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CONSTRUCTION DIVISION POLICY ON FALL PROTECTION

Background

Section 107-05 of the Standard Specifications requires all work to be performed with due regard to the safety and health of the employees, in compliance with OSHA Part 1926 Regulations. The purpose of this Engineering Instruction is to state Department policy regarding fall protection on construction projects and to implement procedures to ensure compliance.

Statement of Policy

It is the policy of the New York State Department of Transportation that fall protection in full compliance with the requirements of OSHA Act (P.L. 91-596) and 29 CFR 1926 shall be provided on Department construction projects at all times. Any person exposed to a fall height exceeding those defined in OSHA Part 1926 shall be protected by appropriate means as required by Part 1926. This requirement applies to all contractors' and subcontractors' employees, supervisors, and managerial staff, material suppliers' and vendors' employees, Department and consultants' employees, visitors to the projects, and all other persons who may be on the project for any purpose whatsoever at any time. In short, there are to be no exceptions to compliance with the OSHA regulations!

Complete fall protection can be achieved only through adequate advance planning, and by addressing potential causes of falls before they occur. The need for fall protection should be identified and addressed in the Project Safety and Health Plan. Protrusions on elevated surfaces, such as stud shear connectors on beams, and other potential tripping hazards must receive special attention. Likewise, slippery working surfaces caused by low-friction coatings or grease and oil contamination must be avoided to minimize fall risks, even when fall protection is provided. Finally, careful consideration must be given to the type of protection installed. Passive protection such as railings, shielding, or nets may offer more complete protection

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against falls than active systems such as belts and lanyards, because they do not require individual workers to engage the protection. Contractors must base the choice of protection system used on such factors as site and task characteristics, duration of exposure, costs, and level of safety achieved.

This policy mandates adherence to all fall protection requirements contained in OSHA Part 1926. Specific requirements frequently encountered on Department projects include (but are not limited to) the following points:

1. When used, safety belts, lifelines, and lanyards must meet the requirements of § 1926.104. Because they provide superior protection, Department employees are required to use safety harnesses rather than belts. All other persons are encouraged to also utilize harnesses.
2. For situations where lifelines are interrupted, double lanyards are necessary to ensure that the worker is continuously protected from falling by attaching one lanyard ahead of the discontinuity prior to unhooking the trailing lanyard.
3. Ladders or stairways are required at all points of personnel access where there is a change in elevation of 19 inches or more, and no ramp, runway, sloped embankment, or personnel hoist is provided. These devices must meet the requirements of Part 1926 Subpart X. Climbing on forms, falsework, or the structure to gain access to work areas is expressly prohibited. However, it is not intended to prohibit the use of ladders for access to work areas, provided the operation is in compliance with OSHA Part 1926 Subpart X and other relevant requirements.
4. Where scaffolds are necessary to provide temporary access to work areas, they must be in compliance with § 1926.451. Scaffolds must include a top rail, mid rail, and toe board in compliance with § 1926.451, on all open sides and ends. Lifelines, belts and lanyards or equivalent means are required to protect workers during installation and removal of the railings, and in situations where physical restrictions preclude installation of a standard railing.
5. Suspended scaffolds may be used for bridge painting or other purposes only if personnel lifts, scaffolds, or other means are not practical, and only if they meet all requirements of § 1926.451. Specifically, the scaffold must be secured to the suspension cables at all times. All persons working on

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a suspended scaffold must be provided fall protection by means of safety nets meeting the requirements of § 1926.105, independent lifelines, belts and lanyards (§ 1926.104), or other means meeting the requirements of § 1926.

6. Fall protection is required for open sides or ends of floors or bridge decks; and for openings in floors or bridge decks, as required in § 1926.500. In no case shall a height of fall of greater than 6 ft. from the side, end, or opening in a floor or bridge deck remain unprotected.
7. All workers in approved personnel aerial lifts must wear a body belt or harness with a lanyard attached to the boom or basket, as required by OSHA § 1926.556.
8. Because falls from structural members constitute a serious and clearly recognizable hazard, fall protection for all steel or concrete beams and other structural elements must be in place prior to erection to provide fall protection for workers involved in the initial erection and in subsequent operations until deck forms are in place. This fall protection shall consist of lifelines with belts and lanyards, safety nets, or other means meeting the requirements of Part 1926. During the initial connection of structural elements, workers exposed to moving members shall be required to tie off only if they are not exposed to a greater risk from the moving member. Initial connection is defined as that period during placement or removal of structural members when the member is supported by a crane or other lifting device.
9. During the installation of bridge deck forms, either wood or stay-in-place corrugated metal (SIP), all workers must be protected from falls exceeding 6 ft. in height by means of lifelines, belts and lanyards, safety nets, temporary shielding, or other means meeting the requirements of Part 1926.
10. Instances in which it is impossible to provide fall protection for workers are rare. Where an individual worker must rig the fall protection system, and it cannot be accomplished from an aerial lift or by tying-off to the existing structure, momentary exposure to a fall hazard may be unavoidable. Likewise, ironworkers making initial connections during steel erection or removal may at times not be able to tie off, or otherwise be protected because they need to remain mobile. It is essential that adequate planning of construction procedures minimize such occurrence

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of unprotected exposure to fall hazards. It is equally essential that the fall protection systems utilized actually enhance safety, rather than creating a secondary hazard.

11. Department and consultant personnel are required to adhere to the same fall protection requirements as contractors' personnel, except that harnesses are required for Department employees instead of safety belts.

The following listing summarizes commonly encountered situations where fall protection is required, the heights above which fall protection must be provided, and provides the OSHA reference for that requirement.

<u>Situation</u>	<u>Height Requiring Fall Protection</u>	<u>OSHA Reference</u>
Scaffold - wider than 45 in.	10 ft.	1926.451 (a) (4)
Scaffold - 45 in. or less	4 ft.	1926.451 (a) (4)
Impalement Hazard	any exposure	1926.500 (d) (5)
Bridge Decks - Exposed Sides, Ends	6 ft.	1926.500 (d) (1)
Structural Steel	6 ft.	P.L. 91-596 § 5 (a) (1)
Aerial Lifts	all situations	1926.556 (b) (2) (v)
Swinging Scaffolds (Painter's Scaffold)	6 ft.	1926.451 (i) (8)
Safety Nets	25 ft. (if other means are impractical)	1926.105
SIP Form Installation	6 ft.	1926.500 (d) (1)
Ladders	varies	1926 Subpart X
Any Situation Resulting in tripping, impalement, or other severe hazards	any height	1926.20 (a) (1) 1926.28 (a) P.L. 91-596 § 5 (a) (1)

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Responsibilities and Procedures for Implementation

The primary responsibility for conducting those activities necessary to protect workers from fall hazards is assigned to the contractor, by law, by contractual obligation, and by Department policy. It is the responsibility of Department staff -- construction supervisors, EICs, inspectors, and consultant staff -- to ensure that the contractor meets the requirements spelled out in the contract documents. The following steps are to be taken by Department staff and consultants to ensure that this policy is carried out:

1. Engineering Instruction 92-017 provides procedures and guidelines to be used to ensure contractor compliance with safety and health requirements. That Instruction is to be followed for ensuring compliance with fall protection requirements the same as for all other health and safety requirements.
2. Because working at greater heights is especially hazardous, no work shall be permitted to begin above the height of 25 ft. until the contractor provides written notification as to how fall protection will be provided in compliance with all requirements of OSHA Part 1926 and this Policy, and that fall protection system is in place.
3. For heights greater than 25 ft., any and all failures to comply with fall protection requirements for any person exposed to the hazard constitutes an imminent danger situation, and a stop-work order must be issued immediately for that operation. Below 25 ft., the need for a stop-work order is to be based on the severity and nature of the situation.
4. Work shall not be permitted to resume on the affected operation after the issuance of a stop-work order until the contractor provides an acceptable written plan to ensure that repeat violations will not be permitted to recur. This plan should include provisions for ensuring compliance by any contractor employees who willfully fail to use required fall protection equipment provided for their use.
5. If any contractor is issued a second stop-work order for failure to comply with fall protection requirements during the life of a contract, a meeting shall be scheduled at the Regional Office to discuss with the Contractor the responsibility for complying with safety requirements, and to determine the action to be taken to ensure full compliance in the future. The Main Office Construction

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Division shall be notified of the outcome of any such meetings. If necessary, a meeting with the Construction Division will be convened to determine whether a recommendation should be made to the Contract Review Unit that the contract should be terminated for failure to comply with the terms and conditions of the contract.

6. A copy of this policy shall be provided to all EICs and all consultants' Resident Engineers to ensure that it is enforced on all ongoing projects.
7. Resident Engineers and their staff are responsible for inspecting all provisions of the construction contract, including the provisions of Section 107-05 relative to safety. Consultant inspection staff are therefore responsible for carrying out the provisions of this policy on CI projects. Any failure by consultant staff to carry out these provisions will be dealt with in the same manner as for failure by the consultant to carry out other terms of the consultant agreement.

Unprotected exposure to fall hazards represents unacceptable risk of serious or fatal injuries, and it is imperative that such exposure be eliminated on Department construction projects. Adherence to this policy, including the procedures for ensuring compliance, is mandatory on all Department construction projects.

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