290 W. Nationwide Blvd.
Columbus, Ohio 43215

Direct: 614.315.3391
MLThompson@nisource.com

Columbia Gas of Ohio
A NiSource Company

September 10, 2024

Ms. Tanowa Troupe
Secretary, Office of Administration
Ohio Power Siting Board
180 East Broad Street
Columbus, Ohio 43215

Re: *In the Matter of the Construction Notice Application by Columbia Gas of Ohio, Inc. for an Adjustment to the Certificate of Environmental Compatibility and Public Need for the Central Columbus North Columbus High Pressure System Project.*
OPSB Case No. 24-0872-GA-BNR

Dear Ms. Troupe:

Columbia Gas of Ohio, Inc. ("Columbia") submits this Construction Notice, pursuant to Adm.Code 4906-6-03(C) and 4906-6-05, concerning slight modifications in one area of a proposed pipeline relocation that was previously approved by the Ohio Power Siting Board ("OPSB") known as the Central Columbus North Columbus High Pressure ("NCHP") System Project (the "Project") in Case Nos. 23-888-GA-BLN and 24-2382-GA-BNR.

Columbia also requests, pursuant to Adm.Code 4906-6-03(B), 21-day expedited treatment of this Construction Notice for good cause. Good cause exists to grant expedited treatment as the Adjustment is minor, and approval will also allow Columbia to install the pipeline in a safer manner as well as enable Columbia to place a portion of the Project in-service this year to better serve customers.

Therefore, as required by Adm.Code 4906-6-05, please be advised of the following minor route change with this Construction Notice focusing on only the area that changed in the previously approved route:

(1) The name of the project and applicant's reference number, names and reference number(s) of resulting circuits and a brief description of the project, and why the project meets the requirements for a construction notice.

In Case No. 23-888-GA-BLN, the OPSB approved Columbia's Letter of Notification to construct a natural gas pipeline identified as the Central Columbus North

Columbus High Pressure ("NCHP") System Project (the "Project"). The Project is generally located in the City of Columbus. The proposed Project will be approximately 22,060 feet (4.2 miles) in length and consist of construction of a 20-inch diameter transmission class pipeline to replace the existing 18-inch and 20-inch gas line.

In Case No. 24-2382-GA-BNR, the OPSB approved Columbia's expedited Construction Notice to reflect a certain adjustment to the Project.

In Case No. 24-0827-GA-BNR, the OPSB is currently considering Columbia's expedited Construction Notice to reflect certain adjustments to the Project.

This Construction Notice requests an Adjustment to the Project route that totals much less than one mile. The minor shift in alignment does not constitute any changes to the previously planned workspace or change in construction installation method. This Adjustment is:

No.	Station Location	Description of Change	A.S. #	Reason for Change
1	116+05 to 117+09	Pipeline Shift approximately 11' west for 104'.	L-13	Complying with City of Columbus' horizontal clearance to existing infrastructure.

- **Adjustment:** The Adjustment moves the pipeline to meet the City of Columbus' horizontal clearance standards. This will result in an approximate alignment shift of 11 feet west for 104 feet. The shift will take place approximately 30 feet north of the intersection of Atwood Terrace and Alamo Avenue in Columbus, OH. The shift is necessary to ensure adequate horizontal clearance to the existing 48-inch storm sewer. At the beginning of construction, the construction contractor found that this storm sewer was located further east than what was originally expected. This new information made the previous design not comply with the City of Columbus' Sewer Department standards since the proposed 20-inch gas main would have a horizontal clearance less than 3 feet.

The Area highlighted on **Attachments A and B,** called out as an "Adjustment," is the impacted area that has changed from the previous Project approval.

(2) If the proposed construction notice project is an electric power transmission line or gas pipeline, a statement explaining the need for the proposed facility.

The Adjustment requested pursuant to this Construction Notice are required changes from the City of Columbus in order to install the pipeline and remain sufficiently clear from existing infrastructure.

(3) The location of the project in relation to existing or proposed lines and substations shown on an area system map of sufficient scale and size to show existing and proposed transmission facilities in the project area.

The map shown in **Attachment A**: Overview Map illustrates the location of the Project in relation to existing transmission facilities in the Project area. The new pipeline is shown in red and the workspace for constructing the new pipeline is a black-dashed line. The existing NCHP pipeline that will be replaced is the yellow line.

Attachment A also highlights in yellow the Adjustment along the proposed pipeline route.

(4) The alternatives considered and reasons why the proposed location or route is best suited for the proposed facility. The discussion shall include, but not be limited to, impacts associated with socioeconomic, ecological, construction, or engineering aspects of the project.

The area for the alignment shift is still within the originally investigated workspaces for the Project and did not change any of the previously provided environmental reports. Please see **Attachment G** for the Cultural Memorandum for the details of the cultural study for the entire Project which continues to cover this small Adjustment to the originally approved route.

(5) Describe the public information program to inform affected property owners and tenants of the nature of the project and the proposed timeframe for project construction and restoration activities.

No additional public information efforts are planned given the minor nature of the Adjustment.

(6) The anticipated construction schedule and proposed in-service date of the project.

Installation of the proposed pipeline is ongoing and the in-service date (completion date) of this Project is expected to be on or about December 31, 2024, for the pipeline

east of I-71.

(7) An area map of not less than 1:24,000 scale clearly depicting the facility's centerline, with clearly marked streets, roads, and highways, and an aerial image.

Please see the map attached as **Attachment A**.

Attachment B is comprised of the pipeline alignment drawing and the pipeline workspace drawing specifically for the area of the Adjustment and contain an area map at a 1"=40' scale. The map and drawing depict the Project centerline, workspaces, and major street crossings. The Project centerline is shown as a dashed red line, and workspaces are shown as cyan highlighted areas. Roads, streets, highways, and other crossings are clearly labeled throughout. The proposed Adjustment is also identified and highlighted in yellow.

Attachment H contains the City of Columbus approved Management of Traffic (MOT) plans for the construction of the Project.

(8) A list of properties for which the applicant has obtained easements, options, and/or land use agreements necessary to construct and operate the facility and a list of the additional properties for which such agreements have not been obtained.

There are no additional parcels or easements needed for the Adjustment as the Adjustment is in public road right-of-way. A listing of rights-of-way and easements can be found on **Attachment D**.

(9) Technical features of the project.

(a) Operating characteristics, estimated number and types of structures required, and right-of-way and/or land requirements.

The Adjustment will, like the rest of the Project, be tested such that they will have an MAOP of 190 pounds per square inch gauge ("psig"). Columbia will be installing 20-inch mainline piping that is coated steel with a wall thickness of 0.375. The wall thickness of the pipe will increase to 0.500 inches where trenchless installation is used.

Columbia has contacted property owners along the Project route to secure permanent and/or temporary easements. In addition to the 0.24-mile length of the pipeline right- of-way, Columbia has obtained land rights for temporary staging

areas that will be situated along the pipeline right-of-way and other areas needed during construction. The location of the workspaces, easements, and right-of-way are shown in the drawings included in **Attachment B**.

(b) For electric power transmission lines that are within 100 feet of an occupied residence or institution, the production of electric and magnetic fields during the operation of the proposed electric power transmission line. The discussion shall include:

(i) Calculated electric and magnetic field strength levels at one meter above ground under the lowest conductors and at the edge of the right-of-way for: (a) Normal maximum loading, (b) Emergency line loading, (c) Winter normal conductor rating.

(ii) A discussion of the applicant's consideration of design alternatives with respect to electric and magnetic fields and their strength levels, including alternate conductor configuration and phasing, tower height, corridor location, and right-of-way width.

Not applicable to this Project.

(c) The estimated cost of the project.

The Adjustment does not cause a material increase to the estimate provided in Case No. 23-0888-GA-BLN.

(10) Social and Ecological Impacts of the Project.

(a) A brief, general description of the land use within the vicinity of the proposed project, including a list of municipalities, townships, and counties affected.

The Adjustment is located within the City of Columbus, Franklin County, Ohio. The current land use along the Project route that is being adjusted is primarily comprised of residential and commercial properties, with minimal patches of forest.

(b) The acreage and general description of all agricultural land, and separately all agricultural district land, existing at least sixty days prior to submission of the application within the potential disturbance area of the project.

No Agricultural District Land parcels are impacted by the Project.

(c) A description of the applicant's investigation concerning the presence or absence of significant archaeological or cultural resources that may be located within the area likely to be disturbed by the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

On behalf of Columbia, Colliers Engineering & Design ("CED") conducted a cultural resource desktop review and assessment for the entire Project. The adjustment in the alignment for this small shift was covered in the original surveys covering the workspace originally surveyed for the entire route and does not cause any new archaeological or cultural resources impacts as compared to the original Project approval.

A copy of the Cultural Report and correspondence with the State Historic Preservation Office ("SHPO") is included in **Attachment G.**

(d) A list of the local, state, and federal government agencies known to have requirements that must be met in connection with the construction of the project, and a list of documents that have been or are being filed with those agencies in connection with siting and constructing the project.

The following public officials and offices will be notified of the Construction Notice pursuant to Adm.Code 4906-6-07(A)(1):

Franklin County	
Kevin L. Boyce	John O'Grady
Franklin County Commissioner	Franklin County Commissioner
President	373 S. High Street
373 S. High Street	Columbus, Ohio 43215
Columbus, Ohio 43215	
Erica C. Crawley	Kenneth N. Wilson
Franklin County Commissioner	Franklin County Administrator
373 S. High Street	373 S. High Street
Columbus, Ohio 43215	Columbus, Ohio 43215
Jennifer Fish	Cornell R. Robertson, P.E., P.S.

Franklin County Soil and Water	Franklin County Engineer
1404 Goodale Boulevard, Suite 100	970 Dublin Road
Columbus, Ohio 43212	Columbus, Ohio 43215

City of Columbus	
Hon. Andrew Ginther	Shannon G. Hardin
City of Columbus Mayor	City of Columbus Council President
90 W. Broad Street	90 W. Broad Street
Columbus, Ohio 43215	Columbus, Ohio 43215
Nancy Day-Achauer	Nicholas Bankston
Councilmember	Councilmember
90 W. Broad Street	90 W. Broad Street
Columbus, Ohio 43215	Columbus, Ohio 43215
Lourdes Barroso de Padilla	Rob Dorans
Councilmember	President Pro Tem
90 W. Broad Street	90 W. Broad Street
Columbus, Ohio 43215	Columbus, Ohio 43215
Shayla Favor	Emmanuel V. Remy
Councilmember	Councilmember
90 W. Broad Street	90 W. Broad Street
Columbus, Ohio 43215	Columbus, Ohio 43215
Melissa Green	Christopher L. Wyche
Councilmember	Councilmember
90 W. Broad Street	90 W. Broad Street
Columbus, Ohio 43215	Columbus, Ohio 43215
Scott Messer	Jennifer Gallagher
City of Columbus Director	City of Columbus Director
Department of Building and Zoning Services	Department of Public Service
111 N. Front Street	111 N. Front Street
Columbus, Ohio 43215	Columbus, Ohio 43215

In addition to submitting this Construction Notice to the Ohio Power Siting Board,

the overall Project is subject to the following federal, state, and local agency reviews and authorizations to be received prior to construction beginning:

- U.S. Army Corps of Engineers (USACE) Nationwide Permit 12 Evaluation;
- Ohio Department of Natural Resources (ODNR) State Threatened and Endangered Species Consultation;
- Ohio Environmental Protection Agency (OEPA) Section 402 National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit and Stormwater Pollution Prevention Plan (SWPPP) requirements;
- City of Columbus Department of Public Service ROW Excavation Permit;
- Norfolk Southern Railroad Right of Entry Permit;
- Norfolk Southern Railroad Wireline and Pipeline License;
- CSX Right of Entry Permit;
- CSX Utility Permit;
- Ohio Department of Transportation Right-of-Way and Utility Permit; and
- Ohio EPA Hydrostatic Test Water Discharge Permit.

(e) A description of the applicant's investigation concerning the presence or absence of federal and state designated species (including endangered species, threatened species, rare species, species proposed for listing, species under review for listing, and species of special interest) that may be located within the area likely to be disturbed by the project, a statement of findings of the investigation, and a copy of any document produced as a result of the investigation.

The Adjustment does not present any new or different potential impacts to federal and state designated species. The original applicable correspondence and documentation, as continue to be applicable to the Adjustment, are attached as **Attachments B** and **E**.

(f) A description of the applicant's investigation concerning the presence or absence of areas of ecological concern (including national and state parks, floodplains, wetlands, designated or proposed wildlife areas, national and state wild and scenic rivers, wildlife areas, wildlife refuges, wildlife management areas, and wildlife sanctuaries) that that may be located within the area likely to be disturbed by the project, a statement of findings of the investigation, and a copy of any document produced as a result of the investigation.

An environmental review of the Project area was conducted on behalf of Columbia by its contractor, Campos EPC, LLC for the entire route. The surveyed area for the

original environmental study is not impacted by the minor alignment shift in the Adjustment since the workspace does not change for the slight alignment modification. Columbia does not anticipate any different ecological impacts caused by the Adjustment, and has attached **Attachment C**, which is the full Wetland Delineation Report and **Attachment F**, which is the Inadvertent Release Plan for the horizontal directional drilling.

(g) Any known additional information that will describe any unusual conditions resulting in significant environmental, social, health, or safety impacts.

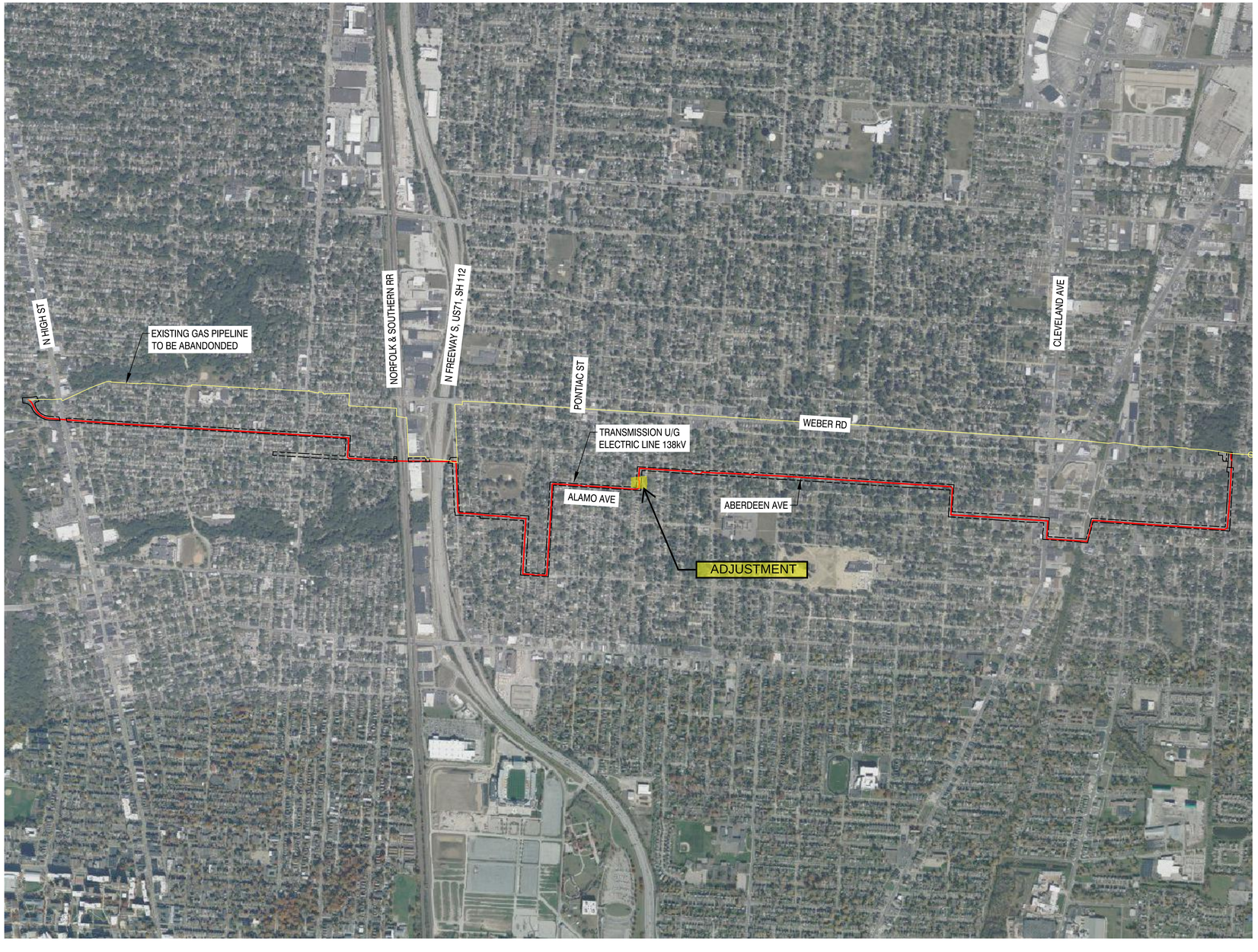
To the best of Columbia's knowledge, no unusual conditions exist that would result in significant environmental, social, health, or safety impacts.

Should Staff of the Ohio Power Siting Board desire further information or discussion of this application, please do not hesitate to reach out to me at the information listed above.

Respectfully submitted,

/s/ *Melissa L. Thompson*

Attachment A



OVERVIEW SHEET INDEX

SCALE: 1"=800'

2/9/2021 - 22 x 34

NiSource

Ohio Utilities Protection Service
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N

CAMPOS EPC

200 W Adams, Suite 400, Chicago, IL 60606
(872) 239-5703

PROPOSED

REVISIONS		
C	09/25/23	EXISTING PIPELINE ADDED
B	09/22/23	ISSUED FOR REVIEW
A	06/24/22	ISSUED FOR REVIEW
REV. #	DATE	DESCRIPTION

DESIGNED BY	JW	04/08/22	855-266-7671
DRAWN BY	JEM	06/24/22	855-266-7671
CHECKED BY	JMJ	06/24/22	855-266-7671
AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:

INST# 22-0135586-00
ABAN# 22-0135587-00
PROJECT ID# 21-78790

NCHP PIPELINE REPLACEMENT, PHASE 1
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

OVERVIEW WORKSPACE

DRAWING NO:

WS-01

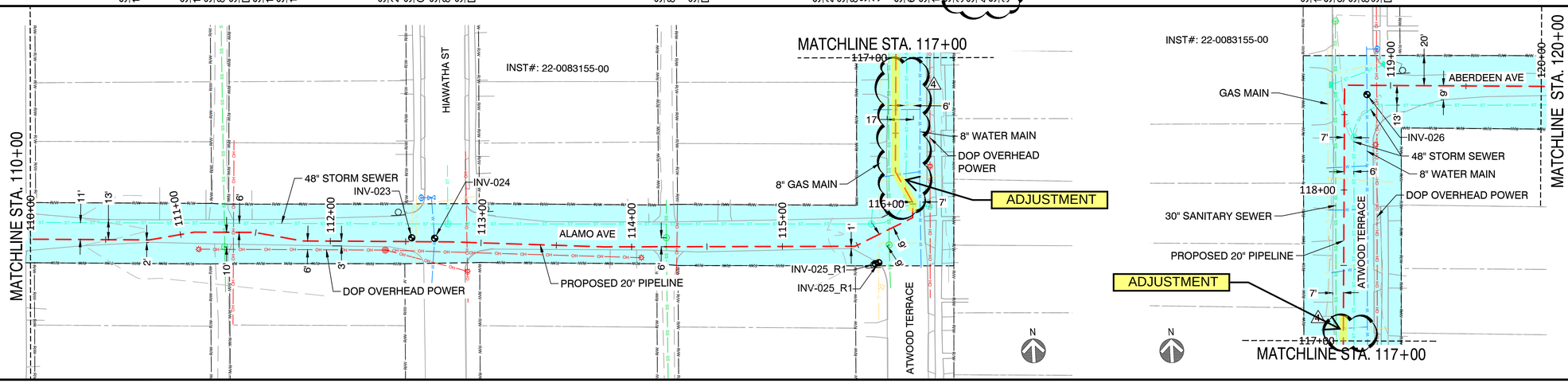
ATTACHMENT B

OWNERSHIP	CITY OF COLUMBUS						
JURISDICTION / PARCEL ID	CITY OF COLUMBUS / FRANKLIN COUNTY						
TEST PRESSURE MIN/MAX	285 PSIG MIN / 500 PSIG MAX						
DESIGN INFORMATION	CLASS IV / 190 PSIG						
CONSTRUCTION METHOD	STA. 110+00 OPEN CUT / OC-03	OPEN CUT / OC-02	OPEN CUT / OC-05		OPEN CUT / OC-14	OPEN CUT / OC-13	OPEN CUT / OC-08 STA. 120+00
MATERIALS	⑦	⑦ ⑦ ⑦	③ 1,000' ⑦		⑧ ⑦ ⑦ ⑦ ⑦ 4	⑧ ⑦	⑦

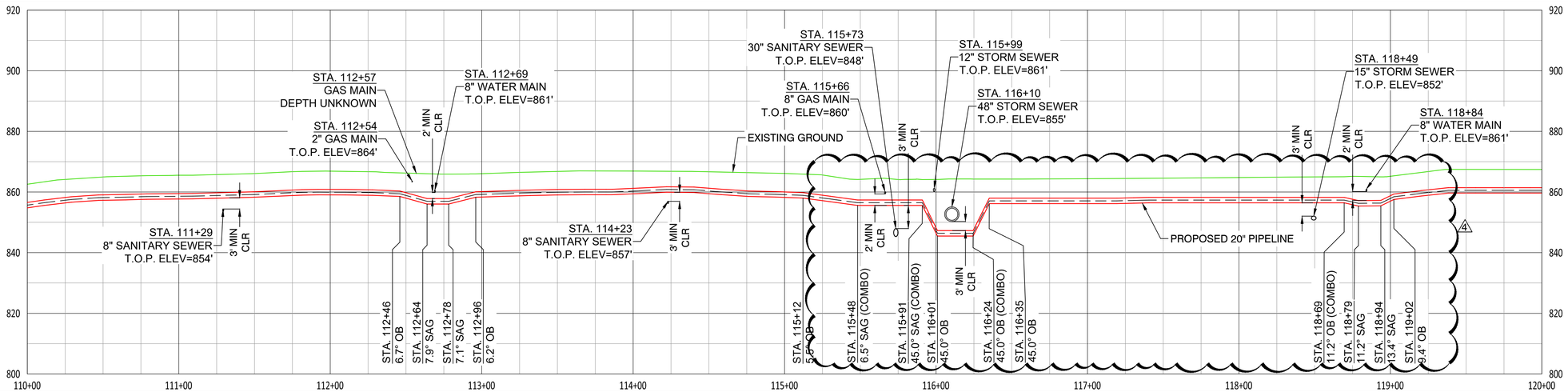
HORIZONTAL STATIONING

STA. 110+79 10.0° LB
STA. 111+09 10.0° RB
STA. 111+29 8" SANITARY SEWER
STA. 111+35 DOP OVERHEAD POWER
STA. 111+49 10.0° RB
STA. 111+81 10.0° LB
STA. 112+54 2" GAS MAIN
STA. 112+57 GAS MAIN
STA. 112+69 8" WATER MAIN
STA. 112+91 DOP OVERHEAD POWER
STA. 114+23 8" SANITARY SEWER
STA. 114+30 DOP OVERHEAD POWER
STA. 115+48 26.2° LB (COMBO)
STA. 115+66 8" GAS MAIN
STA. 115+73 30" SANITARY SEWER
STA. 115+91 63.2° LB (COMBO)
STA. 115+99 12" STORM SEWER
STA. 116+01 30.0° LB
STA. 116+10 48" STORM SEWER
STA. 116+24 30.0° RB (COMBO)
STA. 118+49 15" STORM SEWER
STA. 118+69 90.0° RB (COMBO)
STA. 118+84 8" WATER MAIN
STA. 118+91 DOP OVERHEAD POWER

PROPOSED PLAN
SCALE: 1" = 40'



PROPOSED PROFILE
SCALE HORIZ.: 1" = 40' / SCALE VERT.: 1" = 20'



NOTES:
1. CONTRACTOR SHALL VERIFY ALL UTILITY CROSSINGS
2. SEE GENERAL NOTES FOR CLEARANCE REQUIREMENTS
3. SEE TD-01 TO TD-06 FOR OPEN CUT DETAILS
4. SERVICE LINE CROSSINGS SHOWN IN SURVEY ARE NOT STATIONED OR SHOWN IN PROFILE FOR CLARITY
5. THE PIPELINE HAS GENERALLY BEEN DESIGNED WITH A MINIMUM COVER OF 6'-0" TO ACCOUNT FOR DEPTH OF UNKNOWN SERVICE LINES. MINIMUM ALLOWABLE DEPTH OF COVER IS 4'-0"
6. VERTICAL BENDS SHOWN IN PROFILE ARE FOR REFERENCE. CONTRACTOR TO MAKE USE OF ROPING AND FIELD BENDS WHERE POSSIBLE
7. CORROSION PROTECTION IS DESIGNED BY NISOURCE AND IS NOT COVERED WITHIN THE ENGINEER'S STAMP

NiSource

Ohio Utilities Protection Service
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MATERIAL SUMMARY

ITEM	DESCRIPTION	FT/EA
3	20" STD PIPE X-52 FBE/ARO	1000'
4	20" XH PIPE X-52 FBE/ARO	-
7	20" ELBOW, 45° 3R WPHY-52, SEGMT	8
8	20" ELBOW, 90° 5R WPHY-52, SEGMT	2
20	TRANSITION 20" x 0.375" TO 0.500"	-

CAMPOS EPC
401 N Front St, Suite 380, Columbus, OH 43215
(380) 799-8503

PROPOSED

REVISIONS

REV. #	DATE	DESCRIPTION
4	09/09/24	MODIFIED PER FIELD RECOMMENDATION
3	03/15/24	REVISED PER CoC COMMENTS
2	11/28/23	REVISED FOR CLIENT COMMENTS
1	11/10/23	REVISED FOR CP AND JOB ID
0	10/20/23	ISSUED FOR CONSTRUCTION

	NAME	DATE	PHONE #
INTERNAL ENG.	EK	06/02/23	614-981-0661
DESIGNED BY	JMJ	06/02/23	855-266-7671
CHECKED BY	SW	06/02/23	866-266-7671
AS-BUILT BY	TBD	TBD	TBD

SITE NAME:

INST# 22-0135586-00
ABAN# 22-0135587-00
INST# 22-0083155-00
ABAN# 22-0083156-00
INST# 23-0136479-00
ABAN# 23-0136480-00
PROJECT ID# 21-78790

NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

20" PIPELINE ALIGNMENT
STA. 110+00 TO STA. 120+00

DRAWING NO:

L-13

Colliers Engineering & Design

Wetland Delineation Report

Central Columbus Project

Colliers Engineering & Design Project Number: 21004202A

September 20, 2023

Prepared for:

NiSource Inc.
801 E. 86th Avenue
Merrillville, IN 46410

Prepared by:

Colliers Engineering & Design, Inc.
1501 Reedsdale Street,
Suite 302
Pittsburgh, PA 15233
Main: 412-618-5390
Colliersengineering.com

Colliers Engineering & Design

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Colliers Engineering & Design

EXECUTIVE SUMMARY

On behalf of NiSource Inc., Colliers Engineering & Design (CED) conducted field delineations for the Central Columbus Project within Franklin County, Ohio (hereinafter described as "Survey Corridor"). The Subject Property is located at latitudinal coordinates 40.011977 N and longitudinal coordinates -82.572089 W. The Survey Corridor is located approximately 5 miles north of Columbus, Ohio. Access to the Survey Corridor can be achieved from Parkwood Avenue, Minnesota Avenue, Genesee Avenue, Greenwich Street, Melrose Avenue, Bremen Street, Aberdeen Avenue, Atwood Terrace, Alamo Avenue, Akola Avenue, Osceola Avenue, Audubon Road, Edgar Place, Beulah Road, E Tulane Road, Indiana Avenue, E Weber Road, N High Road, and W Tulane Road.

The Project Study Area or "Survey Corridor" is comprised of a 100-foot-wide survey corridor centered on the proposed pipeline alignment for 4.2 miles of main line. The Survey Corridor was investigated to identify potential jurisdictional Waters of the U.S. (WOTUS) and wetlands subject to Federal or State regulatory jurisdiction. The delineation methodologies developed by the USACE and the USEPA, as described in the *1987 Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0*) and the subsequently issued USACE regulatory guidance regarding the identification of jurisdictional stream channels through the recognition of field indicators of an ordinary high-water mark within drainage features (Environmental Laboratory, 1987; USACE 2012; USACE 2005) were utilized during our investigation.

Based on the field investigations, no wetland or stream features were delineated within the Survey Corridor by CED on March 2nd and 3rd, 2022 and May 19, 2023, as shown on Figure 5. Delineation Results (**Appendix A**).

1.0 PROJECT INFORMATION

Project Name	Central Columbus Project
Project Location	Parkwood Avenue, Minnesota Avenue, Genesee Avenue, Greenwich Street, Melrose Avenue, Bremen Street, Aberdeen Avenue, Atwood Terrace, Alamo Avenue, Akola Avenue, Osceola Avenue, Audubon Road, Edgar Place, Beulah Road, E Tulane Road, Indiana Avenue, E Weber Road, N High Road, and W Tulane Road
Municipality	Columbus
County	Franklin
State	Ohio
Latitude/Longitude	40.011977 N / -82.572089 W
Subject Property Size	+/- 4.2 mi 100-foot-wide survey corridor
U.S.G.S. Quadrangle	Northwest Columbus and Northeast Columbus OH
Potential Jurisdictional Waters of the U.S. (WOTUS) and wetlands	See Aquatic Resource Area Summary Table on Page 11
River Basin (HUC) & sub-watershed	Upper Scioto Basin: 8 Digit HUC Code 05060001
Nearest Stream	Alum Creek and Olentangy River
Navigable Water Nexus	Stream features delineated on the Survey Corridor would be considered jurisdictional WOTUS and wetlands since these features drain towards Alum Creek and the Olentangy River; however, none were identified
Isolated Wetlands/Waters Present (Yes/No)	No

2.0 INTRODUCTION

On behalf of NiSource Inc., Colliers Engineering & Design (CED) conducted field delineations for the Central Columbus Project located in the greater North Columbus area within Franklin County, Ohio (hereinafter described as “Survey Corridor”). The Survey Corridor is located at latitudinal coordinates 40.011977 N and longitudinal coordinates -82.572089 W. The Survey Corridor is located approximately 5 miles north of Columbus, Ohio. Access to the Survey Corridor can be achieved from Parkwood Avenue, Minnesota Avenue, Genesee Avenue, Greenwich Street, Melrose Avenue, Bremen Street, Aberdeen Avenue, Atwood Terrace, Alamo Avenue, Akola Avenue, Osceola Avenue, Audubon Road, Edgar Place, Beulah Road, E Tulane Road, Indiana Avenue, E Weber Road, N High Road, and W Tulane Road. The Survey Corridor is bordered by residential homes, commercial properties, and small forested areas.

The Survey Corridor was investigated to identify potential jurisdictional Waters of the U.S. (WOTUS) and wetlands subject to Federal or State regulatory jurisdiction. According to the U.S. Army Corps of Engineers (USACE) and U.S. Environmental Protection Agency (USEPA) regulations described in Section 404 of the Clean Water Act (33 CFR Section 328.3 and 40 CFR Section 230.3) respectively, wetlands are "...areas that are inundated or saturated with surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

3.0 PROPERTY DESCRIPTION

The Survey Corridor is located within the Upper Scioto River Basin (8 Digit HUC Code 05060001). Access to the Survey Corridor can be achieved from Parkwood Avenue, Minnesota Avenue, Genesee Avenue, Greenwich Street, Melrose Avenue, Bremen Street, Aberdeen Avenue, Atwood Terrace, Alamo Avenue, Akola Avenue, Osceola Avenue, Audubon Road, Edgar Place, Beulah Road, E Tulane Road, Indiana Avenue, E Weber Road, N High Road, and W Tulane Road. The eastern and central sections of the Survey Corridor drain east southeast towards Alum Creek, and the western section of the Survey Corridor drains west towards the Olentangy River. The Survey Corridor does not contain a floodway or a floodplain according to FEMA Floodplain Panel Maps 39049C0164K and 39049C0189K (eff. 6/17/2008). The Survey Corridor contains approximately 5% forested communities and 95% urban developed land (residential properties and commercial properties). The forested areas are comprised of a mixture of oak, tulip poplar, red maple, pine, and sweetgum species that dominate the canopy layer. Alum Creek is located to the east of the Survey Corridor, flowing north to south. The Olentangy River is located to the west of the Survey Corridor and drains north to south.

4.0 BACKGROUND INFORMATION

Prior to on-site field investigations, several publicly available sources of information were reviewed to determine the likelihood of wetlands and surface waters occurring within Survey Corridor. These mapping resources generally include, but are not limited to, the United States Geological Survey (USGS) maps (Figure 1. Project Location Map, **Appendix A**), the U.S. Department of Agriculture - Natural Resource Conservation Service (NRCS) soils database (Figure 2. Soil Series Map, **Appendix A**), National Hydrography Dataset (NHD), and the U.S. Fish & Wildlife Service National Wetlands Inventory (NWI) database (Figure 3. National Wetlands Inventory Series, **Appendix A**).

4.1 U.S. Geological Survey Map

The Survey Corridor appears on the *Northwest Columbus and Northeast Columbus* Quadrangle USGS Maps (Figure 1. Project Location Map, **Appendix A**) and is depicted as developed properties which contain approximately 5% forested areas habitat communities and 95% residential and commercial properties. Residential and forested areas are located within the vicinity of the Survey Corridor to the north, south, east, and west. Elevations at the Survey Corridor range from 750 to 950 feet above mean sea level (MSL) based on the USGS map.

4.2 Soil Survey

The NRCS Web Soil Survey depicts the following four (4) Soil Series map units within the Survey Corridor and provides a description of the properties and qualities of each soil:

Table 1. Soils Section for Central Columbus Project

Map Unit Symbol	Map Unit Name	Drainage Class	Runoff Class	Depth to Water Table
BfA	Bennington-Urban land complex, 0 to 2 percent slopes	Somewhat Poorly Drained	High	About 6 to 12 inches
CbB	Cardington-urban land complex, 2 to 6 percent slopes	Moderately Well Drained	Medium	About 24 to 36 inches
CbC	Cardington-urban land complex, 6 to 12 percent slopes	Somewhat Poorly Drained	High	About 24 to 36 inches
Ut	Udorthents-Urban land complex, gently rolling	-	-	More than 80 inches

Of the four (4) mapped soil units, none are listed as being hydric.

5.0 WETLAND & SURFACE WATER DELINEATION METHODOLOGY

The wetland delineation methodologies developed by the USACE and the USEPA, as described in the 1987 Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1 and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: *Midwest Region* (Version 2.0) and subsequently issued USACE regulatory guidance regarding the identification of jurisdictional stream channels through the recognition of field indicators of an ordinary high-water mark within drainage features (Environmental Laboratory, 1987; USACE 2012; USACE 2005), were utilized during our investigation. These methodologies generally involve the review of three parameters (vegetation, soils, hydrology) when making a wetland or non-wetland determination.

The Survey Corridor was walked, community types were characterized, and wetland and surface water boundaries were flagged. Sample stations were established along the boundaries to examine vegetation, soils, and hydrology. Using this data, boundaries were established based on changes in vegetation, soils, hydrology, and surface water characteristics.

6.0 WETLAND AND SURFACE WATER DELINEATION RESULTS

6.1 WETLAND AND SURFACE WATER SUMMARY

On-site field investigations of the Survey Corridor were conducted by CED on March 2nd & 3rd, 2022 and May 19, 2023. The on-site delineation verified that there was no presence of wetlands and surface waters within Survey Corridor. A summary of the aquatic resources identified within the Survey Corridor is provided below in Table 2: Aquatic Resource Summary. No aquatic resources were delineated as shown on Figure 5. Delineation Results (**Appendix A**).

Table 2: Aquatic Resource Area Summary Table

<table>
<tr><th>Aquatic Resource</th><th>PFO Area (AC)</th><th>PEM Area (AC)</th><th>Aquatic Resource</th><th>PUB Area (AC)</th><th>Aquatic Resource</th><th>R3 Length (LF)</th><th>R4 Length (LF)</th></tr>
<tr><td></td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>Total Wetlands by Class (AC)</td><td>-</td><td>-</td><td rowspan="2">Total Pond (AC)</td><td rowspan="2">-</td><td>Total Stream by Class (LF)</td><td>-</td><td>-</td></tr>
<tr><td>Total Wetlands (AC)</td><td colspan="2">-</td><td>Total Stream (LF)</td><td colspan="2">-</td></tr>
</table>

Note 1: Cowardin Classification; PFO = palustrine forested wetland; PEM = palustrine emergent wetland; PUB = palustrine unconsolidated bottom (pond), R3 = perennial stream, R4 = intermittent stream

6.2 VEGETATION

Representative plant species within the upland areas include the following: sweetgum (*Liquidambar styraciflua*), loblolly pine (*Pinus tadea*), red maple (*Acer rubrum*), American beech (*Fagus grandifolia*), Christmas fern (*Polystichum acrostichoides*), and common greenbrier (*Smilax rotundifolia*).

6.3 SOILS

Hydric soils are defined as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil (USDA 2003). The soils in the upland areas varied from light yellowish brown (10YR 6/4), yellowish brown (10YR 5/6), and very dark grayish brown (10YR 3/2), within the upper 16 inches. Soil textures include silt and clay.

6.4 HYDROLOGY

On-site field investigations of the Survey Corridor were conducted by CED on March 2nd & 3rd, 2022 and May 19, 2023. The USACE Antecedent Precipitation Tool (APT) was utilized for the Survey Corridor and is provided **Appendix B**. Based on the USACE APT tool, the on-site field investigations were conducted in "Wetter than Normal" precipitation conditions with a 30-day rolling total.

7.0 WETLAND DELINEATION CONCLUSION

No wetland or stream features were delineated within the Survey Corridor by CED on March 2nd and 3rd, 2022 and May 19, 2023. Field investigations were conducted in accordance with the manuals, methodologies, and regulatory guidance procedures as stated in Section 5.0 Wetland and Surface Water Delineation Methodology. It is CED's professional opinion that no jurisdictional areas are located on the Survey Corridor. No aquatic resources were delineated as shown on Figure 5. Delineation Results (**Appendix A**).

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8.0 REFERENCES

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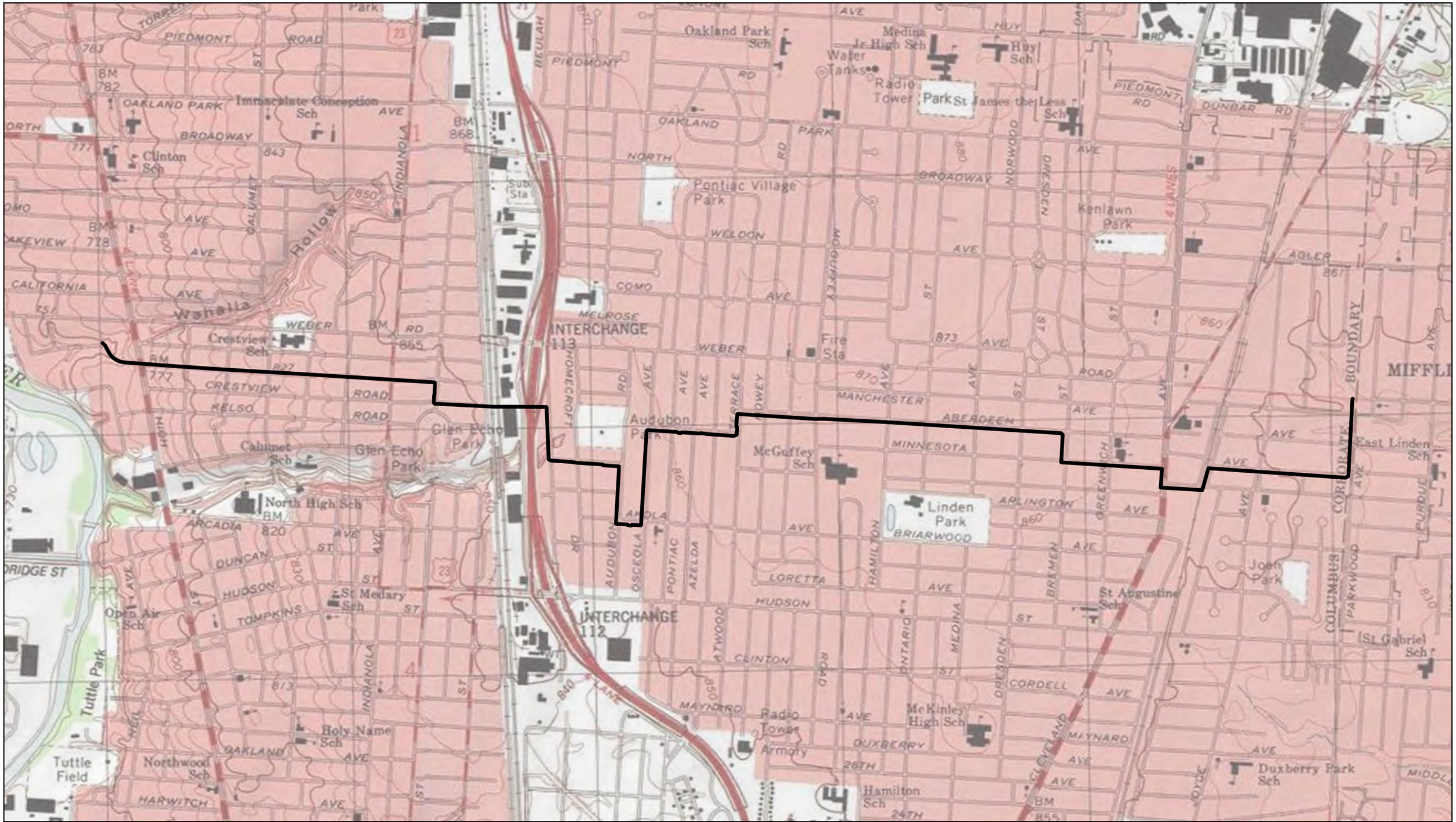
Appendix

Appendix A | Figures



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NiSource Inc.
801 E. 86th Avenue
Merrillville, IN 46410

Prepared By:

Pittsburgh O f ce
1501 Reedsdale Street, Ste 302
Pittsburgh, PA 15233
T: 610.254.9140
www.colliersengineering.com

0 600 1,200 Feet

1" = 1,200 feet

N W E S

Source: USGS 24k Quadrangles: Northwest Columbus and Northeast Columbus, OH

Figure 1 - Project Location Map

Central Columbus

Franklin County, Ohio

Date:	MC Project #:	Drawn By:
9/20/2023	21004202A	KHY

Main Line

Sheet 1 of 1

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0 250 500 Feet

1" = 500 feet

N W E S

Source: USDA NRCS SSURGO

Figure 2 - Soil Series Map

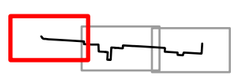
Central Columbus

Franklin County, Ohio

Date:	MC Project #:	Drawn By:
9/20/2023	21004202A	KHY

- Main Line
- Soil Map Unit (SSURGO)

Sheet 1 of 3



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1501 Reedsdale Street, Ste 302
Pittsburgh, PA 15233
T: 610.254.9140
www.colliersengineering.com

0 250 500 Feet

1" = 500 feet

Source: USDA NRCS SSURGO

Figure 2 - Soil Series Map

Central Columbus

Franklin County, Ohio

Date:	MC Project #:	Drawn By:
9/20/2023	21004202A	KHY

Main Line

Soil Map Unit (SSURGO)

Sheet 2 of 3

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1501 Reedsdale Street, Ste 302
Pittsburgh, PA 15233
T: 610.254.9140
www.colliersengineering.com

0 250 500 Feet

1" = 500 feet

Source: USDA NRCS SSURGO

N
W E
S

Figure 2 - Soil Series Map

Central Columbus

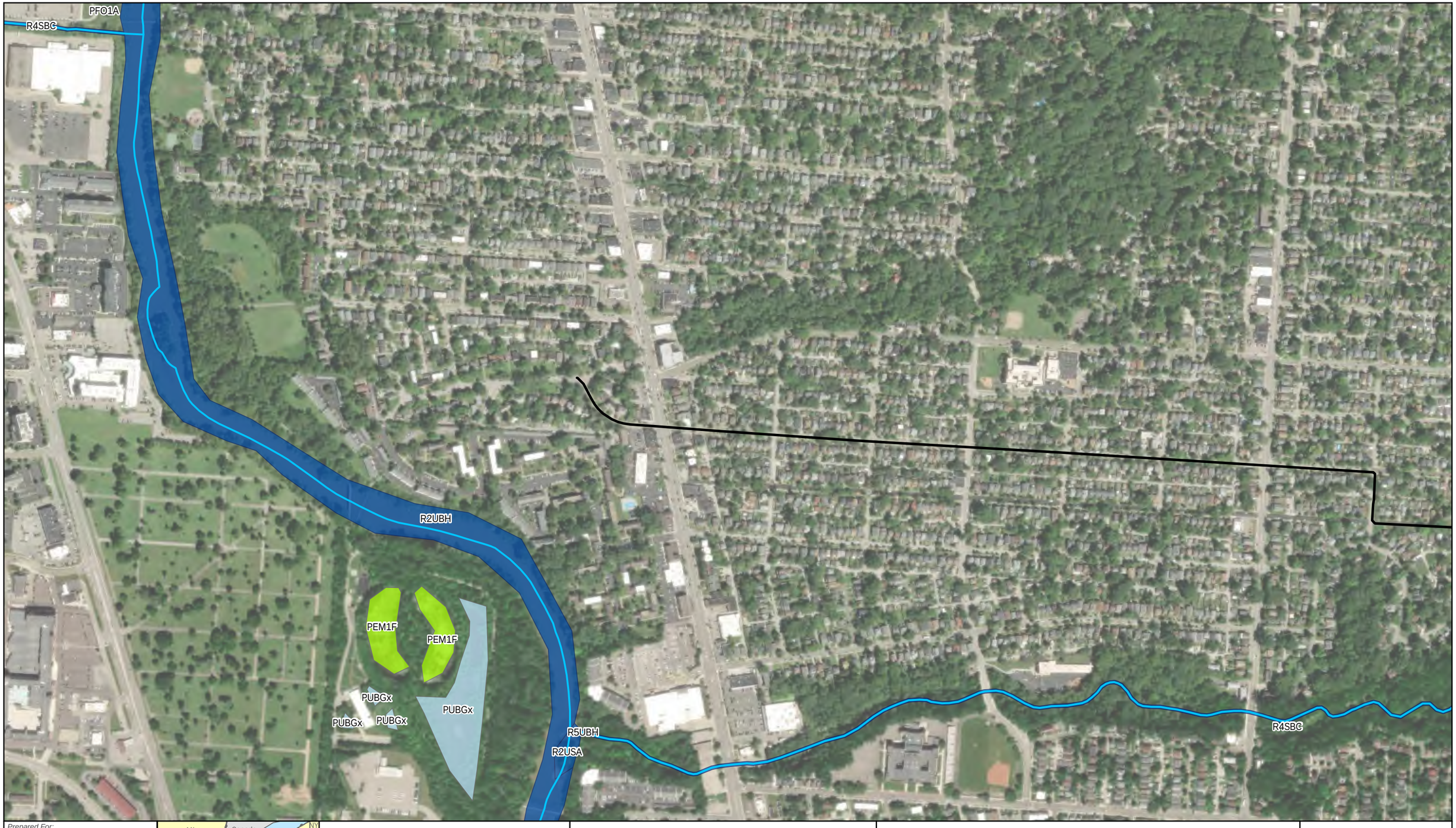
Franklin County, Ohio

Date:	MC Project #:	Drawn By:
9/20/2023	21004202A	KHY

Main Line

Soil Map Unit (SSURGO)

Sheet 3 of 3



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T: 610.254.9140
www.colliersengineering.com

0 250 500 Feet

1" = 500 feet

N W E S

Source: USFWS NWI, USGS NHD

Figure 3 - NWI Series Map

Central Columbus

Franklin County, Ohio

Date:	MC Project #:	Drawn By:
9/20/2023	21004202A	KHY

- Main Line
- Stream (NHD)
- Freshwater Emergent Wetland
- Freshwater Forested/ Shrub Wetland
- Freshwater Pond
- Riverine

Sheet 1 of 3

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Merrillville, IN 46410

Prepared By:

Pittsburgh O f ce
1501 Reedsdale Street, Ste 302
Pittsburgh, PA 15233
T: 610.254.9140
www.colliersengineering.com

0 250 500 Feet

1" = 500 feet

N W E S

Source: USFWS NWI, USGS NHD

Figure 3 - NWI Series Map

Central Columbus

Franklin County, Ohio

Date:	MC Project #:	Drawn By:
9/20/2023	21004202A	KHY

- Main Line
- Stream (NHD)
- Waterbody (NHD)
- Freshwater Pond
- Riverine

Sheet 2 of 3

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Merrillville, IN 46410

Prepared By:

Pittsburgh O f ce
1501 Reedsdale Street, Ste 302
Pittsburgh, PA 15233
T: 610.254.9140
www.colliersengineering.com

0 250 500 Feet

1" = 500 feet

Source: USFWS NWI, USGS NHD

Figure 3 - NWI Series Map

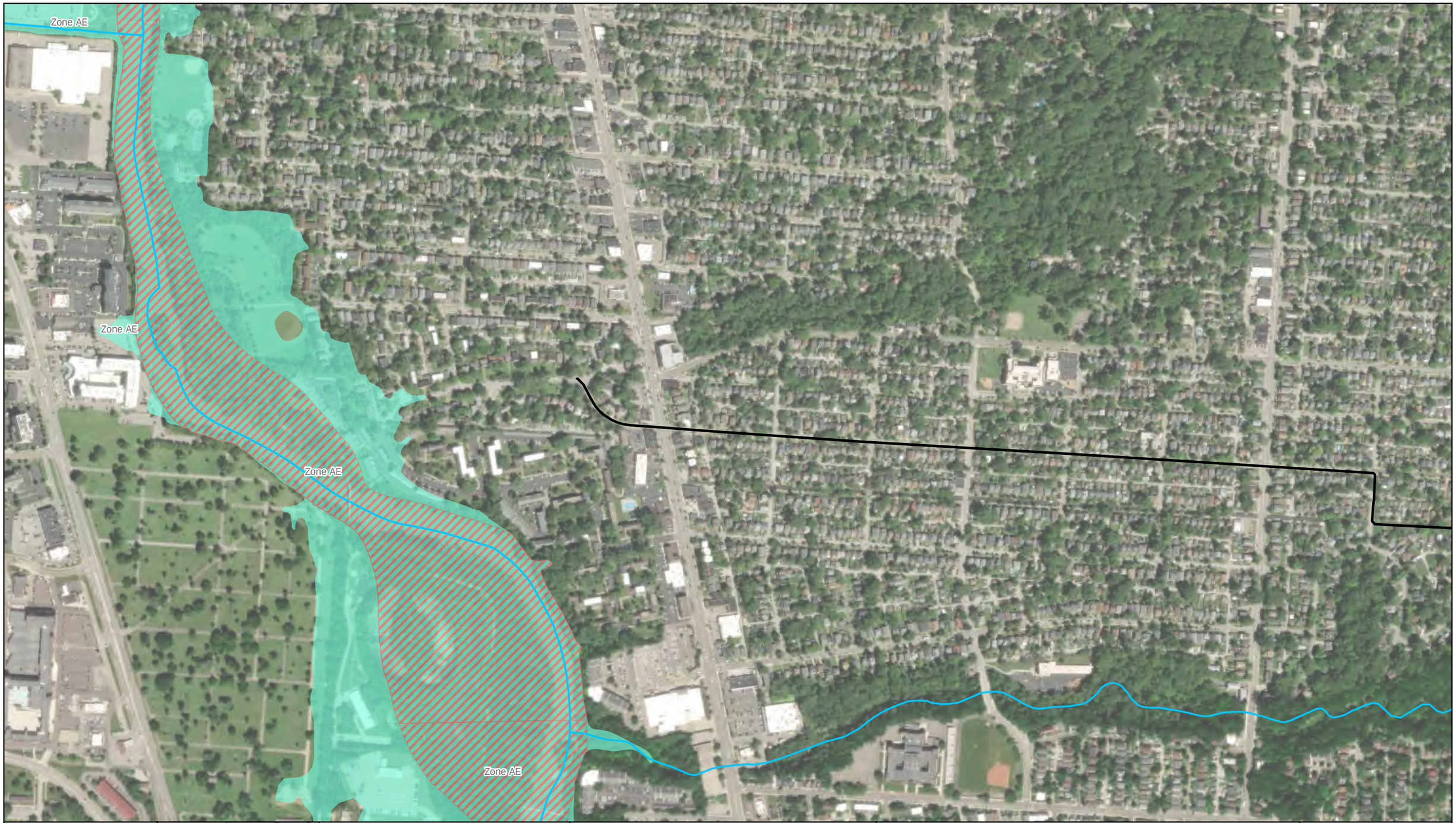
Central Columbus

Franklin County, Ohio

Date:	MC Project #:	Drawn By:
9/20/2023	21004202A	KHY

Main Line
Stream (NHD)
Riverine

Sheet 3 of 3



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Prepared By:

Pittsburgh O f ce
1501 Reedsdale Street, Ste 302
Pittsburgh, PA 15233
T: 610.254.9140
www.colliersengineering.com

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0 250 500 Feet

1" = 500 feet

N W E S

Source: FEMA, USGS NHD

Figure 4 - Floodplain Series Map

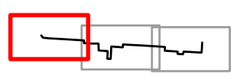
Central Columbus

Franklin County, Ohio

Date:	MC Project #:	Drawn By:
9/20/2023	21004202A	KHY

- Main Line
- Stream (NHD)
- 1% Annual Chance Flood Hazard
- Regulatory Floodway

Sheet 1 of 3



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NiSource Inc.
801 E. 86th Avenue
Merrillville, IN 46410

Prepared By:

Pittsburgh O f ce
1501 Reedsdale Street, Ste 302
Pittsburgh, PA 15233
T: 610.254.9140
www.colliersengineering.com

0 250 500 Feet

1" = 500 feet

N W E S

Source: FEMA, USGS NHD

Figure 4 - Floodplain Series Map

Central Columbus

Franklin County, Ohio

Date:	MC Project #:	Drawn By:
9/20/2023	21004202A	KHY

Main Line
Stream (NHD)

Sheet 2 of 3

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Pittsburgh, PA 15233
T: 610.254.9140
www.colliersengineering.com

0 250 500 Feet

1" = 500 feet

Source: FEMA, USGS NHD

N
W E
S

Figure 4 - Floodplain Series Map

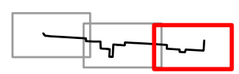
Central Columbus

Franklin County, Ohio

Date:	MC Project #:	Drawn By:
9/20/2023	21004202A	KHY

Main Line
Stream (NHD)

Sheet 3 of 3



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1501 Reedsdale Street, Ste 302
Pittsburgh, PA 15233
T: 610.254.9140
www.colliersengineering.com

0 100 200 Feet

1" = 200 feet

N W E S

Source: Colliers Engineering & Design

Figure 5 - Delineation Results

Central Columbus

Franklin County, Ohio

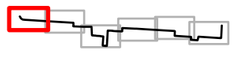
Date:	MC Project #:	Drawn By:
9/20/2023	21004202A	KHY

Main Line

Study Corridor

Note: No features identified during field survey.

Sheet 1 of 6



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Pittsburgh O f ce
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Pittsburgh, PA 15233
T: 610.254.9140
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0 100 200 Feet

1" = 200 feet

Source: Colliers Engineering & Design

Figure 5 - Delineation Results

Central Columbus

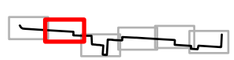
Franklin County, Ohio

Date:	MC Project #:	Drawn By:
9/20/2023	21004202A	KHY

Main Line
Study Corridor

Note: No features identified during field survey.

Sheet 2 of 6



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0 100 200 Feet

1" = 200 feet

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Source: Colliers Engineering & Design

Figure 5 - Delineation Results

Central Columbus

Franklin County, Ohio

Date:	MC Project #:	Drawn By:
9/20/2023	21004202A	KHY

Main Line

Study Corridor

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Central Columbus

Franklin County, Ohio

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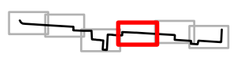
9/20/2023	21004202A	KHY

Main Line

Study Corridor

Note: No features identified during field survey.



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0 100 200 Feet

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Figure 5 - Delineation Results

Central Columbus

Franklin County, Ohio

Date:	MC Project #:	Drawn By:
9/20/2023	21004202A	KHY

Main Line

Study Corridor

Note: No features identified during field survey.

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0 100 200 Feet

1" = 200 feet

N W E S

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Figure 5 - Delineation Results

Central Columbus

Franklin County, Ohio

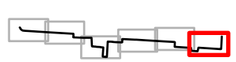
Date:	MC Project #:	Drawn By:
9/20/2023	21004202A	KHY

Main Line

Study Corridor

Note: No features identified during field survey.

Sheet 6 of 6



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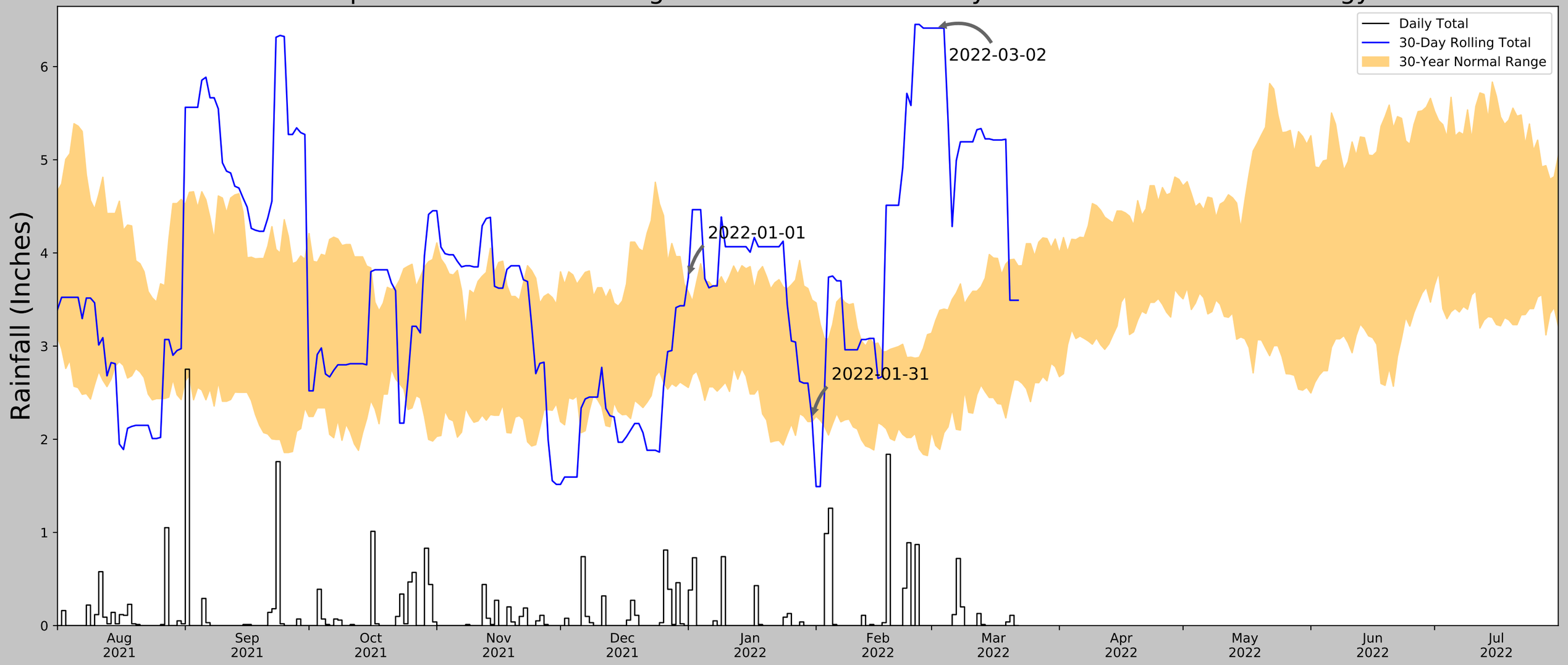
Appendix B | USACE Antecedent Precipitation Tool



Coordinates	40.011997, -82.572119
Observation Date	2022-03-02
Elevation (ft)	1094.88
Drought Index (PDSI)	Severe wetness (2022-02)
WebWIMP H_2O Balance	Wet Season

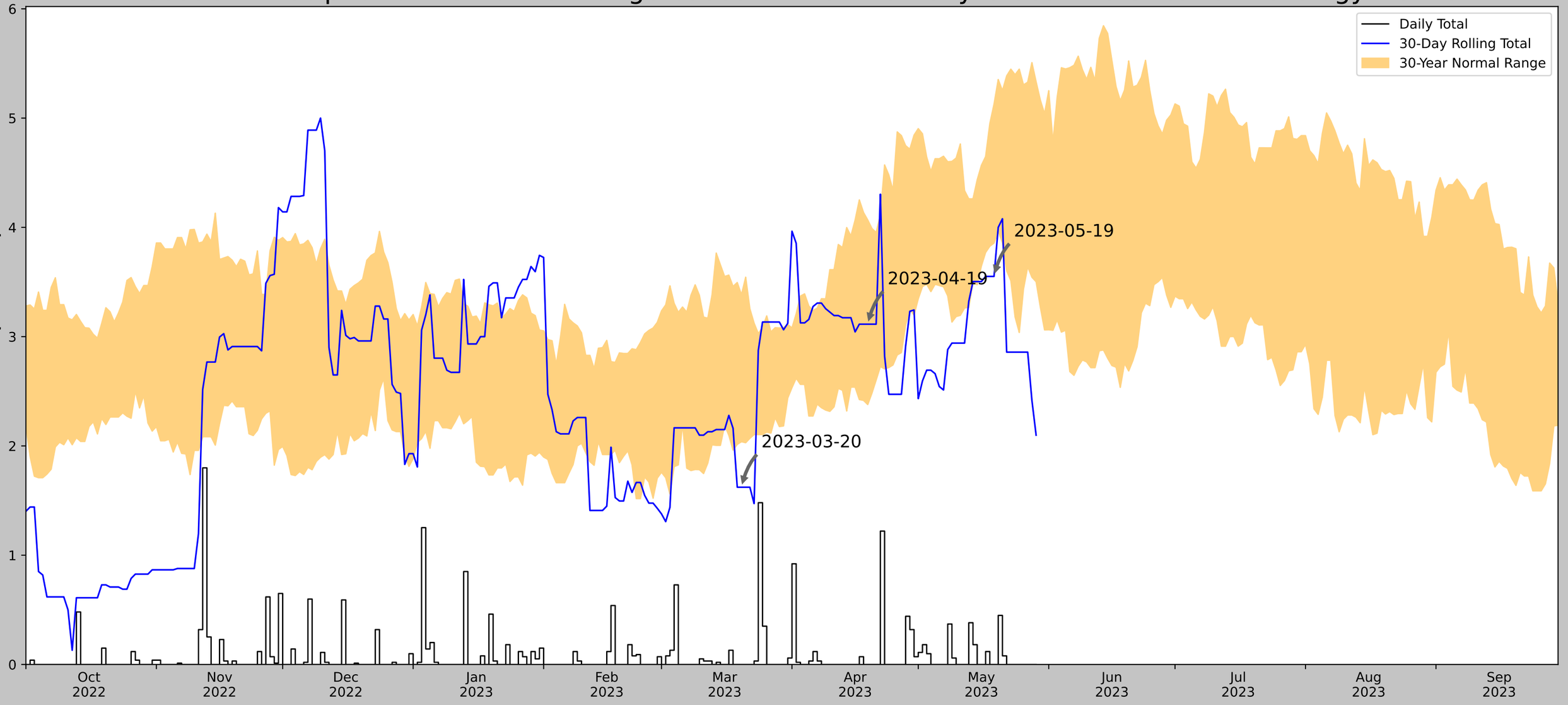
30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2022-03-02	1.933071	3.275197	6.413386	Wet	3	3	9
2022-01-31	2.189764	3.494882	2.220473	Normal	2	2	4
2022-01-01	2.555906	3.585433	3.736221	Wet	3	1	3
Result							Wetter than Normal - 16

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days (Normal)	Days (Antecedent)
BUCKEYE LAKE 1 N	39.9522, -82.4819	888.123	6.315	206.757	4.148	11082	90
KIRKERSVILLE 3.3 N	39.998, -82.5986	1075.131	1.703	19.749	0.8	8	0
PATASKALA 3.2 E	39.998, -82.6136	1074.147	2.399	20.733	1.129	7	0
GRANVILLE 2.6 WSW	40.0527, -82.5445	1064.961	3.169	29.919	1.521	10	0
PATASKALA 2.1 ENE	40.013, -82.6381	1171.916	3.492	77.036	1.841	1	0
PATASKALA 2.0 NE	40.024, -82.6511	1216.864	4.261	121.984	2.437	36	0
ALEXANDRIA 2.1 NNW	40.1182, -82.6265	1080.053	7.881	14.827	3.663	32	0
NEWARK HEATH AP	40.0228, -82.4625	883.858	5.848	211.022	3.866	3	0
UTICA 4 WSW	40.2061, -82.52	1134.843	13.691	39.963	6.708	1	0
NEWARK WTR WKS	40.0875, -82.4128	834.974	9.911	259.906	7.036	173	0

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	40.021777, -82.950994
Observation Date	2023-05-19
Elevation (ft)	834.369
Drought Index (PDSI)	Mild wetness (2023-04)
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2023-05-19	3.856299	5.127953	3.551181	Dry	1	3	3
2023-04-19	2.378347	4.067717	3.114173	Normal	2	2	4
2023-03-20	2.038583	3.383858	1.622047	Dry	1	1	1
Result							Drier than Normal - 8

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
LAURELVILLE	39.4706, -82.7344	759.843	39.783	74.526	20.867	11080	90
LANCASTER 4.2 SSE	39.668, -82.5636	800.853	16.394	41.01	8.05	15	0
CIRCLEVILLE	39.6103, -82.9556	674.869	15.234	84.974	8.15	227	0
LANCASTER	39.7156, -82.6072	827.1	18.232	67.257	9.431	29	0
LANCASTER FAIRFIELD CO AP	39.7572, -82.6633	849.081	20.161	89.238	10.872	2	0

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Infrastructure • Geotechnical/Environmental • Telecommunications • Utilities/Energy

Appendix D:

Right-of-Way Contact List / Affected Property Owners

Franklin County	
John O'Grady	Kevin L. Boyce
Franklin County Commissioner	Franklin County Commissioner
President	373 S. High Street
373 S. High Street	Columbus, Ohio 43215
Columbus, Ohio 43215	
Erica C. Crawley	Kenneth N. Wilson
Franklin County Commissioner	Franklin County Administrator
373 S. High Street	373 S. High Street
Columbus, Ohio 43215	Columbus, Ohio 43215
Jennifer Fish	Cornell R. Robertson, P.E., P.S.
Franklin County Soil and Water	Franklin County Engineer
1404 Goodale Boulevard, Suite 100	970 Dublin Road
Columbus, Ohio 43212	Columbus, Ohio 43215

Affected Property Owners	
Hawk's Nest Urban Housing LLC	Silver Partners LLC
1215 Westwood Ave	477 S Front St
Columbus, Ohio 43212	Columbus, Ohio 43215
Centenary United Methodist Church	
2042 Denune Ave	
Columbus, Ohio 43211	

City of Columbus	
Hon. Andrew Ginther	Shannon G. Hardin
City of Columbus Mayor	City of Columbus Council President
90 W. Broad Street	90 W. Broad Street
Columbus, Ohio 43215	Columbus, Ohio 43215
Mitchell J. Brown	Nicholas Bankston
Councilmember	Councilmember
90 W. Broad Street	90 W. Broad Street
Columbus, Ohio 43215	Columbus, Ohio 43215
Lourdes Barroso de Padilla	Rob Dorans
Councilmember	President Pro Tem
90 W. Broad Street	90 W. Broad Street
Columbus, Ohio 43215	Columbus, Ohio 43215
Shayla Favor	Emmanuel V. Remy
Councilmember	Councilmember
90 W. Broad Street	90 W. Broad Street
Columbus, Ohio 43215	Columbus, Ohio 43215
Scott Messer	Jennifer Gallagher
City of Columbus Director	City of Columbus Director
Department of Building and Zoning Ser	Department of Public Service
111 N. Front Street	111 N. Front Street
Columbus, Ohio 43215	Columbus, Ohio 43215

1501 Reedsdale Street
Suite 302
Pittsburgh, PA 15233
Main: 877 627 3772

Colliers
Engineering & Design

Memorandum

To: NiSource Inc.

From: Jacqueline M. McCort

Date: September 20 2023

Subject: Threatened and Endangered Species Review

North Columbus High Pressure (NCHP) Pipeline Project – Central Columbus

Project No.: 21002402A

On behalf of NiSource Inc., Colliers Engineering & Design (CED) conducted a Threatened and Endangered Species Desktop Review for the North Columbus High Pressure (NCHP) Pipeline Project – Central Columbus located north of Columbus, Ohio within Franklin County (hereinafter referred to as "Project Study Area"). The NCHP Pipeline Project – Central Columbus includes the installation of 20-inch-high pressure steel pipeline. A total of 4.2 miles of main line pipeline is proposed.

The Project Study Area is comprised of an approximately 75-foot-wide temporary workspace, "survey corridor" centered on the proposed pipeline alignment for a combined total of 4.2 miles. The Project Study Area or "Survey Corridor" is located at latitudinal coordinates 40.011997 N and longitudinal coordinates -82.572089 W. Access to the Survey Corridor can be achieved from Parkwood Avenue, Minnesota Avenue, Genesee Avenue, Greenwich Street, Melrose Avenue, Bremen Street, Aberdeen Avenue, Atwood Terrace, Alamo Avenue, Akola Avenue, Osceola Avenue, Crestview Road, Summit Street, Audubon Road, Edgar Place, Beulah Road, E Tulane Road, Indiana Avenue, E Weber Road, N High Road, and W Tulane Road. The Project Study Area is located north of central Columbus, Ohio (Figure 1, **Appendix A**). Based on a review of the *Northwest Columbus and Northeast Columbus Ohio* Quadrangle USGS Maps and historical aerial photographs, the Project Study Area appears to be mainly residential/commercial properties with small, forested areas. The Project Study Area is relatively flat with elevations that range from 750 to 950 feet above mean sea level (MSL). The Project Study Area is located in the Eastern Corn Belt Plains ecoregion.

Some populations of plants and animals are declining because of natural forces or their inability to coexist with human activity. Plants and animals with Endangered or Threatened status are protected under the Endangered Species Act (ESA) of 1973 (16 US 1531 et seq.). Federal Species of Concern (FSC) are species not legally protected under the ESA and are not subject to any of its provisions, including Section 7, until they are formally proposed or listed as Endangered or Threatened.

CED conducted a threatened and endangered species review to become aware of the potential presence of Endangered or Threatened listed species that are located within the Project Study Area

Colliers Engineering & Design

or within the vicinity. The United States Fish and Wildlife Service (USFWS) web page was reviewed to determine species that have Federal protection in Franklin County, within the state of Ohio. A refined search, using the USFWS Information for Planning and Consultation (IPaC) database, was performed to provide a more detailed list of species and critical habitat under USFWS jurisdiction that are known or expected to occur within the Project Study Area. Table 1 provides the USFWS IPaC Species List for the Project Study Area (full document is provided in **Appendix B)**. Upon our request of a project review, USFWS provided recommendations dated August 15, 2023 and indicated they do not anticipate adverse effects to federally endangered, threatened, or proposed species, or proposed or designated critical habitat (letter is provided in **Appendix C**).

In addition to the review of federal databases, CED conducted a review of the Ohio Department of Natural Resources (ODNR) web page regarding natural heritage resources surrounding the Project Study Area. The ODNR provides results of potential occurrences of rare species, natural communities, and federally listed species that have been documented within the immediate vicinity of the Project Study Area. Table 2 lists species that, as of May 22, 2023, potentially occur in Franklin County. CED submitted an initial consultation letter on May 26, 2023 to the ODNR requesting comment. ODNR database results were received on June 28th, 2023 (**Appendix D**). Table 3 provides the ODNR Natural Heritage Database that has listed seven (7) species that occur within one (1) mile of the project area; however, none have been noted by ODNR as having been recorded within the project limits.

Table 1. USFWS IPaC Species List for Project Study Area

Common Name	Scientific Name	Status
Insects		
Monarch Butterfly	*Danaus plexippus*	C
Mammals		
Indiana Bat	*Myotis sodalis*	E
Northern Long-eared Bat	*Myotis septentrionalis*	E
Tricolored Bat	*Perimyotis subflavus*	PE
Clams		
Round Hickorynut	*Obovaria subrotunda*	T

Notes: E – Federally Endangered; T – Federally Threatened; PE – Proposed Endangered; PT – Proposed Threatened; C – Candidate Species.

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Table 2. ODNR Franklin County Species List as of May 22, 2023

Common Name	Scientific Name	State Status	Federal Status
Mammals			
Indiana Myotis	*Myotis sodalis*	E	E
Black Bear	*Ursus americanus*	E	-
Northern Long-eared Bat	*Myotis septentrionalis*	T	T
Star-nosed Mole	*Condylura cristata*	SC	-
Big Brown Bat	*Eptesicus fuscus*	SC	-
Red Bat	*Lasiurus borealis*	SC	-
Hoary Bat	*Lasiurus cinereus*	SC	-
Snowshoe Hare	*Lepus americanus*	SC	-
Woodland Vole	*Microtus pinetorum*	SC	-
Ermine	*Mustela erminea*	SC	-
Little Brown Bat	*Myotis lucifugus*	SC	-
Tri-colored Bat	*Perimyotis subflavus*	SC	-
Deer Mouse	*Peromyscus maniculatus*	SC	-
Smoky Shrew	*Sorex fumeus*	SC	-
Southern Bog Lemming	*Synaptomys cooperi*	SC	-
Badger	*Taxidea taxus*	SC	-
Common Gray Fox	*Urocyon cinereoargenteus*	SC	-
Evening Bat	*Nycticeius humeralis*	SI	-
American Bison	*Bison*	X	-
Birds			
Upland Sandpiper	*Bartramia longicauda*	E	-

American Bittern	*Botaurus lentiginosus*	E	-
Cattle Egret	*Bubulcus ibis*	E	-
Lark Sparrow	*Chondestes grammacus*	E	-
Northern Harrier	*Circus hudsonius*	E	-
Sandhill Crane	*Grus canadensis*	T	-
Least Bittern	*Ixobrychus exilis*	T	-
Black-crowned Night-Heron	*Nycticorax nycticorax*	T	-
Barn Owl	*Tyto alba*	T	-
Sharp-shinned Hawk	*Accipiter striatus*	SC	-
Henslow's Sparrow	*Ammodramus henslowii*	SC	-
Grasshopper Sparrow	*Ammodramus savannarum*	SC	-
Great Egret	*Ardea alba*	SC	-
Common Nighthawk	*Chordeiles minor*	SC	-
Sedge Wren	*Cistothorus platensis*	SC	-
Black-billed Cuckoo	*Coccyzus erythropthalmus*	SC	-
Northern Bobwhite	*Colinus virginianus*	SC	-
Bobolink	*Dolichonyx oryzivorus*	SC	-
American Coot	*Fulica americana*	SC	-
Common Gallinule	*Gallinula galeata*	SC	-
Red-headed Woodpecker	*Melanerpes erythrocephalus*	SC	-
Vesper Sparrow	*Pooecetes gramineus*	SC	-
Sora Rail	*Porzana carolina*	SC	-

Prothonotary Warbler	*Protonotaria citrea*	SC	-
Virginia Rail	*Rallus limicola*	SC	-
Cerulean Warbler	*Setophaga cerulea*	SC	-
Northern Shoveler	*Anas clypeata*	SI	-
Green-Winged Teal	*Anas crecca*	SI	-
American Black Duck	*Anas rubripes*	SI	-
Veery	*Catharus fuscescens*	SI	-
Hermit Thrush	*Catharus guttatus*	SI	-
Brown Creeper	*Certhia americana*	SI	-
Least Flycatcher	*Empidonax minimus*	SI	-
Wilson's Snipe	*Gallinago delicata*	SI	-
Dark-eyed Junco	*Junco hyemalis*	SI	-
Yellow-crowned Night-Heron	*Nyctanassa violacea*	SI	-
Nashville Warbler	*Oreothlypis ruficapilla*	SI	-
Northern Waterthrush	*Parkesia noveboracensis*	SI	-
Golden-crowned Kinglet	*Regulus satrapa*	SI	-
Blackburnian Warbler	*Setophaga fusca*	SI	-
Magnolia Warbler	*Setophaga magnolia*	SI	-
Red-breasted Nuthatch	*Sitta canadensis*	SI	-
Yellow-bellied Sapsucker	*Sphyrapicus varius*	SI	-

Winter Wren	*Troglodytes hiemalis*	SI	-
Golden-winged Warbler	*Vermivora chrysoptera*	SI	-
Bell's Vireo	*Vireo bellii*	SI	-
Insects			
-	*Chimarra socia*	E	-
Two-spotted Skipper	*Euphyes bimacula*	SC	-
-	*Agroperina lutosa*	SC	-
Precious Underwing	*Catocala pretiosa*	SC	-
Slender Clearwing	*Hemaris gracilis*	SI	-
Fish			
Iowa Darter	*Etheostoma exile*	E	-
Spotted Darter	*Etheostoma maculatum*	E	-
Tonguetied Minnow	*Exoglossum laurae*	E	-
Goldeye	*Hiodon alosoides*	E	-
Northern Brook Lamprey	*Ichthyomyzon fossor*	E	-
Shortnose Gar	*Lepisosteus platostomus*	E	-
Popeye Shiner	*Notropis ariommus*	E	-
Lake Chubsucker	*Erimyzon sucetta*	T	-
Tippecanoe Darter	*Etheostoma tippecanoe*	T	-
Paddlefish	*Polyodon spathula*	T	-
Muskellunge	*Esox masquinongy*	SC	-
Blue catfish	*Ictalurus furcatus*	SC	-
Blacknose Shiner	*Notropis heterolepis*	X	-

Longhead Darter	*Percina macrocephata*	X	-
Clams/Mollusk			
Butterfly	*Ellipsaria lineolata*	E	-
Elephant-ear	*Elliptio crassidens*	E	-
Purple Cat's paw	*Epioblasma obliquata*	E	E
Snuffbox	*Epioblasma triquetra*	E	E
Longsolid	*Fusconaia subrotunda*	E	-
Pink Mucket	*Lampsilis abrupta*	E	E
Pocketbook	*Lampsilis ovata*	E	-
Washboard	*Megalonaias nervosa*	E	-
Clubshell	*Pleurobema clava*	E	E
Ohio Pigtoe	*Pleurobema cordatum*	E	-
Rabbitsfoot	*Theliderma cylindrica*	E	T
Rayed Bean	*Villosa fabalis*	E	E
Black Sandshell	*Ligumia recta*	T	-
Threehorn Wartyback	*Obliquaria reflexa*	T	-
Fawnsfoot	*Truncilla donaciformis*	T	-
Pondhorn	*Uniomerus tetralasmus*	T	-
Elktoe	*Alasmidonta marginata*	SC	-
Purple Wartyback	*Cyclonaias tuberculata*	SC	-
Wavy-rayed Lampmussel	*Lampsilis fasciola*	SC	-
Creek Heelsplitter	*Lasmigona compressa*	SC	-
Round Pigtoe	*Pleurobema sintoxia*	SC	-
Kidneyshelll	*Ptychobranchus fasciolaris*	SC	-

Deertoe	*Truncilla truncata*	SC	-
Mucket	*Actinonaias ligamentina*	X	-
Rough Pigtoe	*Pleurobema plenum*	X	-
Reptiles/Amphibians			
Smooth Greensnake	*Opheodrys vernalis*	E	-
Eastern Cricket Frog	*Acris crepitans*	SC	-
Four-toed Salamander	*Hemidactylium scutatum*	SC	-
Flowering Plants			
American Sweet-flag	*Acorus americanus*	P	-
Gattinger's foxglove	*Agalinis gattingeri*	T	-
Spreading Rock Cress	*Arabis patens*	E	-
Prairie False Indigo	*Baptisia lactea*	P	-
Prairie Brome	*Bromus kalmii*	P	-
Pale Umbrella-sedge	*Cyperus acuminatus*	E	-
Cypress-knee Sedge	*Carex decomposita*	P	-
Tall Larkspur	*Delphinium exaltatum*	P	-
One-sided Rush	*Juncus secundus*	P	-
Scaly Blazing-star	*Liatris squarrosa*	P	-
Weak Spear Grass	*Poa saltuensis ssp. Languida*	P	-
Arbor Vitae	*Thuja occidentalis*	P	-
Three-birds Orchid	*Triphora trianthophora*	P	-
Rock Elm	*Ulmus thomasii*	P	-

Notes: E – Endangered; T – Threatened; X – Extirpated; P – Proposed Threatened; C – Candidate Species; SC – Species of Concern; SI – Special Interest.

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Table 3. ODNR's Natural Heritage Database data within one (1)-mile of the project area

Common Name	Scientific Name	Status
Elktoe	*Alasmidonta marginata*	SC
Purple Wartyback	*Cyclonaias tuberculate*	SC
Wavy-rayed Lampmussel	*Lampsilis Fasciola*	SC
Black Sandshell	*Ligumia recta*	SC
Round Pigtoe	*Pleurobema sintoxia*	SC
Kidneyshell	*Ptychobranchus fasciolaris*	SC
Rayed Bean	*Villosa fabalis*	E, FE

Notes: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federally endangered, and FT = federally threatened.

A Threatened and Endangered Species Desktop Review was conducted for the North Columbus High Pressure Pipeline Project – Central Columbus Project. The Project Study Area appears to be within developed land uses. In summary, the comprehensive database search determined there is the potential for five (5) species with federal protection (or potential federal protection) to occur within the Project Study Area; however, the USFWS does not anticipate any adverse impacts to these species based on the proposed project design. The ODNR does not have record of any protected species occurring within the project limits. All species identified by ODNR as occurring within one mile of the project limits are freshwater mussels; since there are no streams within the proposed alignment, there is not sufficient habitat for these species of mollusks.

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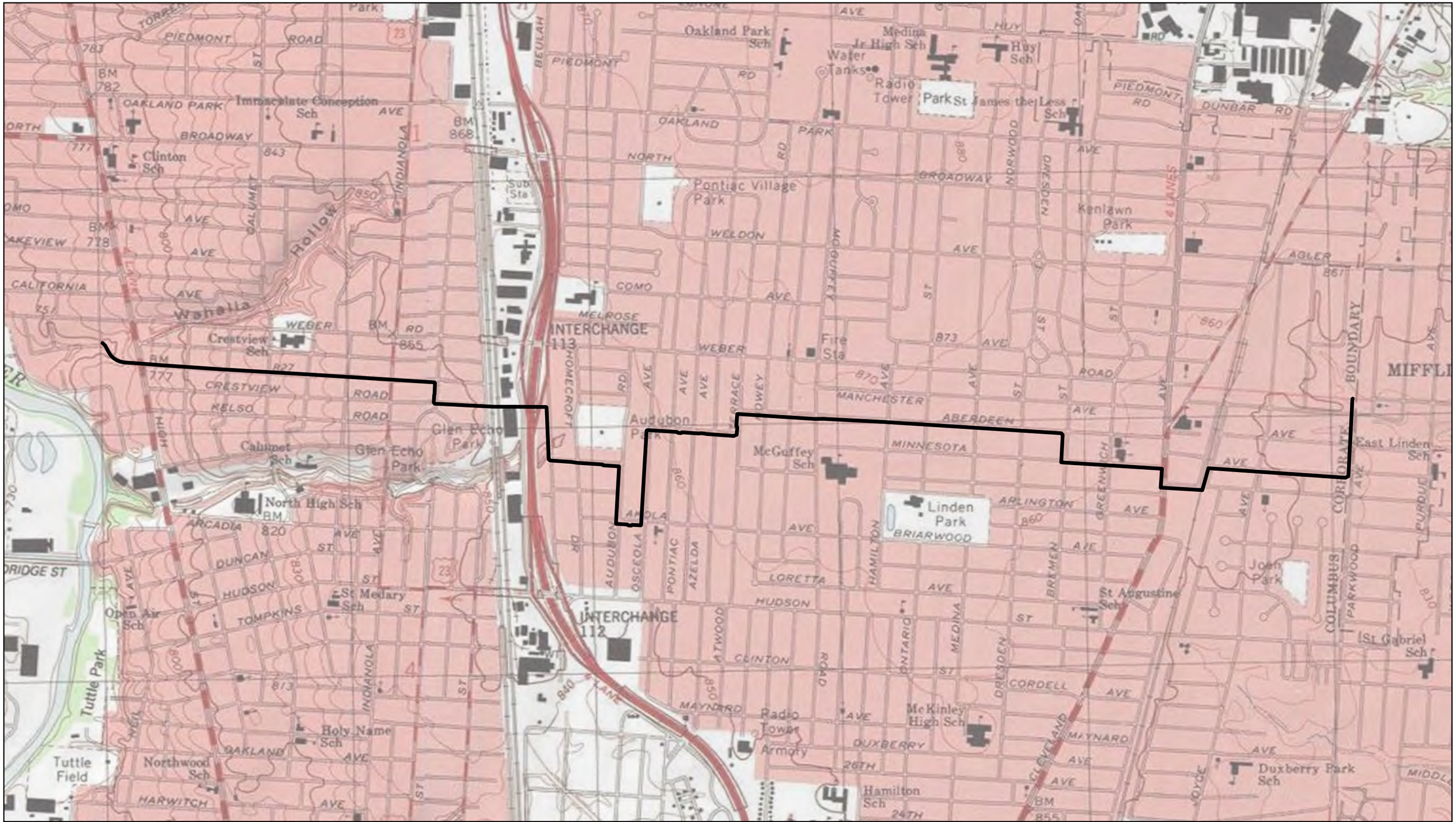
APPENDIX A



Prepared For:

NiSource Inc.
801 E. 86th Avenue
Merrillville, IN 46410

Prepared By:

Pittsburgh O f ce
1501 Reedsdale Street, Ste 302
Pittsburgh, PA 15233
T: 610.254.9140
www.colliersengineering.com

0 600 1,200 Feet

1" = 1,200 feet

N W E S

Source: USGS 24k Quadrangles: Northwest Columbus and Northeast Columbus, OH

Figure 1 - Project Location Map

Central Columbus

Franklin County, Ohio

Date:	MC Project #:	Drawn By:
9/20/2023	21004202A	KHY

Main Line

Sheet 1 of 1

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APPENDIX B

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ohio Ecological Services Field Office
4625 Morse Road, Suite 104
Columbus, OH 43230-8355
Phone: (614) 416-8993 Fax: (614) 416-8994

In Reply Refer To: May 22, 2023
Project Code: 2023-0084384
Project Name: NCHP Phase 1 - Central Columbus

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Ohio Ecological Services Field Office
4625 Morse Road, Suite 104
Columbus, OH 43230-8355
(614) 416-8993

PROJECT SUMMARY

Project Code: 2023-0084384
Project Name: NCHP Phase 1 - Central Columbus
Project Type: Natural Gas Distribution
Project Description: Installation of new utility gas line
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@40.0209596,-82.97067853317998,14z

Counties: Franklin County, Ohio

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

CLAMS

NAME	STATUS
Round Hickorynut *Obovaria subrotunda* There is **final** critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/9879	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Colliers Engineering & Design
Name: Tanner Dickson
Address: 5275 Parway Plaza Blvd, Suite 100
City: Charlotte
State: NC
Zip: 28217
Email tanner.dickson@colliersengineering.com
Phone: 8909803033

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APPENDIX C

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / FAX (614) 416-8994

August 15, 2023

Project Code: 2023-0084384

Dear Tanner Dickson:

The U.S. Fish and Wildlife Service (Service) has received your recent correspondence requesting information about the subject proposal. We offer the following comments and recommendations to assist you in minimizing and avoiding adverse impacts to threatened and endangered species pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq), as amended (ESA).

Federally Threatened and Endangered Species: Due to the project type, size, location, and the proposed implementation of seasonal tree cutting (clearing of trees ≥3 inches diameter at breast height between October 1 and March 31) to avoid impacts to the endangered Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*), and the proposed endangered tri-colored bat (*Perimyotis subflavus*) we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, coordination with the Service should be initiated to assess any potential impacts.

Section 7 Coordination: If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), then no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. Disturbed areas should be mulched and revegetated with native plant

species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

Thank you for your efforts to conserve listed species and sensitive habitats in Ohio. We recommend coordinating with the Ohio Department of Natural Resources due to the potential for the proposed project to affect state listed species and/or state lands. Contact Mike Pettegrew, Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.ohio.gov.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or ohio@fws.gov.

Sincerely,

Keith Lott
Acting Field Office Supervisor

Colliers
Engineering
& Design

APPENDIX D

Office of Real Estate
Tara Paciorek, Chief
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
Phone: (614) 265-6661
Fax: (614) 267-4764

June 28, 2023

Jacqueline McCort
Colliers Engineering & Design
5275 Parkway Plaza Boulevard, Suite 100
Charlotte, North Carolina 28217

Re: 23-0630; Central Columbus Project

Project: The proposed project involves the installation of 24-inch and 20-inch-high pressure steel pipelines.

Location: The proposed project is located in Clinton Township, Franklin County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state, or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Natural Heritage Database: The Natural Heritage Database has the following data within one mile of the project area:

Elktoe (*Alasmidonta marginata*), SC
Purple Wartyback (*Cyclonaias tuberculata*), SC
Wavy-rayed Lampmussel (*Lampsilis fasciola*), SC
Black Sandshell (*Ligumia recta*), SC
Round Pigtoe (*Pleurobema sintoxia*), SC
Kidneyshell (*Ptychobranchus fasciolaris*), SC
Rayed Bean (*Villosa fabalis*), E, FE

The review was performed on the specified project area as well as an additional one-mile radius. Records searched date from 1980. Conservation status abbreviations are as follows: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federally endangered, and FT = federally threatened. The species listed above are not recorded within the specified project area boundaries.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for an area is not a statement that rare species or unique features are absent from that area.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that Best Management Practices be utilized to minimize erosion and sedimentation.

The project is within the vicinity of records for the little brown bat (*Myotis lucifugus*), a state endangered species. Because presence of state endangered bat species has been established in the area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree cutting inside this buffer may be acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

In addition, the entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. The DOW recommends tree cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH $\geq$ 20 if possible.

The DOW also recommends that a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if a potential hibernaculum is present within the project area. Direction on how to conduct habitat assessments can be found in the current USFWS "*RANGE-WIDE INDIANA BAT & NORTHERN LONG-EARED BAT SURVEY GUIDELINES*." If a habitat assessment finds that a potential hibernaculum is present within 0.25 miles of the project area, please send this information to Eileen Wyza for project recommendations. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with the DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

The project is within the range of the following listed mussel species.

Federally Endangered
clubshell (*Pleurobema clava*)
rayed bean (*Villosa fabalis*)
northern riffleshell (*Epioblasma torulosa rangiana*)
snuffbox (*Epioblasma triquetra*)
purple cat's paw (*Epioblasma o. obliquata*)

Federally Threatened
rabbitsfoot (*Quadrula cylindrica cylindrica*)

State Endangered
elephant-ear (*Elliptio crassidens crassidens*)
pocketbook (*Lampsilis ovata*)
long solid (*Fusconaia maculata maculate*)
washboard (*Megalonaias nervosa*)
Ohio pigtoe (*Pleurobema cordatum*)

State Threatened
pondhorn (*Uniomerus tetralasmus*)
Salamander Mussel (*Simpsonaias ambigua*)

Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size, this project is not likely to impact these species.

The project is within the range of the following listed fish species.
State Endangered
goldeye (*Hiodon alosoides*)
shortnose gar (*Lepisosteus platostomus*)
Iowa darter (*Etheostoma exile*)
spotted darter (*Etheostoma maculatum*)
northern brook lamprey (*Ichthyomyzon fossor*)
tonguetied minnow (*Exoglossum laurae*)
popeye shiner (*Notropis ariommus*)

State Threatened
lake chubsucker (*Erimyzon sucetta*)
paddlefish (*Polyodon spathula*)

The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the US Fish & Wildlife Service.

Water Resources: The Division of Water Resources has the following comment.

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project.

ODNR appreciates the opportunity to provide these comments. Please contact Mike Pettegrew at mike.pettegrew@dnr.ohio.gov if you have questions about these comments or need additional information.

Mike Pettegrew
Environmental Services Administrator

Inadvertent Release Plan for Horizontal Directional Drilling

1. Horizontal Directional Drill

Horizontal Directional Drilling (HDD) is an alternative to conventional trenched methods and can reduce project impacts if it is done correctly. The Contractor shall take steps to prevent a release of drilling fluid or inadvertent return (IR) by assessing the risk prior to drilling practices, including front-end engineering and design to evaluate the feasibility of a proposed HDD. For the purposes of this document, the term Horizontal Directional Drill and HDD activities refers to any part of the drill process from start to finish including the pilot hole, reaming, back-reaming, and pipe pullback.

1.1 Preparation for HDD Activities

Prior to the start of HDD activities, proper planning should be completed to prepare for an immediate and efficient response should a release of drilling fluid or IR occur. Contractor personnel should participate in planning discussions to review the site and identify areas that may be impacted in the event an IR occurs, such as storm drain inlets, swales, culverts, or other adjacent, on-site, and offsite waterbody or wetland features. Sufficient equipment and materials necessary for IR response must be available on the project site and staged for immediate access along the drill path throughout HDD activities to ensure proper containment and clean up. At a minimum, the following response, containment, and clean up materials must include a vacuum truck onsite (or on call and in close proximity to site) and additional hose, compost/mulch filter sock, sand bags, and personnel to assist with response activities.

1.2 Drilling Fluid Additives

Prior to the use of any drilling fluid additives, the additive must be approved by the NiSource Environmental Group. Proposed drilling fluid additives must meet the requirements of the NSF/ANSI 60 Drinking Water Treatment Chemicals list. Additives determined likely to have a negative impact if released to the environment, either by a regulatory agency in a particular state or region or by the NiSource Environmental Group, will be restricted from use under wetlands, waterbodies or other sensitive areas.

1.3 HDD Inadvertent Return Avoidance and Contingency Plan

1.3.1 Drilling Fluid Monitoring Protocol

Drilling crews and contractor inspection personnel, which are the contractor's resources, shall be responsible for monitoring and detection of any inadvertent releases along the path of the HDD and under all streams, wetlands, or other water-bodies. The most obvious signs of a release are the visible pooling of drilling mud on the surface, a sudden decrease in mud volume returns at the entry site, or loss in drilling mud pump pressure. Drilling and inspection personnel shall monitor the path of the HDD, along with the actual drilling fluid volumes from the pumps and return flow from the borehole.

The HDD rig operator shall record the pertinent drilling conditions and continuously observe and monitor the HDD alignment for evidence of an inadvertent release. The following precautionary measures shall be implemented to avoid the potential for an inadvertent return, in the appropriate combinations, by the contractor if annular pressures are abnormally high or fluid loss is apparent and that a release may have occurred:

- Contractor's on-site personnel will immediately notify Company representative of any significant loss of drilling fluid returns at the rig or entry pit during pilot phase. Drill crews are to stop work and communicate with NRP and Engineering to find a solution to minimize the risk of a potential IR and maintain return flow;
- Dispatch experienced contractor personnel to monitor the area of the drill path;
- Decrease pump pressure;
- Decrease penetration rate;
- Temporarily cease drilling operations and shut down the pump;
- Restart pump and swab the hole to assist in sealing the release;
- With Company written approval, consider modifying the drilling fluid with a change in viscosity and/or circulation additive;
- HDD rig operator will take a sample of the drilling fluid and hold for future analysis;
- HDD operator will take steps to restore drilling fluid circulation in accordance with the HDD Plan; and
- If drilling fluid circulation is not regained, drilling may continue while inspection personnel continue to monitor for any inadvertent releases.

1.3.2 Corrective Action for an Inadvertent Release

Once surface seepage of drilling fluid is detected, the drilling crew shall take immediate corrective action. The only pressure causing the seepage to occur is the pressure from the drilling pumps. Therefore, the most immediate corrective action is to decrease the pump pressure. As soon as surface seepage is detected, the pumps should only be stopped temporarily until the response process has been initiated. Once the containment and clean-up process has begun, the drilling activities may, with Environmental Group approval, immediately resume.

In the event of an inadvertent release to the surface, the following actions shall be taken:

In general, the contractor shall:

- Contain any drilling fluid that has surfaced;
- Promptly notify Environmental Group representative and Project Manager;
- Reduce or stop circulation pressure and evaluate the circumstances leading to the release; and
- Immediately implement appropriate containment measures.
- The HDD contractor will be required to have the necessary containment and clean-up equipment on-site, at the boring location and readily available for use. At a minimum, a combination of some or all of the following material and equipment should be on site and in ample supply depending on the extent of sensitive areas:

- Compost filter socks (Required)
- Sand bags (Required)
- Vacuum truck and hoses (Required)
- Shovels (Required)
- Push brooms (Required)
- Spill sorbent pads and booms
- Straw bales (certified weed-free)
- Wood stakes
- Silt fence
- Plastic sheeting
- Corrugated plastic pipe
- Centrifugal, trash and sump pumps
- Rubber tired or wide track back hoe
- Bobcat (if needed)
- Storage tanks (if needed)
- Floating turbidity curtain (may be considered for use on large streams)
- Timber (enough to cross 50% of the wetland length need to be readily available)

Inadvertent Release in an Upland Area

If an inadvertent release occurs on the ground surface at an upland location that is inaccessible, the contractor shall:

- Ensure all reasonable measures within the limitations of current technology have been taken to re-establish circulation;
- Continue drilling utilizing a minimal amount of drilling fluid as required to penetrate the formation and/or to maintain a successful pull back; and

- Ensure the release does not migrate into a sensitive environmental area.
- After the HDD installation is complete, perform clean up per the "clean up" section of this document.

If an inadvertent release occurs in an accessible upland location, the contractor shall:

- Evaluate the amount of release to determine if containment structures are warranted and if they will effectively contain the release;
- Promptly implement the appropriate containment measures to contain and recover the release;
- If the release cannot be contained, the operator must suspend drilling operations until appropriate containment is in place; and
- Remove the fluids using either a vacuum truck or by pumping to a location where a vacuum truck is accessible.
- After the HDD installation is complete, perform clean up per the "clean up" section of this document.

Inadvertent Release in Stream, Wetland or Waterbody

If an inadvertent release occurs in an accessible waterbody or wetland location the contractor shall:

- Temporarily suspend the HDD operations and do not resume until NiSource's Natural Resource Permitting (NRP) Representative reviews and approves that the inadvertent release contingency plan has been implemented accordingly.
- Immediately notify the NRP Representative
- Allow the NRP Representative or EI to appropriately quantify the return, document its location, photograph the return, and assess the potential impact to the resource(s),
- With the assistance of the on-site Environmental Inspector or NRP Representative, evaluate the amount of release to determine if containment structures are warranted and if they will effectively contain the release;
- Under the guidance of the on-site EI or NRP Representative, promptly implement appropriate containment measures to contain and recover the release;
- Efforts to contain and recover may result in further disturbance by equipment and personnel and possibly offset the benefit gained in the removal of the release;
- If the amount of release is too small to allow the practical collection from the affected area, the release may be diluted with fresh water or allowed to dry and dissipate naturally;
- Remove the release with a vacuum truck or by pumping to a location where a vacuum truck is accessible;
- In certain situations, a release point can serve as a relief hole where the release is isolated to a specific area and contained. Relief holes are typically used to relieve excess pressure down hole to further reduce the risks of additional inadvertent release. This may include installing pressure relief wells to minimize the impacts of an uncontrolled release. NRP must approve any proposed relief holes and/ or relief wells in streams or wetlands. NRP approval of the location and all conditions necessary to construct relief holes will ensure the proper management of drilling fluids is maintained and environmental impacts are minimized, ensuring that any drill fluid entering these locations will be removed immediately and not allowed to accumulate.

- If the Inadvertent release contingency plan is being deployed accordingly with actions being taken to properly contain and remove the initial release as well as additional releases at this location once the bore continues, the HDD process can resume only with NRP approval.
- NiSource's NRP Representative will notify the appropriate regulating agencies.
    - Ohio EPA's Spill Hotline (1-800-282-9378)
- In the event of any of the following conditions, the HDD process cannot resume without approval from the USACE, state agency, and if applicable, the land management agency where the release is taking place:
    - The release cannot be immediately contained,
    - Is within high quality aquatic resources or stream,
    - Impacts government managed lands.
- After the HDD is complete, perform clean up per the "clean up" section of this document.

If an inadvertent release occurs in an inaccessible waterbody (such as a large stream or river) or wetland location the contractor shall:

- STOP work.
- Immediately notify the NRP Representative and wait for guidance from the Environmental Group before proceeding with bore activities;
- The NRP Representative will attempt to obtain direction from the appropriate regulating agencies to proceed under a specified plan.
- Once further guidance from NRP has been received, proceed as directed.

1.3.3 Containment of Drilling Fluid Release

Immediately following detection of an inadvertent release, the containment and clean-up operations shall take place. For releases on land, the contractor shall use straw bales, silt fence or compost filter sock, sand bags, and earth berms to prevent fluid from migrating or flowing from the immediate area. If the volume released is too small for containment measures or, if the release occurs in an environmentally sensitive area where the release containments may cause additional damage, the method of removal will be determined by the NRP Representative.

If there is a threat to a sensitive resource or to public safety, HDD drilling activities shall cease immediately until a plan to proceed is agreed upon.

In cases where the inadvertent release is within open water or flooded wetlands, it may be impractical or impossible to contain and remove the release. The contractor should attempt to remove the surface release using a wand (i.e. a perforated plastic pipe attached to a suction hose). Methods and measures taken in these instances shall be at the direction of the NRP Representative.

Clean-Up

Clean-up shall commence after the release is contained. Clean-up shall include removal of all visible drilling fluids located in the accessible area. Removal methods will vary based on the volume of the release and site conditions. Removal may include vacuum trucks, loader and track hoe buckets, small pumps, shovels and buckets. If the release occurs in a sensitive area, the

method of removal will be determined by the Company representative. Mechanized equipment shall not enter any sensitive area without the NRP representative first receiving prior approval from a permitting agency, with the exception of an event that poses a threat to public health or safety.

Potential for secondary impacts from the clean-up activities shall be evaluated and weighed against the proposed cleanup activities. The following clean-up measures are considered appropriate:

- Releases will be cleaned up by hand using shovels, buckets, and soft bristled brooms to minimize damage to existing vegetation;
- Fresh water washes may be employed if deemed beneficial and feasible by NRP Representative;
- Containment structures will be pumped out and the ground surface scraped to minimize loss of topsoil or damage to adjacent vegetation;
- Small collection pumps may be necessary to remove released fluids;
- Vacuum trucks may be used to collect and remove drilling fluids as needed;
- Recovered materials will be collected in appropriately labeled containers for temporary storage prior to removal from site;
- Recovered drilling fluid will be recycled or disposed of at an approved upland location or disposal facility. No recovered drilling fluid will be disposed of in streams, aquatic resources or storm drains;

All containment structures will be removed.

1.4 Disposal of Drilling Fluid

Disposal of drilling fluid will follow the guidance outlined in Section 4, Spoils Management.

2. Spoils Management

The contractor is responsible for the proper management of spoils from the project site in accordance with federal, state and local regulations. There are various requirements for managing spoils material in different states, and the contractor is expected to understand and follow those requirements.

If the contractor manages spoils on-site, the contractor is responsible to ensure the on-site management process meets all federal, state, and local requirements. Additionally, if the contractor removes spoils from a site, the contractor is responsible for ensuring the disposal site, and, where applicable, the transporter, meets all federal, state, and local requirements.

NiSource will require project-specific information regarding where any spoils might be disposed of and may investigate those contractor-selected spoils management sites for compliance with federal, state, and local requirements. NiSource may disapprove a site based on its failure to meet a federal, state, or local requirement, but NiSource does not certify compliance or provide approval for any contractor-selected spoils management site.

If unanticipated soil conditions are encountered, in which the excavation material may appear to be impacted (i.e. suspicious appearance or smell), the contractor is required to call the NiSource

Environmental Response hotline at (219) 648-4434 immediately before proceeding with work. The NiSource Environmental Group will determine how to manage the impacted spoils to ensure that the contractor follows all federal, state, and local requirements.

Colliers Engineering & Design

Cultural Resource Desktop Review

Central Columbus Project

Colliers Engineering & Design Project Number: 21004202A

September 20, 2023

Prepared for:

NiSource Inc.
801 E. 86th Avenue
Merrillville, IN 46410

Prepared by:

Colliers Engineering & Design, Inc. (DBA Maser Consulting)
1501 Reedsdale St Suite 302, Pittsburgh, PA 15233
Main: (412) 618-5390
Colliersengineering.com

Colliers Engineering & Design

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1.0 PURPOSE OF DOCUMENT

Colliers Engineering & Design (CED) was contracted by NiSource Inc. (NiSource) to perform a cultural resource background review for the Central Columbus Project (Project) in Columbus, Franklin County, Ohio. This background review and desktop assessment has been prepared in accordance with Section 106 of the National Historic Preservation Act (NHPA) of 1966. This regulation requires project proponents to consider a project's effects on historic properties depending on potential permitting requirements and/or funding sources. The purpose of the document is to outline any previously recorded cultural resources that may be impacted by the proposed Project in support of NiSource's compliance with Section 106 of the NHPA. The goal is also to provide information for project planning and development, as well as estimates on possible future work that may be required for regulatory compliance. A cultural resources survey was not conducted as an element of this research.

2.0 INTRODUCTION

2.1 PROJECT DESCRIPTION

The Project proposes to install approximately 4.2 miles (6.76 kilometers [km]) of 20-inch-high pressure steel main line pipeline.

2.2 PROJECT LOCATION

The Project area originates at the intersection of Denune Ave and Parkwood Ave and terminates at the intersection of W Tulane Rd and E Tulane Rd in Columbus, Franklin County, Ohio. The Project is depicted on the *Northwest Columbus and Northeast Columbus*, Ohio US Geological Survey (USGS) 7.5-minute topographic map quadrangles.

2.3 EXISTING CONDITIONS AND VICINITY CHARACTERISTICS

The Project area consists mostly of suburban neighborhoods with a few commercial buildings and a very small, wooded area on the easternmost side. The Project area has been subject to heavy disturbance from residential and commercial construction activities for many years. The Project area is bordered on all sides by further residential and commercial development.

3.0 ENVIRONMENTAL BACKGROUND

3.1 PHYSIOGRAPHY AND GEOLOGY

The Project area is in the Loamy, High Lime Till Plains ecoregion of the Eastern Corn Belt Plains physiographic province of Ohio. The Loamy, High Lime Till Plains ecoregion covers most of southwestern Ohio all the way through central Indiana. This ecoregion is flat to rolling and has outwash plains and terminal moraines glacial features. Soils are loamy on lime-rich glacial till. The Project area is underlain by Wisconsinan glacial deposits consisting of mostly loam. Most of the forests have been cleared for agriculture and now the area is utilized mostly for soybean, corn, and livestock production (Woods, et al. 1998).

The Project is underlain by the Ohio Shale geological formation. The Ohio Shale geological formation consists of mudstone, siltstone and very fine-grained sandstone that ranges from reddish-brown to purple. There are also sand filled burrows two to five meters thick bordering the formation. Shale and sandstone also make up a majority of the valley's lowlands and ridges. Diabase layers underline the main formation of the region (Slucher et. al 2006).

3.2 TOPOGRAPHY AND SOILS

The Natural Resources Conservation Service (NRCS) Soil Survey for Franklin County, Ohio available on the Web Soil Survey, identifies four (4) soil types underlying the Project area (**Table 1**). Soils range from somewhat poorly drained to moderately well drained (NRCS 2022).

Table 1. Soil Types in the Project area

Soil Symbol	Soil Name	Slope %	Drainage	Landform
BfA	Bennington-Urban land complex	0-2	Somewhat poorly drained	Ground moraines, end moraines
CbB	Cardington-Urban land complex	2-6	Moderately well drained	Ground moraines, end moraines
CbC	Cardington-Urban land complex	6-12	Moderately well drained	Ground moraines, end moraines
Ut	Udorthents-Urban land complex	2-12	--	--

4.0 CULTURAL RESOURCE DESKTOP REVIEW

The following information was gathered as part of the desktop review to identify previously recorded cultural resources within a 0.5-mile (0.80-km) radius of the Project area. The background review consisted of a cultural resources and literature review of the Project area. A CED archaeologist reviewed the online database hosted by the Ohio History Connection (OHC), the State Historic Preservation Office (SHPO) of Ohio, for any previously recorded surveys, historic or prehistoric sites, and cemeteries located in or near the Project. Site files, relevant maps, and National Register of Historic Places (NRHP) locations were also examined. Aerial photographs, topographic maps, and the NRCS Web Soil Survey were also examined for historical and environmental information related to the Project area.

4.1 PREVIOUSLY CONDUCTED CULTURAL RESOURCE SURVEYS

The background review revealed that two (2) previous archaeological surveys have been conducted in portions of the Project area. One was a Phase I Cultural Resources Survey of NiSource's Proposed Ackerman Road 20-inch Natural Gas Pipeline Project in the City of Columbus, Franklin County, Ohio conducted in 2012, and the second one was "Results of the Ongoing Phase I Archaeological Survey of Proposed Railroad Construction of Connections Between Conrail & Norfolk Southern Lines in Erie, Franklin, & Ottawa, & Two Proposed Railroad Yard Expansions in Cuyahoga, Huron & Seneca Counties, Ohio" conducted in 1997. Several surveys have also been conducted within a 0.5-mile (0.8-km) radius of the Project area (OHC 2023) (**Table 2**).

Table 2. Previously conducted cultural resource surveys within 0.5 mile (0.8 km) of the Project area.

Project Name	Investigating Firm	Date of Survey	Distance to Project Area
Archaeological Survey of Proposed Interstate 315 - (Columbus & Worthington) Franklin County, Ohio	Ohio Department of Transportation	1976	634.22-Meter N (2080.77-ft)
An Archaeological Literature Review and Survey: Proposed Olentangy River Bicycle Path in the City of Columbus, Clinton Township, Franklin County, Ohio	ASC Group, Inc.	1990	357.78-Meter S (1173.8-ft)
Phase I Cultural Resources Survey of NiSource's Proposed Ackerman Road 20-inch Natural Gas Pipeline Project in the City of Columbus, Franklin County, Ohio	URS Corp., Cincinnati	2012	Intersects
Phase I Archaeological Survey of Proposed Railroad Construction of Connections Between Conrail & Norfolk Southern Lines in Erie, Franklin, & Ottawa, & Two Proposed Railroad Yard Expansions in Cuyahoga, Huron & Seneca Counties, Ohio	ASC Group, Inc.	1997	Intersects

4.2 PREVIOUSLY RECORDED CULTURAL RESOURCES

Based on the review, there are no archaeological sites or above-ground historic resources documented within the Project area; however, there are multiple cultural resources documented within a 0.5-mile (0.8-km) radius of Project area (OHC 2023) (**Table 3**).

Table 3. Previously recorded cultural resources within 0.5 mile (0.8 km) of the Project area.

OHI/OAI Number	Name of Resource	Date of Significance/ Temporal	Address
FR0200	Archaeological Site	Prehistoric	N/A
FR0201	Archaeological Site	Prehistoric	N/A
FR0202	Archaeological Site	Prehistoric	N/A
FR0204	Archaeological Site	Prehistoric	N/A
FR0205	Archaeological Site	Prehistoric	N/A
FR0802	Archaeological Site	Prehistoric	N/A
FR0801	Archaeological Site	Prehistoric and Historic	N/A
FR0803	Archaeological Site	Historic	N/A
FR2874	Archaeological Site	Prehistoric	N/A
FRA0167010	Historic Structure	1910	191 W Delhi Ave Columbus, OH
FRA0167310	Clinton Theatre	1927	3377-3381 N High St Columbus, OH
FRA0712110	Clinton Elementary School	1922	10 Clinton Heights Ave Columbus, OH
FRA0165410	Clinton School	1910	10 Clinton Heights Ave Columbus, OH
FRA0167610	Historic Structure	1910	65 E North Broadway Columbus, OH
FRA0166910	Como Ave Methodist Episcopal	1916	29 E Como Ave Columbus, OH
FRA0165910	Harold Scott House	1910	3119 N High St Columbus, OH
FRA0166010	Clinton Chapel	1938	3100 N High St Columbus, OH
FRA0166213	Posey Prop	1915	57 E Weber Rd Columbus, OH
FRA0166113	Shockey House	1915	83 E Weber Rd Columbus, OH
NR-06000361	Coe, Truman & Sylvia Bull, House	1880-1885	75 E Lakeview Ave Columbus, OH 43202
NR-15000323	Graham, AB, House	1938-1960	159 Clinton Heights Ave Columbus, OH 43202
FRA0003813	Olentangy Amusement Park Site	1939	2800 N High St Columbus, OH
FRA0947310	Patrick & Coleen Berry House	1954	567 E North Broadway Columbus, OH
FRA0947610	Almanza & Elta McCreight House	1928	577 E North Broadway Columbus, OH

OHI/OAI Number	Name of Resource	Date of Significance/ Temporal	Address
FRA0947810	LE & Ella Gross House	1931	583 E North Broadway Columbus, OH
FRA0948010	Lemuel & Juanita DeForest House	1929	589 E North Broadway Columbus, OH
FRA0948210	Ed & Inez Gibson House	1936	599 E North Broadway Columbus, OH
FRA0948410	William Robbers House	1936	605 E North Broadway Columbus, OH
FRA0948510	Frank & Florence Pote House	1939	615 E North Broadway Columbus, OH
FRA0940613	Todd & Hair House	1952	555 Olentangy St Columbus, OH
FRA0940513	Fisher House	1952	553 Olentangy St Columbus, OH
FRA0940413	Fowkes House	1950	549 Olentangy St Columbus, OH
FRA0940313	Dheel House	1926	547 Olentangy St Columbus, OH
FRA0936413	Glen Echo Ravine Culvert	1910	Glen Echo Ravine at RR tracks Columbus, OH
Multiple	Historic Houses	Multiple	2680-2612 N 4th St (all even #'s) Columbus, OH
Multiple	Historic Houses	Multiple	2604-2574 N 4th St (all even #'s) Columbus, OH
FRA0937913	James L Geygan House	1925	2538 N 4th St Columbus, OH
Multiple	Historic Houses	Multiple	2539-2517 N 4th St (All odd #'s) Columbus, OH
Multiple	Historic Houses	Multiple	2500-2502- 2474-2476 N 4th St (all even #'s) Columbus, OH
FRA0534213	Steward & Silver Cement Block	1915	527 E Hudson St Columbus, OH
Multiple	Historic Houses	Multiple	506-526 E Tompkins St (all even #'s) Columbus, OH
Multiple	Historic Houses	Multiple	2464-2422 N 4th St (all even #'s) Columbus, OH
Multiple	Historic Houses	Multiple	513-515 E Tompkins Ave (all odd #'s) Columbus, OH
FRA0937813	Fleming Deal House	1910	527 E Tompkins Ave (rear) Columbus, OH

OHI/OAI Number	Name of Resource	Date of Significance/ Temporal	Address
Multiple	Historic Houses	Multiple	514-522 Clinton Ave (all even #'s) Columbus, OH
FRA0134413	Miller Property	1899	453 E Hudson St Columbus, OH
Multiple	Historic Houses	Multiple	2514-2430 Summit St (all even #'s) Columbus, OH
Multiple	Historic Houses	Multiple	2515-2431 1/2 Summit St (all odd #'s) Columbus, OH
FRA0153813	Hale Property	1911	2570 Summit St Columbus, OH
NR-97001241	Glen Echo Historic District	1910-1943	Roughly bounded by Glen Echo Ravine, Big Four RR tracks, Indianola Ave, & Hudson St
FRA0155313	Finn House	1911	2625 N Summit St Columbus, OH
FRA0155213	Gregg House	1910	411 Arcadia Ave (and 2630 Glen Echo) Columbus, OH
FRA0152913	Walsh House	1920	416 Glen Echo Circle Columbus, OH
2500698	Bridge	1921	3.22 miles north of IR 670
FRA1033513	Columbus Fire Station 13	1957	309 Arcadia Ave Columbus, OH
FRA0151213	Bernler House	1939	308 Cliffside Dr Columbus, OH
NR -89000175	Hamilton, Gilbert H., House	1927	290 Cliffside Dr Columbus, OH 43211
FRA0153313	Glen Echo United Presbyt	1930	220 Cliffside Dr Columbus, OH
FRA0150913	Historic Structure	1895	2584-2586 Dayton St Columbus, OH
FRA0156613	Zissis House	1905	2600 Medary Ave Columbus, OH
FRA0151013	O'Harra Rental House	1899	235-237 E Duncan St (2610 Medary) Columbus, OH
FRA0152513	Welshans House	1899	195 E Duncan St Columbus, OH
NR-87000984	North High School	1923	100 Arcadia Ave Columbus, OH
FRA0156413	Pfeiffer Rental House	1880	2673 Adams Ave Columbus, OH
FRA0156513	Marie Ranke Rental House	1880	2667 Adams Ave

OHI/OAI Number	Name of Resource	Date of Significance/ Temporal	Address
			Columbus, OH
Multiple	Historic Houses	Multiple	2682-2636 Findley Ave Columbus, OH
FRA0761013	Lang House	1910	2643 Findley Ave Columbus, OH
FRA0761313	Sayre/Waltzer/Snook/Stultz	1925	2651 Findley Ave Columbus, OH
FRA0153513	Hayden House	1940	96-98 E Dodridge St Columbus, OH
FRA0154113	McConnell House	1899	74 E Dodridge St Columbus, OH
FRA0151413	Harness House	1899	57 E Dodridge St Columbus, OH
FRA0152813	Historic Structure	1899	37 E Dodridge St Columbus, OH
FRA0154313	Burkepile Rental House	1876	2695 East Ave Columbus, OH
FRA0154213	Harness House	1875	45 E Arcadia Ave Columbus, OH
FRA0370313	Bilikam General Store	1880	2662-2664 N High St Columbus, OH
FRA0370213	Gray Nook Restaurant	1920	2657-2659 N High St Columbus, OH
FRA0006813	Ramlow Block/Crosby Drugs	1891	2659-2661 N High St Columbus, OH
NR-10000828	North Columbus Commercial Historic District	N/A	N/A
FRA0430513	Barber Shop	1865	17 W Dodridge St Columbus, OH
Multiple	Historic Houses	Multiple	44-110 W Dodridge St Columbus, OH
Multiple	Historic Houses	Multiple	2684-2709 Neil Ave Columbus, OH
Multiple	Historic Houses	Multiple	69-49 North St Columbus, OH
FRA0768713	Prosser-Yoder House	1937	2683-2685 Neil Ave Columbus, OH
FRA0166710	Historic Structure	1937	224 E California Ave Columbus, OH
FRA0166610	Historic Structure	1910	259 Walhalla Rd Columbus, OH

OHI/OAI Number	Name of Resource	Date of Significance/ Temporal	Address
FRA0844313	Crestview Junior High School	1914	251 E Weber Rd Columbus, OH
FRA0941013	Short House	1939	589 E Weber Rd Columbus, OH
FRA0940913	Gawlikowski House	1946	589 Tibet Rd Columbus, OH
FRA0940813	Robson House	1922	578 E Tulane Rd Columbus, OH
FRA0940713	Landis House	1948	577 E Tulane Rd Columbus, OH
FRA1033611	Columbus Fire Station 16	1953	1130 Weber Rd Columbus, OH
FRA0308311	Historic Structure	1910	1676 Manchester Ave Columbus, OH
FRA1053611	Historic Structure	1925	2741 Cleveland Ave Columbus, OH
FRA1053811	Historic Structure	1930	2750 Cleveland Ave Columbus, OH
FRA1053711	Historic Structure	1940	2742 Cleveland Ave Columbus, OH
FRA1025611	IGA and Strip Mall	1940	2682-92 Westerville Rd Columbus, OH
FRA0260212	Schrock House	1834	2422 Sunbury Rd Columbus, OH
FRA0165713	Colonial Cany Shoppe	1939	2923-2931 N High St Columbus, OH
FRA0383413	White Castle Restaurant	1951	2725 N High St Columbus, OH
FRA0165613	The Elmwood	1915	149 E Kelso Rd Columbus, OH
FRA0864813	HL Brickels House	1921	238 Crestview Rd Columbus, OH
FRA0166610	Historic Structure	1910	259 Walhalla Rd Columbus, OH
FRA0429810	Porshinsky Apartments	1930	3211 Indianola Ave
FRA1045311	Como School	1957	2989 Reis Ave Columbus, OH
Multiple	Multiple	Multiple	513-515 E Tompkins Ave Columbus, OH
Multiple	Multiple	Multiple	2500-2458 N 4th Street
Multiple	Multiple	Multiple	506-524 E Tomkins Street

OHI/OAI Number	Name of Resource	Date of Significance/ Temporal	Address
FRA0534213	Steward & Silver Cement Block	1915	527 E Hudson St Columbus, OH
Multiple	Multiple	Multiple	547-555 Olentangy St Columbus, OH
FRA1017111	New Salem Baptist Church	1951	2956 Cleveland Ave Columbus, OH
FRA1053411	Historic Structure	1940	2572 Cleveland Ave Columbus, OH
FRA1053311	1695-1697 Minnesota Avenue	1930	1695-1697 Minnesota Ave Columbus, OH
Multiple	Multiple	Multiple	2533-2557 Cleveland Ave Columbus, OH
FRA0308311	Historic Structure	1910	1676 Manchester Ave Columbus, OH
FRA1038511	Ohio Townhouses Family Apartments	1974	2775 Brentnell Rd Columbus, OH
FRA0711711	East Linden Elementary School	1911	2500 Perdue Rd Columbus, OH
N/A	Clinton Chapel-Webster Cemetery	1825	3100 N High St Columbus, OH
N/A	Mifflin Cemetery	N/A	2142 Mock Road. West of Sunbury Road. Near Woodland Avenue. East of Parkwood Avenue
N/A	Old Union-Union	1806	East of Ackerman and Olentangy River Road

4.3 Historic Topographic Maps and Aerial Imagery

Historical topographic maps and aerial photography revealed existing suburban housing near the Project area since the mid-twentieth century (USGS 1954, 1955, 1964, 1965a, 1965b, 1995a, 1995b, 2010a, 2010b; Nationwide Environmental Title Research [NETR] 2022a, b, c, and d). The vicinity has remained mainly developed land with large areas of gridded residential structures that gradually increased over time from the 1960s to the present (NETR 2022a-d).

5.0 SUMMARY AND RECOMMENDATIONS

The Project proposes to install approximately 4.2 miles (6.76 km) of 20-inch-high pressure steel main line pipeline. The Project area originates at the intersection of Denune Ave and Parkwood Ave and terminates at the intersection of W Tulane Rd and E Tulane Rd in Columbus, Franklin County, Ohio. The Project is depicted on the *Northwest Columbus* and *Northeast Columbus, Ohio* US Geological Survey (USGS) 7.5-minute topographic map quadrangles.

A Cultural Resource desktop review was conducted for the Project consisting of a compilation of known above-ground historic resources, archaeological sites, and previously conducted cultural resources surveys. There are no above-ground historic resources or subsurface archaeological sites within the Project area; however, there are over one hundred previously recorded cultural resources within a 0.5-mile (0.8-km) radius. These results are depicted in **Appendix B**.

Based on the information provided and the results of this desktop assessment, it is CED's opinion that the previously documented resources in the immediate vicinity indicate a moderate to high probability for encountering archaeological sites within or adjacent to the Project area. However, as proposed, the Project will not require any federal permitting and does not have any other federal nexus that would trigger the need for Section 106 review. CED respectfully submits these findings to NiSource for their information. This background review and assessment was conducted in support of NiSource's compliance with Section 106 of the NHPA.

6.0 REFERENCES

Nationwide Environmental Title Research (NETR)

2022a 1953 Aerial Imagery. Available online: https://www.historicaerials.com/viewer, accessed April 2022.

2022b 1963 Aerial Imagery. Available online: https://www.historicaerials.com/viewer, accessed April 2022.

2022c 1971 Aerial Imagery. Available online: https://www.historicaerials.com/viewer, accessed April 2022.

2022d 1985 Aerial Imagery. Available online: https://www.historicaerials.com/viewer, accessed April 2022.

Natural Resources Conservation Service (NRCS)

2022 US Department of Agriculture, Natural Resources Conservation Services. Electronic document, http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm, accessed January 2022.

Ohio History Connection (OHC)

2023 Online mapping system. Ohio History Connection. https://www.ohiohistory.org/preserving-ohio/state-historic-preservation-office/online-mapping-system/, accessed May 2023.

Slucher, E.R., Swinford, E.M., Larsen, G.E., and others

2006 Bedrock geologic map of Ohio: Ohio Division of Geological Survey Map BG-1, version 6.0, scale 1:500,000.

US Geological Survey (USGS)

1954 Topographic Map of Northeast Columbus, Ohio 1:24000. Available online: https://ngmdb.usgs.gov/topoview/, accessed April 2022.

1955 Topographic Map of Northwest Columbus, Ohio 1:24000. Available online: https://ngmdb.usgs.gov/topoview/, accessed April 2022.

1964 Topographic Map of Northeast Columbus, Ohio 1:24000. Available online: https://ngmdb.usgs.gov/topoview/, accessed April 2022.

1965a Topographic Map of Northeast Columbus, Ohio 1:24000. Available online: https://ngmdb.usgs.gov/topoview/, accessed April 2022.

1965b Topographic Map of Northwest Columbus, Ohio 1:24000. Available online: https://ngmdb.usgs.gov/topoview/, accessed April 2022.

1995a Topographic Map of Northeast Columbus, Ohio 1:24000. Available online: https://ngmdb.usgs.gov/topoview/, accessed April 2022.

1995b Topographic Map of Northwest Columbus, Ohio 1:24000. Available online: https://ngmdb.usgs.gov/topoview/, accessed April 2022.

2010a Topographic Map of Northeast Columbus, Ohio 1:24000. Available online: https://ngmdb.usgs.gov/topoview/, accessed April 2022.

2010b Topographic Map of Northwest Columbus, Ohio 1:24000. Available online: https://ngmdb.usgs.gov/topoview/, accessed April 2022.

Woods, Alan J., James M. Omernik, C. Scott Brockman, Timothy D. Gerber, William D. Hosteter, and Sandra H. Azevedo
1998 Ecoregions of Indiana and Ohio. (Poster)
https://store.usgs.gov/assets/MOD/StoreFiles/Ecoregion/21631_in_oh_front.pdf. accessed April 2022.

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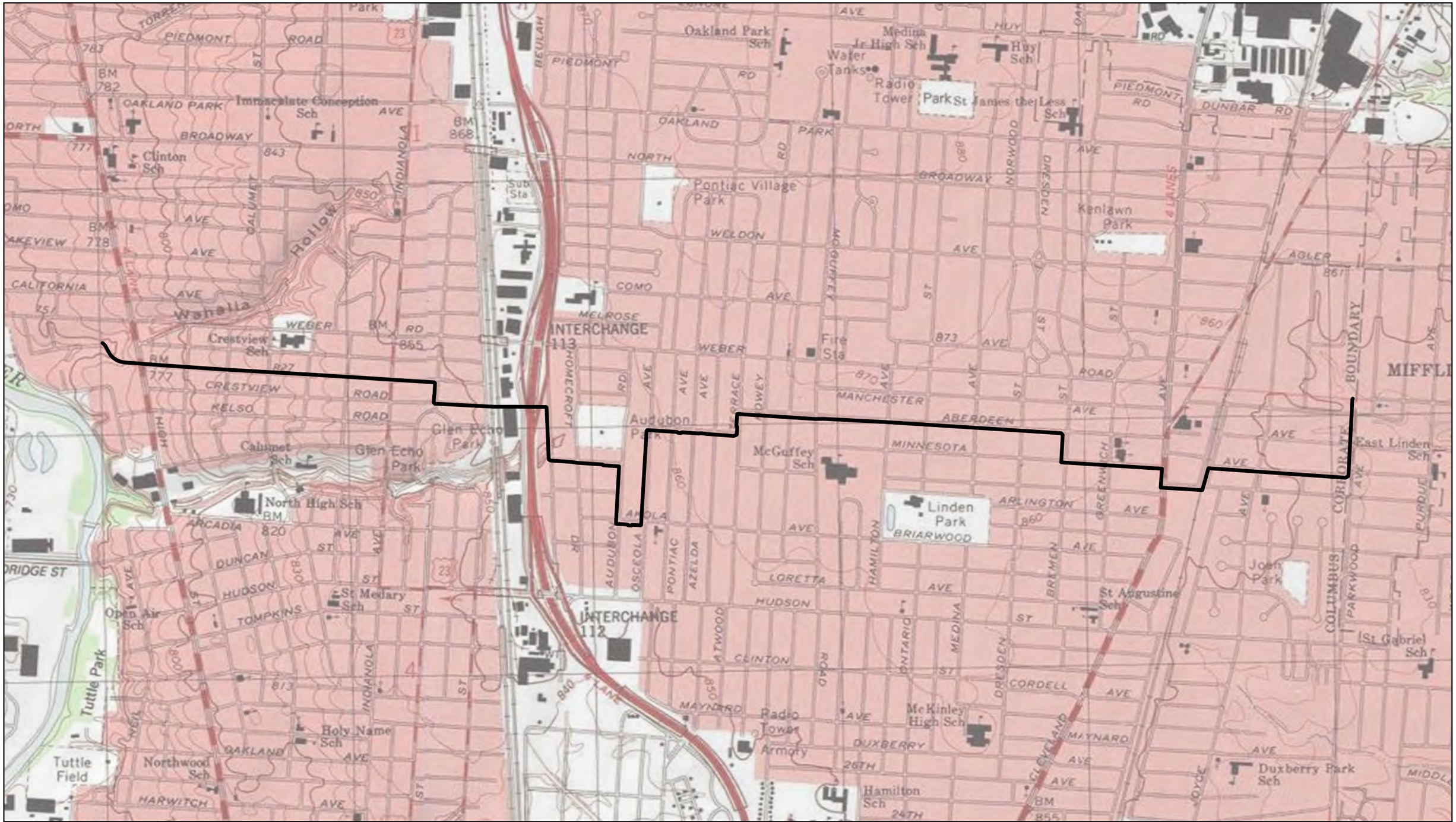
Appendix

Appendix A | Project Location Map



Prepared For:

NiSource Inc.
801 E. 86th Avenue
Merrillville, IN 46410

Prepared By:

Pittsburgh O f ce
1501 Reedsdale Street, Ste 302
Pittsburgh, PA 15233
T: 610.254.9140
www.colliersengineering.com

0 600 1,200 Feet

1" = 1,200 feet

N W E S

Source: USGS 24k Quadrangles: Northwest Columbus and Northeast Columbus, OH

Figure 1 - Project Location Map

Central Columbus

Franklin County, Ohio

Date:	MC Project #:	Drawn By:
9/20/2023	21004202A	KHY

Main Line

Sheet 1 of 1

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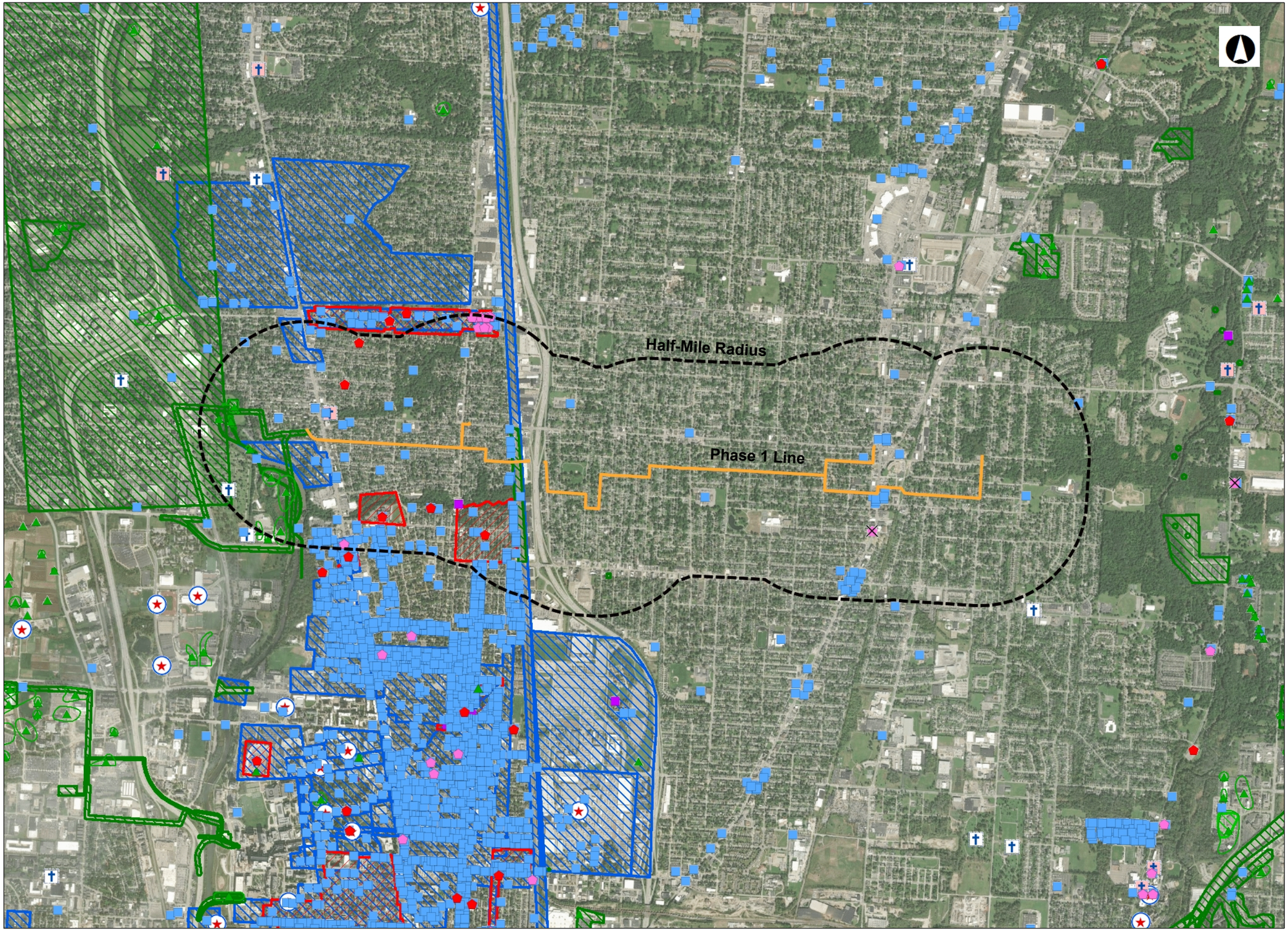
Appendix B | Cultural Resources Background Map



State Historic Preservation Office

Legend

- NR Listings
  - Listed
  - National Historic Landmark
  - Delisted
- Determinations of Eligibility
  - DOE
  - Demolished
- Archaeological Sites
- Historic Structures
- Historic Bridges
- OGS Cemeteries
  - Confident
  - Not Confident
- OHC Sites
- Historic Markers
- NR Boundaries
- OAI Site Boundaries
- Phase1
- Phase2
- Phase3
- Historic Previously Surveyed
- World Imagery
- Low Resolution 15m Imagery
- High Resolution 60cm Imagery
- High Resolution 30cm Imagery
- Citations
- 9.6m Resolution Metadata

0 0.46 0.9 Miles

1: 36,112

Copyright/Disclaimer

Datum:	[Datum]
Projection:	WGS_1984_Web_Mercator_Auxiliary_Sphere

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Appendix C | SHPO Concurrence Letter

In reply refer to
2023-FRA-58599

August 8, 2023

Jared Webb
Campos EPC, LLC
401 N. Front St.
Columbus, Ohio 43215

Dear Mr. Webb:

RE: NiSource NCHP Central Phase I Distribution, Columbus, Franklin County, Ohio

This is in response to the receipt of correspondence, on July 25, 2023, regarding the proposed gas distribution line installation at the above location in Franklin County, Ohio. The comments of the Ohio Historic Preservation Office are submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended.

Based on the information submitted, it is my opinion that the proposed undertaking will have no effect on properties listed in or eligible for listing in the National Register of Historic Places. No further coordination is required unless the project changes or archaeological remains are discovered during the course of the project. In such a situation, this office should be contacted as per 36 CFR 800.13.

Please be advised that this is a Section 106 decision. This review decision may not extend to other SHPO programs. If you have any questions, please contact me at (614) 298-2000, or by email at nyoung@ohiohistory.org. Please note the Ohio SHPO now accepts electronic-only submissions for state and/or federal review under Section 106 and ORC 149.53. Please send your submissions to section106@ohiohistory.org. We have also updated our Survey Report Submission Standards.

Sincerely,

Nathan J. Young, Project Reviews Manager
Resource Protection and Review

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Infrastructure • Geotechnical/Environmental • Telecommunications • Utilities/Energy

TEMPORARY TRAFFIC CONTROL

1. ALL TEMPORARY TRAFFIC CONTROL (TTC) DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE CITY OF COLUMBUS STANDARD DRAWINGS (CURRENT EDITION).

2. CONSTRUCTION OPERATIONS SHALL NOT BEGIN UNTIL ALL TRAFFIC CONTROL IS IN PLACE AND APPROVED BY THE DEPARTMENT OF PUBLIC SERVICE INSPECTOR. IF THE CONTRACTOR DOES NOT COMPLY WITH THE STANDARDS, INCLUDING THE INSTALLATION OF TEMPORARY PAVEMENT MARKINGS AND THE REMOVAL OF CONFLICTING TRAFFIC CONTROLS, THEIR PERMIT SHALL BE REVOKED AND ALL WORK SHALL BE TERMINATED. TEMPORARY PAVEMENT MARKINGS TO INCLUDE, BUT NOT LIMITED TO, CHANNELIZING LINES, EDGE LINES, AND CENTERLINES SHALL BE INSTALLED AND MAINTAINED ON ALL CONSTRUCTION OPERATIONS LASTING A MINIMUM OF 14 CALENDAR DAYS OR AS DIRECTED BY THE TEMPORARY TRAFFIC CONTROL COORDINATOR OR THE PROJECT ENGINEER.

3. THE CONTRACTOR SHALL GIVE ADVANCE NOTIFICATION (WRITTEN AND VERBALLY) TO THE TEMPORARY TRAFFIC CONTROL COORDINATOR AT 614-645-0355 OR 614-645-5845 & THE DIVISION OF REFUSE COLLECTION'S OPERATION MANAGER AT 614-645-1675, WRITTEN NOTIFICATION TO PAVING THE WAY AT PAVINGTHEWAY@MORPC.ORG OR VERBAL TO (614)233-4200 , PROJECT ENGINEER, AND THE SENIOR SERVICE PLANNER OF COTA AT 614-308-4373 OR FAX 614-275-5933, INFORMING THEM OF ALL UPCOMING MAINTENANCE OF TRAFFIC CHANGES ON A WEEKLY BASIS. NOTIFICATION SHALL INCLUDE, BUT NOT BE LIMITED TO, WHAT, WHERE, WHEN, AND HOW PEDESTRIAN AND VEHICULAR TRAFFIC WILL BE AFFECTED, AND THE TEMPORARY TRAFFIC CONTROL PROCEDURES THE CONTRACTOR IS PLANNING TO USE. THE TYPE OF TRAFFIC CHANGE SHALL DETERMINE THE LENGTH OF ADVANCE NOTIFICATION REQUIRED:

TYPE OF CHANGE	ADVANCE NOTIFICATION NEEDED
DETOURS/ROAD CLOSURES PRIOR TO CLOSURE.	30-DAY NOTIFICATION
LANE CLOSURES LASTING 2 WEEKS OR MORE	2-WEEKS
LANE CLOSURES OF LESS THAN 2 WEEKS	3-DAYS
LANE CLOSURES OF 2 DAYS OR LESS	1-DAY

THE COTA SENIOR SERVICE PLANNER SHALL BE CONTACTED 30 DAYS PRIOR TO ANY PLANNED CLOSURE ON ASSIGNED COTA ROUTES. ANY OTHER UNFORESEEN IMPACTS TO TRAFFIC SHALL BE IMMEDIATELY REPORTED AS THEY OCCUR.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SAFE MOVEMENT OF PEDESTRIANS THROUGH, AROUND, OR DETOURED AWAY FROM THE CONSTRUCTION SITE. TRAFFIC CONTROL FOR PEDESTRIAN MOVEMENT SHALL BE AS PER CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWINGS, AND FIGURES 6H-28 (TA-28) AND 6H-29 (TA-29) OF PART VI OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. WHEN NOT SHOWN ON A SIGNED PLAN, ALL SIDEWALK DIVERSIONS AND TEMPORARY MID-BLOCK CROSSINGS SHALL BE PRE-APPROVED BY THE PROJECT ENGINEER OR THE TEMPORARY TRAFFIC CONTROL COORDINATOR. ACCESS FOR PEDESTRIAN AND VEHICULAR TRAFFIC TO ALL ADJOINING PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.

HOLIDAYS AND SPECIAL EVENTS

1. NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING DESIGNATED HOLIDAYS OR SPECIAL EVENTS INCLUDING THE OHIO STATE FOOTBALL HOME GAMES. THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. CONTACT THE CITY OF COLUMBUS TEMPORARY TRAFFIC CONTROL COORDINATOR, 614-645-5845 OR CELL, 614-332-7472 FOR EVENT DATES, LOCATIONS, AND SCHEDULE. HOLIDAYS WILL CONSIST OF CHRISTMAS, NEW YEARS, FOURTH OF JULY-RED, WHITE AND BOOM FIREWORKS NIGHT (6:00AM-12MIDNIGHT), MEMORIAL DAY, LABOR DAY, AND THANKSGIVING. RED, WHITE AND BOOM, FIREWORKS CELEBRATION AND A MINIMUM OF ONE DAY PRIOR TO FIREWORKS NIGHT SHALL REQUIRE ALL TEMPORARY TRAFFIC CONTROL DEVICES TO BE REMOVED FROM THE PROJECT AREA AND PLACE EITHER IN A PRE-DETERMINED LOCATION APPROVED BY THE TEMPORARY TRAFFIC CONTROL COORDINATOR OR COMPLETELY REMOVED FROM THE SITE.

2. THE CONTRACTOR SHALL CONTACT THE CITY OF COLUMBUS TEMPORARY TRAFFIC CONTROL COORDINATOR FOR ANY ADDITIONAL MOT REQUIREMENTS FOR SPECIAL EVENTS, INCLUDING OSU FOOTBAL HOME GAMES.

3. THE CONTRACTOR SHALL MAINTAIN ALL PERMANENT TRAFFIC CONTROLS NOT IN CONFLICT WITH THE TEMPORARY TRAFFIC CONTROLS THROUGHOUT THIS PROJECT. PERMANENT TRAFFIC CONTROLS MAY BE TEMPORARILY RELOCATED OR COVERED, AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR MISSING, DAMAGED, OR IMPROPERLY PLACED SIGNS.

4. ANY WORK DONE BY THE DEPARTMENT OF PUBLIC SERVICE, INCLUDING INSTALLATION, RELOCATION, REMOVAL AND/OR REPLACEMENT OF TEMPORARY TRAFFIC CONTROL DEVICES AS A RESULT OF WORK DONE BY THE CONTRACTOR OR AS A RESULT OF NEGLIGENCE OF THE CONTRACTOR, SHALL BE AT THE CONTRACTORS' EXPENSE.

5. THE ROADWAY SHALL NOT BE OPENED TO NON-CONSTRUCTION TRAFFIC UNTIL THE CRITICAL PERMANENT TRAFFIC CONTROLS ARE IN PLACE, OR UNTIL TEMPORARY TRAFFIC CONTROLS APPROVED BY THE ENGINEER, ARE INSTALLED. THE CRITICAL PERMANENT TRAFFIC CONTROLS ARE STOP, YIELD, ONE - WAY, DO NOT ENTER, RESTRICTED TURN SIGNS AND ALL STREET NAME SIGNS. OTHER CRITICAL SIGNS MAY BE NOTED ON THE PLANS AS WELL. THE CONTRACTOR ASSUMES ALL LIABILITY FOR THE PREMATURE REMOVAL OF TEMPORARY TRAFFIC CONTROLS.

ITEM 614 - MAINTAINING TRAFFIC

1. ALL COSTS THAT CONSIST OF MAINTAINING AND PROTECTING VEHICULAR AND PEDESTRIAN TRAFFIC ACCORDING TO THE LATEST EDITION OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (OMUTCD), AND PER THE REQUIREMENTS DESIGNATED IN THE PLAN INCLUDING ALL LAW ENFORCEMENT OFFICER (LEO) AND FLAGGER HOURS SHALL BE INCLUDED IN THE LUMP SUM ITEM 614. IN ADDITION TO THE REQUIREMENTS HEREIN, AND THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, A UNIFORMED LAW ENFORCEMENT OFFICER (LEO) SHALL BE PROVIDED FOR CONTROLLING TRAFFIC UNDER THE FOLLOWING CONDITIONS:

- WORK WITHIN A SIGNALIZED INTERSECTION, DEFINED AS THE AREA BOUNDED BY THE REAR X-WALK LINES
- WHEN FLAGGING WITHIN THE INTERSECTION OF TWO ARTERIAL ROADWAYS
- WHEN SPECIFIED IN THE MAINTENANCE OF TRAFFIC PLAN OR AS WHEN DIRECTED BY THE PROJECT ENGINEER
- WHEN SHIFTING TRAFFIC LEFT OF CENTER, THROUGH A SIGNALIZED INTERSECTION, WITHOUT SHIFTING SIGNAL HEADS

2. A FLAGGER SHALL BE UTILIZED TO ASSIST IN CONTROLLING TRAFFIC WHILE EQUIPMENT IS ENTERING OR EXITING AN INTERSECTION OR WORK ZONE. THE CONTRACTOR MAY UTILIZE HIS OWN FLAGGER OR LEO UNDER PAY ITEM 614 MAINTAINING TRAFFIC, LUMP SUM. FLAGGERS AND LEO'S SHALL BE EQUIPPED ACCORDING TO THE STANDARDS FOR FLAGGING TRAFFIC CONTAINED IN THE OMUTCD. FLAGGING OPERATIONS PERFORMED BY LEO'S OR DESIGNATED FLAGGERS SHALL ONLY BE PERMITTED AS LONG AS ALL TRAFFIC CONTROL IS IN PLACE ACCORDING TO FIGURE 6H-10 (TA-10) IN THE OHIO MANUAL. PATROL CARS SHALL NOT BE USED IN FLAGGING OPERATIONS.

3. IF THE CONTRACTOR WISHES TO UTILIZE LEO'S WITH OR WITHOUT PATROL CARS FOR TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THE PLANS, THEY MAY DO SO AT THEIR OWN EXPENSE. THE CONTRACTOR SHALL MAKE ARRANGEMENT THROUGH THE COLUMBUS POLICE DIVISION AT (614) 645-4795.

4. LEO'S SHALL BE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH EMPLOYED BY THE CONTRACTOR, THE CITY REPRESENTATIVE SHALL HAVE CONTROL OVER THEIR PLACEMENT. LEO'S SHALL NOT HAVE THE AUTHORITY TO CHANGE, EDIT OR MODIFY ANY MAINTENANCE OF TRAFFIC SCHEME WITHOUT THE PERMISSION OF THE TEMPORARY TRAFFIC CONTROL COORDINATOR OR PROJECT ENGINEER UNLESS AN EMERGENCY DEVELOPS.

5. IF A SAFETY HAZARD DEVELOPS, A LEO MAY BE ASSIGNED BY THE COLUMBUS PUBLIC SAFETY AND/OR THE PUBLIC SERVICE DIRECTOR AT THE CONTRACTOR'S EXPENSE.

TEMPORARY TRAFFIC CONTROL

1. APORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE INSTALLED A MINIMUM OF 7 DAYS PRIOR TO CLOSURE OF A ROADWAY. THE MESSAGE SHALL ADVISE THE MOTORIST OF THE DATES, TIMES, AND DURATION OF THE CLOSURE. THE PCMS SHALL REMAIN IN PLACE FOR 7 DAYS AFTER THE START OF THE CLOSURE.
2. WHEN NOT INCLUDED IN A SIGNED PLAN, A TTC PLAN (TTCP) INCLUDING PEDESTRIAN CONTROL SHALL BE SUBMITTED TO THE TTC COORDINATOR AT 614-645-0355 OR 614-645-5845 AT THE PRE-CONSTRUCTION MEETING OR A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO BEGINNING WORK FOR APPROVAL. COPIES OF THE APPROVED TTCP SHALL BE GIVEN TO THE PROJECT ENGINEER AND KEPT ON SITE ALONG WITH THE STREET CLOSURE/OCCUPANCY PERMIT.
3. TYPE C STEADY-BURN OR TYPE D 360-DEGREE STEADY-BURN WARNING LIGHTS SHALL BE REQUIRED ON ALL BARRICADES, DRUMS, AND SIMILAR TRAFFIC CONTROL DEVICES IN USE AT NIGHT. ONLY 42" REFLECTORIZED CHANNELIZING DEVICES (CONES) SHALL BE PERMITTED FOR NIGHTTIME WORK WITH THE APPROVAL OF THE TTC COORDINATOR AT 614-645-0355 OR 614-645-5845 PER O.D.O.T. STANDARDS.
4. A FLASHING ARROW PANEL (48" X 96"-TYPE C) SHALL BE USED IN LANE CLOSURES AS PER THE OHIO MANUAL.
5. ALL TRENCHES WITHIN THE ROAD RIGHT OF WAY SHALL BE BACKFILLED OR SECURELY PLATED PER (CITY OF COLUMBUS GENERAL POLICY ON STEEL PLATE USAGE DATED 11/15/2006 AND STD. DWG. 1441, LATEST EDITION) DURING NON-WORKING HOURS.
6. ALL EXISTING TRAFFIC LANES SHALL BE FULLY OPEN TO TRAFFIC AT ALL TIMES ON: _____
7. ALL TRAFFIC LANES SHALL BE FULLY OPEN TO TRAFFIC FROM 6:00 A.M. TO 9:00 A.M. AND 4:00 P.M. TO 6:00 P.M., OR 6:00 TO 9:00 A.M. AND 3:00 TO 6:00 P.M. IN THE COLUMBUS BUSINESS DISTRICT (CBD) PARKING AREA, MONDAY THROUGH FRIDAY ON _____. _____LANE(S) MAY BE CLOSED TO TRAFFIC DURING WORKING HOURS.
8. ONE-WAY _____ LANE(S) OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON _____.
9. TWO-WAY, TWO-LANE (ONE-LANE EACH DIRECTION) TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY USE OF EXISTING, PROPOSED, OR TEMPORARY PAVEMENT PER CITY OF COLUMBUS MAINTENANCE OF TRAFFIC, STANDARD CONSTRUCTION DRAWING 1510 AND FIGURE 6H-32 TYPICAL APPLICATION 32 (TA-32) OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
10. TWO-WAY, ONE-LANE TRAFFIC MAY BE MAINTAINED DURING CONSTRUCTION OPERATIONS ON _____, PER THE CITY OF COLUMBUS MAINTENANCE OF TRAFFIC, STANDARD CONSTRUCTION DRAWING 1550 AND FIGURE 6H-10 (TA-10) OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
11. _____ MAY BE CLOSED BETWEEN _____ AND _____ FOR A MAXIMUM OF _____ HOUR(S)/DAY(S) BETWEEN THE HOURS OF _____ AND _____ PER THE CITY OF COLUMBUS MAINTENANCE OF TRAFFIC, STANDARD CONSTRUCTION DRAWING 1540 AND FIGURE 6H-20 (TA-20) OF THE OHIO MANUAL AND/OR APPROVED BY THE DEPARTMENT OF PUBLIC SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS IN PROVIDING DETOUR INCLUDING THE REMOVAL AND REINSTALLATION OF ANY CONFLICTING TRAFFIC CONTROL AND/OR ANY NECESSARY TRAFFIC SIGNAL WORK.
12. A TEMPORARY DIVERSION SHALL BE PROVIDED AND MAINTAINED IN GOOD CONDITION ON _____ DURING THE PERIOD OF WORK. ALL SUCH DIVERSIONS SHALL BE IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
13. THE DEPARTMENT OF PUBLIC SERVICE WILL REMOVE OR COVER ALL PARKING METER HEADS PUT OUT OF SERVICE BY THIS PROJECT. THERE IS A $60.00 DOLLAR CHARGE FOR THE REMOVAL AND REINSTALLATION OF EACH METER. IN ADDITION, A DAILY METER FEE WILL BE CHARGED FOR ALL ENFORCEMENT HOURS FOR EACH METER TAKEN OUT OF SERVICE, SEE THE PARKING METER OUT OF SERVICE FEES NOTE FOR MORE INFORMATION AND THE CALCULATION OF METERS TAKEN OUT OF SERVICE, PLUS THE METER POST AND CORE NOTE. THESE CHARGES WILL BE COLLECTED FROM THE CONTRACTOR IN ADVANCE WITH THE ISSUANCE OF THE STREET OCCUPANCY/EXCAVATION PERMIT FROM THE DEPARTMENT OF PUBLIC SERVICE'S PERMIT OFFICE. (614-645-7497) PARKING SERVICES SHALL BE NOTIFIED A MINIMUM OF FORTY-EIGHT (48) HOURS (EXCLUDING SAT, SUN, & HOLIDAYS) PRIOR TO BEGINNING WORK. CALL 614-645-4072. THIS COST IS TO BE INCLUDED IN THE BID FOR THIS PROJECT AS A PART OF ITEM 614 MAINTENANCE OF TRAFFIC, LUMP SUM.
14. FOR MOBILE PAYMENT ONLY ZONES, PLEASE REVIEW THE POSTED MOBILE PAYMENT ZONE SIGN AND PROVIDE THE MOBILE PAYMENT ZONE NUMBER FOR THE PARKING SPACE(S) THAT WILL BE REMOVED FROM SERVICE. IF "TICK-MARKS" ARE INCLUDED WITHIN THE PARKING ZONE, THEN COUNT THE NUMBER OF SPACES NEEDED TO BE OUT OF SERVICE. IF NO "TICK-MARKS" ARE WITHIN THE PARKING ZONE, THEN CALCULATE THE NUMBER OF "SPACES" NEEDED BY USING 20 FEET PER SPACE. ONCE ALL THE INFORMATION LISTED ABOVE HAS BEEN COLLECTED FOR THE PAID PARKING TO BE REMOVED FROM SERVICE, CONTACT THE CITY OF COLUMBUS, DIVISION OF PARKING SERVICES AT PARKINGSERVICES@COLUMBUS.GOV FOR ASSISTANCE WITH ESTIMATING THE DAILY PAID PARKING REVENUE RATE. PROVIDE THE PROJECT LOCATION IN THE SUBJECT LINE OF THE EMAIL. THE ONLINE METER MAP WILL ALSO INCLUDE THE HOURLY RATE FOR MOBILE PAYMENT ZONES. THIS COST IS TO BE INCLUDED IN THE BID FOR THIS PROJECT AS A PART OF ITEM 614 MAINTENANCE OF TRAFFIC, LUMP SUM. AT THE TIME THE CONTRACTOR SUBMITS FOR THE STREET OCCUPANCY/EXCAVATION PERMIT, ALONG WITH THE PAID PARKING IDENTIFICATION NUMBERS TO BE INCLUDED ON THE PERMIT REQUEST FORM, THE CONTRACTOR IS TO PROVIDE A LISTING OF THE METER IDENTIFICATION NUMBERS AND/OR MOBILE PAYMENT ONLY ZONE NUMBERS AND THE NUMBER OF DAYS THAT EACH PAID PARKING SPACE IS TO BE OUT OF SERVICE, TO THE DEPARTMENT OF PUBLIC SERVICE PERMIT OFFICE. THE PERMIT OFFICE WILL VERIFY THAT THE HOURLY RATES ARE CORRECT AND CALCULATE THE COST OF THE PERMIT.
15. TEMPORARY "EMERGENCY NO PARKING" SIGNS SHALL BE INSTALLED BY THE CONTRACTOR IN AREAS WITH NO PARKING METERS AND TO REMOVE PARKING FROM SERVICE IN AREAS WHERE PARKING METERS, KIOSKS, AND OR MOBILE PAYMENT ZONE(S) PARKING HAS BEEN TAKEN OUT OF SERVICE. THE SIGNS SHALL SHOW THE PERMIT NUMBER, INSTALLATION DATE, WORKING DATES, AND HOURS OF RESTRICTION ON EACH SIGN. SIGNS SHALL BE POSTED AT 50' C/C MINIMUM BY USE OF ANY OF THE FOLLOWING ITEMS: EXISTING SIGN POSTS, EXISTING UTILITY POLES, DRUMS AND/OR 42"CONES AND REMOVED BY THE CONTRACTOR IN AREAS WITH NO PARKING METERS. THE TEMPORARY SIGN(S) SHALL HAVE THE INSTALLATION DATE, WORKING DATES, AND HOURS OF RESTRICTION SHOWN ON EACH SIGN. THESE SIGNS MAY BE OBTAINED FROM THE DEPARTMENT OF PUBLIC SERVICE'S PERMIT OFFICE. THE POLICE DIVISION REQUIRES THE "EMERGENCY NO PARKING" SIGNS BE POSTED A MINIMUM OF SEVENTY-TWO (72) HOURS PRIOR TO ANY VEHICLES BEING TOWED. WITHIN TWENTY-FOUR (24) HOURS OF POSTING, THE CONTRACTOR SHALL SUPPLY THE DEPARTMENT OF PUBLIC SERVICE WITH A WRITTEN RECORD OF POSTED LOCATIONS (FAX: 614-645-3298).
16. THE CONTRACTOR SHALL CONTACT OHIO UTILITY PROTECTION SERVICE (OUPS), NOW "OHIO 811"TO LOCATE AND MARK ALL UNDERGROUND TRAFFIC CONTROL CABLES PRIOR TO THE BEGINNING OF ANY WORK WITHIN 450 FEET OF ANY SIGNALIZED INTERSECTION(S) OR WITHIN ANY POSTED AREA WHERE THE DEPARTMENT HAS UNDERGROUND CABLE. THE SIGNAL OPERATION ENGINEER (614-645-6418) SHALL BE NOTIFIED SIX (6) WEEKS IN ADVANCE FOR SIGNAL REVISIONS OR POLE RELOCATIONS.
17. THE CONTRACTOR SHALL CONTACT THE DIVISION OF REFUSE COLLECTION, OPERATIONS MANAGER MICHAEL PICKARD, 614-645-1675.
18. NO EXCAVATION SHALL BE MADE WITHIN FIVE (5) FEET OF ANY FOUNDATION THAT SUPPORTS SIGNAL POLES, TRAFFIC SIGNAL DISPLAYS OR SIGNS BY MAST ARM OR SIGNAL SPAN. EXCAVATION WITHIN EIGHT (8) FEET, BUT MORE THAN FIVE (5) FEET SHALL REQUIRE ADDITIONAL SUPPORT (DOWN GUY, HEAD GUY, BASE GUY, ETC.). THE CONTRACTOR SHALL CONTACT SIGNAL OPERATION PERSONNEL AT 614-645-0423(CELL 614-419-4501) AT LEAST FORTY-EIGHT (48) HOURS (EXCLUDING SAT. & SUN.) PRIOR TO THE BEGINNING OF SUCH EXCAVATION SO THAT THE CITY CAN APPROVE THE STABILIZATION SETUP BY THE CONTRACTOR. IF UNABLE TO MAKE CONTACT THROUGH ABOVE NUMBERS, CALL 614-645-7393. STABILIZATION WILL BE DONE BY THE CONTRACTOR AT THE OWNERS'/CONTRACTING AGENCY'S EXPENSE.
19. SIGNAL CONDUIT CLEARANCE 3' HORIZONTAL AND 1' VERTICAL FROM ADJACENT UTILITIES SHALL BE MAINTAINED AT ALL TIMES.
20. WHEN ANY TRAFFIC CONTROL DEVICE, CONDUIT, OR CABLE IS DAMAGED, THE CONTRACTOR SHALL NOTIFY SIGNAL OPERATION PERSONNEL AT 614-645-0423 (CELL 614-419-4501) BETWEEN 7:00 AM AND 4:00 PM, MONDAY THROUGH FRIDAY. IF UNABLE TO MAKE CONTACT THROUGH THE OTHER NUMBERS, CALL 614-645-7393.
21. THE ROADWAY OR ANY SECTION OF ROADWAY SHALL NOT BE OPENED TO NON-CONSTRUCTION TRAFFIC UNTIL ALL TEMPORARY, NON-REFLECTIVE, BLACKOUT TAPE HAS BEEN COMPLETELY REMOVED FROM NON-CONFLICTING PERMANENT PAVEMENT MARKINGS FOR THAT AREA OF THE ROADWAY, OR UNLESS OTHERWISE DIRECTED IN WRITING BY THE ENGINEER. THIS IS SUPPLEMENTAL TO CITY OF COLUMBUS, CMS-614.11- G, AND SHALL BE PAID FOR THROUGH THE 614-LUMP SUM.
22. WHENEVER YELLOW CENTERLINES OR TURN-LANE LINES ARE PAVED OVER, REMOVED, OR OTHERWISE UNSERVICEABLE, THE CONTRACTOR SHALL INSTALL CLASS II TEMPORARY STRIPING (MINIMUM 4' LONG SEGMENTS). TEMPORARY PAINT SHALL BE USED ON ALL MILLED SURFACES. TEMPORARY TAPE SHALL BE USED ON ALL FINAL COURSES OF ASPHALT. PAINT OR TAPE MAY BE USED ON INTERMEDIATE COURSES OF ASPHALT. IF APPROVED BY THE ENGINEER, DRUMS WITH STEADY BURNING TYPE C OR TYPE D 360 DEGREE WARNING LIGHTS AND "KEEP RIGHT"SIGNS MAY BE SUBSTITUTED FOR CENTERLINE MARKINGS.
23. CLASS II TEMPORARY STRIPING (MINIMUM 4' LONG SEGMENTS) SHALL BE AS PER ITEM 614 - WORK ZONE PAVEMENT MARKING AND SHALL BE PLACED WITHIN ONE (1) FOOT LONGITUDINAL TOLERANCE OF THE PERMANENT STRIPE(S). ALL TEMPORARY STRIPING NOT TO WITHIN ONE (1) FOOT TOLERANCE SHALL BE REMOVED AND REPLACED IN THE PROPER LOCATION BY THE CONTRACTOR. CLASS II TEMPORARY STRIPING SHALL BE OF THE APPROPRIATE COLOR AND SPACED A MAXIMUM OF FORTY (40) FEET CENTER TO CENTER

EXISTING PERMANENT TRAFFIC CONTROL

1. ANY WORK DONE BY THE DEPARTMENT OF PUBLIC SERVICE, INCLUDING INSTALLATION, RELOCATION, REMOVAL AND/OR REPLACEMENT OF PERMANENT TRAFFIC CONTROL DEVICES AS A RESULT OF WORK DONE BY THE CONTRACTOR OR AS A RESULT OF NEGLIGENCE OF THE CONTRACTOR, SHALL BE AT THE CONTRACTORS' EXPENSE.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REINSTALLATION AND/OR REPLACEMENT OF ALL PERMANENT TRAFFIC CONTROL DEVICES DAMAGED OR REMOVED DURING CONSTRUCTION. PERMANENT TRAFFIC CONTROL NO LONGER IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE REPLACED IMMEDIATELY.

3. THE CONTRACTOR SHALL REPLACE ALL PAVEMENT MARKINGS, INCLUDING RAISED PAVEMENT MARKERS (RPM) SHOWN IN CONFLICT, REMOVED DUE TO CONSTRUCTION OR MAINTENANCE OF TRAFFIC SET UP, DESTROYED, OR RENDERED UNSERVICEABLE BY THE PROJECT ENGINEER OR THE PUBLIC SERVICE PAVEMENT MARKING MANAGER. ALL PAVEMENT MARKING MATERIALS SHALL BE REPLACED IN-LIKE KIND TO THE CURRENT CMSC SPECIFICATION REQUIREMENTS IF NOT SHOWN IN THE PLAN OR PERMIT INCLUDING RAISED PAVEMENT MARKERS. ALL PAVEMENT MARKINGS SHALL BE REPLACED IN FULL. NO PARTIAL LENGTH OR SECTIONS OF PAVEMENT MARKINGS SHALL BE REPLACED WITHOUT REMOVING THE ENTIRE MARKING BY USE OF THE WATER BLAST METHOD. REMOVAL BY ABRASIVE WHEEL GRINDING SHALL ONLY BE APPROVED BY THE PUBLIC SERVICE PAVEMENT MARKING MANAGER.

EXISTING PERMANENT TRAFFIC CONTROL

1. ALL OVERHEAD CABLE, AND DOWN GUYS OR BACK GUYS SHALL NOT BLOCK ANY PORTION OF A TRAFFIC SIGNAL, TRAFFIC CONTROL SIGN, OR OTHER TRAFFIC CONTROL DEVICE SUCH THAT VISIBILITY OR OPERATION OF THE TRAFFIC CONTROL DEVICE IS IMPAIRED.

2. ALL PERMANENT PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS AS SHOWN ON THIS PLAN SHALL BE INSTALLED BY THE CONTRACTOR AT THE PROJECTS EXPENSE. THE PROJECT ENGINEER SHALL BE NOTIFIED TO DIRECT APPROPRIATE PERSONNEL A MINIMUM OF FORTY-EIGHT (48) HOURS (EXCLUDING SAT. & SUN.) PRIOR TO THE INSTALLATION OF PERMANENT MARKINGS TO INSPECT AND APPROVE THE PAVEMENT MARKING LAYOUT PRIOR TO PLACING THE PERMANENT MARKINGS.

3. PERMANENT STRIPING OR CLASS I TEMPORARY STRIPING SHALL BE INSTALLED NO LATER THAN FOURTEEN (14) CALENDAR DAYS AFTER THE FINAL PAVING COURSE IS COMPLETED. THE PAVING CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE STRIPING CONTRACTOR TO INSURE THE PERMANENT STRIPING IS INSTALLED WITHIN THE FOURTEEN (14) CALENDAR DAY LIMIT.

4. IF THE DEPARTMENT OF PUBLIC SERVICE IS TO INSTALL PERMANENT STRIPING, THE PROJECT ENGINEER SHALL BE NOTIFIED TO DIRECT APPROPRIATE PERSONNEL A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO THE APPLICATION OF THE FINAL COURSE OF PAVEMENT.

CITY OF COLUMBUS SPECIFIC NOTES

1. THE MOT IS SUBJECT TO CHANGE ONCE PLANS/PROFILE SHEETS ARE INCLUDED FOR MOT REVIEW.
2. ALL STREETS SHOULD BE OPEN TO LOCAL TRAFFIC DURING CONSTRUCTION. MAINLY THOSE THAT ARE NOT IN THE ACTIVE WORK ZONE.
3. MULTIPLE WORK AREAS INVOLVE RESIDENTIAL DRIVEWAYS, ACCESS SHOULD BE MONITORED BY A FLAGGER AT AL TIMES TO GET PEOPLE IN AND OUT SAFELY.

NiSource

Ohio Utilities Protection Service Call 811 before you dig

CAMPOS EPC
401 N Front St, Suite 380, Columbus, OH 43215
(380) 799-8503

PROPOSED

REVISIONS		
A	12/15/23	ISSUED FOR PERMIT
REV. #	DATE	DESCRIPTION

INTERNAL ENG.	EK	06/02/23	614-981-0661
DESIGNED BY	JMJ	06/02/23	855-266-7671
CHECKED BY	SW	06/02/23	866-266-7671
AS-BUILT BY	TBD	TBD	TBD
	NAME	DATE	PHONE #

SITE NAME:

INST# 22-0135586-00
ABAN# 22-0135587-00
INST# 22-0083155-00
ABAN# 22-0083156-00
INST# 23-0136479-00
ABAN# 23-0136480-00
PROJECT ID# 21-78790

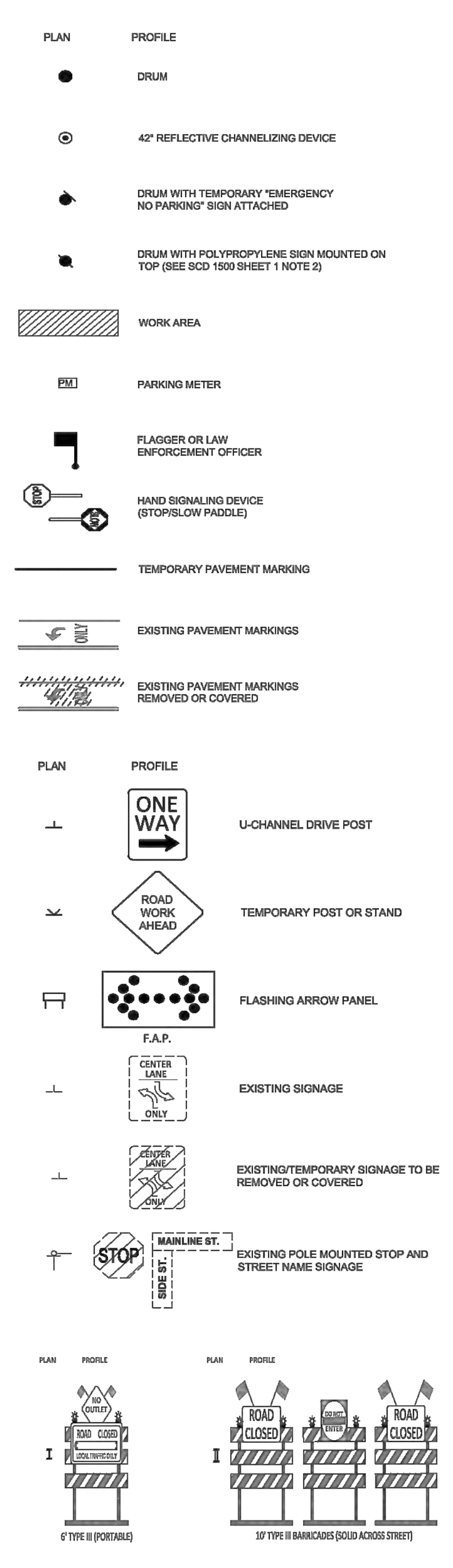
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

NOTES

DRAWING NO:

MOT-1000



NOTES

1. ADVANCE WARNING SIGNAGE

SIZE: MINIMUM SIGN SIZE IS 36". INCREASE SIZE TO 48" ON ROADWAYS WITH POSTED SPEED EQUAL TO OR GREATER THAN 45 MPH OR ON ARTERIAL ROADWAYS WITH 4 LANES OR MORE. ONE-WAY STREETS REQUIRE SIGNS POSTED ON BOTH SIDES OF ROADWAY.

SPACING: SPACING BETWEEN SIGNS IS 100' FOR SPEEDS LESS THAN OR EQUAL TO 40 MPH AND 350' FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH PER TABLE 2: ADVANCE WARNING SIGNS. FIRST SIGN IN SERIES IS PLACED 100' OR 350' PRIOR TO THE FIRST DRUM OR DEVICE. MAINTAIN 200' CLEARANCE FROM EXISTING SIGNAGE WHENEVER POSSIBLE. INSTALL TYPE A LOW INTENSITY FLASHING LIGHTS ON SIGNS AS DIRECTED BY THE OMUTCD PART 6 SECTION 6F-83, CURRENT EDITION, WHEN TEMPORARY TRAFFIC CONTROL DEVICES ARE USED FOR NIGHTTIME ROADWAY AND PEDESTRIAN MAINTENANCE OF TRAFFIC CONTROL SETUPS.

CONFLICTING SIGNS: REMOVE OR COVER EXISTING SIGNS LOCATED WITHIN 250' OF FIRST WARNING SIGN AND ALL CONFLICTING SIGNS WITHIN WORK ZONE. END ROAD WORK SIGNS, G-20-2, SHALL ONLY BE USED WHEN CONSTRUCTION EXCEEDS 180 DAYS, AS WHEN SHOWN IN A ROADWAY MAINTENANCE OF TRAFFIC PLAN, OR AS DIRECTED BY THE ENGINEER.

2. CHANNELIZING DEVICES

DRUMS: DRUMS SHALL HAVE TYPE C OR TYPE D 360 DEGREE STEADY BURN WARNING LIGHTS FOR USE AT NIGHT. DURING DAYTIME OPERATIONS 42" CHANNELIZING DEVICES MAY BE SUBSTITUTED FOR DRUMS WITH THE PERMISSION OF THE ENGINEER.

DEVICE SPACING: 40' ON TANGENTS, 20' TAPERS, 6' TO 8' ON RADII 10' MINIMUM LANE WIDTHS SHALL BE MAINTAINED. A MINIMUM OF 5 DRUMS SHALL BE USED TO CLOSE THE UPSTREAM SHOULDER.

DRUM MOUNTED SIGNS: CONTRACTOR MAY USE A POLYPROPYLENE FLUTED SHEET FOR SIGNING WHEN PLACING ON TOP OF DRUMS. SIGNS SHALL BE ATTACHED TO THE DRUMS USING APPROPRIATE HARDWARE. ONLY "KEEP RIGHT", "ONE-WAY", AND TURN RESTRICTION SIGNS SHALL BE POSTED ON TOP OF DRUMS.

ALL SIGNS SHALL MAINTAIN RETROREFLECTIVITY. SIGN SUBSTRATE SHALL CONFORM TO FHWA SIGN SUBSTRATES FOR PLASTIC DRUMS AND WORK ZONE ACCEPTANCE LETTER WZ-45 "CRASHWORTHY WORK ZONE DEVICES" AS OF OCTOBER 1, 2000.

3. TAPER LENGTHS

TAPER LENGTH CRITERIA FOR TEMPORARY TRAFFIC CONTROL ZONES SHALL BE PER TABLE 1: TAPER LENGTHS FOR TEMPORARY TRAFFIC CONTROL ZONE FOR CALCULATED TAPER LENGTHS.

EXIT TAPERS SHALL BE 100' PER LANE, MAXIMUM.

4. TEMPORARY MARKINGS

WHEN LANE CLOSURES EXCEED 14 CALENDAR DAYS, TEMPORARY MARKINGS (740.06) TAPE, MINIMUM 4'-0" LONG SEGMENTS SHALL BE INSTALLED FOR ALL CENTERLINES, CHANNELS, AND LANE LINES. CONFLICTING MARKINGS SHALL BE COVERED WITH NON-REFLECTIVE TAPE OR REMOVED. ITEM 642 PAINT SHALL BE USED IF AN AREA IS TO BE MILLED AND/OR RESURFACED OR PLACED ON THE INTERMEDIATE ASPHALT COURSE.

5. GENERAL NOTES AND MODIFICATIONS OF STANDARD CONSTRUCTION DRAWINGS

THE USE OF ANY MAINTENANCE OF TRAFFIC STANDARD DRAWING SHALL REQUIRE A MAINTENANCE OF TRAFFIC TABLE PROVIDED BY THE DIVISION OF DESIGN AND CONSTRUCTION. MODIFICATIONS TO THE TEMPORARY TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS MAY OCCUR WHEN FIELD CONDITIONS DICTATE THAT THE APPLICATION OF THE STANDARD DRAWING DOES NOT MEET ITS INTENDED PURPOSE. ONLY THE ENGINEER MAY DEVIATE FROM THESE DRAWINGS.

6. SCD 1500 REFERENCE

ALL NOTES, TABLES, FIGURES, AND LEGENDS INCLUDED AS PART OF SCD 1500 ARE TO BE APPLIED TO ALL OTHER MAINTENANCE OF TRAFFIC SCD (1501-1599).

TABLE 1: TAPER LENGTHS FOR TEMPORARY TRAFFIC CONTROL ZONES †

D: TAPER RATE (SHOULDER) CLOSURE OMUTCD 0.33L = WS²/ 60					0.33L = WS			
WIDTH OF SHOULDER	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH
6'	*	*	*	53'	89'	99'	109'	119'
7'	*	*	47'	62'	104'	116'	127'	139'
8'	*	*	54'	70'	119'	132'	145'	158'
9'	*	45'	61'	79'	134'	149'	163'	178'
10'	*	50'	67'	88'	149'	165'	182'	198'
11'	*	54'	74'	97'	163'	182'	200'	218'
12'	*	59'	81'	106'	178'	198'	218'	238'
E: TAPER RATE (MERGE) CLOSURE OMUTCD L = WS²/ 60					L = WS			
WIDTH OF LANE CLOSED	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH
10'	104'	150'	204'	267'	450'	500'	550'	600'
11'	115'	165'	225'	293'	495'	550'	605'	660'
12'	125'	180'	245'	320'	540'	600'	660'	720'
13'	135'	195'	265'	347'	585'	650'	715'	780'
F: TAPER RATE (SHIFT) CLOSURE OMUTCD 0.5L = WS²/ 60					L = WS			
WIDTH OF LANE SHIFT	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH
10'	52'	75'	102'	133'	450'	500'	550'	600'
11'	57'	83'	112'	147'	495'	550'	605'	660'
12'	62'	90'	123'	160'	540'	600'	660'	720'
13'	68'	98'	133'	173'	585'	650'	715'	780'

NOTES:
1. WHEN PAVED SHOULDERS ARE CLOSED IN CONJUNCTION WITH A RIGHT LANE CLOSURE OR SHIFT ADD SHOULDER WIDTH TO LANE WIDTH TO CALCULATE TAPER LENGTH.
2. FOR PAVED SHOULDERS UNDER 6' USE 40 TAPER LENGTH.
3. L = TAPER LENGTH, W = WIDTH OF OFFSET, S = POSTED SPEED LIMIT OR 85TH PERCENTILE SPEED
* = 40'

† TABLE DERIVED FROM OMUTCD, CURRENT EDITION, PART 6, TABLES 6C-3 AND 6C-4

TABLE 2: ADVANCE WARNING SIGNS ‡

ROAD TYPE	DISTANCE BETWEEN SIGNS **		
	A	B	C
URBAN (LOW SPEED*) ≤ 40 MPH	100 FT	100 FT	100 FT
URBAN (HIGH SPEED*) ≥ 45 MPH	350 FT	350 FT	350 FT
RURAL	500 FT	500 FT	500 FT
EXPRESSWAY/FREEWAY	1,000 FT	1,500 FT	2,640 FT

‡ FROM OMUTCD, CURRENT EDITION, PART 6 TABLE 6C-1

* SPEED CATEGORY DETERMINED BY THE CITY OF COLUMBUS TO BE LOW SPEED (POSTED SPEED LIMIT LESS THAN OR EQUAL TO 40MPH) OR HIGH SPEED (POSTED SPEED LIMIT GREATER THAN OR EQUAL TO 45MPH)

**THE COLUMN HEADINGS 'A', 'B', 'C', 'D', 'E', AND 'F' ARE THE DIMENSIONS SHOWN IN STANDARD DRAWINGS AND ARE DEFINED AS:

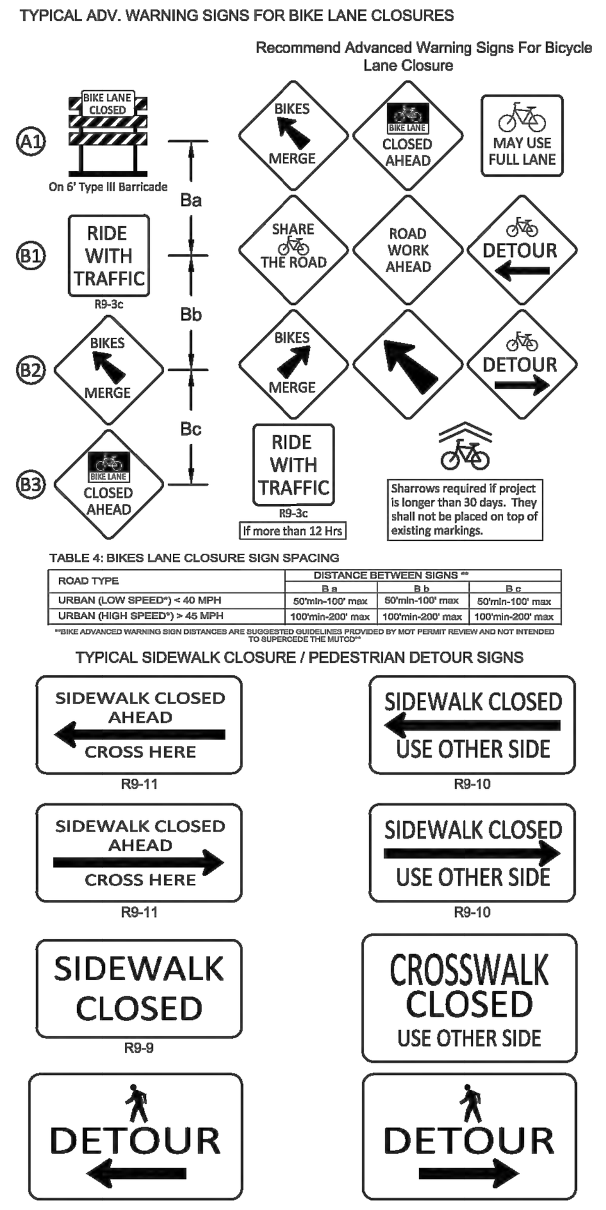
'A' = THE DISTANCE FROM THE TRANSITION OR POINT OF RESTRICTION TO THE FIRST SIGN (CLOSEST TO THE TTC ZONE).
'B' = THE 'B' DIMENSION IS THE DISTANCE BETWEEN THE FIRST AND SECOND SIGN.
'C' = DIMENSION IS THE DISTANCE BETWEEN THE SECOND AND THIRD SIGN (FURTHEST UPSTREAM FROM THE TTC ZONE).
'D' = SHOULDER TAPER LENGTH.
'E' = MERGE TAPER LENGTH.
'F' = SHIFT TAPER LENGTH.

TABLE 3: TANGENT LENGTHS FOR TEMPORARY TRAFFIC CONTROL ZONES ʎ

ROAD TYPE	ZONE SETUP	
LOW SPEED < 40 MPH	BETWEEN MERGE AND SHIFT TAPERS	$(\frac{1}{2})L = WS^2$
HIGH SPEED > 45 MPH	BETWEEN MERGE AND SHIFT TAPERS	L = WS
LOW SPEED < 40 MPH	BETWEEN 2 MERGE TAPERS	$L = WS^2$
HIGH SPEED > 45 MPH	BETWEEN 2 MERGE TAPERS	2L = WS

ʎ TANGENT SECTION LENGTHS MAY BE CHANGED BY ENGINEER.

TYPICAL ADV. WARNING SIGNS FOR BIKE LANE CLOSURES



NOTES AND TABLES

MAINTENANCE OF TRAFFIC GENERAL NOTES

CITY OF COLUMBUS, OHIO
DEPARTMENT OF PUBLIC SERVICE
DIVISION OF DESIGN AND CONSTRUCTION

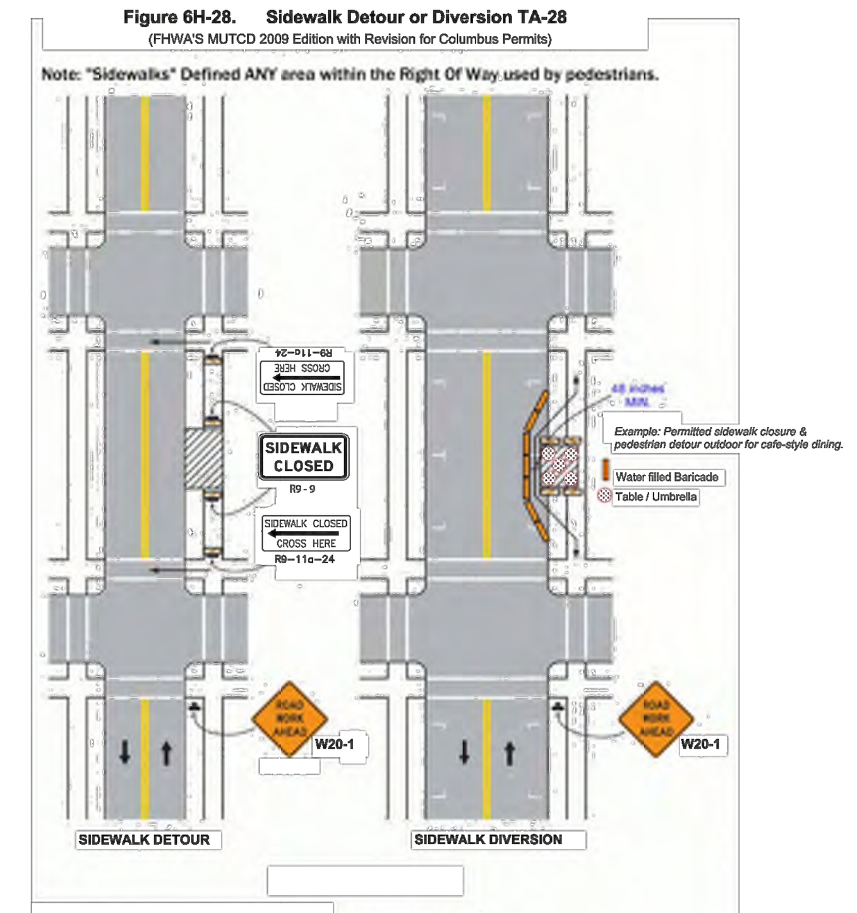
MOT SHEET 1500

STD DWG 1500 2022

CITY ENGINEER

SHEETS 1, 2 & 3

Figure 6H-28. Sidewalk Detour or Diversion TA-28



Typical Application 28

NOTE:
SHALL NOT CLOSE OPPOSING SIDEWALKS OR CROSSWALKS SIMULTANEOUSLY.
SHALL PLACE R9-9 SIGNS EACH END OF THE ACTIVE WORK AREA.
SHALL PLACE R9-11 SIGNS AT THE NEAREST ADA CROSSWALKS BEYOND THE ACTIVE WORK AREA.

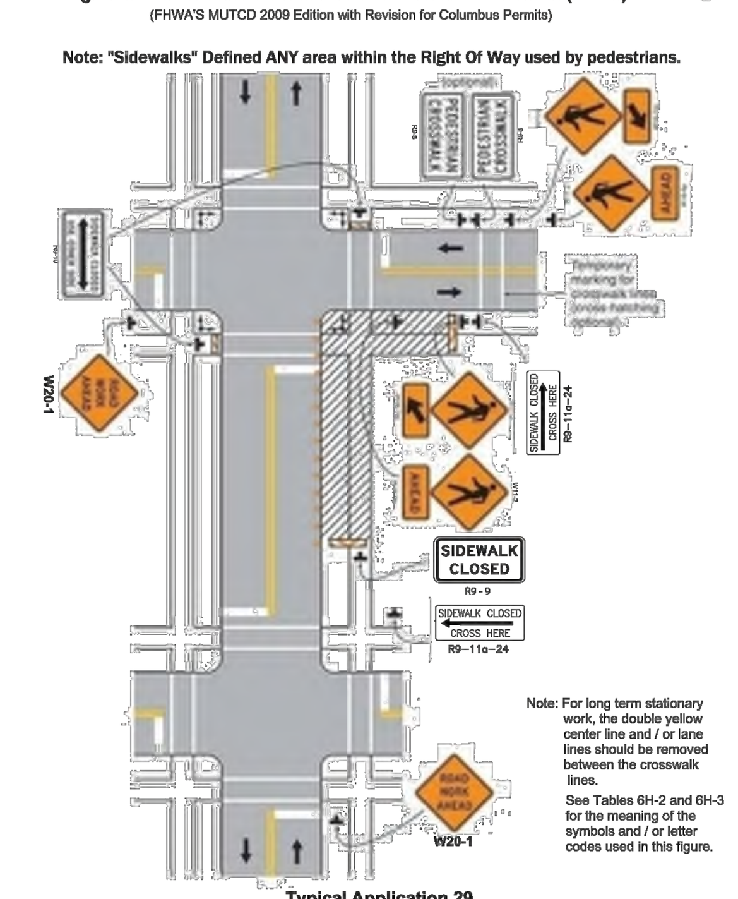
Notes for Figure 6H-28 - Typical Application 28
Sidewalk Detour or diversion

Standard:
1. When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include features consistent with features present in the existing pedestrian facilities.
2. Curb parking shall be prohibited for a minimum of 50 feet in advance of a mid-block crosswalk.

Guidance:
3. *Audible information devices should be considered where mid-block closings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities.*
4. *Pedestrian traffic signal displays controlling closed crosswalks should be covered or deactivated.*

Option:
5. Street lighting may be considered.
6. Only TTC devices related to pedestrians are shown. Other devices, such as lane closure signing or ROAD NARROWS signs may be used to control vehicular traffic.
7. Type C Steady-Burn or Type D 360-degree Steady-Burn warning lights may be used in channelizing devices separating the work area from vehicular traffic.
8. In order to maintain systematic use of florescent yellow-green background for pedestrian, bicycle and school warning signs in a jurisdiction, the fluorescent yellow-green background for pedestrian, bicycle and school warning signs may be used in TTC zones.

Figure 6H-29 Crosswalk Closures and Pedestrian Detours (TA-29)



Typical Application 29

NOTE:
SHALL NOT CLOSE OPPOSING SIDEWALKS OR CROSSWALKS SIMULTANEOUSLY.
SHALL PLACE R9-9 SIGNS EACH END OF THE ACTIVE WORK AREA.
SHALL PLACE R9-11 SIGNS AT THE NEAREST ADA CROSSWALKS BEYOND THE ACTIVE WORK AREA.

Notes for Figure 6H-29 - Typical Application 29
Sidewalk Closures and Pedestrian Detours

Standard:
1. When crosswalks or other pedestrian facilities are closed or relocated temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.

Guidance:
2. Where high speeds are anticipated, a temporary traffic barrier and, if necessary, a crash cushion should be used to separate the temporary sidewalks from vehicular traffic.
3. Audible information devices should be considered where mid-block closings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities.

Option:
4. Street lighting may be considered.
5. Only the TTC devices related to pedestrians are shown. Other devices, such as lane closure signing or ROAD NARROWS signs may be used to control vehicular traffic.
6. For nighttime closures, Type A Flashing warning light may be used on barricades that support signs and close sidewalks.
7. Type C Steady-Burn or Type D 360-Degree Steady-Burn warning lights may be used on channelizing devices separating the temporary sidewalks from vehicular traffic flow.
8. Signs, such as KEEP RIGHT (LEFT), may be placed along a temporary sidewalk to guide or direct pedestrians.

City of Columbus - Permit MOT 05/2022

PERMIT MOT NOTES

https://www.columbus.gov/publicservice/Design-and-Construction/Document-Library/

1. PERMIT MOT / TTC - SUBMITTAL

a.STANDARD DRAWINGS - ONLY COLUMBUS 1500-1550 WILL BE ACCEPTED FOR USE MOT / TTC ON PERMITS.

b.SITE SPECIFIC
REQUIRED - WHEN WORK ZONE IMPACTS A SIGNALIZED INTERSECTION.
REQUIRED - WHEN WORK AREA IN THE CENTRAL BUSINESS DISTRICT.
REQUIRED - WHEN REQUESTED BY MOT PERMIT REVIEW.
REQUIRED - LAW ENFORCEMENT OFFICER (LEO) AT SIGNALIZED INTERSECTIONS.

2. MASS TRANSIT AND RIDE SHARE

a.COTA BUS STOPS
SHALL CONTACT PRIOR TO START - PAUL EVANS - COTA SERVICE PROGRAM MANAGER (614) 308-4373 evanspm1@cota.com.
THIRTY DAYS - ANY CLOSURE WHICH CREATES DELAY OR DETOUR ON ASSIGNED ROUTES REQUIRES A TEMPORARY RELOCATION.
24 HOURS - PRIOR TO START OF CONSTRUCTION WITHIN 300' OF COTA ASSETS IN THE RIGHT OF WAY.
IMMEDIATELY - IN EVENT OF UNPLANNED WORK AFFECTING COTA BUS STOPS.

b.COTA ASSETS
SHALL CONTACT PRIOR TO START - PAUL EVANS - COTA SERVICE PROGRAM MANAGER (614) 308-4373 evanspm1@cota.com.
SHALL KEEP OPEN ALL STOPS & STATIONS IN WORK ZONE IF RELOCATION IS NOT REQUIRED BY COTA PROGRAM SERVICES MANAGER.

c.COGO - RIDE SHARE BIKE CHARGING STATIONS
SHALL CONTACT PRIOR TO START - CHET RIDENOUR - COGO BIKE SHARE OPERATIONS MANAGER (614) 506-8100 cridenour@lyft.com.
THIRTY DAYS - IF CLOSURE IMPACTS COGO BIKE STATION, LIMITS PUBLIC ACCESS DURING CONSTRUCTION.
24 HOURS - PRIOR TO START OF CONSTRUCTION WITHIN 300' OF COGO ASSETS.
IMMEDIATELY - IN EVENT OF UNPLANNED WORK AFFECTING COGO/LIFT ASSETS

3. BIKES AND PEDESTRIANS

a.BIKE LANE CLOSURE
WHEN A BIKE LANE PAVEMENT MARKING EXIST AND MUST BE INCLUDED IN THE MOT / TTC PLAN.
REFERENCE - MOT SHEET 1500 ADVANCE WARNING SIGNS WHEN CLOSING THE BIKE LANE AND MERGING BIKES.
REFERENCE - MOT SHEET 1500 TABLE 4 ADVANCE WARNING SIGN SPACING.
REQUIRED - ONE (1) SHARE THE ROAD SIGN MID-TAPER WHEN NO BIKE LANE BUT SHARROWS ONLY EXIST.

b.SIDEWALKS / CROSSWALKS
THE CONTRACTOR:
SHALL NOT CLOSE OPPOSING SIDEWALKS OR CROSSWALKS SIMULTANEOUSLY.
SHALL KEEP SIDEWALKS & CROSSWALKS BEYOND THE ACTIVE WORK AREA OPEN AT ALL TIMES.
SHALL PLACE R9-9 SIGNS EACH END OF THE ACTIVE WORK AREA.
SHALL PLACE R9-11 SIGNS AT THE NEAREST ADA CROSSWALKS BEYOND THE ACTIVE WORK AREA.

Note: "Sidewalks" defined ANY area within the right of way used by pedestrians.

4. PARKING

a.DRIVEWAYS
THE CONTRACTOR:
SHALL PROVIDE 72 HOURS ADVANCE NOTICE WHEN CLOSING DRIVEWAYS.
SHALL RESTORE ACCESS FOLLOWING END OF WORK THAT DAY AND MAINTAIN AREA IN COMPLIANCE WITH ADA REQUIREMENTS.
SHALL MONITOR OBSTRUCTED DRIVEWAYS AND RESPONSIBLE TO MAINTAIN ACCESS AS NEEDED.

b.ON STREET
THE CONTRACTOR:
SHALL CONTACT PARKING ENFORCEMENT (614) 645-4072 48 HOURS IN ADVANCE WHEN CLOSING METERED/APP PAY PARKING.
SHALL LIMIT PARKING RESTRICTIONS TO "AS NEEDED" TO SAFELY COMPLETE THE WORK.
SHALL PROVIDE 72 HOURS ADVANCE NOTICE TO RESIDENTS WHEN TEMPORARILY CLOSING ON STREET PARKING AREAS.
SHALL RESTORE ACCESS FOLLOWING END OF EACH WORK DAY.
SHALL MAINTAIN LANE WIDTH SUFFICIENT FOR VEHICLES TO SAFELY PASS THROUGH WORK AREA.
SHALL MONITOR AND ASSIST PERMITTED HANDICAP PARKING SPACES AS DEFINED BY THE ADA.

5. ADVANCE WARNING SIGNS

a.SIGNS, SIZES, SPACING, DISTANCE
THE CONTRACTOR:
SHALL PLACE SIGNS ON INTERSECTING STREETS WHEN NO ADVANCED WARNING SIGN IS SEEN PRIOR TO ENTERING THE WORK AREA.

b.SIZES < 40 MPH "LOW SPEED" AND 36" x 36 SHOULD BE USED.

c.SIZES > 45 MPH "HIGH SPEED" AND 48" x 48" SHOULD BE USED.

d.SPACING PER MOT SHEET 1500 TABLE 2.

e.DISTANCE VARIES WHEN TURN ONLY LANES EXIST. THE SPACE FROM STOP BAR TO TURN LANE PAVEMENT MARKINGS ORIGIN, CONTINUE PER TABLE 2.

6. TMC - SIGNAL TIMING, CAMERA MONITORING AND RECORDING

a.CITY OF COLUMBUS TMC - TRAFFIC MANAGEMENT CENTER (614) 645-7249

b.SIGNALS - TIMING CHANGES MAY BE REQUESTED BY SPECIAL DUTY LAW ENFORCEMENT OFFICER (LEO).

c.CAMERAS - MONITORING AND RECORDING MUST BE ARRANGED 72 HOURS IN ADVANCE.

7. SHOULDER CLOSURES

THE CONTRACTOR:
SHALL NOT OCCUPY, BLOCK OR IMPEDE A LANE OF TRAVEL (LOT) WHILE USING A SHOULDER CLOSURE PER 6H-3 MODIFIED
SHALL PERFORM WORK BEYOND THE EDGE OF PAVEMENT (EOP), SOLID WHITE LINE (SWL), LANE OF TRAVEL (LOT), OR BACK OF CURB (BOC).
SHALL MAINTAIN A BUFFER, SAFE DISTANCE FROM THE SWL FOR TRAFFIC CONTROL DEVICE PLACEMENT ON EOP, SWL OR LOT.
SHALL PLACE R9-9 & R9-11 SIGNS FOR SIDEWALK CLOSURE & PEDESTRIAN DETOURS PER TYPICAL 6H29 FOR PEDESTRIAN SAFETY.
SHALL SECURE PERMISSION IN ADVANCE TO PARK, STORE, STAGE & SITE ACCESS.

NOTES:
a. DEFINITIONS: Edge of Pavement (EOP), Back of Curb (BOC), Face of Curb (FOC), Solid White Line (SWL), Lane of Travel (LOT)

b. Work Zone - Equipment, Staging & Storage is prohibited within 2' of the EOP, SWL, and LOT.
Traffic Conditions - Must remain normal when deploying shoulder closures.
Separation - A 2' Buffer between the work zone and lane of travel must be maintained.
Compliance - If not in compliance with the above MOT Approval is REVOKED. Cease and Contact the MOT Supervisor immediately (614) 645-0355.

8. EASEMENTS

a.EASEMENT ACCESS WITHIN PUBLIC RIGHT OF WAY
THE CONTRACTOR:
SHALL DEPLOY TRAFFIC CONTROL WHEN STAGING, STORAGE AND ACCESSING EASEMENTS.
SHALL DEPLOY PEDESTRIAN SAFETY MEASURES.

b.NOTES - Typical 1550.1 Traffic Control Plan when Accessing Easements Follow the Guidance Above

01/10/2023

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CHECKED BY	SW	06/02/23	866-266-7671
AS-BUILT BY	TBD	TBD	TBD

SITE NAME:
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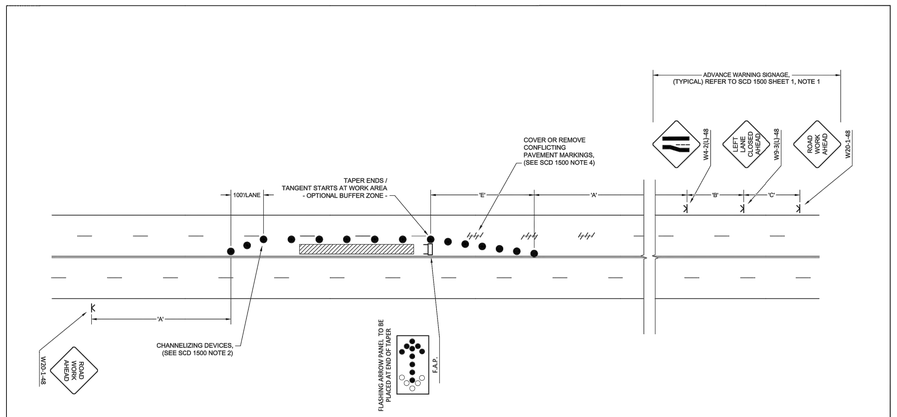
ABAN# 22-0135587-00
INST# 22-0083155-00
ABAN# 22-0083156-00
INST# 23-0136479-00
ABAN# 23-0136480-00
PROJECT ID# 21-78790
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:
MOT COMBO

DRAWING NO:
MOT-1000A



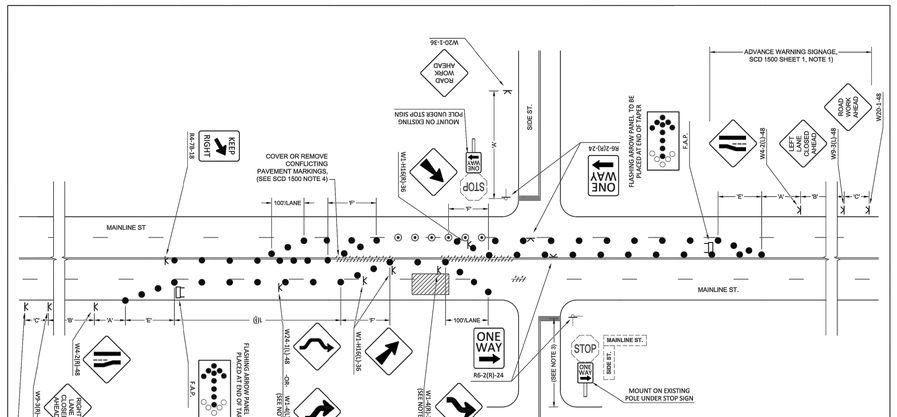
SCD 1500 NOTES

1A. SEE SCD 1500 NOTE 3. TAPER LENGTHS ARE TO BE CALCULATED USING FORMULAS FROM THE SCD 1500, TABLE 1: TAPER LENGTHS FOR TEMPORARY TRAFFIC CONTROL ZONES.

LEFT LANE

LANE CLOSURES

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 1510
CITY ENGINEER	9/15/2015
	SHT 2 OF 5



SCD 1500 NOTES

1A. SEE SCD 1500 NOTE 3. TAPER LENGTHS ARE TO BE CALCULATED USING FORMULAS FROM THE SCD 1500, TABLE 1: TAPER LENGTHS FOR TEMPORARY TRAFFIC CONTROL ZONES.

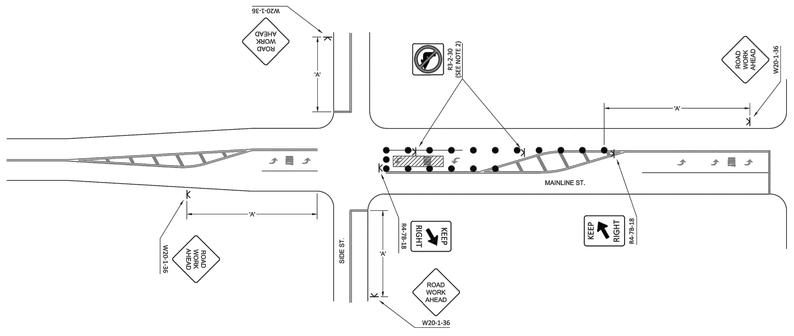
NOTES

1. FOR CLARITY SOME EXISTING TRAFFIC CONTROL AND LANE USAGE SIGNS ARE INTENTIONALLY NOT SHOWN.
2. IF TANGENT DISTANCE ALONG THE TEMPORARY DIVERSION IS LESS THAN 540', A DOUBLE REVERSE CURVE SIGN (W24-1) SHOULD BE USED IN PLACE OF INITIAL REVERSE CURVE SIGN AND THE SECOND REVERSE CURVE SIGN SHALL BE OMITTED.
3. PLACE ADVANCE WARNING SIGN A MAXIMUM OF 200' FROM POSTED STOP OR ADJUST TO NEXT STREET IF LESS THAN 100'.

4-LANE SECTION WITH SHIFT

LANE CLOSURES

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 1510
CITY ENGINEER	9/15/2015
	SHT 4 OF 5



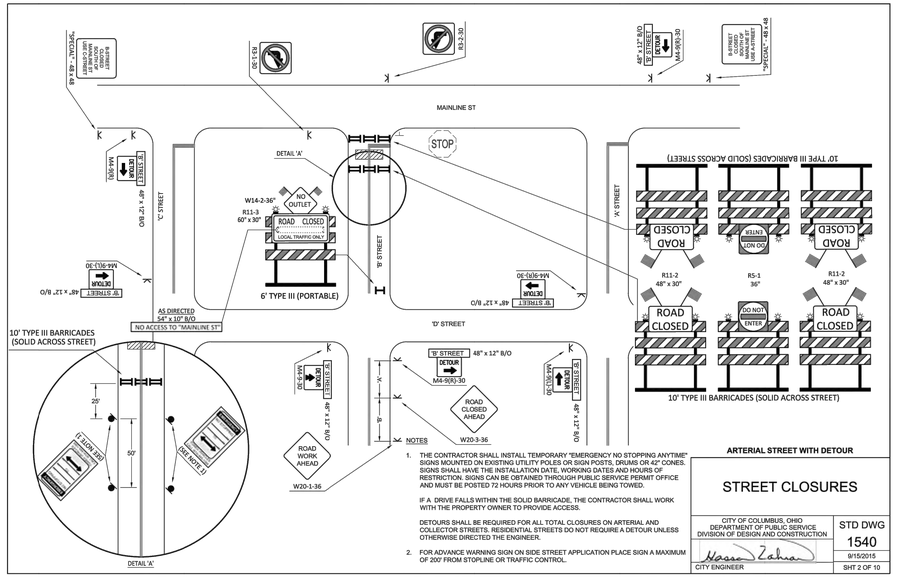
NOTES

1. FOR ADDITIONAL NOTES, TABLES, AND SYMBOL LEGEND SEE CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWING 1500.
2. USE ONLY IN HIGH VOLUME AREA AS DIRECTED BY ENGINEER.
3. FOR CLARITY SOME EXISTING TRAFFIC CONTROL AND LANE USAGE SIGNS ARE INTENTIONALLY NOT SHOWN.
4. FOR ADVANCE WARNING SIGN ON SIDE STREET APPLICATION PLACE SIGN A MAXIMUM OF 200' FROM STOPLINE OR TRAFFIC CONTROL.

LEFT TURN LANE

LANE CLOSURES INTERSECTIONS

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 1520
CITY ENGINEER	9/15/2015
	SHT 1 OF 7



NOTES

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   IF A DRIVE FALLS WITHIN THE SOLID BARRICADE, THE CONTRACTOR SHALL WORK WITH THE PROPERTY OWNER TO PROVIDE ACCESS.

   DETOURS SHALL BE REQUIRED FOR ALL TOTAL CLOSURES ON ARTERIAL AND COLLECTOR STREETS. RESIDENTIAL STREETS DO NOT REQUIRE A DETOUR UNLESS OTHERWISE DIRECTED THE ENGINEER.
2. FOR ADVANCE WARNING SIGN ON SIDE STREET APPLICATION PLACE SIGN A MAXIMUM OF 200' FROM STOPLINE OR TRAFFIC CONTROL.

ARTERIAL STREET WITH DETOUR

STREET CLOSURES

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 1540
CITY ENGINEER	9/15/2015
	SHT 2 OF 10

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PROJECT ID# 21-78790

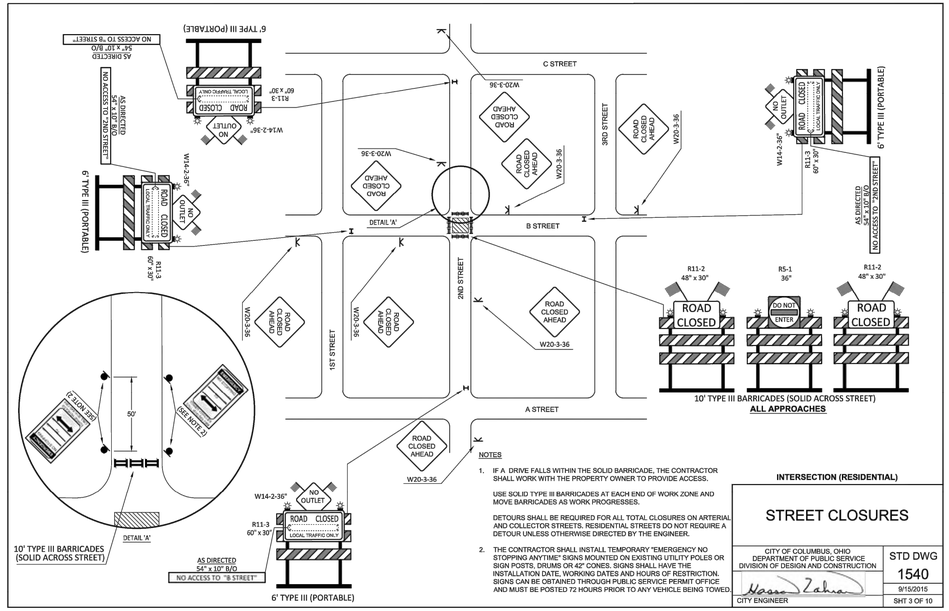
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

STANDARD DRAWINGS

DRAWING NO:

MOT-1000B



NOTES

1. IF A DRIVE FALLS WITHIN THE SOLID BARRICADE, THE CONTRACTOR SHALL WORK WITH THE PROPERTY OWNER TO PROVIDE ACCESS.

   USE SOLID TYPE III BARRICADES AT EACH END OF WORK ZONE AND MOVE BARRICADES AS WORK PROGRESSES.

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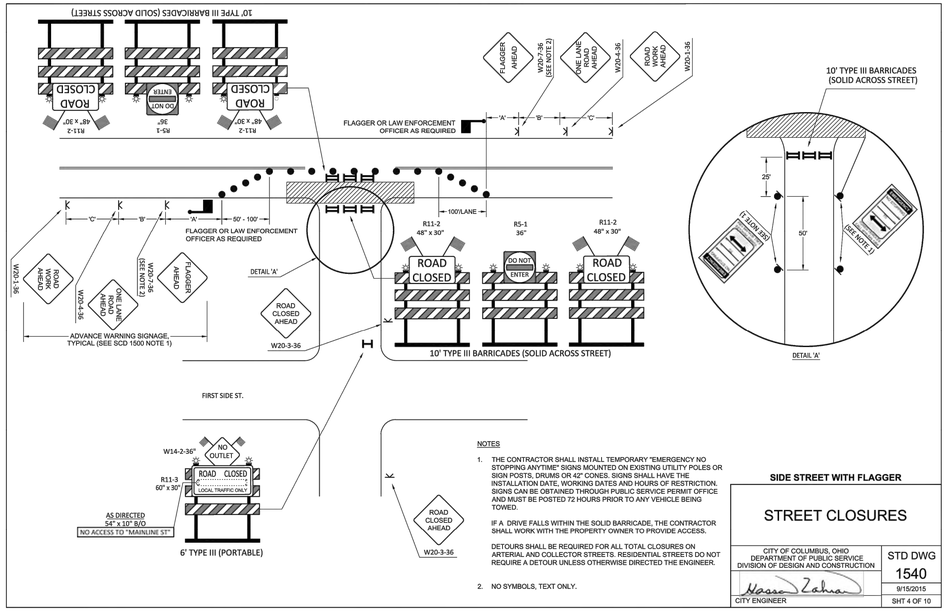
INTERSECTION (RESIDENTIAL)

STREET CLOSURES		
CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 1540	
CITY ENGINEER	9/15/2015	SHT 3 OF 10



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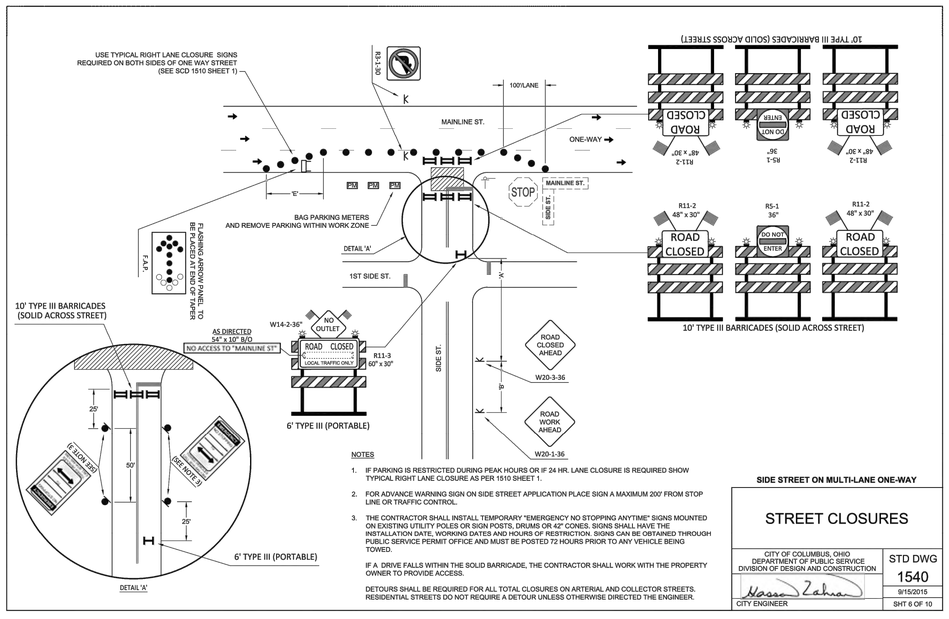
2. NO SYMBOLS, TEXT ONLY.

SIDE STREET WITH FLAGGER

STREET CLOSURES		
CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 1540	
CITY ENGINEER	9/15/2015	SHT 4 OF 10



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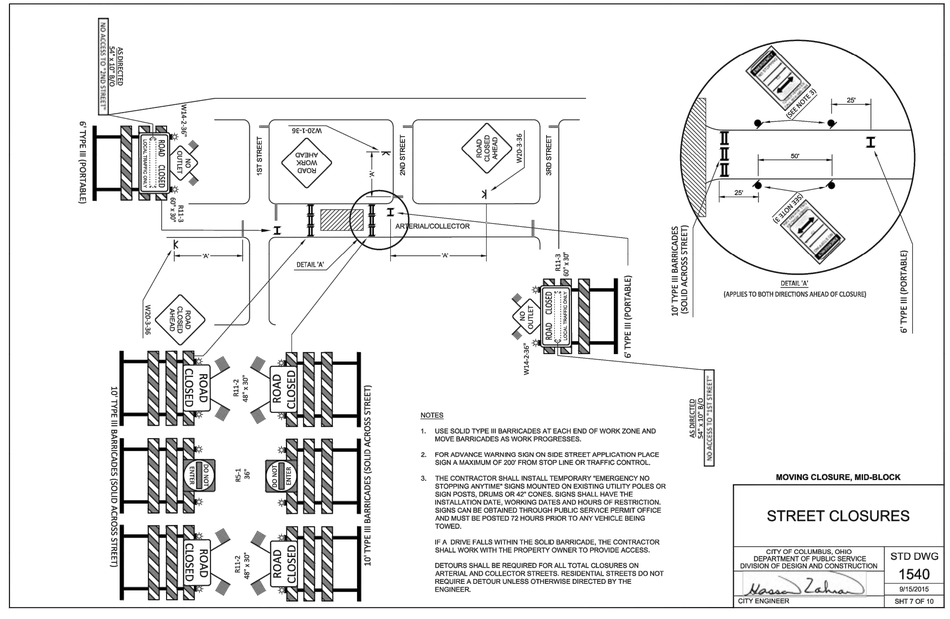
SIDE STREET ON MULTI-LANE ONE-WAY

STREET CLOSURES		
CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 1540	
CITY ENGINEER	9/15/2015	SHT 6 OF 10



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MOVING CLOSURE, MID-BLOCK

STREET CLOSURES		
CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 1540	
CITY ENGINEER	9/15/2015	SHT 7 OF 10

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PROJECT ID# 21-78790

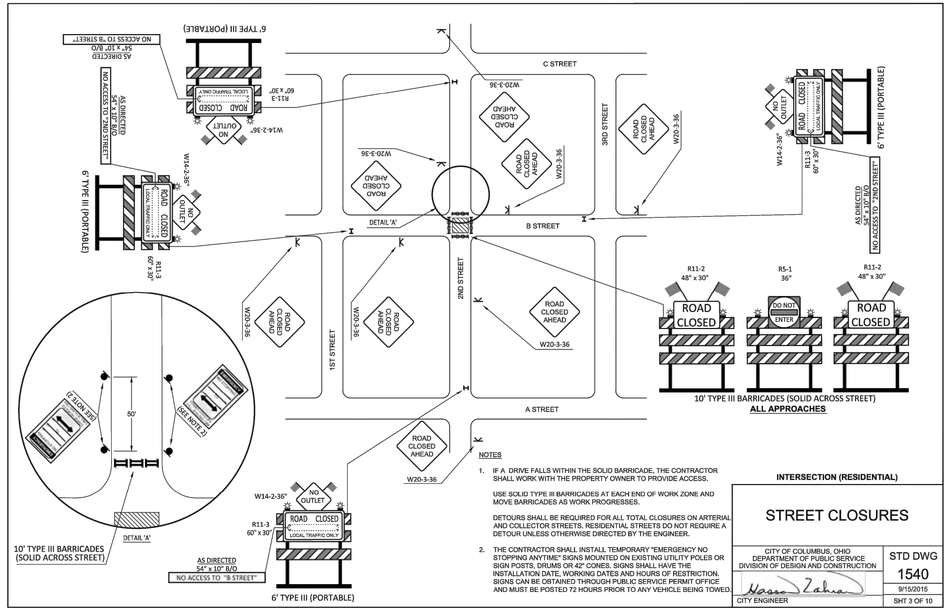
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

STANDARD DRAWINGS

DRAWING NO:

MOT-1000C



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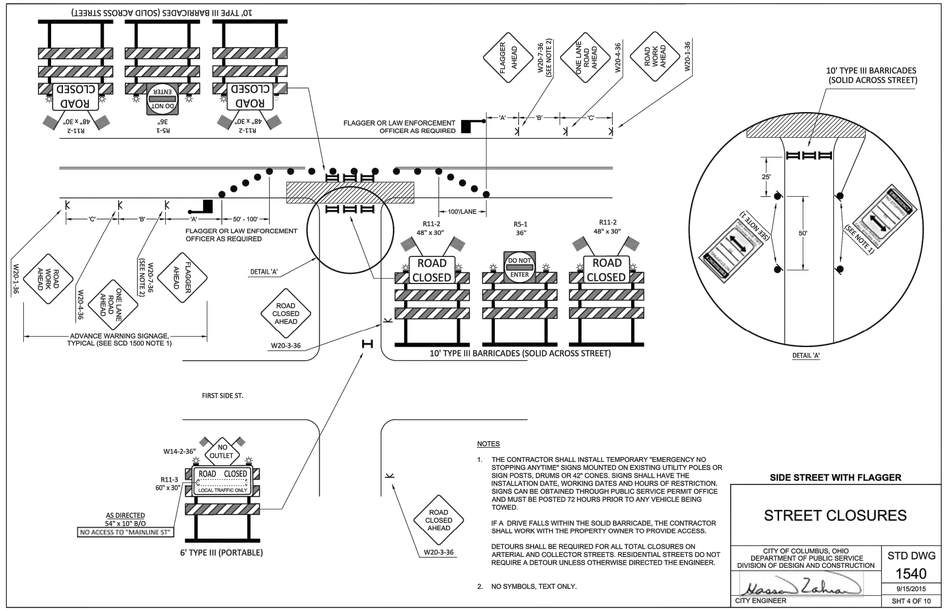
INTERSECTION (RESIDENTIAL)

STREET CLOSURES		
CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 1540	
CITY ENGINEER	9/15/2015	SHT 3 OF 10



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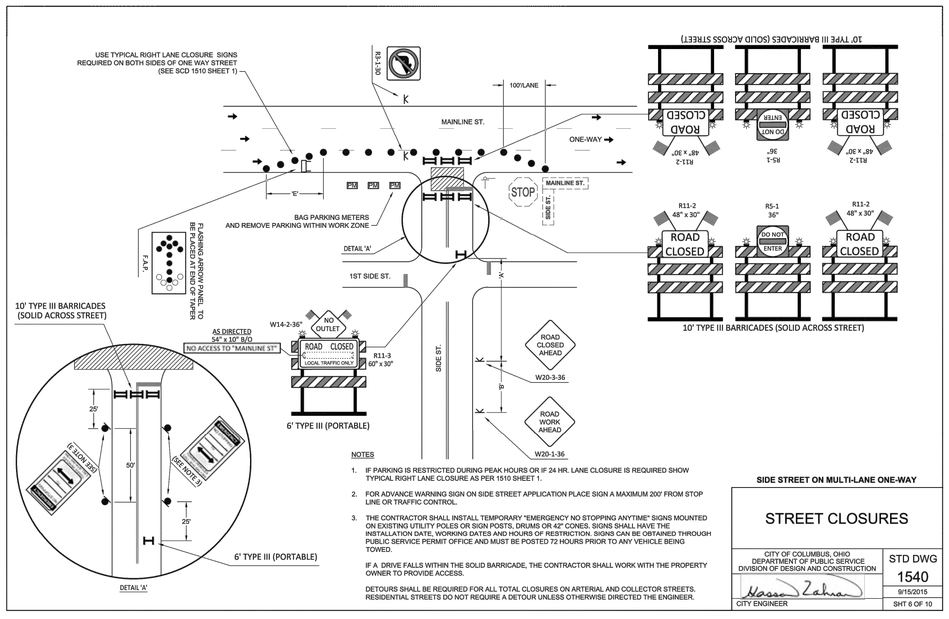
SIDE STREET WITH FLAGGER

STREET CLOSURES		
CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 1540	
CITY ENGINEER	9/15/2015	SHT 4 OF 10



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SIDE STREET ON MULTI-LANE ONE-WAY

STREET CLOSURES		
CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 1540	
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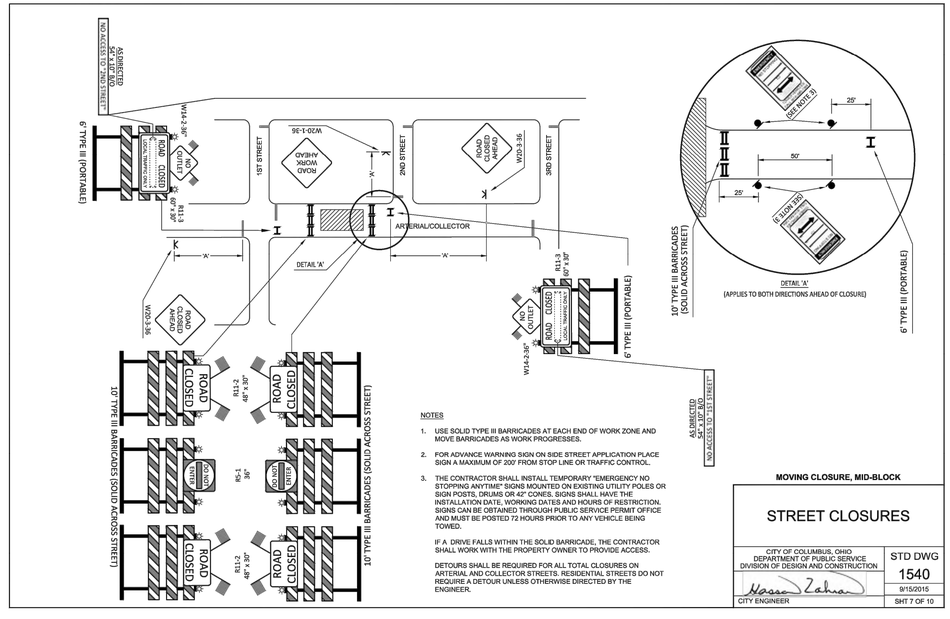

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MOVING CLOSURE, MID-BLOCK

STREET CLOSURES		
CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 1540	
CITY ENGINEER	9/15/2015	SHT 7 OF 10

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COLUMBUS, FRANKLIN COUNTY, OH

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STANDARD DRAWINGS

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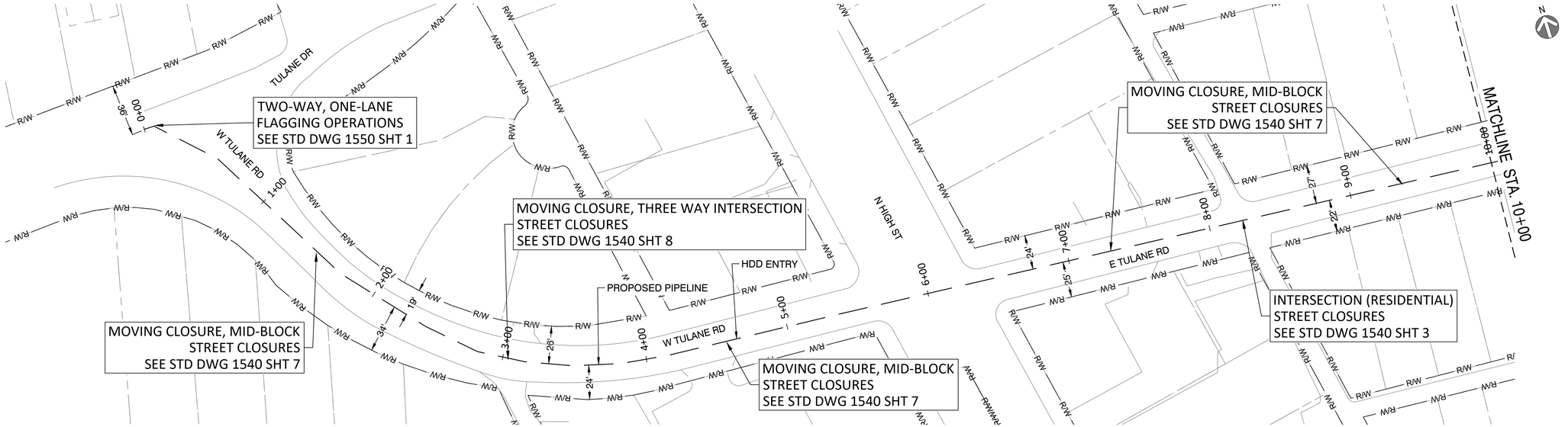
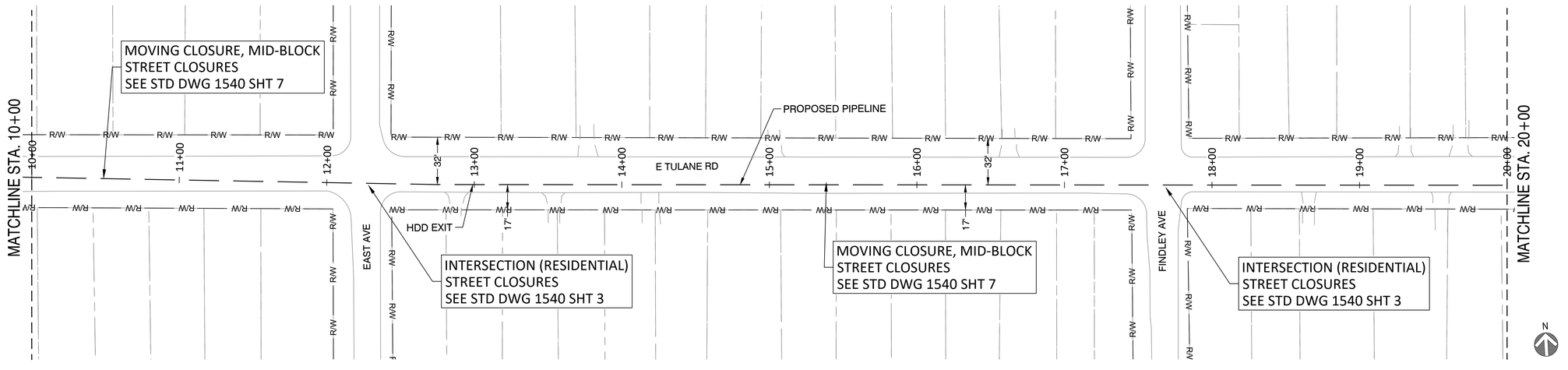


PROPOSED PLAN - STA. 0+00 TO STA. 10+00

SCALE: 1" = 40'



PROPOSED PLAN - STA. 10+00 TO STA. 20+00

SCALE: 1" = 40'

NiSource

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CAMPOS EPC
401 N Front St, Suite 380, Columbus, OH 43215
(380) 799-8503

PROPOSED

REVISIONS		
A	12/15/23	ISSUED FOR PERMIT
REV. #	DATE	DESCRIPTION

	NAME	DATE	PHONE #
INTERNAL ENG.	EK	06/02/23	614-981-0661
DESIGNED BY	JMJ	06/02/23	855-266-7671
CHECKED BY	SW	06/02/23	866-266-7671
AS-BUILT BY	TBD	TBD	TBD

SITE NAME:

INST# 22-0135586-00
ABAN# 22-0135587-00
INST# 22-0083155-00
ABAN# 22-0083156-00
INST# 23-0136479-00
ABAN# 23-0136480-00
PROJECT ID# 21-78790

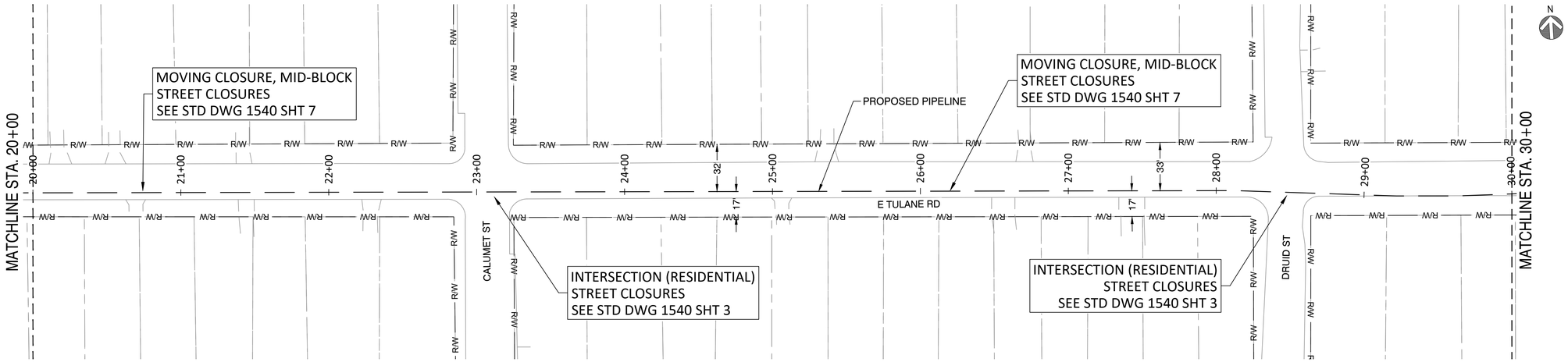
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

MAINTENANCE OF TRAFFIC
STA 0+00 to STA 20+00

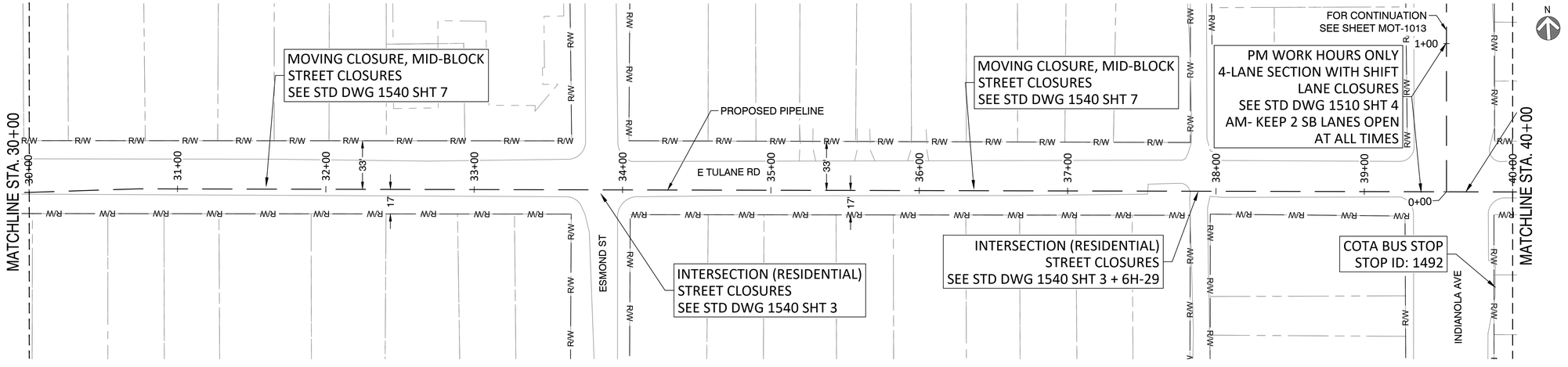
DRAWING NO:

MOT-1001



PROPOSED PLAN - STA. 20+00 TO STA. 30+00

SCALE: 1" = 40'



PROPOSED PLAN - STA. 30+00 TO STA. 40+00

SCALE: 1" = 40'

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401 N Front St, Suite 380, Columbus, OH 43215
(380) 799-8503

PROPOSED

REVISIONS		
A	12/15/23	ISSUED FOR PERMIT
REV. #	DATE	DESCRIPTION

INTERNAL ENG.	EK	06/02/23	614-981-0661
DESIGNED BY	JMJ	06/02/23	855-266-7671
CHECKED BY	SW	06/02/23	866-266-7671
AS-BUILT BY	TBD	TBD	TBD
	NAME	DATE	PHONE #

SITE NAME:

INST# 22-0135586-00
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INST# 22-0083155-00
ABAN# 22-0083156-00
INST# 23-0136479-00
ABAN# 23-0136480-00
PROJECT ID# 21-78790

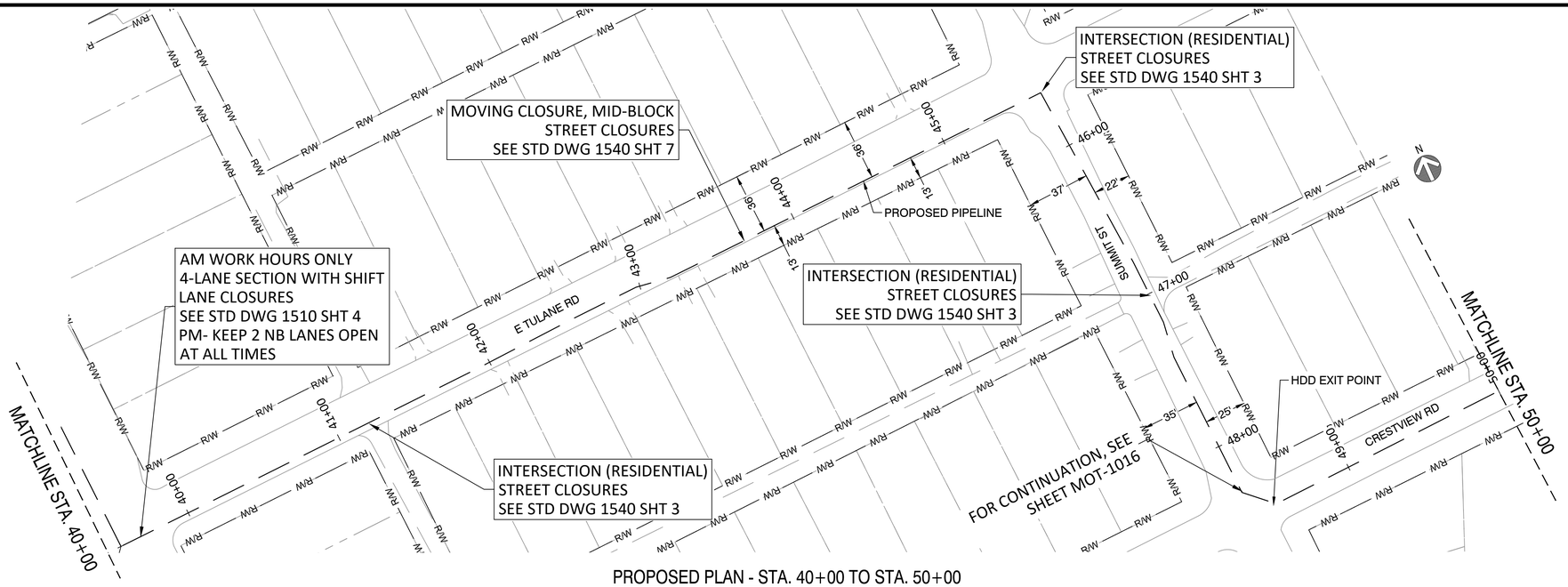
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

MAINTENANCE OF TRAFFIC
STA 20+00 to STA 40+00

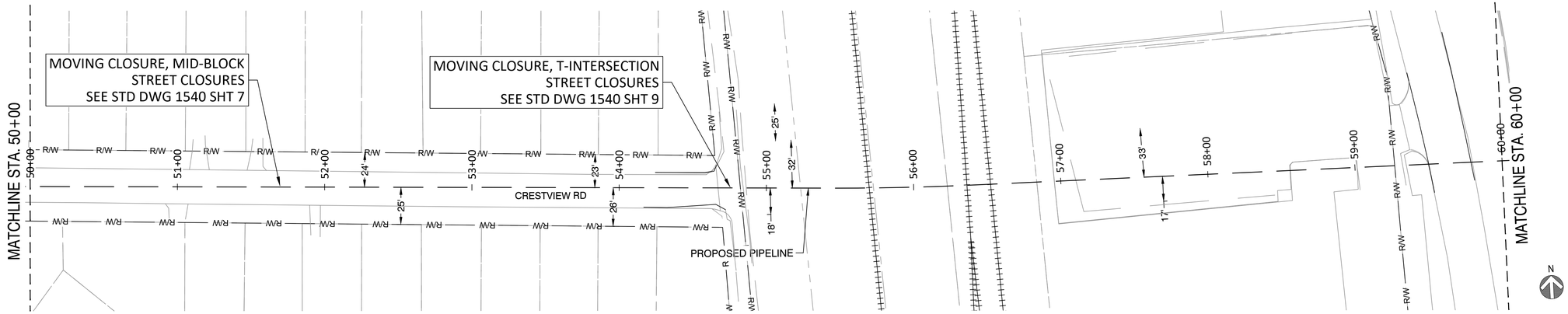
DRAWING NO:

MOT-1002



PROPOSED PLAN - STA. 40+00 TO STA. 50+00

SCALE: 1" = 40'



PROPOSED PLAN - STA. 50+00 TO STA. 60+00

SCALE: 1" = 40'

RAILROAD NOTES

PERMIT: EP-24-04014
LOCATION: CRESTVIEW ROAD/SILVER DRIVE
DESCRIPTION: EXCAVATION ACROSS RAILROAD.
TYPE: OPEN TRENCH

CONTACT:
WESLEY PETERS
NORFOLK SOUTHERN RAILROAD
(419) 217-4524
WESLEY.PETERS@NSCORP.COM

JAKE FANNIN
NORFOLK SOUTHERN RAILROAD
(678) 367-7243
JACOB.FANNIN@NSCORP.COM

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PROPOSED

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AS-BUILT BY	TBD	TBD	TBD

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INST# 23-0136479-00
ABAN# 23-0136480-00
PROJECT ID# 21-78790

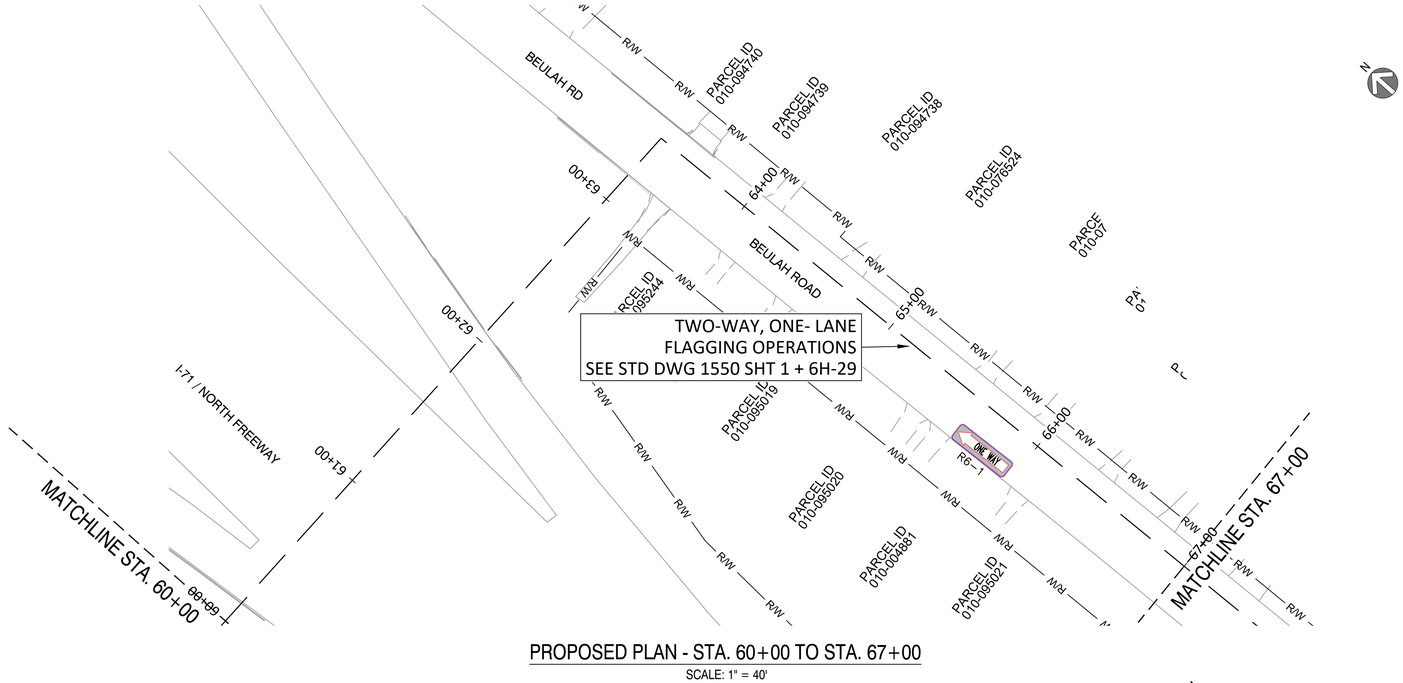
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

MAINTENANCE OF TRAFFIC
STA 40+00 to STA 60+00

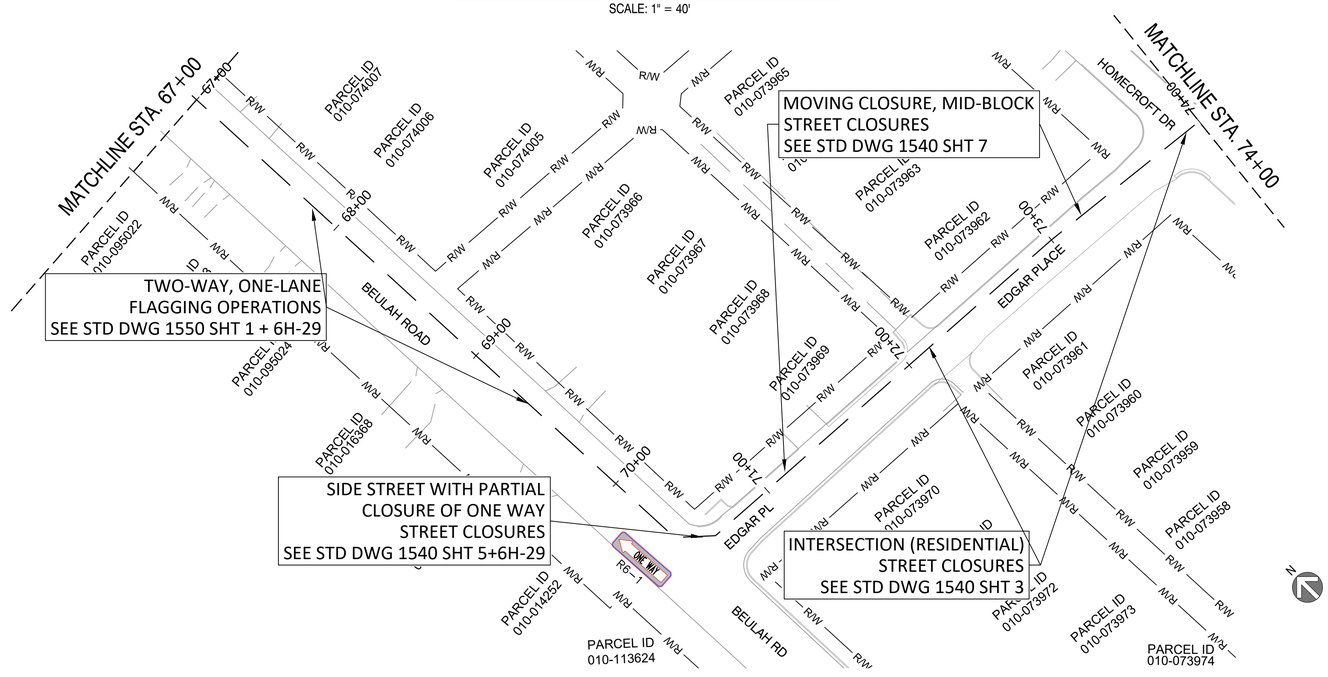
DRAWING NO:

MOT-1003



PROPOSED PLAN - STA. 60+00 TO STA. 67+00

SCALE: 1" = 40'



PROPOSED PLAN - STA. 67+00 TO STA. 74+00

SCALE: 1" = 40'

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PROPOSED

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AS-BUILT BY	TBD	TBD	TBD

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ABAN# 22-0083156-00
INST# 23-0136479-00
ABAN# 23-0136480-00
PROJECT ID# 21-78790

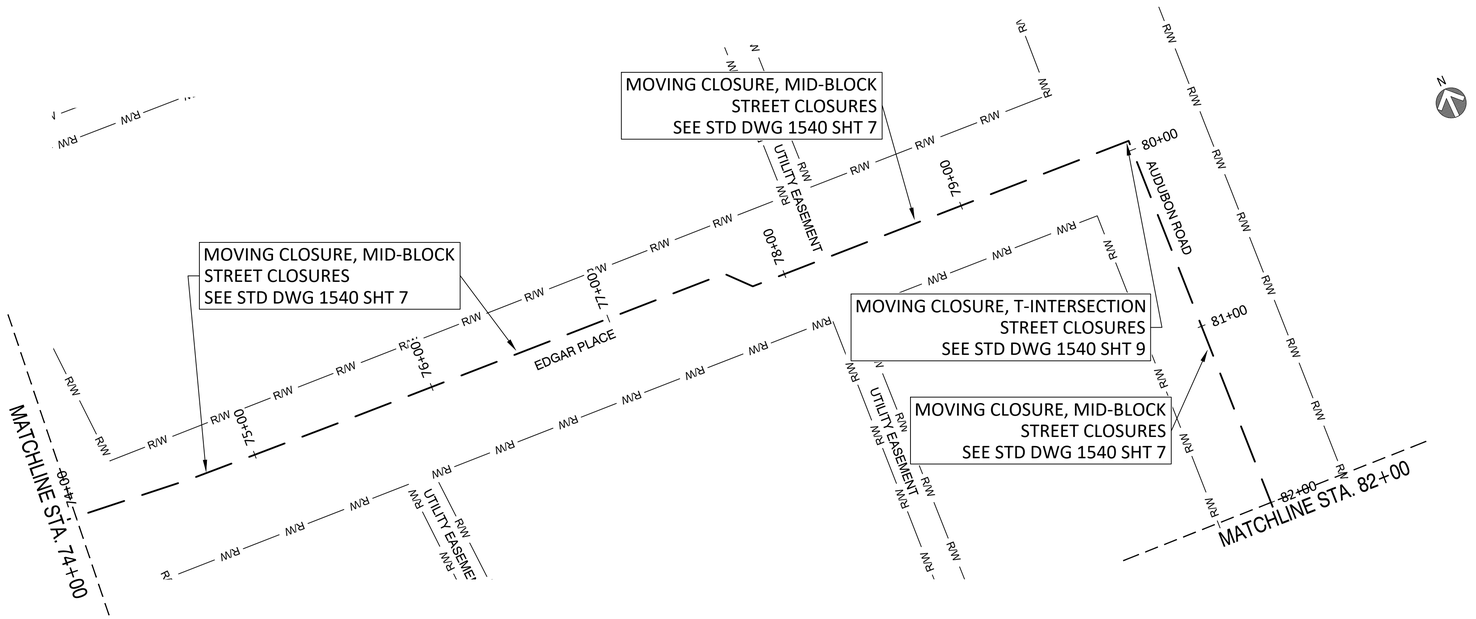
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

MAINTENANCE OF TRAFFIC
STA 60+00 to STA 74+00

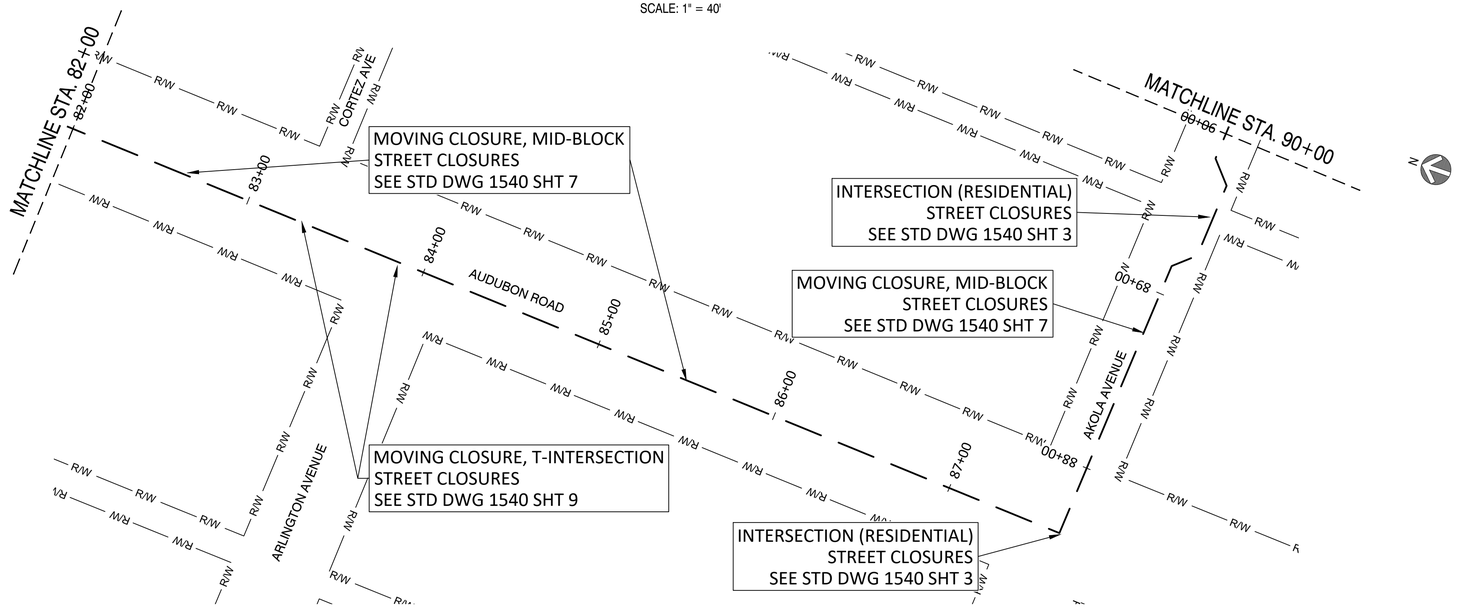
DRAWING NO:

MOT-1004



PROPOSED PLAN - STA. 74+00 TO 82+00

SCALE: 1" = 40'



PROPOSED PLAN - STA. 82+00 TO STA. 90+00

SCALE: 1" = 40'

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PROPOSED

REVISIONS		
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ABAN# 23-0136480-00
PROJECT ID# 21-78790

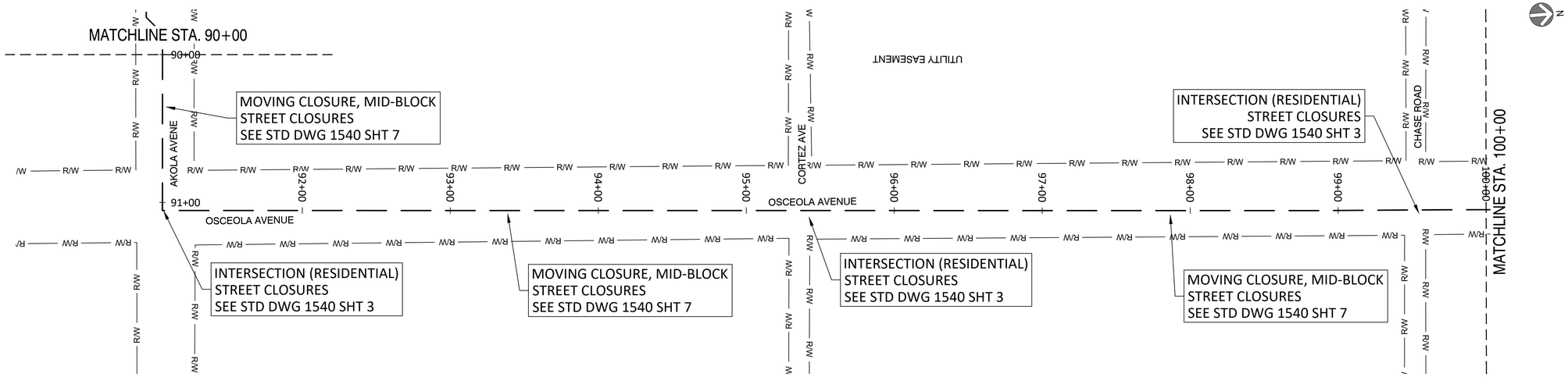
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

MAINTENANCE OF TRAFFIC
STA 74+00 to STA 90+00

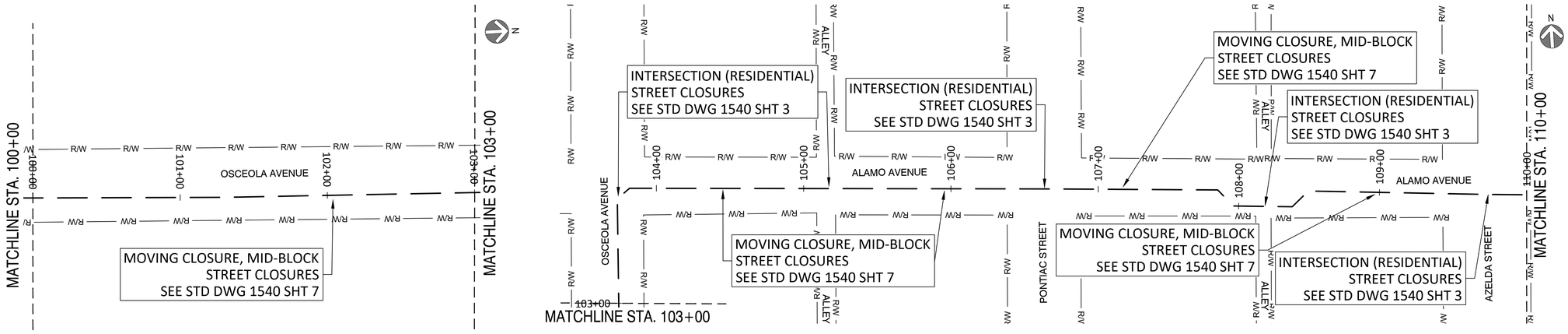
DRAWING NO:

MOT-1005



PROPOSED PLAN - STA. 90+00 TO STA. 100+00

SCALE: 1" = 40'



PROPOSED PLAN - STA. 100+00 TO 110+00

SCALE: 1" = 40'

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PROPOSED

REVISIONS		
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REV. #	DATE	DESCRIPTION

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CHECKED BY	SW	06/02/23	866-266-7671
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INST# 22-0083155-00
ABAN# 22-0083156-00
INST# 23-0136479-00
ABAN# 23-0136480-00
PROJECT ID# 21-78790

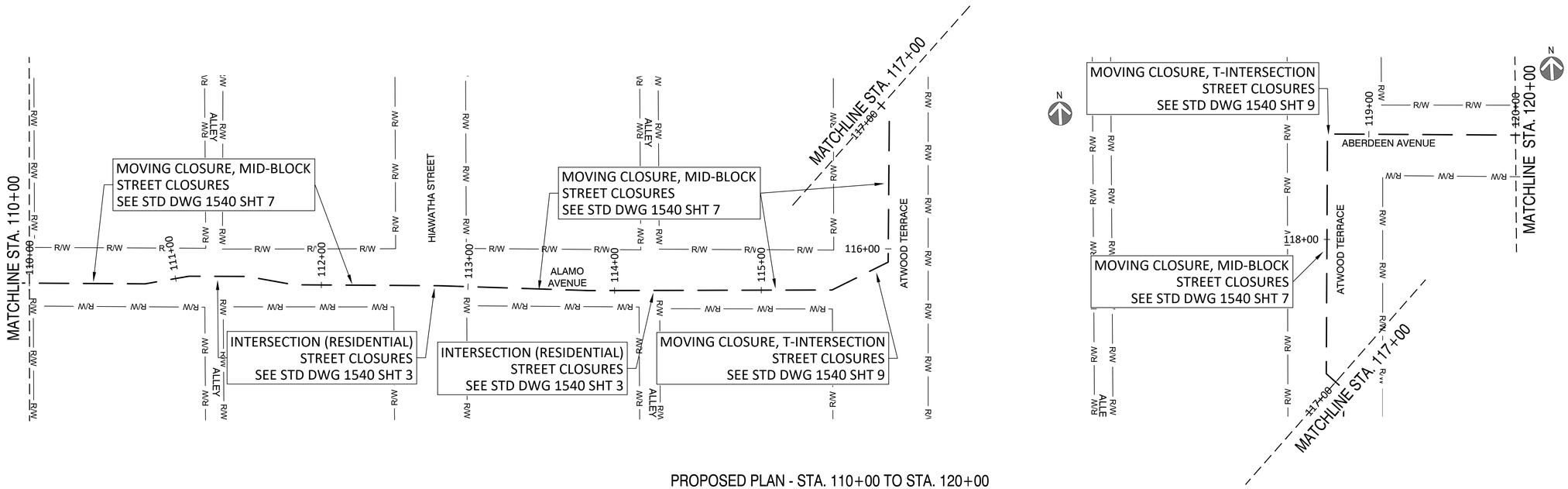
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

MAINTENANCE OF TRAFFIC
STA 90+00 to STA 110+00

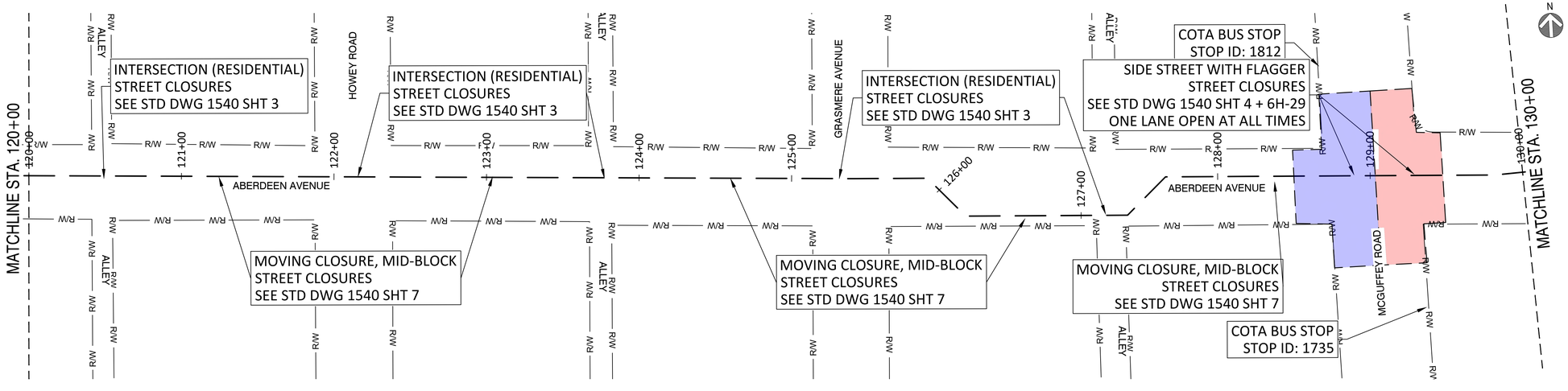
DRAWING NO:

MOT-1006



PROPOSED PLAN - STA. 110+00 TO STA. 120+00

SCALE: 1" = 40'



PROPOSED PLAN - STA. 120+00 TO STA. 130+00

SCALE: 1" = 40'

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PROPOSED

REVISIONS		
A	12/15/23	ISSUED FOR PERMIT
REV. #	DATE	DESCRIPTION

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INTERNAL ENG.	EK	06/02/23	614-981-0661
DESIGNED BY	JMJ	06/02/23	855-266-7671
CHECKED BY	SW	06/02/23	866-266-7671
AS-BUILT BY	TBD	TBD	TBD

SITE NAME:

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ABAN# 22-0135587-00
INST# 22-0083155-00
ABAN# 22-0083156-00
INST# 23-0136479-00
ABAN# 23-0136480-00
PROJECT ID# 21-78790

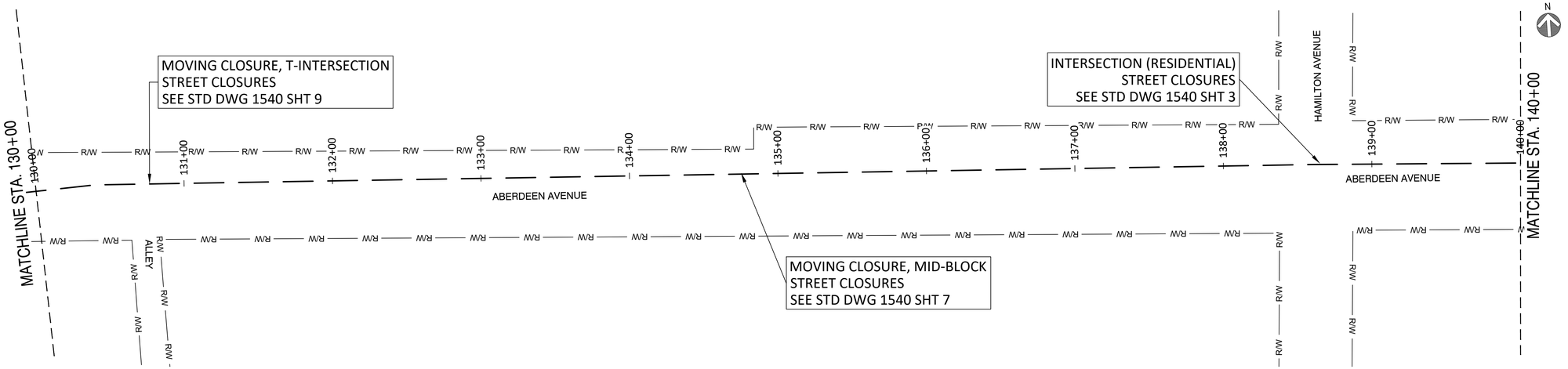
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

MAINTENANCE OF TRAFFIC
STA 110+00 to STA 130+00

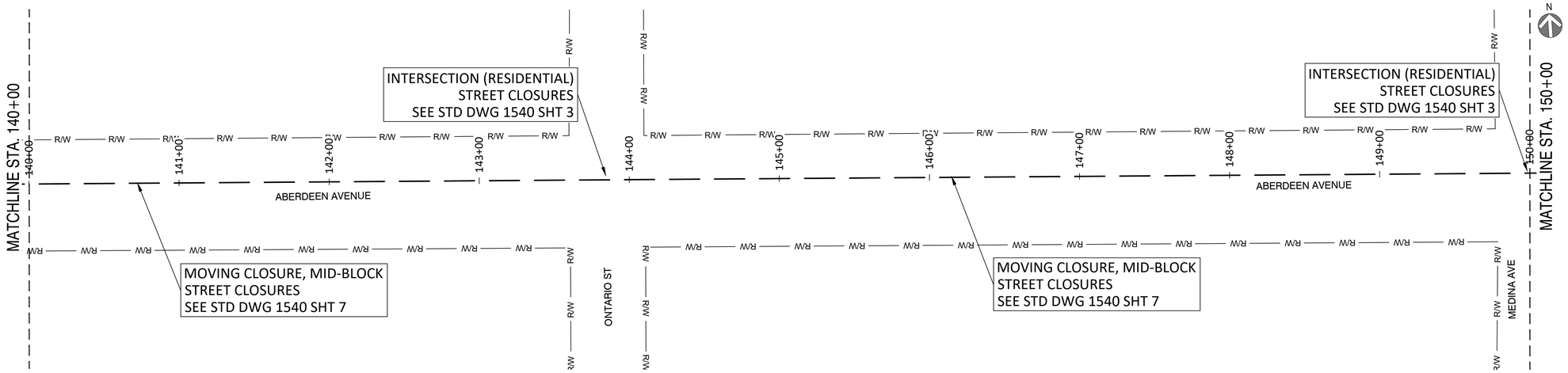
DRAWING NO:

MOT-1007



PROPOSED PLAN - STA. 130+00 TO STA. 140+00

SCALE: 1" = 40'



PROPOSED PLAN - STA. 140+00 TO STA. 150+00

SCALE: 1" = 40'

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(380) 799-8503

PROPOSED

REVISIONS		
A	12/15/23	ISSUED FOR PERMIT
REV. #	DATE	DESCRIPTION

INTERNAL ENG.	EK	06/02/23	614-981-0661
DESIGNED BY	JMJ	06/02/23	855-266-7671
CHECKED BY	SW	06/02/23	866-266-7671
AS-BUILT BY	TBD	TBD	TBD
	NAME	DATE	PHONE #

SITE NAME:

INST# 22-0135586-00
ABAN# 22-0135587-00
INST# 22-0083155-00
ABAN# 22-0083156-00
INST# 23-0136479-00
ABAN# 23-0136480-00
PROJECT ID# 21-78790

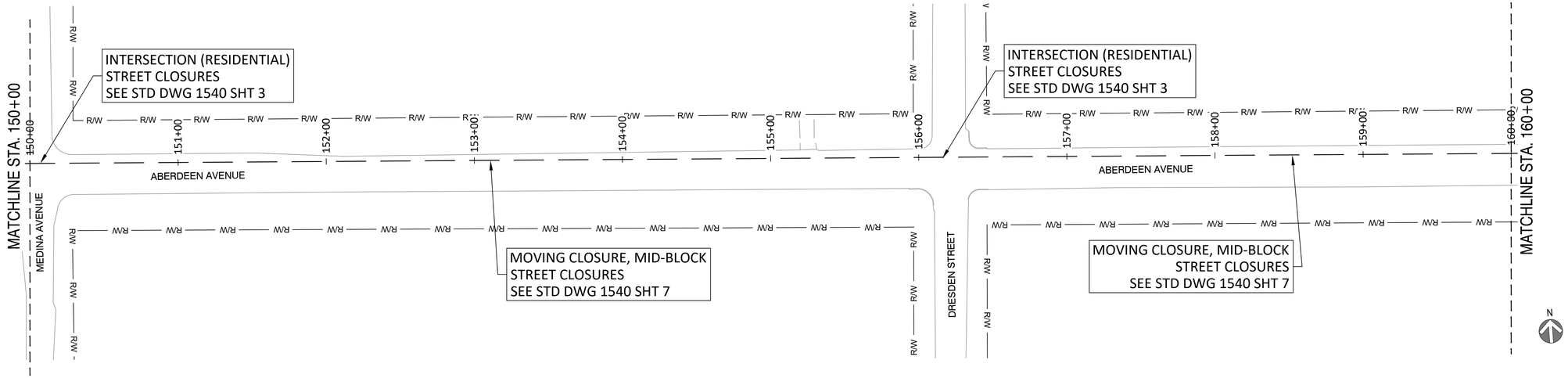
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

MAINTENANCE OF TRAFFIC
STA 130+00 to STA 150+00

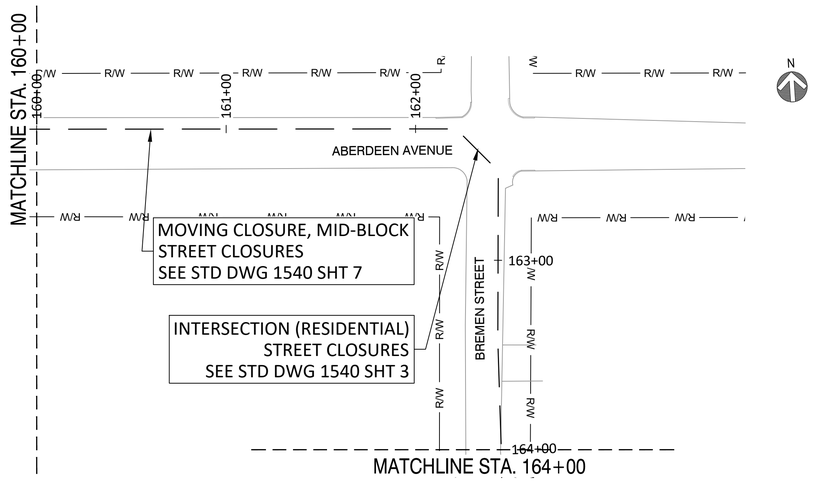
DRAWING NO:

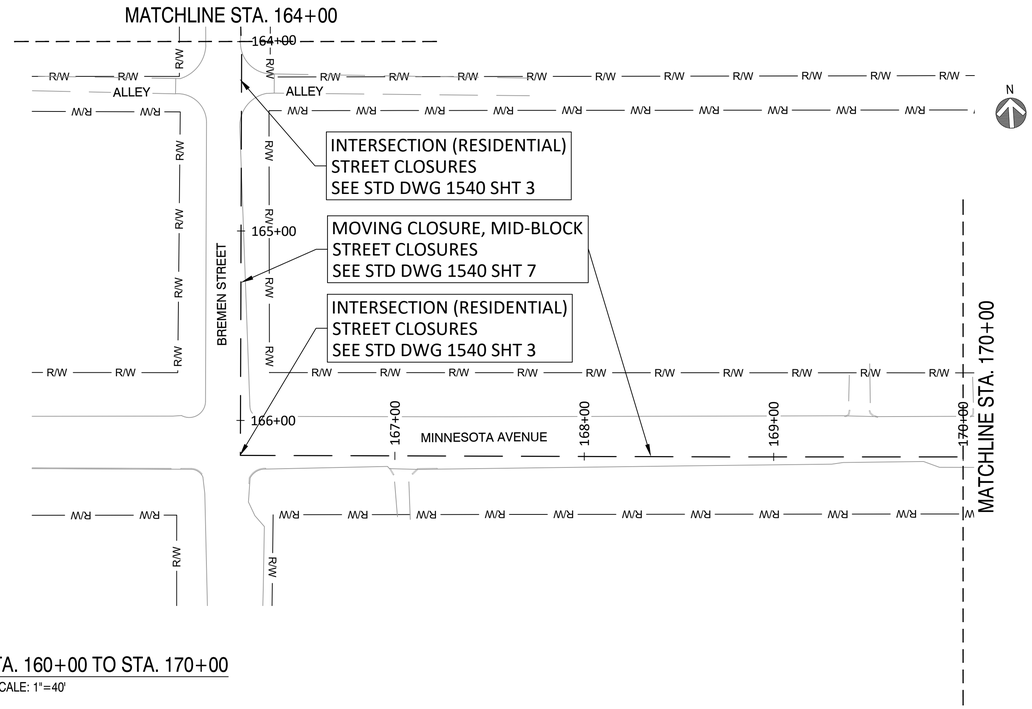
MOT-1008



PROPOSED PLAN - STA. 150+00 TO STA. 160+00

SCALE: 1"=40'





PROPOSED PLAN - STA. 160+00 TO STA. 170+00

SCALE: 1"=40'

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PROPOSED

REVISIONS		
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REV. #	DATE	DESCRIPTION

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DESIGNED BY	JMJ	06/02/23	855-266-7671
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AS-BUILT BY	TBD	TBD	TBD

SITE NAME:

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ABAN# 22-0083156-00
INST# 23-0136479-00
ABAN# 23-0136480-00
PROJECT ID# 21-78790

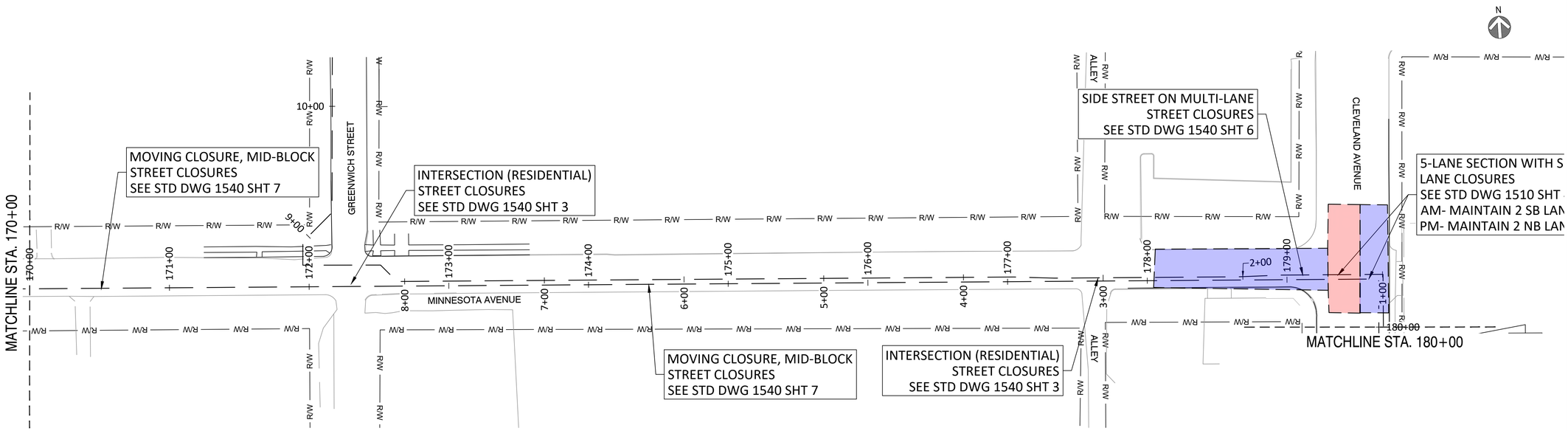
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

MAINTENANCE OF TRAFFIC
STA 150+00 to STA 170+00

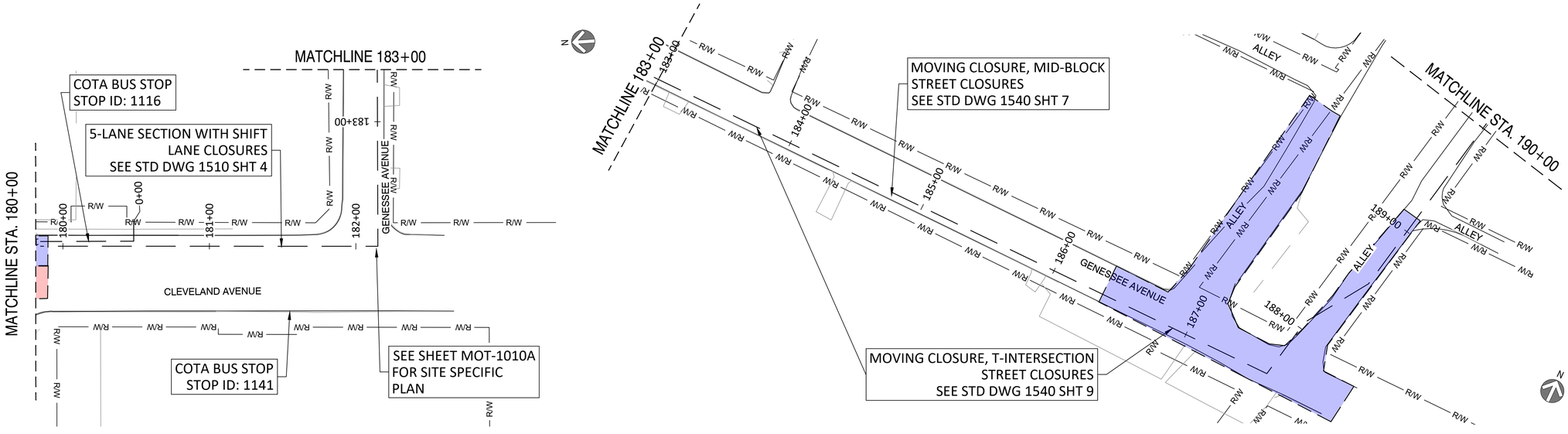
DRAWING NO:

MOT-1009



PROPOSED PLAN - STA. 170+00 TO STA. 180+00

SCALE: 1"=40'



PROPOSED PLAN - STA. 180+00 TO STA. 190+00

SCALE: 1"=40'

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PROPOSED

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AS-BUILT BY	TBD	TBD	TBD
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SITE NAME:

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ABAN# 22-0135587-00
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ABAN# 22-0083156-00
INST# 23-0136479-00
ABAN# 23-0136480-00
PROJECT ID# 21-78790

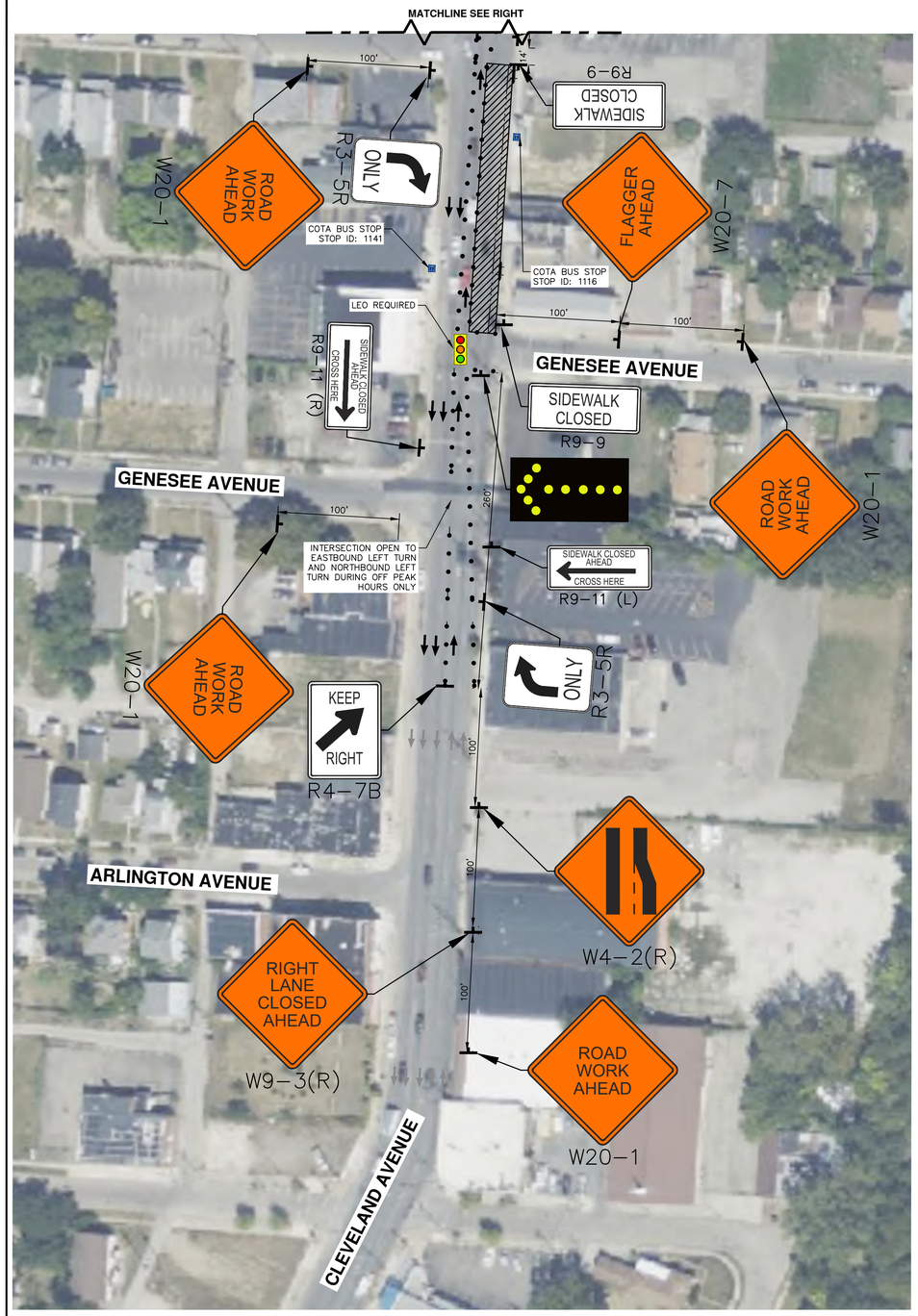
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

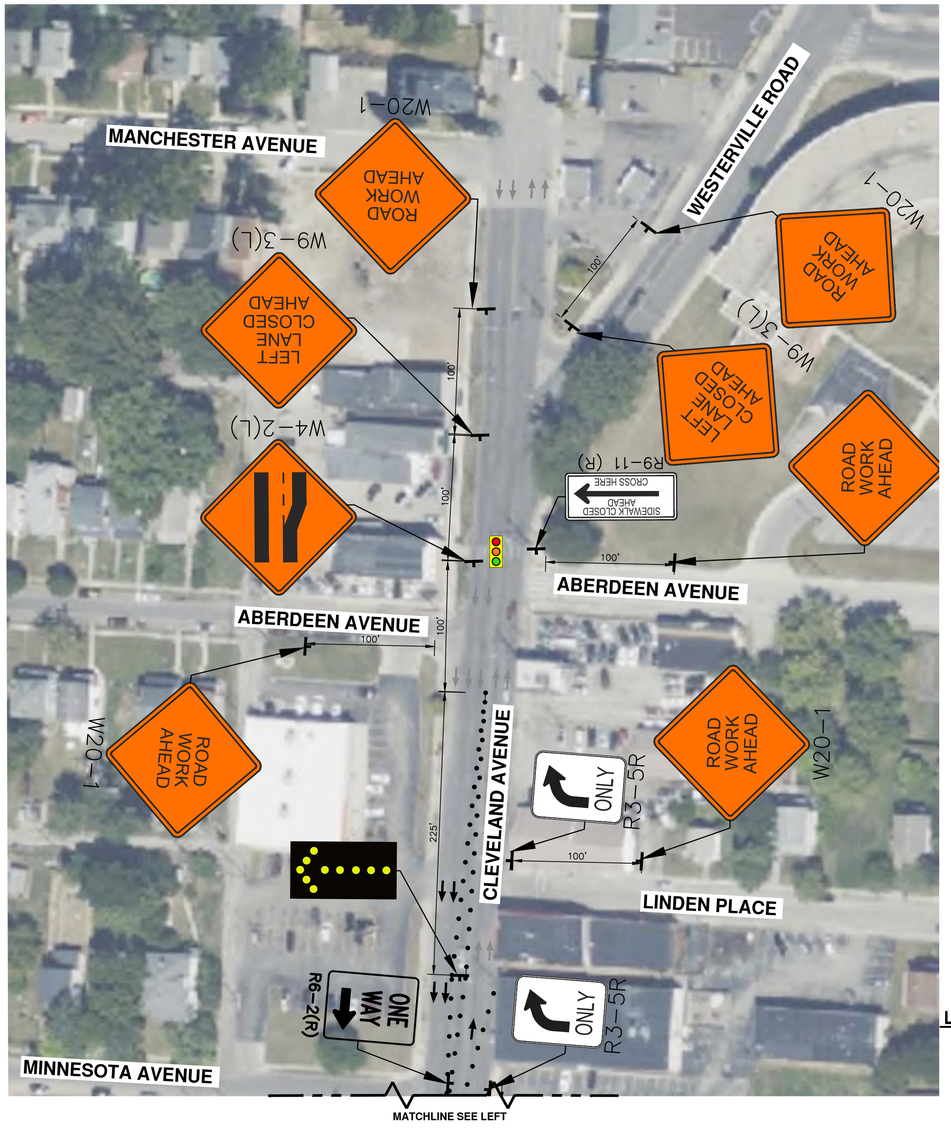
DRAWING TITLE:

MAINTENANCE OF TRAFFIC
STA 170+00 to STA 190+00

DRAWING NO:

MOT-1010





N

LEGEND

- EXISTING TRAFFIC FLOW
- PROPOSED TRAFFIC FLOW
- PAVEMENT MARKING
- LIGHTED ARROW PANNEL
- TYPE III BARRICADE
- SIGN
- TRAFFIC BARREL
- TRAFFIC SHIFT
- PARKING METER
- TYPE A WARNING FLASHER
- STAGING AREA
- WORK ZONE
- DETOUR ROUTE
- JERSEY BARRIER
- FLAGGER

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ABAN# 23-0136480-00
PROJECT ID# 21-78790

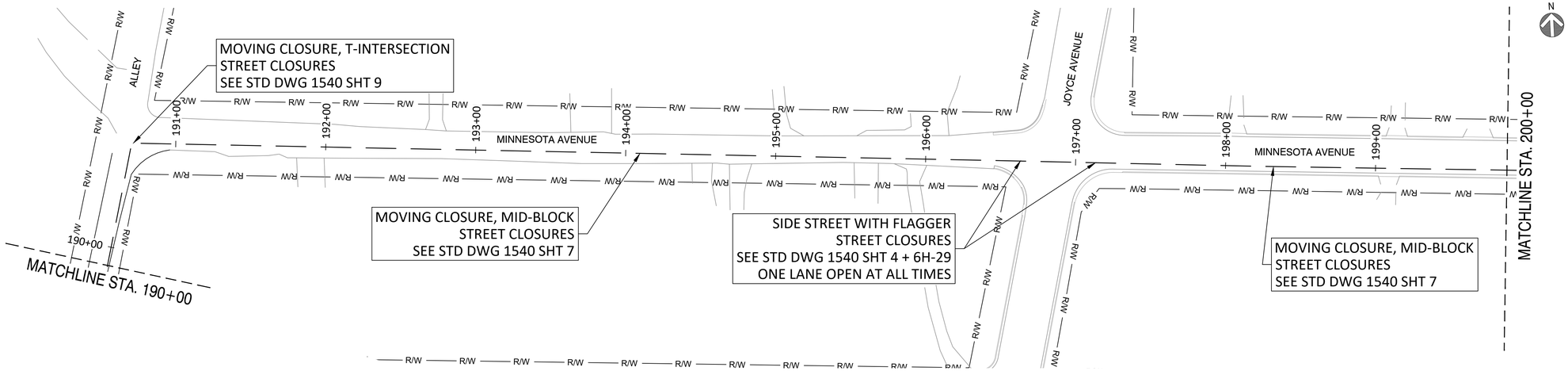
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

CLEVELAND AVENUE MAINTENACE OF TRAFFIC - PHASE 1

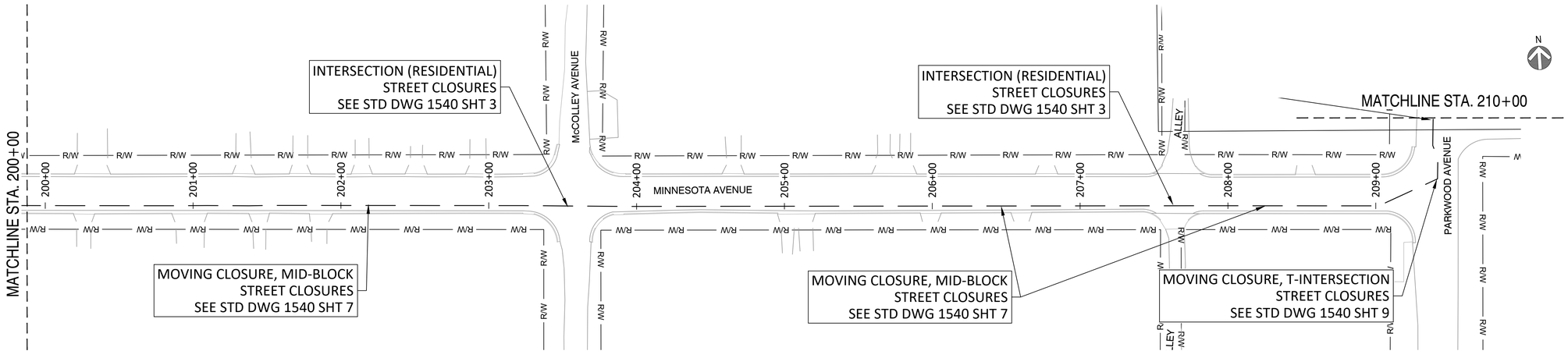
DRAWING NO:

MOT-1010A



PROPOSED PLAN - STA. 190+00 TO STA. 200+00

SCALE: 1"=40'



PROPOSED PLAN - STA. 200+00 TO STA. 210+00

SCALE: 1"=40'

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PROJECT ID# 21-78790

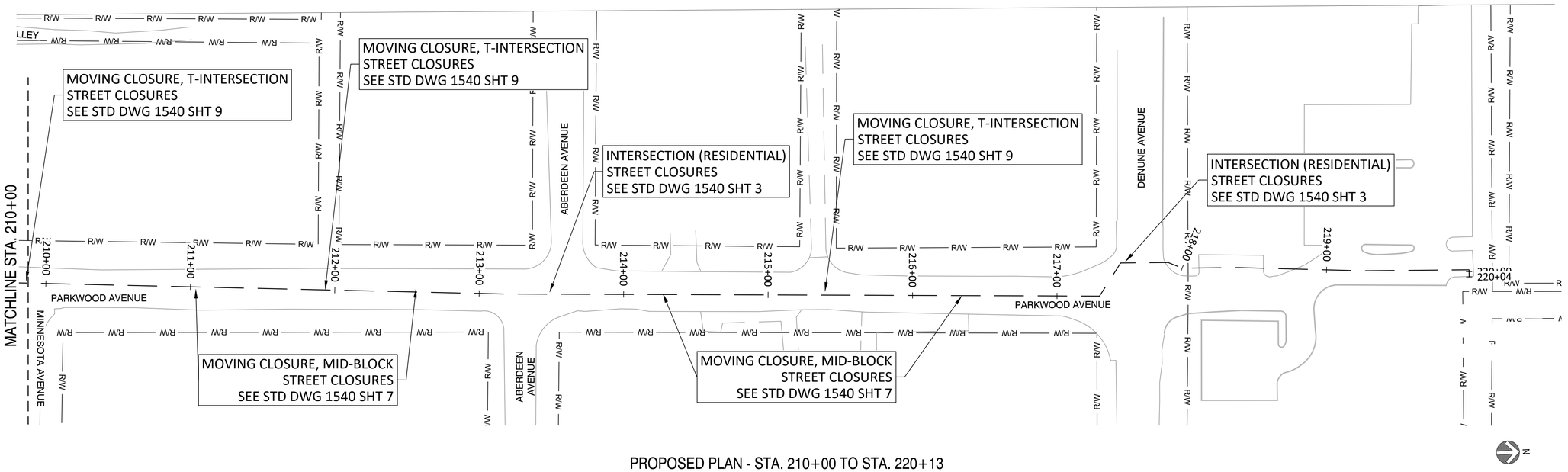
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

MAINTENANCE OF TRAFFIC
STA 190+00 to STA 210+00

DRAWING NO:

MOT-1011



PROPOSED PLAN - STA. 210+00 TO STA. 220+13

SCALE: 1"=40'

NiSource

Ohio Utilities Protection Service
Call 811 before you dig

CAMPOS EPC
401 N Front St, Suite 380, Columbus, OH 43215
(380) 799-8503

PROPOSED

REVISIONS		
A	12/15/23	ISSUED FOR PERMIT
REV. #	DATE	DESCRIPTION

	NAME	DATE	PHONE #
INTERNAL ENG.	EK	06/02/23	614-981-0661
DESIGNED BY	JMJ	06/02/23	855-266-7671
CHECKED BY	SW	06/02/23	866-266-7671
AS-BUILT BY	TBD	TBD	TBD

SITE NAME:

INST# 22-0135586-00
ABAN# 22-0135587-00
INST# 22-0083155-00
ABAN# 22-0083156-00
INST# 23-0136479-00
ABAN# 23-0136480-00
PROJECT ID# 21-78790

NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

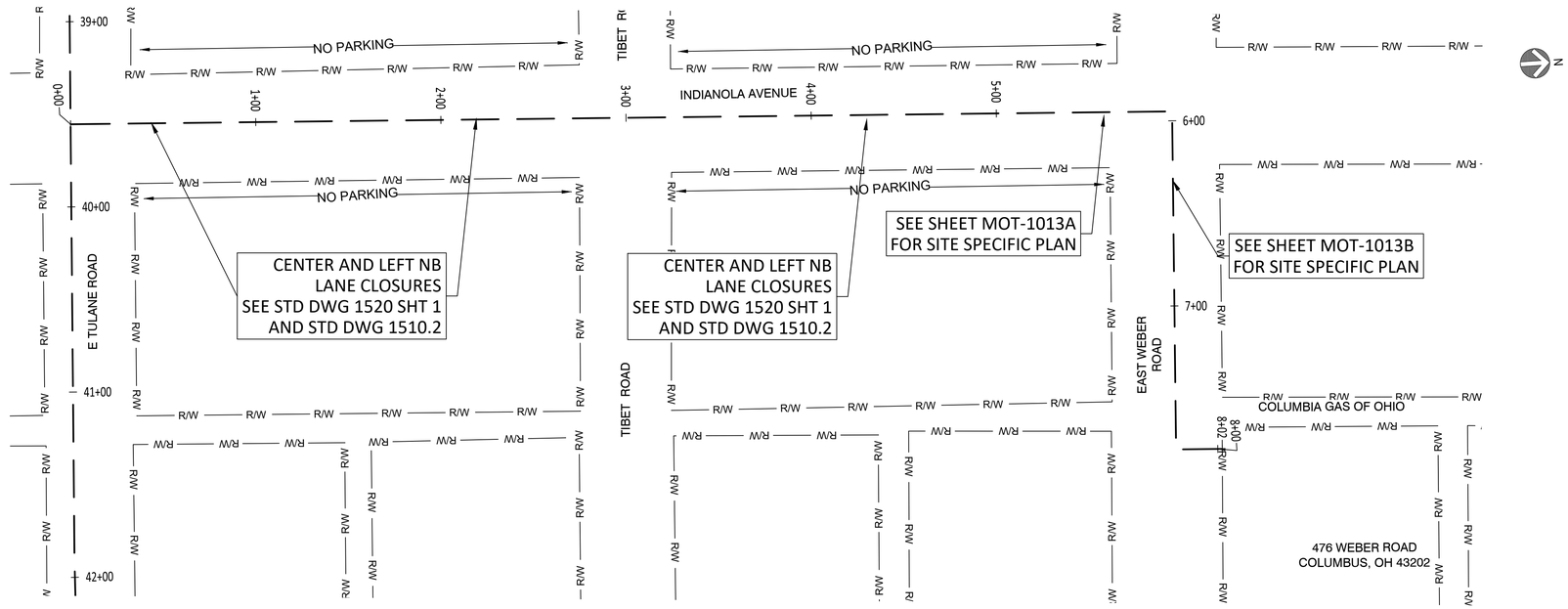
MAINTENANCE OF TRAFFIC
STA 210+00 to STA 220+13

DRAWING NO:

MOT-1012

NOTE

AM– KEEP 2 SOUTH BOUND LANES OPEN AT ALL TIMES
PM– KEEP 2 NORTH BOUND LANES OPEN AT ALL TIMES



8" WEBER & INDIANOLA LATERAL PROPOSED PLAN - STA. 0+00 TO STA. 8+02

SCALE: 1"=40'

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PROPOSED

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ABAN# 23-0136480-00
PROJECT ID# 21-78790

NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

MAINTENANCE OF TRAFFIC
STA 0+00 to STA 8+02

DRAWING NO:

MOT-1013

N

NOTES:

AM HOURS: INBOUND TRAFFIC HEAVY, KEEP 2 LANES OPEN SOUTHBOUND
PM HOURS: OUTBOUND TRAFFIC HEAVY, KEEP 2 LANES OPEN NORTHBOUND

FLAGGERS WILL MONITOR BLOCKED DRIVES AND MAINTAIN ACCESS

LEGEND

- EXISTING TRAFFIC FLOW
- PROPOSED TRAFFIC FLOW
- PAVEMENT MARKING
- LIGHTED ARROW PANNEL
- TYPE III BARRICADE
- SIGN
- TRAFFIC BARREL
- TRAFFIC SHIFT
- PARKING METER
- TYPE A WARNING FLASHER
- STAGING AREA
- WORK ZONE
- DETOUR ROUTE
- JERSEY BARRIER
- FLAGGER

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(380) 799-8503

PROPOSED

REVISIONS		
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ABAN# 22-0083156-00
INST# 23-0136479-00
ABAN# 23-0136480-00
PROJECT ID# 21-78790

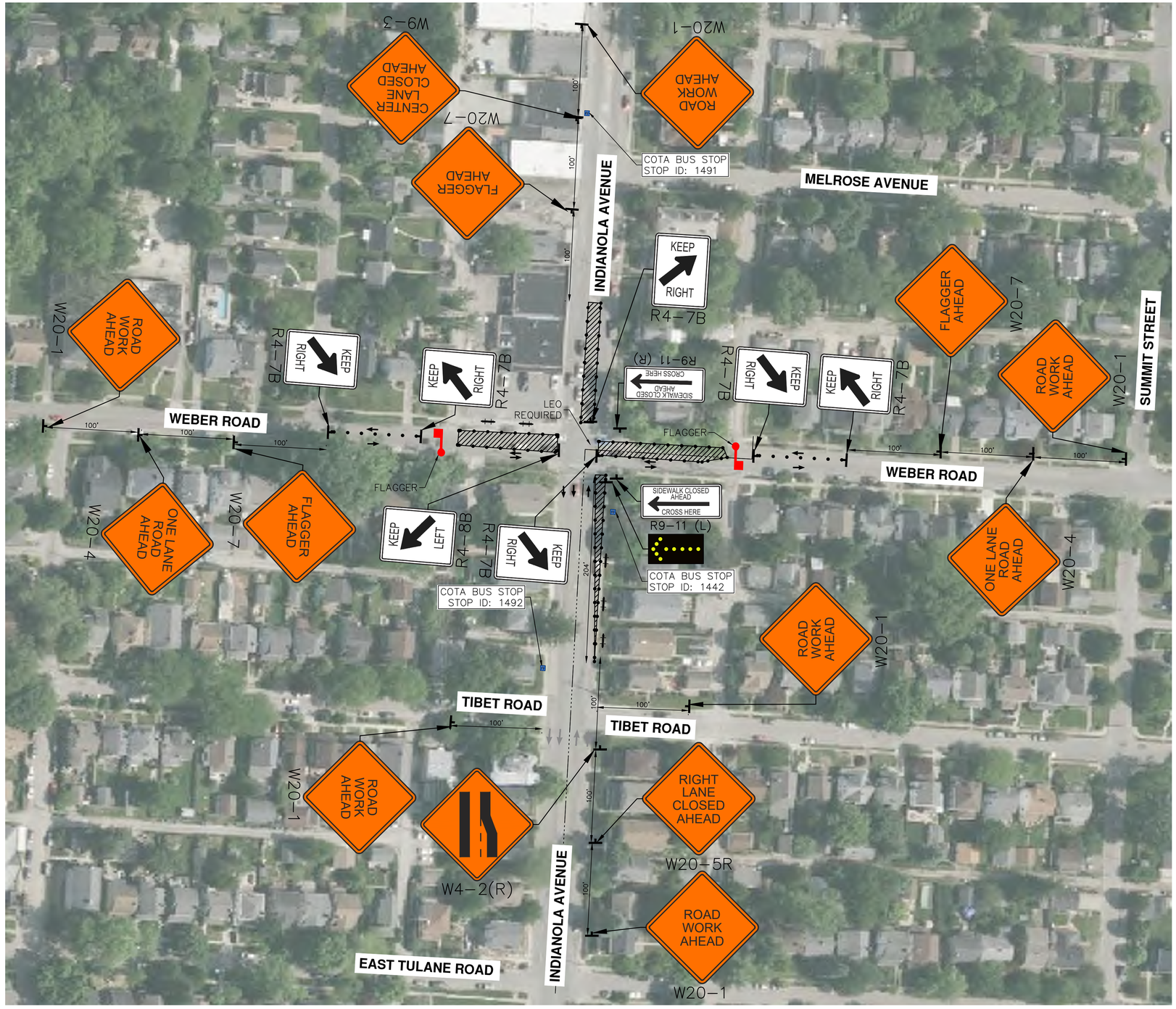
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

INDIANOLA AND WEBER
MAINTENACE OF TRAFFIC - PHASE 1

DRAWING NO:

MOT-1013A



N

NOTES:

AM HOURS: INBOUND TRAFFIC HEAVY, KEEP 2 LANES OPEN SOUTHBOUND
PM HOURS: OUTBOUND TRAFFIC HEAVY, KEEP 2 LANES OPEN NORTHBOUND

FLAGGERS WILL MONITOR BLOCKED DRIVES AND MAINTAIN ACCESS

LEGEND

- EXISTING TRAFFIC FLOW
- PROPOSED TRAFFIC FLOW
- PAVEMENT MARKING
- LIGHTED ARROW PANNEL
- TYPE III BARRICADE
- SIGN
- TRAFFIC BARREL
- TRAFFIC SHIFT
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PROPOSED

REVISIONS		
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ABAN# 22-0083156-00
INST# 23-0136479-00
ABAN# 23-0136480-00
PROJECT ID# 21-78790

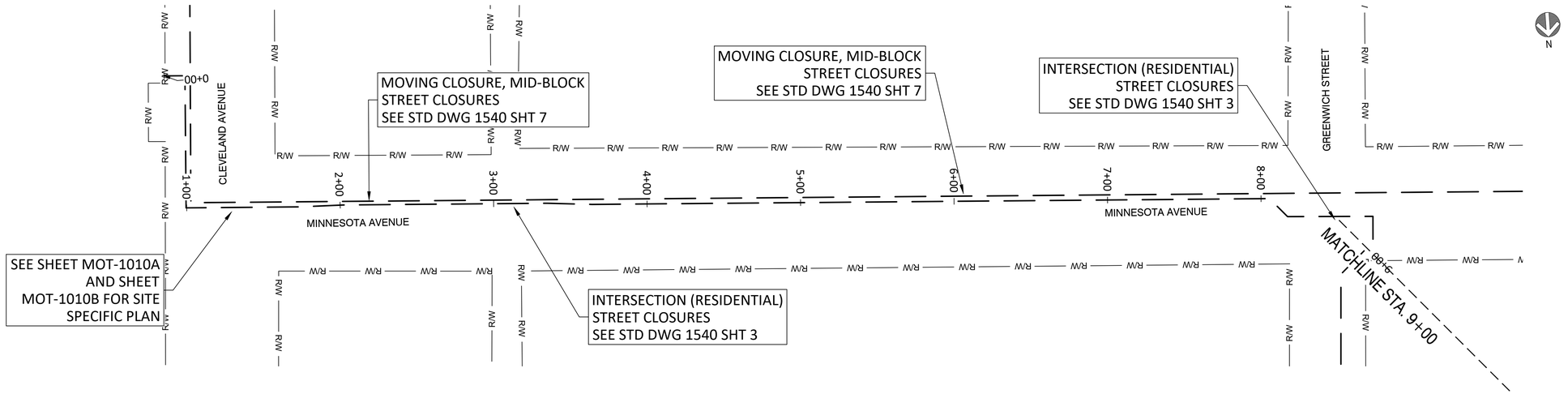
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

INDIANOLA AND WEBER
MAINTENACE OF TRAFFIC - PHASE 2

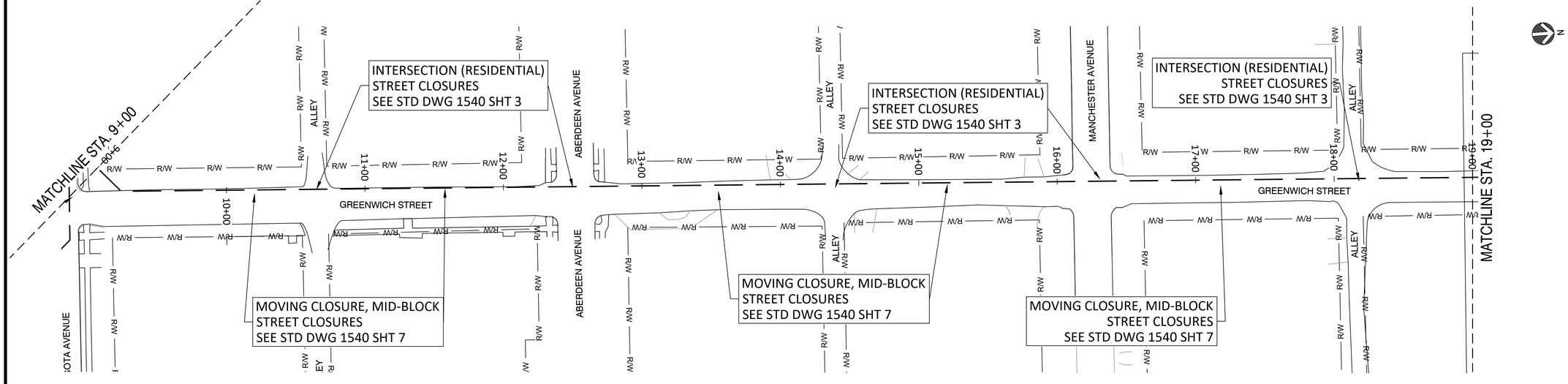
DRAWING NO:

MOT-1013B



8" & 12" CLEVELAND & WEBER LATERAL PROPOSED PLAN - STA. 0+00 TO STA. 9+00

SCALE: 1"=40'



8" CLEVELAND & WEBER LATERAL PROPOSED PLAN - STA. 9+00 TO STA. 19+00

SCALE: 1"=40'

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(380) 799-8503

PROPOSED

REVISIONS		
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INST# 23-0136479-00
ABAN# 23-0136480-00
PROJECT ID# 21-78790

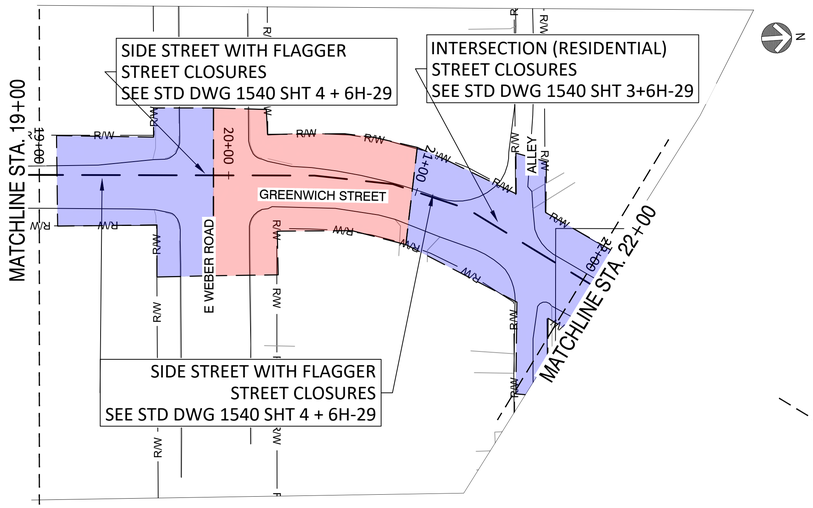
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

MAINTENANCE OF TRAFFIC
STA 0+00 to STA 19+00

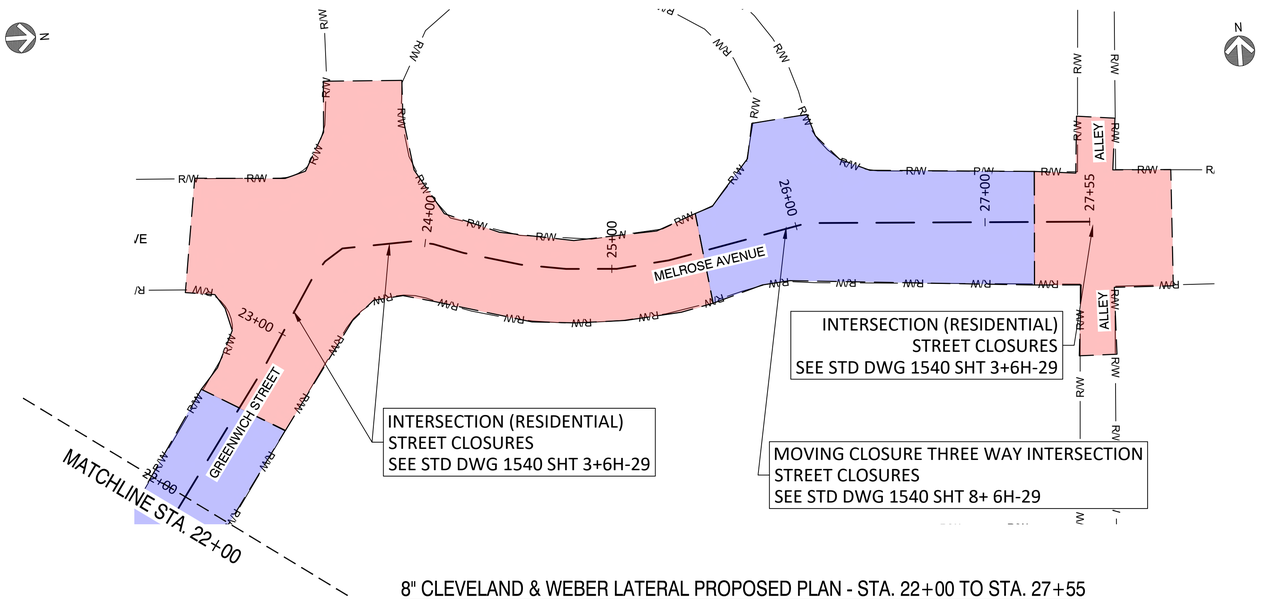
DRAWING NO:

MOT-1014



8" CLEVELAND & WEBER LATERAL PROPOSED PLAN - STA. 19+00 TO STA. 22+00

SCALE: 1"=40'



8" CLEVELAND & WEBER LATERAL PROPOSED PLAN - STA. 22+00 TO STA. 27+55

SCALE: 1"=40'

NOTES

WEBER ROAD– ONE LANE OPEN AT ALL TIMES

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(380) 799-8503

PROPOSED

REVISIONS		
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ABAN# 23-0136480-00
PROJECT ID# 21-78790

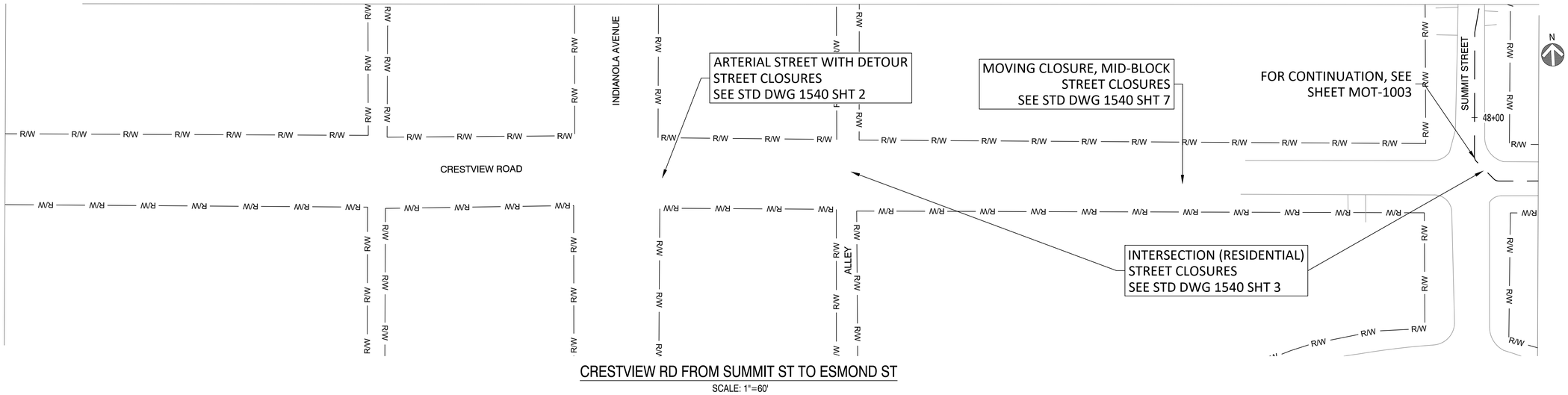
NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

MAINTENANCE OF TRAFFIC
STA 19+00 to STA 27+55

DRAWING NO:

MOT-1015



CRESTVIEW RD FROM SUMMIT ST TO ESMOND ST

SCALE: 1"=60'

NiSource

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401 N Front St, Suite 380, Columbus, OH 43215
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PROPOSED

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INST# 23-0136479-00
ABAN# 23-0136480-00
PROJECT ID# 21-78790

NCHP PIPELINE REPLACEMENT, CENTRAL COLUMBUS
COLUMBUS, FRANKLIN COUNTY, OH

DRAWING TITLE:

MAINTENANCE OF TRAFFIC
PULLBACK AREA

DRAWING NO:

MOT-1016