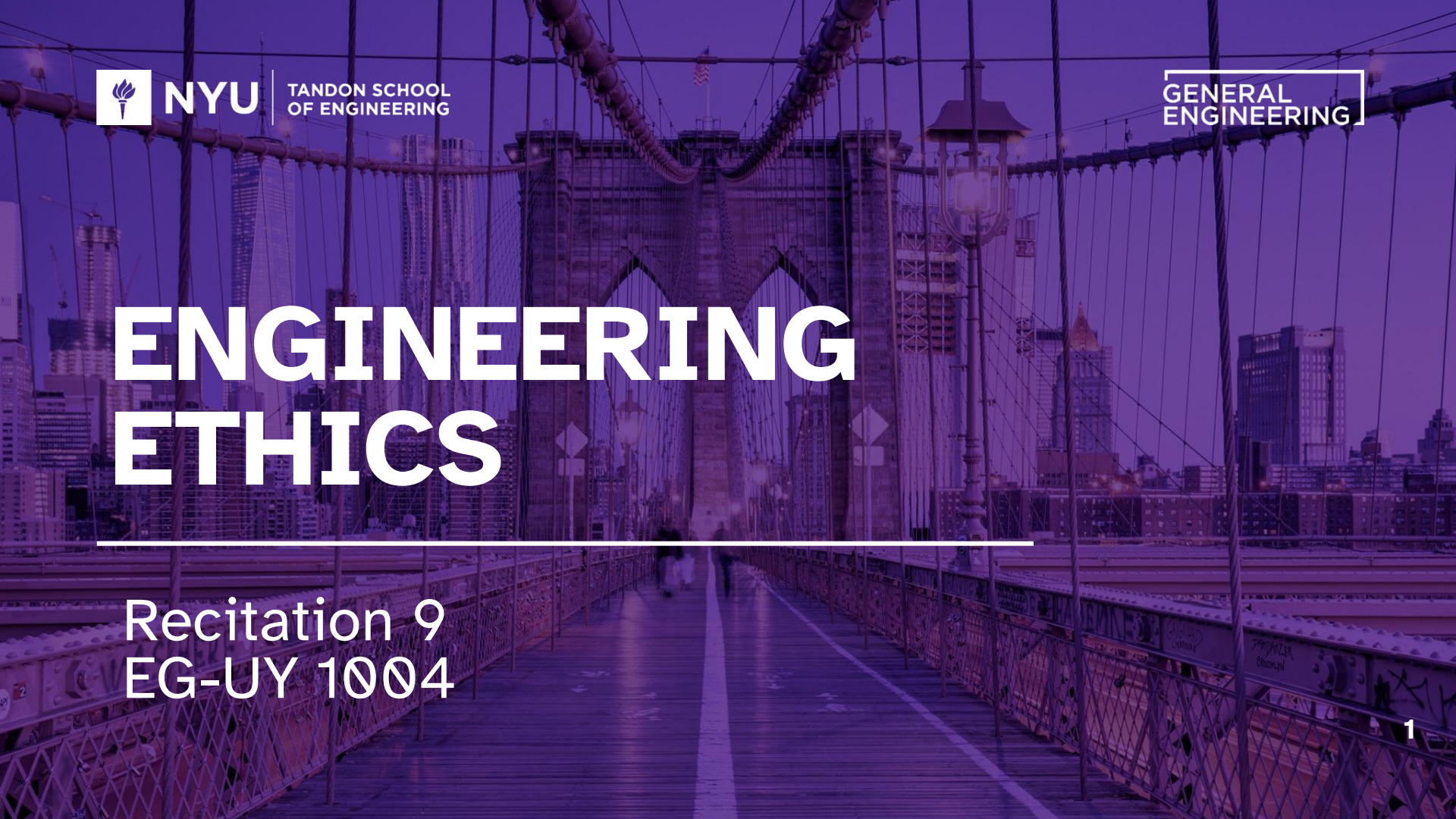


ENGINEERING ETHICS

Recitation 9
EG-UY 1004

AGENDA

1. Engineering Ethics
2. Technical Writing & Ethics
3. Milestone 3 Presentations

ENGINEERING ETHICS

SOCIAL RESPONSIBILITY IN ENGINEERING

"an action-oriented goal of making the world's resources more equally accessible and distributed to all individuals and keeping production and use of resources sustainable"
(Erbe, 2014)

17 SUSTAINABLE DEVELOPMENT GOALS

THINK-PAIR-SHARE #1

Consider your SLDP project. Is there something about its design that can increase the number of people who would have access to it? Is there a way to produce your design would use fewer resources?

HOSTILE ARCHITECTURE

- Hostile architecture is an urban-design strategy that employs elements to purposefully guide “unwanted” behavior
- By restricting the physical behaviours they can engage in, it often targets people who use or rely on public space, such as young people and homeless people
- Examples: fencing around buildings, spikes on the ground, few and small seating areas at subway stops

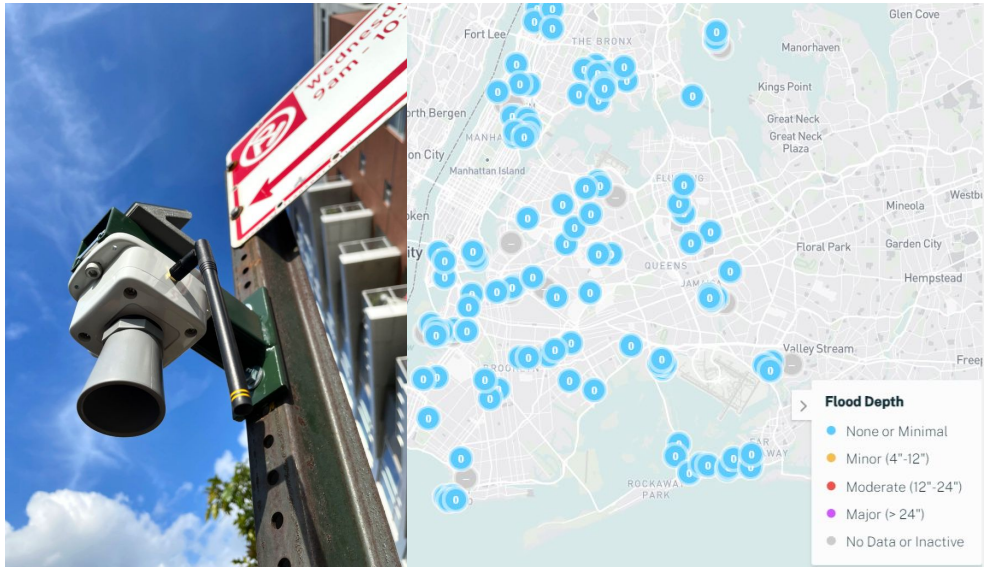
THINK-PAIR-SHARE #2

What objectives do these designs have?
What role do engineers play in these design processes?

DESIGN JUSTICE FRAMEWORK

"Design justice rethinks design processes, centers people who are normally marginalized by design, and uses collaborative, creative practices to address the deepest challenges our communities face."
(Costanza-Chock, 2020)

DESIGN JUSTICE: FLOODNET



- Low cost, open source flood sensors
- Designers in regular dialogue with community members
- Data used to communicate community needs to stakeholders such as policymakers

ETHICS IN YOUR WORK

- Remember: design is a human-centered process
- Ask yourself:
  - What purpose does this design serve?
  - Who am I designing for?
  - Who else might be impacted by this work?
  - What might the long-term impact of this product or process be?


Questions?