

UAV / Drone in Engineering Education and Practice



UAV / Drone in Engineering

- In engineering education
- Making observations during construction
- Inspection of facilities
- Mapping
- Photography for marketing purposes
- Future: 3D mapping, surveying,....

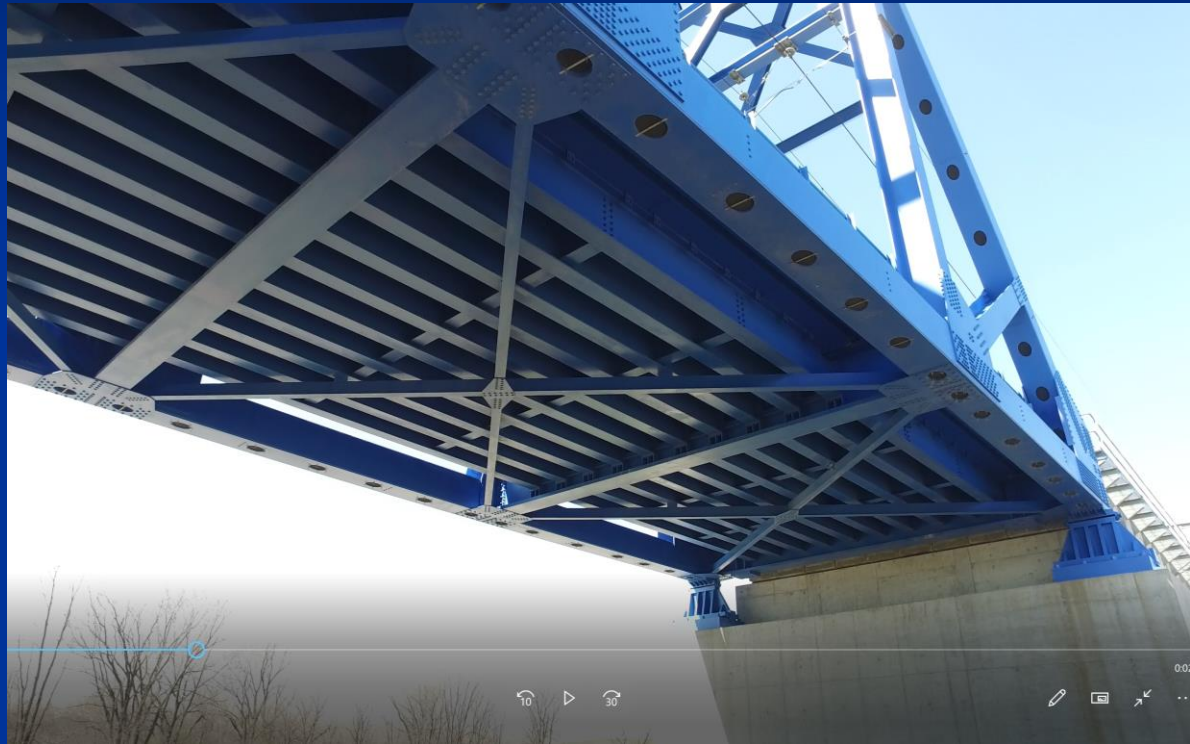
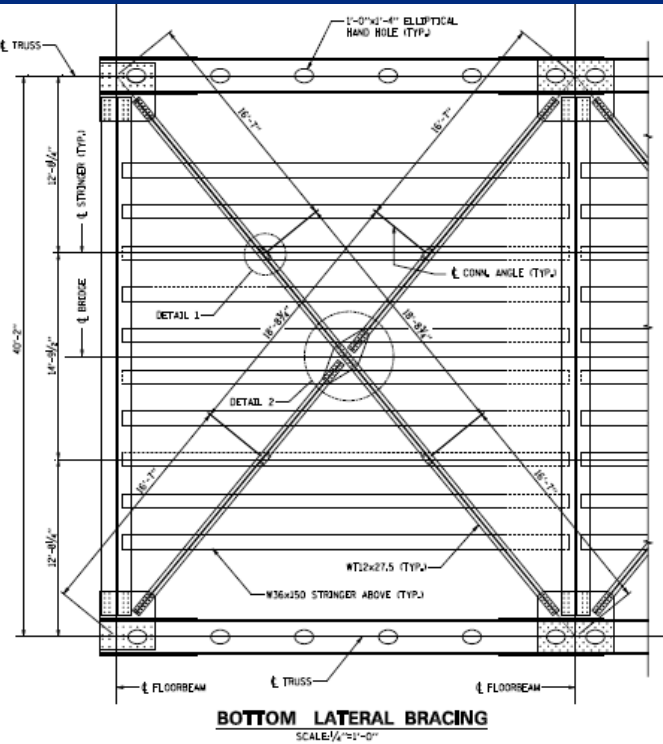
Some Engineering companies started
“drone program”

UAV in Education

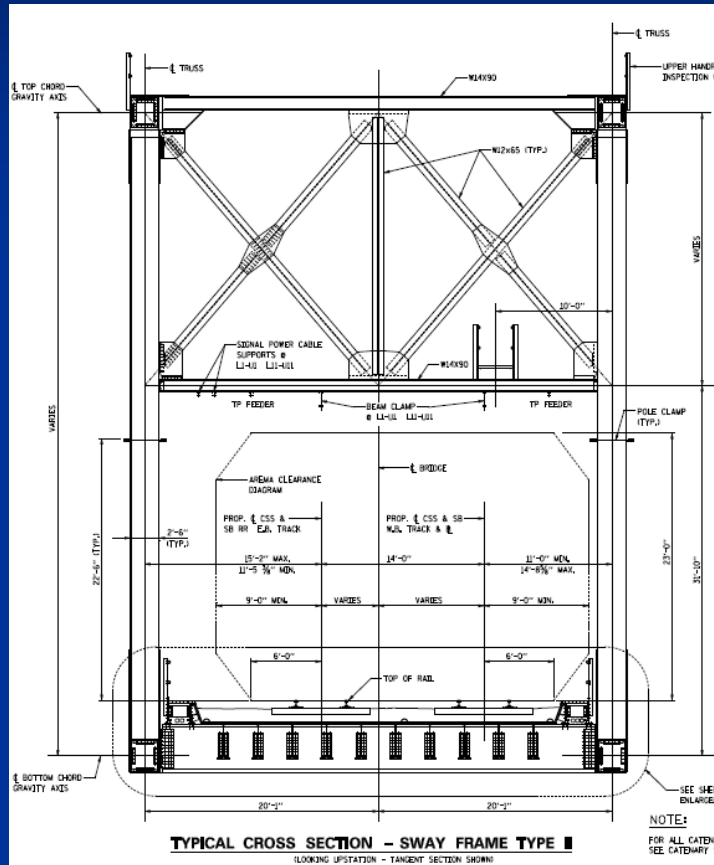
UAV / Drone in Education

- Students retain more information
- Understand concepts more clearly and rapidly
- Students are more enthusiastic about what they are learning
- They make new connections between theory and practice, and discover links between these topics and the world outside the classroom
- Stimulates and engages students creating and maintaining interest for longer periods of time

Bottom Laterals

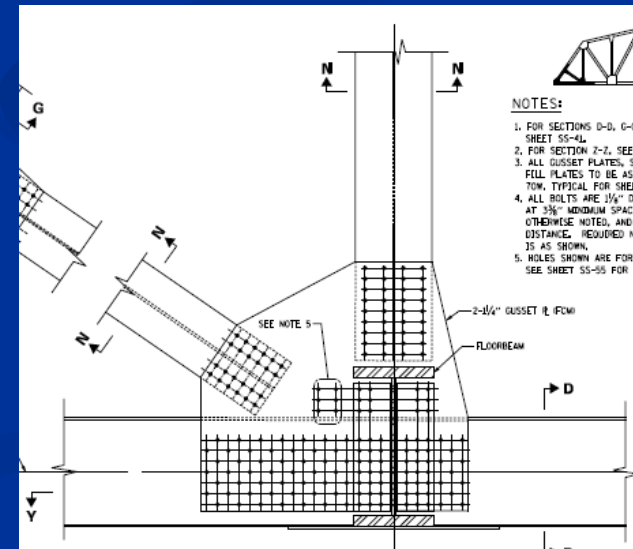
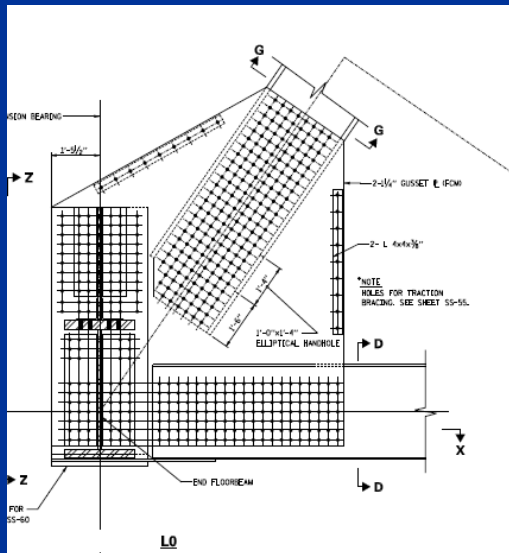
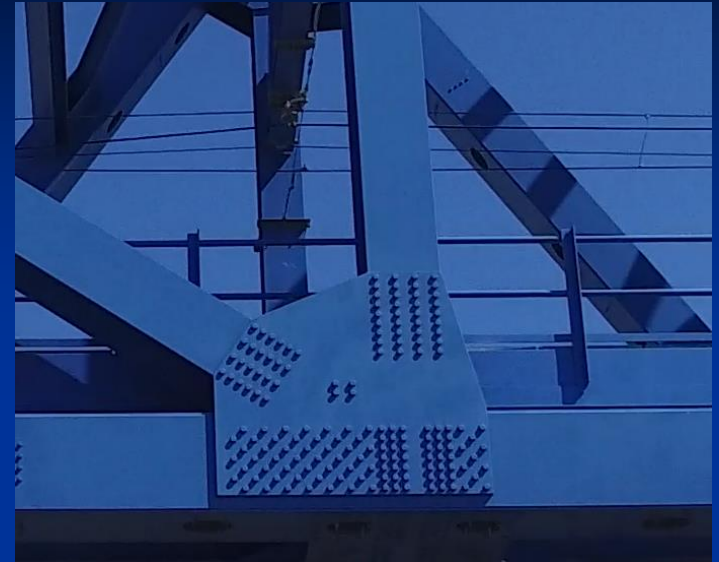


Truss: Sway Frames

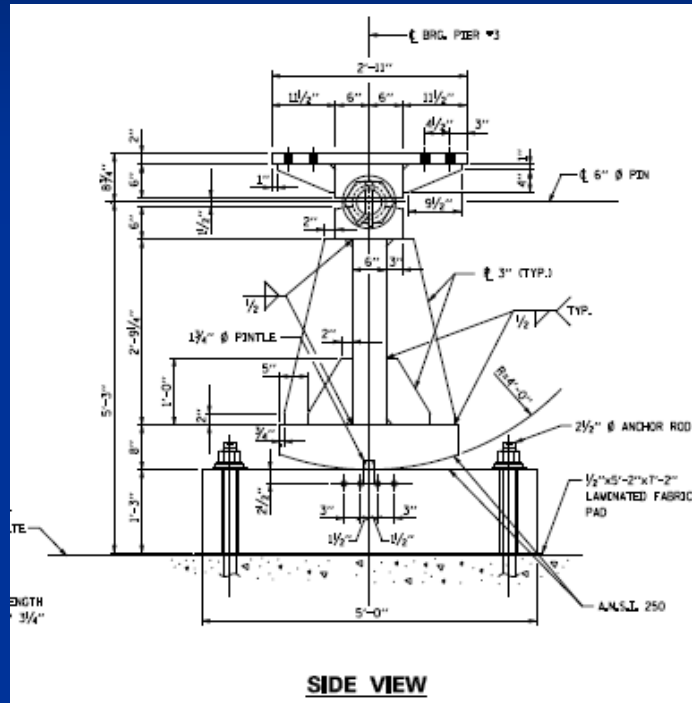


Sway Frame Type II

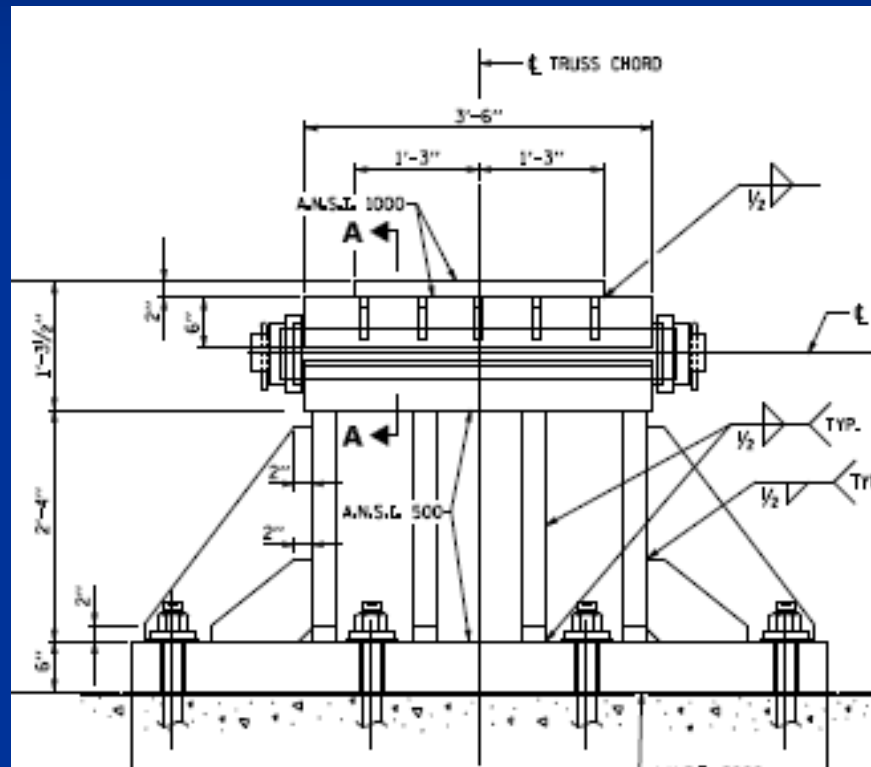
Joint Details (L0 and L1)



Bridge Support – Expansion Bearing



Bridge Support - Fixed Bearing



UAV in Bridge Inspection and Monitoring

UAV / Drone - Inspection

- Easier and safer than traditional inspection methods
- No need for lane closure
- Safe
- Rapid inspection
- Cost effective
- Objective inspection
- Can access difficult areas

Traditional Inspection



Traditional Inspection



Under Bridge Inspection Vehicle

Traditional Inspection



Rope Access Inspection

UAV / Drone



Drone at Work

UAV / Drone



Drone at Work

UAV / Drone



Drone at Work

UAV / Drone



Difficult to Access Bearing Location

Thank you

Questions?