Trumbull Substation Project

Opening Statement
Connecticut Siting Council Docket 317
Evidentiary Hearing
December 5, 2006

The United Illuminating Company

Agenda

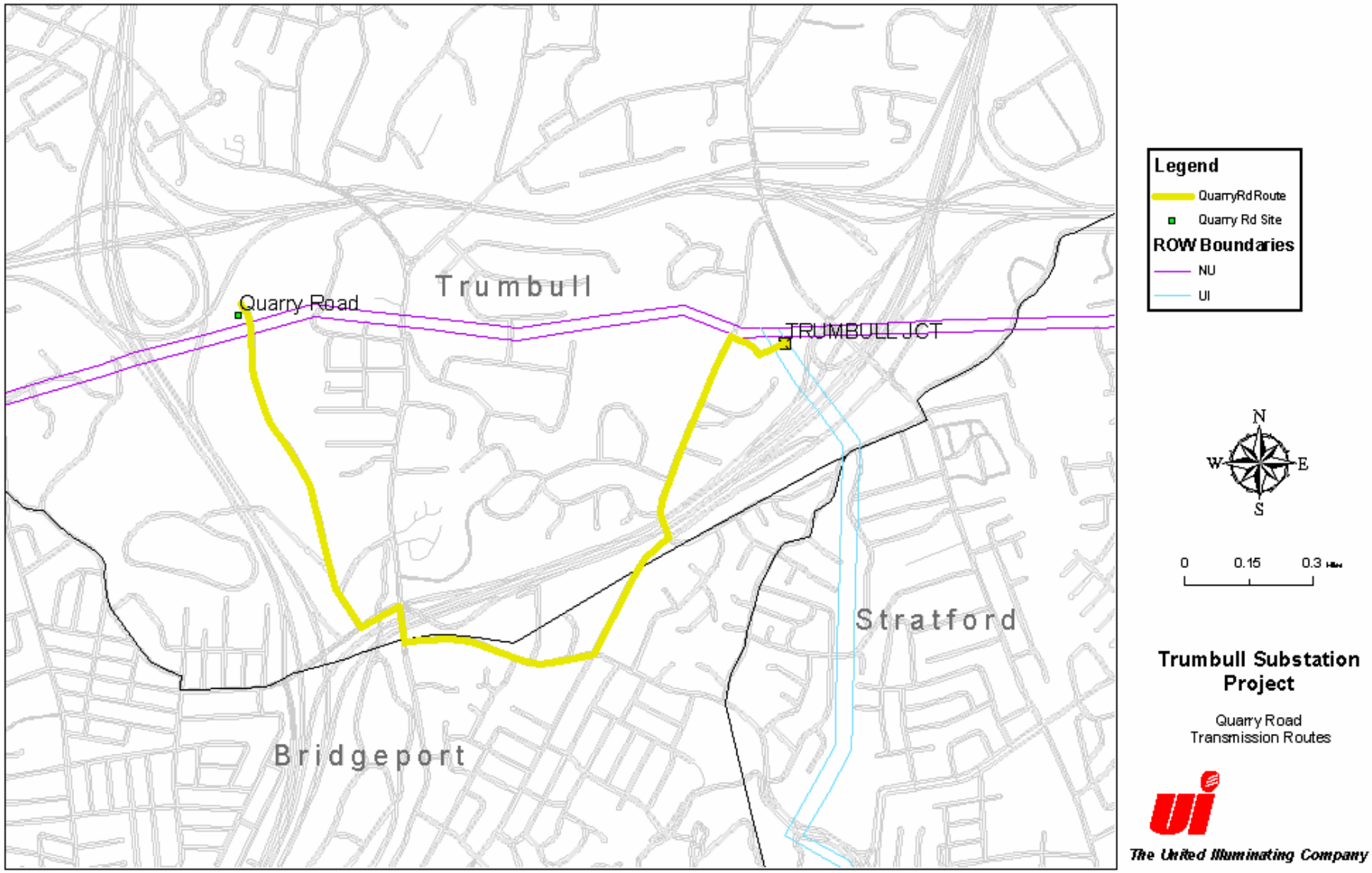
- Quarry Road Estimate
  - Distribution Capacity Benefit and Costs
  - Transmission Reliability Benefit and Costs
  - Alternative Comparison
- Limitations for moving the substation to the north
  - Magnetic field impact
  - Noise impact
- Potential and impacts of eliminating the substation entrances on Wildflower Lane

Distribution Capacity Benefits

- Provide 58 MVA of substation capacity in the greater Trumbull Region
  - Relieve the existing overloads at Old Town and Trap Falls Substations.
  - Provide capacity in the region to support future growth.

- Two Old Town circuits(2620, 2627)and two Trap Falls circuits (3545, 3547) were chosen to be fed from the proposed project because they were closest to the proposed site, and provided the needed load transfers.
- These same four circuits are also the closest in proximity to the Quarry Rd site.
  - The differential cost between feeding the Old Town circuits from the Quarry Rd and the Wildflower Lane site is minimal
  - The Trap Falls circuits require and additional 2.4 miles of distribution construction to arrive at a point common with the proposed project.
  - Future circuits routed in this northeasterly direction would also require this additional length adding cost and reliability exposure.

Distribution Route
Trap Falls Circuits



Distribution Costs

Equipment Summary

	Quarry Rd	Wildflower Lane
Ductline (ft)	5,800	2,100
Aerial Cable (ft)	24,200	9,500
Underground Cable (ft)	15,500	6,700
Pole Replacements (ea)	52	40

Cost Summary

	Quarry Rd	Wildflower Lane
Engineering and Project Management	$ 220,051	$ 134,487
Construction	$ 3,091,064	$ 938,492
Materials	$ 1,547,116	$ 599,334
Overheads	$ 860,692	$ 434,588
Total	$ 5,718,923	$ 2,106,901

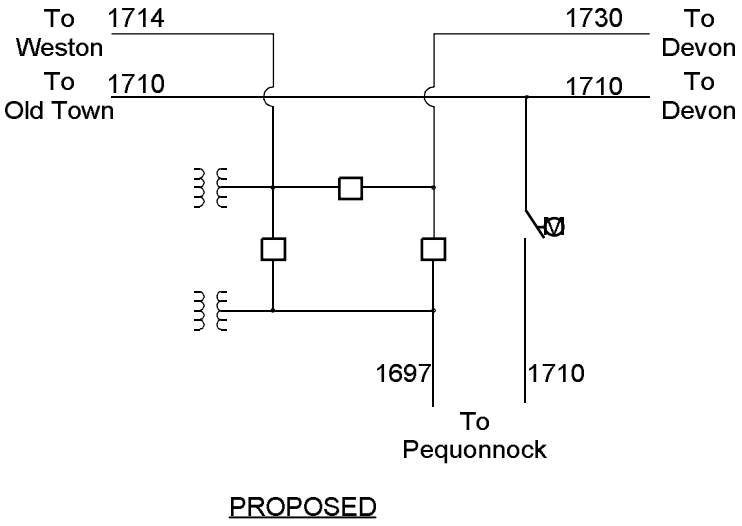
Distribution Differential Cost	$ 3,612,022

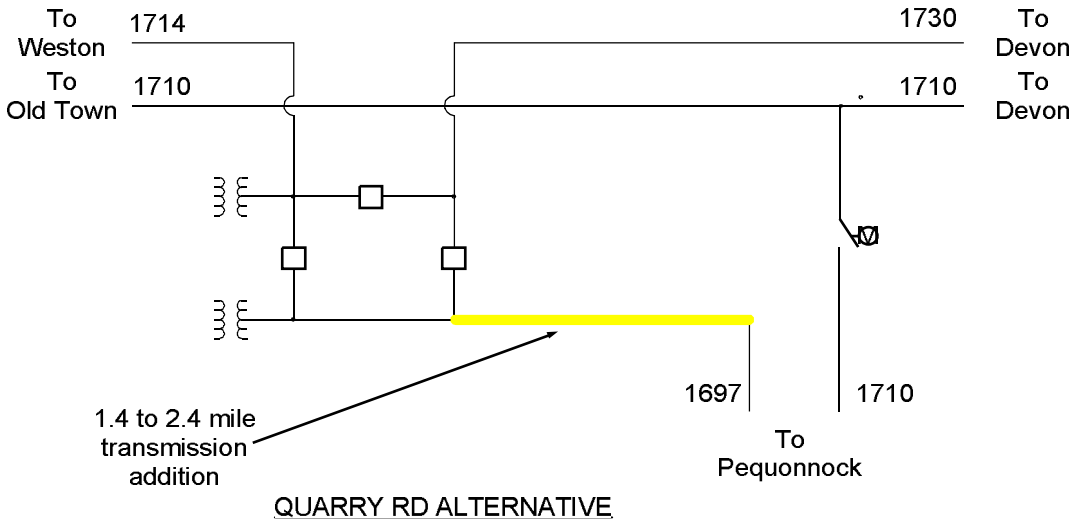
Differential Costs to Achieve Only Distribution Capacity Benefit at Quarry Rd Site over Wildflower Lane Site

Minimum differential costs to achieve distribution capacity benefit only at Quarry Rd site over Wildflower Lane site

Transmission (Substation Tap)	486,000
Distribution	3,612,022
Site Preparation	15,000
Land *	7,500,000
Total	11,613,022

Achieving the Transmission Reliability Benefit at Quarry Rd





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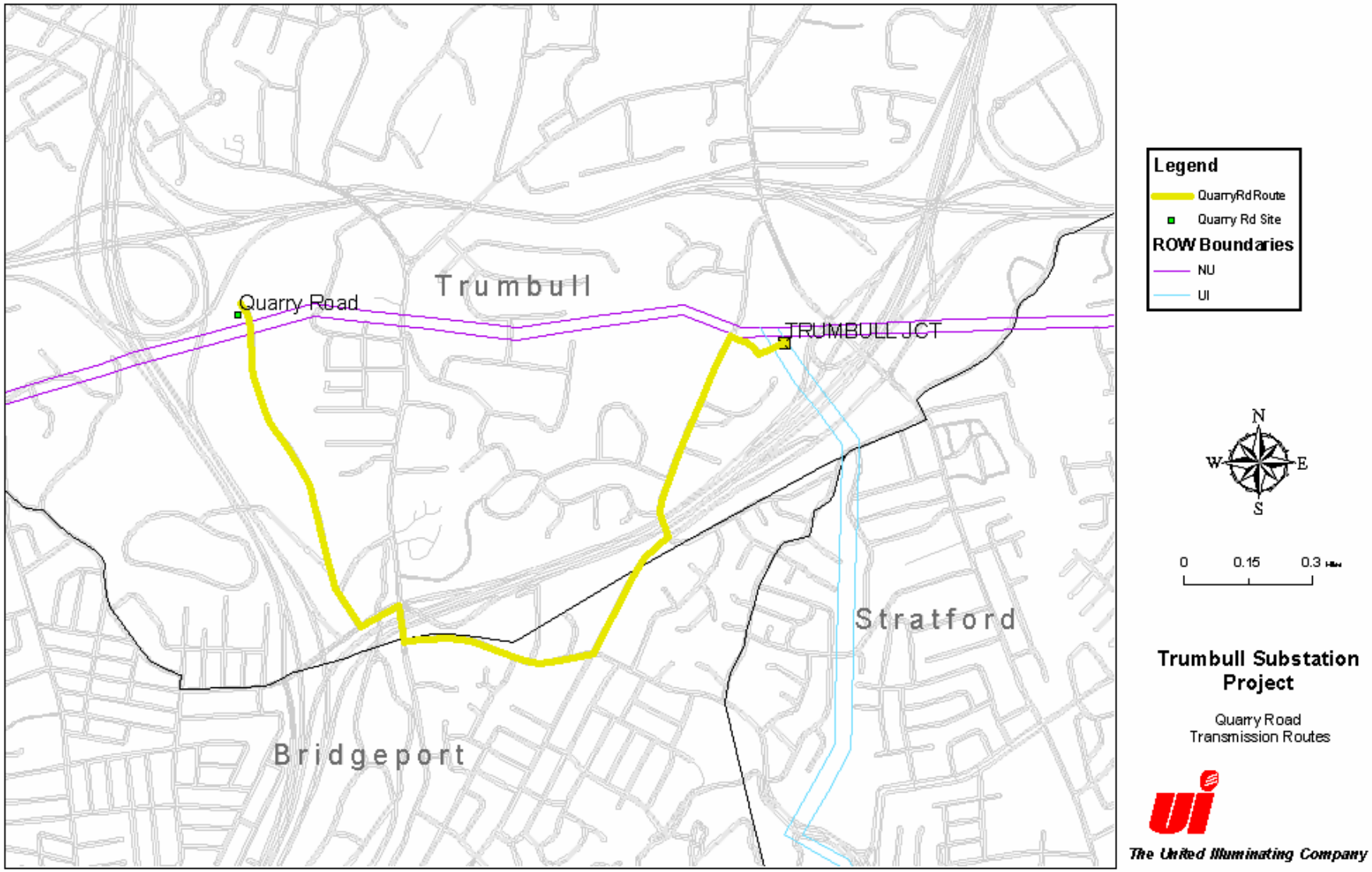
Wildflower Lane - Quarry Rd
Transmission Routes



Comparison Of Transmission Routes

Alternative	Cost	Negotiation with CL&P Necessary	ROW Acquisition Required
Overhead along CL&P ROW	$ 3.2 million	Yes	Yes
Underground along CL&P ROW	$ 17.7 million	Yes	Yes
Underground along public ROW	$ 23.7 million	No	No

Alternative Comparison

- Differential Cost to achieve the Distribution Capacity Benefit at the Quarry Rd Site is $ 11.6 million

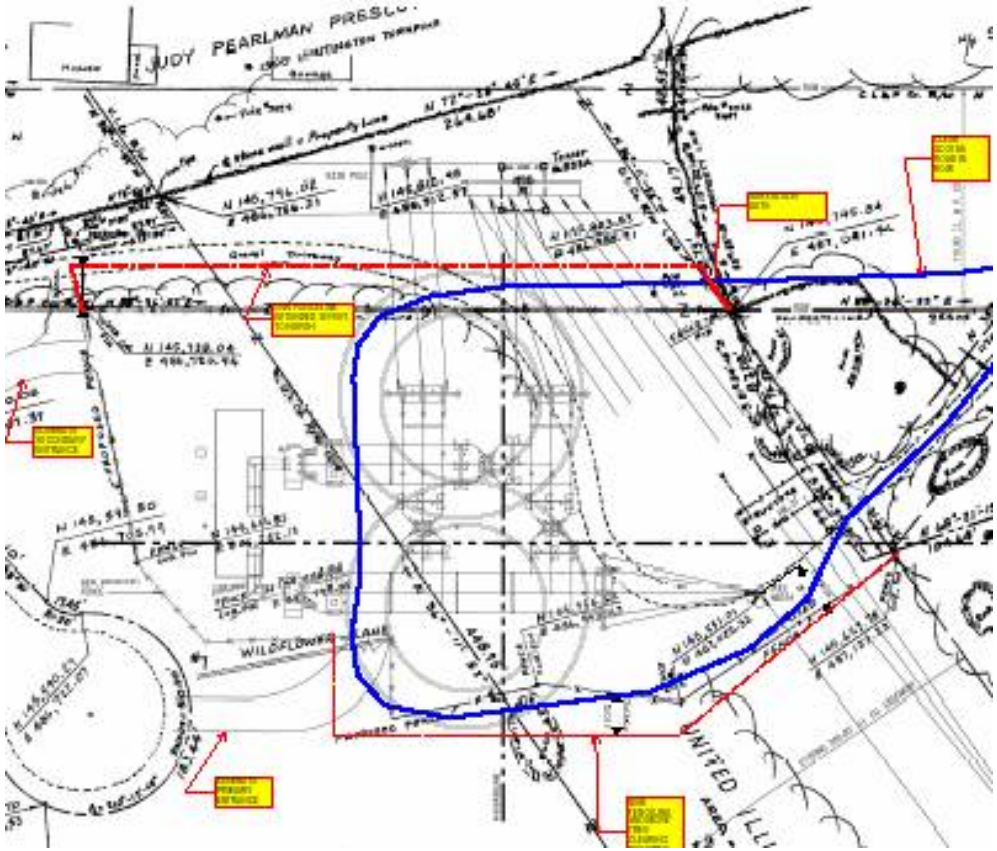
- Cost to achieve the Transmission Reliability Benefit at the Quarry Rd Site

Alternative	Cost
Overhead along CL&P ROW	$ 3.2 million
Underground along CL&P ROW	$ 17.7 million
Underground along public ROW	$ 23.7 million

- The total differential cost to achieve the same benefits of the proposed project at Quarry Rd are between $14.8 and $35.3 million

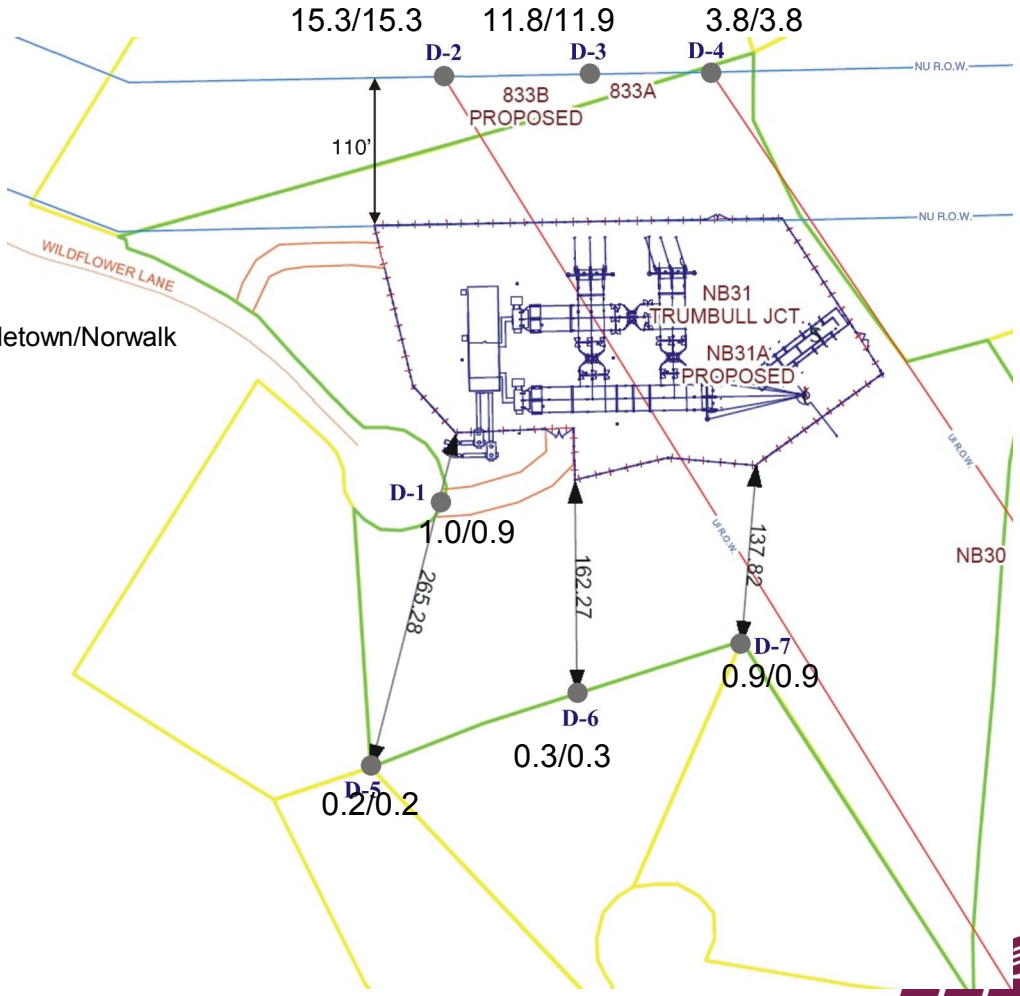
Maximum Distance Substation can be Moved to the North

- In order to maintain the necessary clearances for maintaining the existing transmission structures in the ROW, CL&P requests that moving the substation fence line to the north be limited to 20’.

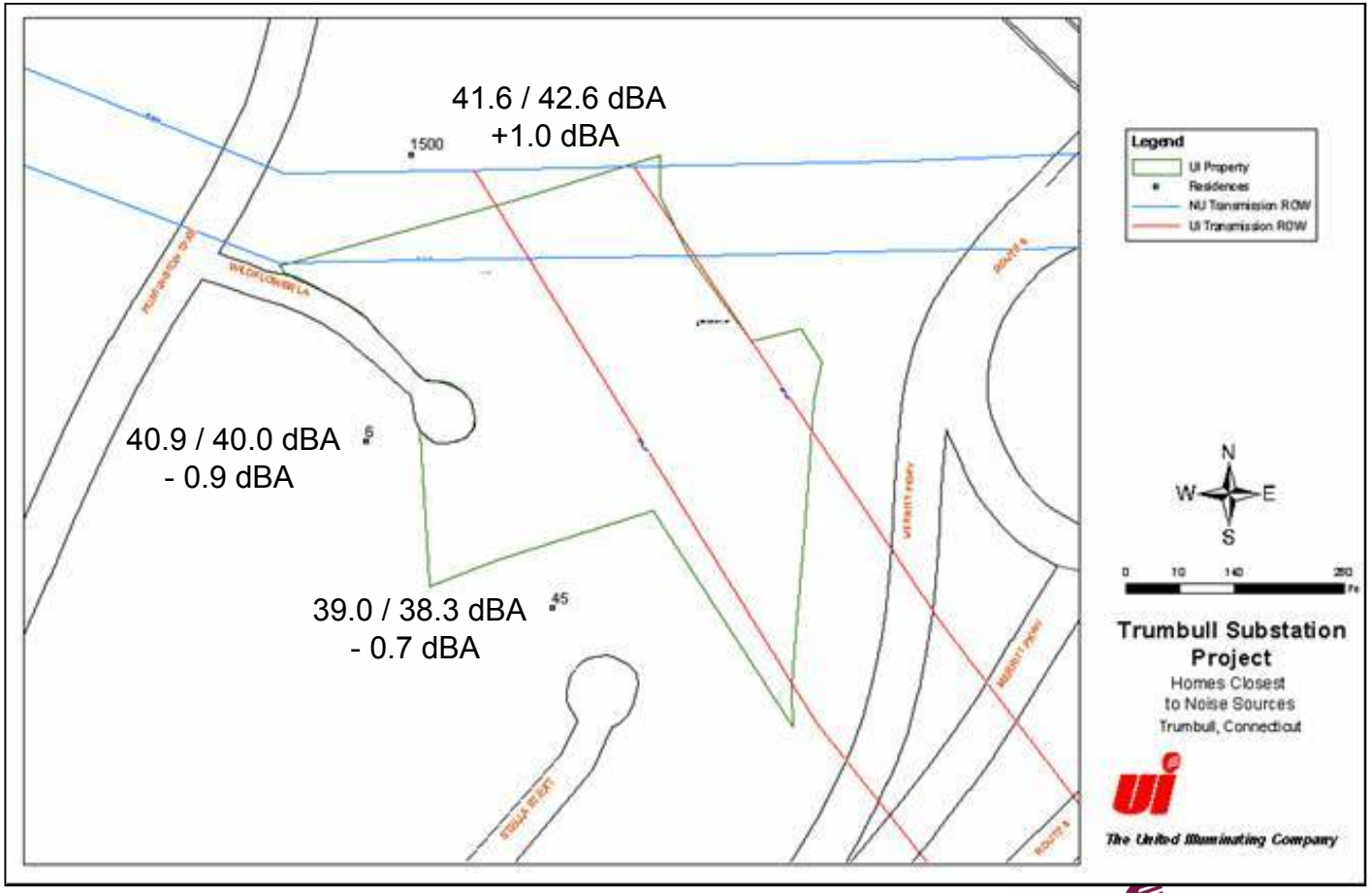


Impact of Moving the Substation 20’ North on Magnetic Fields

Case: Normal Load – After Middletown/Norwalk
Pre move / post move (mG)



Impact of Moving the Substation 20’ North on Noise Levels

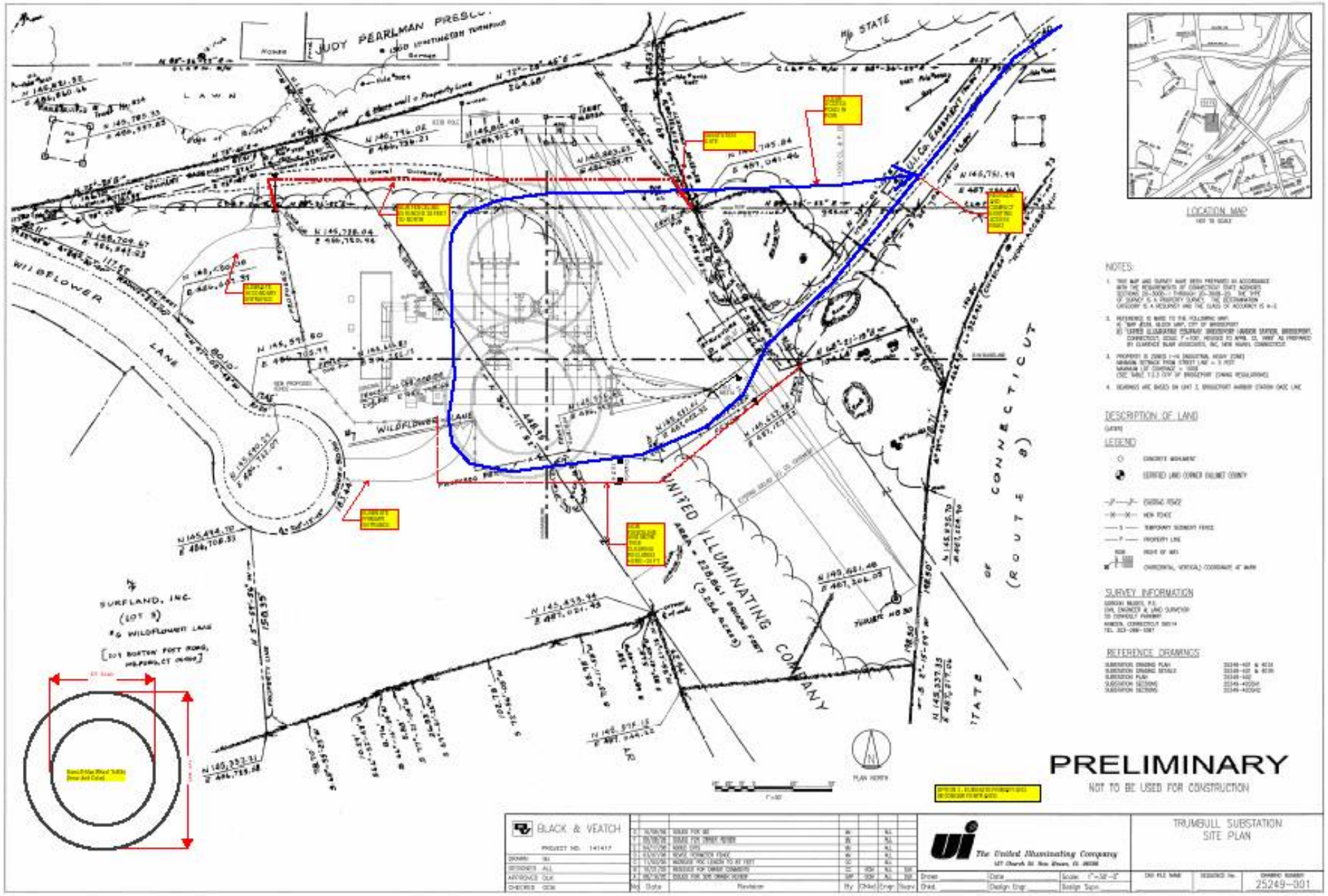


Impacts of Eliminating the Substation Entrances on Wildflower Lane

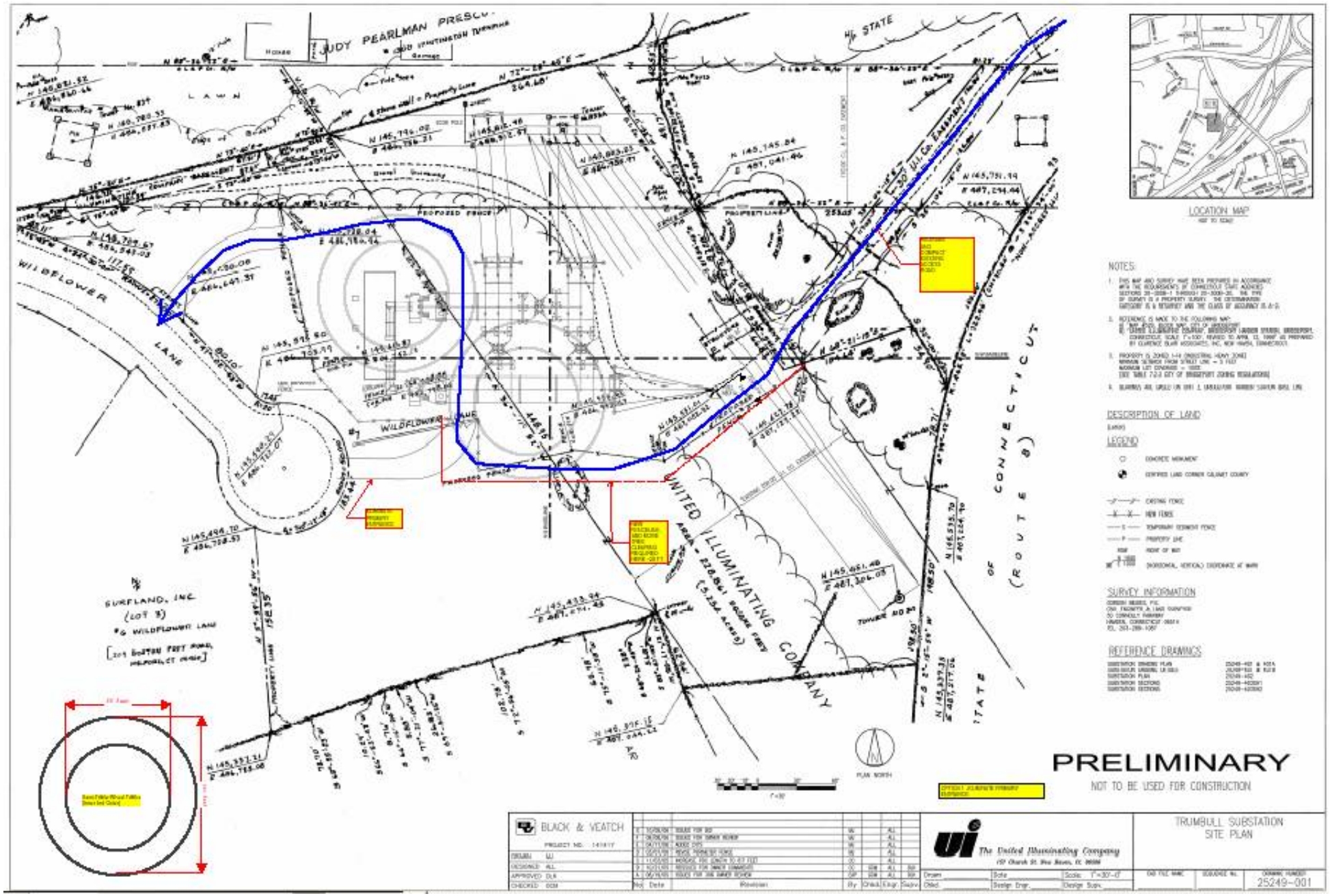
- The company reviewed three alternatives
  - Enter and exit from Nichols Ave
  - Enter from Nichols Ave, exit Wildflower Lane
  - Enter from Nichols Ave, exit Wildflower Lane and move substation 20’ north

  - Primary criteria in design is to maintain adequate space for turning radius of mobile transformer.

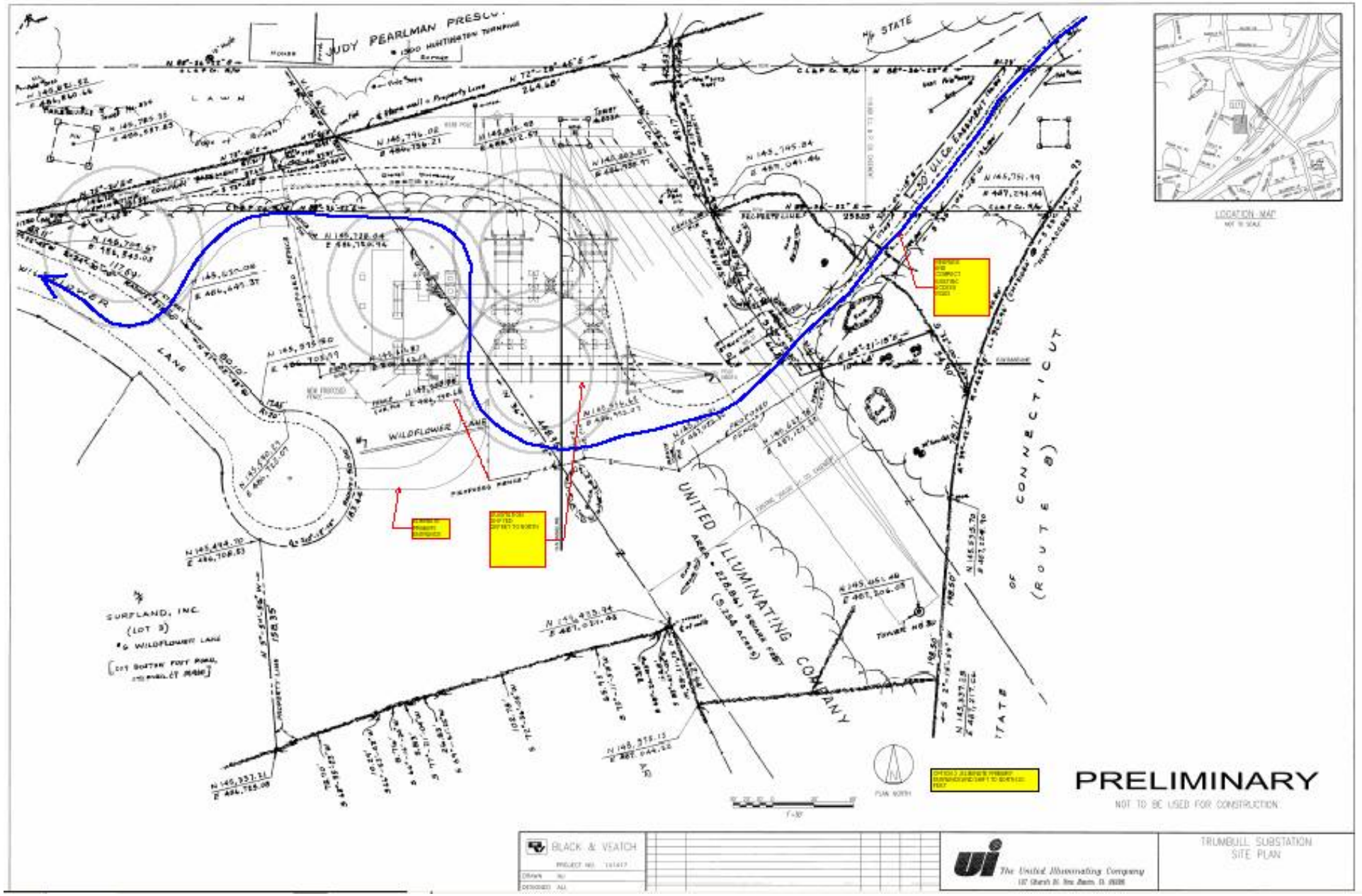
Enter and Exit from Nichols Ave



Enter from Nichols Ave, Exit Wildflower Lane



Enter from Nichols Ave, Exit Wildflower Lane and move substation 20’ north



Access Alternative Summary

Alternative	Advantage	Disadvantage	Cost Differential
Enter and exit Nichols Ave.	Eliminates both entrances on Wildflower Lane	Requires 20' of vegetation to north and 20' of trees to south to be removed. Requires easement from State of CT.	Approximately $278,000
Enter Nichols Ave, exit Wildflower Lane	Eliminates one entrance on Wildflower Lane	Requires 20' of trees to the south to be removed.	Approximately $328,000
Enter Nichols Ave, exit Wildflower Lane, move substation 20' north	Eliminates one entrance on Wildflower Lane	Requires 20' vegetation to north to be removed.	Approximately $328,000