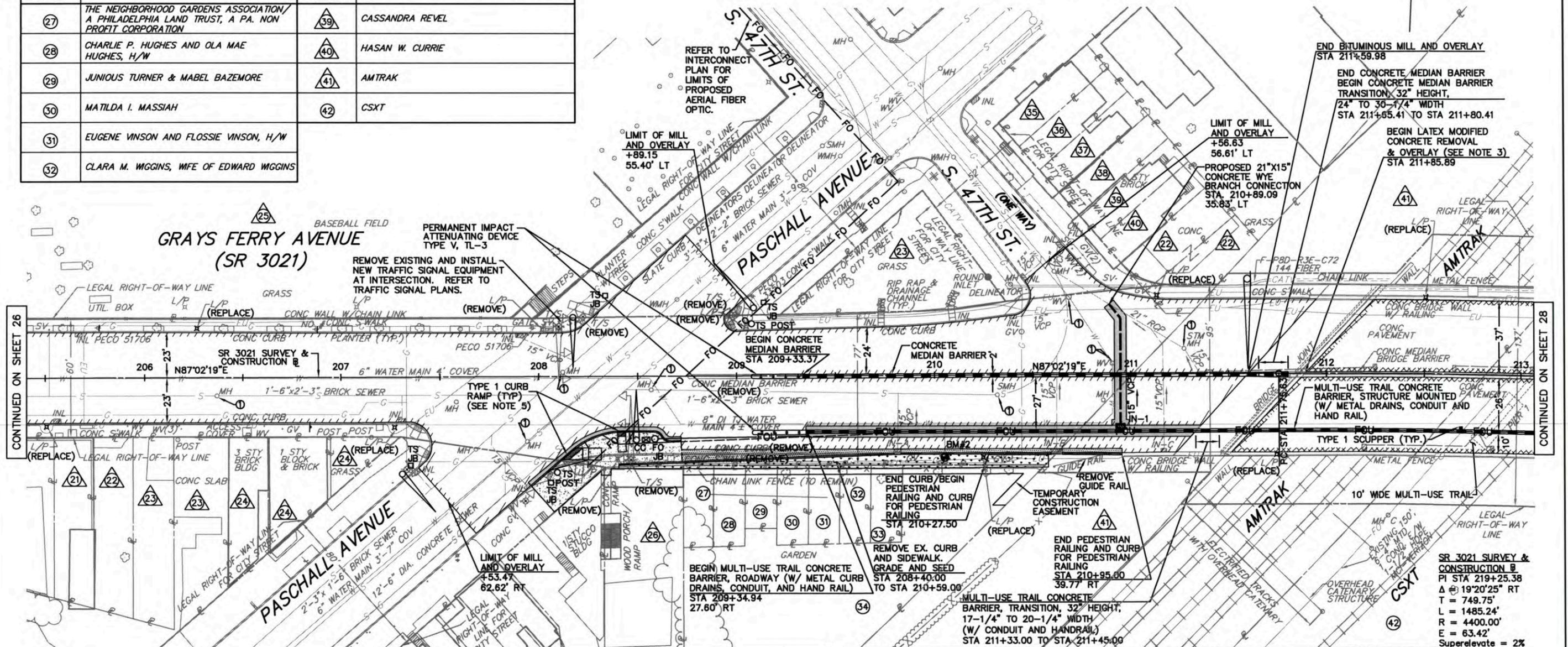
1. RESET CASTING TO MEET FINISHED GRADE.
2. CURB RAMPS WITHIN THE PROJECT LIMITS WERE BUILT UNDER ECMS #87936, SURFACE TREATMENT-GROUP 76.
3. REMOVE EXISTING LATEX MODIFIED CONCRETE OVERLAY AND 1/4" MAXIMUM THICKNESS OF CONCRETE BRIDGE DECK AND INSTALL NEW LATEX MODIFIED CONCRETE OVERLAY.
4. OFFSET DISTANCE OF BARRIER IS MEASURED TO ROADWAY SIDE.
5. FOR DETAILED CURBLINE GEOMETRY AND CURB RAMP DESIGN, REFER TO ADA PLANS INCLUDED IN THE PLAN SET.
6. REFER TO PWD GENERAL NOTES ON SHEET 4 FOR ALL MODIFICATIONS TO WATER OR SEWER FACILITIES.

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	3021	GFB	27 OF 33

CITY OF PHILADELPHIA

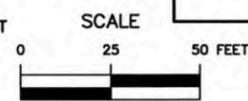
REVISION NUMBER	REVISIONS	DATE	BY

ROADWAY IMPROVEMENT PLAN



LEGEND

- PROPOSED BITUMINOUS MILL AND OVERLAY
- PROPOSED LATEX MODIFIED CONCRETE REMOVAL AND OVERLAY (SEE NOTE 3)
- PROPOSED BITUMINOUS TRAIL PAVEMENT
- PROPOSED CEMENT CONCRETE SIDEWALK
- EXISTING SIDEWALK TO BE REMOVED. GRADE AND SEED
- PROPOSED FULL DEPTH PAVEMENT



IN-1	IN-B
4' HIGHWAY GRATE INLET STA 210+94.66, 27.92' RT TG = 58.85	6' OPEN MOUTH GRATE INLET RESET TO GRADE STA 210+61.98 39.46' RT TG = 58.11 (TG = 58.31)
IN-A	IN-C
4' OPEN MOUTH GRATE INLET RESET TO GRADE STA 209+81.18 39.16' RT TG = 59.13 (TG = 59.30)	HIGHWAY GRATE INLET REPLACE EXISTING GRATE WITH BICYCLE SAFE GRATE STA 211+16.62 39.51' RT TG = 58.88

EXISTING STRUCTURE DATA	
STATION:	211+89.35 TO 226+71.23
TYPE:	(2) 12-SPAN CONTINUOUS COMPOSITE STEEL MULTI-GIRDER
SPAN:	1477'-4"± (C.C. ABUTMENT BEARINGS)
UNDER CLEARANCE:	20.81'± @ RAILROAD
SKEW:	46°32'39" @ WEST ABUTMENT 50°14'29" @ PIER 1 54°05'03" @ PIER 2 58°40'08" @ PIER 3 90°00'00" @ PIER 4-11 & EAST ABUTMENT
PAVEMENT WIDTH:	37' (WB) 37'-9"(EB)

PROPOSED STRUCTURE DATA (REHABILITATION) - S-32166	
STATION:	211+89.35 TO 226+71.23
TYPE:	(2) 12-SPAN CONTINUOUS COMPOSITE STEEL MULTI-GIRDER
SPAN:	1477'-4"± (C.C. ABUTMENT BEARINGS)
UNDER CLEARANCE:	20.81'± @ RAILROAD
SKEW:	46°32'39" @ WEST ABUTMENT 50°14'29" @ PIER 1 54°05'03" @ PIER 2 58°40'08" @ PIER 3 90°00'00" @ PIER 4-11 & EAST ABUTMENT
PAVEMENT WIDTH:	37' (WB) 26'-0" 3/4" ROADWAY AND 10'-0" MULTI-USE TRAIL (EB)

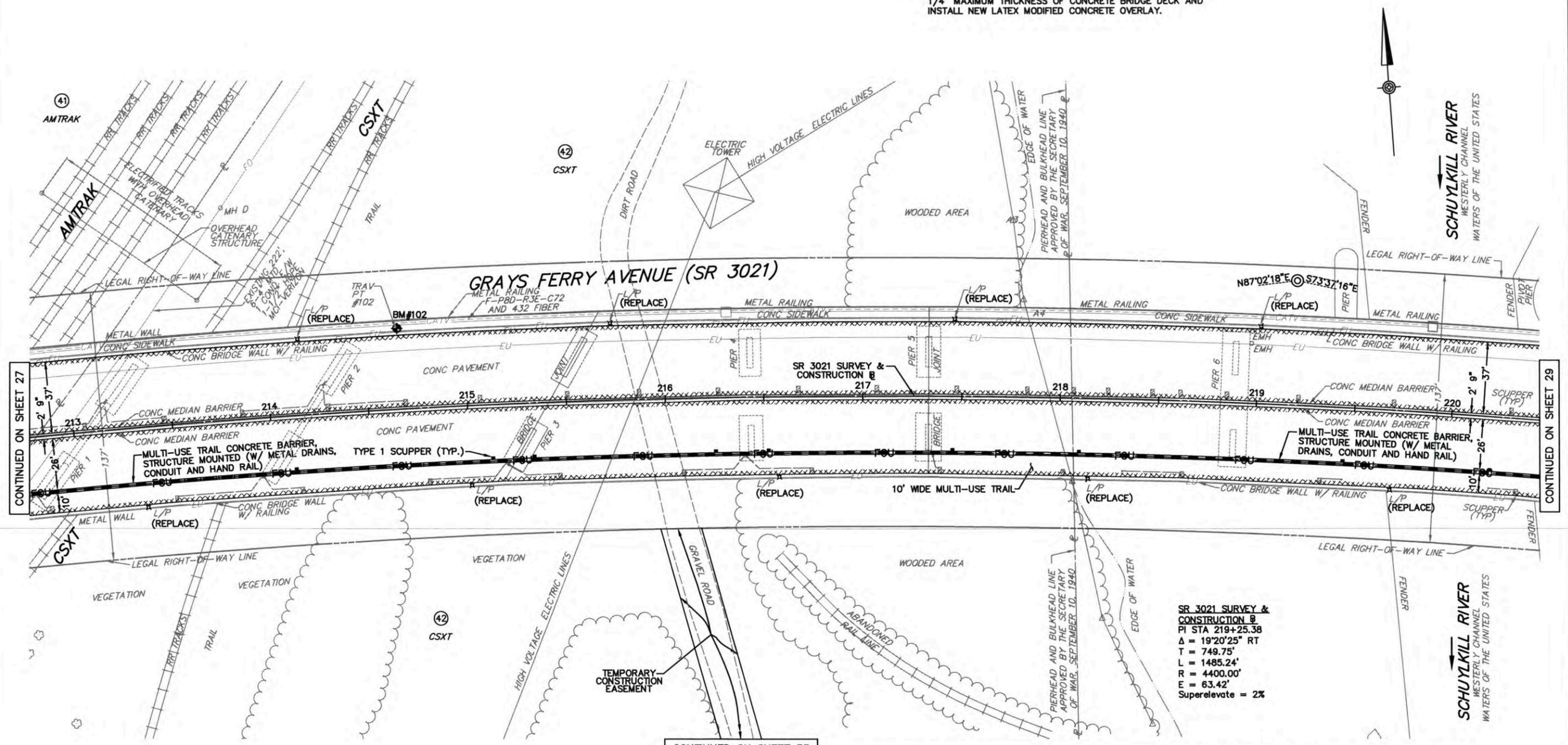
SURVEY BOOK NO. 10353

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	3021	GFB	28 OF 33
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS	DATE	BY	

BM #102 ELEV. 63.748
41.13' LT STA. 214+66.50
PK NAIL IN CONCRETE SIDEWALK

- NOTES:**
1. RESET CASTING TO MEET FINISHED GRADE.
 2. CURB RAMP WITHIN THE PROJECT LIMITS WERE BUILT UNDER ECMS #87936, SURFACE TREATMENT-GROUP 76.
 3. REMOVE EXISTING LATEX MODIFIED CONCRETE OVERLAY AND 1/4" MAXIMUM THICKNESS OF CONCRETE BRIDGE DECK AND INSTALL NEW LATEX MODIFIED CONCRETE OVERLAY.

ROADWAY IMPROVEMENT PLAN



SR 3021 SURVEY & CONSTRUCTION @
PI STA 219+25.38
Δ = 19°20'25" RT
L = 1485.24'
R = 4400.00'
E = 63.42'
Superelevate = 2%

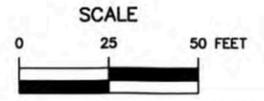
CONTINUED ON SHEET 27

CONTINUED ON SHEET 29

CONTINUED ON SHEET 33

LEGEND

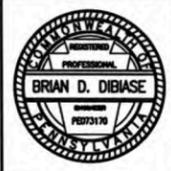
PROPOSED LATEX MODIFIED CONCRETE REMOVAL AND OVERLAY (SEE NOTE 3)



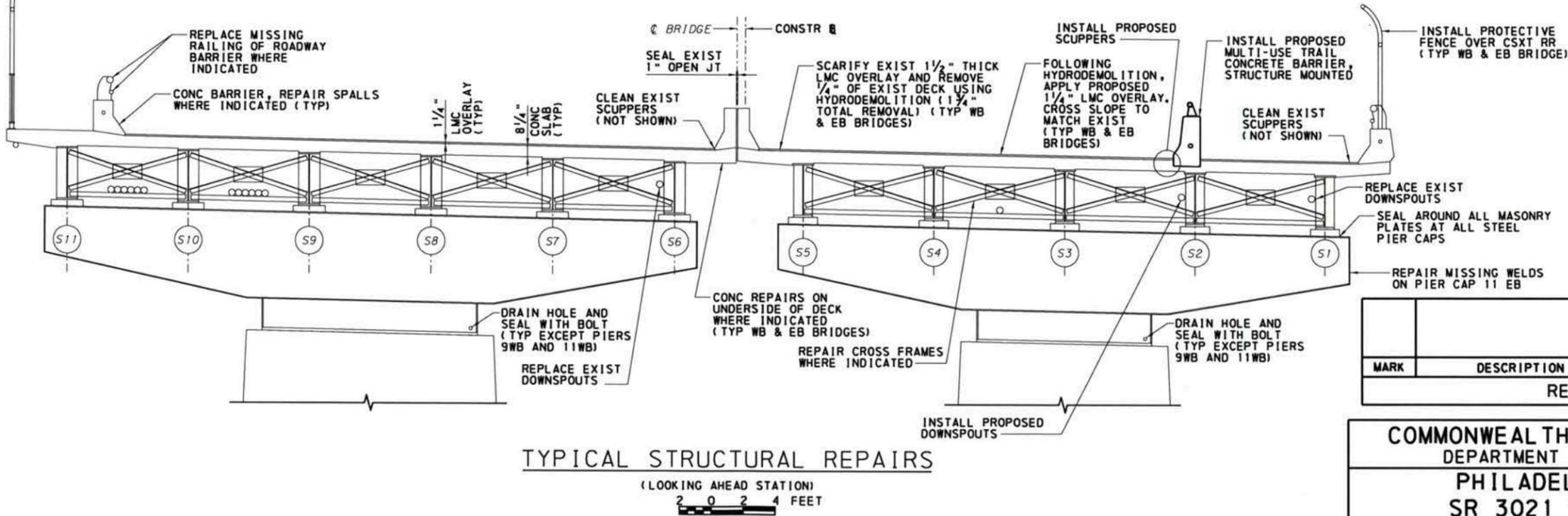
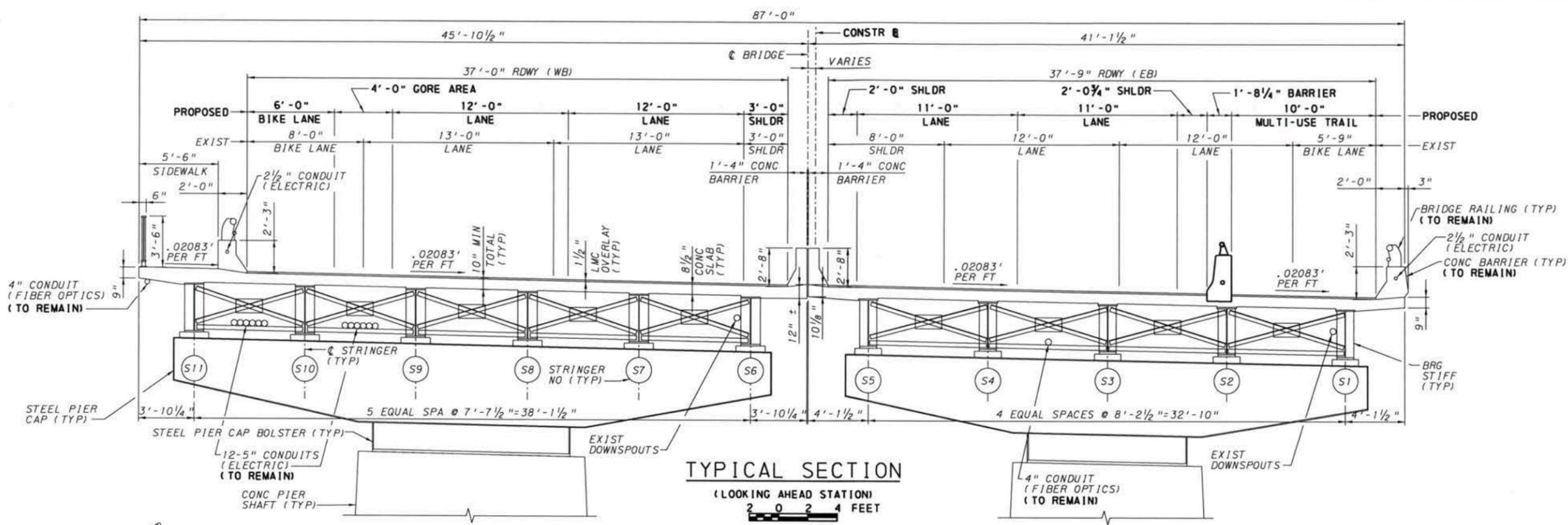
EXISTING STRUCTURE DATA	
STATION:	211+89.35 TO 226+71.23
TYPE:	(2) 12-SPAN CONTINUOUS COMPOSITE STEEL MULTI-GIRDER
SPAN:	1477'-4"± (C.C. ABUTMENT BEARINGS)
UNDER CLEARANCE:	20.81'± @ RAILROAD
SKEW:	46°32'39" @ WEST ABUTMENT
	50°14'29" @ PIER 1
	54°05'03" @ PIER 2
	58°40'08" @ PIER 3
	90°00'00" @ PIER 4-11 & EAST ABUTMENT
PAVEMENT WIDTH:	37' (WB)
	37'-9"(EB)

PROPOSED STRUCTURE DATA (REHABILITATION) - S-32166	
STATION:	211+89.35 TO 226+71.23
TYPE:	(2) 12-SPAN CONTINUOUS COMPOSITE STEEL MULTI-GIRDER
SPAN:	1477'-4"± (C.C. ABUTMENT BEARINGS)
UNDER CLEARANCE:	20.81'± @ RAILROAD
SKEW:	46°32'39" @ WEST ABUTMENT
	50°14'29" @ PIER 1
	54°05'03" @ PIER 2
	58°40'08" @ PIER 3
	90°00'00" @ PIER 4-11 & EAST ABUTMENT
PAVEMENT WIDTH:	37' (WB)
	26'-0' 3/4" ROADWAY AND 10'-0" MULTI-USE TRAIL (EB)

SURVEY BOOK NO. 10353



PL.OT. DRWENR PA-WA-F-PP-ARTC-G
 PROJECT: PA-WA-F-PP-ARTC-G
 SHEET: S-32166
 DATE: 8/17/18
 OPERATOR: DES: DMS
 PLOTTED: 8/20/2018 12:13:14 PM



- NOTES:**
- FOR GENERAL PLAN AND ELEVATION, SEE SHEET NOS 1 AND 2.
 - FOR GENERAL NOTES, SEE SHEET NOS 4 AND 5.

MARK	DESCRIPTION	BY	CHK'D	RECM'D	DATE
REVISIONS					



COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF TRANSPORTATION
PHILADELPHIA COUNTY
SR 3021 SECTION GFB
 SEG 0070 OFFSET 0703 EB SEG 0071 OFFSET 0735 WB
 STA 219+30.29
 GRAYS FERRY AVENUE OVER THE SCHUYLKILL RIVER,
 AMTRAK RAILROAD AND CSXT RAILROAD
TYPICAL SECTION

RECOMMENDED	8/17/18	SHEET 3 OF 53
		S - 32166

GENERAL NOTES:

DESIGN SPECIFICATIONS:

1. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 7th EDITION, 2014, AND AS SUPPLEMENTED BY DESIGN MANUAL, PART 4 (APRIL 2015), FOR BRONZE BEARINGS. AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17th EDITION, 2002, FOR ALL OTHER BRIDGE COMPONENTS.
2. LIVE LOAD DISTRIBUTION TO GIRDERS IS BASED UPON DM-4 DISTRIBUTION METHOD.
3. DESIGN IS IN ACCORDANCE WITH THE LOAD AND RESISTANCE FACTOR DESIGN METHOD FOR BRONZE BEARINGS. LOAD FACTOR DESIGN METHOD IS USED FOR ALL OTHER BRIDGE COMPONENTS.

DESIGN LIVE LOADS:

1. PHL-93 OR P-82 (204 KIP PERMIT LOAD) FOR COMPONENTS DESIGNED USING LRFD.
2. HS-20 OR P-82 (204 KIP PERMIT LOAD) FOR COMPONENTS DESIGNED USING LFD.

DEAD LOADS:

1. INCLUDES SURFACE AREA DENSITY OF 0.030 KSF FOR FUTURE WEARING SURFACE IN ADDITION TO THE LATEX MODIFIED CONCRETE OVERLAY.
2. INCLUDES 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 0.050 KIP/FT FOR UTILITIES.

GENERAL NOTES:

1. PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH SPECIFICATIONS, PUBLICATION 408: 2016, AASHTO/AWS D1.5M/D1.5: 2008 BRIDGE WELDING CODE (USE AASHTO/AWS D1.1M/D.1: 2008 OR AASHTO/AWS D1.2M/D1.2: 2008 FOR WELDING NOT COVERED IN AASHTO/AWS D1.5M/D1.5: 2008), 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. BE ADVISED THAT ADDITIONAL "NOTES" MAY BE FOUND ON THE SUBSEQUENT SHEETS OF THE CONTRACT PLANS AND SUCH "NOTES" SUPPLEMENT THE GENERAL NOTES LISTED HEREIN.
5. 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 DEPARTMENT 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.
6. SUBMIT TO THE REPRESENTATIVE, FOR REVIEW, DESIGN CALCULATIONS AND DETAIL DRAWINGS FOR ALL TEMPORARY COMPONENTS AND JACKING SYSTEMS PREPARED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA. SUBMIT CALCULATIONS FOR STRESSES IN THE EXISTING STRUCTURE, DUE TO THE CONTRACTOR'S OPERATIONS REQUIRED DURING CONSTRUCTION. DO NOT USE ANY TEMPORARY COMPONENTS OR JACKING SYSTEM OR EXECUTE ANY PART OF THE PROCEDURE WHICH AFFECTS THE STRESSES IN ANY PART OF THE EXISTING STRUCTURE UNTIL APPROVAL HAS BEEN GRANTED BY THE REPRESENTATIVE.
7. ELEVATIONS SHOWN ARE BASED ON NAVD88 AND MAY NOT MATCH ELEVATIONS SHOWN ON ORIGINAL BRIDGE PLANS.
8. USE CARE WHEN REMOVING PORTIONS OF THE EXISTING BRIDGE SO AS TO NOT DAMAGE OTHER REMAINING PARTS OF THE STRUCTURE, OR REMAINING REINFORCEMENT BARS. REPLACE ALL PARTS OF THE STRUCTURE WHICH ARE DESIGNATED TO REMAIN AND ARE DAMAGED DURING THE REMOVAL OPERATIONS AT NO COST TO THE DEPARTMENT.
9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE STABILITY AND STRUCTURAL INTEGRITY OF THOSE PORTIONS OF THE EXISTING STRUCTURE WHICH MAY BE AFFECTED BY HIS OPERATIONS THROUGHOUT THE DURATION OF THE CONTRACT. ANY DAMAGE TO THE EXISTING STRUCTURE WHICH IS THE RESULT OF THE CONTRACTOR'S OPERATIONS WILL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE DEPARTMENT, AT THE DISCRETION OF, AND TO THE SATISFACTION OF THE REPRESENTATIVE.

10. CONSTRUCTION (INCLUDING REMOVAL) OF ANY TEMPORARY STRUCTURE USED FOR THE PURPOSE OF SUPPORTING OR TRANSPORTING WORKERS, MATERIALS, AND EQUIPMENT IS INCLUDED IN PAY ITEM "TEMPORARY WORK PLATFORMS", EXCEPT AS INDICATED.
11. BRING TO THE REPRESENTATIVE'S ATTENTION ANY SIGNIFICANT DETERIORATION THAT HAS NOT BEEN SCHEDULED FOR REPAIR. DO NOT REPAIR WITHOUT WRITTEN PRIOR APPROVAL BY THE REPRESENTATIVE.
12. NOTIFY THE REGIONAL HEADQUARTERS OF THE PENNSYLVANIA FISH AND BOAT COMMISSION PRIOR TO CONSTRUCTION AND COOPERATE WITH THE FISH COMMISSION DURING CONSTRUCTION. WATER CONSERVATION OFFICER CONTACT INFORMATION: CAPTAIN THOMAS BURRELL, TBURRELL@PA.GOV, (717) 705-7838.

BRIDGE REHABILITATION NOTES:

1. BRIDGE IS NOT WEIGHT RESTRICTED. SEE PUBLICATION 408 SECTION 105.17 FOR CONSTRUCTION LOADING LIMITS IN ADDITION TO ANY LIVE LOAD LIMITS NOTED HEREIN.
2. DO NOT CONSIDER ANY OF THE DATA ON THE EXISTING STRUCTURE SUPPLIED IN THE ORIGINAL DESIGN DRAWINGS OR MADE AVAILABLE TO YOU BY THE DEPARTMENT OR ITS AUTHORIZED AGENTS AS POSITIVE REPRESENTATIONS OF ANY OF THE CONDITIONS THAT YOU WILL ENCOUNTER IN THE FIELD.
3. VERIFY THE ACCURACY OF ANY REFERENCED DRAWINGS USED.
4. THE INFORMATION SHOWN ON THE PLANS FOR THE EXISTING BRIDGE IS NOT PART OF THE PLANS, PROPOSAL, OR CONTRACT AND IS NOT TO BE CONSIDERED A BASIS FOR COMPUTATION OF THE UNIT PRICES USED FOR BIDDING PURPOSES. THERE IS NO EXPRESSED OR IMPLIED AGREEMENT THAT INFORMATION IS CORRECTLY SHOWN. THE BIDDER IS NOT TO RELY ON THIS INFORMATION, BUT IS TO ASSUME THE POSSIBILITY THAT CONDITIONS AFFECTING THE COST AND/OR QUANTITIES OF WORK TO BE PERFORMED MAY DIFFER FROM THOSE INDICATED.
5. INDICATE ON SHOP DRAWINGS THAT EXISTING DIMENSIONS THAT RELATE TO THE AFFECTED WORK HAVE BEEN VERIFIED FOR PROPER FIT IN THE FIELD BY THE CONTRACTOR PRIOR TO SHOP DRAWINGS BEING APPROVED BY THE DEPARTMENT.
6. DETERMINE THE QUANTITIES FOR DETERIORATED CONCRETE REPAIR FROM MEASUREMENTS OF THE VOLUMES OF THE RESPECTIVE PATCHES TAKEN BY THE REPRESENTATIVE AND CHECKED BY THE CONTRACTOR BEFORE THE PATCHES ARE FILLED WITH NEW CONCRETE.
7. PRIOR TO PERFORMING CONCRETE SPALL REPAIRS NOT DELINEATED ON THE CONTRACT DRAWINGS (I.E. ADDITIONAL AREAS OF DETERIORATED CONCRETE REPAIR), THE DISTRICT'S BRIDGE DESIGN UNIT IS TO BE NOTIFIED AND APPROVAL GRANTED PRIOR TO PERFORMING THE REPAIR. REPAIRS PERFORMED WITHOUT WRITTEN PRIOR APPROVAL WILL NOT BE PAID FOR.
8. ADDITIONAL WORK MAY BE REQUIRED AS THE CONTRACT PROGRESSES WHICH IS NOT SHOWN OR NOTED ON THESE PLANS. PERFORM THIS WORK AS ORDERED BY THE REPRESENTATIVE. MAKE PAYMENT AT THE BID PRICE FOR THE APPROPRIATE ITEMS.
9. DEBRIS IS NOT ALLOWED TO FALL UNDER THE STRUCTURE DURING ANY OF THE PROPOSED CONSTRUCTION ACTIVITIES.
10. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING DEBRIS FROM CONSTRUCTION OPERATIONS FROM THE JOB SITE.
11. DO NOT STORE ANY MATERIAL FROM THESE OPERATIONS ON ADJACENT PRIVATE PROPERTY UNLESS WRITTEN PERMISSION FROM THE PROPERTY OWNER IS OBTAINED.

FIELD MEASUREMENTS:

1. THE CONTRACTOR IS REQUIRED TO TAKE FIELD MEASUREMENTS IN ORDER TO FABRICATE PIECES AND PERFORM THE CONSTRUCTION WORK, SUCH THAT NEW PIECES FIT PROPERLY AND THE DETAILS CONSTRUCTED CONFORM TO THOSE SHOWN ON THESE PLANS.
2. REVISE THE DIMENSIONS AND DETAILS, SHOWN HEREIN, AS REQUIRED TO ACCOUNT FOR DEVIATIONS REVEALED BY THE FIELD MEASUREMENTS. SUBMIT TO THE REPRESENTATIVE COPIES OF ALL FIELD NOTES FROM THE FIELD MEASUREMENTS, AS WELL AS ALL GEOMETRY CALCULATIONS (INCLUDING TEMPERATURE CORRECTIONS CONSIDERING THE TEMPERATURE AT WHICH STEEL WAS MEASURED). DO NOT FABRICATE ANY OF THE PIECES AFFECTED BY THIS GEOMETRY UNTIL THESE CALCULATIONS AND SHOP DRAWINGS BASED ON THESE CALCULATIONS HAVE BEEN APPROVED BY THE REPRESENTATIVE.

CONCRETE NOTES:

1. USE CLASS AAAP CEMENT CONCRETE IN DECK SLAB, INTEGRAL SIDEWALK, APPROACH SLAB AND ABUTMENT BACKWALLS (EXPANSION JOINT BLOCKOUTS ONLY).
2. USE CLASS AA CEMENT CONCRETE IN BARRIERS AND ABUTMENT BACKWALLS (EXCEPT EXPANSION JOINT BLOCKOUTS).
3. USE CLASS A CEMENT CONCRETE IN CURTAIN WALLS, PIERS, ABUTMENTS BELOW BRIDGE SEAT, PEDESTALS AND SPLASH BLOCKS.
4. A HIGHER CLASS CONCRETE MAY BE SUBSTITUTED FOR A LOWER CLASS CONCRETE AT NO ADDITIONAL COST TO THE DEPARTMENT, IF APPROVED BY THE DISTRICT BRIDGE ENGINEER.
5. RAKE-FINISH ALL HORIZONTAL CONSTRUCTION JOINTS, EXCEPT AS INDICATED.
6. CHAMFER EXPOSED CONCRETE EDGES 1 INCH BY 1 INCH, EXCEPT AS NOTED.
7. CHAMFER REPAIRED EXPOSED CONCRETE EDGES ADJACENT TO EXISTING CHAMFERED EDGES TO MATCH EXISTING CHAMFERS.
8. DECK SLAB THICKNESS INCLUDES A 1/2 INCH INTEGRAL WEARING SURFACE.
9. PROVIDE 3/4 INCH SAWCUTS AT ALL REMOVAL LIMITS, UNLESS OTHERWISE NOTED.
10. USE REMOVABLE FORMS TO REPAIR AREAS OF THE UNDERSIDE OF THE CANTILEVER PORTION OF DECK.
11. PERFORM ALL CONCRETE REPAIRS THAT OCCUR ADJACENT TO NEW CONCRETE PRIOR TO PLACEMENT OF NEW CONCRETE.
12. APPLY EPOXY BONDING COMPOUND TO EXISTING CONCRETE SURFACES WHERE NEW CONCRETE WILL BE PLACED AGAINST EXISTING CONCRETE. EPOXY BONDING COMPOUND MATERIAL TO BE IN ACCORDANCE WITH PUBLICATION 408 SECTION 706.1. WHERE NEW CONCRETE IS TO BE PLACED AGAINST EXISTING CONCRETE, THE CONNECTION OF THE NEW AND EXISTING CONCRETE IS TO BE IN ACCORDANCE WITH PUBLICATION 408 SECTION 1001.3(C), EXCEPT AS NOTED.

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 A615, A996 OR A706. DO NOT WELD GRADE 60 REINFORCING STEEL BARS UNLESS SPECIFIED. GRADE 40 REINFORCING STEEL BARS MAY BE SUBSTITUTED WITH A PROPORTIONAL INCREASE IN CROSS-SECTIONAL AREA, IF APPROVED BY THE CHIEF BRIDGE ENGINEER. DO NOT USE RAIL STEEL ASTM A996 REINFORCEMENT BARS IN BRIDGE PIERS, ABUTMENTS, BARRIERS, OR WHERE BENDING OR WELDING OF THE REINFORCEMENT BARS IS INDICATED.
3. USE EPOXY-COATED REINFORCEMENT BARS, EXCEPT AS NOTED.
4. GALVANIZED REINFORCING STEEL BARS MAY BE SUBSTITUTED FOR EPOXY-COATED REINFORCING STEEL BARS AT NO ADDITIONAL COST TO THE DEPARTMENT.
5. PROVIDE MINIMUM EMBEDMENT AND SPLICE LENGTHS OF 30 DIAMETERS OR IN ACCORDANCE WITH BC-736M, UNLESS OTHERWISE INDICATED.

STRUCTURAL STEEL NOTES:

1. PROVIDE STRUCTURAL STEEL CONFORMING TO ASTM A588, EXCEPT WHEN NOTED OTHERWISE.
2. ALL FASTENERS ARE 7/8 INCH DIAMETER ASTM F3125, GRADE A325, TYPE 3 (WEATHERING STEEL) HIGH STRENGTH BOLTS, EXCEPT AS NOTED.
3. PROVIDE WELDED SHEAR CONNECTORS MANUFACTURED FROM STEEL CONFORMING TO ASTM A108.
4. FILL ALL ABANDONED HOLES WITH ASTM F3125, GRADE A325, TYPE 3 (WEATHERING STEEL) HIGH STRENGTH BOLTS OF THE SAME DIAMETER, UNLESS NOTED OTHERWISE.

5. EXCLUDE BOLT THREADS FROM SHEAR PLANES, UNLESS NOTED. WHERE FEASIBLE, PLACE BOLTS SO THAT THE THREADED ENDS WILL BE PROTECTED FROM THE WEATHER, EXCEPT AS INDICATED.
6. BLAST CLEAN THE FAYING SURFACES OF SPLICES AND CONNECTIONS OF ALL STRUCTURAL ELEMENTS IN ACCORDANCE WITH PUBLICATION 408 SECTION 1060.3(B)3.
7. PROVIDE A CLASS A SURFACE CONDITION ON ALL BOLTED PARTS.
8. DO NOT WELD PERMANENT METAL DECK FORMS OR OTHER ATTACHMENTS TO GIRDER TOP FLANGES.

RAILROAD REQUIREMENTS - AMTRAK

1. FOLLOW ALL AMTRAK REQUIREMENTS, INCLUDING THOSE IN THESE PLANS, THESE NOTES, AND ALL OTHER CONTRACT DOCUMENTS (INCLUDING THE SPECIFICATIONS AND SPECIAL PROVISIONS).
2. PRIOR TO PERFORMING WORK IN AMTRAK'S PROPERTY, SUBMIT A SITE SPECIFIC WORK PLAN (SSWP) TO AMTRAK, AND OBTAIN APPROVAL OF THE SSWP.
3. LOCATE ALL UNDERGROUND UTILITIES, CABLE, AND FACILITIES BEFORE DOING ANY EXCAVATING, DRILLING, BORING/DIRECTIONAL DRILLING, GROUND PENETRATING ACTIVITIES, OR CONSTRUCTION IN AMTRAK PROPERTY. DO NOT PERFORM WORK IN CLOSE PROXIMITY TO AMTRAK COMMERCIAL UTILITIES, CABLES, DUCT LINES, AND FACILITIES 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. FOLLOW THE "ONE-CALL" PROCESS. IN ADDITION, CONTACT AMTRAK ENGINEERING TO HAVE ALL AMTRAK UNDERGROUND UTILITIES AND ASSETS LOCATED. AMTRAK IS NOT PART OF THE "ONE-CALL" PROCESS.
4. 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, MAINTENANCE AND PROTECTION OF RAILROAD TRAFFIC DURING CONTRACTOR OPERATIONS.
5. SUBMIT TEMPORARY SHIELDING PLANS TO AMTRAK PRIOR TO COMMENCING WORK. THE TEMPORARY SHIELDING MUST CONFORM TO AMTRAK'S EP3014, SECTION 01520A, REQUIREMENTS FOR TEMPORARY PROTECTION SHIELDS FOR DEMOLITION AND CONSTRUCTION OF OVERHEAD BRIDGES AND OTHER STRUCTURES.
6. FOR EXCAVATION ADJACENT TO AMTRAK TRACKS, FOLLOW AMTRAK'S EP3014, SECTION 02261A "REQUIREMENTS FOR TEMPORARY SHEETING AND SHORING TO SUPPORT AMTRAK TRACKS".
7. PROTECTIVE BARRIERS AND DEBRIS SHIELDS MUST BE DESIGNED IN ACCORDANCE WITH AMTRAK STANDARD DRAWINGS ET-1446-D AND ET-1447-D. ANY TEMPORARY AND PERMANENT BARRIER MUST BE BONDED AND GROUNDED IN ACCORDANCE TO THE SPECIFICATIONS AND AMTRAK STANDARD DRAWINGS.
8. ANY WORK WITHIN 15 FEET OF ENERGIZED WIRES OR HAS THE POTENTIAL TO COME WITHIN 15 FEET OF ENERGIZED WIRES, NOT PREVIOUSLY PROTECTED BY AMTRAK APPROVED PROTECTIVE SHIELDING, WILL REQUIRE AMTRAK A-MAN PROTECTION.

RAILROAD REQUIREMENTS - CSXT

1. FOLLOW ALL CSXT REQUIREMENTS, INCLUDING THOSE IN THESE PLANS, THESE NOTES, AND ALL OTHER CONTRACT DOCUMENTS (INCLUDING THE SPECIFICATIONS AND SPECIAL PROVISIONS).

MARK	DESCRIPTION	BY	CHK'D	REC'D	DATE
REVISIONS					

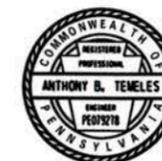
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

PHILADELPHIA COUNTY
SR 3021 SECTION GFB

SEG 0070 OFFSET 0703 EB SEG 0071 OFFSET 0735 WB
STA 219+30.29

GRAYS FERRY AVENUE OVER THE SCHUYLKILL RIVER,
AMTRAK RAILROAD AND CSXT RAILROAD

GENERAL NOTES - 1



RECOMMENDED 8/17/18

SHEET 4 OF 53

S - 32166

OPERATOR: [unreadable] DATE: [unreadable] TIME: [unreadable] PROJECT: [unreadable]
 PLOT DRIVER: [unreadable] PROJECT: [unreadable]

GENERAL NOTES (CONTINUED):

WELDING NOTES:

- WELDING SPECIFICATIONS: CURRENT AASHTO/AWS D1.5M/D1.5 BRIDGE WELDING CODE (2008) CONSISTENT WITH PUBLICATION 408 SECTION 1105.03(M), AND THE CONTRACT SPECIAL PROVISIONS. DO NOT FIELD WELD ON ANY PART OF THE EXISTING BRIDGE, EXCEPT WHERE SHOWN ON THE DRAWINGS, WITH PRIOR APPROVAL OF THE REPRESENTATIVE.
- WELDING OF EXISTING STRUCTURAL STEEL: USE THE SHIELDED METAL ARC PROCESS AND LOW HYDROGEN ELECTRODES WHICH ARE COMPATIBLE WITH THE BASE METAL AS SPECIFIED, AND IN ACCORDANCE WITH AN APPROVED WELD PROCEDURE SPECIFICATION.
- MAKE TACK WELDS WITH THE SAME TYPE OF ELECTRODE AND INCORPORATE IN THE FINAL WELD. NO OTHER TACK WELDING WILL BE PERMITTED.
- ENSURE THAT THE EXISTING BASE METAL THICKNESS, AT THE LOCATION OF WELDING, IS GREATER THAN OR EQUAL TO 1/8 INCH TO PREVENT WELD METAL BURN-THROUGH. ADJUSTMENT TO THE DETAILS MAY BE REQUIRED IF CORRODED BASE METAL IS REVEALED AT THE PLANNED LOCATION OF WELDING.
- DO NOT WELD WHEN SURFACES TO BE WELDED ARE MOIST OR EXPOSED TO RAIN, SNOW, OR WIND, OR WHEN WELDERS ARE EXPOSED TO INCLEMENT CONDITIONS THAT WILL ADVERSELY AFFECT THE QUALITY OF THE WORK.
- DO NOT WELD OR BURN WHEN THE TEMPERATURE IS BELOW 0° F. PREHEAT AND MAINTAIN THE TEMPERATURE OF THE METAL TO AT LEAST 70° F WHEN THE TEMPERATURE OF THE METAL IS BETWEEN 0° F AND 32° F DURING WELDING AND BURNING.
- PREHEAT THE STEEL TO THE SPECIFIED MINIMUM TEMPERATURE FOR A DISTANCE EQUAL TO THE THICKNESS OF THE PART BEING WELDED, BUT NOT LESS THAN 3 INCHES IN ALL DIRECTIONS FROM THE POINT OF WELDING.
- REMOVE BY APPLICATION OF HEAT ANY MOISTURE PRESENT AT POINT OF WELD. PROVIDE WINDBREAKS FOR PROTECTION FROM DIRECT WIND.
- PRIOR TO PLACING THE WELD, THOROUGHLY CLEAN ALL PORTIONS OF NEW AND EXISTING SURFACES TO RECEIVE WELDS OF ALL FOREIGN MATTER, INCLUDING PAINT FILM, FOR A DISTANCE OF 2 INCHES FROM EACH SIDE OF THE OUTSIDE LINES OF THE WELD.
- TEST COMPLETED WELDS USING VISUAL AND NONDESTRUCTIVE METHODS IN ACCORDANCE WITH AASHTO/AWS D1.5M/D1.5 BRIDGE WELDING CODE CHAPTER 6.
- SUBMIT WELDING PROCEDURE SPECIFICATIONS, WPS(S), TO BE APPROVED BY THE REPRESENTATIVE PRIOR TO PERFORMING ANY WELDING. QUALIFY EACH WPS FOR THE MATERIALS, WELDING PROCESS AND WELDING POSITIONS IN WHICH THE WELDING IS TO BE PERFORMED.
- QUALIFY ALL WELDERS PER AWS D1.5/D1.1 FOR THE MATERIALS, WELDING PROCESS, AND WELDING POSITIONS THEY ARE TO USE IN THE PRODUCTION WELDING.

UTILITY NOTES:

- COORDINATE, LOCATE, AND CONDUCT ALL WORK RELATED TO PUBLIC AND PRIVATE UTILITIES IN ACCORDANCE WITH PUBLICATION 408 SECTIONS 105.06 AND 107.12.
- COORDINATE THE REQUIREMENTS FOR PROTECTION AND/OR RELOCATION OF UTILITIES WITH THE UTILITY OWNER PRIOR TO STARTING WORK.
- CONDUCT OPERATIONS IN A MANNER WHICH ENSURES THAT THE UTILITIES WILL NOT BE DISTURBED OR ENDANGERED, AND ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE TO UTILITIES DURING CONSTRUCTION. TAKE SPECIAL CARE TO NOT DAMAGE UTILITIES WITHIN EXISTING BARRIERS DURING DECK JOINT REPAIR WORK. THE DEPARTMENT DOES NOT ASSUME RESPONSIBILITY FOR REIMBURSEMENT, PARTICIPATION IN DESIGN AND/OR REVISIONS, OR LIABILITY FOR ACCURACY OF TYPE, SIZE AND LOCATION OF ANY UTILITY.
- THE INFORMATION SHOWN ON THESE PLANS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND/OR OVERHEAD UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.
- STAGE WORK TO PROVIDE FOR THE MAINTENANCE OF CONTINUOUS ELECTRICAL POWER WITH THE LIMITS OF WORK THROUGHOUT THE DURATION OF THE WORK. TAKE ALL NECESSARY PRECAUTIONS DURING SAW CUTTING, HAMMERING AND OTHER REPAIR OPERATIONS NEAR ELECTRICAL EQUIPMENT SUCH AS CONDUITS, CABLES, JUNCTION BOXES, ETC.

HEALTH AND SAFETY NOTES:

- REMOVE AND DISPOSE OF BRIDGE WASTE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS INCLUDING THE REGULATIONS ON OSHA 29 CFR 1926.62. TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE WORKERS AND THE PUBLIC FROM LEAD AND OTHER TOXIC MATERIAL EXPOSURE. SUBMIT A HEALTH AND SAFETY PLAN AND CONTAINMENT PLAN FOR APPROVAL PRIOR TO STARTING WORK.
- THE EXISTING ELECTRICAL CONDUITS, SUPPORTED BY THE BRIDGE BETWEEN STRINGERS S11 AND S9, CONTAIN ASBESTOS. FOR LOCATIONS OF THOSE ELECTRIC CONDUITS, SEE SHEET 3 "TYPICAL SECTION".
- THE BRIDGE IS UNPAINTED.
- ASSUME THERE IS LEAD IN THE ANNULAR SPACE BETWEEN THE EXISTING MASONRY PLATE HOLES AND THE MASONRY PLATE ANCHOR BOLTS. THESE HOLES ARE IN THE TOP OF EACH EXISTING STEEL PIER CAP, UNDERNEATH THE EXISTING MASONRY PLATES.

ENVIRONMENTAL NOTE:

- SUBMERGED AQUATIC VEGETATION DOES NOT EXIST WITHIN THE PROJECT AREA, BASED ON INFORMATION CONTAINED WITHIN THE PHILADELPHIA WATER DEPARTMENT (PWD) DOCUMENT TITLED "WATERSHED PROJECT INITIATION FORM TIDAL SCHUYLKILL WETLAND RESTORATION", DATED JANUARY 16, 2007.

IN-WATER WORK RESTRICTIONS NOTE:

- PER ENVIRONMENTAL REGULATIONS, DO NOT PERFORM IN-WATER WORK BETWEEN MARCH 15 THROUGH JUNE 30.

TIDAL (WATER) ELEVATIONS NOTE:

- ELEVATIONS SHOWN FOR MEAN HIGH WATER (MHW), MEAN LOW WATER (MLW), AND HIGHEST ASTRONOMICAL TIDE (HAT) WERE NOT SURVEYED AND SHOULD BE CONSIDERED APPROXIMATE. THESE ELEVATIONS WERE DEVELOPED BASED ON DATA OBTAINED FROM NOAA TIDAL DATUM STATION 8545530, PHILADELPHIA (PIER 11WB), DELAWARE RIVER, PA, AND ARE WITH RESPECT TO THE NAVD88.

PROPOSED REHABILITATION SCOPE OF WORK:

SUBSTRUCTURE REPAIRS:

- REPAIR PIER CAP BOLSTERS AT PIERS 9WB AND 11WB. TEMPORARY SHORING IS REQUIRED. REMOVE EXISTING TEMPORARY SHORING AT PIER 11WB UPON COMPLETION OF WORK.
- REPAIR MISSING WELDS ON PIER CAP CLOSURE PLATE AT PIER 11EB.
- INSTALL DRAIN HOLES AND SEAL WITH BOLTS AT ALL STEEL PIER CAP BOLSTERS.
- PERFORM CONCRETE SPALL REPAIRS ON REINFORCED CONCRETE ABUTMENTS AND PIER SHAFTS.
- REPAIR CONCRETE SPALLS WITH EXPOSED REINFORCEMENT IN THE TIDAL ZONE REGION OF PIERS 6 AND 7.
- SEAL CRACKS IN CONCRETE PIER SHAFTS AND ABUTMENTS WITH EPOXY INJECTION.
- REPOINT MASONRY ON WEST ABUTMENT BREAST WALL.
- REMOVE DEBRIS FROM ABUTMENT SEATS AND TOPS OF PIER CAPS AT EACH EXPANSION JOINT.
- SEAL AROUND ALL MASONRY PLATES AT ALL STEEL PIER CAPS.

LIST OF ABBREVIATIONS:

ABUT = ABUTMENT	EXP = EXPANSION
APPROX = APPROXIMATE	F = FIXED BEARING
BIT = BITUMINOUS	FF = FAR FACE
B = BASELINE	FT = FOOT
BOT = BOTTOM	GALV = GALVANIZED
BRG = BEARING	HAT = HIGHEST ASTRONOMICAL TIDE
C TO C = CENTER TO CENTER	HS = HIGH STRENGTH
CKD = CHECKED	JT = JOINT
CL = CENTERLINE	LMC = LATEX MODIFIED CONCRETE
CLR = CLEAR	MHW = MEAN HIGH WATER
CONC = CONCRETE	MIN = MINIMUM
CONSTR = CONSTRUCTION	MLW = MEAN LOW WATER
DES = DESIGNER	MVMT = MOVEMENT
DIA = DIAMETER	NF = NEAR FACE
DWG = DRAWING	NO = NUMBER
E = EXPANSION BEARING	OD = OUTER DIAMETER
EB = EASTBOUND	PED = PEDESTRIAN
ELEV = ELEVATION	R = PLATE
EXIST = EXISTING	RDWY = ROADWAY

PROPOSED REHABILITATION SCOPE OF WORK (CONTINUED):

BEARING AND SUPERSTRUCTURE REPAIRS:

- REPLACE ALL EXISTING BRONZE SLIDING PLATE BEARINGS. TEMPORARY SHORING IS REQUIRED.
- RESET ROCKER BEARINGS AS INDICATED. TEMPORARY SHORING IS REQUIRED.
- PERFORM MISCELLANEOUS STEEL REPAIRS AS INDICATED.

DECK, BARRIER, RAILING, PROTECTIVE FENCE AND APPROACH SLAB REPAIRS:

- REMOVE 1 1/2 INCH THICK EXISTING LATEX MODIFIED CONCRETE OVERLAY VIA SCARIFICATION AND 1/4 INCH OF EXISTING REINFORCED CONCRETE DECK VIA HYDRODEMOLITION (1 1/4 INCH TOTAL DEPTH TO BE REMOVED).
- REPAIR CONCRETE DECK SPALLS AS INDICATED.
- REPAIR CONCRETE BARRIER SPALLS AS INDICATED.
- REPAIR CONCRETE APPROACH SLAB SPALLS, INCLUDING REPLACEMENT OF ASPHALT PATCHES, WITH NEW CONCRETE AS INDICATED.
- REPLACE ALL EXISTING DECK AND SIDEWALK EXPANSION JOINTS. DECK REMOVAL AT EXPANSION JOINTS TO BE FULL DEPTH.
- INSTALL PROPOSED MULTI-USE TRAIL BARRIER, WITH STEEL HANDRAIL, ON EASTBOUND STRUCTURE FOR PROPOSED MULTI-USE TRAIL.
- INSTALL PROPOSED 1 1/4 INCH LATEX MODIFIED CONCRETE OVERLAY AS INDICATED.
- REPAIR ALUMINUM BRIDGE RAILING ON TOP OF EXISTING CONCRETE BARRIERS AS INDICATED.
- REPAIR PEDESTRIAN RAILING AS INDICATED.
- INSTALL PROPOSED SEAL FOR 1 INCH OPEN JOINT BETWEEN THE MEDIAN BARRIERS.
- INSTALL PROPOSED PROTECTIVE FENCE ABOVE AMTRAK AND CSXT RAILROADS ON BOTH SIDES OF BRIDGE CROSS SECTION.

DRAINAGE SYSTEM REPAIRS:

- REPLACE ALL EXISTING DOWNSPOUTS IN-KIND WITH PROPOSED DOWNSPOUTS.
- INSTALL PROPOSED SCUPPERS ALONG NEW MULTI-USE TRAIL BARRIER AND ASSOCIATED PROPOSED DOWNSPOUTS.
- CLEAN EXISTING SCUPPERS.
- REPLACE ALL DOWNSPOUT CONCRETE SPLASH BLOCKS.

SUGGESTED LMC OVERLAY INSTALLATION PROCEDURE:

EASTBOUND BRIDGE:

- REMOVE EXISTING LMC OVERLAY TO LIMITS SHOWN ON PLANS.
- REMOVE PORTION OF DECK FOR PROPOSED MULTI-USE TRAIL BARRIER.
- REMOVE PORTION OF DECK AND INSTALL PROPOSED ROADWAY SCUPPERS.
- REPLACE EXISTING DECK EXPANSION JOINTS.
- INSTALL PROPOSED MULTI-USE TRAIL BARRIER.
- INSTALL PROPOSED LMC OVERLAY.

WESTBOUND BRIDGE:

- REMOVE EXISTING LMC OVERLAY TO LIMITS SHOWN ON PLANS.
- REPLACE EXISTING DECK EXPANSION JOINTS.
- INSTALL PROPOSED LMC OVERLAY.

REQ = REQUIRED
RR = RAILROAD
SEG = SEGMENT
SHLDR = SHOULDER
SPA = SPACING
SQ FT = SQUARE FOOT
SR = STATE ROUTE
STA = STATION
STIFF = STIFFENER
STR = STRINGER
TRANS = TRANSVERSE
TYP = TYPICAL
WB = WESTBOUND



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MARK	DESCRIPTION	BY	CHK'D	REC'D	DATE
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COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF TRANSPORTATION
PHILADELPHIA COUNTY
SR 3021 SECTION GFB
 SEG 0070 OFFSET 0703 EB SEG 0071 OFFSET 0735 WB
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 GRAYS FERRY AVENUE OVER THE SCHUYLKILL RIVER,
 AMTRAK RAILROAD AND CSXT RAILROAD

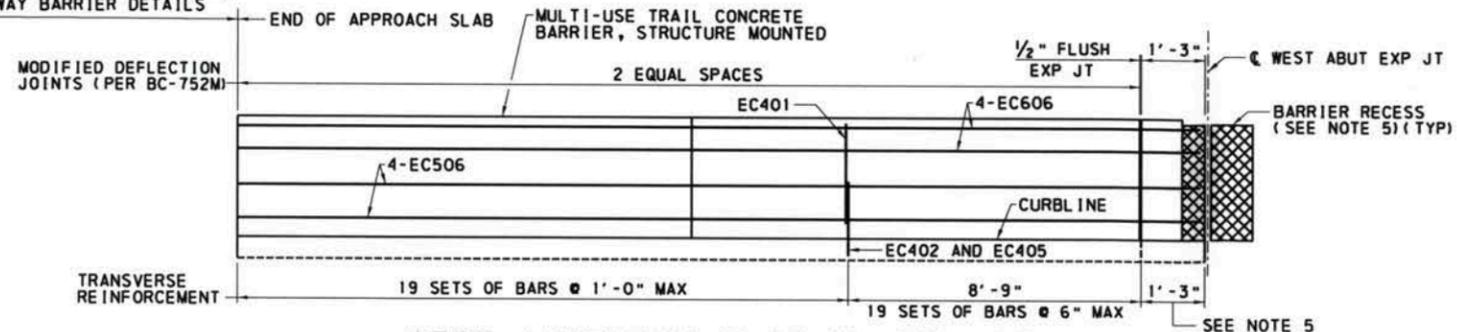
GENERAL NOTES - 2

RECOMMENDED	8/17/18	SHEET 5 OF 53
		S - 32166

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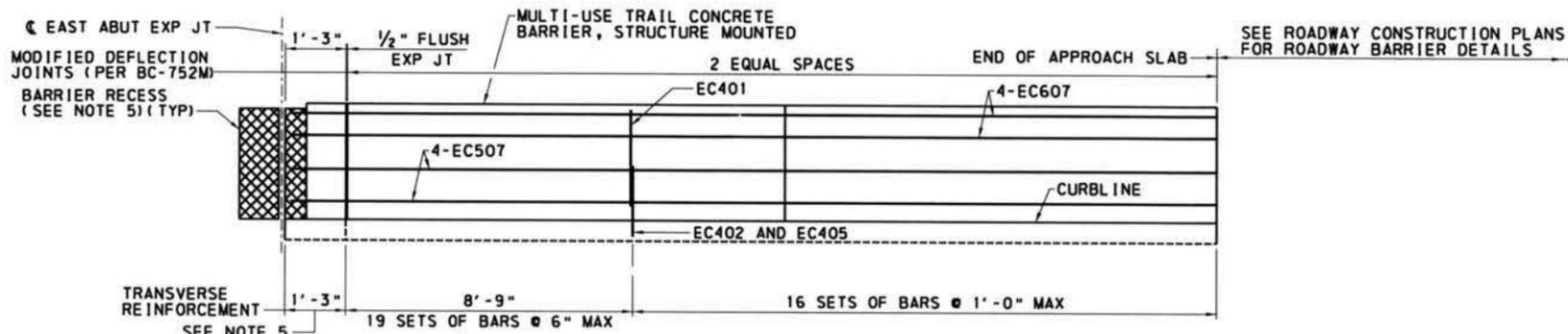
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 PROJECT: PA-English

SEE ROADWAY CONSTRUCTION PLANS FOR ROADWAY BARRIER DETAILS



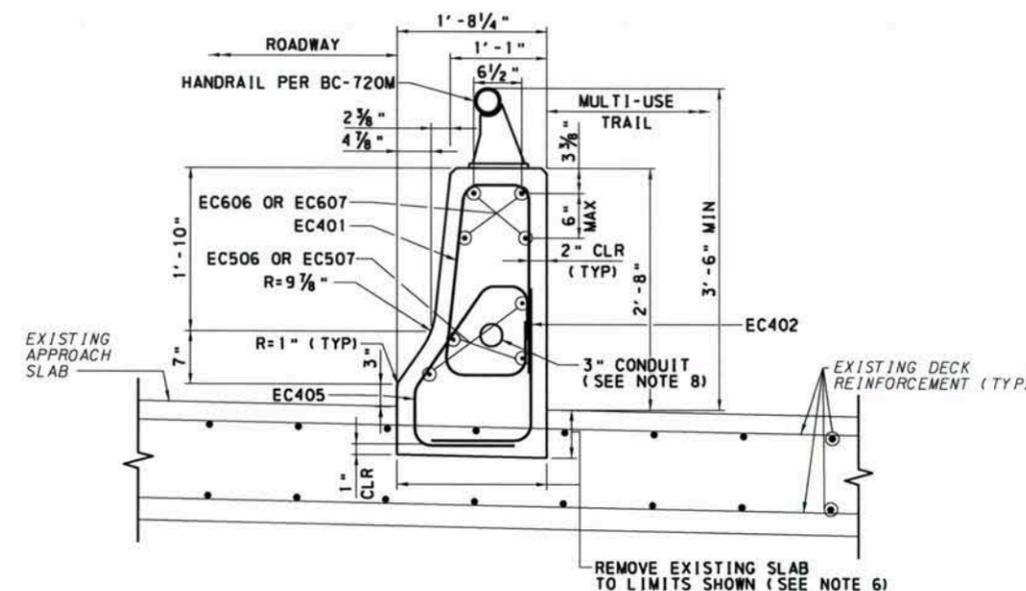
WEST APPROACH SLAB MULTI-USE TRAIL BARRIER ELEVATION

(HANDRAIL NOT SHOWN)
NOT TO SCALE



EAST APPROACH SLAB MULTI-USE TRAIL BARRIER ELEVATION

(HANDRAIL NOT SHOWN)
NOT TO SCALE



MULTI-USE TRAIL BARRIER SECTION

(APPROACH SLABS)
6 0 6 12 INCHES

NOTES:

1. ALL DIMENSIONS MEASURED ALONG THE CENTERLINE OF THE BARRIER.
2. FOR GENERAL NOTES, SEE SHEET NOS 4 AND 5.
3. FOR LOCATION AND LENGTH OF BARRIER TRANSITION, SEE ROADWAY CONSTRUCTION PLANS.
4. WORK THIS SHEET WITH SHEET NOS 37, 38 AND 41.
5. FOR NOTES, DIMENSIONS AND DETAILS OF NEW BARRIER AT EXPANSION JOINTS, SEE SHEET NO 41.
6. FOR DECK REMOVAL TYPE 2, SEE BC-783M AND AS MODIFIED IN THESE PLANS. EXISTING REINFORCEMENT IN THIS SLAB REMOVAL AREA IS TO REMAIN. FOR CLEANING, COATING, REPAIRING AND REPLACING (AS REQUIRED) OF EXISTING REINFORCEMENT, SEE BC-783M.
7. FOR REINFORCEMENT BAR SCHEDULE, SEE SHEET NOS 52 AND 53.
8. INSTALL CONDUIT EXPANSION AND DEFLECTION FITTINGS TO ALLOW ADEQUATE MOVEMENT OF CONDUIT AT EACH EXPANSION JOINT OF THE STRUCTURE, SEE BC-721M.

MARK	DESCRIPTION	BY	CHK'D	RECM'D	DATE
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 AMTRAK RAILROAD AND CSXT RAILROAD
MULTI-USE TRAIL BARRIER DETAILS - 1



RECOMMENDED 8/17/18

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