Underground Wireline Occupancy

RailPros Tracking # 8539

General Details

Applicant WO# - PO#:	PO#:	WO#:
RR Activity/File #:		
Project Name:	The Point: US36/37 under NSRR	
Estimated Start and End Date:	From 03/07/2022	To
New or Existing?	[X] New [ ] Existing Permit#	
Railroad(s):	Norfolk Southern Lake Division (Sandusky Subdivision), FRA Crossing 482030W, BR019283	
Summary of Proposed Work, etc.:	Install Six (6) @ 4" Multicell conduits inside of a trench in US Route 36/37 under the existing NSRR Railroad bridge BR019283. The Conduits will be installed empty to facilitate private utility installations in a single utility corridor. Each utility will permit their occupancy in these ducts separately, after the installation of this underground duct bank. The placement of these conduits was chosen to avoid current and future utilities, as well as adjacent roadway and property impacts. There will be no roadway markings, but manholes at each end will indicate their location.	

Specifications

Type of Proposed Installation:

- [ ] Transverse crossing only
- [ ] Longitudinal (parallel to tracks) occupancy only
- [ ] Longitudinal and transverse crossing(s)
- [X] Wire line in highway under railroad bridge
- [ ] Wire line on highway bridge over railroad

Type of Wire:

[ ] Cable TV [ ] Telephone [ ] Electric Power [ ] Fiber Optic

X	Other	Installed Empty

Gauge of wire:	
Total number of wires:	
Material of wire:	
Maximum circuit voltage:	
Total number of fibers or pairs in cable:	

All underground conduit applications shall include a conduit data sheet, plan, and profile view of the proposed facility. See the NSCE-4 for the required fom1at below is a suggested check-list for your plan development.

Conduit Data Sheet (next page)

Plan View of Crossing (see NSCE-8 Specification Plate II for sample)

- [X] All railroad tracks, including distance to any track switches or turnouts from proposed conduit
- [X] Indicates distance (in feet) to Norfolk Southern Milepost or grade crossing
- [X] Angle of crossing relative to railroad track(s)
- [X] Dimensioned property lines
- [ ] Location of conduit marker signs (preferably located at edge of property or right of way lines)
- [ ] Location of all existing railroad communications lines and all utility lines
- [ ] Location of any fiber-optic cables parallel to tracks
- [ ] Conduit casing pipe length
- [ ] If within highway limits or in the vicinity of a grade crossing, location and type of grade crossing traffic control devices (flashers, gates, etc.) and clearance from existing devices to proposed wire line
- [ ] Location of launching and receiving pits

Profile View of Crossing (see NSCE-8 Specification Plate III for sample)

- [X] All railroad tracks
- [X] Profile of ground above crossing

- [X] Dimensioned property lines
- [X] Theoretical railroad embankment lines
- [ ] Proposed location and elevations of launching and receiving pits
- [ ] Casing pipe length
- [X] Bottom of rail elevation
- [X] Depth of cover between bottom of rail and top of conduit or casing pipe
- [X] Location of and the minimum depth of cover from ground line to top of conduit or casing pipe on right of way (including ditches)

Conduit Data Sheet

(For Telecom and Power Conduits only,6" in diameter or less)

	CONDUIT
NOMINAL SIZE OF PIPE	4"
MATERIAL*	PVC
OUTSIDE DIAMETER	4.5"
INSIDE DIAMETER	4.026"
WALL THICKNESS - **must be at least 0.188"**	0.237"
TYPE OF COATING	N/A

*** STEEL conduits required at least 10' depth below base of rail**
HDPE conduits will be considered at least 15' depth below base of rail

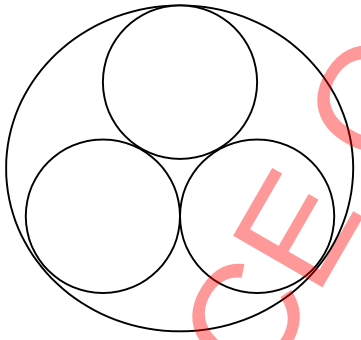
Proposed method of installation (refer to NSCE-4 Specification):

- [ ] Jack & Bore
- [ ] Directional Boring Method "A" – *must have at least 10' depth below base of rail*
- [ ] Directional Boring Method "B" – *only for casings 6 inches or less in diameter*
- [ ] Open Cut – *All installations directly under any track must be designed as a bored installation. Open cut installations will be considered on a case-by-case basis by Norfolk Southern's Division Superintendent at the time of installation.*
- [X] Other – Please Specify: Open Cut in public roadway under an existing bridge

MULTIPLE INNERDUCTS

NUMBER OF INNERDUCTS WITHIN CASING PIPE: 4 per Conduit (6 Conduits)

- Provide a detail or cross section of the casing pipe with innerducts (see below).
- Clearly mark the type of facility that will be installed within each innerduct. If innerduct will be left spare or empty, please identify as such.



Contact Info

Name	Legal Name	Contact Type	Mailing Address	Physical Address	Contact
Eric Dues	Gannett Fleming Engineers & Architects, P.C.	Consultant	2500 Corporate Exchange Dr, Ste 230 Columbus, Franklin, Ohio 43231	2500 Corporate Exchange Dr, Ste 230 Columbus, Franklin, Ohio 43231	
Thomas Homan	City of Delaware	Party to be Invoiced	1 South Sandusky Street Delaware, Delaware, Ohio 43015	1 South Sandusky Street Delaware, Delaware, Ohio 43015	(740) 203-1011
Thomas Homan	City of Delaware	Licensee/Facility Owner	1 South Sandusky Street Delaware, Delaware, Ohio 43015	1 South Sandusky Street Delaware, Delaware, Ohio 43015	(740) 203-1011

Location Details

Latitude: 40.2977239 **Longitude:** -83.0469113

Physical Address:

495 Sunbury Rd Delaware, OH 43015		MilePost:	23.79
		Line/Branch/Subdivision:	Sandusky
State:	Ohio	Station:	1256+50 To
County:	Delaware	Val Map:	V-18-0/189
City/Town/Village:	Delaware	NS Subsidiary RR/Shortline RR	
Zip:	43015		
Street Name:			
Division:	Lake		
Description:	US 36/37 Currently passes under the NSRR Railroad Bridge BR019283. . The Conduits will be installed empty to facilitate private utility installations in a single utility corridor.		
How site is marked?	When complete, manholes at either end of this utility duct bank will mark their locations (off NSRR property).		

Legal Description

Township:	Delaware	Tax Lot:	
Range:		Tax Map #:	
Section:		Quarter Section:	
Block #:		Subdivision Name:	
Description:			

Documents

Liability Insurance

You will be required to submit Certificates of Insurance before a license can be issued. You may upload them now or at the time of execution. If you chose to be covered under Norfolk Southern Master RPL please indicate. You will not be charged until a License has been issued.

- [ ] Yes, if approved please add this project to the NS Master RPL at the time of license issuance.
- [X] No, we secure a different policy.

Total estimated value of the project located on Norfolk Southern Property:
$150,001- $350,000

Project Duration on Norfolk Southern Property:
12 months or less

Title	Description	Document Type	Version #	Date Uploaded
Plan and Profile_10/14/2021 06:30:21 AM	Plan and Profile of proposed empty duct banks to be used by individual utility installations.	Plan and Profile	1	10/14/2021
Variance Request Letter	Variance request for the conduits passing under the existing railroad bridge.	Other	1	10/14/2021

Fee Payment

Description	Amount
Application Submission Fee	$2000.00
Expedited Fee	$0.00
Fee Waived Amount	$0.00
Estimated Total Fee	$2000.00
Due Amount	$0.00
Paid Amount	$2000.00

Confirmation

*** Make sure you have reviewed the details. Upon submission, your application will be locked for editing and will be routed for processing.

Terms of use	Application Submitted By	Date/Time
[X] I agree to the terms of use	Eric Dues	10/14/21 9:03:48 AM

CADD Generated drawings and a variance request letter are provided.

Gannett Fleming
Engineers and Architects, P.C.
Excellence Delivered ***As Promised***

October 14, 2021

Norfolk Southern Permitting
Re: Variance Request for Multi-Cell Fiber Optic Ducts in US 36/37 Roadway under BR0019283

Permitting,
In anticipation of necessary utility installations, the City of Delaware is proposing to install six (6)-4" multi-cell ducts in a location identified as free from future roadway work and adjacent property impacts. This location is generally in the US 36/37 roadway, clear of current and planned utilities, with manhole access provided at each end (off of NSRR Right-Of-Way). As US 36/37 travels under NSRR Bridge BR0019283, the roadway installation will require a variance due to proximity to existing foundations.

The attached plans detail trench locations in relationship to detailed existing bridge foundations. The plan details of the existing bridge are known from project survey and existing NSRR bridge plans (datum adjusted). The bottom of trench is outside of a 1:1 line down from the bottom of existing pier footings, resulting in no encroachment into foundation strata. The existing foundations are spread footings on stiff "blue clay" per the existing as-built bridge plans, and the stiff clay layer is confirmed by our project borings. The conduits will be installed to manholes on either end (off NSRR property), from which location private utilities will pull their infrastructure through the innerducts.

The City of Delaware will pay for and manage the contract for the installation of the 6 multi-cell ducts; they will own and insure the ducts. The ducts will be installed empty, with each private utility acquiring NS permits and pulling their cables through as part of their installation process. The exact location of each utility within the conduit array will be identified along with each of the private utility permit applications; their applications are expected to begin after this permit is approved for construction.

Given the area available in the roadway along with the position of the proposed duct bank relative to the existing foundations and utilities, I would respectfully request a variance to allow this installation. A detailed roadway section at the bridge is attached for ease of reference (page 2/2 of this letter).

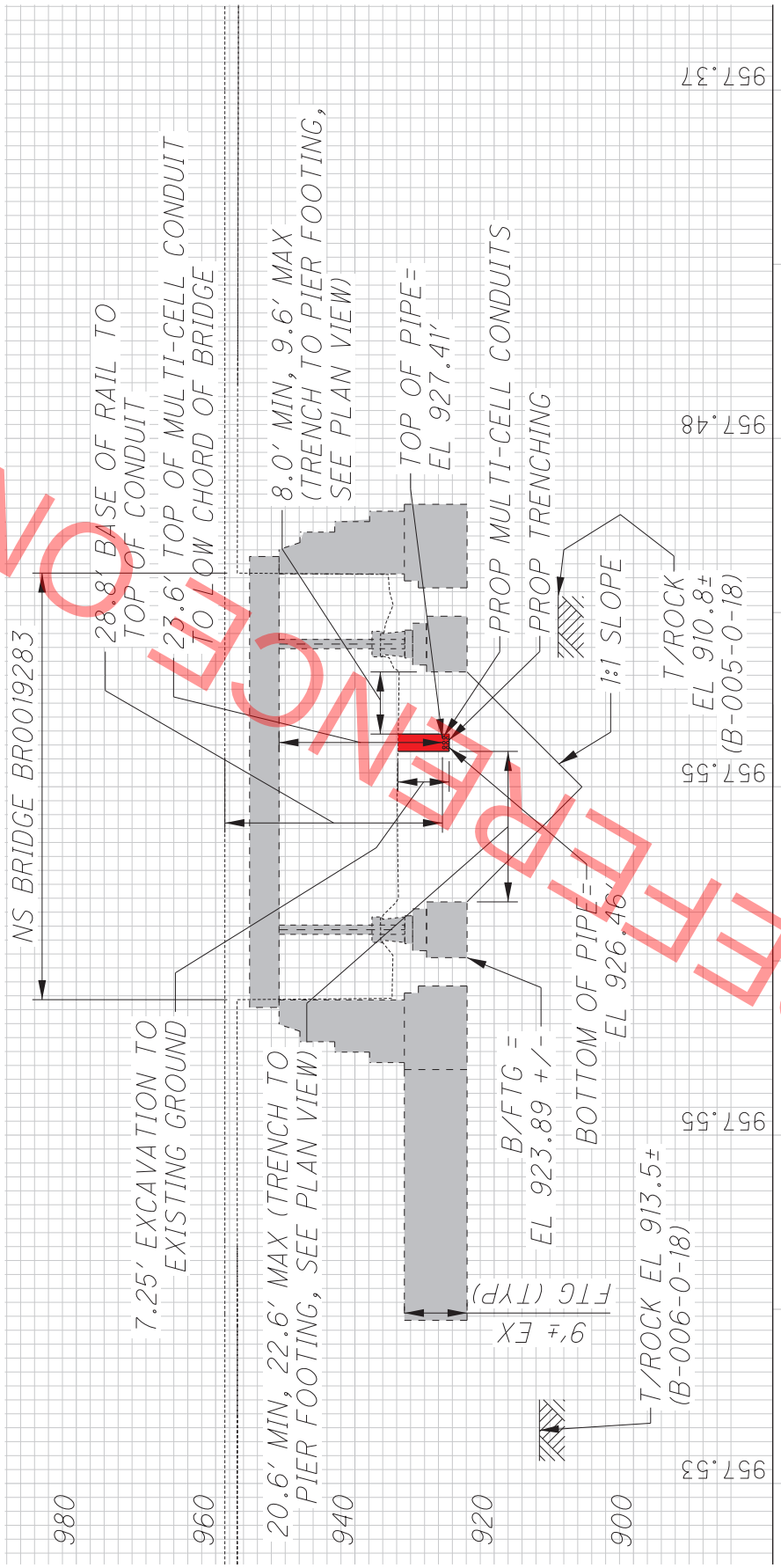
Feel free to call or email with any questions about this multi-cell installation.
My direct number is 513-304-8435, and email is edues@gfnet.com.

GANNETT FLEMING ENGINEERS AND ARCHITECTS, P.C.

Eric Dues, P.E., S.E.
Bridge Design and Railroad Coordinator

Suite 230 • 2500 Corporate Exchange Drive • Columbus, OH 43231
t: 614.794.9424 • f: 614.794.9442 www.**gannettfleming**.com

ROADWAY SECTION AT BRIDGE BR0019283



ALL WORK TO BE PERFORMED IN ACCORDANCE WITH THE LATEST APPROVED NORFOLK SOUTHERN NSCE-4 AND NSCE-8 SPECIFICATIONS.

BLASTING NOT PERMITTED

NOTE: AS-BUILTS WILL BE REQUIRED UPON COMPLETION OF CONSTRUCTION TO BE SENT VIA EMAIL TO NS.PERMITTING@RAILPROS.COM

FACILITY LOCATION:
STATE OF OHIO
DELAWARE COUNTY
CITY OF DELAWARE

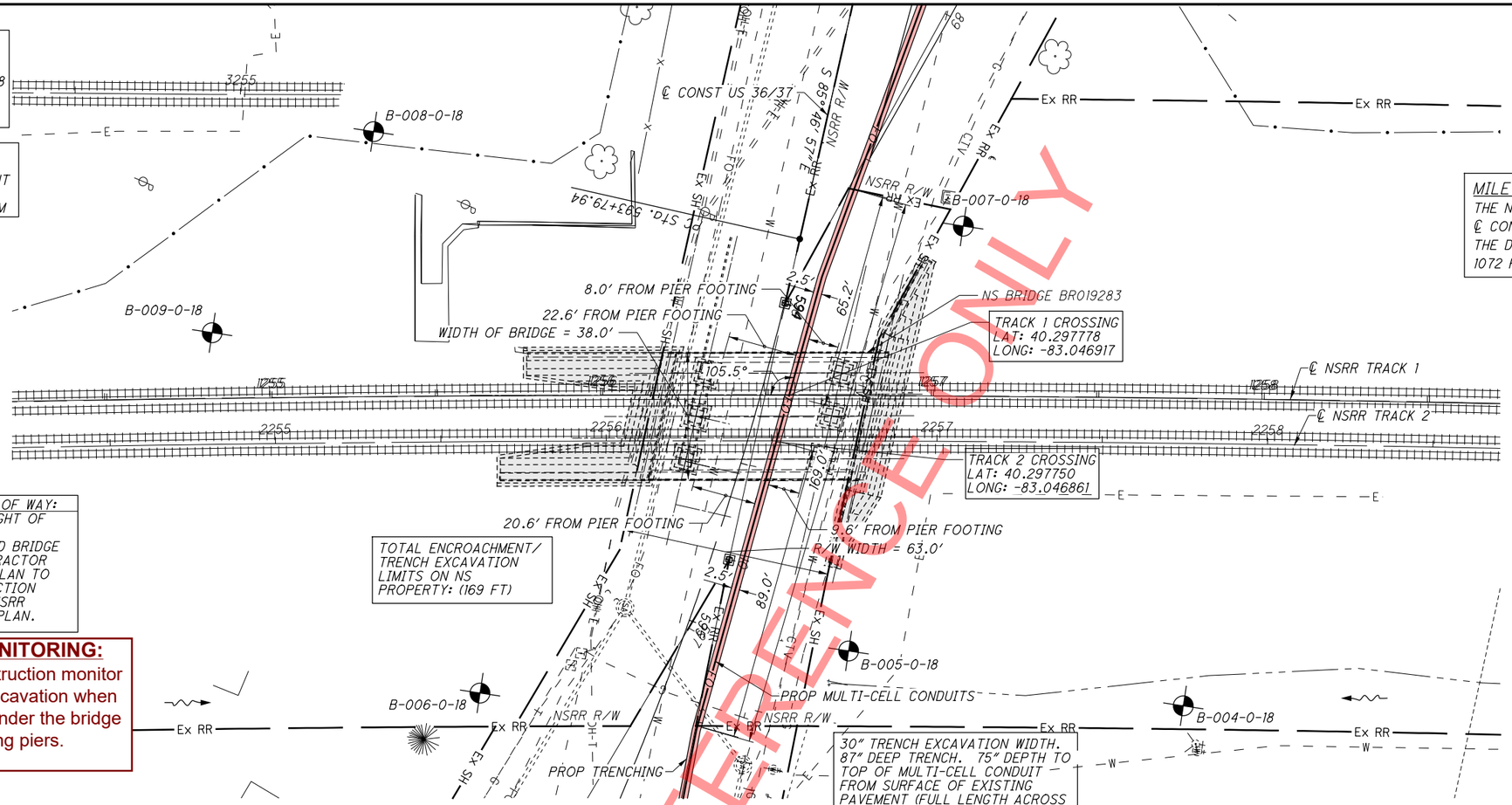
MILE POST NOTE
THE NS VALUATION TO ℄ TRACK 1 AT THE ℄ CONSTRUCTION IS STA 1256+47.66.
THE DISTANCE TO THE MILE POST S24 IS 1072 FT (0.2 MILES) TO THE NORTH.

NSRR VALUATION MAP:
SECTION: V-18-0
MAP NO.: 189

EXCAVATION ON NSRR RIGHT OF WAY:
EXCAVATION WITHIN NSRR RIGHT OF WAY WILL REQUIRE SHORING PROTECTION OF NS RAILROAD BRIDGE INFRASTRUCTURE. THE CONTRACTOR SHALL PROVIDE A SHORING PLAN TO NSRR FOR REVIEW. CONSTRUCTION CANNOT PROCEED WITHOUT NSRR APPROVAL OF THE SHORING PLAN.

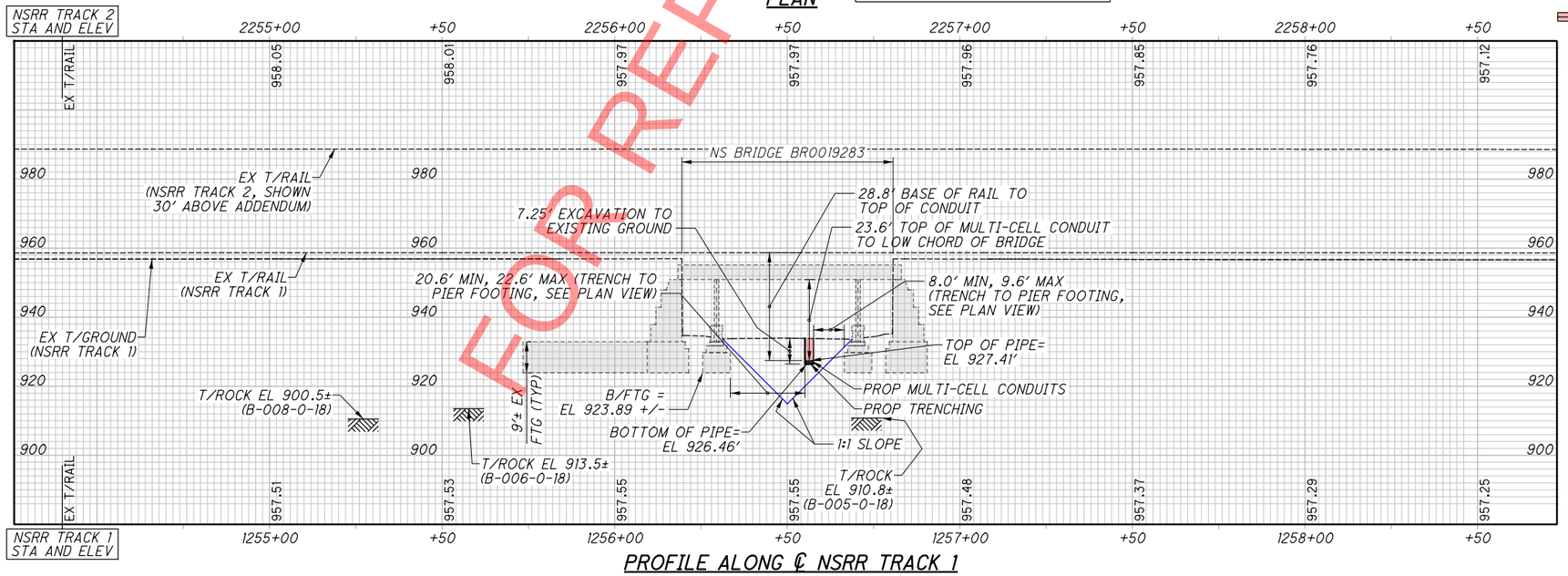
CONSTRUCTION MONITORING:
A Norfolk Southern construction monitor shall be on site during excavation when equipment is operating under the bridge or within 15 feet of existing piers.

TOTAL ENCROACHMENT/ TRENCH EXCAVATION LIMITS ON NS PROPERTY: (169 FT)



PLAN

LEGEND:
FO ℄ FIBER OPTIC TRENCH



PROFILE ALONG ℄ NSRR TRACK 1

PLAN AND PROFILE - NSRR TRACKS
STA 1254+50 TO STA 1258+50

FOC-CONDUIT

HORIZONTAL SCALE IN FEET

CALCULATED WWM
CHECKED AMB

1/3

ALL WORK TO BE PERFORMED IN ACCORDANCE WITH THE LATEST APPROVED NORFOLK SOUTHERN NSCE-4 AND NSCE-8 SPECIFICATIONS.

BLASTING NOT PERMITTED

FACILITY LOCATION:
STATE OF OHIO
DELAWARE COUNTY
CITY OF DELAWARE

85.0′ END OF CASING TO R/W

168.8′ TOTAL ENCROACHMENT AND R/W WIDTH/TRENCH EXCAVATION LIMITS ON NS PROPERTY

126.0′ END OF CASING TO R/W

65.2′ R/W TO CENTER OF TRACK 1

89.0′ R/W TO CENTER OF TRACK 2

Ex R/W

Ex RR

Ex SH

UT1

UT2

UT3

VG1

C1

+79.1, 24.4′ LT RIM ELEV 933.16

+61.7, 12.7′ LT

+87.5, 12.1′ LT

+25.0, 8.4′ LT

+75.0, 9.4′ LT

+28.9, 13.4′ LT

+56.8, 19.0′ LT

+79.8, 25.8′ LT

+10.9, 38.4′ LT TRENCH TO ELEV 929.29

+15.1, 42.1′ LT

+16.2, 39.9′ LT

+30.8, 50.6′ LT TRENCH TO ELEV 931.65

+47.0, 65.5′ LT RIM ELEV

31.4′

34.0′

44.0′

35.0′

105.5°

9.62′

54.1′

S 85° 46′ 57″ E

30″ TRENCH/EXCAVATION WIDTH/MULTI-CELL CONDUIT WIDTH

TRACK 2 CROSSING
LAT: 40.297750
LONG: -83.046861

TRACK 1 CROSSING
LAT: 40.297778
LONG: -83.046917

NS BRIDGE BR0019283

PT Sta. 593+79.94

PT Sta. 596+33.36

NS TRACK 2

NS TRACK 1

LEGEND:

- PULLBOX
- FO TRENCHING
- SEEDING AND MULCHING

167.2′ ALONG US-36

84.3′ END OF CASING TO R/W

15.4′ TRACK ℄ TO R/W

23.7′ TRACK ℄ TO R/W

115.7′ END OF R/W TO CASING

EL 956.81′

NS BRIDGE BR0019283

NS R/W LINE

THEORETICAL EMBANKMENT

1:1 SLOPE

7.25′ EXCAVATION TO EXISTING GROUND LINE

6′ FROM TOP OF CONDUIT TO EXISTING GROUND LINE

EX PROFILE

28.8′ FROM BASE OF RAIL TO TOP OF CONDUIT

23.6′ TOP OF CONDUIT TO LOW CHORD OF BRIDGE

PROP 48″ PULL BOX

PROP TRENCHING

PROP MULTI-CELL CONDUITS

EX 2″ COL GAS

EX 6″ COL GAS, LT

EX CABLE TV

EX 4″ W

EL 928.66′

EX 8″ SAN

EL 926.81′

EX 8″ SAN

EL B/FTG 923.89′ +/-

EX 6″ W

EX 6″ COL GAS, RT

EX 6″ COL GAS, TFO

EX ELEC

EX TELECOM

EL 927.29′

EX 8″ SAN

EX 8″ SAN, RT

EX 16″ W

EL 929.26′

EX 8″ SAN, LT

EX 4″ COL GAS, LT

EL 931.5′

EX 8″ W

EX GL

932.77

933.11

933.46

933.64

933.75

934.00

934.36

934.98

935.44

935.74

936.05

592+00

593+00

594+00

595+00

596+00

597+00

960

955

950

945

940

935

930

925

PLAN AND PROFILE - US-36
STA 592+00 TO STA 597+00

FOC-CONDUIT

CALCULATED WWM
CHECKED AMB

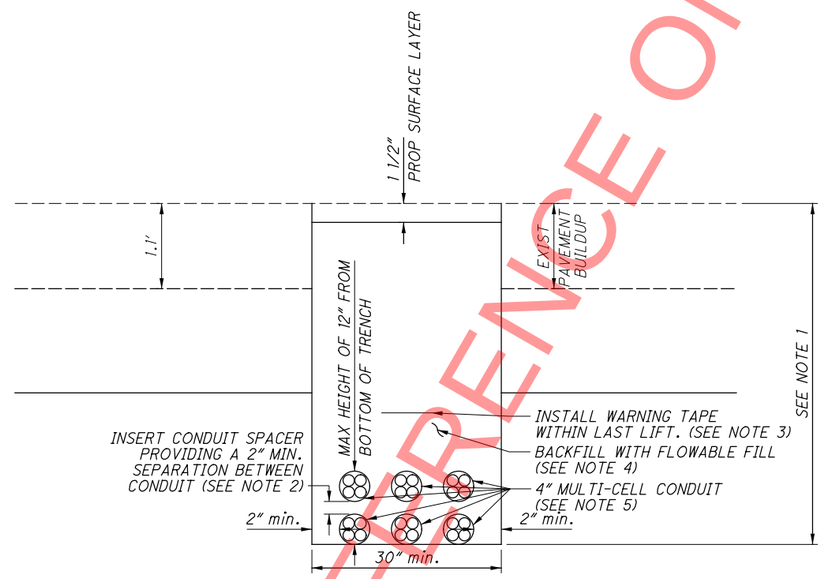
HORIZONTAL SCALE IN FEET
0 10 20 40

2
3

ALL WORK TO BE PERFORMED IN ACCORDANCE WITH THE LATEST APPROVED NORFOLK SOUTHERN NSCE-4 AND NSCE-8 SPECIFICATIONS.

BLASTING NOT PERMITTED

FACILITY LOCATION:
STATE OF OHIO
DELAWARE COUNTY
CITY OF DELAWARE



PROPOSED TYPICAL SECTION - US-36 STA 592+75.05 TO STA 596+47.00

NOTES:

1. TRENCH DEPTH SHALL BE:
   4.5' TO 7.25' FROM US-36 STA 592+75.1 TO STA 593+61.7

   ENTER NSRR R/W
   7.25' FROM US-36 STA 593+61.7 TO STA 595+28.9
   EXIT NSRR R/W

   7.25' TO 5.5' FROM US-36 STA 595+28.9 TO STA 596+10.9
   5.5' TO 3.75' FROM US-36 STA 596+10.9 TO STA 596+28.0.
   3.75' FROM US-36 STA 596+28.0 TO STA 596+47.0

2. PROVIDE HIGH IMPACT CONDUIT SPACERS AT MINIMUM 10' SPACING. SPACERS ARE CONSIDERED INCIDENTAL TO THE CONDUIT ITEM AND WILL NOT BE PAID FOR SEPARATELY.

3. INSTALL A MIN 6" WIDE, 5 MIL DETECTABLE ORANGE WARNING TAPE BELOW SURFACE, (INCIDENTAL) FOR THE ENTIRE LENGTH OF THE PROJECT.

4. BACKFILL SHALL CONFORM TO ITEM 625 - TRENCHING OVER PAVED AREA, AS PER PLAN:
   THIS ITEM SHALL COMPLY WITH ALL WORK AND STANDARDS PUT FORTH IN SECTION 625.13 OF ODOT CMS 2019. THIS ITEM WILL ALSO INCLUDE THE MATERIALS AND LABOR NEEDED FOR THE BACKFILL REQUIRED AFTER LAYING THE MULTI-CELL CONDUIT. THESE ITEMS INCLUDE ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 76-22M, ITEM 613 LOW STRENGTH MORTAR BACKFILL, AND ITEM 659 SEEDING AND MULCHING.

5. ONE MULTI-CELL CONDUIT SHALL BE DEDICATED TO EACH OF THE SIX TELECOMMUNICATIONS ENTITIES:
   -CONSOLIDATED COOPERATIVE / CITY OF DELAWARE (FIBER)
   -EVERSTREAM (FIBER)
   -FRONTIER COMMUNICATIONS (FIBER)
   -SPECTRUM (FIBER)
   -VERIZON COMMUNICATIONS (FIBER)
   -WIDE OPEN WEST (FIBER)
   IT WILL BE THE RESPONSIBILITY OF EACH TELECOMMUNICATIONS COMPANY TO INSTALL THEIR FIBER IN THE MULTI-CELL CONDUITS, OBTAIN A RAILROAD OCCUPANY PERMIT, AS WELL AS DETERMINING THE FIBER COUNT.

   4" MULTI-CELL CONDUIT:
   TYPE 40 PVC MULTI-CELL
   4.5" OD
   4.026" ID
   WALL THICKNESS = 0.237"
   4 INNERDUCTS PER 4.5" OD CASING PIPE

CALCULATED WWM
CHECKED AMB

PROPOSED TRENCH DETAIL

FOC-CONDUIT

3
3