



# Public Notice

**U.S. Army Corps  
of Engineers**  
Pittsburgh District

In Reply Refer to  
Notice No. below

US Army Corps of Engineers, Pittsburgh District  
1000 Liberty Avenue  
Pittsburgh, PA 15222-4186

Application No. LRP-2018-774

Date: December 3, 2020

Notice No. 20-37

Closing Date: January 3, 2021

1. **TO ALL WHOM IT MAY CONCERN:** The following application has been submitted for a Department of the Army Permit under the provisions of Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act.
2. **APPLICANT:** Pittsburgh Water and Sewer Authority  
1200 Penn Avenue  
Pittsburgh, PA 15222
3. **LOCATION:** 40.430078, -79.950353; City of Pittsburgh, Pittsburgh, PA
4. **PURPOSE AND DESCRIPTION OF WORK:** The applicant proposes to control stormwater and reduce sediment transport, flooding, and combined sewer overflows (CSO) in the local Four Mile Run sub-watershed by completing the Four Mile Run (4MR) Stormwater Improvement Project. The project construction involves removal of approximately 7,946 cubic yards of accumulated sediments from Panther Hollow Lake, placing 7,782 cubic yards of fill in Panther Hollow lake to increase aquatic habitat and modify the outlet and embankment of Panther Hollow Lake, daylighting approximately 2,550 linear feet of the currently culverted Four Mile Run stream in Junction Hollow downstream of Panther Hollow Lake, and building a separated 2,975 linear foot stormwater pipeline, ranging in diameter from 36" to 60", from Junction Hollow to the right descending bank of the Monongahela River at River Mile 3.45. The new separated stormwater outfall will be located approximately 115 feet upstream from the existing M-29 combined sewer outfall.
5. **ENCROACHMENT PERMIT:** The applicant may be required to obtain a Water Obstruction and Encroachment Permit which includes 401 Water Quality Certification from the:

*Pennsylvania Department of Environmental Protection  
Southwest Regional Office  
Waterways and Wetlands Section  
400 Waterfront Drive  
Pittsburgh, PA 15222-4745*

*Telephone: 412-442-4000*

6. IMPACT ON NATURAL RESOURCES: The District Engineer has consulted the most recently available information and has determined that the project may affect, but is not likely to adversely affect endangered species or threatened species, or result in destruction or adverse modification of habitat of such species which has been determined to be critical. This Public Notice serves as a request to the U.S. Fish and Wildlife Service for any additional information they may have on whether any listed or proposed to be listed endangered or threatened species may be present in the area which would be affected by the activity, pursuant to Section 7(c) of the Endangered Species Act of 1972 (as amended). If the U.S. Fish and Wildlife Service concurs with the may affect, not likely to adversely affect determination please respond with written concurrence.

7. IMPACT ON CULTURAL RESOURCES: The National Register of Historic Places has been consulted, and it has been determined that there are no properties currently listed on the register which would be directly affected by the proposed work. If we are made aware, as a result of comments received in response to this notice, or by other means, of specific archeological, scientific, prehistorical, or historical sites or structures which might be affected by the proposed work, the District Engineer will immediately take the appropriate action necessary pursuant to the National Historic Preservation Act of 1966 - Public Law 89-665 as amended (including Public Law 96-515).

8. PUBLIC INVOLVEMENT: Any person may request, in writing, within the comment period specified in the paragraph below entitled "RESPONSES," that a public hearing be held to consider this application. The requests for public hearing shall state, with particularity, the reasons for holding a public hearing.

9. EVALUATION: Interested parties are invited to state any objections they may have to the proposed work. The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposals must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local

agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the overall public interest of the proposed activity. The evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under the authority of Section 404(b) of the Clean Water Act (40 CFR Part 230).

10. **RESPONSES:** A permit will be granted unless its issuance is found to be contrary to the public interest. Written statements concerning the proposed activity should be received in this office on or before the closing date of this Public Notice in order to become a part of the record and to be considered in the final determination. Any objections which are received during this period may be forwarded to the applicant for possible resolution before the determination is made whether to issue or deny the requested DA Permit. Public comments may be subject to release under the Freedom of Information Act (FOIA). All responses to this notice should be directed to the Regulatory Division, attn. Mike Engelhardt at the above address, by telephoning (412) 395-7141, or by e-mail at Michael.D.Engelhardt@usace.army.mil. Please refer to CELRP-RG LRP-2018-774 in all responses.

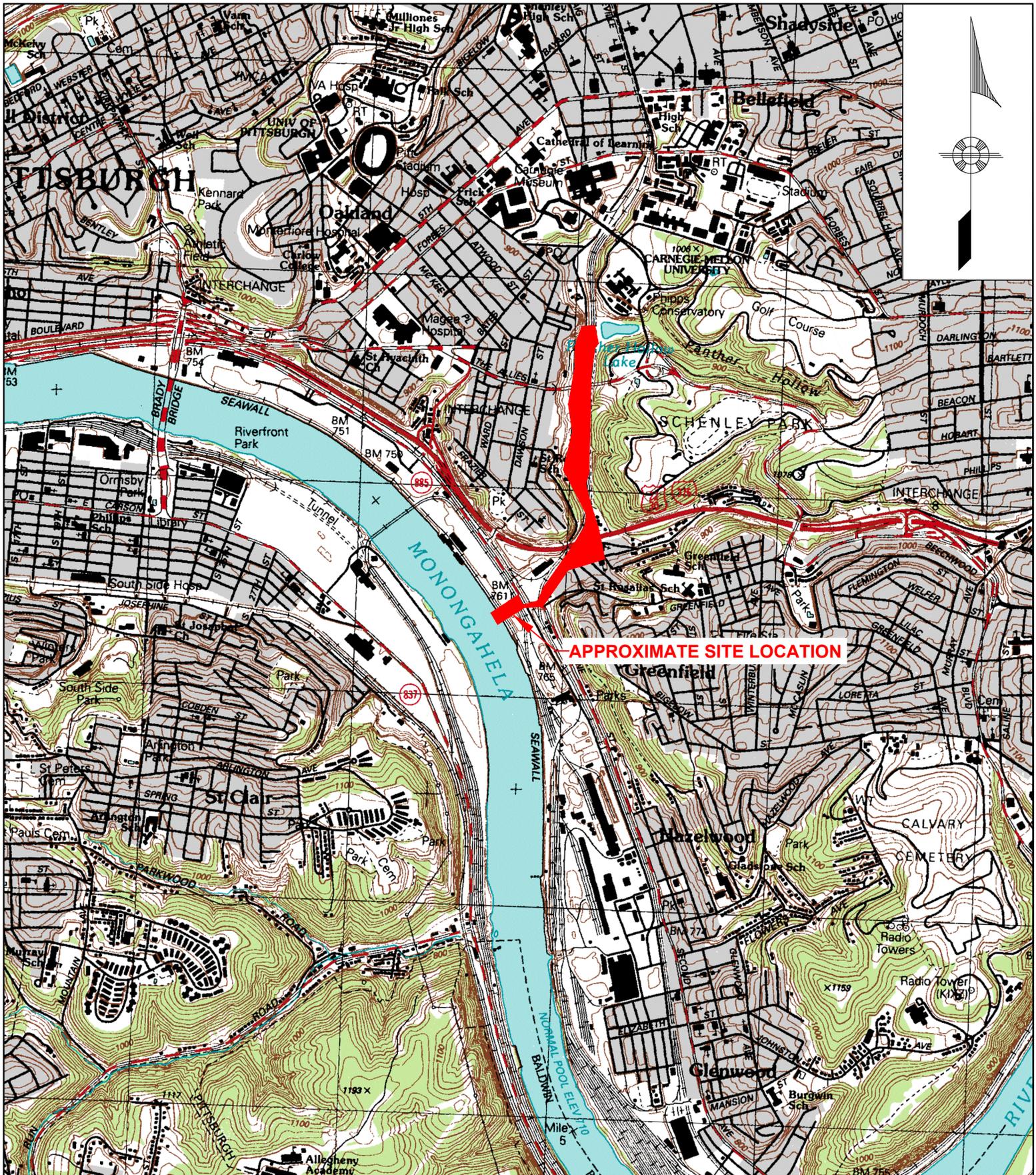


Jon T. Coleman  
Chief, South Branch  
Regulatory Division

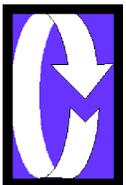


# Section I Location Map





Map sources: U.S Geological Survey Pittsburgh East, PA Quadrangle - Scale: 1"=2,000'



*Collective Efforts, LLC*  
Civil and Environmental Engineers

USGS Location Map  
PWSA Four Mile Run Stormwater Improvement Project  
Pittsburgh Water and Sewer Authority

Drawn By: MWH	Chkd By: ELSD	Date: July 2020 Project No. 19-15937	Figure 1
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# JOINT PERMIT APPLICATION PERMIT DRAWINGS

## JUNCTION HOLLOW STREAM PROJECT

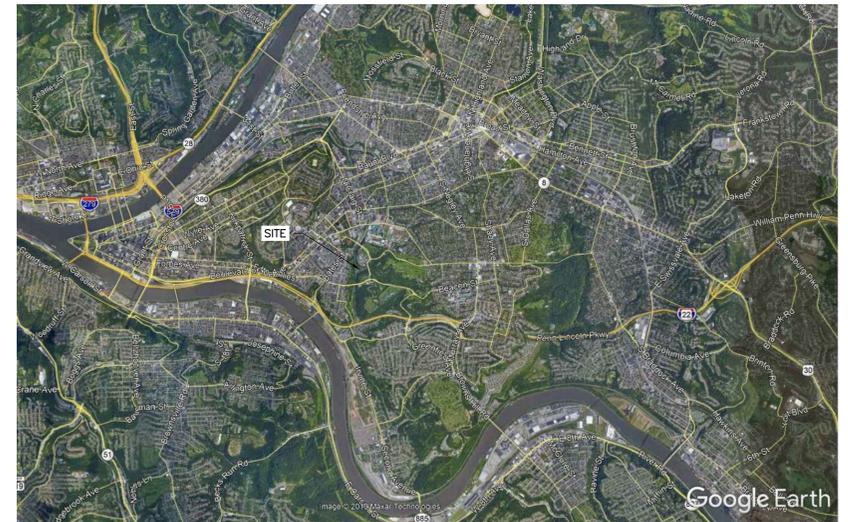
### CITY OF PITTSBURGH, ALLEGHENY COUNTY, PENNSYLVANIA

PREPARED FOR:  
 CITY OF PITTSBURGH, DEPARTMENT OF  
 PUBLIC WORKS-PARKS MAINTENANCE  
 DIVISION  
 AND  
 PITTSBURGH WATER & SEWER AUTHORITY  
 1200 PENN AVENUE  
 PITTSBURGH, PA 15222

**AUGUST 2020**



**SITE AERIAL PHOTO**



**VICINITY AERIAL PHOTO**

**REFERENCE**

1. AERIAL HAS BEEN GENERATED REFERENCING AUTOCAD CIVIL 3D 2020 GEOLOCATION MAPPING APPLICATION
2. APPROXIMATE SCALE 1"=500'

**REFERENCE**

1. VICINITY MAP HAS BEEN GENERATED REFERENCING GOOGLE EARTH
2. APPROXIMATE SCALE 1"=2.5 MILE

PREPARED BY:  
 CIVIL & ENVIRONMENTAL CONSULTANTS, INC.  
 333 BALDWIN ROAD  
 PITTSBURGH, PA 15205  
 412-429-2324  
 800-365-2324



SHEET LIST	
SHEET NO.	SHEET TITLE
G100	COVER SHEET
G101	GENERAL NOTES/LEGEND/ABBREVIATIONS
C101	EXISTING CONDITIONS PLAN - JUNCTION HOLLOW
C102	EXISTING CONDITIONS PLAN - JUNCTION HOLLOW
C103	EXISTING CONDITIONS PLAN - JUNCTION HOLLOW
C201	JUNCTION HOLLOW SITE PREPARATION, DEMOLITIONS, AND RELOCATIONS PLAN
C202	JUNCTION HOLLOW SITE PREPARATION, DEMOLITIONS, AND RELOCATIONS PLAN
C203	JUNCTION HOLLOW SITE PREPARATION, DEMOLITIONS, AND RELOCATIONS PLAN
C304	CSX PIPE CROSSING PLAN AND PROFILE
C400	JUNCTION HOLLOW STREAM AND GRADING PLAN AND PROFILE 0+00 TO 6+50
C401	JUNCTION HOLLOW STREAM AND GRADING PLAN AND PROFILE 6+50 TO 14+00
C402	JUNCTION HOLLOW STREAM AND GRADING PLAN AND PROFILE 14+00 TO 22+91
C403	JUNCTION HOLLOW SECTIONS 1
C404	JUNCTION HOLLOW SECTIONS 2
C700	JUNCTION HOLLOW LANDSCAPE PLAN
C701	JUNCTION HOLLOW LANDSCAPE PLAN
C702	JUNCTION HOLLOW LANDSCAPE PLAN
C703	JUNCTION HOLLOW LANDSCAPE PLAN
C704	PLANTING SCHEDULE AND SPECIES LIST
C705	PLANTING SCHEDULE AND SPECIES LIST
C810	IN-STREAM STRUCTURES DETAILS 01
C811	IN-STREAM STRUCTURES DETAILS 02
C812	IN-STREAM STRUCTURES DETAILS 03
C813	IN-STREAM STRUCTURES DETAILS 04
C814	IN-STREAM STRUCTURES DETAILS 05
C815	IN-STREAM STRUCTURES DETAILS 06
C901	JUNCTION HOLLOW EROSION AND SEDIMENTATION CONTROL PLAN
C902	JUNCTION HOLLOW EROSION AND SEDIMENTATION CONTROL PLAN
C903	JUNCTION HOLLOW EROSION AND SEDIMENTATION CONTROL PLAN
C904	JUNCTION HOLLOW EROSION AND SEDIMENTATION CONTROL PLAN
C905	JUNCTION HOLLOW EROSION AND SEDIMENTATION CONTROL PLAN



**PROFESSIONAL ENGINEER'S SEAL AND CERTIFICATION**

PATRICK SULLIVAN, DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 PA C.S.A., SECTION 4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF THAT THE INFORMATION CONTAINED IN THE ACCOMPANYING PLANS, SPECIFICATIONS AND REPORTS HAS BEEN PREPARED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICE, IS TRUE AND CORRECT, AND IS IN CONFORMANCE WITH CHAPTER 105 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

*Patrick Sullivan* 8-4-2020  
 PATRICK SULLIVAN, P.E.

REVISION RECORD		
NO	DATE	DESCRIPTION
1	5/22/2020	60% SUBMISSION TO PWSA
2	6/22/2020	JPA SUBMISSION TO PWSA
3	7/10/2020	MODIFICATIONS PER 60% REVIEW COMMENTS

**Civil & Environmental Consultants, Inc.**  
 333 Baldwin Road Pittsburgh, PA 15205  
 Ph: 412.429.2324 • 800.365.2324 • Fax: 412.429.2114  
 www.cecinc.com

**PITTSBURGH**  
 PENNSYLVANIA  
**PGH<sub>2</sub>O** Pittsburgh Water & Sewer Authority

**CITY OF PITTSBURGH**  
 DEPARTMENT OF PUBLIC WORKS  
 PITTSBURGH WATER & SEWER AUTHORITY  
 PITTSBURGH, ALLEGHENY COUNTY, PA

DRAWN BY: CLR	CHECKED BY: JAL/CJR	APPROVED BY: PJS
DATE: JULY 2020	DWG SCALE:	PROJECT NO: 174-960
COVER SHEET JUNCTION HOLLOW STREAM PROJECT		DRAWING NO.: <b>G100</b>

P:\174-960-CADD\DWG\C1003 - JPA Permit\174-960-C103-TITLE-SHEET.dwg(10/01) LS(8/4/2020 - 8:05 AM) - LF: 8/4/2020 8:05 AM

**GENERAL NOTES**

- BEFORE ANY EARTHWORK ACTIVITIES ARE ALLOWED TO BEGIN ONSITE, THE CONTRACTOR SHALL CONTACT THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-962-7962 OR 811 A MINIMUM OF 3 DAYS PRIOR TO EARTHWORK ACTIVITIES TO ALLOW THE UTILITY COMPANIES TO MARK THE LOCATIONS OF EXISTING LINES OWNED AND MAINTAINED BY THE UTILITY COMPANIES.
- THE FOLLOWING PERMIT APPLICATIONS HAVE BEEN SUBMITTED FOR WORK TO BE PERFORMED UNDER THIS CONTRACT. THE OWNER HAS RECEIVED PERMISSION FROM THE APPROPRIATE AGENCY TO PROCEED WITH WORK IN ADVANCE OF PERMIT APPROVAL. THE CONTRACTOR SHALL FOLLOW ALL STIPULATIONS OF THE PERMIT APPLICATIONS.
  - NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FROM PADEP FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
  - STORMWATER POLLUTION PROTECTION PLAN (SWPPP).
  - EROSION AND SEDIMENT CONTROL PLAN.
  - PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP) DAM PERMIT.
- EXISTING TOPOGRAPHY AND DIMENSIONS WERE OBTAINED FROM A COMPILATION OF TOPOGRAPHIC GROUND SURVEY AND GIS DATA INFORMATION. TOPOGRAPHIC ELEVATIONS AND DIMENSIONS SHOULD BE VERIFIED IN THE FIELD AND INVERTS SHOULD BE CHECKED IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE OWNER AND THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING WORK.
- EXACT PLAN LOCATION, SURFACE ELEVATION, AND INVERT ELEVATION LOCATION OF ALL EXISTING UTILITIES SHOULD BE VERIFIED.
- A SMOOTH TRANSITION BETWEEN EXISTING PAVEMENT, GRAVEL AREAS OR TOPOGRAPHY, AND NEW PAVEMENT, GRAVEL AREAS OR TOPOGRAPHY SHOULD BE PROVIDED. FIELD ADJUSTMENT OF FINAL GRADES MAY BE NECESSARY.
- ONE SET OF AS-BUILT / RECORD DRAWINGS SHOULD BE MAINTAINED ON THE JOB SITE DURING CONSTRUCTION FOR DISTRIBUTION TO THE OWNER AND/OR OWNER'S REPRESENTATIVE UPON COMPLETION.
- EARTHWORK SHALL INCLUDE CLEARING AND GRUBBING, STRIPPING AND STOCKPILING TOPSOIL, GRADING, EXCAVATION, FILLING, UNDERCUT AND REPLACEMENT, AND COMPACTION.
- ALL AREAS NOT PAVED OR GRAVELED SHALL BE STABILIZED IN ACCORDANCE WITH THE SPECIFICATIONS, UNLESS NOTED OTHERWISE.
- DISTANCES SHOWN ON PIPING ARE HORIZONTAL DISTANCES FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE, UNLESS OTHERWISE NOTED.
- ALL STORMWATER MANAGEMENT FACILITIES, INCLUDING COLLECTION AND CONVEYANCE STRUCTURES, SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE STATE CODES AND REGULATIONS.
- REFER TO AND FOLLOW THE RECOMMENDATIONS OF THE "GEOTECHNICAL ENGINEERING REPORT" PREPARED FOR THIS PROJECT BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE INSTALLATION, INSPECTION, TESTING AND FINAL ACCEPTANCE OF ALL NEW STORMWATER FACILITIES CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH ALL APPLICABLE REGULATING AGENCIES CONCERNING INSTALLATION, INSPECTION AND APPROVAL OF THE STORMWATER CONSTRUCTION.

**LAYOUT GENERAL NOTES**

- CARE SHALL BE TAKEN TO PROTECT UTILITIES THAT ARE TO REMAIN. RELOCATE EXISTING UTILITIES AS INDICATED, OR AS NECESSARY FOR CONSTRUCTION. INSTALL ALL UTILITIES, INCLUDING CONDUITS, PRIOR TO INSTALLATION OF PAVED SURFACES.
- PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING PAVEMENT AND NEW PAVEMENT. FIELD ADJUSTMENT OF FINAL GRADES MAY BE NECESSARY.
- ALL DAMAGE TO EXISTING PAVEMENT TO REMAIN WHICH RESULTS FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED WITH LIKE MATERIALS AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL ADJUST THE PROPOSED ELEVATION AT THE TOP OF EXCAVATION SLOPES AS NEEDED TO TIE INTO EXISTING GROUND.
- CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD.

**DEMOLITION GENERAL NOTES**

- ALL UTILITY DISCONNECTION, REMOVAL, RELOCATION, CUTTING, CAPPING AND/OR ABANDONMENT SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY/AGENCY. UTILITY CONTACTS ARE LISTED BELOW.
- CONTRACTOR SHALL PROTECT ALL CORNER PINS, MONUMENTS, PROPERTY CORNERS AND BENCHMARKS DURING DEMOLITION ACTIVITIES. IF DISTURBED, CONTRACTOR SHALL HAVE DISTURBED ITEMS RESET BY A LICENSED SURVEYOR AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, STRUCTURES, AND FEATURES TO REMAIN. ANY ITEMS TO REMAIN THAT HAVE BEEN DISTURBED OR DAMAGED AS A RESULT OF CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH STATE DEPARTMENT OF TRANSPORTATION REGULATIONS AND AS REQUIRED BY LOCAL AGENCIES WHEN WORKING IN AND/OR ALONG STREETS, ROADS, HIGHWAYS, ETC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPROVAL AND COORDINATE WITH LOCAL AND/OR STATE AGENCIES REGARDING THE NEED, EXTENT AND LIMITATIONS ASSOCIATED WITH INSTALLING AND MAINTAINING TRAFFIC CONTROL MEASURES.
- PROVIDE NEAT, STRAIGHT, FULL DEPTH, SAW CUTS OF EXISTING PAVEMENT WHERE INDICATED ALONG LIMITS OF PAVEMENT DEMOLITION.
- ALL UTILITY AND STRUCTURE REMOVAL, RELOCATION, CUTTING, CAPPING AND/OR ABANDONMENT SHALL BE COORDINATED AND PROPERLY DOCUMENTED BY A CERTIFIED PROFESSIONAL, WHEN APPLICABLE, WITH THE APPROPRIATE UTILITY COMPANY, MUNICIPALITY AND/OR AGENCY.
- NO TREES SHALL BE REMOVED, NOR VEGETATION DISTURBED BEYOND THE LIMITS OF CONSTRUCTION WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL USE SUITABLE METHODS TO CONTROL DUST AND DIRT CAUSED BY THE DEMOLITION ACTIVITY.

**UTILITY GENERAL NOTES**

- ALL PROPOSED UTILITY LINES AND EXTENSIONS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH ALL APPLICABLE UTILITY COMPANY SPECIFICATIONS. CONTRACTOR SHALL COORDINATE UTILITY DISCONNECTIONS WITH THE APPROPRIATE AGENCY.
- THE CONTRACTOR IS PARTICULARLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF THE EXISTING UTILITIES SHOWN HEREON IS BASED ON TOPOGRAPHIC SURVEYS AND RECORD DRAWINGS. THE CONTRACTOR SHALL NOT RELY UPON THIS INFORMATION AS BEING EXACT OR COMPLETE. SHOULD UNCHARTED UTILITIES BE ENCOUNTERED DURING EXCAVATION OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY FOR INSTRUCTIONS. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION AND REQUEST FIELD VERIFICATION OF UTILITY LOCATIONS.
- THE CONTRACTOR SHALL OBTAIN ALL REQUIRED UTILITY WORK PERMITS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE SEQUENCING OF CONSTRUCTION FOR ALL UTILITY LINES SO THAT WATER LINES AND UNDERGROUND ELECTRIC CONDUITS DO NOT CONFLICT WITH SANITARY SEWERS OR STORM SEWERS. INSTALL UTILITIES PRIOR TO PAVEMENT CONSTRUCTION.
- ADJUST ALL EXISTING UTILITY SURFACE FEATURES INCLUDING BUT NOT LIMITED TO CASTINGS, VALVE BOXES, PEDESTALS, CLEANOUTS, ETC. TO MATCH PROPOSED FINISHED GRADES, UNLESS OTHERWISE INDICATED.
- CONTRACTOR IS TO COORDINATE WITH EACH UTILITY PROVIDER REGARDING INSTALLATION OF UTILITY CONDUITS FOR ELECTRICAL WORK. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR FOR THE TRENCHING AND CONDUIT INSTALLATION. COST FOR INSTALLATION AND MATERIALS SHALL BE INCLUDED IN VARIOUS BID ITEMS.

**DATUM AND TOPOGRAPHIC SURVEY**

VERTICAL DATUM: NAVD88 (GEIOD 12A)

HORIZONTAL DATUM: NAD83 NORTH ZONE (2011)

BENCHMARKS TABLE:

CONTROL POINTS			
CONTROL POINT NO.	NORTHING	EASTING	ELEVATION
16	1356619.682'	409503.329'	811.576'
17	1357146.573'	409614.972'	816.632'
1000	1356377.623'	409670.92'	808.985'
1001	1356664.538'	409548.924'	806.256'

**DATUM NOTES:**

- SITE BENCHMARKS OBTAINED FROM AWK CONSULTING ENGINEERS, INC. USING GROUND SURVEY TECHNIQUES IN MAY 2018.

**REFERENCE**

- PANTHER HOLLOW LAKE BATHYMETRICAL SURVEY PERFORMED BY AWK CONSULTING ENGINEERS, INC., DATED OCTOBER 2017.
- POTHOLING UTILITY INVESTIGATION PERFORMED BY TERRA TESTING INC., DATED OCTOBER AND NOVEMBER 2018.
- EXISTING TOPOGRAPHY AND CONTOURS DERIVED FROM PHOTOGRAMETRY SURVEY PERFORMED BY LAND MAPPING, INC. DATED NOVEMBER 2016, AWK CONSULTING ENGINEERS, INC. FIELD SURVEY, DATED JUNE 2018, CIVIL & ENVIRONMENTAL CONSULTANTS, INC. FIELD SURVEY, DATED JULY-AUGUST 2018, AND ALLEGHENY COUNTY, PA LIDAR, DATED 2017.
- STREAM AND WETLAND DELINEATION PERFORMED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED MAY-JULY 2018.
- REFER TO PRELIMINARY GEOTECHNICAL REPORT PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED MARCH 8, 2019.
- PANTHER HOLLOW RECREATION TRAIL AND FIELDS, CITY OF PITTSBURGH AS-BUILTS, DEC PROJECT 988-9352, DATE 6-5-2009.

**STANDARD ABBREVIATIONS**

ACI	AMERICAN CONCRETE INSTITUTE	NAVD	NORTH AMERICAN VERTICAL DATUM
ALT	ALTERNATE	NGVD	NATIONAL GEODETIC VERTICAL DATUM
APPROX	APPROXIMATE	NO	NUMBER
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	NTS	NOT TO SCALE
B.O.	BY OTHERS	O&M	OPERATION AND MAINTENANCE
C	CENTERLINE	OD	OUTSIDE DIAMETER
CIP	CAST-IN-PLACE, CAST IRON PIPE	OPNG	OPENING
CONC	CONCRETE	PA	PENNSYLVANIA
CWL	CONTRACTOR WORK LIMITS	PI	POINT OF INTERSECTION
CY	CUBIC YARD	PSF	POUNDS PER SQUARE FOOT
DIA	DIAMETER	PSI	POUNDS PER SQUARE INCH
DWG	DRAWING	PT	POINT
E&S	EROSION AND SEDIMENT	PVI	POINT OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENCY
EXIST	EXISTING	REINF	REINFORCEMENT
FT	FOOT, FEET	REQ'D	REQUIRED
GA	GAGE	SCH	SCHEDULE
HDPE	HIGH-DENSITY POLYETHYLENE	STA	STATION
HORIZ	HORIZONTAL	STD	STANDARD
IN	INCH, INCHES	TYP	TYPICAL
LB	POUND, POUNDS	UNO	UNLESS NOTED OTHERWISE
LOD	LIMITS OF DISTURBANCE	VERT	VERTICAL
MAX	MAXIMUM	WP	WORK POINT
MIN	MINIMUM		
MISC	MISCELLANEOUS		
N/A	NOT APPLICABLE		
NAD	NORTH AMERICAN DATUM		

**STANDARD LEGEND**

	EXISTING PROPERTY LINE		CONCRETE
	EXISTING EASEMENT		EARTH
	EXISTING RIGHT-OF-WAY		GRAVEL
	EXISTING INDEX (MAJOR) CONTOUR		RIPRAP
	EXISTING INTERMEDIATE (MINOR) CONTOUR		PROPOSED ASPHALT PATH
	EXISTING DRAINAGE DITCH		PROPOSED BOULDER STEPS
	EXISTING FENCE LINE		PROPOSED BOULDER CROSS VAIN
	EXISTING ROADWAY CENTERLINE		PROPOSED BOULDER RIFFLES
	EXISTING EDGE OF ROAD OR CURB		PROPOSED WOOD TOE W/ BRUSH LAYERING
	EXISTING EDGE OF SIDEWALK OR DRIVEWAY		PROPOSED ROOT WAD
	EXISTING UNPAVED TRAIL		PROPOSED BOULDER ROUGHNESS
	EXISTING ASPHALT PAVEMENT		PROPOSED BOULDER VAIN W/ J-HOOK
	EXISTING BUILDING		PROPOSED ROCK CONSTRUCTED RIFFLE
	EXISTING STORM SEWER LINE		PROPOSED ALTERNATING LOG RIFFLE
	EXISTING COMBINED SEWER LINE		PROPOSED LOG VANE, ROCK J-HOOK, AND ROOT WAD
	EXISTING COMBINED SEWER MANHOLE		
	EXISTING STORM SEWER MANHOLE		
	EXISTING INLET		
	EXISTING HEADWALL/ENDWALL		
	EXISTING WATER LINE		
	EXISTING FIRE HYDRANT		
	EXISTING GAS LINE		
	EXISTING GAS VALVE		
	EXISTING OVERHEAD WIRE		
	EXISTING ELECTRIC LINE		
	EXISTING UNDERGROUND ELECTRIC LINE		
	EXISTING LIGHT POLE		
	EXISTING UTILITY POLE		
	EXISTING TRAFFIC POLE		
	EXISTING JUNCTION BOX		
	EXISTING STREAM		
	EXISTING GIS WETLAND		
	EXISTING GUIDE RAIL		
	EXISTING BRIDGE		
	EXISTING RAILROAD		
	EXISTING WALL		
	EXISTING TREE/SHRUB LINE		
	EXISTING TREE		
	EXISTING POST/SIGN		
	PROPOSED PAVED LIMITS		
	PROPOSED ROADSIDE DITCH		
	PROPOSED WETLAND		
	PROPOSED INDEX CONTOUR		
	PROPOSED INTERMEDIATE CONTOUR		
	PROPOSED STORM SEWER LINE		
	PROPOSED RIPRAP OUTFALL APRON		
	PROPOSED HEADWALL/ENDWALL		
	PROPOSED WATERLINE		
	EXISTING TEST BORING LOCATION		
	EXISTING MONITORING WELL LOCATION		
	PREVIOUS TEST PIT LOCATION		
	PERMIT BOUNDARY		
	LIMIT OF DISTURBANCE		

P:\2017\174-9601-CADD\DWG\C101\LS\6\22\2020 - 444 PM - 6/2/2020 4:44 PM

REVISION RECORD		
NO	DATE	DESCRIPTION
1	5/22/2020	60% SUBMISSION TO PWSA
2	6/22/2020	JPA SUBMISSION TO PWSA
3	7/10/2020	MODIFICATIONS PER 60% REVIEW COMMENTS



**Civil & Environmental Consultants, Inc.**  
333 Baldwin Road - Pittsburgh, PA 15205  
Ph: 412.429.2324 • 800.365.2324 • Fax: 412.429.2114  
www.cecinc.com

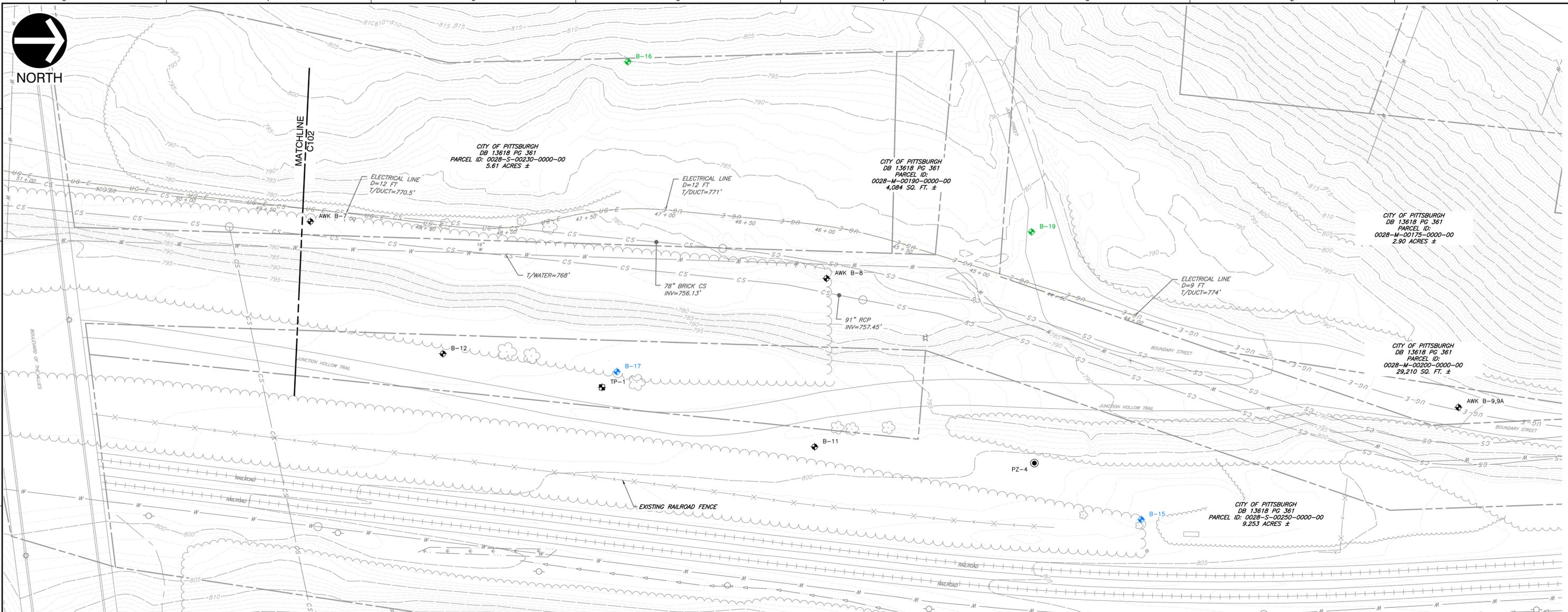



Pittsburgh  
Water & Sewer  
Authority

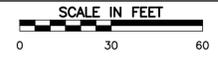
**CITY OF PITTSBURGH**  
**DEPARTMENT OF PUBLIC WORKS**  
**PITTSBURGH WATER & SEWER AUTHORITY**  
**PITTSBURGH, ALLEGHENY COUNTY, PA**

DRAWN BY: CLR	CHECKED BY: JAL/CJR	APPROVED BY: PJS	
DATE: JULY 2020	DWG SCALE: AS-SHOWN	PROJECT NO: 174-960	DRAWING NO.: <b>G101</b>
<b>GENERAL NOTES/LEGEND/ABBREVIATIONS</b>			
<b>JUNCTION HOLLOW STREAM PROJECT</b>			
<b>REHABILITATION PROJECT</b>			





**JUNCTION HOLLOW EXISTING CONDITIONS PLAN**



- NOTES**
1. COMBINED SEWER (CS) INFORMATION OBTAINED FROM USGA ESRI WEBSITE.
  2. DUQUESNE LIGHT INFORMATION OBTAINED FROM DRAWINGS 10401 T27 THROUGH T30 AND DRAWINGS 11715 T2 THROUGH T4.
  3. DUQUESNE LIGHT DUCT BANK INCLUDES 8", 6", AND 10" DIAMETER CABLES, WITH MAXIMUM CENTERLINE SPACING OF 3 FEET (VERTICAL) AND 3.5 FEET (HORIZONTAL).
  4. TOP OF DUCT BANK (T/DUCT) ELEVATION SHOWN.
  5. STATION NUMBERING (STA 44+00 TO 66+00) BY DUQUESNE LIGHT.
  6. ADDITIONAL FILL PLACEMENT IN JUNCTION HOLLOW PERFORMED PRIOR TO 1999 BEGINS AT STATION 44+00 AND ENDS AT STATION 56+00.
  7. ADDITIONAL FILL PLACEMENT IN JUNCTION HOLLOW PERFORMED PRIOR TO 1999 BEGINS AT STATION 60+50 AND EXTENDS BEYOND STATION 66+00.



REVISION RECORD		
NO	DATE	DESCRIPTION
1	5/22/2020	60% SUBMISSION TO PWSA
2	6/22/2020	JPA SUBMISSION TO PWSA
3	7/10/2020	MODIFICATIONS PER 60% REVIEW COMMENTS

  
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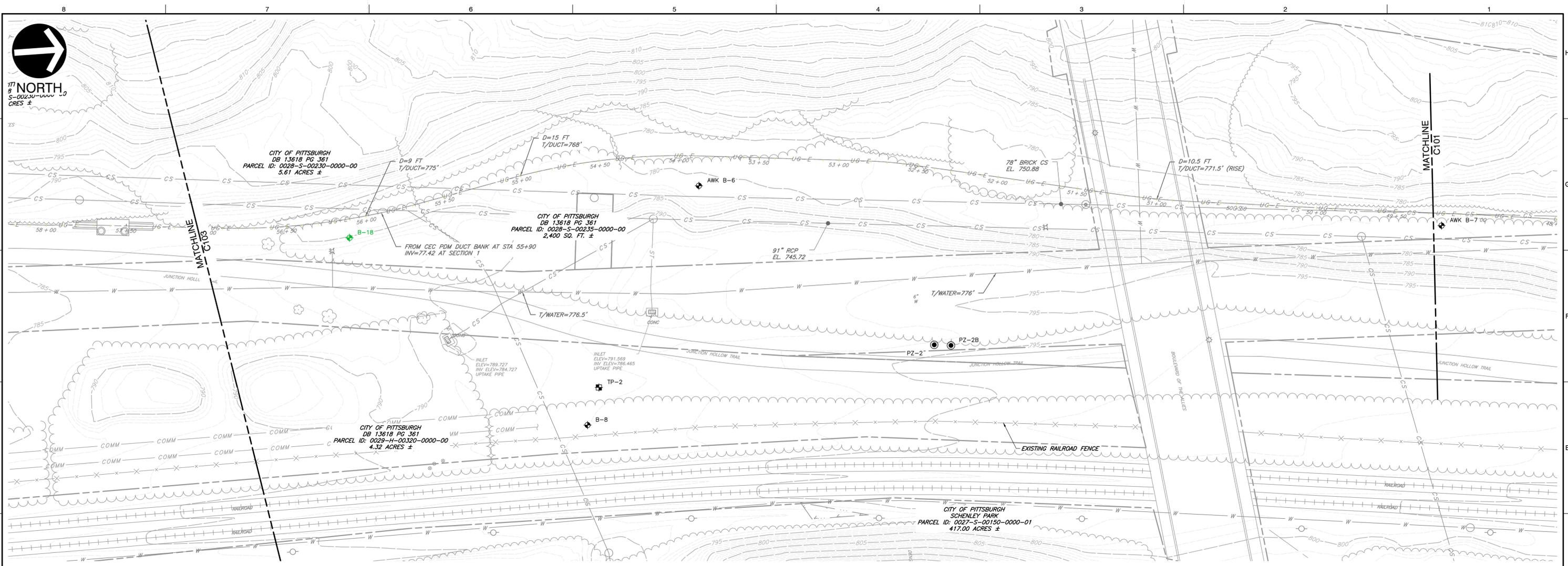
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**DEPARTMENT OF PUBLIC WORKS**  
**PITTSBURGH WATER & SEWER AUTHORITY**  
**PITTSBURGH, ALLEGHENY COUNTY, PA**

DRAWN BY: CLR	CHECKED BY: JAL/CJR	APPROVED BY: PJS
DATE: JULY 2020	DWG SCALE:	PROJECT NO: 174-960
DRAWING NO.: <b>C101</b>		

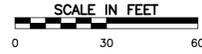
P:\2017\174-960\CAD\DWG\C101.dwg - JPA Permitt\174960-003-C101.dwg(10/11) LS(6/2/2020 4:18 PM) - LF: 6/2/2020 4:18 PM



177 NORTH  
S-00230-0000-00  
CRES ±



**JUNCTION HOLLOW EXISTING CONDITIONS PLAN**



**NOTES**

1. COMBINED SEWER (CS) INFORMATION OBTAINED FROM USGA ESRI WEBSITE.
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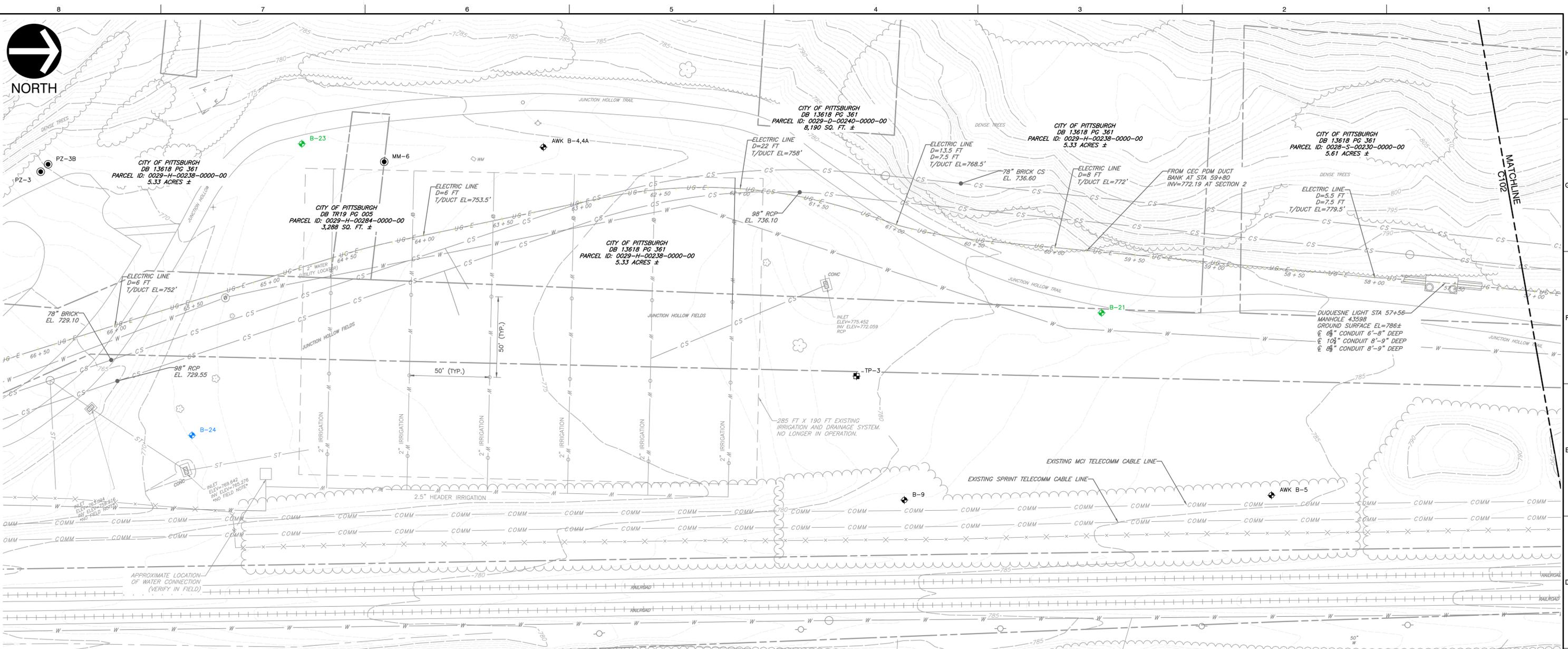
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www.cecinc.com

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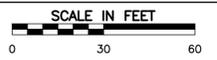
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**PITTSBURGH WATER & SEWER AUTHORITY**  
PITTSBURGH, ALLEGHENY COUNTY, PA

DRAWN BY:	CLR	CHECKED BY:	JAL/CJR	APPROVED BY:	PJS
DATE:	JULY 2020	DWG SCALE:		PROJECT NO.:	174-960
DRAWING NO.:					<b>C102</b>

P:\2017\174-960-CAD\DWG\C102 - JPA.dwg (174960-C102-C101.dwg) [6/22/2020 4:19 PM] - LF: 6/22/2020 4:19 PM



**JUNCTION HOLLOW EXISTING CONDITIONS PLAN**



- NOTES**
1. COMBINED SEWER (CS) INFORMATION OBTAINED FROM USGA ESRI WEBSITE.
  2. DUQUESNE LIGHT INFORMATION OBTAINED FROM DRAWINGS 10401 T27 THROUGH T30 AND DRAWINGS 11715 T2 THROUGH T4.
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1	5/22/2020	60% SUBMISSION TO PWSA
2	6/22/2020	JPA SUBMISSION TO PWSA
3	7/10/2020	MODIFICATIONS PER 60% REVIEW COMMENTS

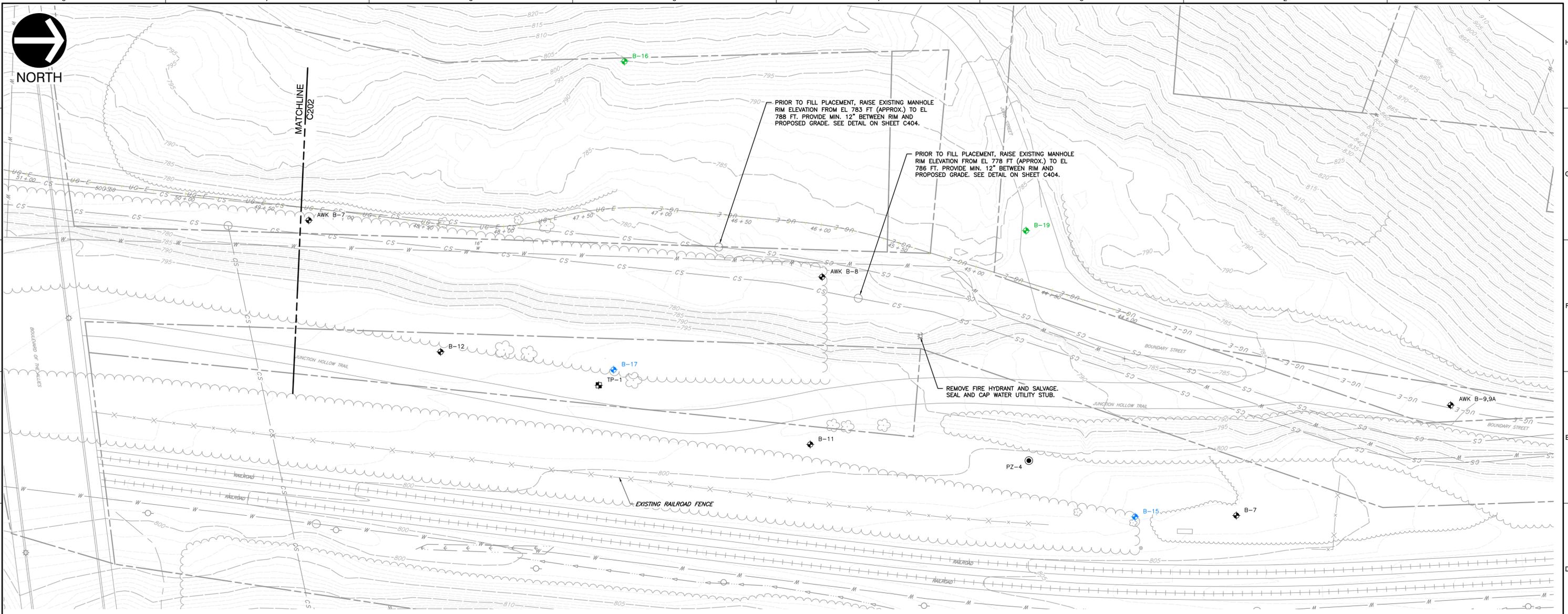
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**PITTSBURGH WATER & SEWER AUTHORITY**  
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DRAWN BY: CLJ	CHECKED BY: JAL/CJR	APPROVED BY: PJS
DATE: JULY 2020	DWG SCALE:	PROJECT NO: 174-960
DRAWING NO.: JUNCTION HOLLOW EXISTING CONDITIONS PLAN		<b>C103</b>

P:\120171\174-960-CAD\DWG\C103 - JPA Permit\174960-C103-C101.dwg(1/23) LS(6/2/2020 - 4:19 PM) LF: 8/2/2020 4:19 PM



**SITE PREPARATION, DEMOLITIONS, AND RELOCATIONS PLAN**



- NOTES**
1. COMBINED SEWER (CS) INFORMATION OBTAINED FROM USGA ESRI WEBSITE.
  2. DUQUESNE LIGHT DUCT BANK INCLUDES 6", 8", AND 10" DIAMETER CABLES, WITH MAXIMUM CENTERLINE SPACING OF 3 FEET (VERTICAL) AND 3.5 FEET (HORIZONTAL).
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  5. ADDITIONAL FILL PLACEMENT IN JUNCTION HOLLOW PERFORMED PRIOR TO 1999 BEGINS AT STATION 60+50 AND EXTENDS BEYOND STATION 66+00.



P:\2017\174-9601-C201\DWG\C201 - JPA.dwg (174960-C201-C200.dwg) (2011 LSC/29/2020 - correct) - LP: 8/2/2020 4:49 PM

REVISION RECORD		
NO	DATE	DESCRIPTION
1	5/22/2020	60% SUBMISSION TO PWSA
2	6/22/2020	JPA SUBMISSION TO PWSA
3	7/10/2020	MODIFICATIONS PER 60% REVIEW COMMENTS

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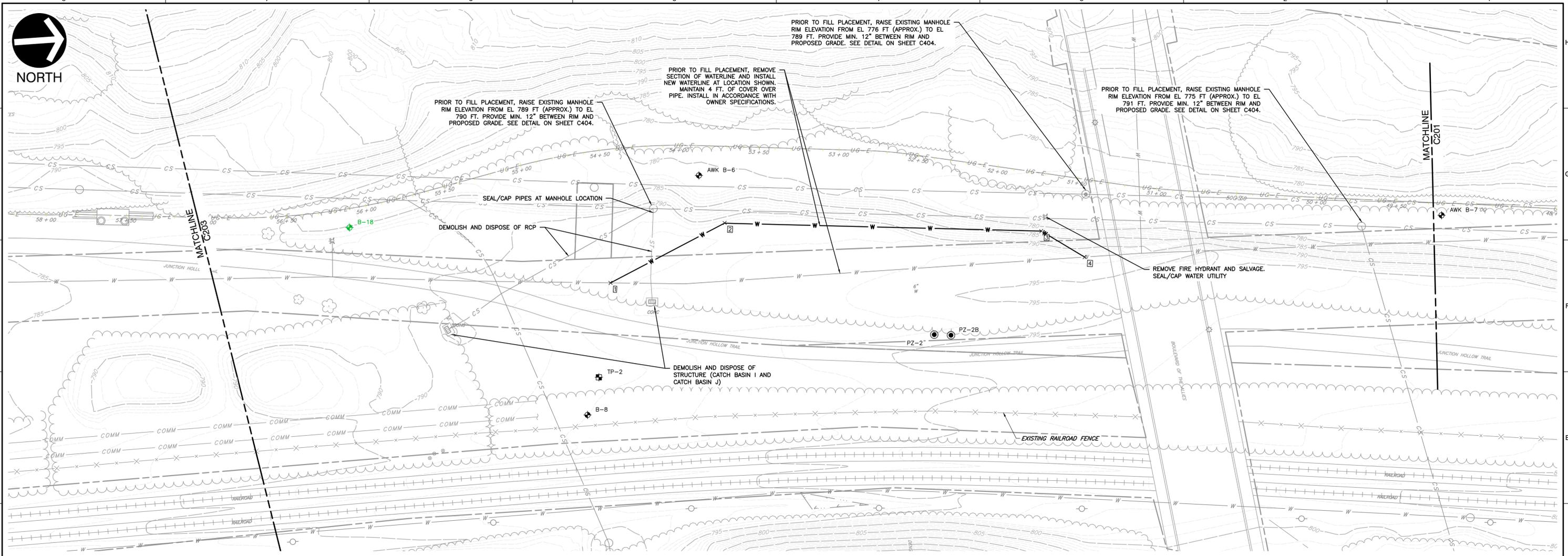
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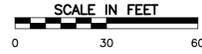
DRAWN BY: CLR	CHECKED BY: JAL/CJR	APPROVED BY: PJS
DATE: JULY 2020	DWG SCALE: 1"=30'	PROJECT NO: 174-960
<b>JUNCTION HOLLOW SITE PREPARATION, DEMOLITIONS, AND RELOCATIONS PLAN</b>		<b>DRAWING NO.: C201</b>



NORTH



SITE PREPARATION, DEMOLITIONS, AND RELOCATIONS PLAN



WATERLINE POINT TABLE			
POINT	NORTHING	EASTING	ELEVATION
1	408385.44	1356074.72	788.00
2	408459.21	1356042.44	788.00
3	408656.11	1356061.30	778.50
4	408681.93	1356079.31	789.00

- NOTES**
1. COMBINED SEWER (CS) INFORMATION OBTAINED FROM USGA ESRI WEBSITE.
  2. DUQUESNE LIGHT DUCT BANK INCLUDES 6", 8", AND 10" DIAMETER CABLES, WITH MAXIMUM CENTERLINE SPACING OF 3 FEET (VERTICAL) AND 3.5 FEET (HORIZONTAL).
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REVISION RECORD		
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1	5/22/2020	60% SUBMISSION TO PWSA
2	6/22/2020	JPA SUBMISSION TO PWSA
3	7/10/2020	MODIFICATIONS PER 60% REVIEW COMMENTS

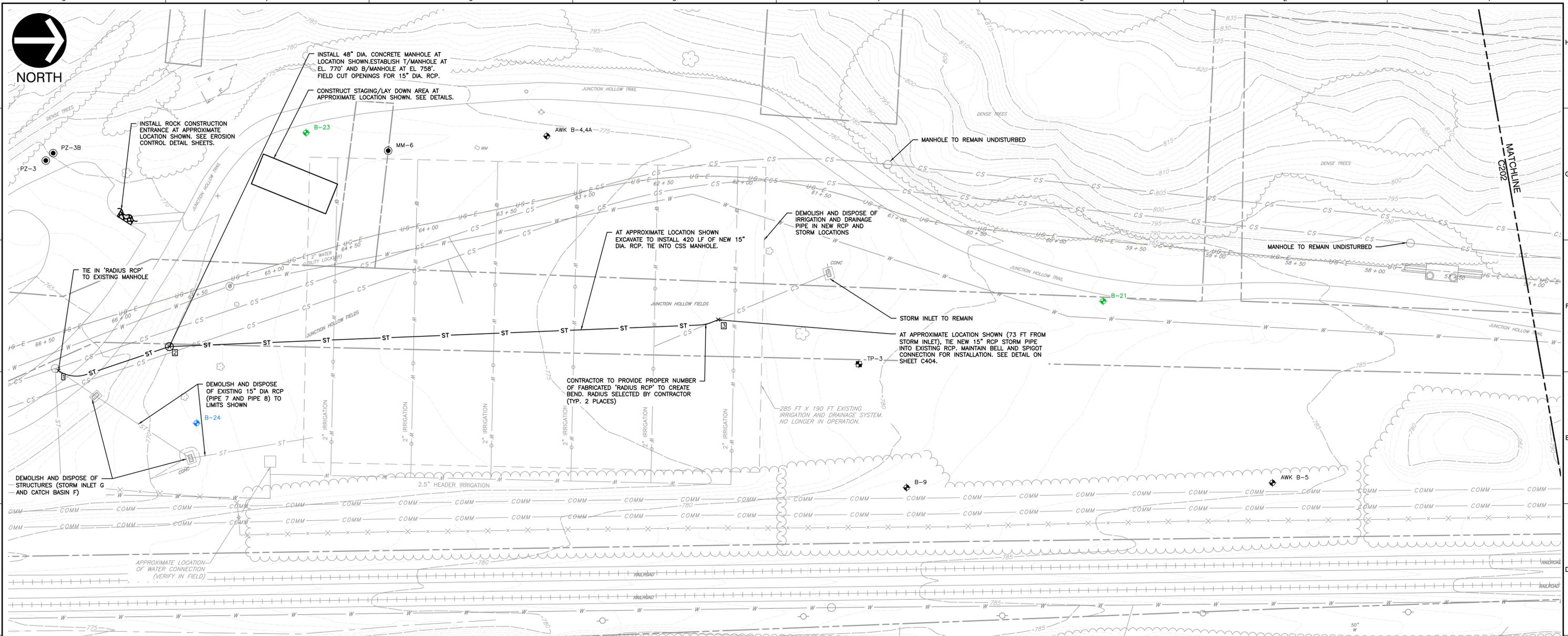
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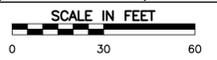
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**PITTSBURGH WATER & SEWER AUTHORITY**  
PITTSBURGH, ALLEGHENY COUNTY, PA

DRAWN BY: CLR	CHECKED BY: JAL/CJR	APPROVED BY: PJS
DATE: JULY 2020	DWG SCALE: 1"=30'	PROJECT NO: 174-960
JUNCTION HOLLOW SITE PREPARATION, DEMOLITIONS, AND RELOCATIONS PLAN		DRAWING NO.: <b>C202</b>

P:\10171\174-960\CADD\DWG\C202 - JPA.dwg (1/7/2020 4:30 PM) - LFP: 8/10/2020 4:30 PM



**SITE PREPARATION, DEMOLITIONS, AND RELOCATIONS PLAN**



STORM SEWER POINT TABLE			
POINT	NORTHING	EASTING	ELEVATION
1	407214.35	1356073.10	755.48
2	407283.58	1356058.06	758.00
3	407626.36	1356041.30	771.82

- NOTES**
1. COMBINED SEWER (CS) INFORMATION OBTAINED FROM USGA ESRI WEBSITE.
  2. DUQUESNE LIGHT DUCT BANK INCLUDES 6", 8", AND 10" DIAMETER CABLES, WITH MAXIMUM CENTERLINE SPACING OF 3 FEET (VERTICAL) AND 3.5 FEET (HORIZONTAL).
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2	6/23/2020	JPA SUBMISSION TO PWSA
3	7/10/2020	MODIFICATIONS PER 60% REVIEW COMMENTS

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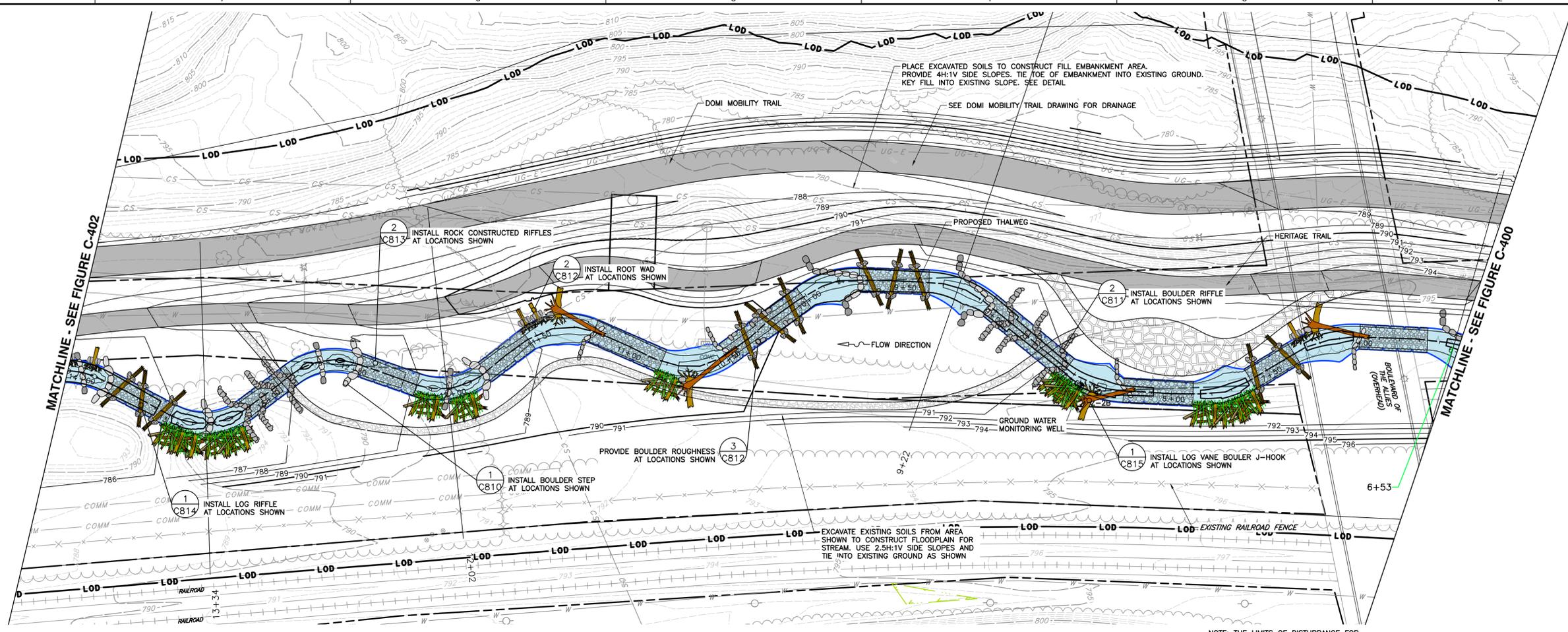
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**PITTSBURGH WATER & SEWER AUTHORITY**  
PITTSBURGH, ALLEGHENY COUNTY, PA

DRAWN BY: CLR	CHECKED BY: JAL/CJR	APPROVED BY: PJS
DATE: JULY 2020	DWG SCALE: 1"=30'	PROJECT NO: 174-960
JUNCTION HOLLOW SITE PREPARATION, DEMOLITIONS, AND RELOCATIONS PLAN		DRAWING NO.: <b>C203</b>

P:\2017\174-960\CAD\DWG\C203 - JPA.dwg (174960-083-C203.dwg) LSC/29/2020 - cecinc - LP: 8/2/2020 4:30 PM





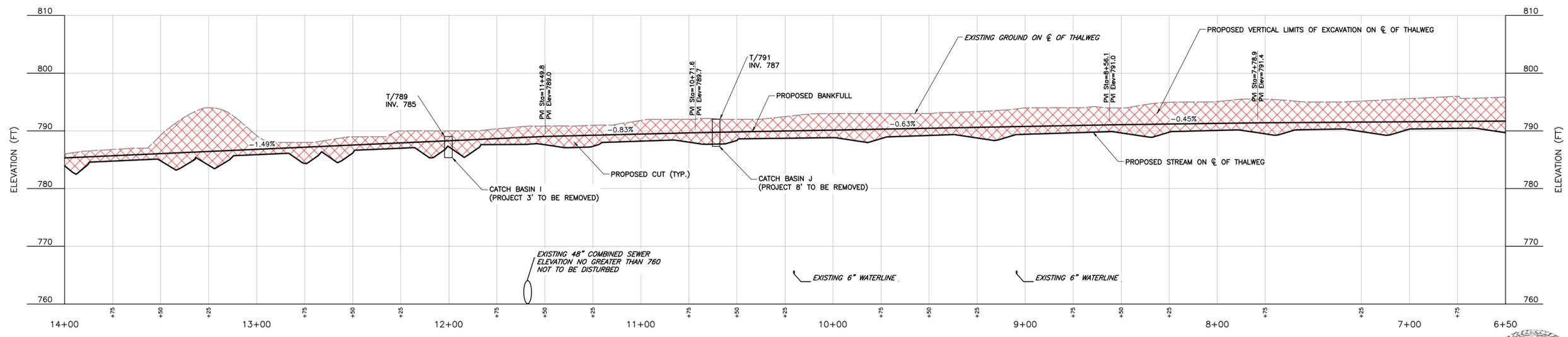
PLAN OF JUNCTION HOLLOW STREAM



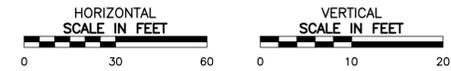
NOTE: THE LIMITS OF DISTURBANCE FOR THE JUNCTION HOLLOW STREAM DO NOT FALL WITHIN THE 100 YEAR FLOOD PLAN

CONSTRUCTION WORK POINT TABLE

STATION	NORTHING	EASTING	ELEV.
7+00	408735.4440	1356107.4245	790.30
7+50	408688.2364	1356120.6525	790.23
8+00	408640.2501	1356128.7297	790.08
8+50	408592.6682	1356116.0325	789.64
9+00	408556.0635	1356081.9821	789.41
9+50	408510.8557	1356064.2004	789.21
10+00	408462.0660	1356067.6909	788.82
10+50	408419.8231	1356094.4398	788.34
11+00	408373.2117	1356087.4233	788.22
11+50	408326.5797	1356077.5564	787.60
12+00	408283.0255	1356101.1561	787.23
12+50	408236.0110	1356085.8511	786.16
13+00	408190.0978	1356098.0907	785.88
13+50	408143.8919	1356105.8907	784.79
14+00	408100.5732	1356081.1510	783.94



JUNCTION HOLLOW STREAM - PROFILE VIEW



REVISION RECORD		
NO	DATE	DESCRIPTION

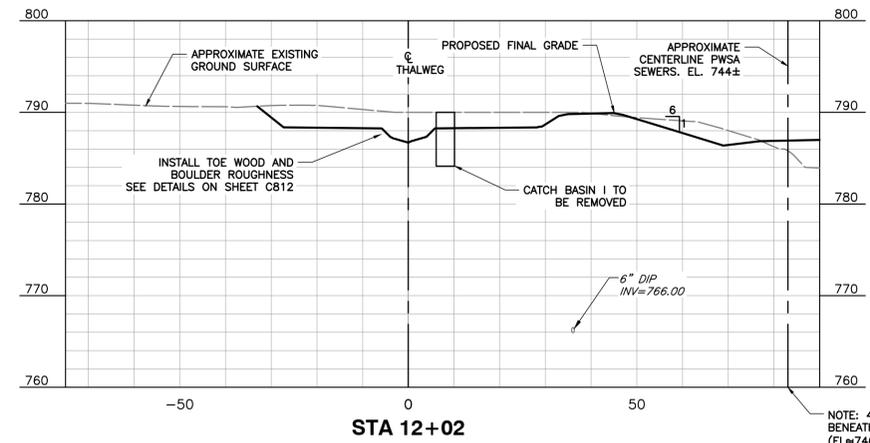
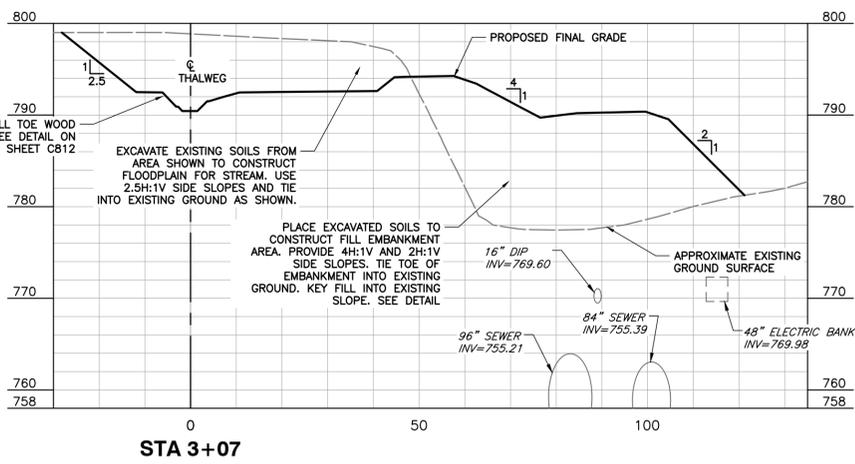
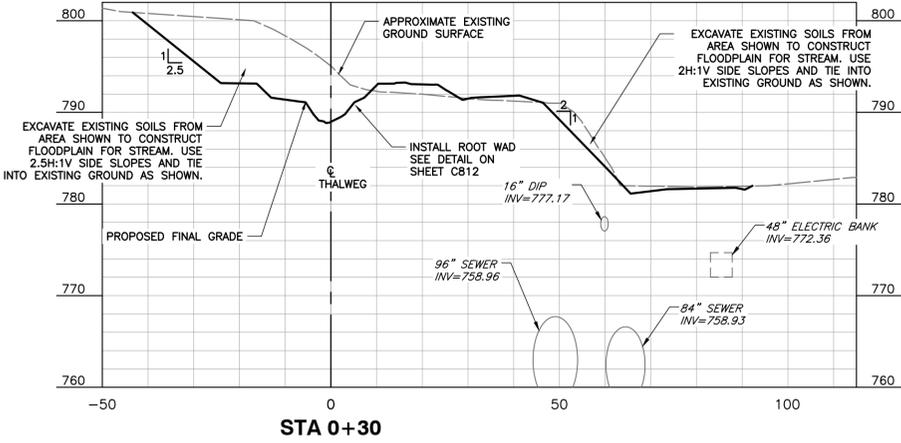
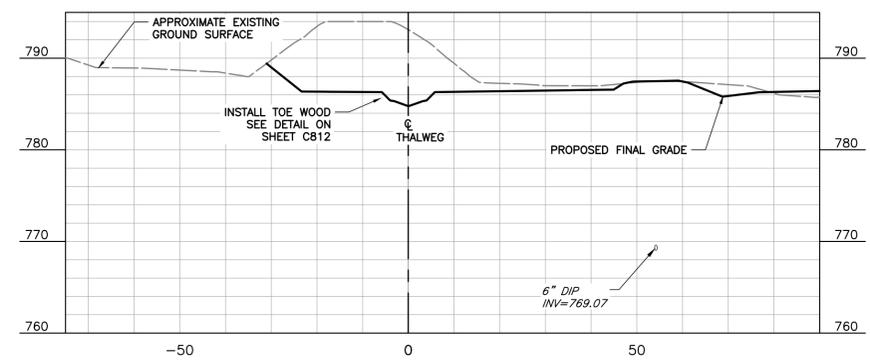
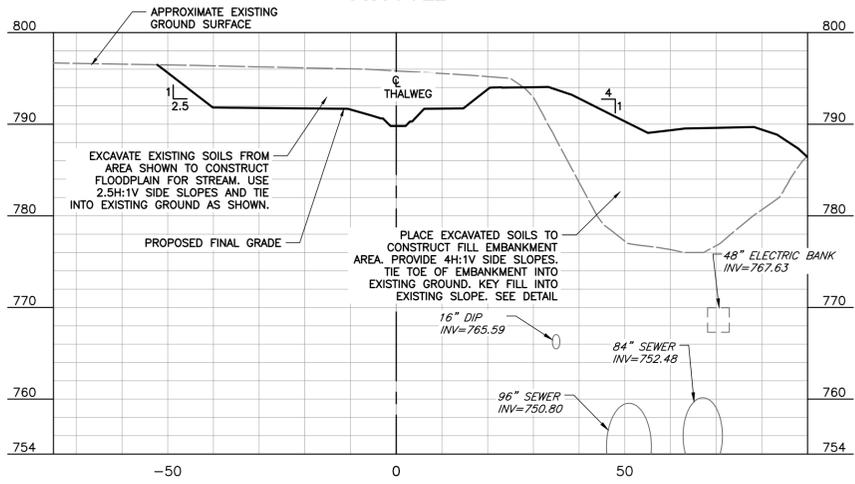
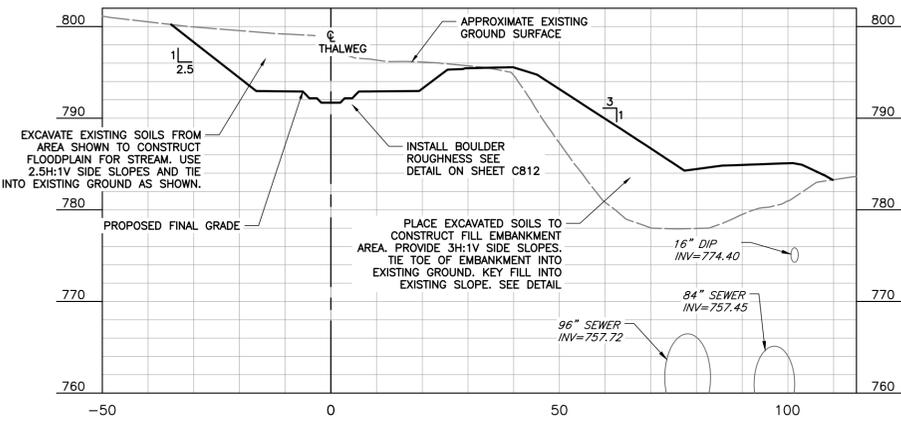
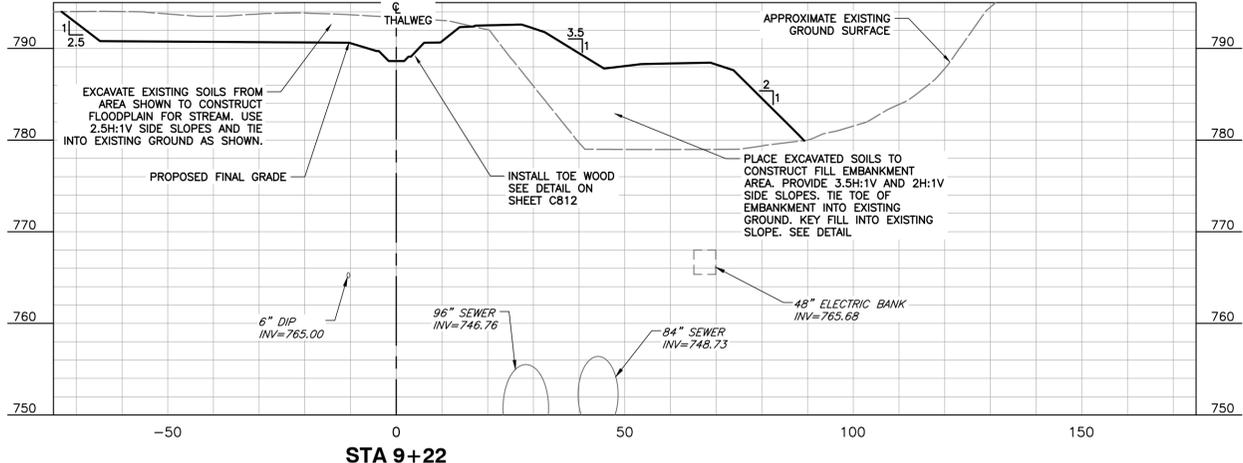
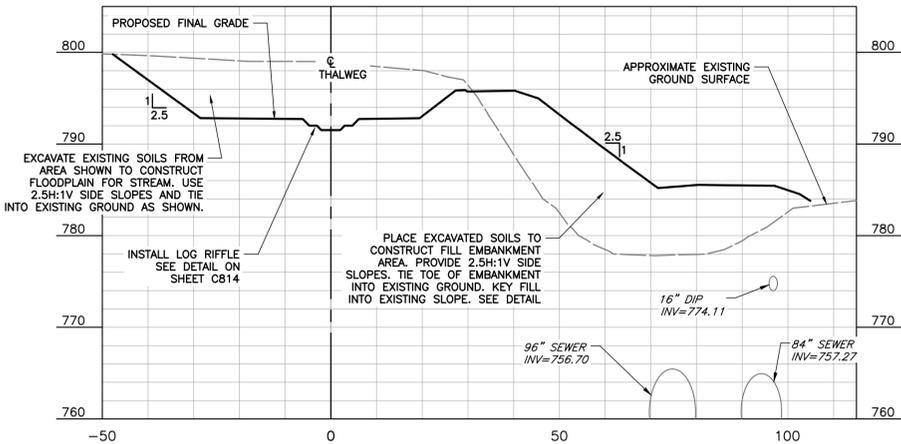
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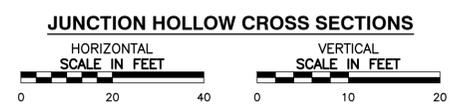
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**PITTSBURGH WATER & SEWER AUTHORITY**  
PITTSBURGH, ALLEGHENY COUNTY, PA

DRAWN BY: MDO CHECKED BY: RLS APPROVED BY: PJS  
DATE: JUNE 2020 DWG SCALE: PROJECT NO: 174-960  
DRAWING NO.: **C401**  
JUNCTION HOLLOW STREAM AND GRADING  
PLAN & PROFILE 6+50 TO 14+00





- NOTES**
- SECTIONS CUT AS VIEWED DOWNSTREAM.
  - SEE DOMI DRAWINGS FOR TRAIL CONSTRUCTION.



NOTE: 48" CSS BENEATH STREAM (EL. 746) CONNECTS TO PWSA SEWER NEAR THIS LOCATION



REVISION RECORD		
NO.	DATE	DESCRIPTION

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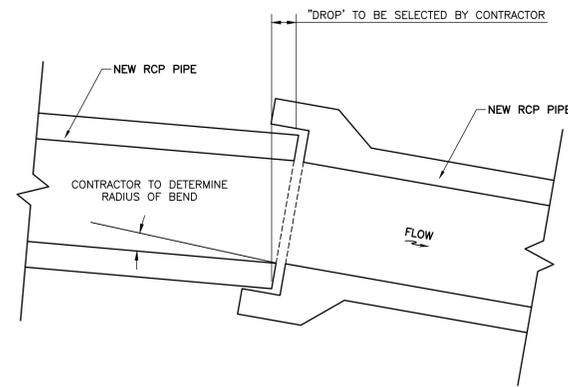
**PITTSBURGH**  
PENNSYLVANIA  
**PGH<sub>2</sub>O** Pittsburgh Water & Sewer Authority

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PITTSBURGH WATER & SEWER AUTHORITY  
PITTSBURGH, ALLEGHENY COUNTY, PA

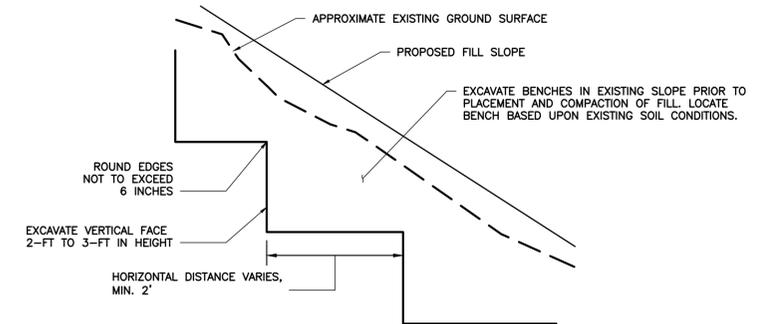
DRAWN BY: MDO	CHECKED BY:	RLS	APPROVED BY: PJS
DATE: JUNE 2020	DWG SCALE:	PROJECT NO: 174-960	DRAWING NO.: C403

JUNCTION HOLLOW SECTIONS 1

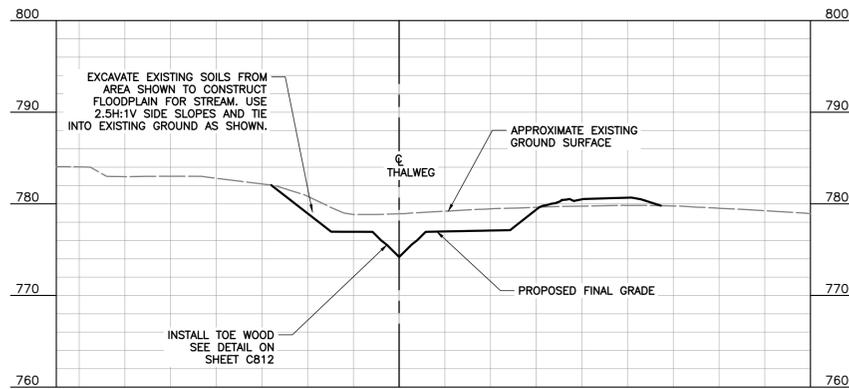
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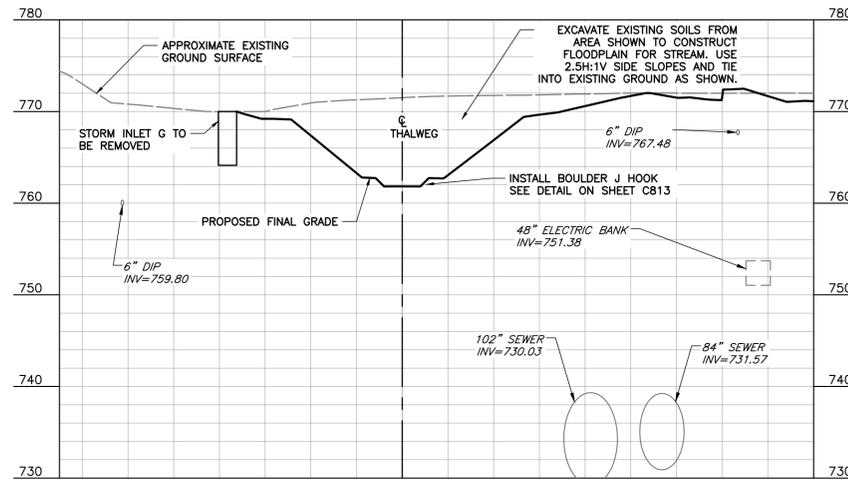
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RADIUS RCP**  
N.T.S.



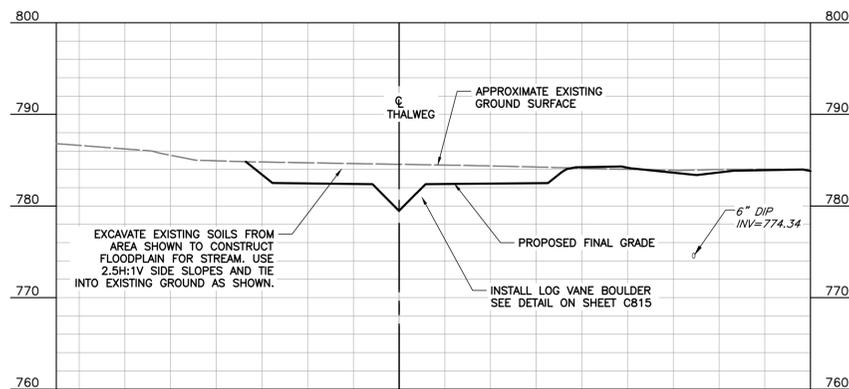
**DETAIL  
BENCHING DETAIL**  
N.T.S.



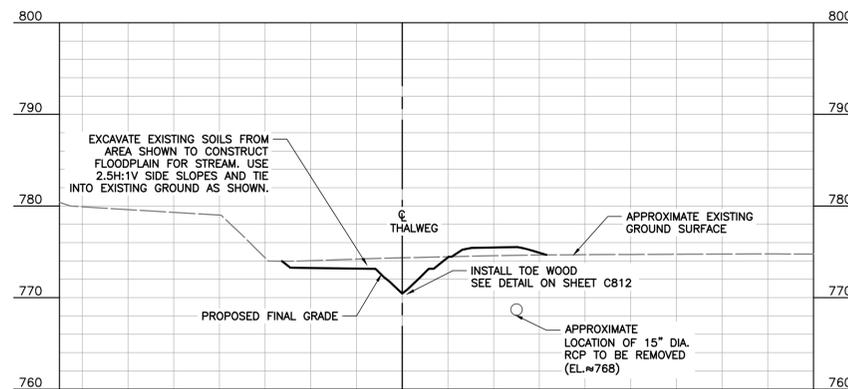
**STA 18+11**



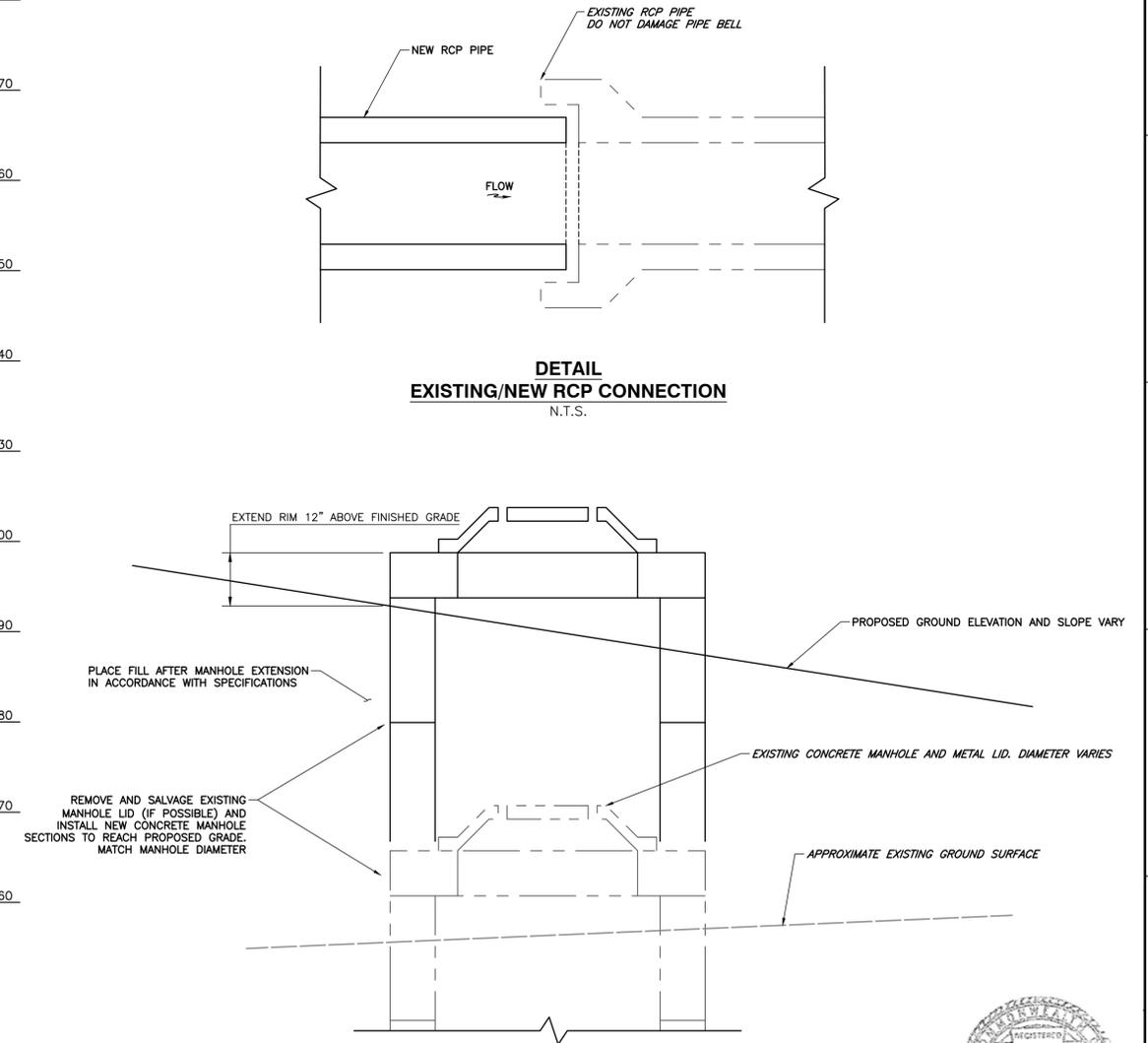
**STA 22+36**



**STA 15+70**

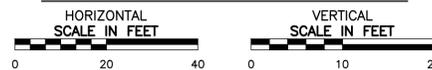


**STA 20+29**



**DETAIL  
MANHOLE EXTENSION**  
N.T.S.

**JUNCTION HOLLOW CROSS SECTIONS**



- NOTES**
1. SECTIONS CUT AS VIEWED DOWNSTREAM.
  2. SEE DOMI DRAWINGS FOR TRAIL CONSTRUCTION.

REVISION RECORD		
NO	DATE	DESCRIPTION

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PITTSBURGH, ALLEGHENY COUNTY, PA

DRAWN BY: MDO	CHECKED BY: RLS	APPROVED BY: PJS
DATE: JUNE 2020	DWG SCALE:	PROJECT NO: 174-960

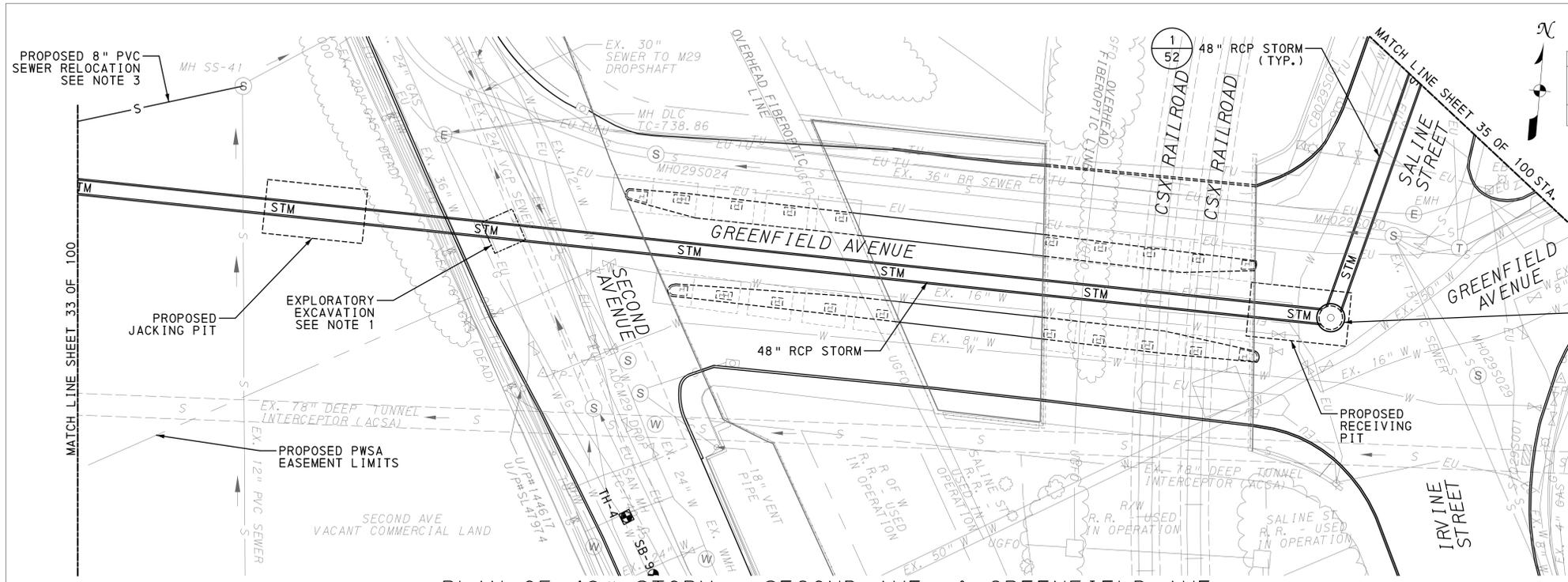
JUNCTION HOLLOW SECTIONS 2

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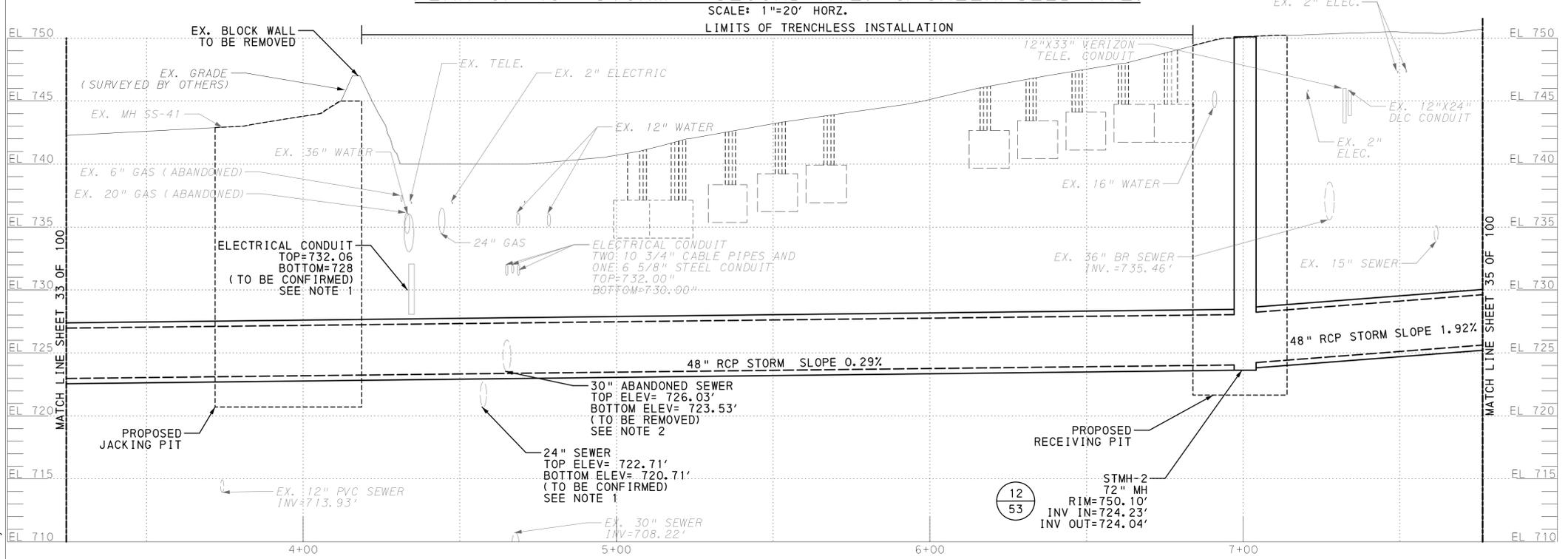


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STORM STAKEOUT DATA - GREENFIELD AVE.							
STA	STRUCTURE	SIZE	NORTHING	EASTING	RIM	INVERT	INVERT
7+01	STMH-2	72"	405285.15	1355478.84	750.10	724.23	724.04



- NOTES:**
- CONTRACTOR TO PERFORM EXPLORATORY EXCAVATION AT THIS LOCATION AND CONFIRM BOTTOM OF ELECTRIC DUCT BANK AND CLEARANCE ABOVE EXISTING 24" SEWER.
  - EXISTING 30" ABANDONED SEWER TO BE REMOVED PRIOR TO PIPELINE CONSTRUCTION. CONTRACTOR TO CUT, DEMOLISH AND REMOVE SECTION OF 30" ABANDONED SEWER, REQUIRED TO INSTALL 48" STORM PIPELINE. CONTRACTOR TO PROVIDE ANY SHEETING/SHORING NEEDED AND PROTECTION OF EXISTING UTILITIES.
  - FOR 8" SEWER RELOCATION PLAN AND PROFILE, SEE SHEET 45.

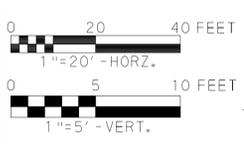
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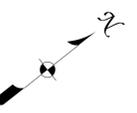
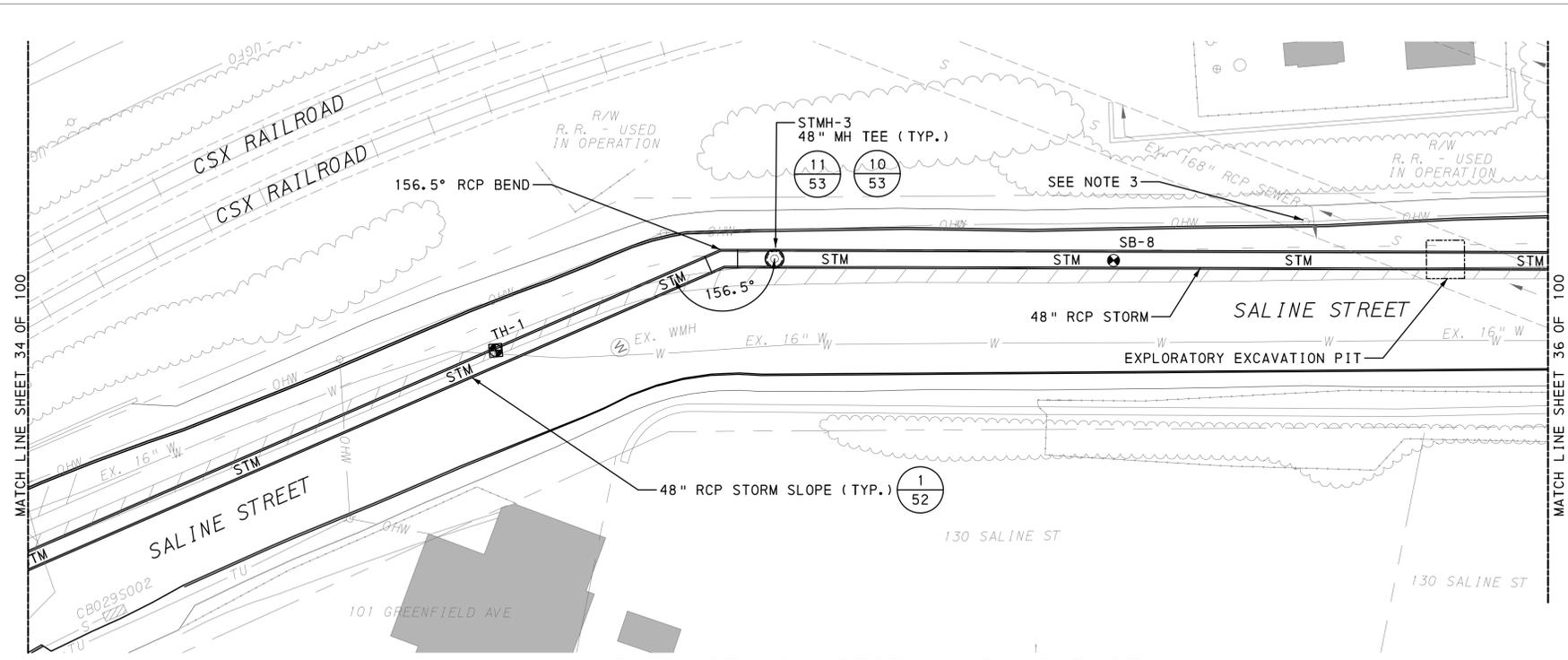
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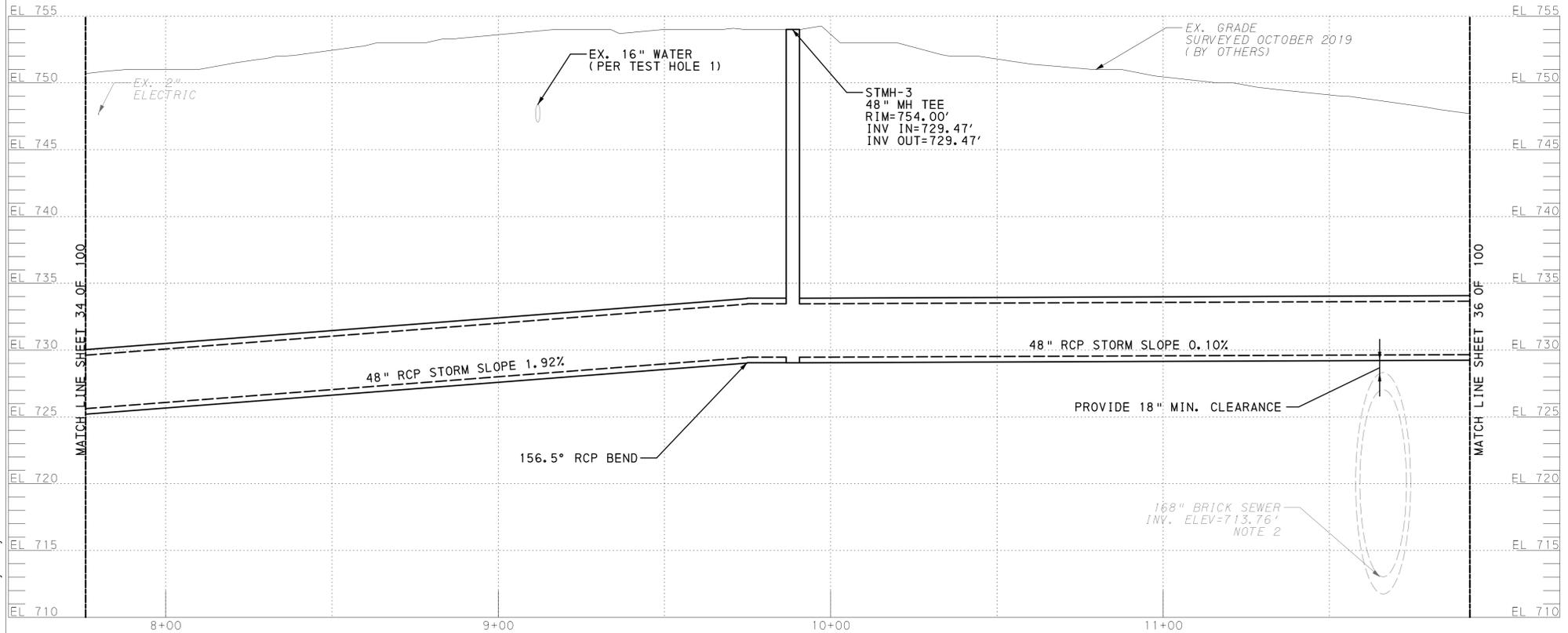
**PWSA PROJECT No. 2018-GI-102-0**  
**THE PITTSBURGH WATER AND SEWER AUTHORITY**  
**FOUR MILE RUN OUTFALL & STORMWATER IMPROVEMENTS**  
**STORM PLAN AND PROFILE**

SCALE: AS NOTED SHEET NO. 34 OF 100 ACCESSION NO. \_\_\_\_\_  
 DATE: JULY 2020 CASE NO. \_\_\_\_\_



STORM STAKEOUT DATA - SALINE ST							
STA	STRUCTURE	SIZE	NORTHING	EASTING	RIM	INVERT IN	INVERT OUT
9+75	156.5° PRE-CAST BEND	48"	405550.42	1355548.71	-	-	-
9+89	STMH-3	48"	405561.20	1355557.20	754.00	729.47	729.38

PLAN OF 48" STORM - SALINE ST.  
SCALE: 1"=20' HORZ.



PROFILE OF 48" STORM - SALINE ST. STA. 7+76 TO STA. 11+92

SCALE: 1"=20' HORZ.  
SCALE: 1"=5' VERT.

- NOTES:
- CONTRACTOR TO PROTECT AND BRACE EXISTING 16" WATER DURING CONSTRUCTION OF 48" STORM.
  - CONTRACTOR TO CONFIRM 168" SEWER CROWN PRIOR TO CONSTRUCTING 48" STORM AT THIS LOCATION, WITH EXPLORATORY EXCAVATION.
  - CONTRACTOR TO PROVIDE TEMPORARY BRACING OF UTILITY POLES.

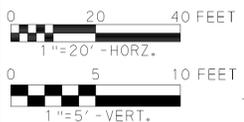
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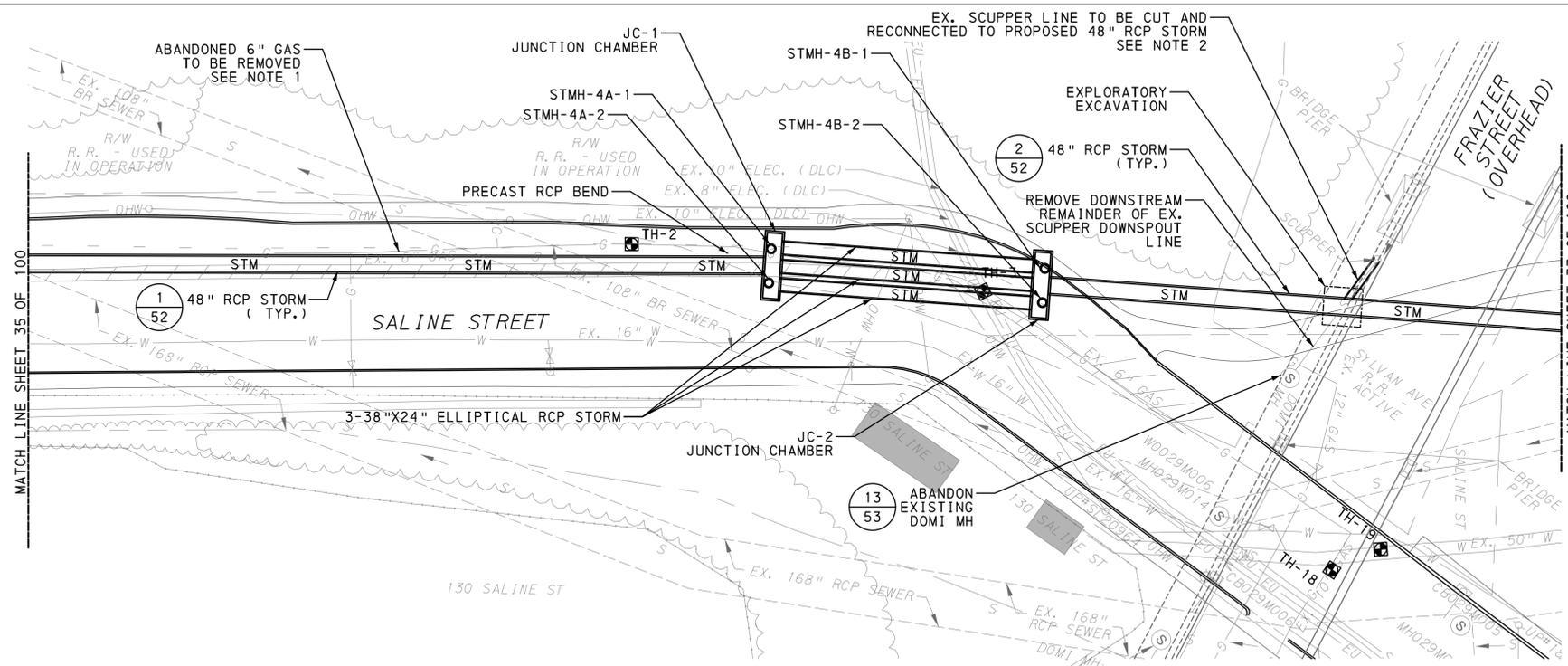
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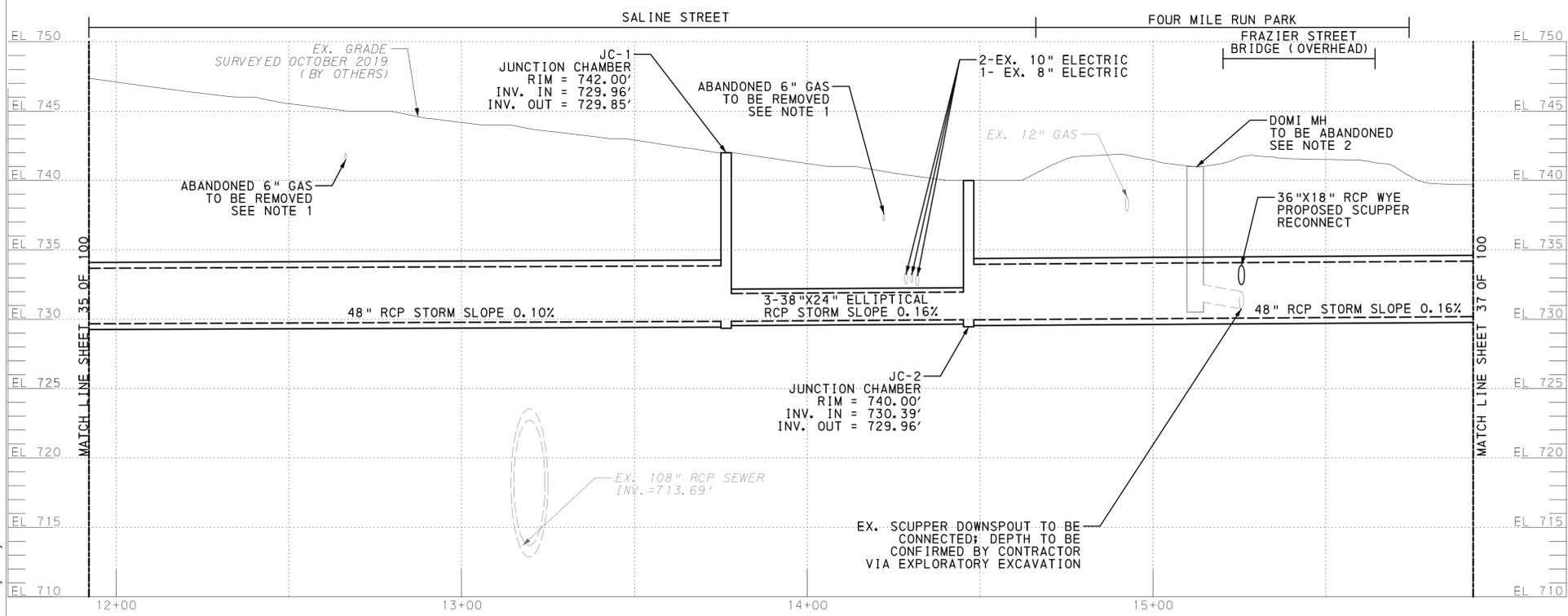
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**THE PITTSBURGH WATER AND SEWER AUTHORITY**  
**FOUR MILE RUN OUTFALL & STORMWATER IMPROVEMENTS**  
**STORM PLAN AND PROFILE**

SCALE: AS NOTED SHEET NO. 35 OF 100 ACCESSION NO. \_\_\_\_\_  
 DATE: JULY 2020 CASE NO. \_\_\_\_\_



PLAN OF 48" STORM - SALINE ST.  
SCALE: 1"=20' HORZ.

STORM STAKEOUT DATA - SALINE STREET							
STA	STRUCTURE	SIZE	NORTHING	EASTING	RIM	INVERT IN	INVERT OUT
13+86	STMH-4A-1	-	405875.64	1355800.19	742.00	729.85	729.84
13+86	STMH-4A-2	-	405869.65	1355806.77	742.00	729.85	729.84
14+57	STMH-4B-1	-	405928.63	1355848.32	740.00	729.96	729.87
14+57	STMH-4B-2	-	405922.65	1355854.91	740.00	729.96	729.87
15+36	48"x18" WYE	-	405985.88	1355903.55	-	730.75	-



PROFILE OF 48" STORM - SALINE ST. STA 11+92 TO STA 15+93  
SCALE: 1"=20' HORZ.  
SCALE: 1"=5' VERT.

- NOTES:
- EXISTING GAS LINE TO BE REMOVED IN AREAS THAT CROSS WITH PROPOSED STORM WATER PIPE. REMAINDER OF EXISTING GAS LINE TO BE ABANDONED.
  - EXISTING SCUPPER LINE TO BE DISCONNECTED FROM DOMI MH AND CONNECTED TO 48" STORM. DOMI MH TO BE ABANDONED IN PLACE PER DETAILS.

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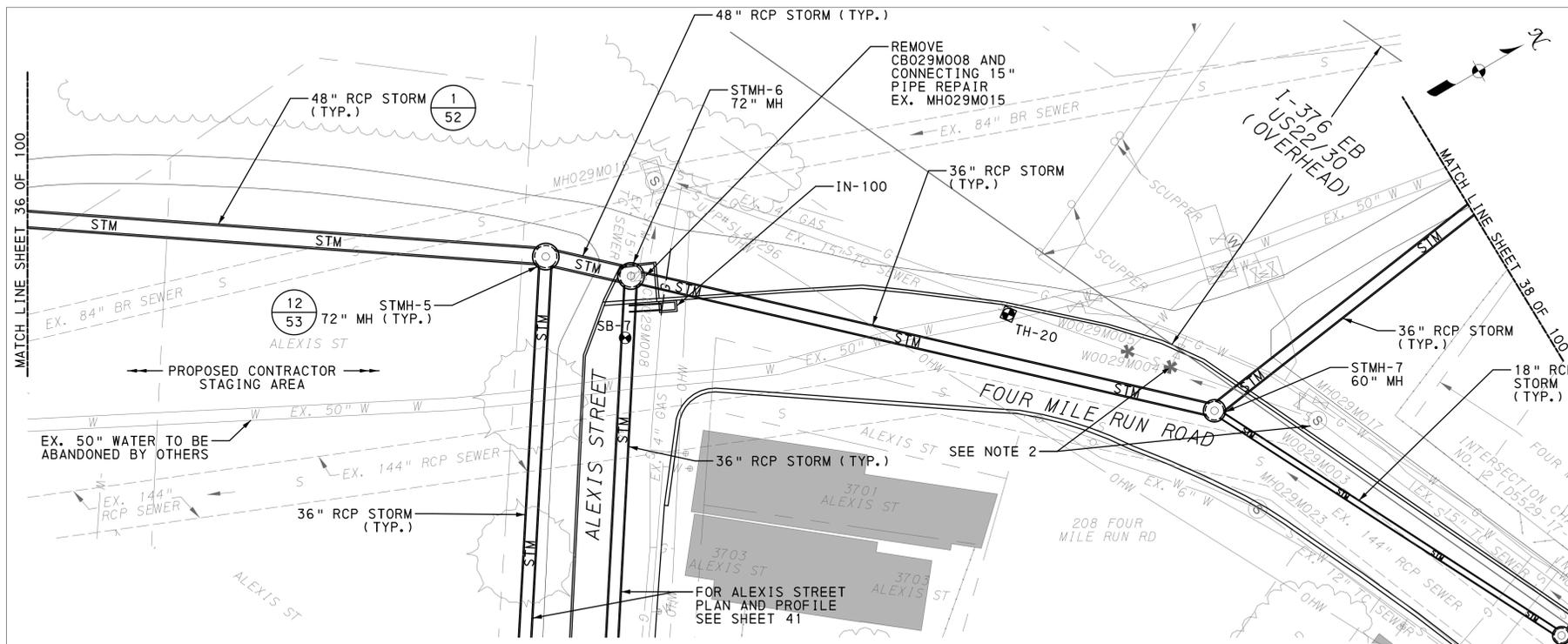
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**PWSA PROJECT No. 2018-GI-102-0**  
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**FOUR MILE RUN OUTFALL & STORMWATER IMPROVEMENTS**  
**STORM PLAN AND PROFILE**

SCALE: AS NOTED SHEET NO. 36 OF 100  
 DATE: JULY 2020 ACCESSION NO. \_\_\_\_\_ CASE NO. \_\_\_\_\_

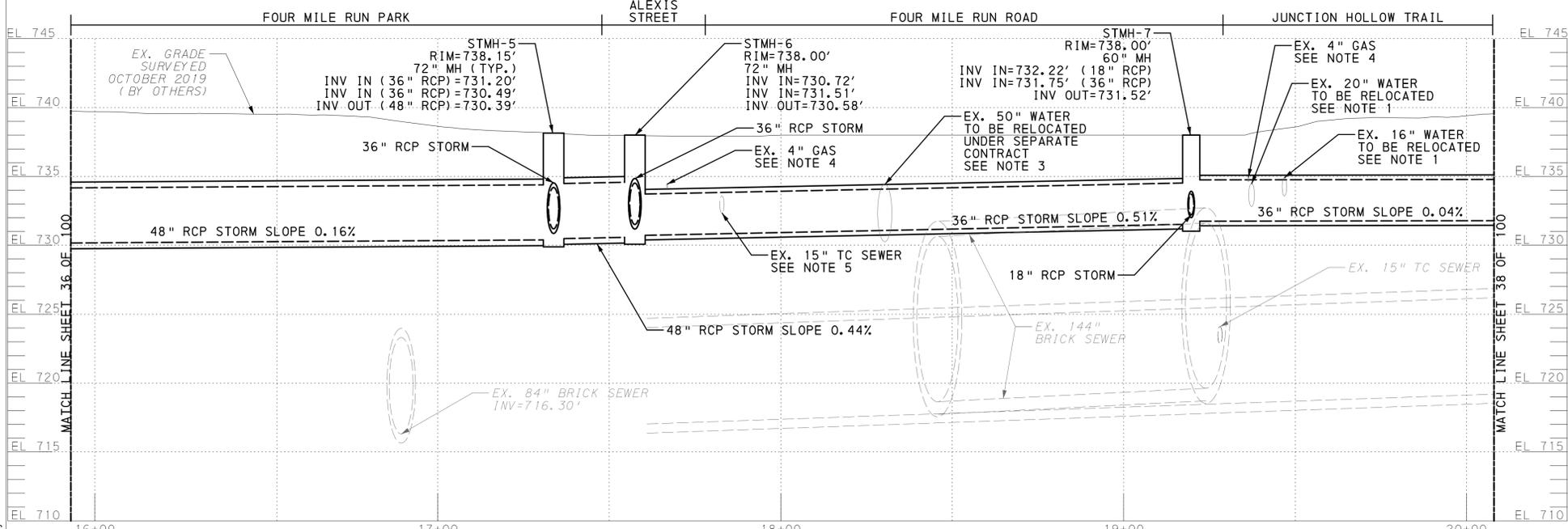


PLAN OF 48" STORM - FOUR MILE RUN RD.  
SCALE: 1"=20' HORZ.

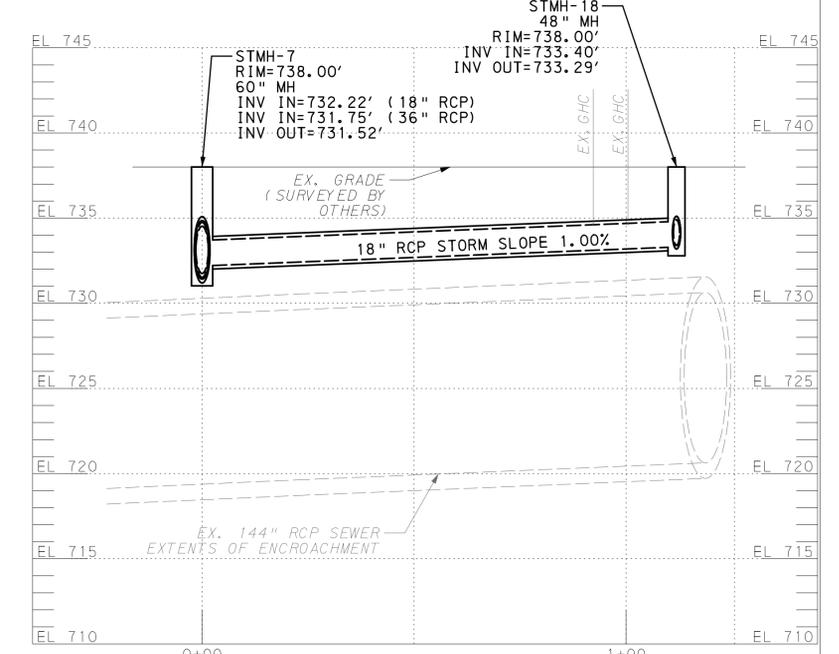
STORM STAKEOUT DATA - FOUR MILE RUN ROAD							
STA	STRUCTURE	SIZE	NORTHING	EASTING	RIM	INVERT IN	INVERT OUT
17+33=0+00	STMH-5	72"	406130.14	1356037.29	738.15	731.20 (36" RCP) 730.49 (48" RCP)	730.39
17+57=0+00	STMH-6	72"	406145.09	1356055.69	738.00	731.51 (36" RCP) 730.72 (36" RCP)	730.58
19+19=0+00	STMH-7	60"	406246.95	1356181.96	738.00	732.22 (18" RCP) 731.75 (36" RCP)	731.52
1+12	STMH-18	48"	406283.43	1356287.78	738.00	733.40	733.29

INLET STAKEOUT DATA - FOUR MILE RUN ROAD							
STA	STRUCTURE	TYPE	NORTHING	EASTING	TG	INVERT OUT	BOTTOM
1+22	IN-101	TYPE-13	406290.75	1356294.95	738.00	733.91	733.41

- NOTES:
- SEE SHEET 49 FOR WATER RELOCATION PLAN AND PROFILES. CONTRACTOR TO CUT AND REMOVE SECTION OF 20" AND 16" ABANDONED WATER MAIN TO INSTALL 36" STORM.
  - SEE SHEET 51 FOR WASHOUT DISCONNECTION PLANS.
  - 50" WATER TO BE RELOCATED BY OTHERS PRIOR TO CONSTRUCTION. CONTRACTOR TO CUT AND REMOVE SECTION OF PIPELINE TO INSTALL 36" STORM.
  - 4" GAS TO BE RELOCATED BY PEOPLE'S NATURAL GAS.
  - CONTRACTOR TO ABANDON/REMOVE SECTION OF 15" SEWER.



PROFILE OF 48" STORM - FOUR MILE RUN RD. STA. 15+93 TO STA. 20+08  
SCALE: 1"=20' HORZ.  
SCALE: 1"=5' VERT.



PROFILE OF 18" STORM - FOUR MILE RUN RD. STA. 0+00 TO STA. 1+22  
SCALE: 1"=20' HORZ.  
SCALE: 1"=5' VERT.

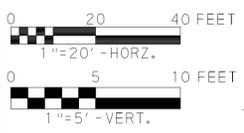
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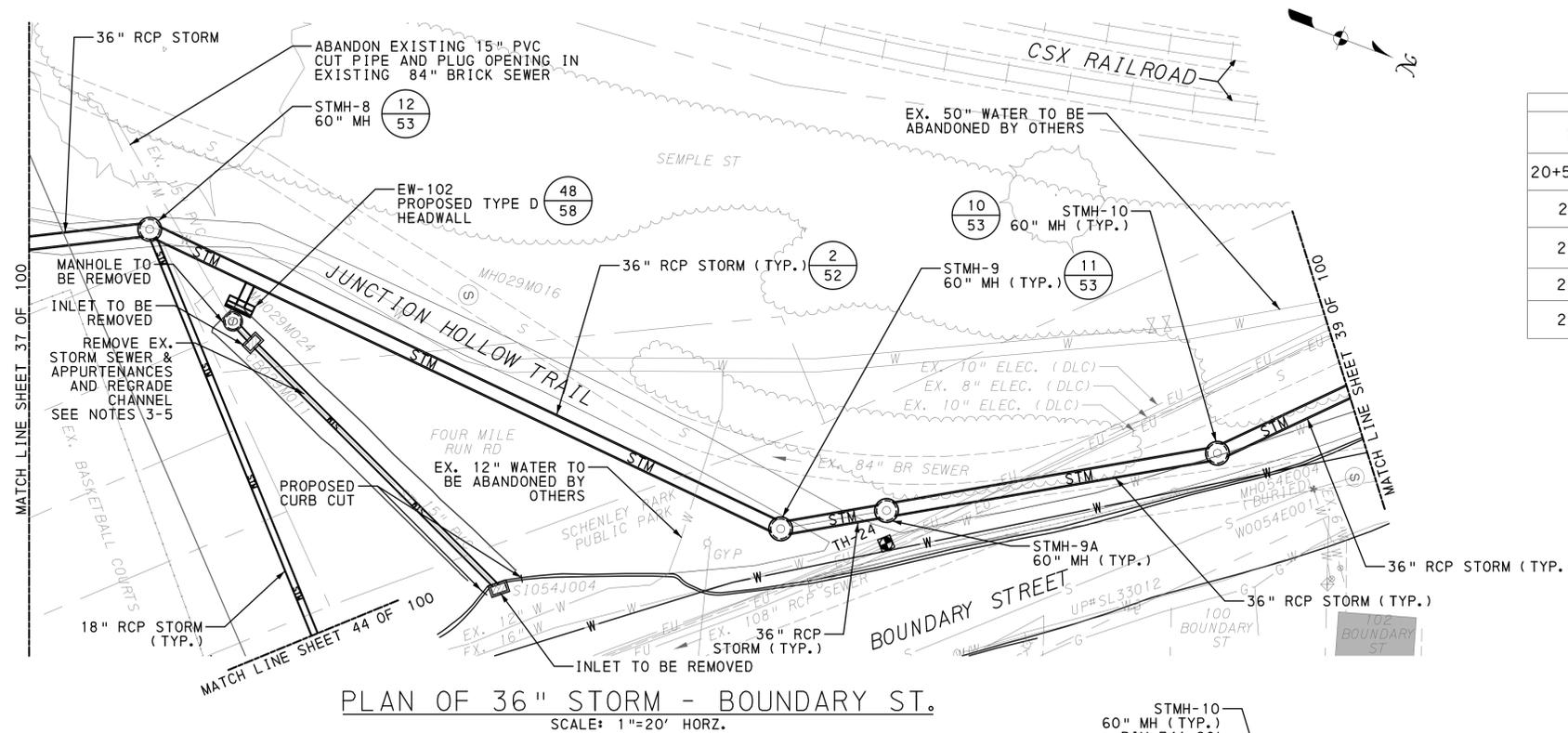
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**STORM PLAN AND PROFILE**

SCALE: AS NOTED SHEET NO. 37 OF 100 ACCESSION NO. \_\_\_\_\_  
 DATE: JULY 2020 CASE NO. \_\_\_\_\_

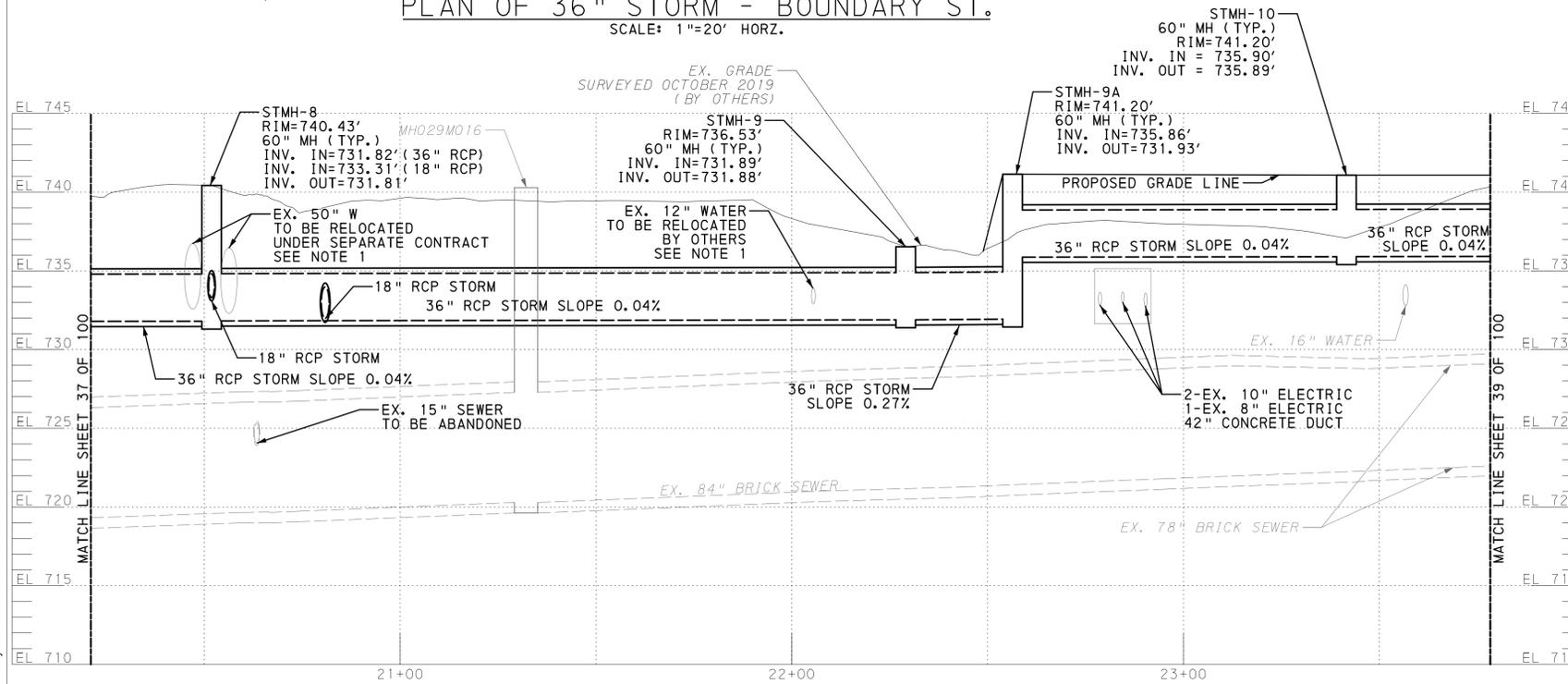


STORM STAKEOUT DATA - JUNCTION HOLLOW TRAIL							
STA	STRUCTURE	SIZE	NORTHING	EASTING	RIM	INVERT IN	INVERT OUT
20+52=0+00	STMH-8	60"	406379.41	1356182.33	740.43	731.82 (36" RCP) 733.31 (18" RCP)	731.74
20+81	36"x18" WYE	-	406404.00	1356197.69	-	731.98	-
22+29	STMH-9	60"	406529.73	1356276.24	736.53	731.91	731.89
22+56	STMH-9A	60"	406556.98	1356274.78	741.20	735.86	731.93
23+42	STMH-10	60"	406642.14	1356270.21	741.20	735.90	735.89

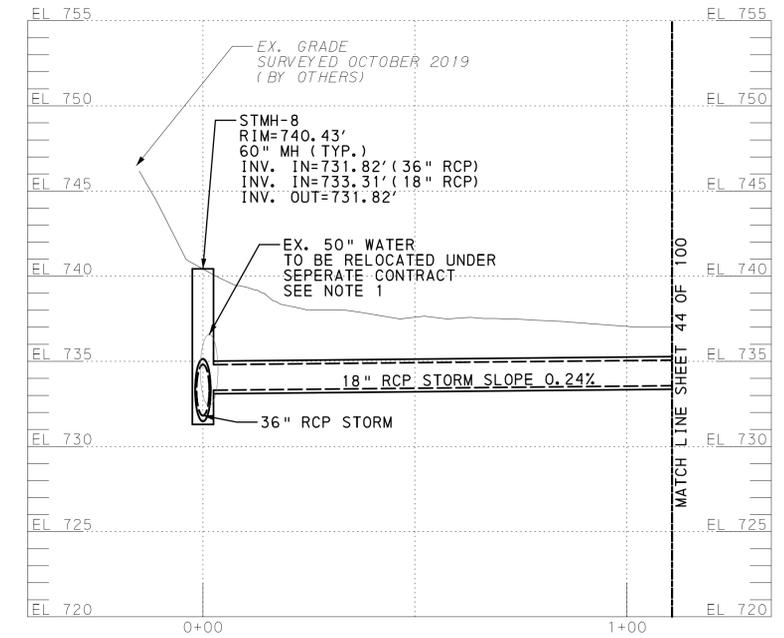
**NOTES:**

- EXISTING WATER TO BE RELOCATED BY OTHERS PRIOR TO CONSTRUCTION. CONTRACTOR TO CUT AND REMOVE SECTION OF PIPELINE TO INSTALL 36" STORM.
- 16" WATER TO BE RELOCATED, SEE SHEET 50.
- REMOVE STRUCTURES S1054J004, CB029M011, AND MHO29M024 AND BACKFILL. INSTALL NEW 18" RCP AND TYPE D HEADWALL. REGRADE CHANNEL TO FLOW FROM CURB CUT TO NEW HEADWALL. SEE SHEET 46.
- ABANDON 15" PVC IN PLACE.
- SET TOP ELEVATION OF NEW STRUCTURES TO MATCH FINISHED GRADE.

PLAN OF 36" STORM - BOUNDARY ST.  
SCALE: 1"=20' HORZ.



PROFILE OF 36" STORM - BOUNDARY ST. STA. 20+08 TO STA. 23+78  
SCALE: 1"=20' HORZ.  
SCALE: 1"=5' VERT.



PROFILE OF 18" STORM - BOUNDARY ST.  
STA. 0+00 TO STA. 1+11  
SCALE: 1"=20' HORZ.  
SCALE: 1"=5' VERT.

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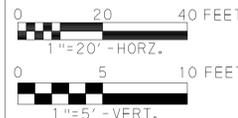
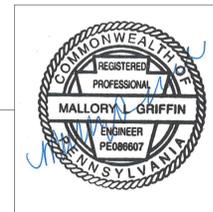
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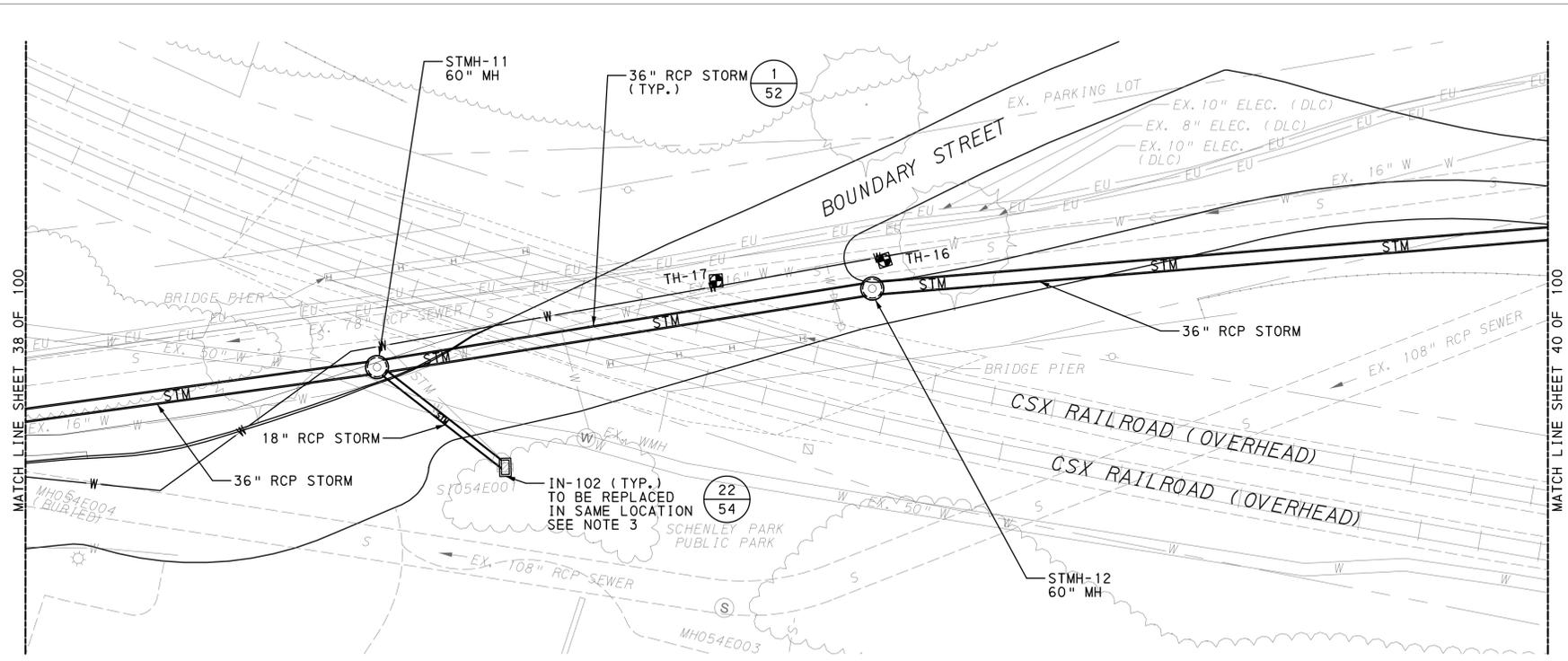
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DIRECTOR ENG. & CONST., P.W.S.A.

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**STORM PLAN AND PROFILE**

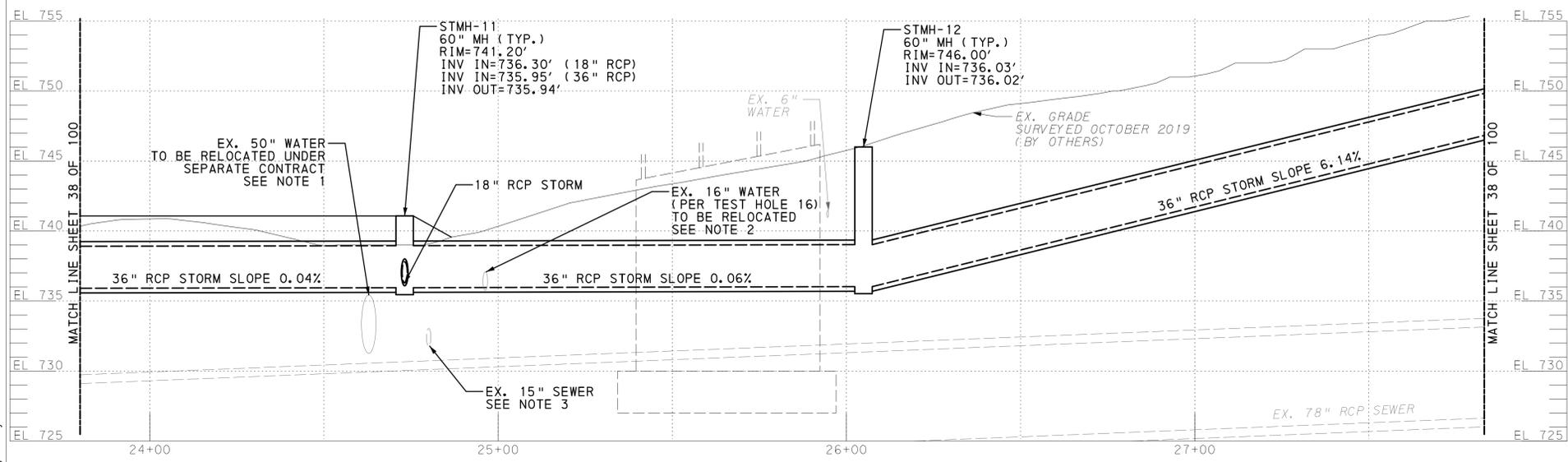
SCALE: AS NOTED SHEET NO. 38 OF 100  
 DATE: JULY 2020 ACCESSION NO. CASE NO.



PLAN OF 36" STORM - BOUNDARY ST.  
SCALE: 1"=20' HORZ.

STORM STAKEOUT DATA - BOUNDARY STREET							
STA	STRUCTURE	SIZE	NORTHING	EASTING	RIM	INVERT IN	INVERT OUT
24+72=0+00	STMH-11	60"	406765.47	1356229.30	741.20	736.30 (18" RCP) 735.95 (36" RCP)	735.94
26+04	STMH-12	60"	406889.61	1356185.21	746.00	736.03	736.02

INLET STAKEOUT DATA - BOUNDARY STREET							
STA	STRUCTURE	TYPE	NORTHING	EASTING	TG	INVERT OUT	BOTTOM
0+43	IN-102	TYPE-13	406803.4	1356248.86	741.43	738.22	737.72



PROFILE OF 36" STORM - BOUNDARY ST. STA. 23+80 TO STA. 27+83  
SCALE: 1"=20' HORZ.  
SCALE: 1"=5' VERT.

NOTES:

- EXISTING 50" WATER TO BE RELOCATED BY OTHERS PRIOR TO CONSTRUCTION. CONTRACTOR TO CUT AND REMOVE SECTION OF PIPELINE TO INSTALL 36" STORM.
- REFER TO SHEET 50 FOR EXISTING 16" WATER RELOCATION.
- REMOVE S1054E001 AND INSTALL INLET IN-102. CUT EXISTING PIPE AT THE EXISTING 15" SEWER TO INSTALL 36" STORM AND REPAIR SEWER PER DETAIL.

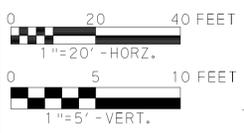
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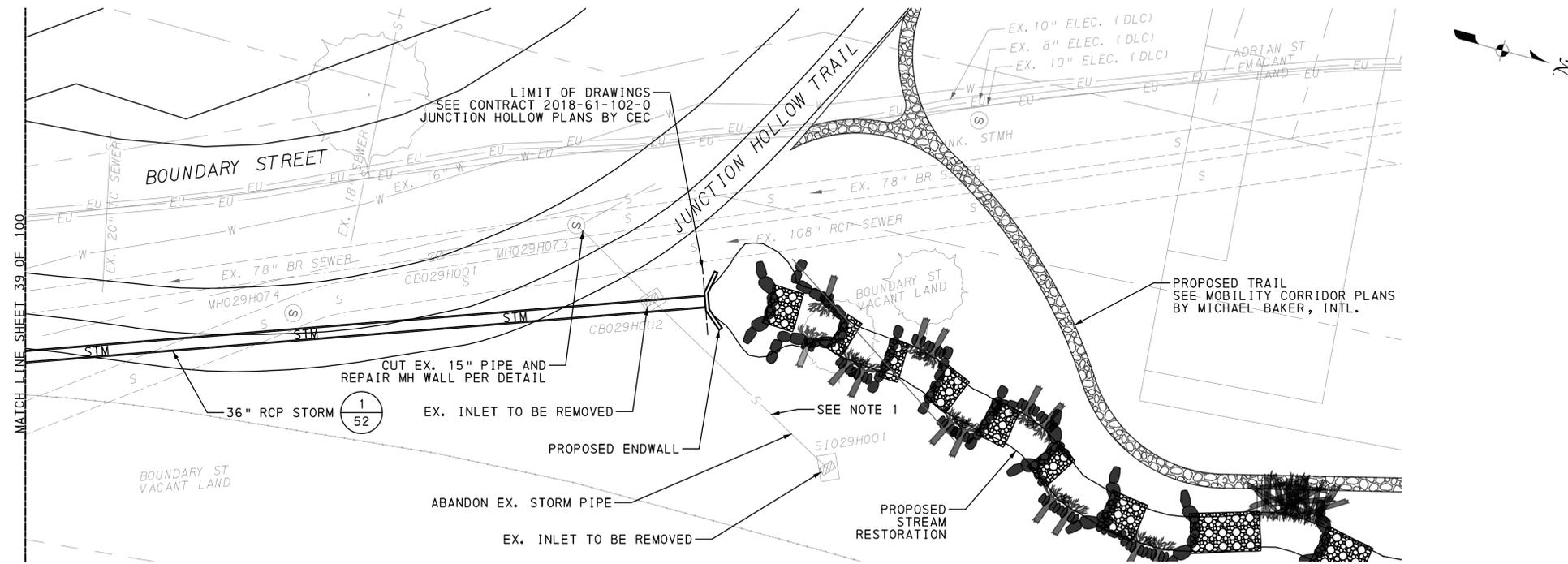
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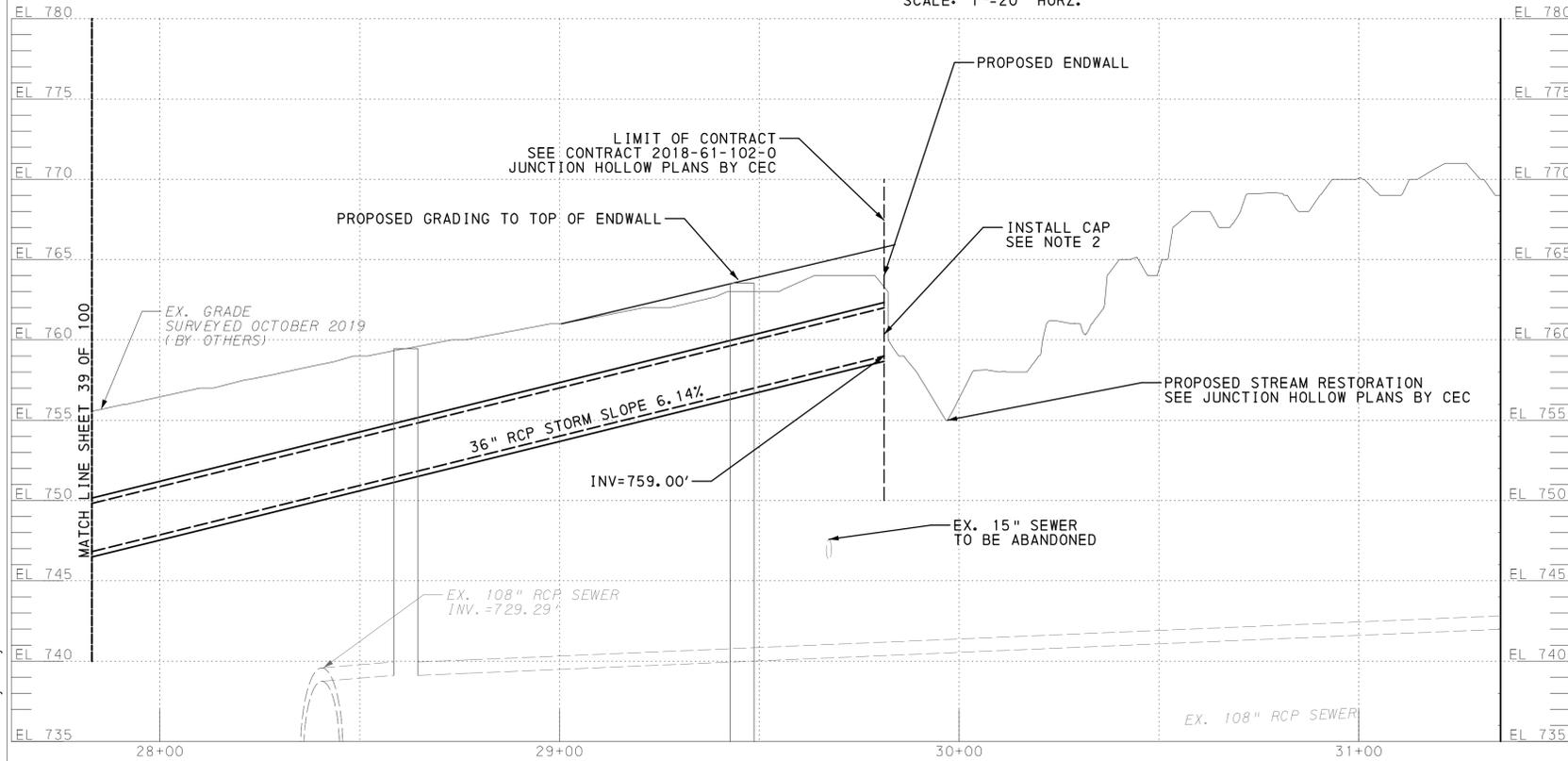
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SCALE: AS NOTED SHEET NO. 39 OF 100 ACCESSION NO. \_\_\_\_\_  
 DATE: JULY 2020 CASE NO. \_\_\_\_\_



PLAN OF 36" STORM - BOUNDARY ST.  
SCALE: 1"=20' HORZ.

- NOTES:**
- CONTRACTOR SHALL REMOVE EXISTING INLET S1029H001, CB029H002 AND ABANDON EXISTING 15" STORM SEWER IN PLACE.
  - CONTRACTOR TO INSTALL TEMPORARY END CAP AND COORDINATE CONSTRUCTION OF ENDWALL WITH JUNCTION HOLLOW WORK.



PROFILE OF 36" STORM - BOUNDARY ST.  
STA. 27+83 TO STA. 29+84  
SCALE: 1"=20' HORZ.  
SCALE: 1"=5' VERT.

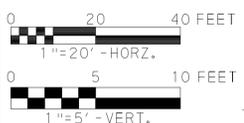
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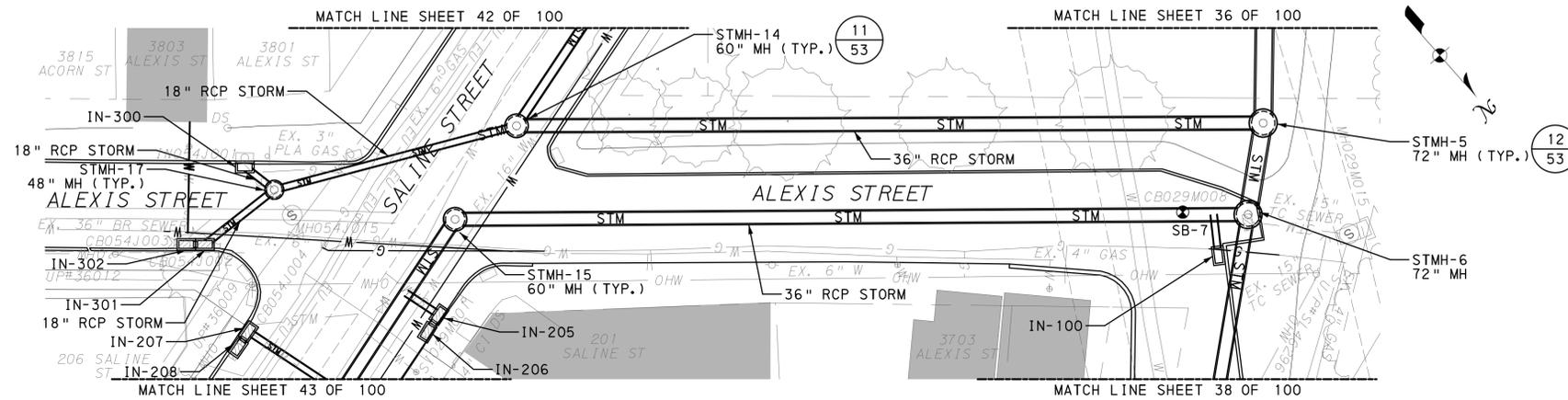
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SCALE: AS NOTED SHEET NO. **40** OF **100** ACCESSION NO. \_\_\_\_\_  
 DATE: JULY 2020 CASE NO. \_\_\_\_\_



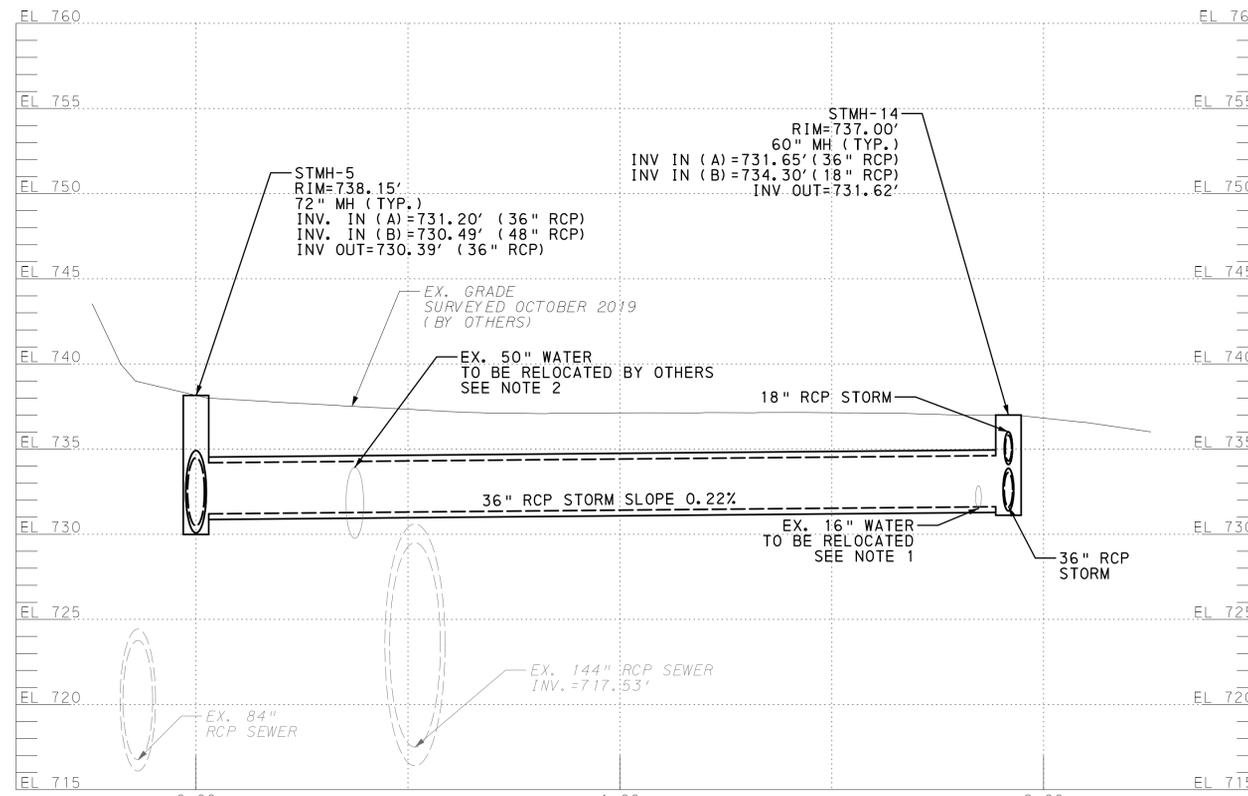
PLAN OF 36" STORM - ALEXIS ST.  
SCALE: 1"=20' HORZ.

STORM STAKEOUT DATA - ALEXIS STREET							
STA	STRUCTURE	SIZE	NORTHING	EASTING	RIM	INVERT IN	INVERT OUT
1+92=0+00	STMH-14	60"	406003.71	1356181.35	737.00	731.65 (36" RCP) 734.30 (18" RCP)	731.62
0+09	36"x18" WYE	N/A	406139.28	1356062.32	-	733.00	-
2+04	STMH-15	60"	406011.16	1356208.98	737.56	731.57	731.62

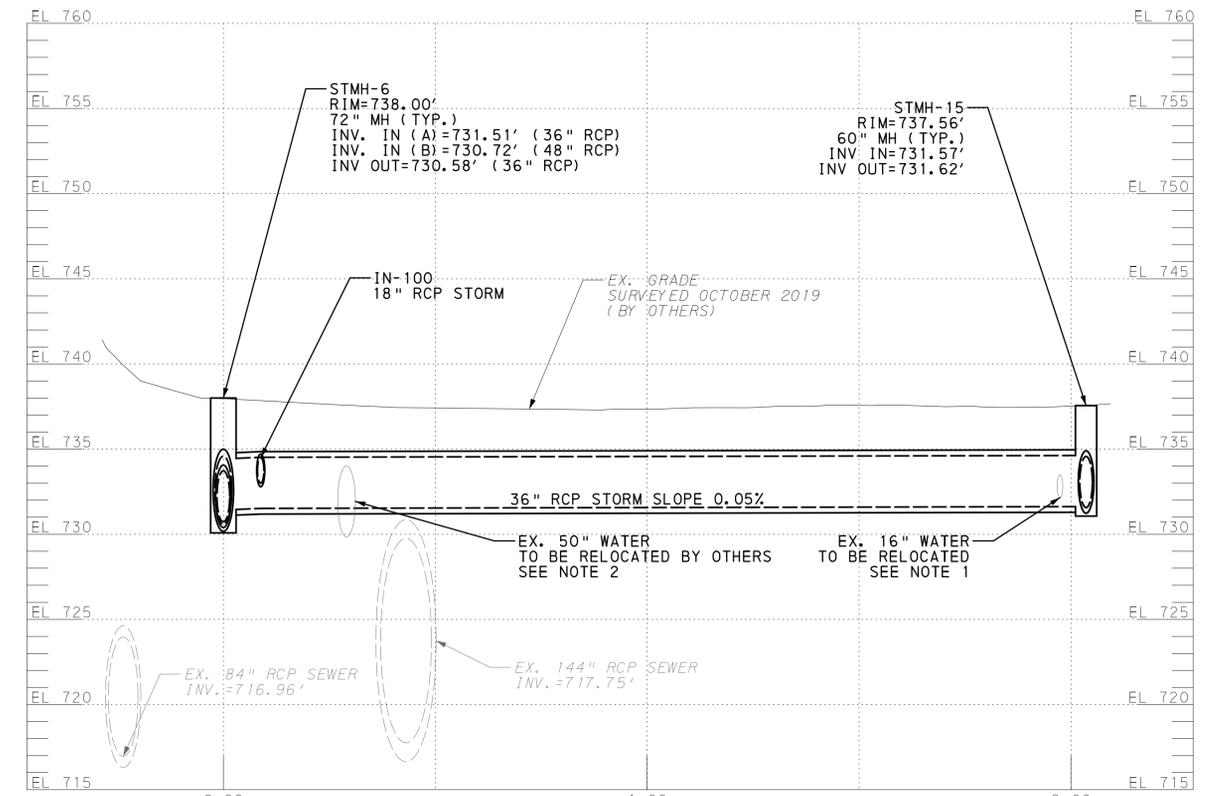
STORM STAKEOUT DATA - ALEXIS STREET							
STA	STRUCTURE	TYPE	NORTHING	EASTING	TG	INVERT OUT	BOTTOM
0+11	IN-100	TYPE-13	406147.88	1356068.34	737.88	733.48	732.98

NOTES:

- SEE WATER RELOCATION PLAN ON SHEET 49.
- 50" WATER RELOCATION BY OTHERS. CONTRACTOR TO CUT AND REMOVE SECTION OF PIPELINE TO INSTALL 36" STORM.



PROFILE OF 36" STORM - ALEXIS ST. STA. 0+00 TO STA. 1+92  
SCALE: 1"=20' HORZ.  
SCALE: 1"=5' VERT.



PROFILE OF 36" STORM - ALEXIS ST. STA. 0+00 TO STA. 2+04  
SCALE: 1"=20' HORZ.  
SCALE: 1"=5' VERT.

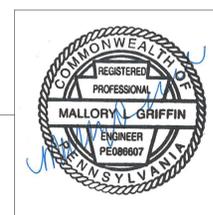
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CALC. BOOK	PG.	

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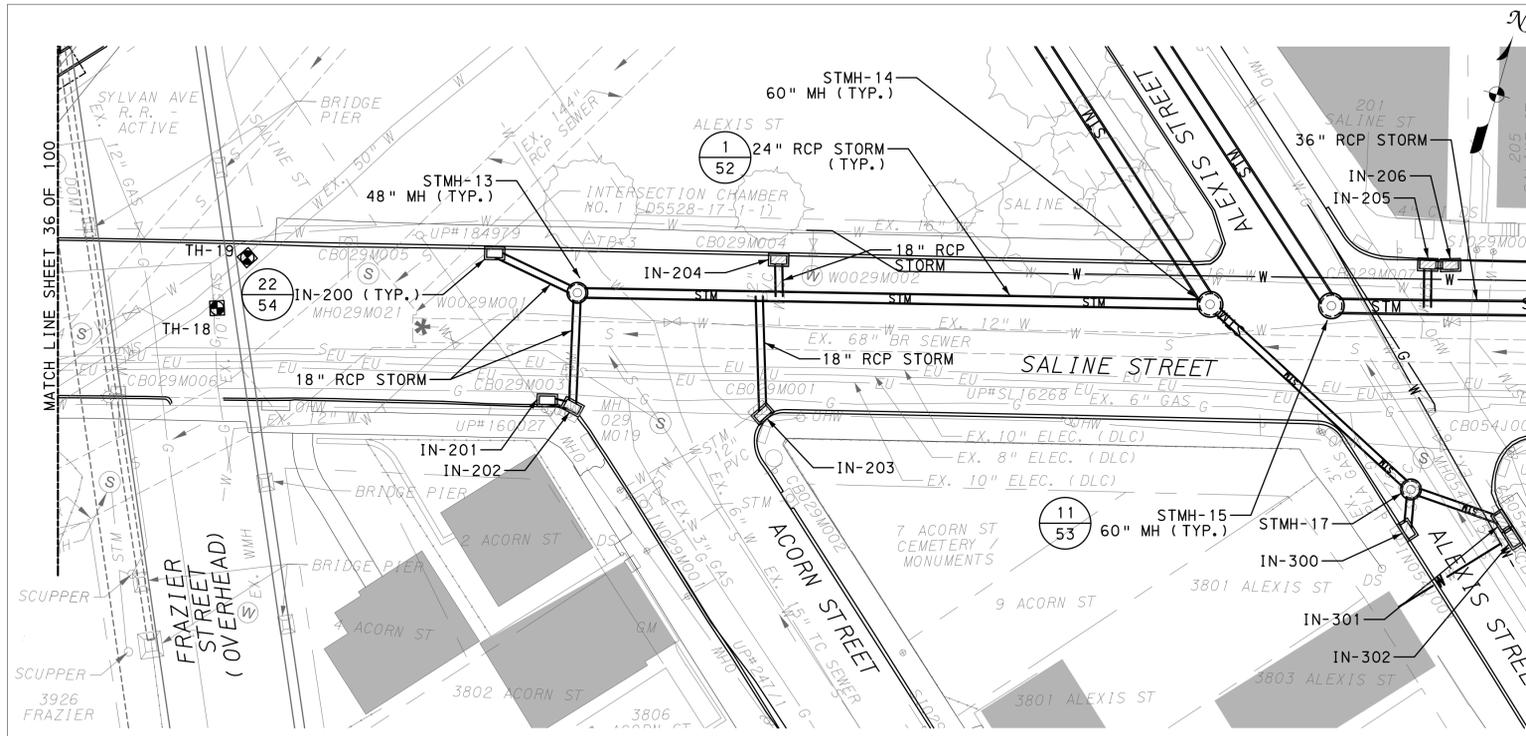
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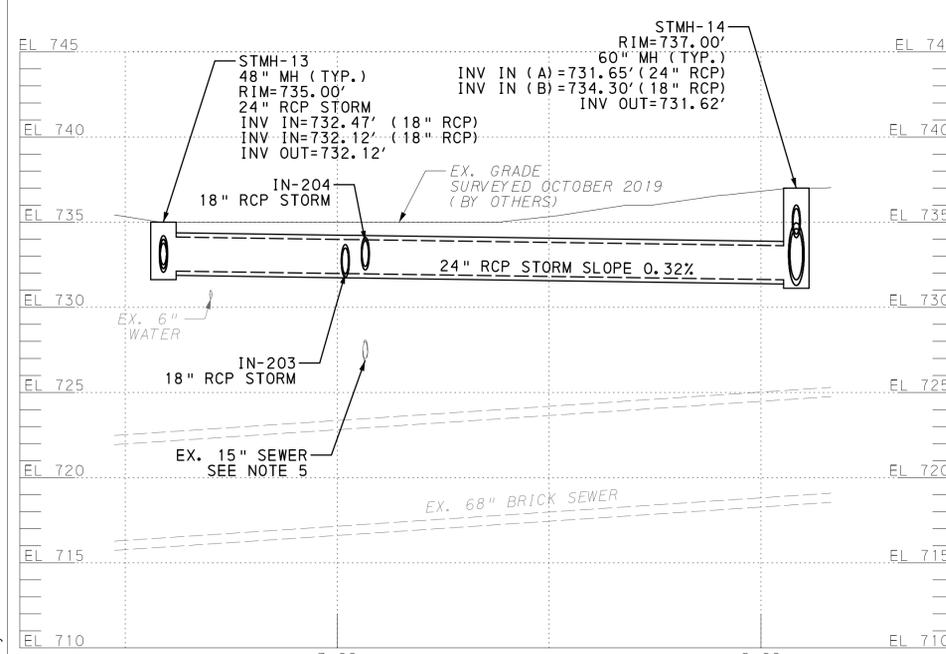
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**PWSA PROJECT No. 2018-GI-102-0**  
**THE PITTSBURGH WATER AND SEWER AUTHORITY**  
**FOUR MILE RUN OUTFALL & STORMWATER IMPROVEMENTS**  
**STORM PLAN AND PROFILE**

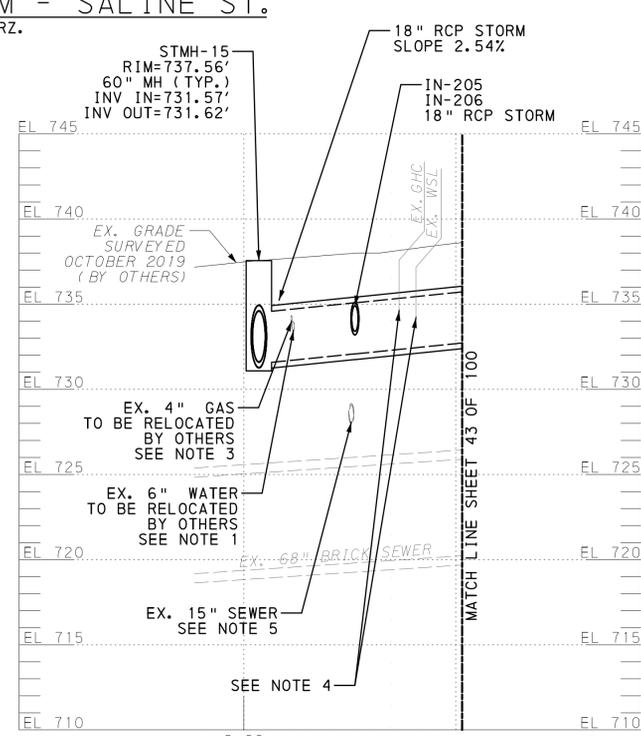
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 DATE: JULY 2020      CASE NO. \_\_\_\_\_



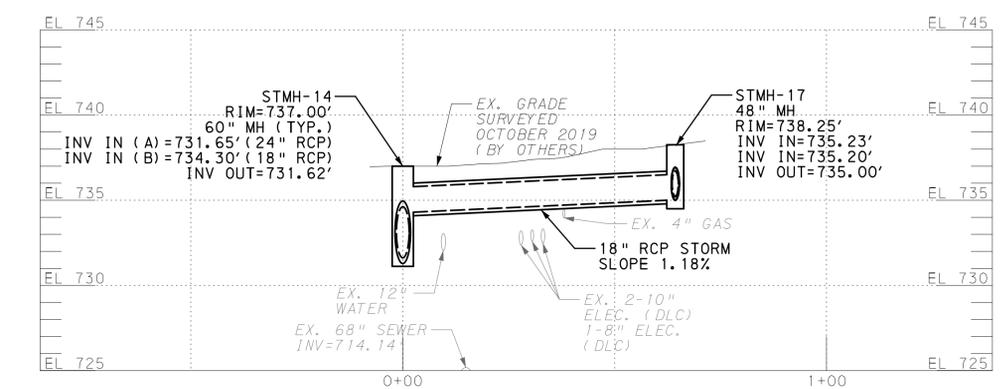
PLAN OF 24"-36" STORM - SALINE ST.  
SCALE: 1"=20' HORZ.



PROFILE OF 24" STORM - SALINE ST.  
STA. 1+92 TO STA. 3+49  
SCALE: 1"=20' HORZ.  
SCALE: 1"=5' VERT.



PROFILE OF 36" STORM - SALINE ST.  
STA. 2+04 TO STA. 2+52  
SCALE: 1"=20' HORZ.  
SCALE: 1"=5' VERT.



PROFILE OF 18" STORM - ALEXIS ST.  
STA. 0+00 TO STA. 0+74  
SCALE: 1"=20' HORZ.  
SCALE: 1"=5' VERT.

STA	STRUCTURE	SIZE	NORTHING	EASTING	RIM	INVERT IN	INVERT OUT
1+92=0+00	SMTH-14	60"	406003.71	1356181.35	737.00	731.65 (36" RCP) 734.30 (18" RCP)	731.62
2+93	24"X18" WYE	-	405977.84	1356083.00	-	732.40	-
2+98	24"X18" WYE	-	405976.64	1356078.42	-	731.99	-
3+41	STMH-13	48"	405965.73	1356036.95	735.00	732.47 (18" RCP) 732.12 (18" RCP)	732.04

STA	STRUCTURE	SIZE	NORTHING	EASTING	RIM	INVERT IN	INVERT OUT
2+26	24"X18" WYE	-	406017.09	1356230.85	-	733.40	-

STA	STRUCTURE	SIZE	NORTHING	EASTING	RIM	INVERT IN	INVERT OUT
0+64	STMH-17	60"	405974.77	1356238.76	738.25	735.23 (18" RCP) 735.20 (18" RCP)	735.00

STA	STRUCTURE	TYPE	NORTHING	EASTING	TG	INVERT IN	INVERT OUT	BOTTOM
0+22	IN-200	TYPE-13	405969.35	1356015.65	735.73	-	733.00	732.50
0+27	IN-201	TYPE-13	405939.49	1356036.98	735.00	-	732.81	732.31
0+27	IN-202	TYPE-13	405939.66	1356043.79	735.00	732.75	732.71	732.21
0+28	IN-203	TYPE-13	405950.26	1356086.76	735.00	-	732.63	732.13
0+09	IN-204	TYPE-13	405986.10	1356080.53	735.00	-	732.50	732.00
0+10	IN-205	TYPE-13	406026.65	1356228.24	738.00	734.00	733.90	733.40
0+10	IN-206	TYPE-13	406028.01	1356233.42	738.00	-	734.10	733.60
0+10	IN-300	TYPE-13	405963.79	1356234.88	738.57	-	735.29	734.79
0+23	IN-301	TYPE-13	405973.44	1356261.33	738.78	735.60	735.40	734.90
0+23	IN-302	TYPE-13	405970.24	1356264.95	738.89	-	735.61	735.11

NOTES:

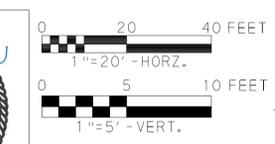
- SEE SHEET 50 FOR WATER RELOCATION PLAN AND PROFILES.
- SEE SHEET 51 FOR WASHOUT DISCONNECTION PLANS.
- GAS RELOCATION TO BE COORDINATED WITH PEOPLE'S NATURAL GAS COMPANY DURING CONSTRUCTION.
- CONTRACTOR TO COORDINATE REMOVAL AND RESETTING OF WATER AND GAS SERVICE LINES ENCOUNTERED IN THE TRENCH.
- EXISTING 15" SEWER CONNECTION TO BE ABANDONED. CONNECTION TO COMBINE SEWER SHALL BE REPAIRED PER DETAILS, AND SECTIONS OF PIPE SHALL BE REMOVED AS NECESSARY TO INSTALL NEW INLET CONNECTIONS TO STORM PIPELINE.
- REMOVE EXISTING CB029M004, CB029M003, CB029M007 AND SI029M007 AND INSTALL NEW IN-204, IN201, IN-202, IN-205 AND IN206 AS SHOWN. CUT EXISTING 15" PIPES AT 68" BRICK SEWER AND REPAIR SEWER PER DETAIL.
- REMOVE EXISTING CB029M001 AND INSTALL NEW IN-203 AS SHOWN. CUT EXISTING 12" PVC SEWER AT EXISTING 15" VCP SEWER AND REPAIR SEWER PER DETAIL.
- REMOVE EXISTING CB054J002 AND CB054J003 AND INSTALL NEW IN-301 AND IN-302 AS SHOWN. CUT EXISTING PIPE AT 36" BRICK SEWER AND REPAIR SEWER PER DETAIL.
- REMOVE EXISTING IN054J001 AND INSTALL NEW IN-300. CUT EXISTING 12" PVC AT MANHOLE AND REPAIR MANHOLE PER DETAIL.
- SET THE TOP OF ALL NEW STRUCTURES TO MATCH FINISHED GRADE.

7/31/2020 11:48:56 AM  
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CALC. BOOK	PG.	



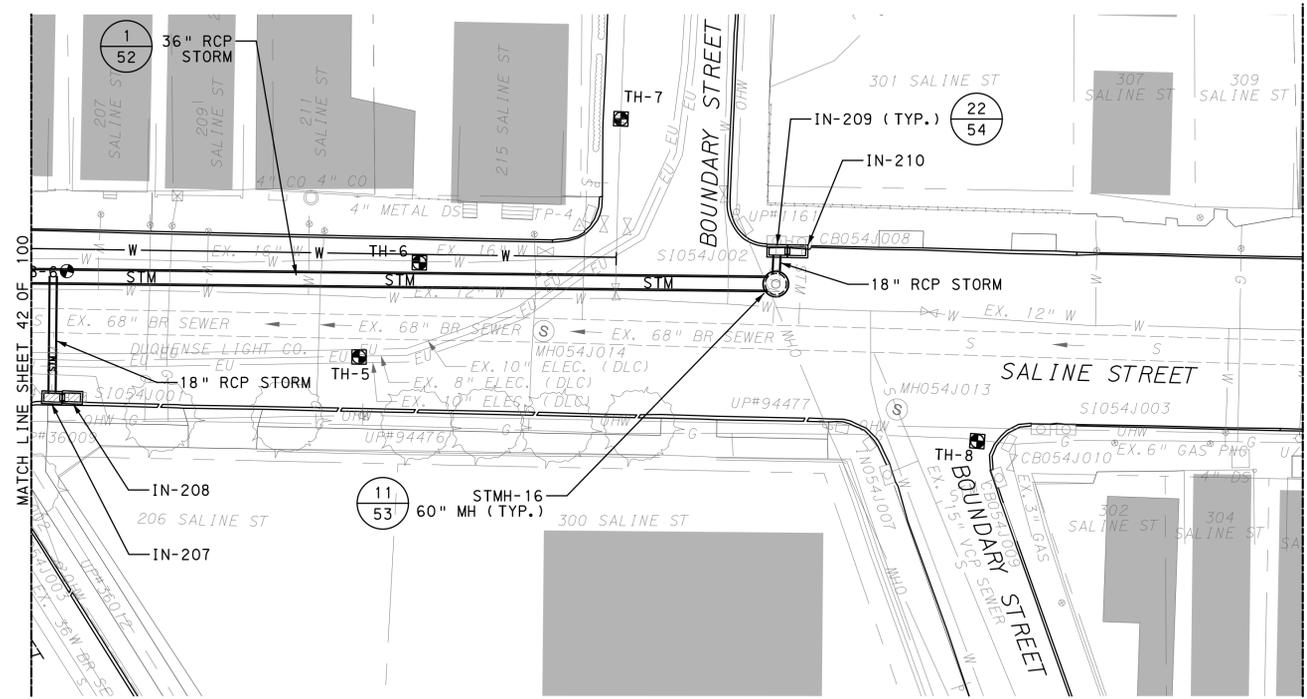
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DEPUTY DIRECTOR ENG. & CONST., P.W.S.A.	
DIRECTOR ENG. & CONST., P.W.S.A.	

**PWSA PROJECT No. 2018-GI-102-0**  
**THE PITTSBURGH WATER AND SEWER AUTHORITY**  
**FOUR MILE RUN OUTFALL & STORMWATER IMPROVEMENTS**  
**STORM PLAN AND PROFILE**

SCALE: AS NOTED SHEET NO. 42 OF 100  
 DATE: JULY 2020 ACCESSION NO. CASE NO.



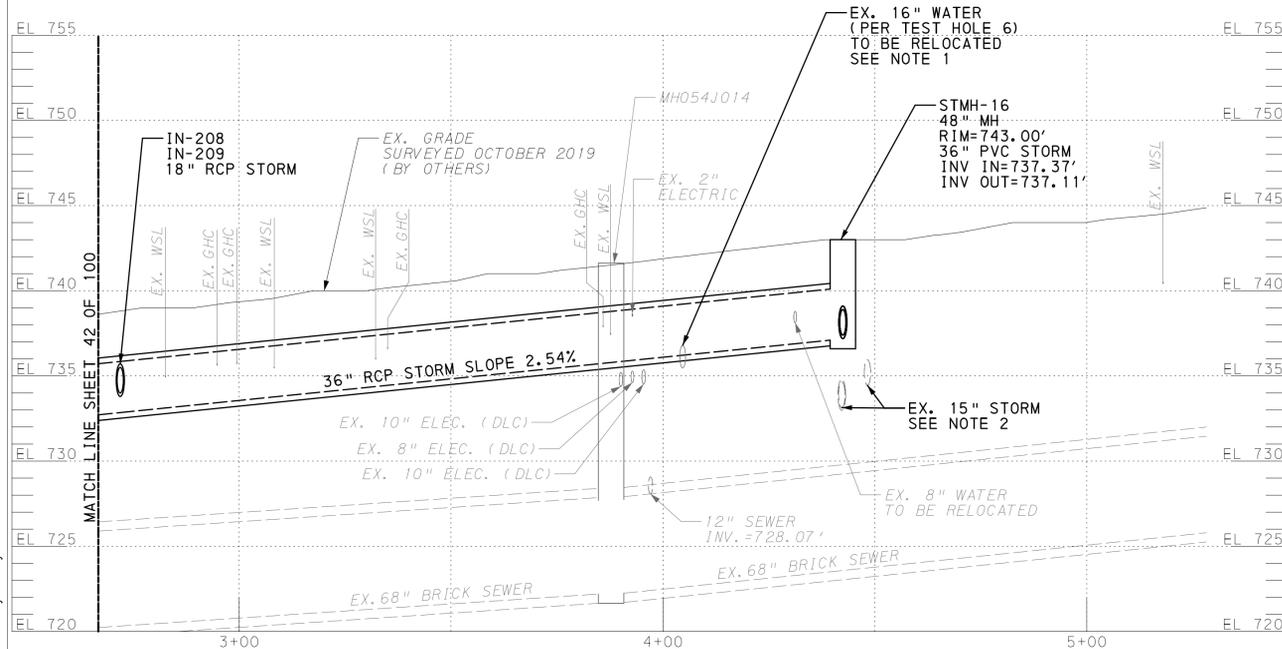
PLAN OF 36" STORM - SALINE ST.  
SCALE: 1"=20' HORZ.

STORM STAKEOUT DATA - SALINE STREET						
STA	STRUCTURE	SIZE	NORTHING	EASTING	RIM	INVERT IN INVERT OUT
2+57	24"X18" WYE	-	406024.97	1356260.28	-	734.00 -
4+43	STMH-16	60"	406069.62	1356424.82	743.00	737.37 737.11

INLET STAKEOUT DATA - SALINE STREET								
STA	STRUCTURE	TYPE	NORTHING	EASTING	TG	INVERT IN	INVERT OUT	BOTTOM
0+26	IN-207	TYPE-13	405997.50	1356267.70	738.78	735.87	735.85	735.35
0+26	IN-208	TYPE-13	405998.83	1356272.39	738.94	-	735.88	735.38
0+08	IN-209	TYPE-13	406077.17	1356423.01	743.00	737.68	737.60	737.10
0+08	IN-210	TYPE-13	406078.40	1356427.72	743.00	-	737.70	737.20

NOTES:

- FOR 16" WATER RELOCATION SEE SHEET 49.
- EXISTING 15" COMBINED SEWER CONNECTION TO BE ABANDONED. CONNECTION TO COMBINED SEWER SHALL BE REPAIRED PER DETAILS, AND SECTIONS OF PIPE SHALL BE REMOVED AS NECESSARY TO INSTALL NEW INLET CONNECTIONS TO STORM PIPELINE.
- REMOVE EXISTING STRUCTURES CB054J008 AND S1054J002. INSTALL IN-209 AND IN-210 AS SHOWN.
- REMOVE EXISTING STRUCTURES S1054J001 AND CB054J004 AND INSTALL NEW IN-207 AND IN-208 AS SHOWN.
- SET TOP ELEVATION OF ALL STRUCTURES TO MATCH FINISHED GRADE.



PROFILE OF 36" STORM - SALINE ST. STA. 2+52 TO STA. 4+27  
SCALE: 1"=20' HORZ.  
SCALE: 1"=5' VERT.

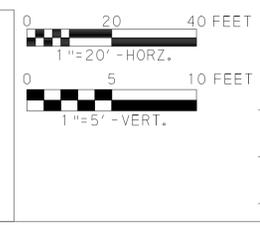
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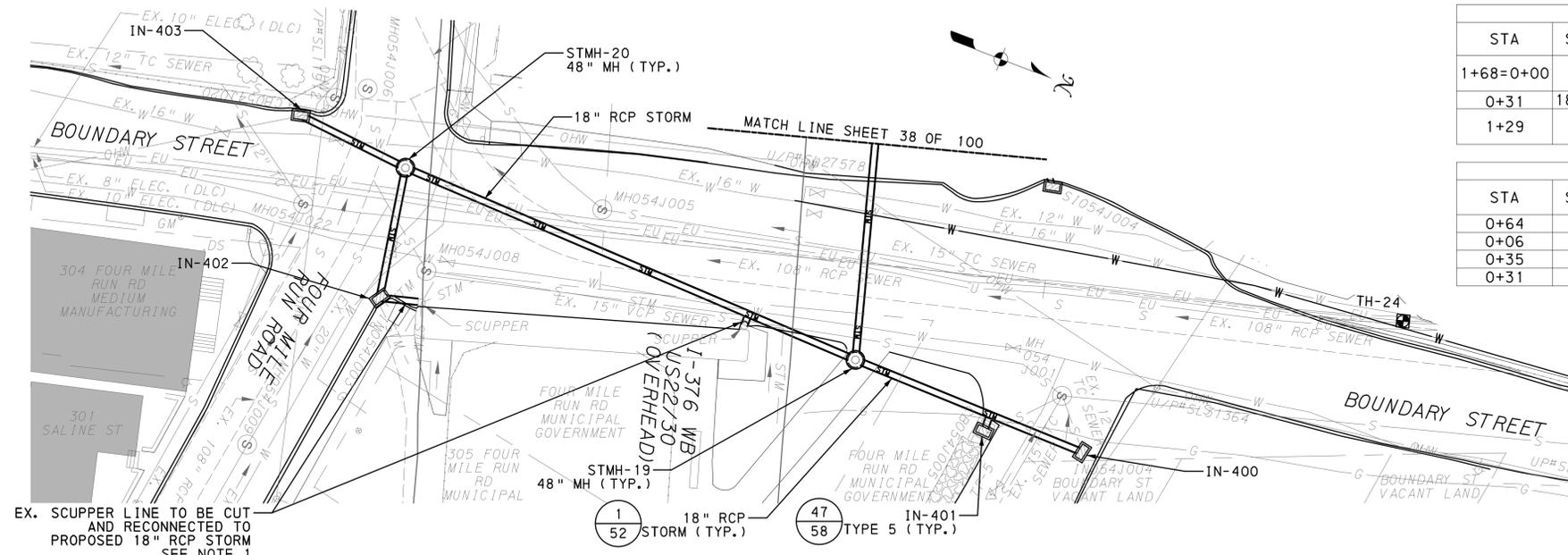
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DIRECTOR ENG. & CONST., P.W.S.A. \_\_\_\_\_

**PWSA PROJECT No. 2018-GI-102-0**  
**THE PITTSBURGH WATER AND SEWER AUTHORITY**  
**FOUR MILE RUN OUTFALL & STORMWATER IMPROVEMENTS**  
**STORM PLAN AND PROFILE**

SCALE: AS NOTED SHEET NO. 43 OF 100 ACCESSION NO. \_\_\_\_\_  
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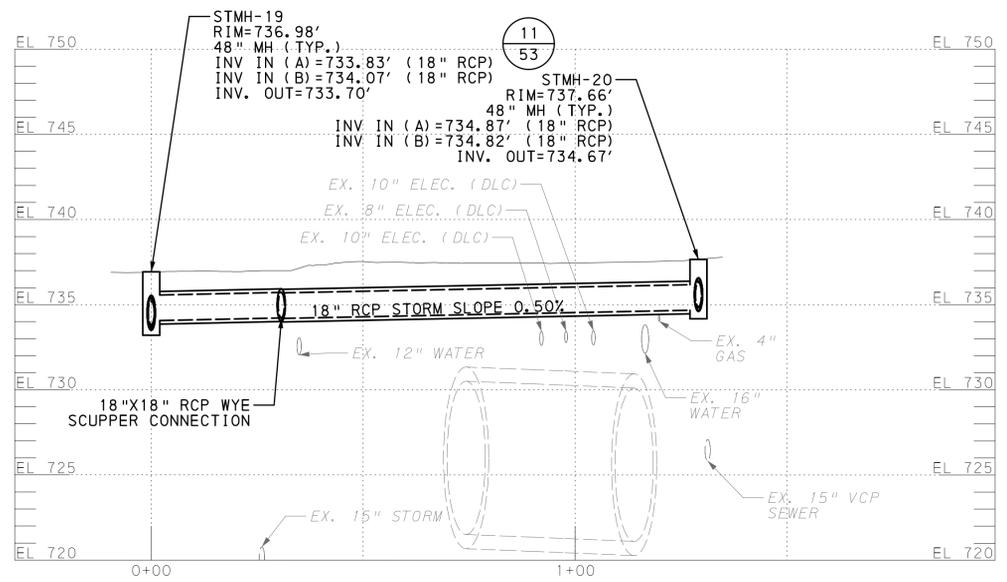
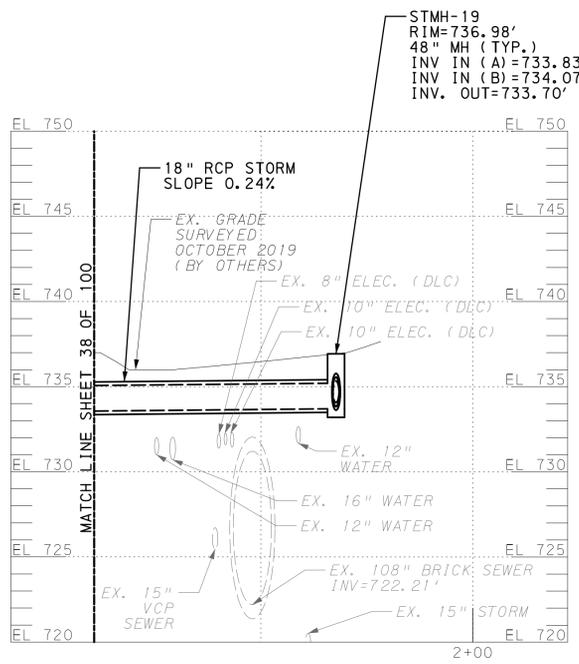


STORM STAKEOUT DATA - BOUNDARY STREET							
STA	STRUCTURE	SIZE	NORTHING	EASTING	RIM	INVERT IN	INVERT OUT
1+68=0+00	STMH-19	48"	406424.33	1356343.95	736.98	733.83 (18" RCP) 734.07 (18" RCP)	733.70
0+31	18"x18" WYE	-	406393.67	1356344.22	-	734.22	-
1+29	STMH-20	48"	406295.31	1356338.95	737.66	734.87 (18" RCP) 734.82 (18" RCP)	734.67

INLET STAKEOUT DATA - BOUNDARY STREET								
STA	STRUCTURE	TYPE	NORTHING	EASTING	TG	INVERT IN	INVERT OUT	BOTTOM
0+64	IN-400	TYPE-13	406488.87	1356345.37	736.00	-	734.14	733.64
0+06	IN-401	TYPE-5	406462.6	1356349.42	736.00	-	734.03	733.53
0+35	IN-402	TYPE-13	406301.07	1356373.31	738.00	735.63	735.60	735.10
0+31	IN-403	TYPE-13	406264.55	1356335.89	738.00	-	735.00	734.50

- NOTES:
- REMOVE STRUCTURES CB054J005 AND IN54J004. INSTALL NEW IN-400 AND IN-401 IN THE SAME PLACE TO THE INVERT ELEVATIONS SHOWN. CUT EXISTING PIPES AT EXISTING MH54J001 AND REPAIR MANHOLE PER DETAIL.
  - REMOVE STRUCTURES CB054J020 AND IN054J003. INSTALL NEW IN-403 AND IN-402 IN THE SAME LOCATIONS TO THE INVERT ELEVATIONS SHOWN.
  - SET TOP ELEVATION OF NEW STRUCTURES TO MATCH FINISHED GRADE.

PLAN OF 18" STORM - BOUNDARY ST.  
SCALE: 1"=20' HORZ.



PROFILE OF 18" STORM - BOUNDARY ST. STA. 1+11 TO STA. 2+29  
SCALE: 1"=20' HORZ.  
SCALE: 1"=5' VERT.

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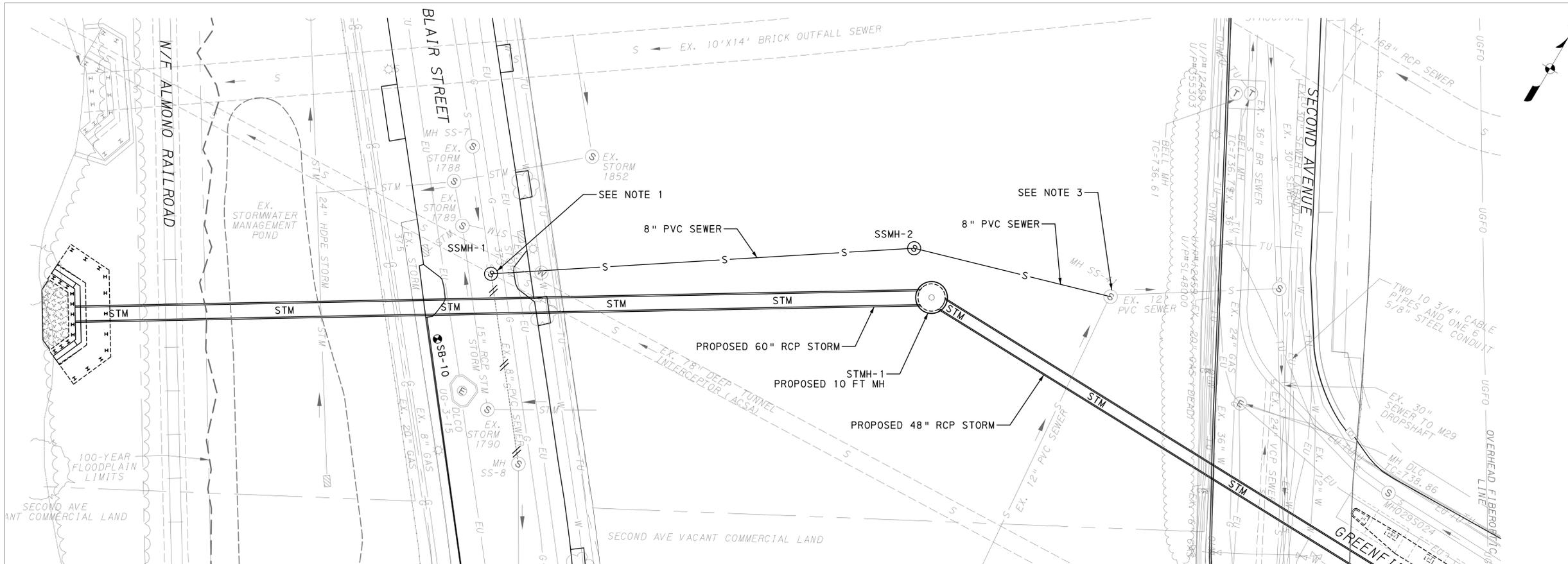
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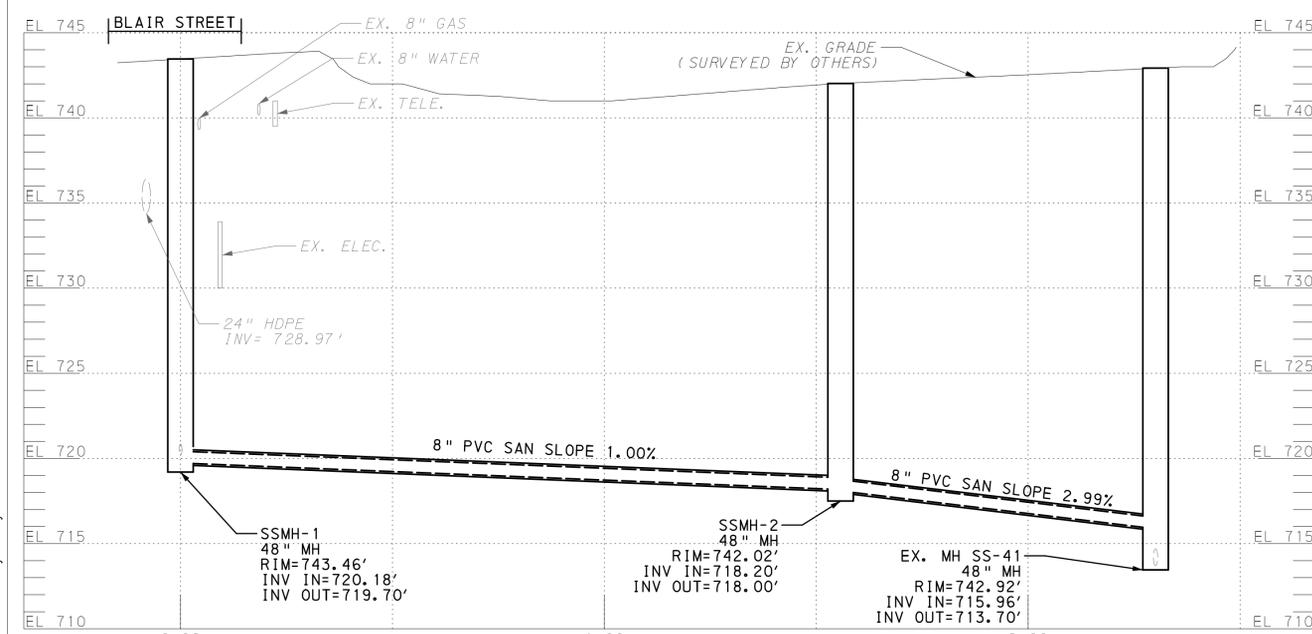
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**PWSA PROJECT No. 2018-GI-102-0**  
**THE PITTSBURGH WATER AND SEWER AUTHORITY**  
**FOUR MILE RUN OUTFALL & STORMWATER IMPROVEMENTS**  
**STORM PLAN AND PROFILE**

SCALE: AS NOTED      SHEET NO. **44 OF 100**      ACCESSION NO. \_\_\_\_\_  
 DATE: JULY 2020      CASE NO. \_\_\_\_\_



PLAN OF 8" SANITARY - BLAIR STREET  
SCALE: 1"=20' HORZ.



PROFILE OF 8" SANITARY BETWEEN  
SSMH-1 AND MH SS-41  
SCALE: 1"=20' HORZ.  
SCALE: 1"=5' VERT.

SANITARY SEWER STAKEOUT - ALMONO						
STA	STRUCTURE	NORTHING	EASTING	TG / RIM	INVERT IN	INVERT OUT
0+00	SSMH-1	405217.81	1354949.34	743.46	720.18	719.70
1+56	SSMH-2	405305.00	1355078.38	742.02	718.20	718.00
2+31	MH SS-41	405326.46	1355149.53	742.92	715.96	713.70

- NOTES:**
- SSMH-1 - 48" DOGHOUSE MANHOLE TO BE INSTALLED OVER EXISTING 8" SEWER.
  - ONCE 8-INCH RELOCATION IS TESTED AND ACCEPTED, CONTRACTOR SHALL ABANDON 8-INCH MAIN IN PLACE BETWEEN PROPOSED SSMH-1 AND EXISTING SSMH-8, AND PLUG MANHOLE CONNECTION.
  - CONTRACTOR TO CORE NEW 8-INCH CONNECTION INTO EXISTING MH SS-41.
  - FOR 60-INCH STORM PROFILE, SEE SHEET 33.

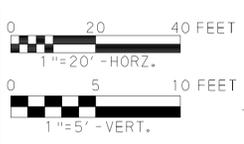
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**PWSA PROJECT No. 2018-GI-102-0**  
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**FOUR MILE RUN OUTFALL & STORMWATER IMPROVEMENTS**  
**SEWER PLAN AND PROFILE**

SCALE: AS NOTED SHEET NO. **45** OF **100** ACCESSION NO. \_\_\_\_\_  
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