CESHSP	JOB SAFETY ANALYSIS (JSA) B & V

Date

Telecom Division Project Name

Telecom Division Project No.

Site No.

Subcontractor Name: Dynamic Construction, Inc.

Subcontractor Field Supervisor: Matt Bridges Certification #2103505218

TYPE OF SITE

☐ Rooftop ☐ Tower ☐ Civil ☐ Other (specify)

SCOPE OF WORK

☐ Lines/Antennas ☐ Commissioning ☐ Civil/Concrete ☐ Inspection ☐ Tower Erection

☐ Decommissioning ☐ Tear Out ☐ Electrical ☐ Other (specify)

IDENTIFICATION OF JOBSITE HAZARDS

Physical Hazards	Health Hazards	Other Hazards
☐ Confined Space	☐ Heat Stress	☐ Equipment/Material Security
☐ Electrical	☐ Cold Stress	☐ Employee Security
☐ Elevation/Site Terrain	☐ Chemical Exposure	☐
☐ Falls from Elevations	☐ EME/RF Exposure	☐
☐ Underground/Overhead Utilities	☐ Noise Exposure <85 dBA	☐
☐ Slips, Trips, Falls	☐ Silica Exposure	☐
☐ Heavy Equipment Usage	☐ Asbestos Exposure	☐
☐ Vehicular Traffic	☐ Lead Exposure	☐
☐ Flammable Material	☐ Welding Fume Exposure	☐
☐ Open Excavations	☐ Environmental	☐

JOB HAZARD ANALYSIS FOR TODAY'S SCOPE OF WORK

Sequence of Job/Task	Potential Hazards	Hazard Mitigation Measures

CESHSP	JOB SAFETY ANALYSIS (JSA)

REQUIRED PPE FOR JOB TASK

☐ Hard Hat ☐ Ear Plugs ☐ Gloves (type) ☐ RF Suit ☐ Shirt/Jeans/Pants
☐ Safety Glasses ☐ Fall Protection ☐ RF Monitor ☐ Other _____

REQUIRED TRAINING FOR JOB TASK

☐ RF/EME ☐ Competent Climber ☐ First Aid/CPR ☐ Confined Space ☐ LO/TO
☐ Equipment Operator ☐ Trench/Excavation ☐ Haz Communication ☐ Other _____

REQUIRED PERMITS

☐ Critical Lift ☐ Confined Space ☐ Excavation >5' ☐ Susp. Work Platform ☐ Controlled Descent

PREPLANNING TOWER/LINES AND ANTENNA WORK

☐ Competent Climbers ☐ 100% Fall Protection ☐ No Repelling ☐ No Riding the Line ☐ No Free Climbing
☐ Tower Rescue Plan ☐ Tower Rescue Kit ☐ Pre Climb Inspection ☐ Certified Operator ☐ Certified Rigger
☐ Good Weather ☐ RF Monitoring ☐ Other _____

PREPLANNING ROOFTOP WORK

☐ 42" Parapet ☐ Warning Line Sys. ☐ 100% fall protection with 6' of leading edge ☐ Safe Access
☐ Good Weather ☐ Certified Operator ☐ Certified Rigger ☐ RF Monitoring
☐ Other _____

PREPLANNING CIVIL WORK

☐ Utilities Located ☐ Permit >5' ☐ Inspection ☐ Protective System ☐ Egress
☐ Certified Operator ☐ Certified Rigger ☐ RF Monitoring ☐ Other _____

ONSITE COMPETENT PERSONS

Print Name		☐ First Aid/CPR	☐ Competent Climber	☐ EME/RF
		☐ LO/TO	☐ Equipment Operator	☐ Excavation
		☐ Scaffolding	☐ Other (specify)	
Print Name		☐ First Aid/CPR	☐ Competent Climber	☐ EME/RF
		☐ LO/TO	☐ Equipment Operator	☐ Excavation
		☐ Scaffolding	☐ Other (specify)	
Print Name		☐ First Aid/CPR	☐ Competent Climber	☐ EME/RF
		☐ LO/TO	☐ Equipment Operator	☐ Excavation
		☐ Scaffolding	☐ Other (specify)	
Print Name		☐ First Aid/CPR	☐ Competent Climber	☐ EME/RF
		☐ LO/TO	☐ Equipment Operator	☐ Excavation
		☐ Scaffolding	☐ Other (specify)	

JOBSITE EMPLOYEE ATTENDANCE/ACKNOWLEDGMENT OF JSA

Print Name		☐ First Aid/CPR	☐ Competent Climber	☐ EME/RF
Signature		☐ LO/TO	☐ Equipment Operator	☐ Excavation
		☐ Scaffolding	☐ Other (specify)	
Print Name		☐ First Aid/CPR	☐ Competent Climber	☐ EME/RF
Signature		☐ LO/TO	☐ Equipment Operator	☐ Excavation
		☐ Scaffolding	☐ Other (specify)	
Print Name		☐ First Aid/CPR	☐ Competent Climber	☐ EME/RF
Signature		☐ LO/TO	☐ Equipment Operator	☐ Excavation
		☐ Scaffolding	☐ Other (specify)	
Print Name		☐ First Aid/CPR	☐ Competent Climber	☐ EME/RF
Signature		☐ LO/TO	☐ Equipment Operator	☐ Excavation
		☐ Scaffolding	☐ Other (specify)	

SUPERVISOR ATTENDANCE/ACKNOWLEDGMENT OF JSA

Print Name		☐ First Aid/CPR	☐ Competent Climber	☐ EME/RF
Signature		☐ LO/TO	☐ Equipment Operator	☐ Excavation
		☐ Scaffolding	☐ Other (specify)	

ESH&S	TELECOM DAILY FALL PROTECTION INSPECTION

SITE: _____ CONTRACTOR: _____

PROJECT: _____ BEGIN DATE: _____ END DATE: _____

IF ITEM FAILS INSPECTION - DO NOT USE AND REMOVE FROM SERVICE

Employee Name:	ID No.	DATE PASS	FAIL	DATE PASS	FAIL	DATE PASS	FAIL	DATE PASS	FAIL	DATE PASS	FAIL
FULL BODY HARNESS											
SHOCK ABSORBING LANYARD											
POSITIONING LANYARD											
DOUBLE-LOCKING SNAPHOOK											
ROPE GRAB											
WIRE ROPE GRAB											
SELF-RETRACTING LIFELINE											

Employee Name:	ID No.	DATE PASS	FAIL	DATE PASS	FAIL	DATE PASS	FAIL	DATE PASS	FAIL	DATE PASS	FAIL
FULL BODY HARNESS											
SHOCK ABSORBING LANYARD											
POSITIONING LANYARD											
DOUBLE-LOCKING SNAPHOOK											
ROPE GRAB											
WIRE ROPE GRAB											
SELF-RETRACTING LIFELINE											

Employee Name:	ID No.	DATE PASS	FAIL	DATE PASS	FAIL	DATE PASS	FAIL	DATE PASS	FAIL	DATE PASS	FAIL
FULL BODY HARNESS											
SHOCK ABSORBING LANYARD											
POSITIONING LANYARD											
DOUBLE-LOCKING SNAPHOOK											
ROPE GRAB											
WIRE ROPE GRAB											
SELF-RETRACTING LIFELINE											

Employee Name:	ID No.	DATE PASS	FAIL	DATE PASS	FAIL	DATE PASS	FAIL	DATE PASS	FAIL	DATE PASS	FAIL
FULL BODY HARNESS											
SHOCK ABSORBING LANYARD											
POSITIONING LANYARD											
DOUBLE-LOCKING SNAPHOOK											
ROPE GRAB											
WIRE ROPE GRAB											
SELF-RETRACTING LIFELINE											

*** WHAT TO LOOK FOR ***

Full Body Harness:
- Do buckles work freely
- Are d-rings and hardware free from cracks, distortion
- Back pad and seat strap free from tares and abrasions
- Is webbing free from cuts, tares and abrasions
- Is webbing free from mold, burns, discoloration
- Is stitching in good condition
- All labels are present and fully legible

Lanyards with shock absorber:
- All snap hooks open freely
- All snap hooks close and lock freely
- Lanyard webbing is free of tares and abrasions
- Lanyard webbing is free of knots
- Energy absorber cover is secure and not torn or damaged

Positioning lanyard:
- Snap hooks open freely
- Snap hooks close and lock freely
- Adjuster works freely
- Lanyard webbing is free of tares and abrasions
- Lanyard webbing is free from discoloration and mold
- Lanyard webbing is free of knots

Cable grab:
- Operation of handle/cable shoe is free and smooth
- Locking lever works smooth
- Locking lever springs back to locked position when released
- Minimal wear on the inside body where cable rides
- All rollers spin freely
- Gravity stop rotates to locking position when upside down

Rope Grab with Lanyard:
- Snap hook opens freely
- Snap hook closes freely and locks
- Energy absorber is secure and not torn or damaged
- Lanyard webbing is free of tares and abrasions
- Lanyard webbing is free from discoloration and mold
- Rope grab gate opens smoothly
- Retainer pin locks gate closed
- Retainer pin can not come out unless button is depressed
- Rope grab works when locking arm is pulled down
- Rope grab moves freely when locking arm is pulled up

60 Feet of Rope:
- Snap hook opens freely
- Snap hook closes freely and locks
- Rope has been inspected for tares and abrasions
- Rope has been inspected for mold and discoloration
- Rope is still tightly braided
  - *Your rope is not to be used for lifting materials. It is issued only for use as part of a personal fall arrest system!*

Tie-back:
- The two dee-rings are not deformed
- The webbing is free from tares and abrasions
- The webbing is free from discoloration and mold
  - *Your tieback is not to be used for lifting. It is issued only for use as part of a personal fall arrest system!*

Self Locking Carabineer:
- Carabineer is the original shape (not deformed or bent)
- Safety latch opens freely
- Safety latch closes freely and locks

ESH&S	TELECOM CAPSTAN DAILY INSPECTION

SITE: _____ CONTRACTOR: _____

PROJECT: _____ BEGIN DATE: _____ END DATE: _____

All failed items identified during the inspection shall be corrected before placing the capstan into service and prior to continued use of the capstan during scheduled work shifts.

Equipment Manufacturer: _____ ID Number: _____

Model/Type: _____

DATE: _____ SITE NUMBER: _____ INSPECTOR'S PRINTED NAME: _____

	PASS	FAIL	NOTES		PASS	FAIL	NOTES
Inspect drum condition				Inspect control switch			
Inspect rope locking device				Inspect anchorage			
Inspect electrical cords and GFCI				Inspect rope and connections			
				Swivel pin is secured			

DATE: _____ SITE NUMBER: _____ INSPECTOR'S PRINTED NAME: _____

	PASS	FAIL	NOTES		PASS	FAIL	NOTES
Inspect drum condition				Inspect control switch			
Inspect rope locking device				Inspect anchorage			
Inspect electrical cords and GFCI				Inspect rope and connections			
				Swivel pin is secured			

DATE: _____ SITE NUMBER: _____ INSPECTOR'S PRINTED NAME: _____

	PASS	FAIL	NOTES		PASS	FAIL	NOTES
Inspect drum condition				Inspect control switch			
Inspect rope locking device				Inspect anchorage			
Inspect electrical cords and GFCI				Inspect rope and connections			
				Swivel pin is secured			

DATE: _____ SITE NUMBER: _____ INSPECTOR'S PRINTED NAME: _____

	PASS	FAIL	NOTES		PASS	FAIL	NOTES
Inspect drum condition				Inspect control switch			
Inspect rope locking device				Inspect anchorage			
Inspect electrical cords and GFCI				Inspect rope and connections			
				Swivel pin is secured			

DATE: _____ SITE NUMBER: _____ INSPECTOR'S PRINTED NAME: _____

	PASS	FAIL	NOTES		PASS	FAIL	NOTES
Inspect drum condition				Inspect control switch			
Inspect rope locking device				Inspect anchorage			
Inspect electrical cords and GFCI				Inspect rope and connections			
				Swivel pin is secured			

* NOTE: Must complete Pre lift form for lifts >200Lbs
Contact Jason - 614-361-7062

BLACK & VEATCH Building a world of difference.	TELECOM ENVIRONMENTAL, SAFETY, HEALTH AND SECURITY (ESH&S) HOIST INSPECTION

Date _____
Black & Veatch Project Name/Market _____
Black & Veatch Project No. _____
Site No. _____
(Sub)Contractor Name _____
(Sub)Contractor Field Supervisor _____

EQUIPMENT

Manufacture	
Model/Type	
ID Number	

INSPECTION POINT	Pass	Fail
Inspect load control mechanisms for wear and need of adjustment	☐	☐
Ensure limit switches/devices are operational	☐	☐
Inspect hydraulic systems for deterioration or leakage	☐	☐
Inspect fuels systems for deterioration or leakage	☐	☐
Inspect electrical and control systems for deterioration or malfunction	☐	☐
Inspect mounting bolts	☐	☐
Inspect rope for obvious visible damage, kinking, crushing, deterioration, wear, distortion, broken wires	☐	☐
Inspect rope connections and fittings	☐	☐
Ensure level spooling of rope	☐	☐
Ensure that engine oil level is adequate	☐	☐
Ensure that hydraulic oil level is adequate	☐	☐
Ensure that equipment is lubricated	☐	☐
Other (specify)	☐	☐

Noted Deficiencies Resulting in Hoist Inspection Failure

Measures Taken to Correct Noted Deficiencies Prior to Hoist Use

Equipment Operator Acknowledgment of Equipment's Safe Working Condition			
Printed Name		Signature	

All problems identified during the inspection shall be corrected before placing the hoist into service and prior to continued use of the hoist during scheduled work shifts.

CESHSP	ROOFTOP CONTROL CHECKLIST

Date _____

Telecom Division Project Name _____

Telecom Division Project No. _____

Site No. _____

Subcontractor Name _____

Subcontractor Field Supervisor _____

This form must be completed and submitted to ESH&S department prior to commencing construction activities on a rooftop without a parapet wall at or above 39" in height completely surrounding the rooftop.

PRE-WORK VERIFICATIONS:

1. Can the work be completed at ground level? ☐ Yes ☐ No
   If not, why?
   _____
   _____

2. If the work cannot be completed at ground level, how many workers are essential on the rooftop for this activity?
   Number of employees: _____
   Names of employees:

3. If the work cannot be completed at ground level, is it feasible to install temporary guardrails in accordance with 29 CFR 1926.502 (b)? ☐ Yes ☐ No
   If not, why?
   _____
   _____

4. If temporary guardrails are infeasible, is it feasible to install a warning line system (15 feet from the leading edge or edge of nearest edge of a hole) in accordance with 29 CFR 1926.502(f)(2)? ☐ Yes ☐ No
   If not, why?
   _____
   _____

5. When none of the above can be accomplished, 100% tie off is required. Suitable anchor points must be identified and verified. In addition, the method for maintaining 100% tie off must be explained.
   _____
   _____

A FULL DESCRIPTION OF THE ROOFTOP WORK HAS BEEN DESCRIBED AND I UNDERSTAND MY ROLES AND RESPONSIBLITIES TO PLAN THIS WORK IN THE SAFEST POSSIBLE MANNER.

Name and title of person submitting this checklist: _____

Signature: _____

The following to be completed on site and kept in jobsite binder:

I acknowledge and understand the rooftop control plan detailed above: EMPLOYEE SIGNATURES

Guardrail Requirements:

- Top edge height of top rails, or equivalent guardrail system members, shall be 42 inches (1.1 m) plus or minus 3 inches (8 cm) above the walking/working level.
- Midrails, when used, shall be installed at a height midway between the top edge of the guardrail system and the walking/working level.
- Intermediate members (such as balusters), when used between posts, shall be not more than 19 inches (48 cm) apart.
- Other structural members (such as additional midrails and architectural panels) shall be installed such that there are no openings in the guardrail system that are more than 19 inches (.5 m) wide.
- Guardrail systems shall be capable of withstanding, without failure, a force of at least 200 pounds applied within 2 inches of the top edge, in any outward or downward direction, at any point along the top edge.
- When the 200 pound (890 N) test load specified in paragraph (b)(3) of this section is applied in a downward direction, the top edge of the guardrail shall not deflect to a height less than 39 inches (1.0 m) above the walking/working level.
- Guardrail systems shall be so surfaced as to prevent injury to an employee from punctures or lacerations, and to prevent snagging of clothing.
- The ends of all top rails and midrails shall not overhang the terminal posts, except where such overhang does not constitute a projection hazard.
- Steel banding and plastic banding shall not be used as top rails or midrails.
- Top rails and midrails shall be at least one-quarter inch (0.6 cm) nominal diameter or thickness to prevent cuts and lacerations. If wire rope is used for top rails, it shall be flagged at not more than 6-foot intervals with high-visibility material.
- When guardrail systems are used at holes, they shall be erected on all unprotected sides or edges of the hole.
- *FOR ALL GUARDRAIL REQUIREMENTS: SEE 1926.502(B)*

Warning Line Requirements:

- The warning line shall be erected around all sides of the roof area and set out <u>15 feet</u> from the nearest leading edge or edge of a hole.
- Warning lines shall consist of ropes, wires, or chains, and supporting stanchions erected as follows:
    - The rope, wire, or chain shall be flagged at not more than 6-foot intervals with high-visibility material;
    - The rope, wire, or chain shall be rigged and supported in such a way that its lowest point (including sag) is no less than 34 inches from the walking/working surface and its highest point is no more than 39 inches from the walking/working surface;
    - After being erected, with the rope, wire, or chain attached, stanchions shall be capable of resisting, without tipping over, a force of at least 16 pounds applied horizontally against the stanchion, 30 inches above the walking/working surface, perpendicular to the warning line, and in the direction of the floor, roof, or platform edge;
    - The rope, wire, or chain shall have a minimum tensile strength of 500 pounds
    - The line shall be attached at each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in adjacent sections before the stanchion tips over.
    - No employee shall be allowed in the area between a roof edge and a warning line unless the employee is performing roofing work in that area.
    - *FOR ALL WARNING LINE REQUIREMENTS SEE OSHA 1926.502(F)*

Personal Fall Arrest System

- Must utilize 100% fall protection
- Personal Fall Arrest Systems must meet OSHA 1926.502(D)
- Anchor Points must meet OSHA 1926.502(D)(15)
- Employees must be trained in Personal Fall Arrest System requirements
- Personal fall arrest systems must be inspected and documented prior to use.

Elevated Work Rescue Plan

Date: _____
Site Number: _____
Company Name: _____
Site Address: _____
Site Coordinates: Latitude: _____ Longitude: _____
Company Emergency Contact: _____

Site Provisions			
Site Muster Area Location:			
Emergency data information and maps are completed and included as a separate document? (Fire, Police, Hospital, Non-Emergency Clinic)	☐ Yes	☐ No	☐ N/A
Are emergency services accessible by cell phone? If no, how will emergency services be contacted?	☐ Yes	☐ No	☐ N/A
Are site access/egress routes clear and unobstructed? (If no, please explain):	☐ Yes	☐ No	☐ N/A
What is the wildfire danger in the area? (If elevated, B&V project team coordination required):	☐ Low	☐ Normal	☐ Elevated
Where are the first aid kit and fire extinguishers located?			
Are egress routes identified and accessible?			
Does the facility have specific requirements for emergency response? (If yes, please explain):			

Type of Structure		
☐ Monopole	☐ Self-Support	☐ Guyed Tower
☐ Water Tank	☐ Rooftop	☐ Other:
Method of Rescue		
☐ Self-Rescue	☐ Rope Rescue	☐ Outside services
☐ Heavy Equipment (please explain):	☐ Other (please explain):	
Comments for Method:		

Rescue Equipment			
Where is the rescue kit located?			
Are all components for your rescue kit compatible?	☐ Yes	☐ No	☐ N/A
Have all personal fall protection systems been inspected?	☐ Yes	☐ No	☐ N/A
Have fall clearances and swing fall been identified?	☐ Yes	☐ No	☐ N/A
Have rescue anchorages been identified?	☐ Yes	☐ No	☐ N/A
Are there any site conditions/obstructions that could hinder a rescue? (If yes, please explain):			

Please explain/sketch your rescue plan:

Employee Printed Names	Rescue Trained?		Initials
	☐ Yes	☐ No	
	☐ Yes	☐ No	
	☐ Yes	☐ No	
	☐ Yes	☐ No	
	☐ Yes	☐ No	
	☐ Yes	☐ No	

Supervisor Printed Name: _____ **Date:** _____

Supervisor Signature: _____