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# SAFETY SUMMIT 2025

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# AGENDA

- Opening Remarks
- Safety Performance Data
- Damage Prevention Technologies
- Contractors' Perspective on Safety
- Contractor Safety Performance Evaluation
- Safety Regulatory Updates
- Environmental Compliance
- Q&A





# Opening Remarks



# Safety Performance Data





# Slip Hazards

# Trip Hazards

# Fall Hazards



Standing Water  
Oil Spills  
Mud

Poor Lighting  
Uneven Work Surface  
Loose Cords/Hoses

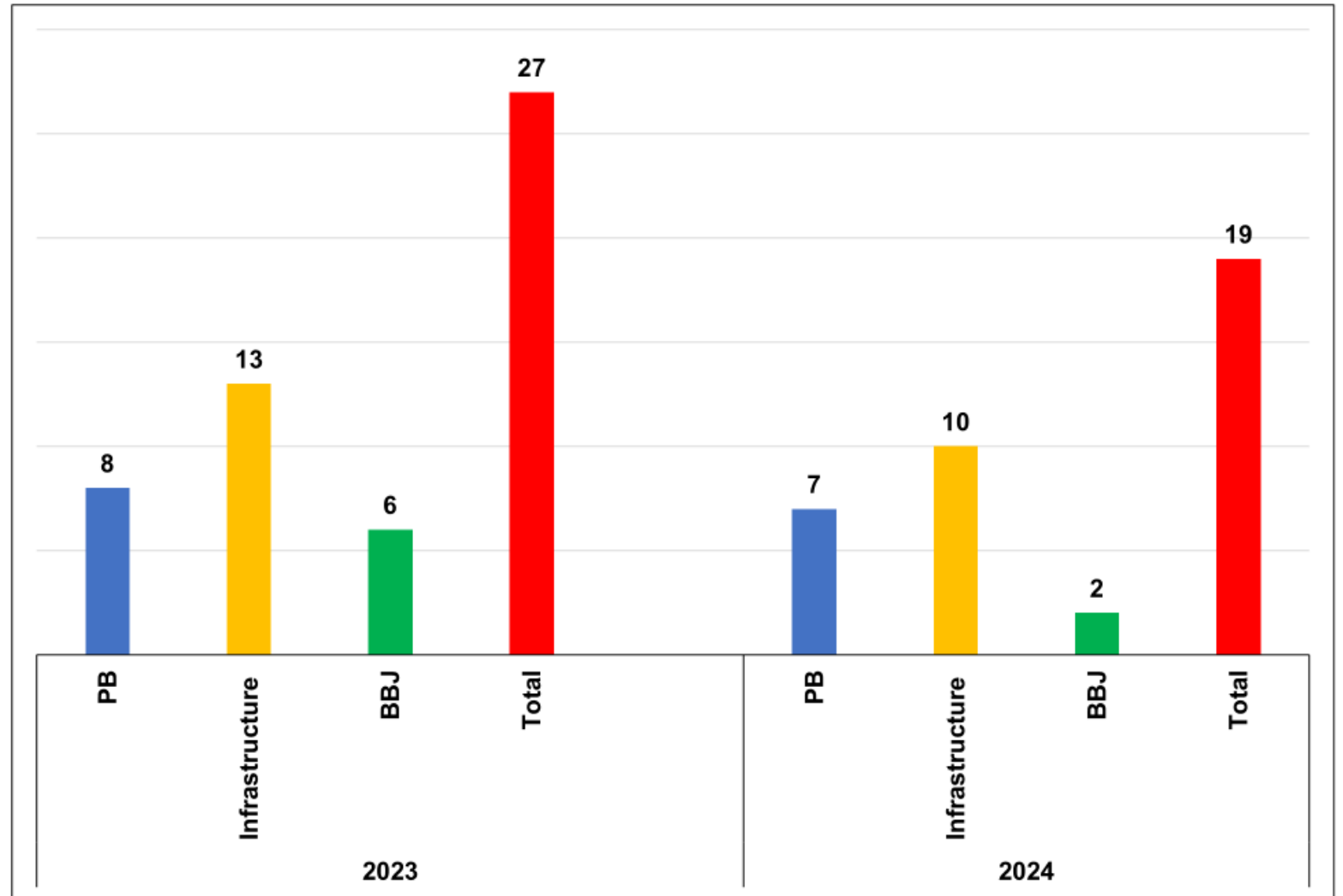
Misuse of Fall Protection  
No Guardrails  
Bad Ladders

TH!NKSAFE

## Industry Data

- Construction is still the deadliest occupation in the U.S., according to new federal labor data, and its fatalities are rising while other workplaces have gotten safer.
- In 2023, the BLS reported a total of 1,075 construction related deaths – an increase from 1,069 in 2022.
- Construction work considered most lethal of the occupations, for the second year running. Almost 40% of deaths were due to slips, trips and falls.
- Number 1 cited OSHA standard in 2024 – Fall Protection General Requirements – 1926.501 - 14th consecutive year!

# DDC Construction Accidents 2023 vs 2024 Calendar Years



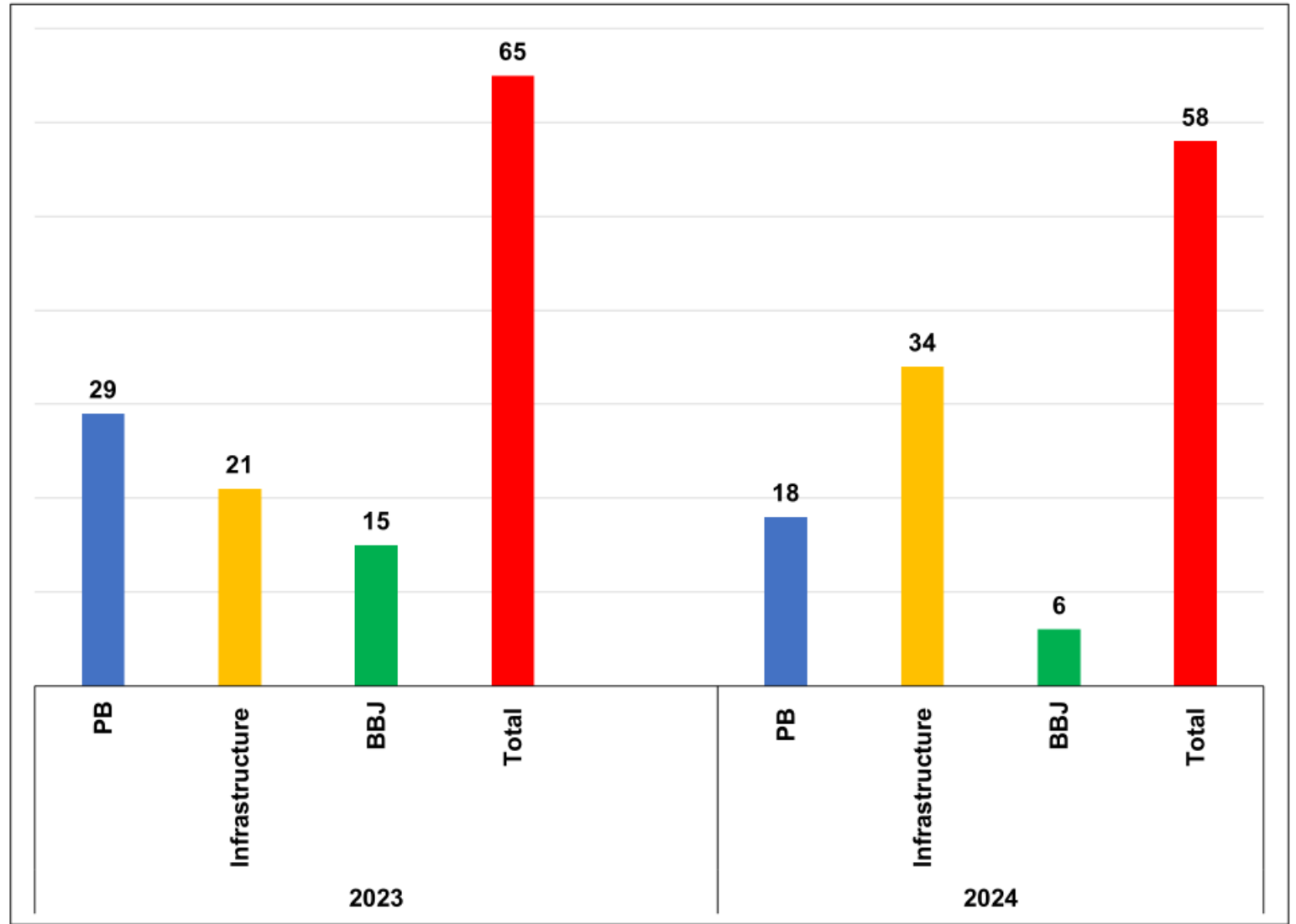
# Frequent Accident Categories - DDC Projects

- Struck-by
- Caught-in-Between
- Tools & Equipment
- Sprains & Strains



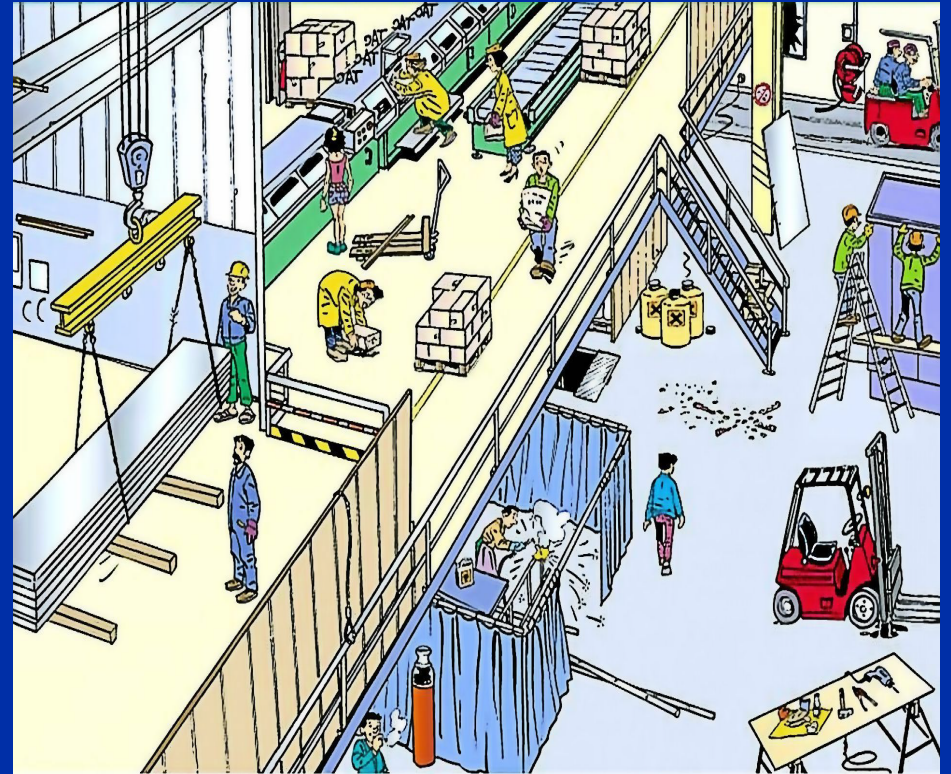


# DDC Incidents (Minor Injuries) 2023 vs 2024 Calendar Years

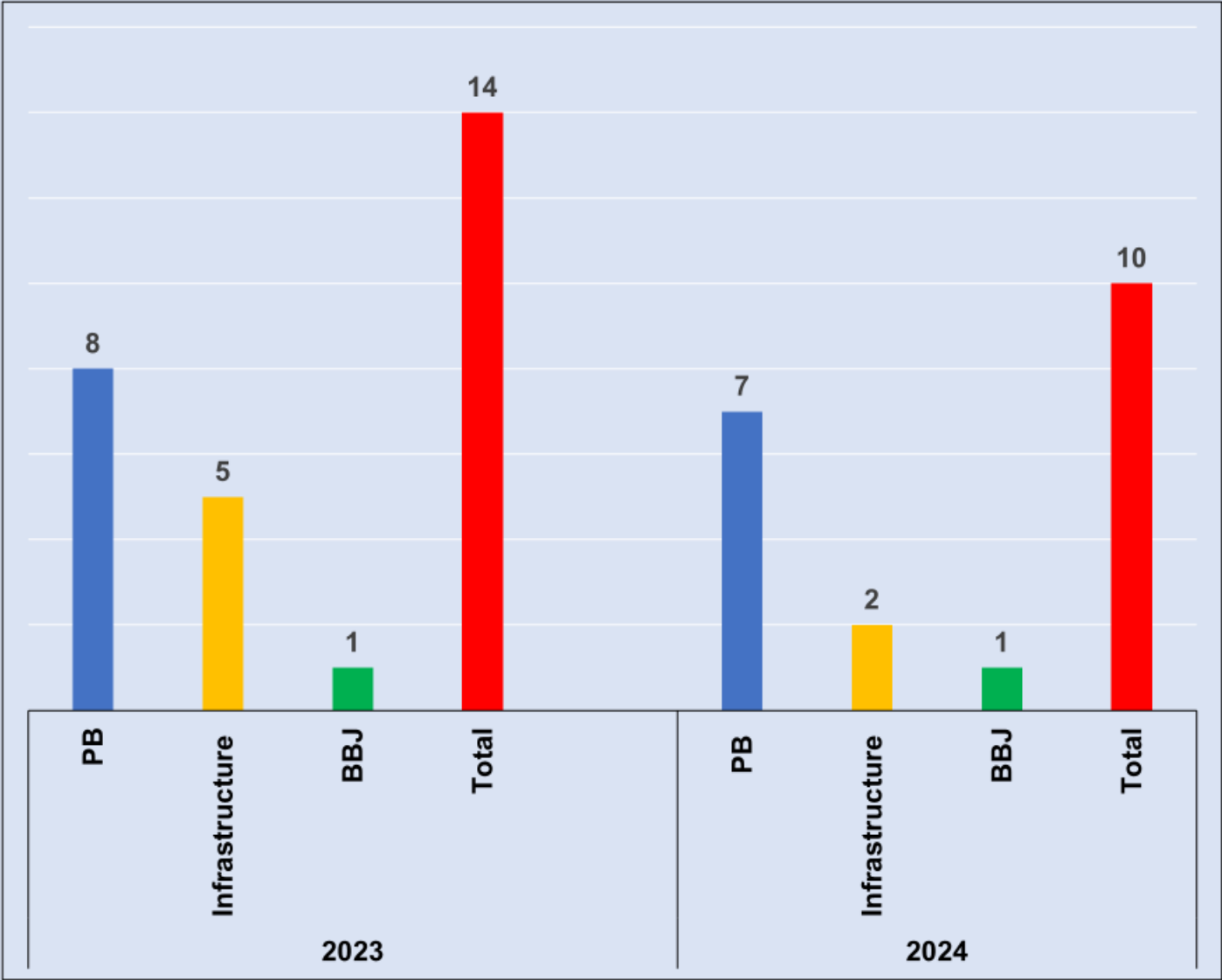


# Top Incident (Minor Injuries) Categories

- Slips and Trips (Housekeeping)
- Tools
- Struck By

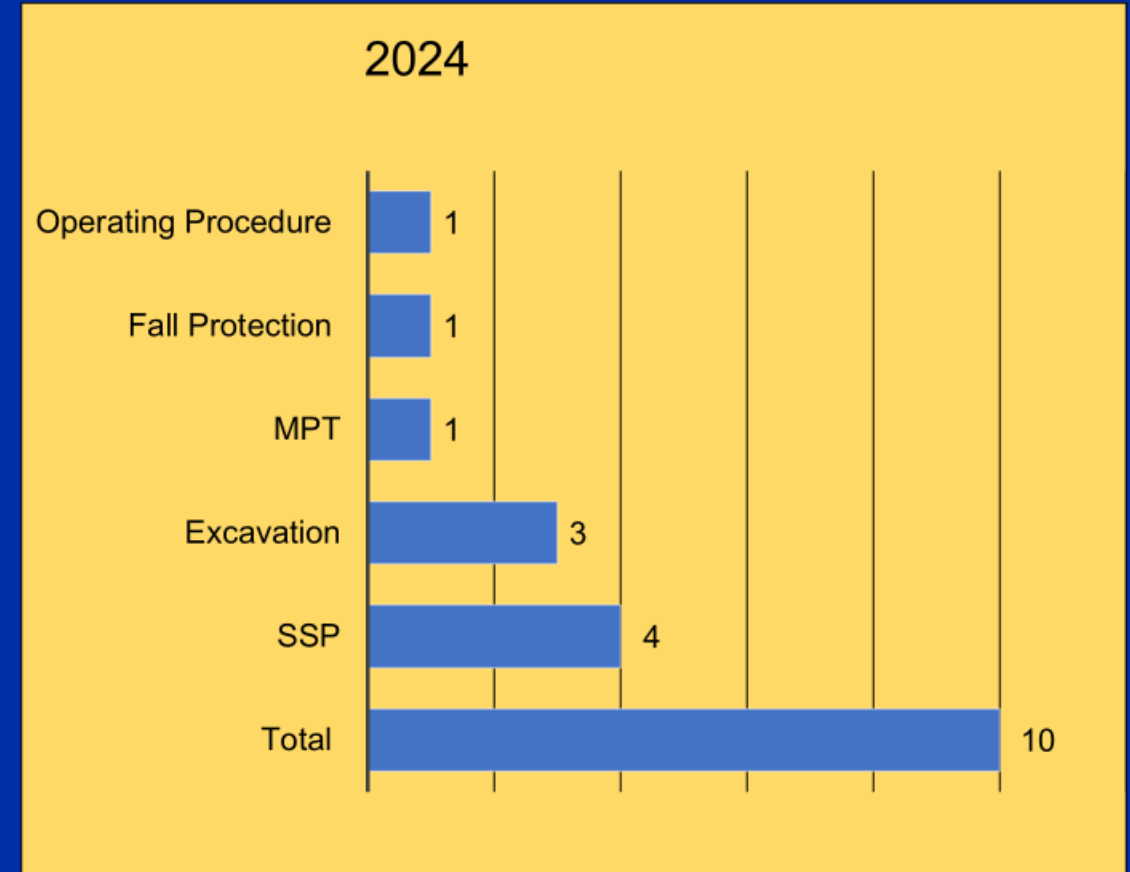
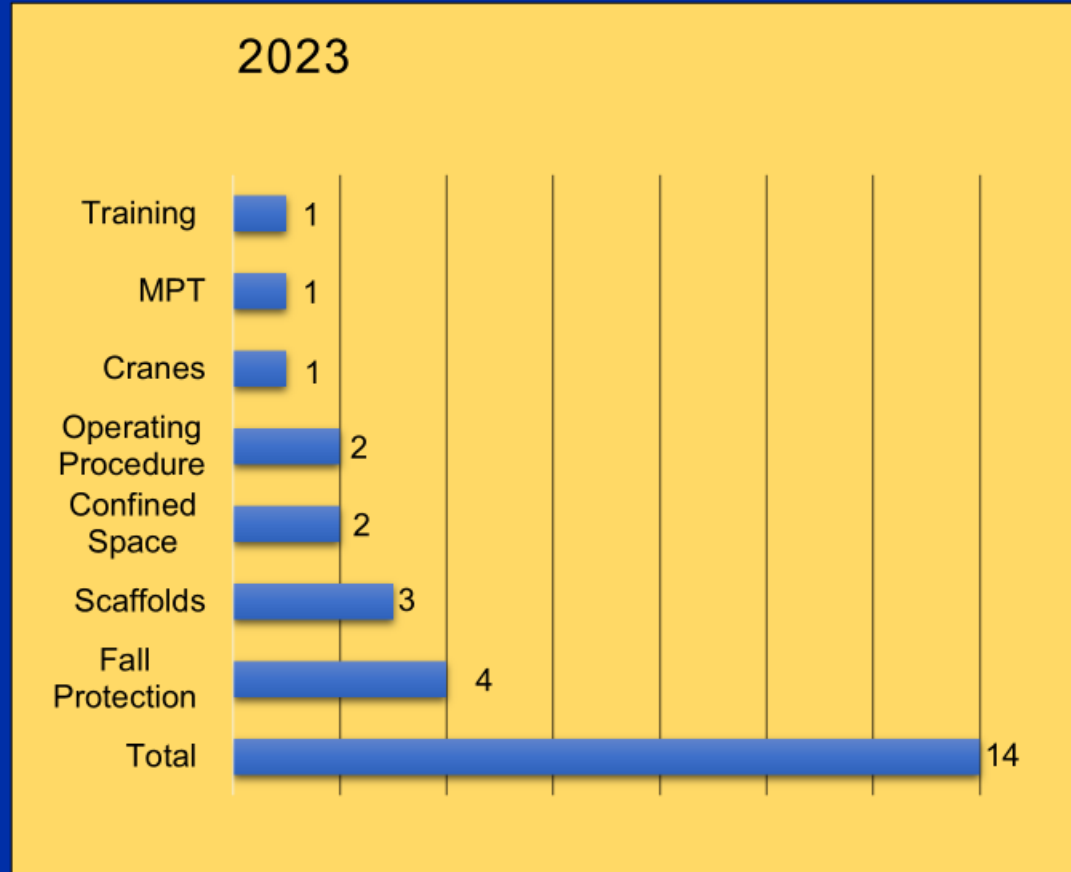


# DDC Stop Work Orders 2023 vs 2024 Calendar Years





# SWOs by Category – 2023 vs 2024

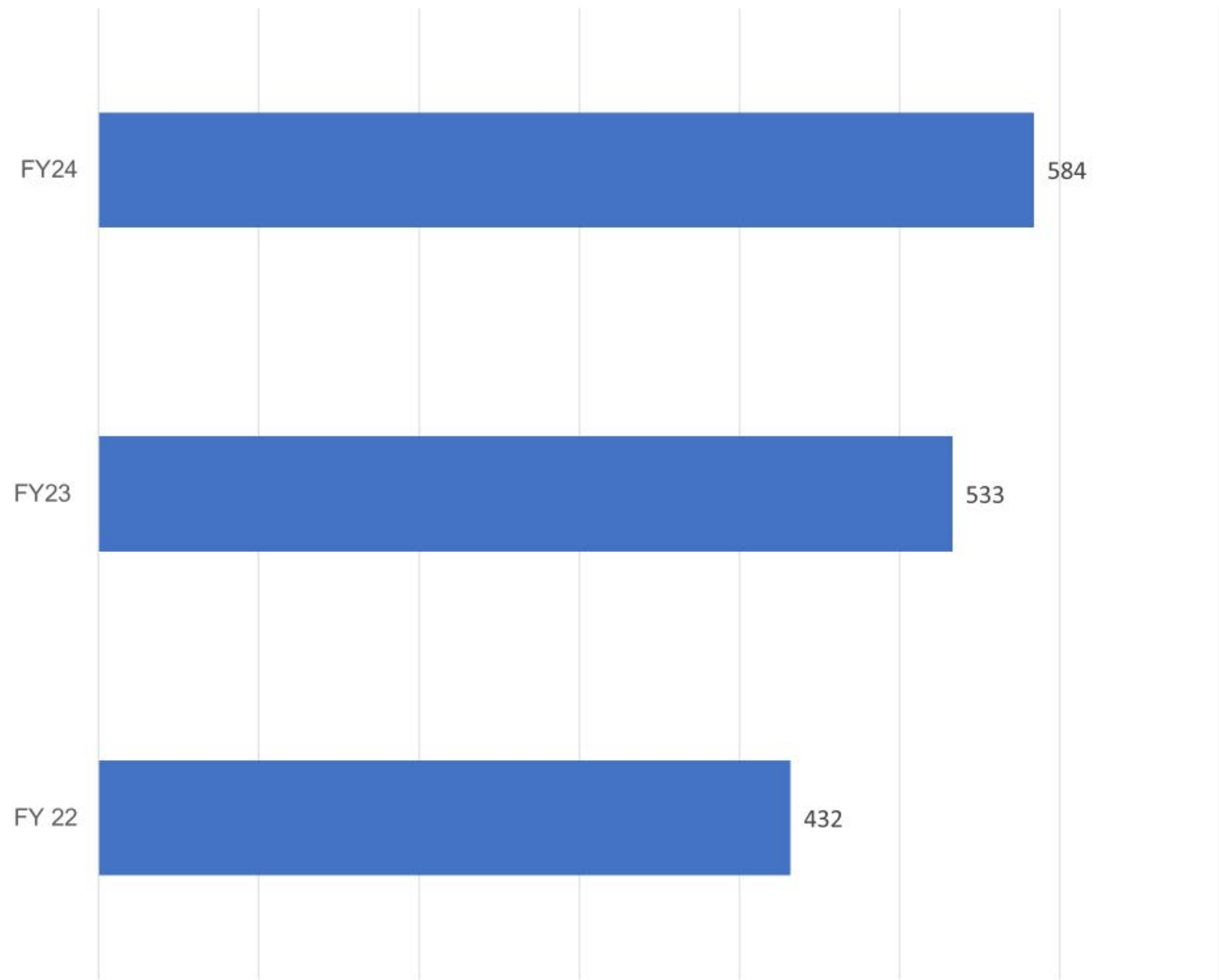






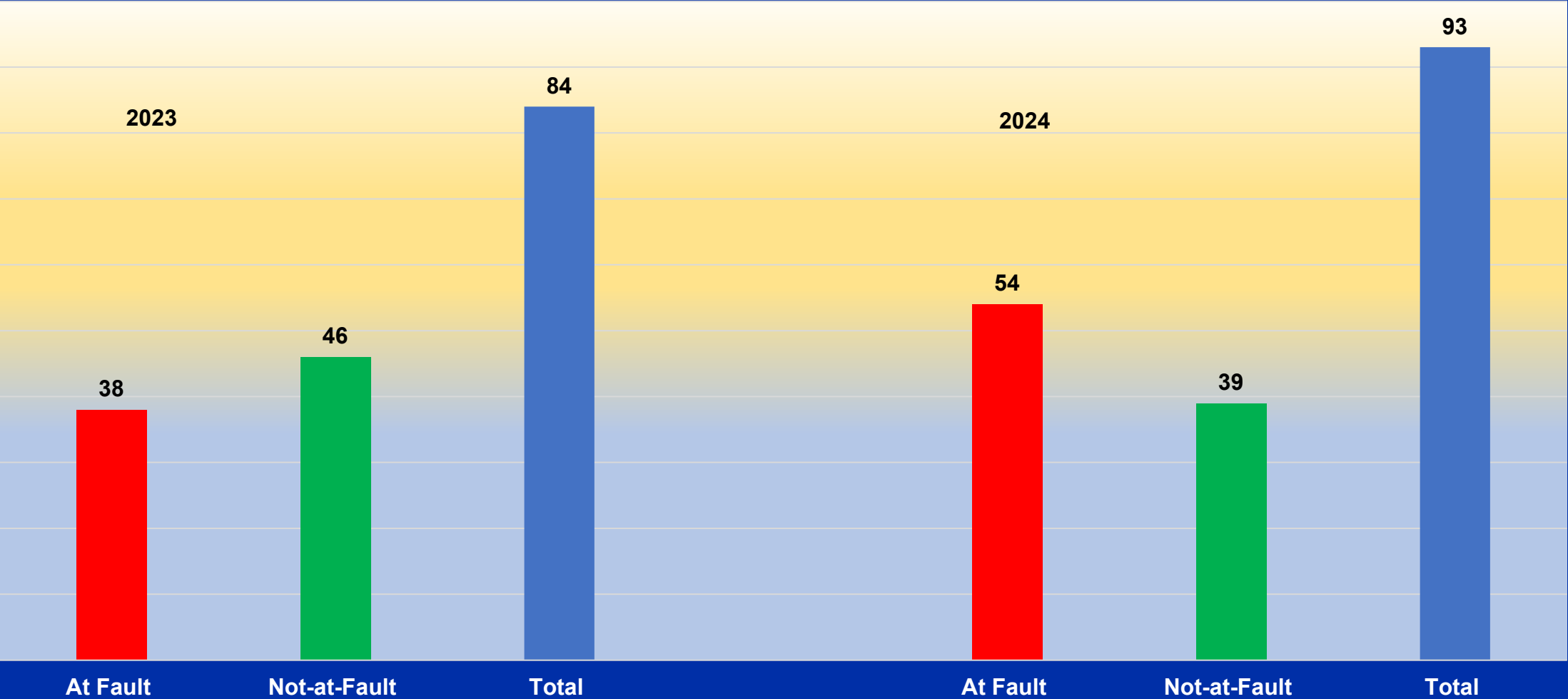


# Site Safety Plan Reviews

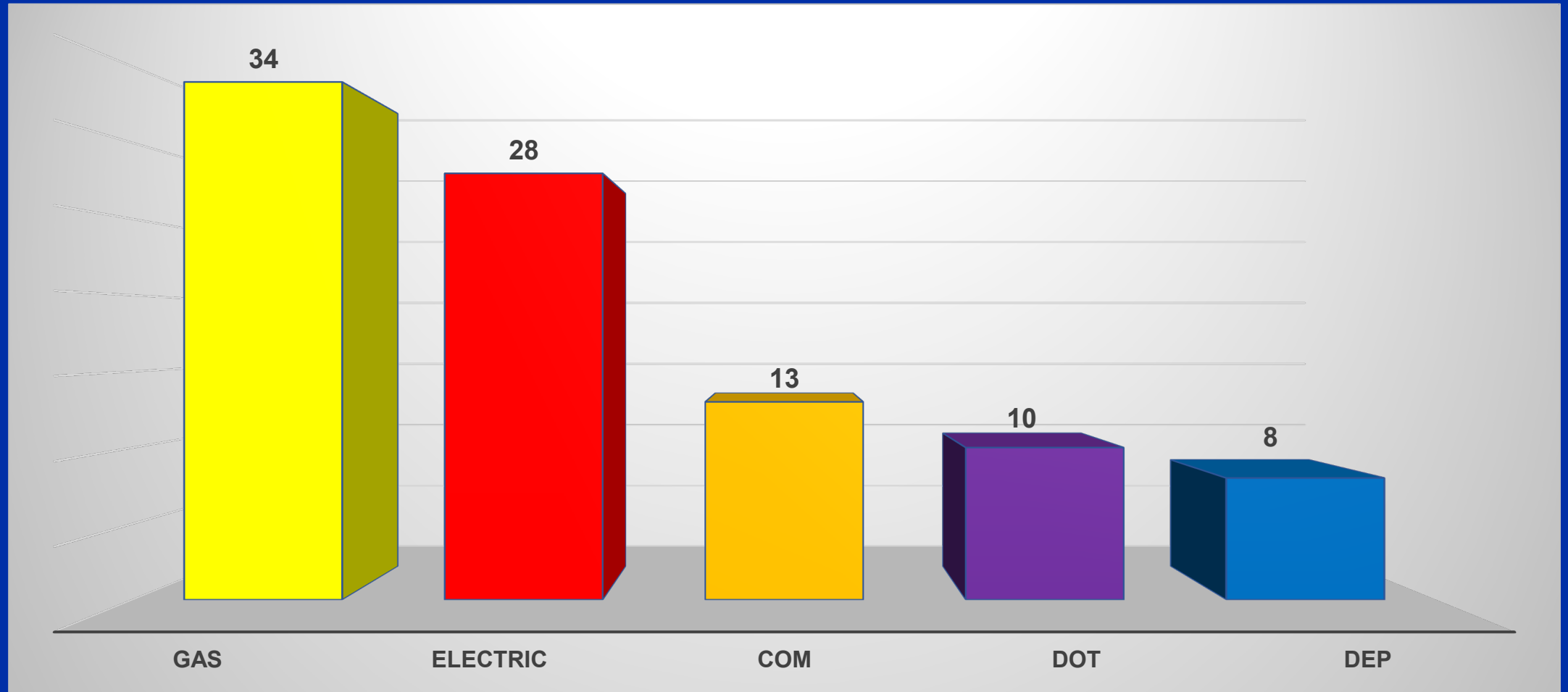




# Utility Damages



# Damage by Affected Utility 2024



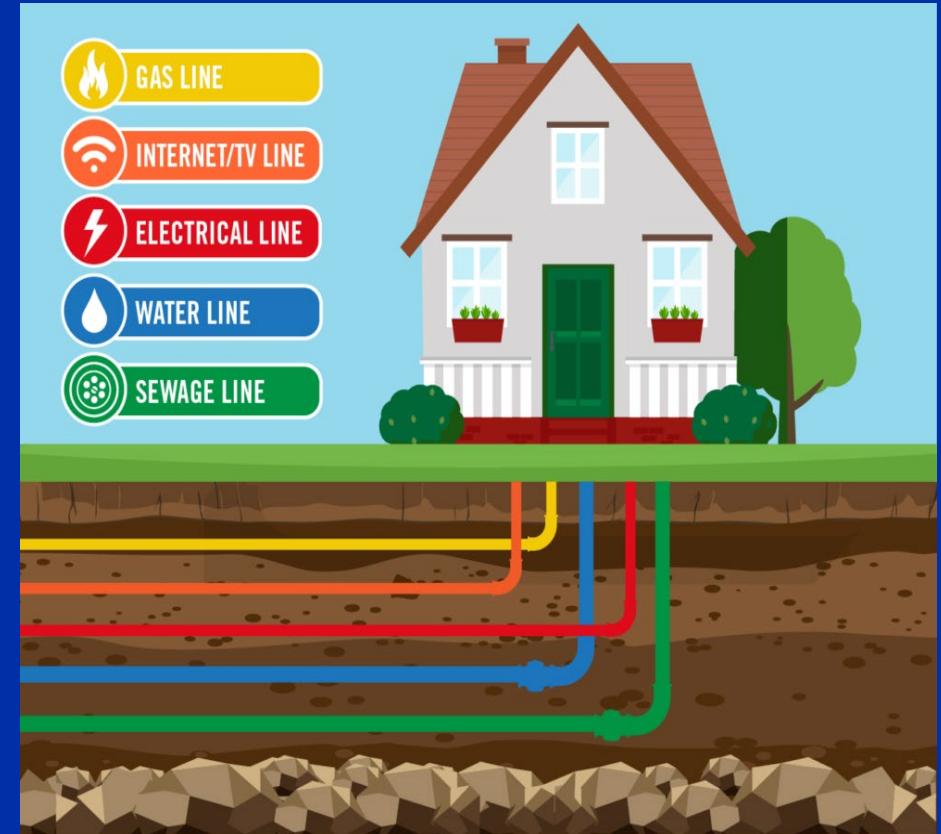






# Steps to Prevent Utility Damages

- Always call before you dig – 811 – It's the LAW and it's FREE.
- Wait the required timeframe & get positive response from utility operators.
- Respect and maintain the marks – **NO** powered or mechanized equipment within the Tolerance Zone.
- Provide a spotter for subsurface and overhead utilities.
- Support and protect exposed utilities within the excavation.
- NY 811 Excavator Training & Education Program (operator).
- Request assistance from utility representative.



# Damage Prevention





# Damage Prevention

Best Practices  
New Technology

nationalgrid

Robert Terjesen  
Robert Arndt

nationalgrid

nationalgrid





**“I dig  
here  
all the  
time.”**

**You might not know the area as well as you think!**

Even if you've excavated an area previously, erosion, settling ground and other factors can change the depth and location of utilities over time. **ALWAYS** contact 811 before putting your shovel to the ground!



**Contact 811 before you dig.**

**811beforeyoudig.com**



# \$30 billion

That's the annual societal cost of damages to underground infrastructure. It's equal to half the Housing and Urban Development budget, and double the annual U.S. law enforcement operations budget.

**\$60 billion:**  
Total Housing & Urban  
Development budget in 2021

**\$30 billion:**  
Societal cost of damages to  
underground infrastructure

**\$15 billion:**  
Federal Law Enforcement  
Operations budget for 2020



**Help lower the cost.  
Contact 811 before you dig.**



[811beforeyoudig.com](http://811beforeyoudig.com)

## Gas Distribution System Damage – Potential Impact

Incident Responders	Immediate Impact	Ongoing Impact
<b>Emergency Services (Fire/Police):</b> Command of scene, traffic control, evacuations, fire suppression.	<b>Incident Site and Surrounding Area</b>	<b>Restoration</b>
<b>Gas Company:</b> Isolate system, assess and repair facility.	Excavator on site suspends work.	<b>Roads:</b> May require weeks to make permanent repair to roadway requiring ongoing detours and disruption.
<b>Locator:</b> Complete emergency locate for critical repair work.	Buildings evacuated and business interrupted.	<b>Pedestrian Traffic:</b> Temporary fix may not be suitable for handicap usage. Pedestrian detour could be needed.
<b>State Enforcement Agency:</b> Conducts investigation of incident.	Injuries and property damage.	<b>Landscaping:</b> Ongoing repair and restoration of trees, shrubs, grasses and irrigation.
	Gas vents to atmosphere until controlled.	<b>Gas Service:</b> Gas company employees require access to all affected buildings to restore service.
	Potential damage to other facilities during repair.	<b>Additional Costs / Enforcement</b>
	Gas service interrupted.	Roadway repairs and service life of the roadway are impacted adding to taxpayer costs.
	<b>Community</b>	Repair bills from gas company to excavator (if at fault).
	Traffic and pedestrian detours and delays.	Enforcement action by regulatory agency.
	Emergency services pulled from other duties.	Civil lawsuits for injuries and property damage.
	Municipal staff pulled from other duties.	Insurance claims.
	Gas company pulled away from routine jobs.	
	Locator drops planned route delaying other excavators.	

**nationalgrid**  
Safe Digging Best Practice Guidance

**nationalgrid**





## Practices for emergency excavation



Not every dig job grants you the luxury of waiting your state's required time for utility lines to be marked. Certain excavation jobs require immediate action to address a compromising event. Determining whether the event warrants an emergency excavation and coordinating with your state 811 center are the first steps toward keeping yourself and the public safe as well as protecting property and facilities.

### What warrants an emergency excavation?

According to the Common Ground Alliance, an emergency excavation "includes situations that involve danger to life, health, or property or that require immediate correction in order to continue the operation of or ensure the continuity of public utility service or public transportation." Examples include:

- Water main breaks
- Water or cable outages of essential buildings
- Breaches of livestock fences



### How to approach an emergency excavation

If you must proceed before utility lines are located, use extreme caution to prevent damage to underground facilities and to avoid endangering people and property while working the emergency.



Do NOT proceed without a locate if the job is not a true emergency, such as planting landscape or rushing a late project. Violations will subject you to civil penalties.

Follow these tips for coordinating your emergency excavation with your state 811 center:

#### In New York:

- Proceed without prior notification to New York 811 or UDig NY if the excavation or demolition can not be reasonably delayed.
- As soon as possible, notify the 811 center about the emergency excavation in progress. Always contact your state 811 center before digging and for the most current requirements.



## New York Safe Excavation Checklist

Use this checklist as your step-by-step guide to help prevent dangerous and costly damage to underground natural gas pipelines and other utilities.

*Always contact your state 811 center before digging and for current requirements.*

- ☐ 1. **State law requires calling 811 or making an online request** for utility locates *at least two full working days* before any excavation, excluding the date of your call, weekends and legal holidays. At no cost to you, the 811 center will notify member underground facility owners to mark buried pipelines and other facilities in your dig area. Allow more time for large projects.
    - Upstate New York: **Call 811 or 1-800-962-7962 | UDigNY.org**
    - Downstate New York – Brooklyn, Queens, Staten Island, Long Island and the Rockaways: **Call 811 or 1-800-272-4480 | newyork-811.com**
  - ☐ 2. **Notify facility owners** who are not 811 center members about your excavation and request locates directly from them. (Oil and gas production and gathering pipeline systems used primarily to collect oil or gas from wells are not required to join the New York 811 centers.)
  - ☐ 3. **Pre-mark your dig area** with white paint, flags and/or stakes, so locators can more easily identify utilities to be marked. Document your pre-marks with photos or video.
- 
- ☐ 4. **Keep your ticket number** and compliance documentation handy at the job site.
  - ☐ 5. **If digging in New York City and its five boroughs: The NYC Department of Buildings (DOB) requires you to provide your 811 ticket number when making normal notification of the commencement of earthwork.** The ticket must address all street frontages associated with the excavation, and all documents related to the notification must be kept on-site and available upon request. To complete the DOB earthwork notification, call 1-212-393-2550.
  - ☐ 6. **If your 811 locate indicates you will be working within 15 feet of a high-pressure natural gas transmission pipeline or other critical utility:** Prior to digging, you must attend an on-site meeting and/or have contact with qualified National Grid representatives. National Grid **MUST** be on-site during the excavation.
  - ☐ 7. **Expect responses from all facility operators** confirming utility presence or absence in your work area. UDig NY will send you one email where you can confirm the status of all member utilities' responses. New York 811 will provide all operators' responses for you to check at **managetickets.com** or by phone. Document the responses. If no response, do not dig; call 811.



# Excavator Beware

Dig safely around natural gas lines

Whether you operate heavy equipment or use handheld tools, when you dig, you risk contacting natural gas pipelines. Use these tips to stay safe:

- **Notify 811 well in advance** of digging or moving earth in any way – even for small jobs.
- **Respect the locate marks** and follow them when digging.
- **Dig with care** in the vicinity of underground natural gas pipelines.
- **If you find an unmarked or mismarked line**, stop digging and notify **811**.
- **Report any suspicious activity near a natural gas pipeline marker**.
- **Don't rely on your nose alone**. Be alert for the many warning signs of a natural gas leak.
- **Know what to do** if your equipment contacts a natural gas pipeline.

 To report a gas emergency, **call 911 and National Grid** immediately.

## Massachusetts

911 and 1-800-233-5325

## New York

Long Island and the Rockaways:

911 and 1-800-490-0045

Metro New York: 911 and 1-718-643-4050

Upstate New York: 911 and 1-800-892-2345



Enroll in our online excavator safety course today at [ngridssafety.com/utility-safety-course](https://ngridssafety.com/utility-safety-course).

For additional safety information and materials, visit [ngridssafety.com](https://ngridssafety.com) and connect with us on



**nationalgrid**



Know what's below.  
811 before you dig.



# Excavator safety near underground natural gas pipelines

Use this poster for employee training.





**Smell Gas. Act Fast. Be the one to call 911.**  
In a gas emergency, call 911 and National Grid  
24 hours a day, 7 days a week.  
Brooklyn, Queens and Staten Island: 911 and 1-718-643-4050  
Nassau, Suffolk and the Rockaways: 911 and 1-800-490-0045



**Always call 911 if you suspect a gas leak!**

For excavator safety tips, tools and videos, visit [ngridssafety.com](https://ngridssafety.com). ➔



Before you notify New York 811, **pre-mark your proposed dig area with white paint, flags and/or stakes.**

## Help prevent gas pipeline damage.

- **National Grid pipelines deliver natural gas safely and reliably** to homes and businesses across New York and Massachusetts. We regularly inspect these pipelines for corrosion and defects, monitor for leaks and conduct routine maintenance.
- **Hitting a natural gas pipeline has serious consequences.** Even a tiny gouge, scrape, dent or crease to a gas pipe or its coating may cause a leak that could lead to a catastrophic fire or explosion.
- **The greatest risk to gas pipelines is accidental damage during excavation.** We need your help to prevent pipeline damage and reduce the risk of dangerous natural gas leaks.

## Notify 811, even if you think you know where lines are buried. It's the law!

- State law requires you to call **New York 811** or make an online request at least **two full working days** before any excavation starts, excluding the date of your request, weekends and legal holidays. Even small or shallow jobs require this.
  - The FREE 811 service will arrange for marking of buried natural gas lines and other utilities so that you can work a safe distance away from them.
  - Call **811** or **1-800-272-4480** | **NewYork-811.com**.
- **Wait the required time** for utilities to locate and mark their lines before you dig. Never assume ANY area is free of underground utility lines.
- **Physically locate marked natural gas pipelines by hand digging, or potholing.** If you cannot locate marked pipelines, **STOP** digging and contact National Grid immediately.
- **Do not use mechanical excavation equipment within the "tolerance zone,"** which spans the width of a marked utility plus **24 inches** from each indicated outside edge. **Use ONLY hand tools or vacuum technology within this safety zone.**
- **If your excavation will cross a cast iron gas main or run parallel nearby, notify the 811 service and National Grid well in advance.** Cast iron gas mains in our Northeast communities may be damaged when the earth near them is moved in any way.

*Always contact your state 811 center before digging and for the most current requirements.*



**nationalgrid**  
Utility Safety Course

**nationalgrid**



# Dig smart, dig safe.

Master essential safety skills by enrolling in our FREE online excavator safety course today at [ngridssafety.com/utility-safety-course](http://ngridssafety.com/utility-safety-course).



Know what's below.  
**811** before you dig.



**nationalgrid**





## New York State Excavation Certification Training

**nationalgrid**





[About Us](#) ▼[Membership](#) ▼[The Law](#) ▼[Training & Education](#) ▼[Homeowners](#) ▼[Excavators](#) ▼

## MANDATORY LAW CHANGE (Senate Bill S.6756 and Assembly Bill 9985)

On November 5, 2018, New York State Governor Andrew Cuomo signed Senate Bill S.6756 and Assembly Bill 9985 into Law with the intent to greatly reduce the number of excavation related accidents thereby providing greater public safety and protection. The amendment to NYS Code Rule 753 will require any municipality or operator that engages in excavation work to require its excavators to complete a training and education program from their local One Call Notification Center. [Learn more about the law change here.](#)

Under this newly enacted law, receiving New York 811 Excavator Training & Education Program will constitute compliance with the law. This training will be available at no cost to the excavator or organization. Online training will be available December 1, 2018 at no cost to the participant. *This new law went into effect on May 4, 2019.*

To request on site training, please contact New York 811 at 631-778-8111 or email: [email@ny811inc.com](mailto:email@ny811inc.com)

[GET STARTED](#)




## 811 Ticket Submission Process Improvement

**nationalgrid**







# Make the 811 system work better for you.

## **Want timelier locates at your jobsites?**

Use the 811 system more efficiently to help reduce locator workload. Limit the size and frequency of your 811 ticket requests, and avoid making "just in case" requests so locators can get to your active jobsites on time.



Learn how at [811beforeyoudig.com](http://811beforeyoudig.com).





My tickets



Locator  
tickets



Reports



Legacy  
application



User settings



Messages



Help and  
support



Log out

# My Tickets



All released(63)   Expiring/expired(258)

**Click here**

Released between



Phone



Apply



<input type="checkbox"/> Ticket #	Release date/time	Address/street	City/place
<input type="checkbox"/> 250231156 🗨️	01/23/25 11:59 am	420 ALBANY AVE	NORTH AMITYVILLE
<input type="checkbox"/> 250231153 🗨️	01/23/25 11:58 am	DOROTHY ST	BELLMORE
<input type="checkbox"/> 250231131 🖐️	01/23/25 11:58 am	DOROTHY ST	BELLMORE
<input type="checkbox"/> 250231106 🖐️	01/23/25 11:59 am	420 ALBANY AVE	NORTH AMITYVILLE
<input type="checkbox"/> 250230186	01/23/25 08:02 am	95-99 DUNLOP RD	HUNTINGTON
<input type="checkbox"/> 250221665	01/22/25 04:00 pm	SAMS PATH	ROCKY POINT

My tickets

Locator tickets

Reports

Legacy application

User settings

Messages

Help and support

Log out

# My Tickets

NY

All released(12) Expiring/expired(0)

Released between

10/01/24

01/23/25

Phone

Numbers

Apply

Search by ticket #

I want to...

<input type="checkbox"/> Ticket #	Release date/time	Address/street	City/place	County
<input type="checkbox"/> 243461777	12/11/24 02:41 pm	CRAIG RD N	MANHATTAN	NEW YO
<input type="checkbox"/> 243310690	11/26/24 10:15 am	WHITE PLAINS RD	MANHATTAN	NEW YO
<input type="checkbox"/> 243201292	11/15/24 03:20 pm	WHITE PLAINS RD	MANHATTAN	NEW YO
<input type="checkbox"/> 243191592	11/14/24 06:10 pm	CRAIG RD N	MANHATTAN	NEW YO
<input type="checkbox"/> 243191590	11/14/24 06:01 pm	MAIN ST	MANHATTAN	NEW YO
<input type="checkbox"/> 243191583	11/14/24 05:55 pm	CRAIG RD N	MANHATTAN	NEW YO
<input type="checkbox"/> 243091392	11/04/24 10:35 am	CRAIG RD N	MANHATTAN	NEW YO
<input type="checkbox"/> 243052406	10/31/24 05:24 pm	CRAIG RD N	MANHATTAN	NEW YO

Click here



My tickets



Locator tickets



Reports



Legacy application



User settings



Messages



Help and support



National Grid

# Ticket number 243461777

[Set an internal status](#)



Back



Relocate



Add attachment

Click here

## Ticket information

<b>Ticket number</b>	243461777
<b>Original call date</b>	12/11/24 02:41 pm
<b>Work to begin date</b>	12/16/24 07:00 am
<b>Type</b>	ROUTINE NXT

## Dig site location

<b>State</b>	NY
<b>County</b>	NEW YORK
<b>City/place</b>	MANHATTAN
<b>Street</b>	CRAIG RD N



Statue of Liberty  
Museum Store  
Gift shop

1

of Liberty  
Cafe



# Ticket number 243461777

Set an internal status

[Back](#) [Relocate](#) [Add attachment](#)

## Ticket information

Ticket number

Original creator

Work to be done

Type

**You Have Selected Relocate Ticket**

Have the location or dimensions of the worksite changed on this ticket?

Yes - Changes Needed

No - No Changes are Needed

## Dig site location

State	NY
County	NEW YORK
City/place	MANHATTAN
Street	CRAIG RD N
Intersecting street	ABSECON RD
Second intersecting street	DISCOVERY HILL PATH
Location description	MARKING INSTRUCTIONS AT WORKSITE: MARK A 50 F...

If the location of the jobsite has changed, click here. If the jobsite has not changed, click "No".

Ticket type: ROUTINE

### Location information

\* Indicates required field

City/place \*

MANHATTAN

County \*

NEW YORK

Address number

Street name \*

CRAIG RD N

Nearest intersecting street \*

ABSECON RD

Second intersecting street \*

DISCOVERY HILL PATH

Property location \* ✓

In Street: ☐ On Sidewalk: ☐ Private Property: ☐ Other Property: ☒

Front Property: ☐ Side Property: ☐ Rear Property: ☐

Location of work \*

MARKING INSTRUCTIONS AT WORKSITE:  
MARK A 50 FT RADIUS AROUND THE VALVE.

Additional information

#### Attention

Edit the ticket information to match the new location and/or dimensions of the job site

If the ticket mapping needs to be changed to cover the adjusted job site, click the "Edit map" button and update the map on the mapping page

Continue

Click here

User settings

Messages

Help and support

Log out

## Location information

\* Indicates required field

City/place \*

MANHATTAN

County \*

NEW YORK

Address number

Street name \*

CRAIG RD N

Nearest intersecting street \*

ABSECON RD

Second intersecting street \*

DISCOVERY HILL PATH

Property location \* ✓

In Street: ☐ On Sidewalk: ☐ Private Property: ☐ Other Property: ☒

Front Property: ☐ Side Property: ☐ Rear Property: ☐

Location of work \*

MARKING INSTRUCTIONS AT WORKSITE:  
MARK A 50 FT RADIUS AROUND THE VALVE.

CALL CENTER MAP DRIVING DIRECTIONS TO WORKSITE:  
FROM THE INTERSECTION OF CRAIG RD N AND ABSECON RD, HEAD  
SOUTH ON CRAIG RD N FOR 48 FT. HEAD WNW FOR 1.03 MILES TO THE  
VALVE.

Additional information

Edit the location information  
that needs to be changed  
here

Google



# New Technology

Urbint - Predictive Analytics

**nationalgrid**



# Urbint + nationalgrid

Protecting workers, assets, communities, and the environment.

## Damage Prevention

Reduce Third Party  
Damages



Reduced asset  
damages by  
**37%**

## Worker Safety

Prevent Serious Injuries  
and Fatalities



Increased hazard  
recognition by  
**56%**

## Storm Response

Restore Power Faster  
Post-Weather Events



Secured all crews required  
for storm within  
**19 Minutes**

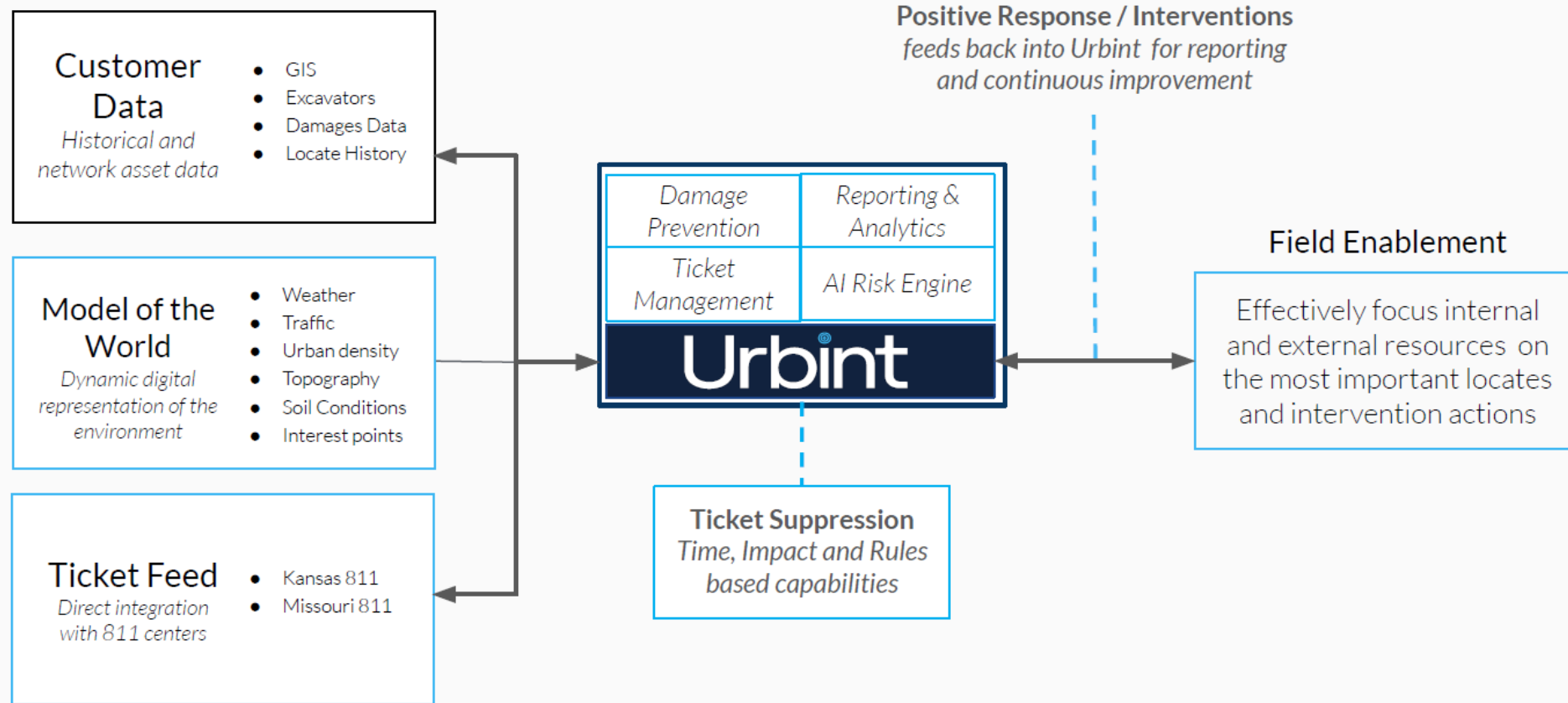
## Public Safety

Improve Response to  
Public Hazards



Enhanced Situational  
awareness from  
**5,000**  
first responders

# How Urbint Works





# Risk Engine = Threat x Impact

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Urbint uses a combination of machine learning and business logic to risk rank all tickets by Threat and Impact

## Threat (Probability)

Likelihood of an excavation to result in a damage

---

Uses data including historical Ticket & Damage data.

## Impact (Consequence)

Consequence of damage to high value assets

---

Uses data including GIS (asset) and Model of the World

## Transforming Damage Prevention

In 2018, National Grid was experiencing a damage rate plateau and was under risk of heavy regulatory fines. They needed to find a way to be more efficient in assessing and acting on the growing volume of 811 tickets.

Urbint and National Grid partnered to deploy an industry leading AI based solution to review and score every 811 for the Threat and Impact of a potential Damage.

National Grid transformed their intervention program by using Urbint to focus their limited resources to for the greatest possible impact.

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*"Urbint has delivered tremendous value to our gas operations business in the U.S. Their use of AI technology has enhanced our ability to flag incidents and excavators with increased foresight and precision, thus helping our customers stay safe."*

22%

Damage reduction experience after year 1

60%

Reduction in damages from large excavators

16x

Likelihood of a damage on a Very High risk ticker over baseline

37%

Total damage rate reduction over the life of the program

# New Technology

Locate Enhancements

Locate Enhancements

**nationalgrid**





## QUALITY, PERFORMANCE & DAMAGE REDUCTION

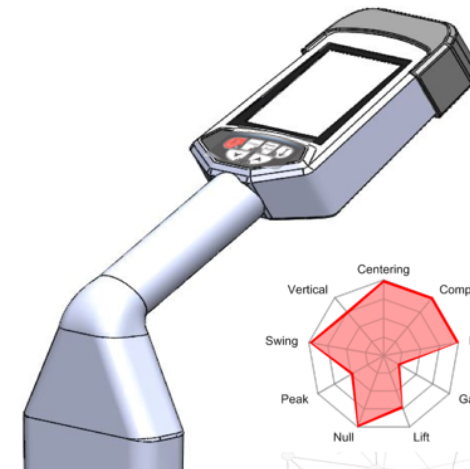


### Locate Assurance® = Identify bad locating practices that result in damages

- › Ability to live audit a locator that has bad habits
- › Automated Alerts Before Leaving Site
- › Provides On-Site Productivity Improvements & Metrics
- › Weekly Performance Feedback to Locators
- › Team Reporting & Incentives
- › Locate Simulator Proven to Reduce Damages

### UTTO Pathfinder Locate Device

- › Does not interfere with Field Tech workflow
- › Lightweight Device with Lithium Rechargeables
- › 1m GPS Positioning (6" in Q3 2021)
- › Cloud connectivity/IoT device management



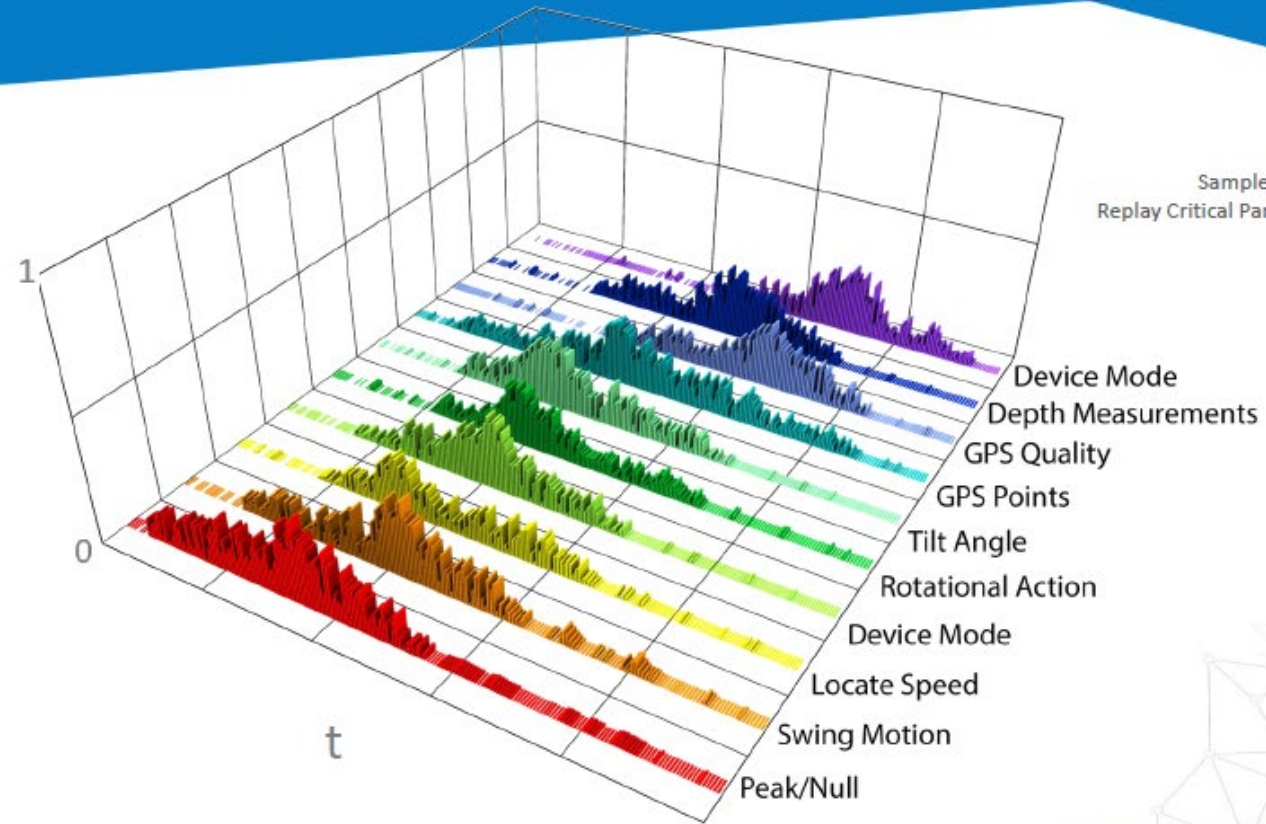
Technique	3.7	Accuracy	5.0	Time	2.9
motion & control	out of 5	to simulator target	out of 5	Session time	out of 5

UTTO 2021 ©

## Locate Signature Proprietary Algorithm



UTTO



Sampled x10/s  
Replay Critical Parts of Every Locate

IPEG Corp 2020 ©



**conEdison**



# Locate Assurance

- Locate risk assessment: Identify bad locate practices that can result in damages.
- Improve quality & enforce best practices.
- Field performance transparency with alerts, reporting & analytics.
- The ability to perform remote audits.
- Breadcrumb tracking including distance located and locate time.





LOCATES



BREADCRUMBS



GPS



STREETS



### Performance

Performance Score:	88%
Centering Score:	80%
Compass Score:	100%
Depth Score:	100%
Gain Score:	100%
Lift Score:	40%
Null Score:	100%
Peak Score:	80%
Swing Score:	100%
Vertical Score:	100%

### Alerts



Sean Thomas

Ticket ID: 3DORI2dw2h

Current reading below 3mA

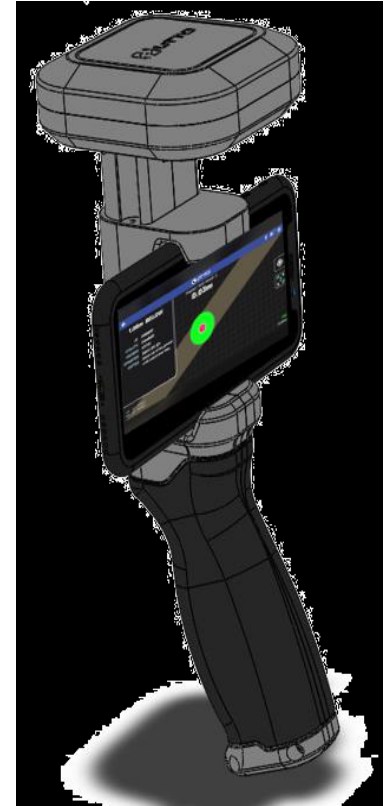


Site Report

11 days ago

# vLocate® RTK Mapper

- UTTO's vLocate® technology in a compact and tough handheld device
- Simple –Fast –Centimeter Accuracy –Guidance to Facilities
- Designed specifically for the Utility Industry
- No long learning curve, GIS classes or hand holding required
- Import & load your existing GIS datasets or create new
- Map your assets during construction or locate and mark operations
- Reduce damages, improve safety, and increased productivity





# Public Improvement Initiatives

## 2024 - 2025

- Special care removal of all curbs and sidewalks
  - Proactively avoid damages on shallow facilities
- System alerts – High and Medium Subsurface risk alerts
  - Share High alerts with the various agencies expand to Medium
- Summer Season – Electric system peak loads
  - Additional precautions when working around primary facilities
  - Expand to Winter Season - Gas and Steam system peak loads
- Damage prevention discussions during Pre award meetings with NYC DDC
  - Discussions in advance about facility protection and safe work practices
- STKY – “Stuff That Will Kill You”
  - Part of every briefing
  - Interactive conversation with all stakeholders

# Con Edison Oversight

- Con Edison is a partner in the project
- Provides Con Ed Inspector coverage
- Three-way communication – especially with job/location changes
- Job briefs/walk downs
- Milestones/Incentives
- Risk outweighs incentives

# Analysis – 2024 - 2023

City Contractor Damages	2024		2023			
<b><u>Total Damages</u></b>	<b>72</b>		<b>108</b>			<b>-33%</b>
<b><u>Root Cause</u></b>						
Careless	<b>29</b>	40%	<b>36</b>	33%		<b>-19%</b>
Plate Incorrect	<b>23</b>	32%	<b>27</b>	25%		<b>-15%</b>
Shallow	<b>7</b>	10%	<b>24</b>	22%		<b>-71%</b>
Hand Tool	<b>6</b>	8%	<b>7</b>	6%		<b>-14%</b>
No 753	<b>2</b>	3%	<b>5</b>	5%		<b>-60%</b>
Failure to Recall/Invalid 753	<b>2</b>	3%	<b>2</b>	2%		<b>0%</b>
Locator Error	<b>2</b>	3%	<b>5</b>	5%		<b>-60%</b>
Other	<b>1</b>	1%	<b>2</b>	2%		<b>-50%</b>



# Contractors' Perspective on Safety





Thomas Liccione – Director  
Environmental, Health and Safety

## Borough Based Jail - Brooklyn Facility

Tutor Perini Corporation (TPC) was awarded the \$2.95 Billion Design Build Borough Based Jail - Brooklyn Facility in 2023. TPC mobilized to the site in April of 2024.

Obstacles TPC has faced and how we continue to overcome them on the project:

- ✓ Design Build projects pose challenges from a forecasting and preparation standpoint. As design is subject to change altering scopes of work and requirements.
- ✓ TPC's team of professionals work closely together and have the experience necessary to handle these challenges.
- ✓ Protection of the public, worker safety, and adherence to requirements set forth by governing agencies.
- ✓ The project is located in downtown Brooklyn, which can present logistical challenges.
- ✓ TPC continues to coordinate with the public and governing agencies to mitigate these challenges.
- ✓ Maintenance and Protection of Traffic (MPT) plan that includes flagging and traffic controls is strictly adhered to.
- ✓ Department of Design and Construction Office of Construction Safety submittal process.
- ✓ Through open communication with the DDC OCS team we have made great strides in the site safety plan submittal process on the OCS Portal.

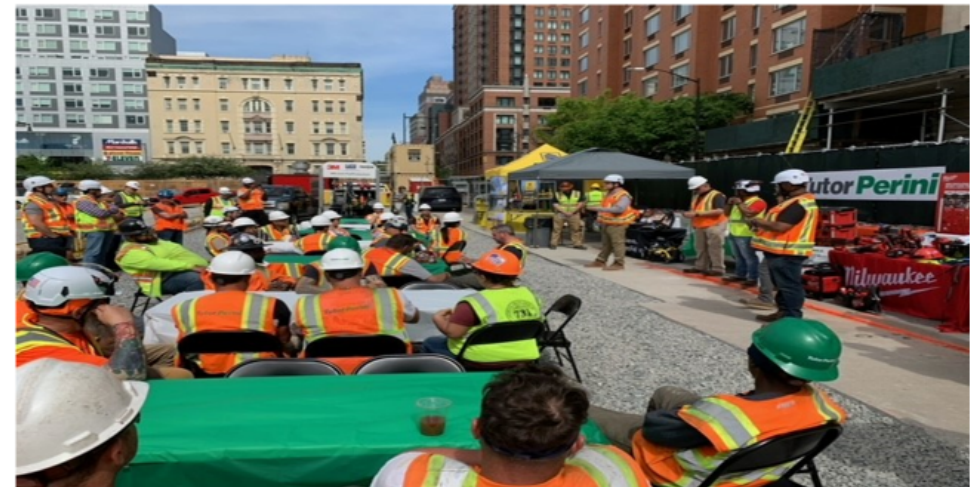




## Borough Based Jail - Brooklyn Facility

### TPC Safety Program Overview:

- TPC promotes a positive safety culture beginning with our top leadership. The Safety Department advises and consults with all layers of management including, the operations team, individual project team, and other key staff to ensure the highest standards are met throughout all aspects of the company's operations, both internally and externally.
- TPC provides thorough training to our employees on safety protocols, hazard recognition, and proper equipment usage. Additionally, TPC ensures our employees and subcontractors receive safety training to remain in compliance with federal, state, and local law requirements.
- Established safety policies and procedures are implemented and adhered to. These policies are reviewed and updated to reflect the latest industry standards and best practices.
- TPC's proactive approach to safety management includes regular site inspections, hazard assessments, and safety audits.
- Due to the buy in and support of our employees TPC's Safety Program continues to yield successful results.



Dumas Gabbriellini - Director  
Environmental, Health & Safety



MFM Contracting Corp.
Safety Meeting Report

Meeting Date: 2/11/2025 8:37:17 AM
Job: 183-0-100 CE
MANHATTAN GAS
TURNKEY: CON
EDISON
Recorder: CENTENOF: FAUSTO
BORJA-CENTENO
Duration: 10 (minutes)
Total training hours: 1.17
Meeting Type: Daily Job Safety Briefing
Daily Job Safety Briefing for Gas Project - CE Gas Daily Briefing Updated 7-24-24

ATTENDANCE

Employees: 100% (7 on site, 7 attended)

Table with 4 columns: Code, Name, On-site, Attended. Rows include A Villa, Borja Centeno, CAMPBELLS, CENTENO, CENTENOF, RIVERAC, and ZHICAY.

Visitors:

Table with 4 columns: Name, Visitor Notes, On Site, Attended. Row includes Sonia Orozco.

SIGNATURES

Signature blocks for: ANDRES VILLA A Villa, JOSE CENTENO CENTENO, Bryan Borja Centeno Borja Centeno, SEAN CAMPBELL CAMPBELLS, CRISTIAN REINOSO-RIVERA RIVERAC, Sonia Orozco Visitor, FAUSTO BORJA-CENTENO CENTENOF, and LUIS ZHICAY ZHICAY.

Signature Page 1 of 2

Signature Page 2 of 2



DAILY JOB BRIEFING

Layout #M23-100873535 Date 2/11/25

Location W.119 st btwn Lenox ave Time 9 am

Pre-Job Briefing/Scope of Work: At 9 am we star doing the safety set up to continue excavating the service to transfer to the new main and I went over the CD plate feeder plate and gas plate and I speak with the guys about stky verbally
Competent Person: Fausto Borja
Flagger: Sonia Orozco
Spotter: Cristian Rivera
Con Edison Inspector: N Nieves

Minimum Items to check prior to start of work: IT IS REQUIRED BY ALL MFM EMPLOYEES TO PERFORM ATMOSPHERIC TESTING CONTINUOUSLY @4>

Initial atmospheric reading AM 9:45 Mid-day 11:45 PM 1:55

- Went through 1-5 Rule
Discussed Rules We Live By
Code 753 present/up-to-date
All permits are on location & active
All pertinet plates on location
Went over Work Area Protection
Do you have the right PPE for scope of work
Hardhat, safety vest, glasses
Safety gloves, KV gloves, & shankies Trench and Excavation reminder:
Hearing protection
FR clothing
Respiratory protection
eHASP on location
Noise Mitigation plan on location
Dust Mitigation Plan on location
Green Infrastructure protection
Good housekeeping
Everyone sign job briefing

Call 811 for a "Code 753" markout 2-10 business days before excavation. Refresh marks as needed. No excavating until area marked out, except in emergencies where hand digging only is permitted. After removing asphalt, no mechanical excavation is permitted within the tolerance zone until facility is located by hand excavation. After facilities are located, mechanized equipment is permitted no closer than 4" from the facility. (CI-280-2, CEHSP 513.00, Code 753) Note: Contractors are required to maintain a minimum of 12" on parallel excavations and 6" on facility crossings. (See Trenching Manual). Service-to-main connections have a 3' tolerance zone (hand excavate in this 6' x 6' area).The tolerance zone for gas mains and services is 24" plus 1/2 the pipe diameter (if known) on all sides of the pipe (36" tolerance zone for contractors). Fully expose gas mains and services by hand prior to using mechanized equipment. Compare layouts, gas/electric/steam/regulator/M&S/C&DO plates to the mark-outs and field conditions.

Pre-Job Briefing Signatures: I have been briefed on the correct procedures for doing this job safely and understand the saftey protocols for this job and fully understand the hazards and the safe work practices to mitigate these risks. PLEASE SIGN DIGITALLY ON HCSS APP. All employees will report all injuries and close calls to foreman/Super.



# Contractor Safety Performance Evaluation



<b>Evaluation Criteria</b>	<b>Maximum Deduction</b>
Fatalities or OSHA reportable cases	40% or 25% max
Accidents – Treatment beyond first aid	20% max
Incident – Minor injuries, and property damage including at-fault utility damages	15% max
High Risk Deviations	5% max
DDC Stop Work Orders	10% max
Working without an acceptable SSP	10% max

# Safety Evaluation Process and Tools

## Metrics



Comprehensive checklists are used to guide the evaluation process, ensuring all essential areas and criteria are captured.

## Data



Data is collected through safety audits, SSP reviews and accident/incident investigations.

## Report



Evaluation results are shared with project staff and reflected in the overall contractors' periodic and final evaluation in PASSPort.



# Contractor Improvement Strategy

1

## Action Plan

Review the evaluation and develop a detailed action plan to improve safety performance in the identified areas.

2

## Implementation

Implement the action plan promptly, ensuring that corrective measures are taken to address safety concerns.

3

## Monitoring

Regularly monitor safety performance and effectiveness of implemented corrective measures, making improvements as needed.



Continuous Improvement

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# SAFETY REGULATORY UPDATES

OSHA  
NYC DOB



# SAFETY UPDATES

## OSHA Revision of PPE Standard 29 CFR 1926.95

1

### Effective Date

January 13, 2025

2

### Safe Design

PPE must be of safe design and construction for the work performed

3

### Proper Fit

PPE must be selected to ensure proper fit for each affected employee



# SAFETY UPDATES

## New Definition of Major Buildings – Effective December 11, 2024

### ➤ New Definition

- An existing or proposed building **7 (instead of 10) or more stories or 75 (instead of 125) feet** or more in height.
- A building footprint of at least 100,000 s.f.<sup>2</sup>; or
- A building that the DOB Commissioner has designated due to unique hazards caused by construction or demolition.

➤ **Applies** to initial permits issued and initial permit requests submitted on or after December 11, 2024.

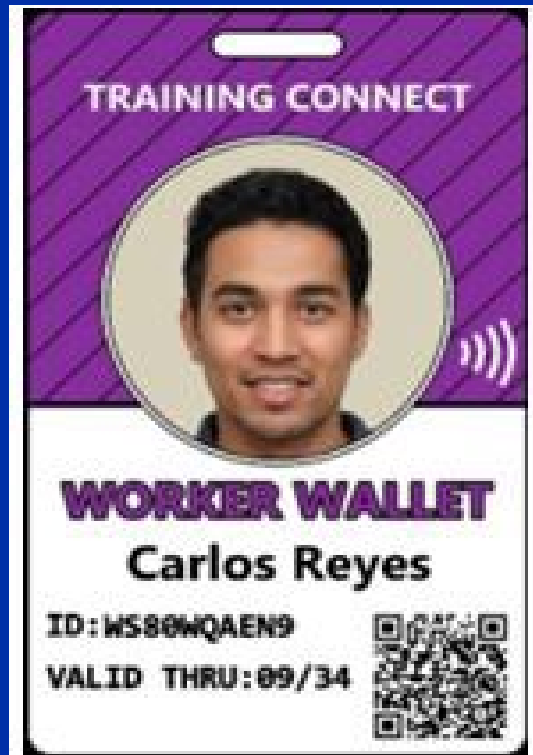
➤ The new definition of major building **does not impact façade work** - continue to apply only to buildings more than 14 stories or 200 feet in height.





# SAFETY UPDATES

## NEW Worker Wallet Card – Effective November 1, 2024



- Mast Climber User/Operator and Refresher

- Climber/Tower Crane Rigger

- Rigging Supervisor

- Rigging Worker

- Supported Scaffold User

- Supported Scaffold Installer & Remover

- Suspended Scaffold User

- Suspended Scaffold Supervisor

- Periodic Gas Piping Inspector

# SAFETY UPDATES

## NYC DOB Hoist Machine Operator (HMO) License Update

- 1 Effective Date** October 16, 2024
- 2 New Requirement** Limited License Articulating Boom Cranes, Mini Cranes, and Telehandlers added to the list of equipment requiring license for operators
- 3 Existing Licenses** C-1, C-2, C-3 holders can continue operating authorized equipment after November 7, 2024

# SAFETY UPDATES

## NYC DOB HMO License Update

- 1 Effective Date** November 7, 2024
- 2 New Requirement** HMO license required for articulating boom cranes, mini cranes, and rotating telehandlers.
- 3 Supervision** Unlicensed operators must be supervised by licensed HMO after 11/7/24



# SAFETY UPDATES

## Unlicensed Operation Must be Reported

Site Safety Managers, Site Safety Coordinators, and Construction Superintendents are required to report the unlicensed operation of articulating boom cranes, mini cranes, and rotating telehandlers.



# SAFETY UPDATES

## Lift Director License

Beginning January 1, 2025, any person acting as a Lift Director or performing the duties of a Lift Director must be registered with the Department of Buildings as a Lift Director, or be licensed by DOB as a Master Rigger, or be a Master Rigging Foreman and acting as a Lift Director under the direct and continuing supervision of the Licensed Master Rigger.



# Environmental Compliance



# Office of Environmental & Hazmat Services (OEHS)

## Mission

- **Environmental Safety** - Protecting the public, the workers, the natural resources and wildlife of NYC.
- **Environmental Compliance** - Ensuring compliance of construction projects and their conformance with environmental regulations, DDC specifications, and approved plans.



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# TOPICS:

- Environmental Compliance Audits
- Stormwater Pollution Prevention Plan (SWPPP)
- NYSDEC New SPDES Construction General Permit (CGP)
- Illicit Discharge Detection and Elimination (IDDE)
- Environmental Awareness Program
- Construction Documents



# Environmental Compliance Audits

## ❖ Field Audits Started in 2024:

- ❑ Completed 410 environmental audits
- ❑ Issued two (2) Partial Stop Work Orders (SWOs)

## ❖ Audit Process:

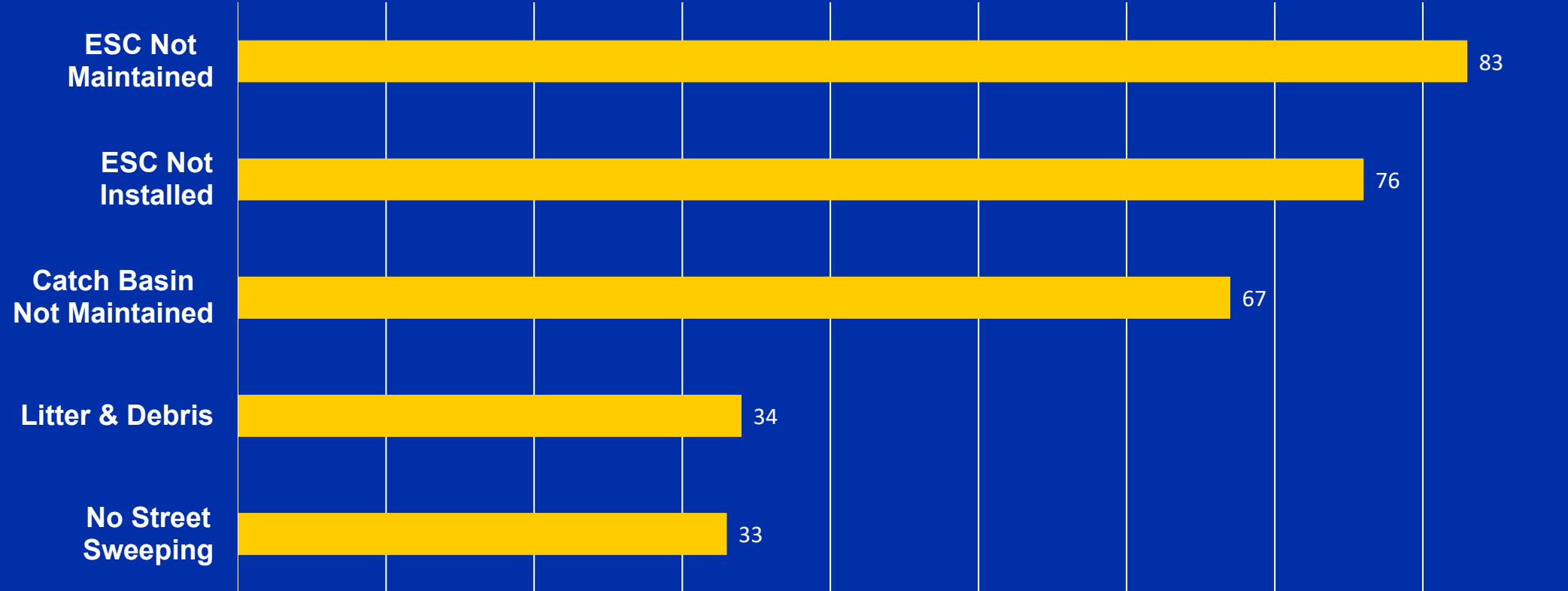
- ❑ Utilizes ScoreCard Plus to capture audits
- ❑ The Environmental Requirements Compliance Checklist is shared with project staff ahead of audit
- ❑ Contractors must implement corrective actions, supported by date/time-stamped photos and captions

## ❖ Pre-Construction and Progress Meetings:

- ❑ Discuss Environmental Compliance and corrective action implementation



# Top Five Environmental Deviations in 2024





# Corrective Actions

Should adhere to Stormwater Pollution Prevention Plan (SWPPP) and Illicit Discharge Detection and Elimination (IDDE) guidelines



## ❖ Erosion and Sediment Control (ESC) Maintenance:

- ☐ Install missing ESC measures (e.g., silt fences, inlet protections)
- ☐ Repair or replace damaged/clogged ESC systems
- ☐ Clean sediment buildup in filters regularly

## ❖ Site Cleanup and Management:

- ☐ Remove construction debris promptly
- ☐ Sweep roadways to eliminate sediment regularly

## ❖ Record-Keeping:

- ☐ The DEP Stormwater Construction Permit must be posted on site
- ☐ Pertinent records must be maintained on-site
- ☐ Daily and weekly Inspections must be documented and kept on-site

## ❖ Water Discharge Compliance:

- ☐ Prevent discharges to state waters not covered by the SPDES Permit
- ☐ Address violations of state water standards immediately
- ☐ Report Illicit Discharge Detection and Elimination (IDDE) events to DDC Infrastructure/Construction immediately

# Stormwater Pollution Prevention Plan (SWPPP)

- ❖ Construction must not commence without a DEP Stormwater Construction Permit.
- ❖ The DEP Stormwater Construction Permit must be posted on site.
- ❖ Pertinent records must be maintained onsite.
- ❖ Maintain good housekeeping to prevent pollutants from getting into the stormwater runoff.
- ❖ Rain events have the potential to cause on-site or off-site property damage due to ESC failures.
- ❖ A Trained Contractor must inspect the project site daily.
- ❖ A Qualified Inspector must conduct site inspections every 7 days.
- ❖ Daily & weekly inspections must be documented and kept on site.

**NYC**  
Environmental Protection

**THE CITY OF NEW YORK**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**

Bureau of Environmental Planning & Analysis  
59-17 Junction Blvd. 9th Floor, Flushing, NY 11373  
Stormwaterpermits@dep.nyc.gov

Rohit T. Aggarwala  
Commissioner

Pinar Balci  
Assistant Commissioner  
Environmental Planning & Analysis

**STORMWATER CONSTRUCTION PERMIT**

**PROJECT NAME:** [REDACTED]

**SITE ADDRESS:** [REDACTED]

**Developer :** JUDITH CORIOLAN  
NYC-DDC  
30-30 THOMSON AVENUE, LONG ISLAND CITY, NY 11101  
LIC, New York 11101

**Contractor :** [REDACTED]

**Issued:** [REDACTED]

**Expiration:** [REDACTED]

**Application ID:** [REDACTED]

**Request ID:** [REDACTED]

The holder of this permit must comply with the Rules of the City of New York, Title 15, Section 19.1-03.3. Failure to comply with the permit conditions may result in penalties. Discharges of soil or other objectionable materials to the roads, drains or waterways is a violation of this permit and should be reported via 311. Temporary shutdown of the construction site must be reported to the Department at least 7- days prior.

**\*DISPLAY PERMIT ON CONSTRUCTION SITE**

[REDACTED]


*Margaret O'Connor*  
Margaret O'Connor, P.E.  
Director of MS4 Construction Permitting



**A SWPPP approval is not an authorization to begin soil disturbance activities.**



# NYSDEC New SPDES Construction General Permit (GP-0-25-001)

 **Department of Environmental Conservation**

NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL  
CONSERVATION (NYSDEC)

SPDES GENERAL PERMIT  
FOR STORMWATER DISCHARGES


From

**CONSTRUCTION ACTIVITY**

Permit No. GP-0-25-001  
Construction General Permit (CGP)  
Issued Pursuant to Article 17, Titles 7, 8 and Article 70  
of the Environmental Conservation Law

Effective Date: January 29, 2025      Expiration Date: January 28, 2030

Scott E. Sheeley  
Chief Permit Administrator

 JAN. 29, 2025

Authorized Signature      Date

Address: NYSDEC  
Division of Environmental Permits  
625 Broadway, 4th Floor  
Albany, N.Y. 12233-1750

- ❖ Effective on January 29, 2025, and expires on January 28, 2030.
- ❖ Owners or operators with active coverage under GP-0-20-001 have 45 calendar days of interim coverage under GP-0-25-001, which is until March 16, 2025.
- ❖ Owner or operators are required to obtain continued coverage beyond the interim coverage period within 30 calendar days of the effective date of GP-0-25-001, which is until February 28, 2025.
- ❖ Required for all construction projects within the municipal boundaries of NYC with 20,000 sf or more of disturbance or creating 5,000 sf or more of impervious area, partially or entirely within the municipal separate storm sewer system (MS4).
- ❖ SWPPP amendments will not be required during this transition period; however, project staff should be aware that a new version of the CGP is published by NYSDEC which should be referenced and kept on site.

# Illicit Discharge Detection and Elimination (IDDE)

- ❖ Illicit discharges include any discharge into a storm drain that does not consist entirely of stormwater.
- ❖ Discharges not prescribed by a State Pollutant Discharge Elimination System (SPDES) Permit, or otherwise that cause or contribute to water conditions violating state standards are prohibited.
- ❖ Illicit discharges are a problem because stormwater generally flows to waterways without any treatment.
- ❖ When an IDDE event occurs, Contractors must to report to DDC Infrastructure/Construction who will notify DDC OEHS and identify the source of the illicit discharge and provide the location of discharge.
- ❖ Connection permits from DEP may be necessary as corrective action to eliminate illicit discharges.





# Environmental Awareness Program

- Implemented the Environmental Awareness Program by visiting active construction sites.
- OEHS presents information on various environmental issues, permits and construction documents.
- Giveaways are used during fun Q&A sessions to reward staff with correct answers.
- During these visits, Tip Cards are distributed to promote regulatory compliance and best practices.



# Environmental Awareness Program – Tip Cards



## EROSION AND SEDIMENT CONTROLS HOUSEKEEPING

- Good housekeeping is a simple erosion and sediment control that helps prevent pollutants from getting into the stormwater runoff from a construction site.
- Effective housekeeping measures include:
  - Performing daily sweeping of paved roadways.
  - Managing construction site litter and debris.
  - Controlling dust.
  - Covering dumpsters.
  - Properly covering and storing paint and other chemicals.
  - Properly storing materials and equipment.
  - Training employees regularly on good housekeeping practices.
- The main objective of maintaining good housekeeping is:
  - Keep pollutants from contacting rain.
  - Keep pollutants from being dumped or poured into the storm drains.
- The goal is "only rain in the storm drain."

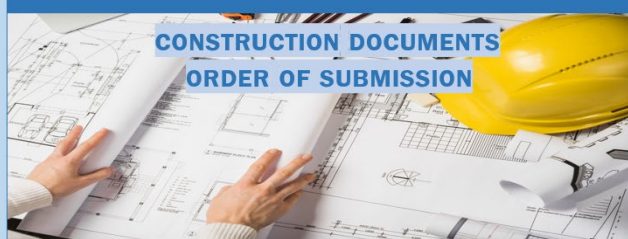

Office of Environmental & Hazmat Services (OEHS)



## CEQR COMPLIANCE DURING CONSTRUCTION

- City Environmental Quality Review (CEQR) requires an extensive impact assessment of many city projects through the preparation of an Environmental Assessment Statement (EAS) and/or Environmental Impact Statement (EIS).
- During the preparation of the EAS/EIS, various agencies are involved in evaluating the potential impact and possible mitigation efforts. The mitigation often requires commitments made in the EAS/EIS, which must be executed during the implementation of the construction project.
- When contamination and/or hazardous materials are identified during subsurface sampling conducted during the EAS/EIS assessments, various commitments are established, which the Contractor must follow. These commitments may include but are not limited to Remedial Action Plans (RAP), Construction Health and Safety Plans (CHASP), Clean Fill Reports, and/or soil vapor installation.
- When the proposed construction work impacts Army Corps of Engineers (USACE) and New York State Department of Environmental Conservation (NYSDEC) regulated wetlands, there may be a need for wetland restoration to be completed. The Contractor must ensure that the wetland restorations are completed in accordance with approved EAS/EIS and drawings included in the Joint Permit Application (JPA).
- Some DDC projects may have an impact on potentially sensitive archeological and architectural resources. When these potentially sensitive areas are identified within or near the project limits, various commitments are established in the EAS/ EIS. The commitments may include but are not limited to an Unanticipated Discovery Plan, Phase IB Archeological Assessment, and/or Construction Protection Plan.

Office of Environmental & Hazmat Services (OEHS)



## CONSTRUCTION DOCUMENTS ORDER OF SUBMISSION

According to the DDC HazMat Specifications for Handling, Transportation, and Disposal of Potential and Identified Contaminated and Hazardous Materials (Item 8.01), the following construction documents are required to be provided in the order referenced below:

1. Field Sampling Plan (FSP) & Investigation Health and Safety Plan (IHASP)
2. Field Sampling Summary Results (FSSR)
3. Material Handling Plan (MHP) & Environmental Health and Safety Plan (EHASP)
4. Water Handling Plan (WHP) - if applicable
5. Waste Profile (WP) & Waste Profile Request for Information (RFI)

Note that OEHS will not provide an acceptance for the construction documents if these documents are not provided in the order referenced above.

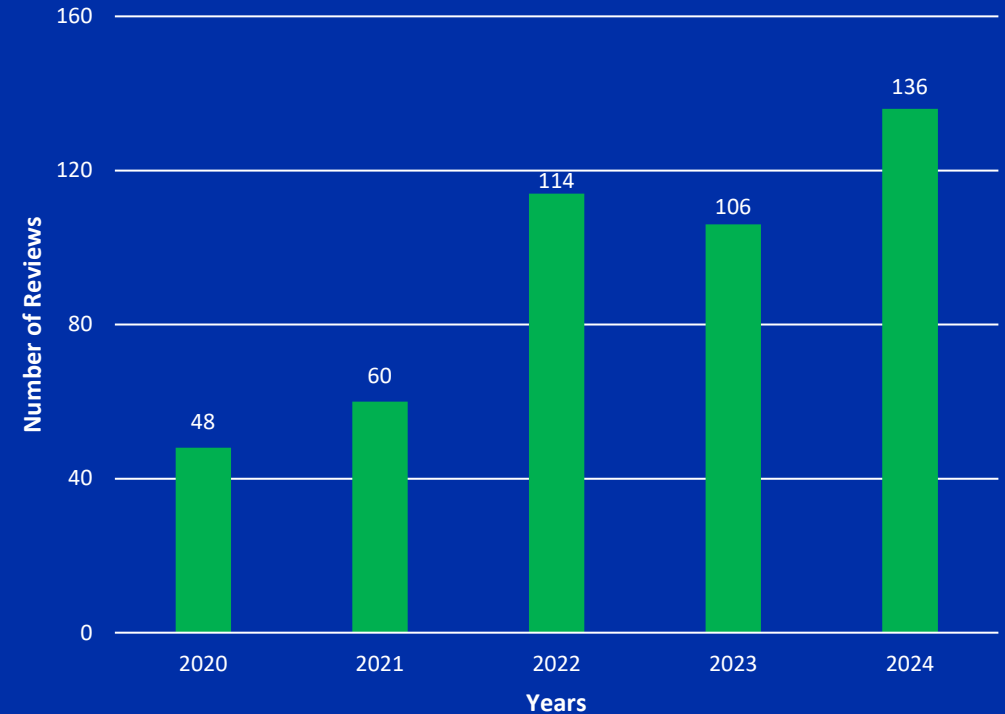
Office of Environmental & Hazmat Services (OEHS)



# Construction Documents

- ❖ Field Sampling Plan (FSP) & Investigation Health and Safety Plan (IHASP)
- ❖ Field Sampling Summary Results (FSSR)
- ❖ Material Handling Plan (MHP) & Environmental Health and Safety Plan (EHASP)
- ❖ Water Handling Plan (WHP)
- ❖ Waste Profile & Waste Profile Request for Information (RFI)

Construction Document Reviews in 2020, 2021, 2022, 2023, & 2024



**All Construction Documents must be reviewed and accepted by OEHS prior to the start of the associated activities**

# New Construction Documents Templates

Effective Date March 1, 2025

## Field Sampling Plan

### FSP Prepared for:

Insert Project Name  
Insert Capital Project ID Number  
Insert Project/Site Address/Location  
Insert Project/Site Phone Number



New York City Department of Design and Construction  
30-30 Thomson Ave, Queens, New York 11101

Insert Contractor Name  
Insert Address, City, State, Zip Code

### FSP Prepared By:

Insert Company or Organization Name  
Insert Contact Name  
Insert Address, City, State, Zip Code  
Insert Phone Number  
Insert Fax/Email

### FSP Preparation Date:

Insert Date

### FSP Revision Date:

Insert Date

## What's New?

- ❖ Templates to align with the latest DDC HazMat Specifications (Item 8.01).
- ❖ Available templates:
  - ☐ Field Sampling Plan (FSP) & Investigative Health & Safety Plan (IHASP)
  - ☐ Field Sampling Summary Results (FSSR)
  - ☐ Material Handling Plan (MHP)
  - ☐ Environmental Health and Safety Plan (EHASP)
  - ☐ Water Handling Plan (WHP)

## Why This Matters:

- ❖ Ensures compliance with updated protocols.
- ❖ Facilitates more efficient and accurate submission of required documents.

## Next Steps:

- ❖ Bookmark the webpage below for easy access.
- ❖ Use the templates from the webpage for all future submissions.
- ❖ Notify your team to transition to the new templates.

DDC website <https://www.nyc.gov/site/ddc/resources/publications.page#safety>





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# THANK YOU!

