



LOWELL CITY COUNCIL
TECHNOLOGY AND UTILITIES SC MINUTES

Michael Q. Geary
City Clerk

Date: May 26, 2026
Time: 5:30 PM
Location: City Council Chamber, 375 Merrimack St., City Hall / Zoom (Hybrid)

PRESENT:

Present on Roll Call were C. Liang, C. Mercier and C. Rourke (5:50 PM). Also present were Joe Cote (Eng.), John Gleason (Eng.), C. Juran, C. Nuon, Bobby Colliton (Natl. Grid) and Millisa Owens (Natl. Grid)

MEETING CALLED TO ORDER:

C. Liang called the meeting to order noting those in attendance and agenda item.

ORDER OF BUSINESS:

C. Liang introduced Ms. Owens to offer presentation entitled "Gas Engineering" (Attachment "A"). Ms. Owens outlined the Gas System Enhancement Plan (GSEP) which provided state regulations as well as environmental benefits. Ms. Owens indicated that all types of reviews are performed including no gas options. Ms. Owens noted repair methods and outlined the elements when deciding whether to repair or replace. Ms. Owens noted reasoning behind the decisions and the goal of preventing gas leaks at every joint of an old line. Ms. Owens provided Lowell gas pipe review indicating 264 miles of piping 76 of which have probable leaks which occur on all different types of piping. C. Mercier requested paper copy of the presentation to follow easier. C. Mercier requested information regarding the delineation of repairing or replacing pipes. Ms. Owens outlined the process. C. Liang noted the flow of information from company is vital in the process. Ms. Owens noted the risk policy is public



information. C. Liang questioned ADA compliance with repairs to roadways. Paul McCloughlin (Natl. Grid) noted the company is required to be ADA compliant even if it was not originally compliant.

C. Liang opened matter to public. C. Nuon speaking as a resident noted concern with company policy and not workers but indicated that more expensive for rate payers if replaced so more detail should be decided regarding any decision of the company. Ms. Owens noted they look at every leak and decide what is most satisfactory for the situation. Diana Cuddy (Natl. Grid) noted work around sewer and water work has a heavier requirement. Jonathan Grossman noted that National Grid will profit from replacement and not repair so there is an institutional incentive. Mr. Grossman noted a serious climate control element as well. Mr. Grossman introduced Peter Barrer as an expert in the field. Mr. Barrer noted company program is not effective and costly. Mr. Barrer provided example of bad policy with the work being done on Sayles Street though there are no leaks detected. Mr. McCloughlin agreed that did pipe did not show leaks, but it was the City that requested the replacement not the company. C. Mercier noted area was a mess and needs the improvement. Mr. Gleason recognized City did request that as it was part of larger project to benefit that area. Ms. Owens noted the project was evaluated as they all are. C. Liang questioned repairs after work is done. Mr. Gleason noted that all that type of work must be permitted and in compliance. C. Juran speaking as a resident questioned wire and engineer reports as well as implications of those reports. Mr. Cote noted the Engineer Department provided review and produces a compliance sheet to the Council indicating action taken and what needs to be taken.

C. Liang introduced second topic of double poles in the City. Jim McKay (Natl. Grid) provided a quick review of presentation entitled "Double Poles and the National Joint Use Notification System" (NJUNS). Mr. McKay noted issue is with timing to get all partners involved in removing equipment from abandoned pole. Mr. McKay noted that there are different poles with different requirements and that Verizon is mostly responsible for removing. Mr. McKay outlined the process and procedure to pole removal. C. Liang opened matter up to public. C. Nuon questioned timeline for

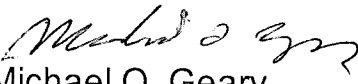


removals. Mr. McKay noted the more partners on the pole the longer it will take. C. Mercier noted time was short and requested recessing the matter for further discussion.

ADJOURNMENT:

Motion to Recess by C. Rourke, seconded by C. Mercier. So voted.

Meeting adjourned at 6:26 PM.


Michael Q. Geary

City Clerk

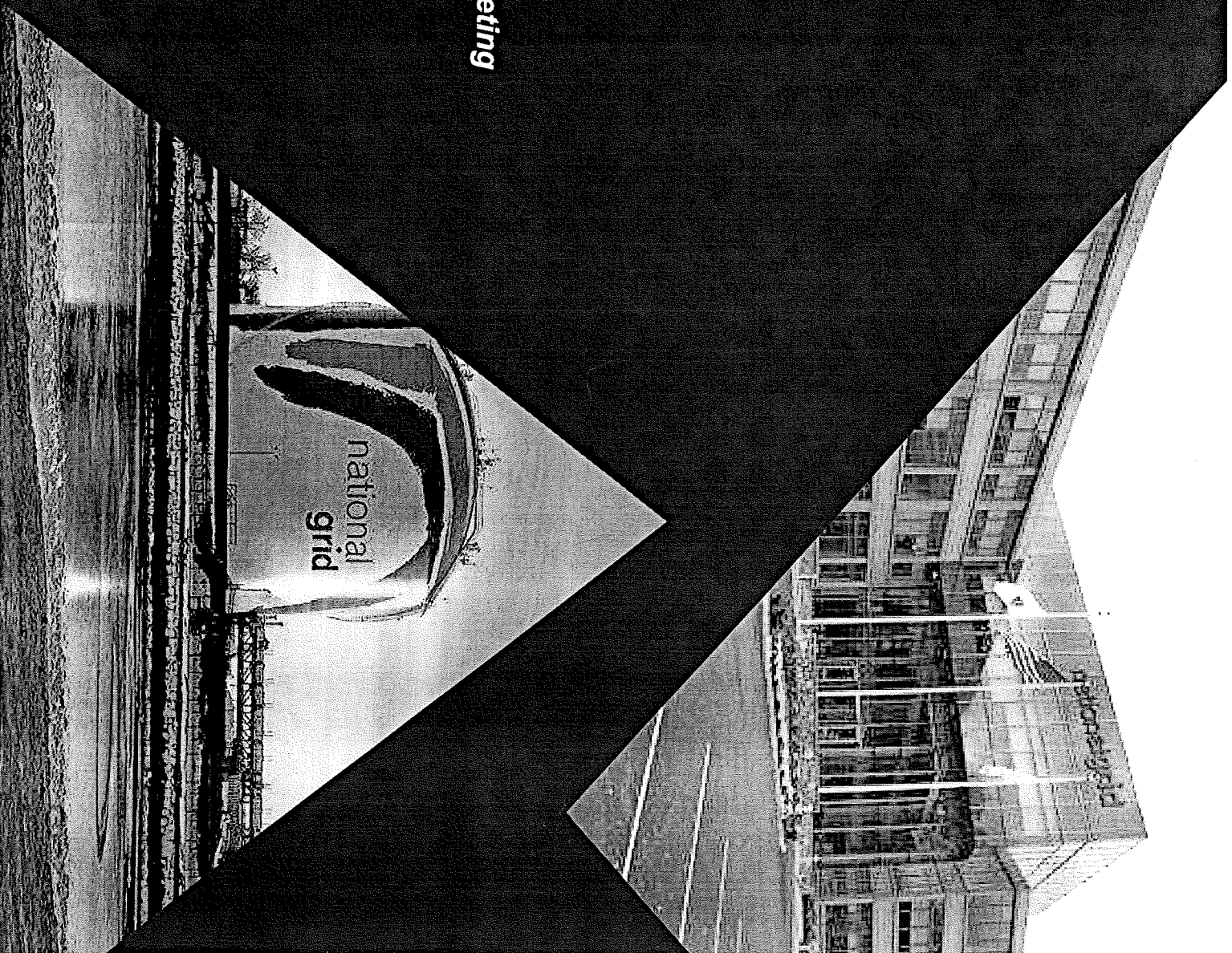
See Attachments:

Gas Engineering

Melissa Owens
New England City State Construction

*City of Lowell, MA
Technology & Utility Subcommittee Meeting
May 26, 2026*

nationalgrid



Distribution Integrity Management Plan (DIMP)

- Federal law requires all gas companies to write and implement a DIMP (CFR192.1005 and CFR 192.1007)
- National Grid's DIMP identifies the threat of failure of leak prone pipelines
- Failure to follow your DIMP is a violation of both federal and state pipeline safety codes and subject to penalties
- Risk ranking project is part of the DIMP
- The MA DPU also requires risk ranking of pipe segments replaced for GSEP

Gas System Enhancement Plan (GSEP)

- GSEP was created to accelerate the pace of leak prone pipe replacement
- Two Programs included in GSEP: Integrity and City State Construction (CSC)
- Other Programs not included:
 - Growth Main Installation and Reliability Main Replacement

Customer Benefit

Improvement in gas system and reliability performance

Fewer leaks and additional safety devices

Environmental Benefit

Reduction of methane and carbon dioxide emissions from the leak-prone system components

Risk Ranking Projects

National Grid uses a risk ranking method to review the condition of non-cathodically protected steel, cast iron, wrought iron and Aldy-A based on many criteria to determine when the useful life of the main has been reached. Candidates for replacement are selected based on guidelines provided by the DPU.

Strategy for Managing LPP

Prioritize main segments for replacement based on multiple factors including:

- Analysis of the age of the leaks and any increasing frequency of new leaks found
- Pipe vintage and service activity associated with the location
- Service leaks at the main
- Observed pipe conditions
- Cathodic protect system in place (or not in place)
- Customer/Executive/Municipal complaints
- Surrounding geography
- Segment length
- Third party construction activity
- Engineering judgment

From DPU Guidelines

Quantitative and Qualitative Factors. At a minimum, LDCs should consider the following quantitative and qualitative factors, where applicable, when assessing and conducting risk ranking:

- i. Age of leaks and increasing leak occurrences;
- ii. Pipe material, age, and service insert activity associated with the main;
- iii. Service leaks at the main connection due to corrosion;
- iv. Adjustments based on very long or very short segments;
- v. Observed pipe condition from leak repair data;
- vi. Observed pipe condition from recent field exposure;
- vii. Known problematic install locations/time periods;
- viii. Identification of outdated construction methods or problematic materials or fittings;
- ix. Clustering of repairs and/or clamps along the segment;
- x. Other replacement jobs in the vicinity;
- xi. Cathodic protection systems in place;
- xii. Operating pressure, history of over-pressurization;
- xiii. Specific locations of intersections, fittings, material transitions, diameter transitions, etc.;
- xiv. Unusual hazards or exposure in the area;
- xv. System interdependencies/potential for cascading failures;

From DPU Guidelines - continued

Quantitative and Qualitative Factors. At a minimum, LDCs should consider the following quantitative and qualitative factors, where applicable, when assessing and conducting risk ranking:

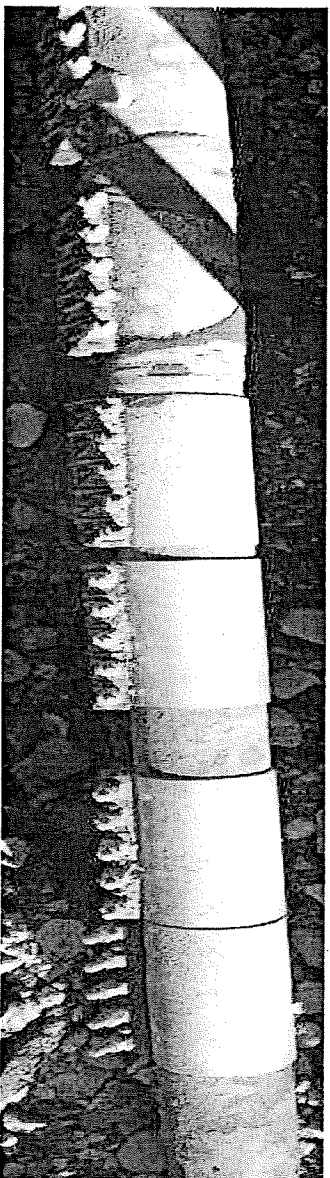
- xvi. Proximity to gas regulating equipment;
- xvii. Proximity to transmission main;
- xviii. Unusual difficulty or expense of repairs;
- xix. Known valve operability issues;
- xx. Main location; xxi. Depth of cover and soil conditions;
- xxi. High open leak counts;
- xxii. Water intrusion or other geographic considerations;
- xxiii. Potential for damage/encroachment by planned infrastructure projects;
- xxiv. Vibration & soil disturbance;
- xxv. Asphalt overlay/chip seal;
- xxvi. Curb-to-curb paving;
- xxvii. Paving moratoriums;
- xxviii. Localized damage rate/Dig Safe ticket density;
- xxix. Any special or unusual conditions or considerations identified by Field Operations

Alternatives Review

- Once a candidate has been selected, an “Alternatives Review” begins
- Alternatives reviewed:
 - Non-pipeline Alternative (NPA)
 - Lining
 - Insertion
 - CISBOT
- Limitations on Alternatives
 - NPA requires 100% of the customers to agree to electrification so that the gas main can be retired
 - Lining requires interruption of gas service to all customers on the segment during the installation and curing process, limiting it to shorter segments or areas with multiple pipelines to minimize disruption to customers. Interruption may be for hours, days or weeks depending on the job.
 - Insertion is only viable when upgrading from a lower pressure to a higher pressure, or in areas where there are no customers
 - CISBOT is limited to larger pipelines as the robot will not fit into smaller pipe

Repair Methods

- Repair methods vary based on pipe size, material, location and condition of the pipeline
- Traditional repairs include external methods such as sealing joints on cast iron pipe (one joint every 12 feet) or installing a clamp on base steel mains

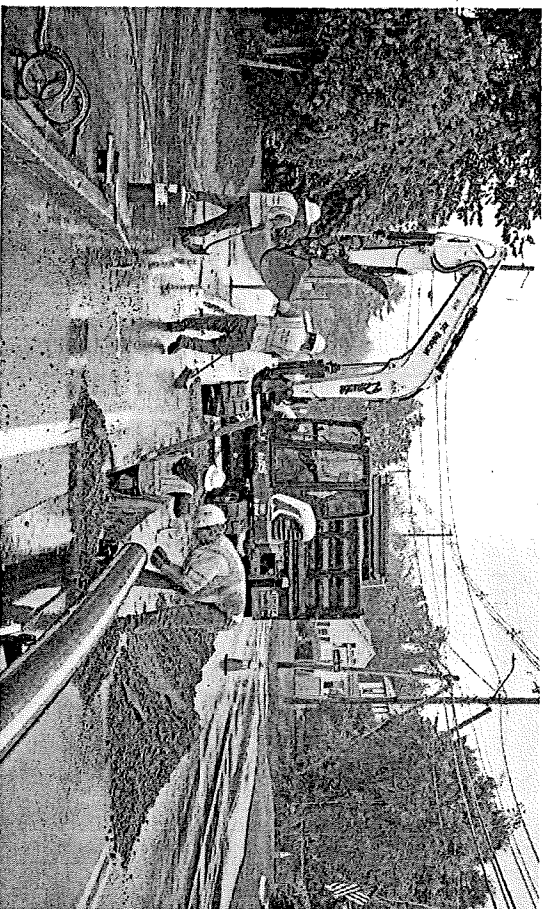


Repair vs. Replace

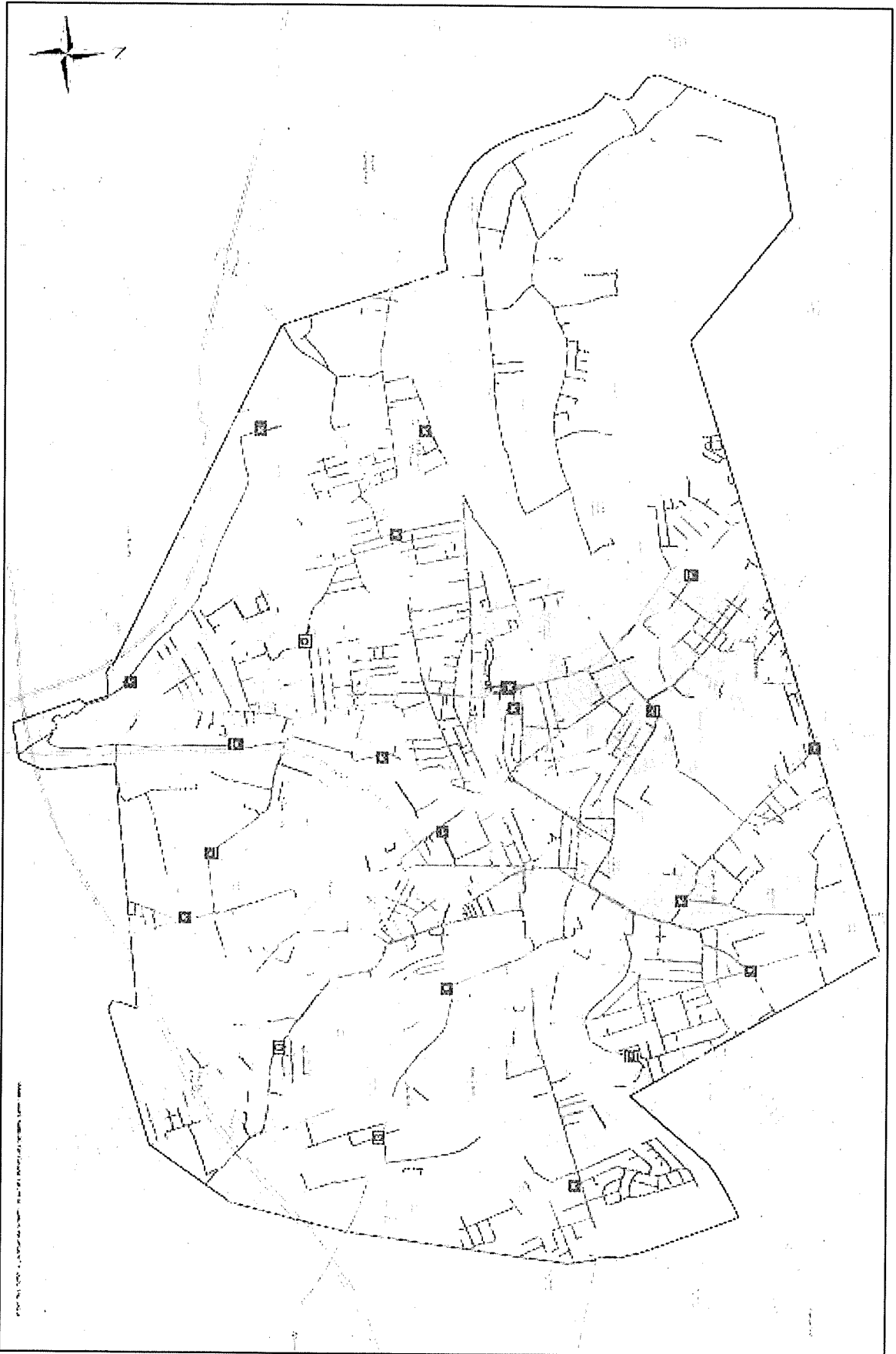
- Fixing a single leak may be less expensive than replacing a segment of leak prone pipe
 - Fixing a single leak does not reduce the likelihood of future leaks on the pipeline
- One mile of cast iron main has approximately 440 joints (all of which are likely to leak in the lifetime of the pipe)
 - Replacing one mile of cast iron main eliminates the risk of joint leaks and broken mains
 - All joints would not be repaired in a single year; repairing joints does not eliminate the risk of pipeline breaks
- Fixing an individual leak reduces emissions from the pipe, but does not reduce the risk of the pipe failing
- Pipe failure can lead to significant damage to property and/or people
- Replacing or retiring a main is the only way to eliminate the risk of failure for aging pipelines

Lowell Gas Pipeline Inventory

- The oldest pipeline in Lowell was installed in 1896
- The newest pipeline in Lowell was installed in 2026
- There are approximately 264 miles of gas pipelines in Lowell
 - Miles of Leak Prone Pipe: 76
 - Miles on NON-Leak Prone: 188
- Pipe lifecycle is estimated to be between 50 year and 70 years, actual life span of a pipeline varies per segment based on material and size.



Lowell Map

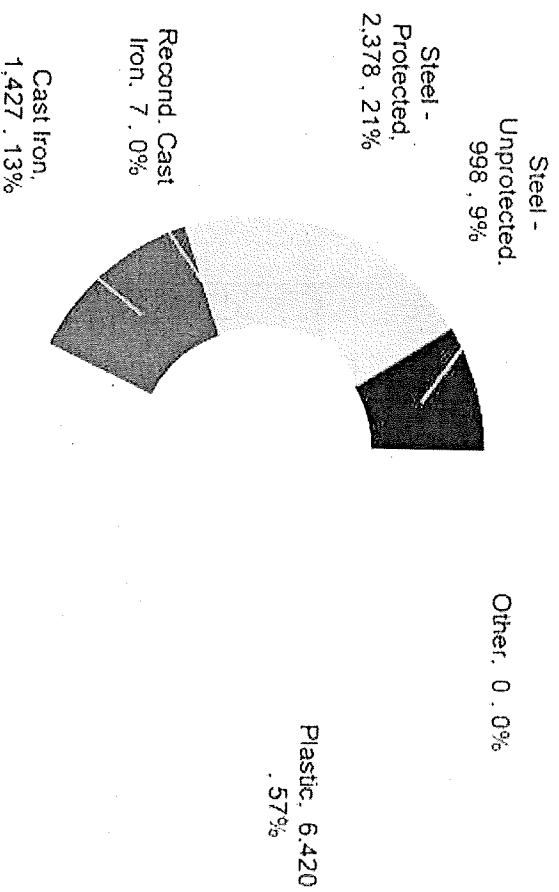


Leak Repairs by Material

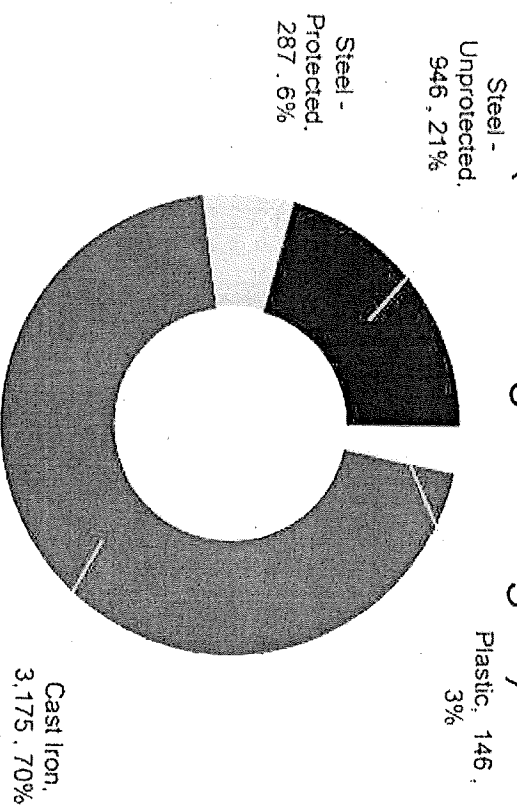
Main Inventory Compared To Main Leak Repairs By Material

MA

Main Inventory



Main Leak Repairs
(Including Damages)



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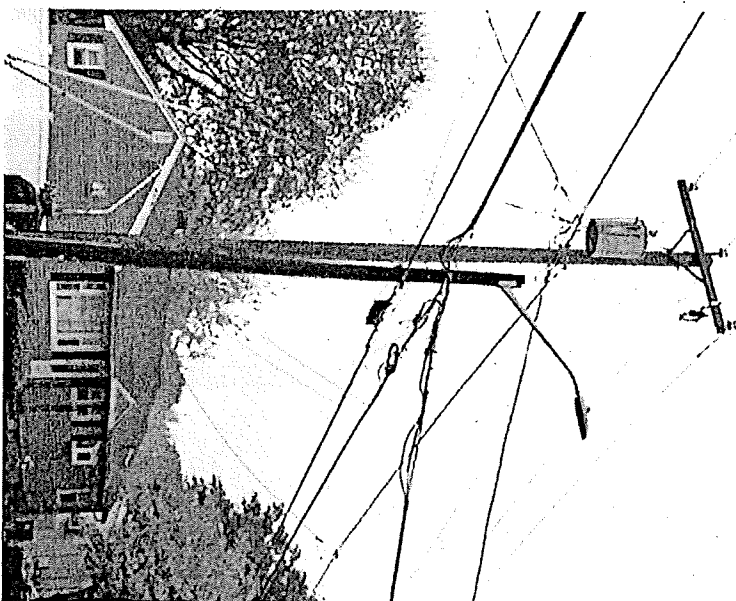
Double Poles and the National Joint Use Notification System (NJUNS)

nationalgrid

**Lowell City Council Technology and
Utilities Subcommittee Meeting**
May 26, 2026

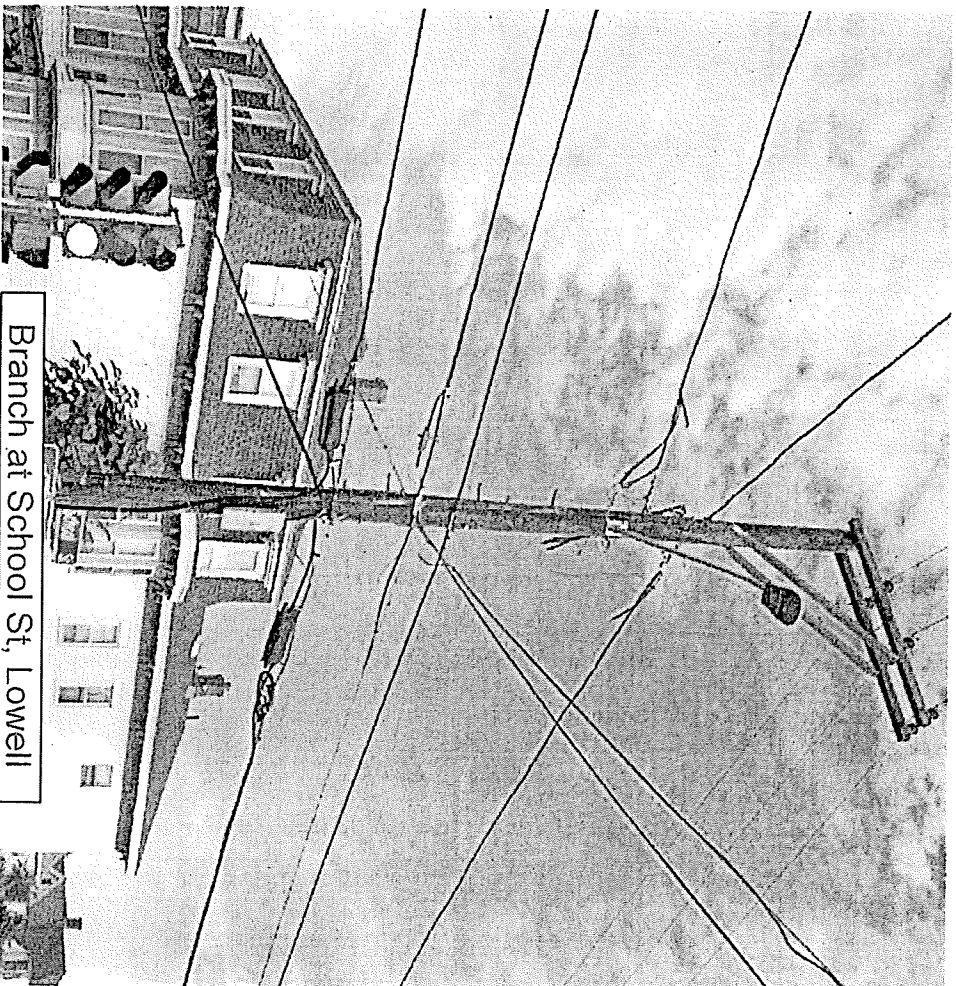
Understanding Double Poles

- **Definition**
 - A Double Pole is a temporary condition where an old utility pole remains standing next to a newly installed pole
- **Reasons for Replacement**
 - Safety
 - Reliability
 - System Resiliency
 - System or Capacity Upgrades
 - Road Work or other Municipal Projects
- **Why do the old poles stay?**
 - Double poles allow electric, communication, and municipal services to operate without interruptions during the replacement process. Most poles have more than 3 different entities on a pole.
 - National Grid and Verizon's Intercompany Operating Procedures from 2017 states that in Massachusetts, National Grid is responsible for setting new joint owned poles, and Verizon is responsible for the removal.



Types of Poles

- Pole Classifications
 - Jointly owned Poles
 - National Grid and Verizon both have assets on pole
- Solely owned Electric Poles
 - National Grid has assets, Verizon does not.
- Solely owned Verizon Poles
 - Verizon has assets, National Grid does not.



Branch at School St, Lowell

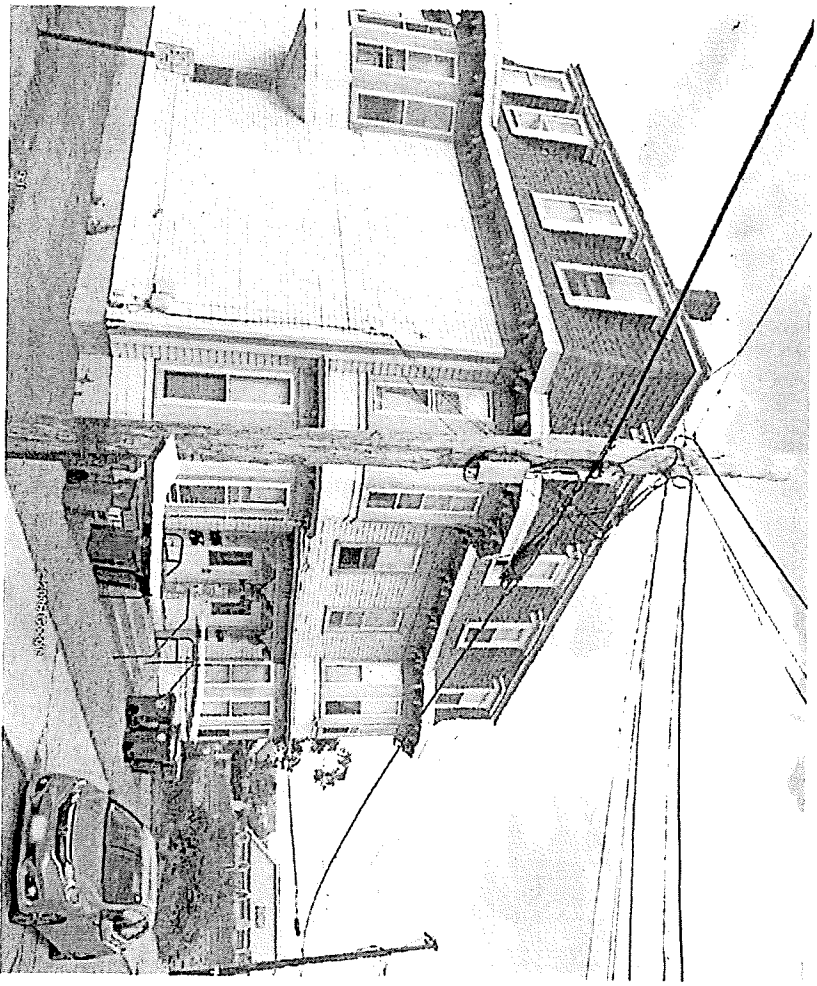
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Branch at School St, Lowell

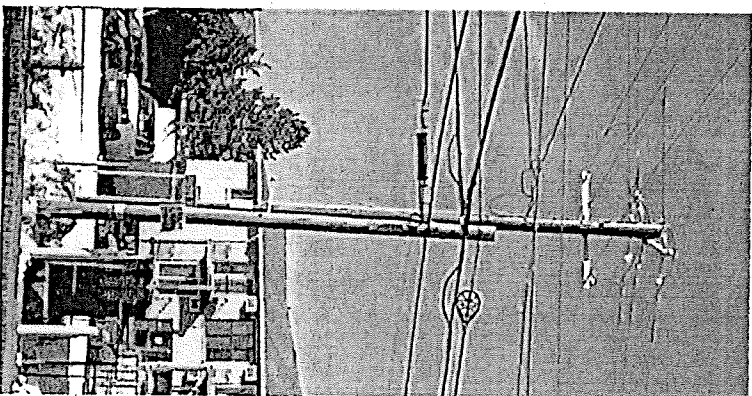
Types of Poles- How does this affect the process?

- Pole Maintenance
 - Jointly owned Poles (~9674 poles in Lowell)
 - National Grid will set poles, create NJUNS tickets.
 - 3rd Party Attachments transfers from top to bottom, one at a time.
 - Verizon will remove poles after other communication companies transfer.
 - Solely owned National Grid (~1564 poles in Lowell)
 - National Grid will set poles, create NJUNS tickets
 - 3rd Party Attachments transfers from top to bottom, one at a time.
 - National Grid will remove poles after communication transfers are complete.
 - Solely owned Verizon Poles
 - Verizon will set poles, create NJUNS tickets, and remove poles after other communication companies transfer.

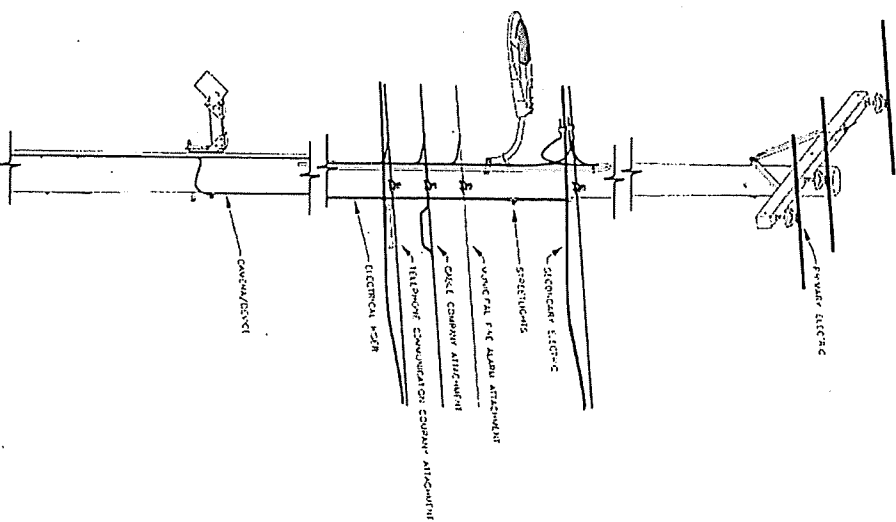
National Grid or Verizon would not be responsible for privately owned poles being installed or removed.

Wire Identification

- The Top of the pole is the Electric Space. You will only find National Grid and Crown Castle Fiber in this space. Only Electrically Qualified Workers should be in this space.
- Between the Electric and Communication Space should be 40" of space known as the Communication Worker Safety Zone (CWSZ)
- Below the CWSZ is the Communication Space. Fire Wire, Private Fiber, Cable, and Telephone attachments should be in this area.
- Municipally owned Streetlights should have a sticker on the light to help identify. Lowell owns 5247 of the 5356 Roadway lights in Lowell.
- When in Doubt, Reach out to National Grid!



Westford at Stedman



National Joint Use Notification System (NJUNS)

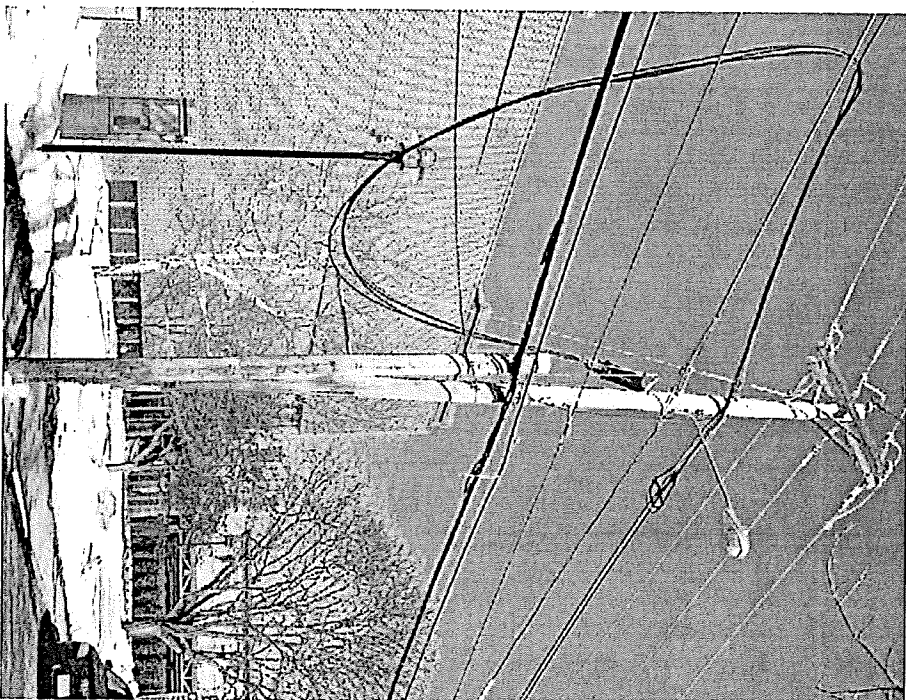
- NJUNS is a utility funded and utility managed communication and workflow platform that helps manage and coordinate work performed on utility poles.
- NJUNS tracks all steps of pole transfers after a new pole has been installed.
- Automated notifications are sent out to the attachers notifying them when they are "next to go".
- NJUNS Provides transparency and accountability with timestamped activity logs for each member.

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Pole Attachments in Lowell (and number of open tickets as of 5/22/26)

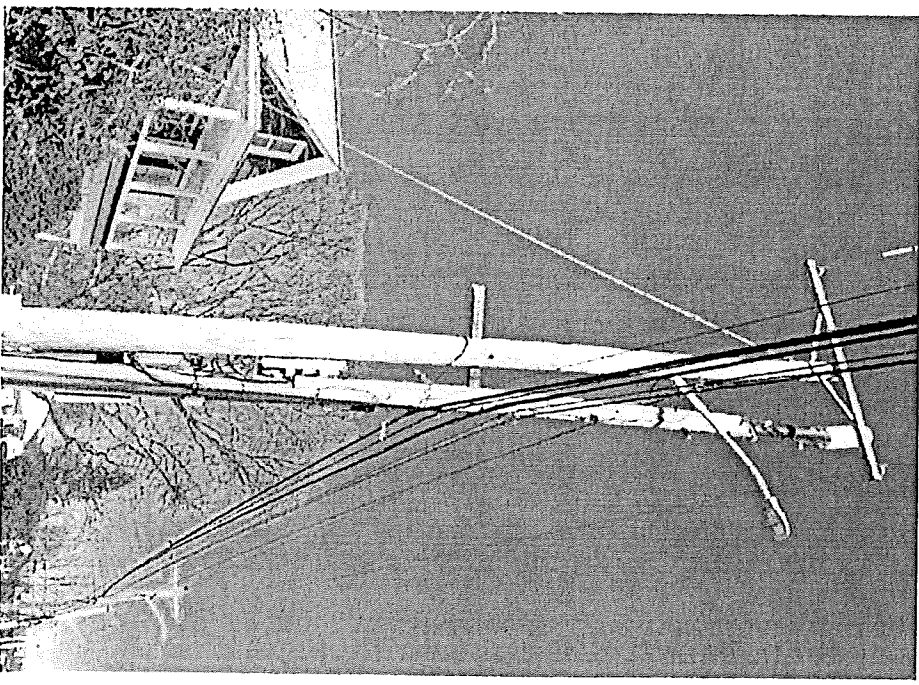
NTG Owner	< 30 Days	30-90 Days	90 Days - 1 year	>1 year	Grand Total	
Comcast	28	35	29	13	105	
Crown Castle	1	3	0	2	6	
Lowell Streetlights and Fire Alarm	7	3	0	7	17	
National Grid	0	4	1	1	5	
AT&T (TTC Siena)	2	2	24	14	42	
FirstLight Fiber	0	3	3	0	6	
U Mass Lowell	1	2	4	0	7	
Verizon Business	0	1	0	0	1	
Verizon Telephone	2	73	2	2	79	
Verizon Wireless	0	0	1	1	2	
ExteNet	0	2	0	0	2	
Cambridge Network Solutions	0	0	0	0	0	
Northeast Optic Network	0	0	0	0	0	
Mobilite Investments	0	0	0	0	0	
Grand Total	41	128	64	40	273	

When in doubt, Reach out!



National Grid Status

- In early 2025, National Grid implemented a digital double pole form that allows the field to enter the relevant information to support the double pole removal process from the field.
 - In 2024, 88 new tickets were opened in Lowell
 - 111 poles were set
 - In 2025, 122 new tickets were opened in Lowell
 - 129 poles were set
- As of 5/22/26, there are 6 "next to go" tickets in National Grid's Queue
 - 3 Electric Transfers
 - 2 Poles to Pull
 - 1 Fiber Transfer



Any Questions?

Jim McKay

Jim.McKay@nationalgrid.com
774 721-2510

Jillian Reilly

Jillian.Reilly1@nationalgrid.com
774 823-6200

Curtis Davis

Curtis.Davis@nationalgrid.com
508 277-3548

nationalgrid

