

Exception Request No.: 100
Town: Bethlehem
Highway: NH 18/116 (Tier 3)
Section: ROCK
Station: 151+00 to 156+50
Drawing No.: ROCK C119
Survey Report Reference No.: ROCK C118 to C119
Exception Type: Alignment in Pavement
Splice Enclosure in Pavement

Traffic Information

NHS: No
ADT: 1181
Traffic Control Type: Alt 1-way
Traffic Control Duration: Traffic control duration is estimated to be 7 days for the proposed installation.

Summary of Justification for Exception

NPT is requesting an exception from the UAM guidelines for the location of the cable trench in the pavement on Highway 18/116, Franconia Road from station 151+00 to 151+25 and from station 153+25 to 156+50 of the NPT ROCK Underground Alignment. (See Exhibit A.) Due to limited ROW space outside the pavement and beyond the utility poles, construction outside the paved area is not practicable at this locations because NPT does not have the necessary property rights to construct outside the NHDOT ROW on private property.

It should be noted that we have moved the alignment out of the pavement between stations 151+25 to 153+25 (between the utility poles). In the original permit drawings, NPT proposed this entire alignment within the pavement. In response to NHDOT comments, NPT has reduced the overall length of the alignment within the paved area.

In addition, our exception request in this area includes a splice enclosure in the pavement at approximately station 156+50 of the NPT ROCK underground alignment section. The proposed location of the splice enclosure is set back 7' from the edge of ROW. The splice enclosure cannot be moved closer to the ROW limits because of the need for construction workspace.

Technical Discussion of Justification of Exception

Alignment in Pavement/Splice Enclosure in Pavement

The proposed alignment is within the roadway because of constraints posed by a narrow ROW and utility poles on the south side of Franconia Road. The existing overhead distribution line runs along the south side of the ROW. At this location, the poles are currently located either close to or at the edge of the ROW. Relocating the utility poles at this location would require the acquisition of additional rights for the installation of poles, guys, and/or anchors on private property outside the NHDOT ROW, and is therefore not feasible.

NPT evaluated placing the cable trench alignment on the north side of the road in this area, however the alignment must stay on the south side of the road to the west of this location to match up with a

horizontal direction drill alignment. Similarly, the alignment would be preferred on the south side of the road to the east to avoid crossing the interstate 93 south bound ramps. Moving the alignment to the north side of the road would require construction of two additional highway crossings. NPT submits that any benefits of moving to the opposite side of the road are negated by the additional traffic impacts and additional delays associated with the construction of the road crossings.

As noted above the alignment on the south side of the road at the splice enclosure location, (Station 156+50) is tied to the horizontal direction drill alignment to the west, included in the SHEB section (drawing SHEB C101). The proposed location of the splice enclosure is set back 7-feet from the ROW limit to allow for adequate construction work space and additional space for the installation of erosion controls at the ROW line. As a result, the proposed location of the splice location is partially within the pavement. See Exhibit B.

Excavation limits and work areas are shown on the attached drawings (Exhibits A and B). During construction, one lane will remain open to traffic at all times.

Impacts

Alignment in Pavement

The design, as proposed, will not adversely affect the design, construction, stability, traffic, safety, environmental commitments, maintenance, or operation of the highway. The alignment has been located 5-feet off the edge of utility poles to avoid future conflicts with pole repairs or replacement. The installation of the ductbank and pavement restoration will be designed and constructed in accordance with conditions outlined in the NHDOT's April 3, 2017 letter to the New Hampshire Site Evaluation Committee. The installation's proposed depth meets NHDOT's criteria relating to the structural box to minimize any potential conflicts with maintenance and future highway projects. A traffic control plan has been submitted to the NHDOT for this design and complies with the Manual on Uniform Traffic Control Devices.

Splice Enclosure in Pavement

The design, as proposed, will not adversely affect the design, construction, stability, traffic, safety, environmental commitments, maintenance, or operation of the highway. The proposed splice enclosure and ancillary enclosures will be of a minimum rating of HS-20, in accordance with NHDOT requirements. The installation of the enclosure and pavement restoration will be designed and constructed in accordance with conditions outlined in the NHDOT's April 3, 2017 letter to the New Hampshire Site Evaluation Committee. The installation's proposed depth meets NHDOT's criteria relating to the structural box to minimize any potential conflicts with maintenance and future highway projects.

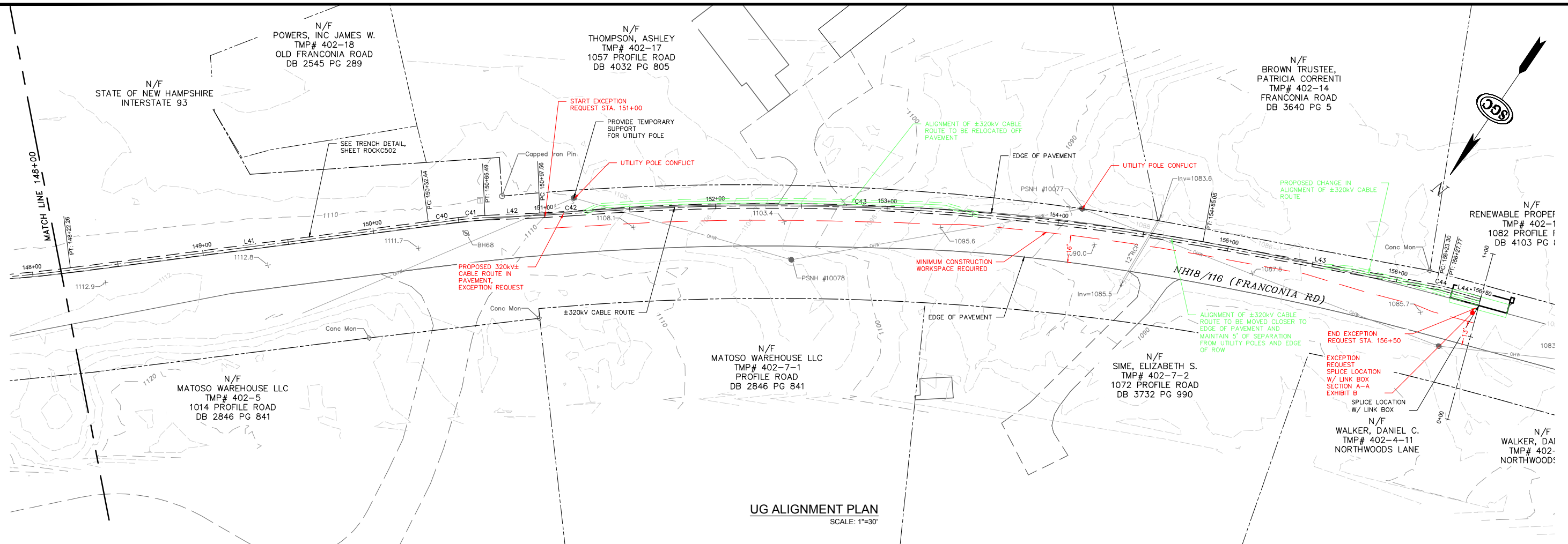
Supporting Documentation

Alignment in Pavement

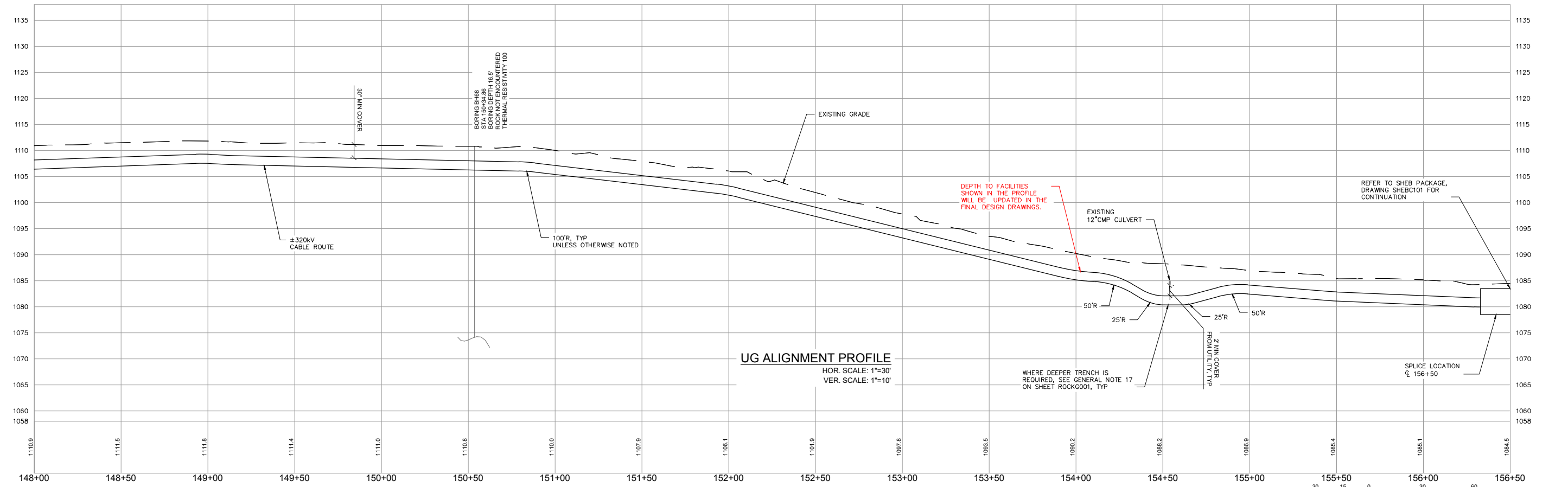
See attached Exhibits A and B showing a plan and section. Drawing SHEB C101 is included for reference.

Splice Enclosure in Pavement

See attached Exhibits A and B showing a plan and section. Drawing SHEB C101 is included for reference.



UG ALIGNMENT PLAN
SCALE: 1"=30'



UG ALIGNMENT PROFILE
HOR. SCALE: 1"=30'
VER. SCALE: 1"=10'



NO.	DATE	BY	CHKD	APPR.
0	05/24/17	DRN	CHD	APR

EXCEPTION REQUEST REVISION

SGC Engineering, LLC
a Lloyd's Register Company

PAR
ELECTRICAL CONTRACTORS, LLC

THE NORTHERN PASS

Transmission Business

EXCEPTION 101 - ALIGNMENT IN PAVEMENT & SPICE ENCLOSURE IN PAVEMENT
NPT ROCK-UNDERGROUND ALIGNMENT
ROCK SECTION- STA. 151+00 TO 156+50
SCALE: 1"=30'

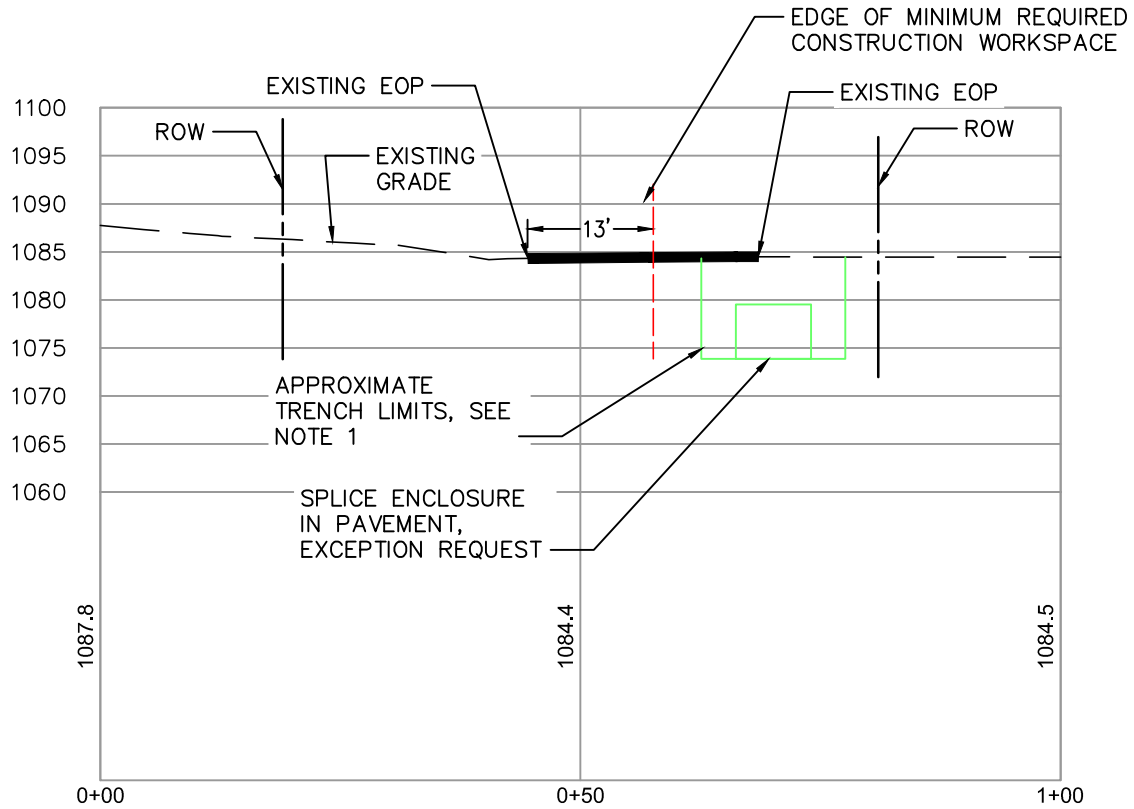
DATE: 05/20/17

DESIGN: MMR | DIRECTOR
DRAW: MRR | APPROVER

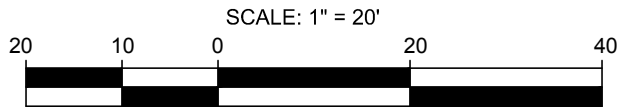
TOWN: BETHLEHEM

TRANSMISSION LINE:
ROCK

EXHIBIT A



SECTION A-A
SCALE: 1"=20'



NOTE:

- TRENCH WIDTH AS SHOWN TO BE MAINTAINED USING TRENCH BOX.

JOB NO.: 1384001

TITLE:
EXCEPTION 100 - ALIGNMENT IN PAVEMENT
& SPLICE ENCLOSURE IN PAVEMENT
NPT-ROCK UNDERGROUND ALIGNMENT
ROCK SECTION-STA 156+50±
TOWN: BETHLEHEM

PREPARED FOR:
NH DOT
7 HAZEN DRIVE
CONCORD, NH

REVISIONS:

NO.	DATE	EXCEPTION REQUEST
0	05/25/2017	



SGC ENGINEERING, LLC
 • Civil Design & Survey Engineering
 • Environmental & Regulatory Permitting
 • Electrical Power Systems Engineering

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 14 School Street, Suite 203-5 Bristol, VT 05443 Tel: 802-250-0200
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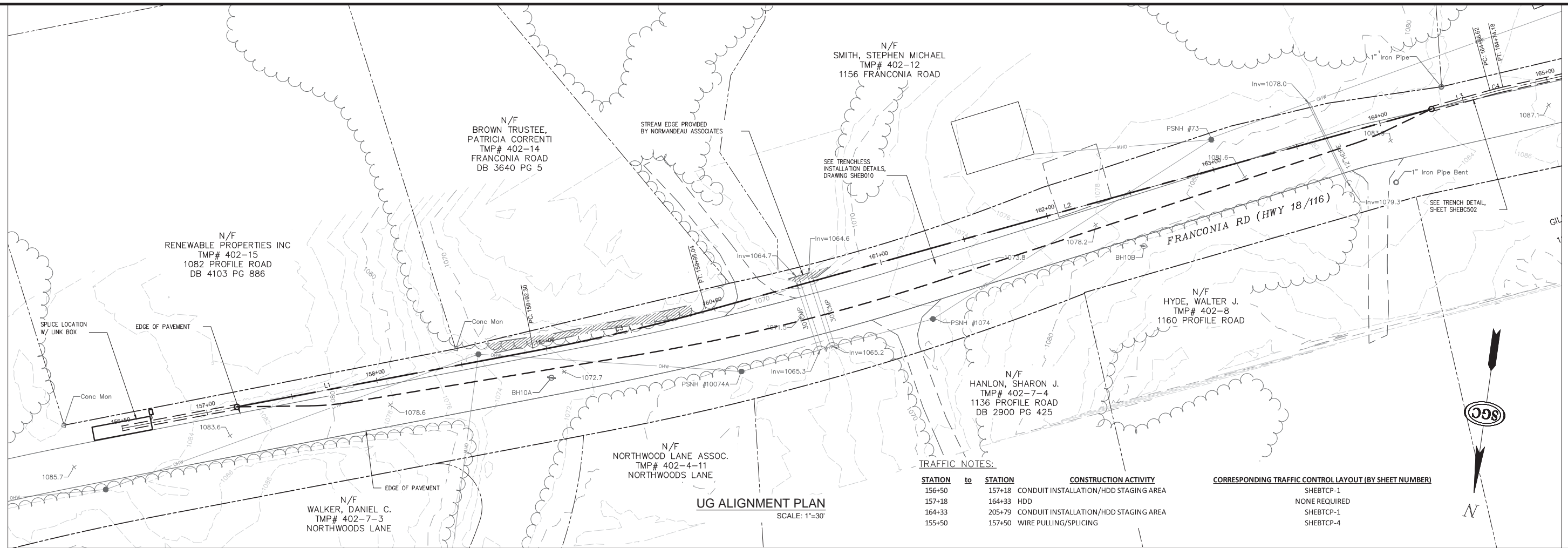
EXHIBIT NO.: B

DATE: 05/2017

DRAWN: CHP

SCALE: 1" = 20'

PRELIMINARY - NOT FOR CONSTRUCTION



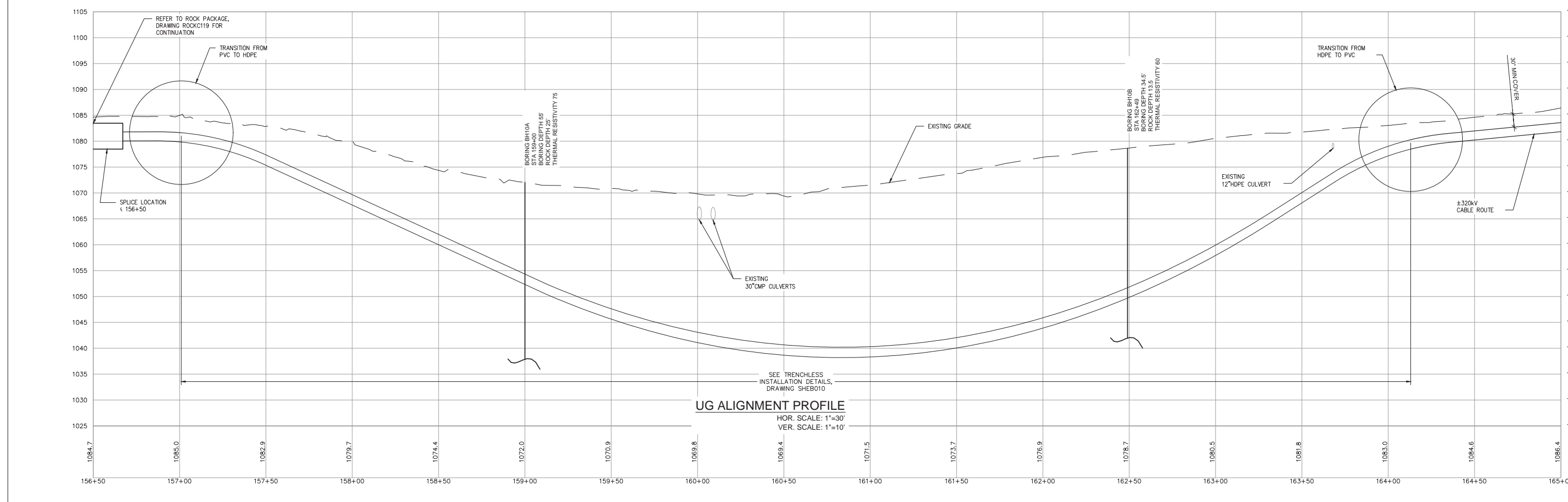
TRAFFIC NOTES:

STATION	to	STATION	CONSTRUCTION ACTIVITY
156+50		157+18	CONDUIT INSTALLATION/HDD STAGING AREA
157+18		164+33	HDD
164+33		205+79	CONDUIT INSTALLATION/HDD STAGING AREA
155+50		157+50	WIRE PULLING/SPLICING

CORRESPONDING TRAFFIC CONTROL LAYOUT (BY SHEET NUMBER)

SHEBTC-1
NONE REQUIRED
SHEBTC-1
SHEBTC-4

UG ALIGNMENT PLAN
SCALE: 1"=30'



UG ALIGNMENT PROFILE
HOR. SCALE: 1"=30'
VER. SCALE: 1"=10'

NO.	REVISION	DATE	DRWN	CHKD	APPRV.
A	ISSUED FOR REVIEW	11/18/16	TMH		
B	ISSUED FOR REVIEW - PAGE TURN	12/08/16	DGR		

SGC Engineering, LLC

 Transmission Business

NPT
 SHEB - UNDERGROUND ALIGNMENT
 STA 156+41 TO 164+00
 DATE: 12/09/2016
 SCALE: H: 1"=30', V: 1"=10'

DES: TDD
 CHK: MMR
 DRW: TDD
 APR: TMH
 TOWN: BETHLEHEM

TRANSMISSION LINE:
SHEB

SHEBC101