

Exception Request No.: 110
Section: SHEB
Town: Franconia
Highway: NH 116 (Tier 3)
Station: 298+20 to 311+50
Drawing No.: SHEB C117 to C119
Survey Report Cross Reference No.: SHEB C114 to C116
Exception Type: Alignment in Pavement
Highway Crossing

Traffic Information

NHS: No

ADT: No data available at gis.dot.nh.gov/nh-roads/

Traffic Control Type: Alt 1-way

Traffic Control Duration: Traffic control duration is estimated to be 14 days for the proposed installation, during which one lane will be closed. An additional 3-4 weeks of traffic control will be required to tie the duct bank into the microtunnel at 298+20 (see exception request 108).

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 NH 116 (Easton Road) from approximately station 298+20 to 311+50 of the NPT SHEB Underground Alignment. (See Exhibit A.)

Due to limited ROW space outside the pavement and beyond existing utility poles and drainage structures, construction outside the paved area is not possible because NPT does not have the necessary property rights to construct outside the NHDOT ROW on private property.

Technical Discussion of Justification of Exception

The proposed alignment is within the roadway on the west side of NH 116 (Easton Road) because of constraints posed by limited space within the ROW beyond the edge of pavement. From approximately 298+20 to 304+00 there is very little space between the edge of the ROW and the back of the sidewalk. In addition, there are catch basins located along the curb line at the front of the sidewalk further confining the space between the edge of pavement and the edge of the ROW. As a result, there is not sufficient space to construct the duct bank outside the pavement.

From 304+00 to 308+50 the ROW widens on the west side of the road. Between approximately 305+00 and 308+50, NPT has relocated the proposed alignment and the splice enclosure out of the pavement. NPT evaluated moving more of the alignment out of the pavement by relocating utility pole PSNH 1207 but determined it was not practicable. Moving this pole closer to the ROW would require additional guying into the road on the poles at either end of the adjustment. Moreover, there is a hydrant in this area that would conflict with moving the alignment out of the road.

From 308+50 to 311+00, the proposed alignment is in the pavement because relocating two utility poles to provide sufficient area to construct the duct bank off the roadway would require rights for the installation of guys and anchors on private property outside the NHDOT ROW.

At Station 298+20, the alignment is located to match up with the end of the microtunnel installation (see Exception Request 108). NPT evaluated relocating the alignment to the east side of NH 116 to avoid the highway crossing starting at 298+20. However, due to the narrow ROW on the east side from approximately 298+20 to 304+00, there was no space outside the pavement to relocate the splice enclosure. By moving the alignment to the west side, NPT was able to locate the splice enclosure at 305+00 outside of the pavement. Finally, a crossing would inevitably be needed at some point south of the microtunnel to meet the alignment on the west side south of this area. NPT submits that any benefits of keeping the alignment on the east side of the road are negated by the additional traffic impacts and additional delays associated with the construction of the splice enclosure within the pavement and the additional alignment that would be required in pavement on the east side of the road from 305+00 to 308+50.

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

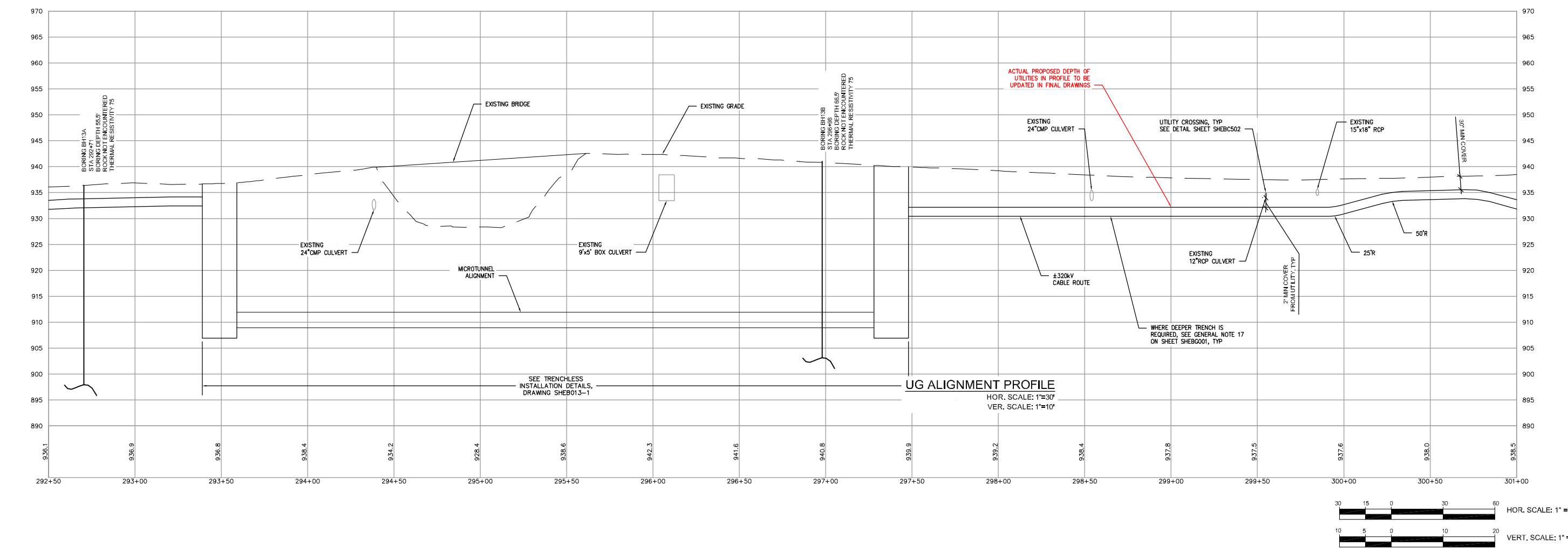
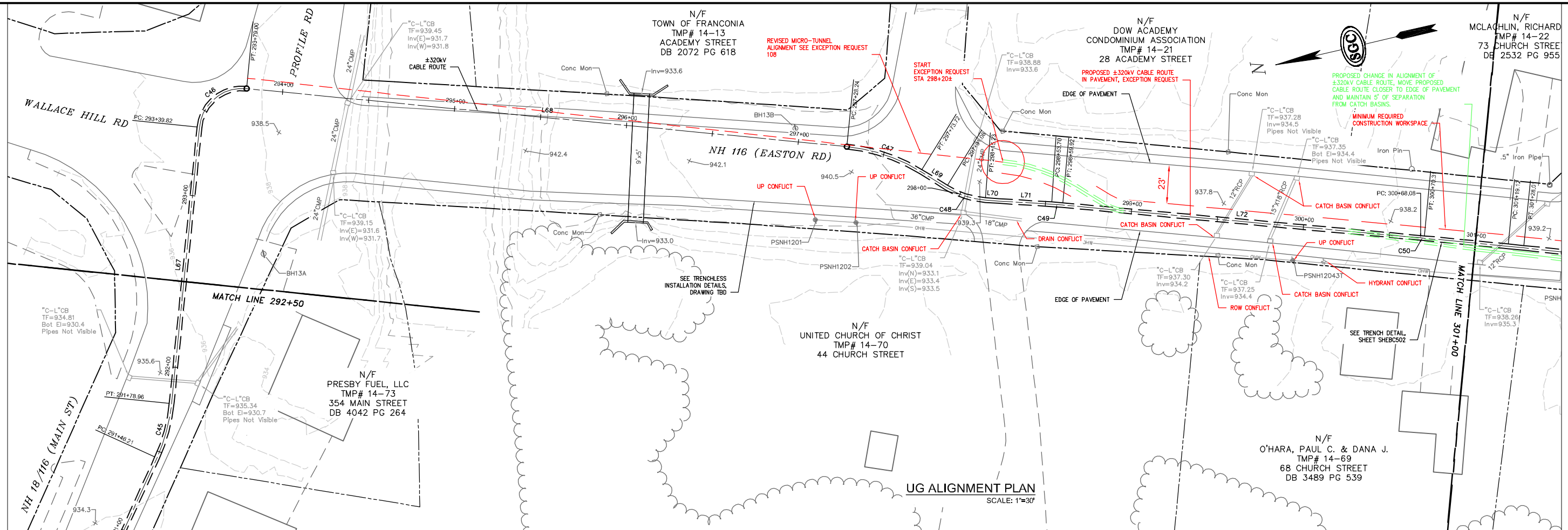
Impacts

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 the poles, to avoid future conflicts with repairs or replacement. The installation of the duct bank 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.

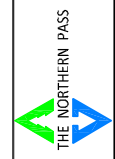
Supporting Documentation

See attached Exhibit A showing a plan and profile view of the proposed installation.

PRELIMINARY - NOT FOR CONSTRUCTION



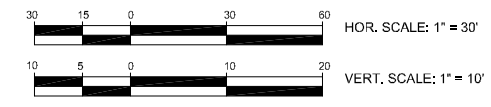
NO.	DATE	REVISION	BY	CHKD	APPRV.
0	06/15/17	ISSUE FOR PERMIT			

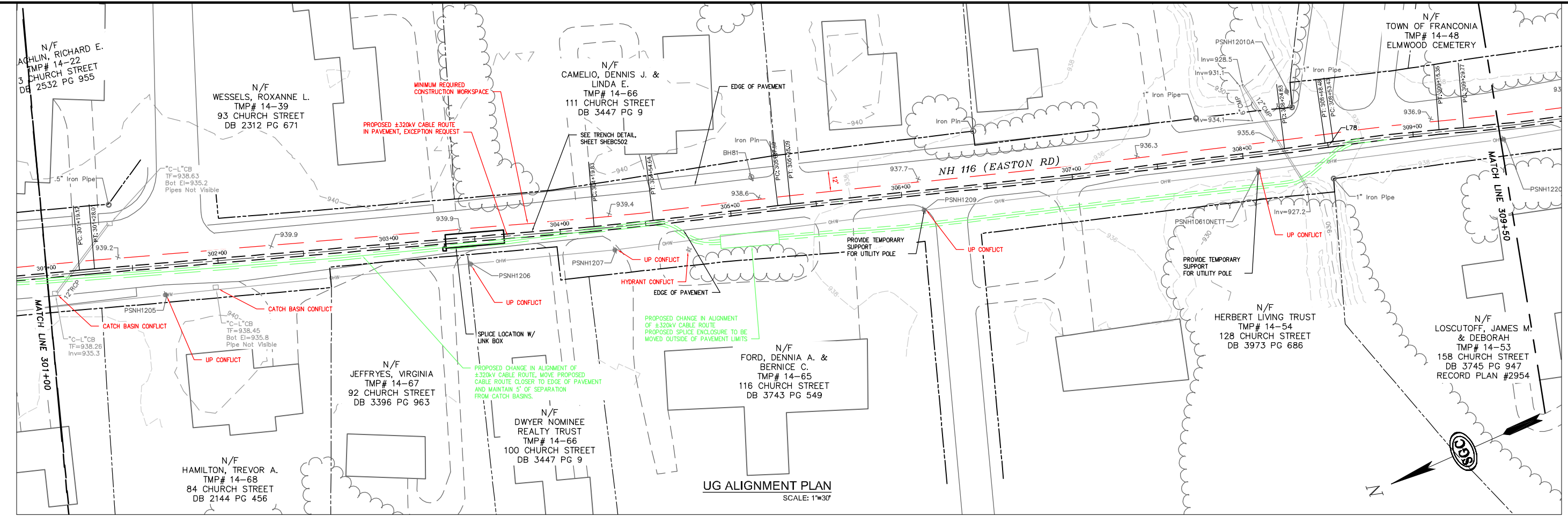


Transmission Business

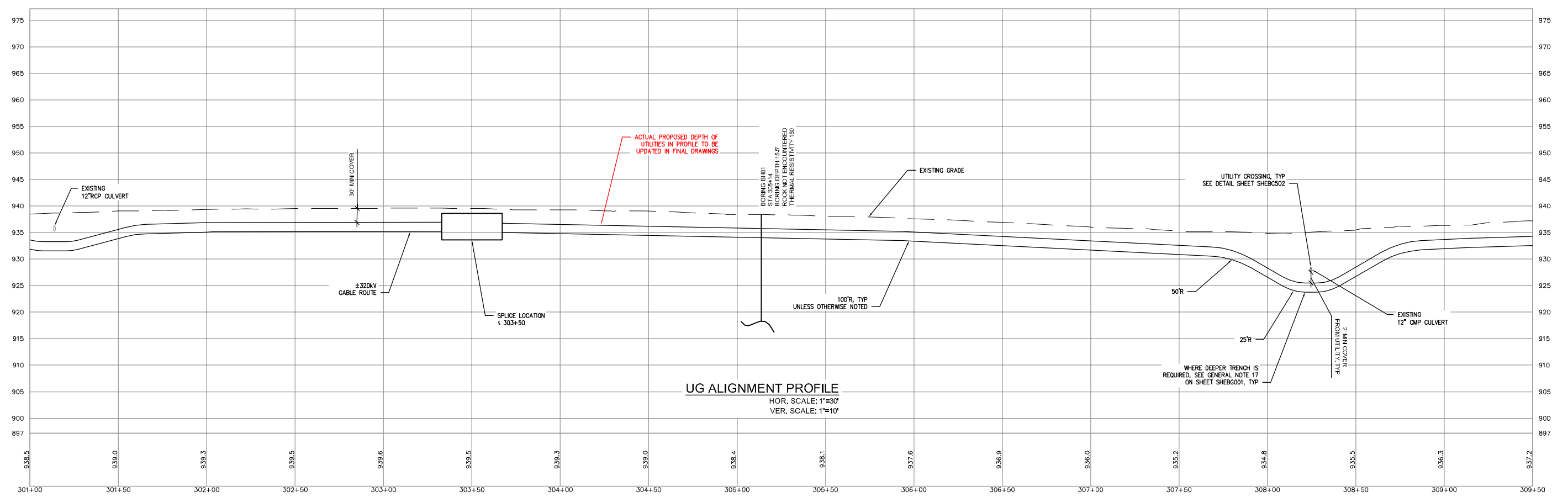
EXCEPTION 110-ALIGNMENT/SPACE ENCLOSURE IN PAVEMENT
NPT SHEB-UNDERGROUND ALIGNMENT
SHEB SECTION-STA 298+20 TO STA 311+50
SCALE:
DES: MRR (CHK:TD)
DRW: BCC (APR:TMH)
TOWN: FRANCONIA

TRANSMISSION LINE:
SHEB
EXHIBIT A.1

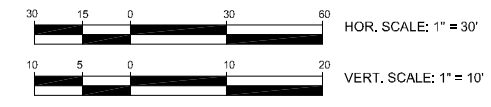




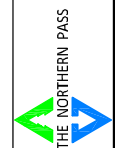
UG ALIGNMENT PLAN
SCALE: 1"=30'



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



NO.	REVISION	DATE	BY	CHKD.	APP'D.
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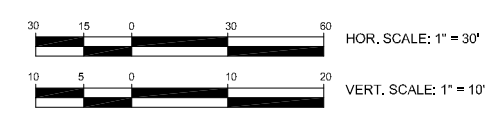
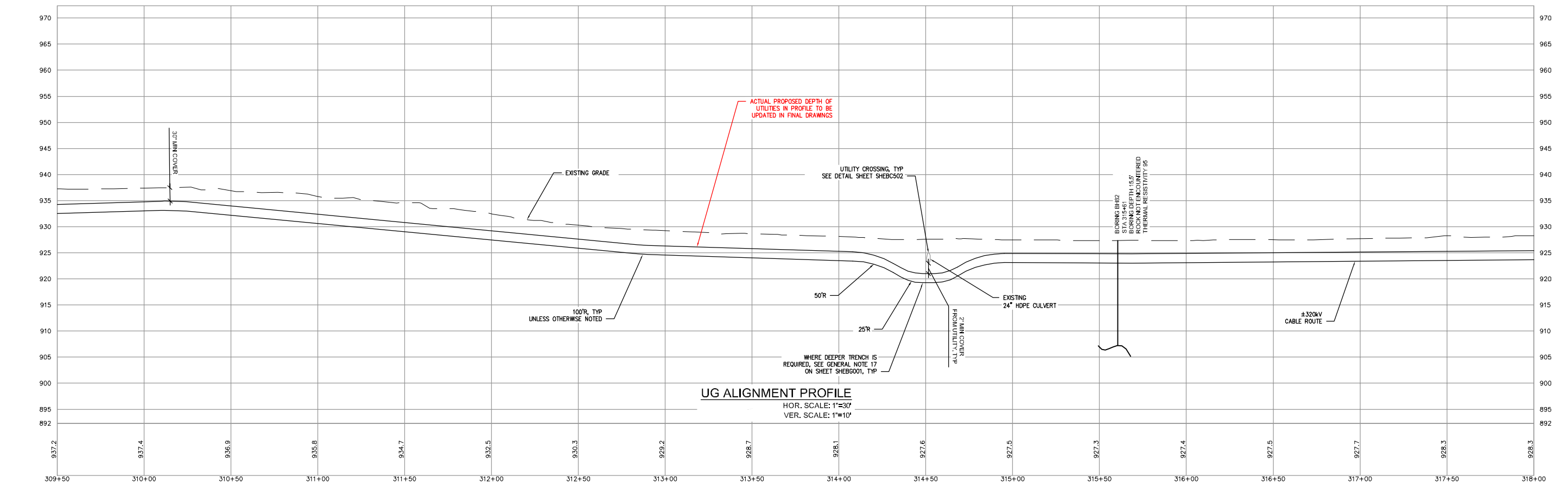
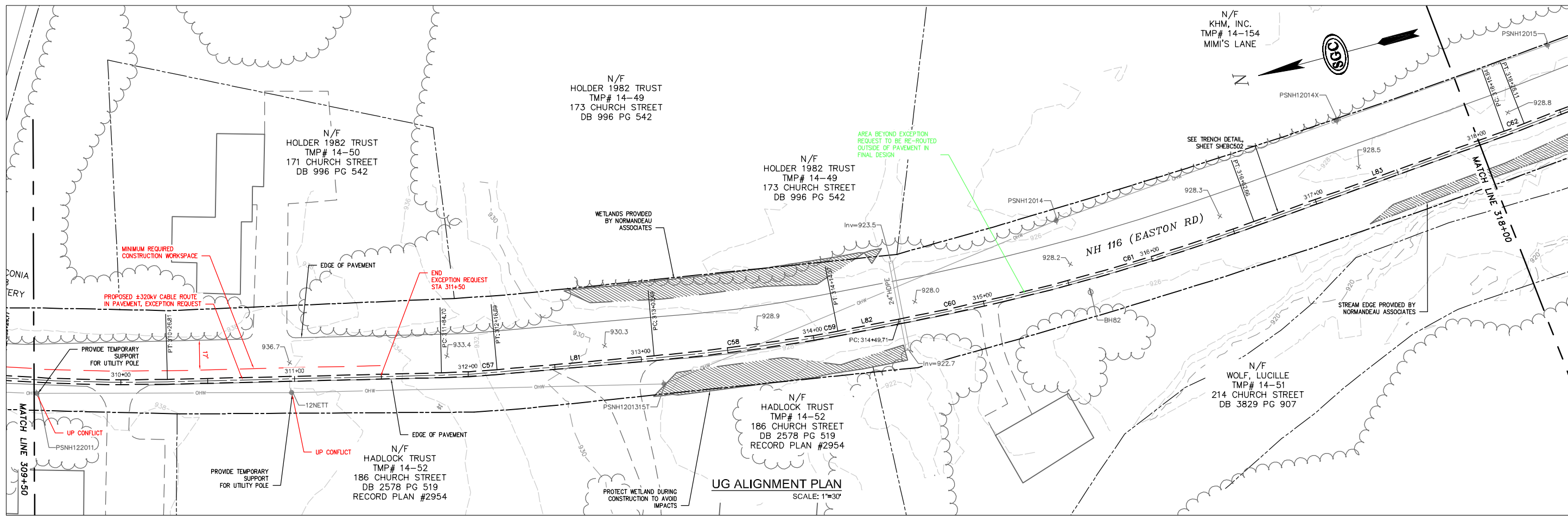


Transmission Business

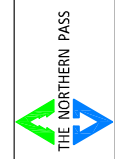
EXCEPTION 110-ALIGNMENT/SPICE ENCLOSURE IN PAVEMENT
NPT SHEB-UNDERGROUND ALIGNMENT
SHEB SECTION-STA. 298+20 TO STA. 311+50
SCALE:
DES: MRR CHK: TDD
DRW: BSC APR: TMH
TOWN: FRANCONIA

TRANSMISSION LINE:
SHEB

PRELIMINARY - NOT FOR CONSTRUCTION



NO.	REVISION	DATE	BY	CHKD	APPV.
0	EXCEPTION REQUEST	08/15/17	TDD	DRWN	CHD



Transmission Business

EXCEPTION 110-ALIGNMENT/SPACE ENCLOSURE IN PAVEMENT
 NPT SHEB-UNDERGROUND ALIGNMENT
 SHEB SECTION-STA 298+20 TO STA 311+50
 DATE: 05/2017

TRANSMISSION LINE:
SHEB
 EXHIBIT A.3