

## CHAPTER

# 3

## FACILITY DESIGN PLANNING

# Chapter 3 – Facility design planning

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# Chapter 3 A. School Buildings and Adjacent Properties

*Capacity Projects and Capital Improvement Program Projects*

**POLICY OBJECTIVE**

Plan and design work to maintain a minimum 21-foot horizontal separation from adjoining private and non-DOE owned public property lines for new buildings and to scope CIP projects to avoid impacting adjacent properties located within 20 feet of a school building wherever practicable, reducing reliance on access or license agreements with adjacent owners while preserving safe, code-compliant, and educationally appropriate project delivery.

New York City School Construction Authority  
Architecture & Engineering Department

|                 |                                                                     |
|-----------------|---------------------------------------------------------------------|
| Document status | Draft for internal technical, legal, safety, and operational review |
| Applies to      | Capacity projects and Capital Improvement Program projects          |
| Effective date  | To be established upon approval                                     |
| Document owner  | Architecture & Engineering Department                               |

**Important:** This draft establishes an internal design-planning preference, not a waiver of the NYC Construction Codes, Zoning Resolution, Fire Code, safety requirements, or any project-specific approval. The 21-foot setback for capacity projects and 20-foot threshold for CIP projects must be verified against the actual property line and the building being constructed or demolished.

# 1. Purpose and Policy Intent

This guideline directs designers to incorporate a 21-foot setback from adjacent property lines at the earliest stage of project planning of capacity projects and to eliminate/reduce scope that can otherwise be postponed or performed in a manner not to affect adjacent properties within a 20-foot threshold, which is the maximum distance required for the protection of adjoining properties under the NYC Building Code. The purpose is to reduce circumstances in which the NYCSCA must obtain temporary access, protection, construction, or other license rights from neighboring property owners. The setback and elimination/reduction of scope is planning control and a risk-reduction measure. It does not, by itself, establish compliance with all codes, zoning, fire access, site safety, construction protection, or other requirements.

## 1.1 Core Principles

### *Plan from surveyed boundaries*

Analysis shall be based on a current boundary, topographic survey and established property lines. Do not use fences, walls, curbs, tax maps, or visible occupation lines as substitutes for a verified property line.

### *Measure to the location of work, not only the face of the building*

Assess the closest extent of permanent construction from which the required setback/threshold may fall onto adjacent properties for execution, inspection, and future repairs.

### *Avoid off-site dependency*

Develop the design so that construction, protection, access, and future CIP work can be performed from within the NYC DOE owned property wherever practicable.

### *Document exceptions early*

For capacity projects, where the 21-foot criterion cannot be maintained, identify the issue during planning or pre-schematic design and submit a written justification with alternatives, impacts, and required approvals.

### *Do not compromise safety or program*

The guidelines must not be interpreted or applied in a manner that reduces required safety measures, emergency access, accessibility, educational programs, environmental obligations, or durability requirements, or that reduces the work necessary to properly maintain an existing building or prevent water penetration.

## 1.2 Definitions

| Term                                       | Working definition for this guideline                                                                                                                                                                                  |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Adjacent property</b>                   | A tax lot or property not owned by NYC DOE that adjoins or is within 20 feet of the proposed overhead work.                                                                                                            |
| <b>ZPPP</b>                                | Zone of Public Protection Plan- A plan where a line of exposure is drawn at 20 feet from the building to delineate possible impact on adjacent properties.                                                             |
| <b>21-foot setback (Capacity Projects)</b> | The minimum horizontal distance, measured perpendicularly from the verified adjacent property line to the building line being constructed or demolished, unless an approved exception establishes a different control. |
| <b>Capacity project</b>                    | A new school, addition, or other project intended to add educational capacity.                                                                                                                                         |

| Term                                    | Working definition for this guideline                                                                                                                                                                                                           |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>20-foot threshold (CIP Projects)</b> | The horizontal distance, measured perpendicularly from the verified adjacent property line to the building line being repaired or demolished, unless an approved exception establishes a different control.                                     |
| <b>CIP project</b>                      | A Capital Improvement Program project involving repair, replacement, upgrade, or rehabilitation of an existing school facility or site.                                                                                                         |
| <b>License agreement</b>                | A project specific agreement permitting NYCSCA or its contractors to enter, protect, or perform activities from a property not owned by NYC DOE.                                                                                                |
| <b>Significant deterioration</b>        | A documented condition for which deferral or limited treatment would create unacceptable safety, water-infiltration, structural, material-stability, durability, or lifecycle risk, as demonstrated by investigation and professional analysis. |

## 2. Capacity Projects

Capacity projects shall use the 21-foot setback as an initial site-planning and massing criterion. The designer shall test whether the school program can be accommodated while maintaining the separation and avoiding reliance on neighboring property for excavation support, facade access, scaffolding, protection, staging, hoisting, installation, inspection, or future repairs.

### 2.1 Required Site and Massing Studies

- Prepare a dimensioned site plan showing verified property lines, adjoining buildings and improvements, proposed construction, areaways, projections, exterior stairs, retaining conditions, yards, and all locations where the 21-foot criterion is constrained.
- Prepare at least one compliant massing option maintaining the 21-foot setback, unless the project team documents that such an option is infeasible.
- Show the anticipated construction envelope, including reasonable allowances for access systems, scaffolding or supported platforms, protection, excavation and support-of-excavation operations, hoisting, roofing, waterproofing, facade installation, and inspection.
- Coordinate the setback analysis with zoning, building code, fire department access, emergency operations, accessibility, site safety, environmental review, and educational program requirements.
- Identify permanent elements requiring future exterior access and demonstrate a practicable repair and replacement strategy from NYC DOE owned property.

### 2.2 Building Height and High-Rise Classification

**NYCSCA design direction:** A Capacity project should not be held below the high-rise threshold solely to preserve a lower-rise classification if additional height is the better overall solution for maintaining the 21-foot setback, meeting the educational program, improving site functionality, or reducing dependence on neighboring property. NYCSCA is open to a project exceeding the applicable high-rise threshold when supported by a documented comparative analysis and all resulting requirements are incorporated.

For accuracy, the commonly cited 75-foot threshold is not simply the height of the highest floor above grade. Under the NYC framework, high-rise classification is tied to an occupied floor more than 75 feet above the lowest

level of fire department vehicle access. The designer shall verify the governing code edition, measurement datum, occupancy, and all triggered requirements with the Code Consultant and authorities having jurisdiction.

***The comparative analysis shall address:***

- educational program and area efficiency
- zoning and urban-design implications
- structure, facade, vertical transportation, egress, fire protection, smoke control, emergency power, communications, and fire department operations
- construction cost and schedule
- operations, staffing, commissioning, and lifecycle cost
- community and adjacent-property impacts
- whether added height materially improves compliance with the 21-foot planning criterion

### 3. Capital Improvement Program Projects

For CIP projects, protection of private and public properties that fall within a horizontal distance of 20-feet from a building or projections thereof shall be respected. The design team shall perform comprehensive investigation and prepare a scope report of the necessary repairs and follow the steps as outlined herewith.

#### 3.1 Zone of Public Protection Plan (ZPPP)

- Prepare the ZPPP upon determination of the final scope
- If line of exposure drawn at 20 feet from the building or projections thereof falls on an adjacent non-DOE owned property, add a summary of the proposed work under a heading that signifies the elevation (s) facing the adjacent properties.
- Show the scope of work on the elevation(s) facing the adjacent properties
- Submit the ZPPP to CM and Safety
- Upon receipt of comments from Safety/CM confirming impact on adjacent properties, submit the ZPPP and the annotated elevation (s) to the technical panel (CIP STAP) for review
- If the panel confirms the scope as written without modification/reduction, revise the ZPPP and send it back to CM/Safety for processing
- If the panel determines that the scope can be deferred, reduced, or approached differently to avoid an unnecessary license agreement, make revisions accordingly and send the ZPPP for processing.

#### 3.2 CIP Scope Technical Assessment Panel (CIP STAP)

##### 3.2.1 Tasks and Mandates

A three-person panel of experts from SCA shall evaluate scope of the specific façade(s) with possible impact on adjacent properties where restoration, replacement, or comprehensive treatment is recommended by the design team. The purpose is to distinguish work that is necessary from work that may be deferred, reduced, or approached differently to avoid an unnecessary license agreement.

| Assessment area                 | Minimum evaluation                                                                         | Required record                                                                                            |
|---------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>Adjacent-property impact</b> | Review the ZPPP with focus on the recommended scope that may impact adjacent properties. . | Dimensioned work-zone plan tied to the verified property line and building line where work is recommended. |

| Assessment area               | Minimum evaluation                                                                                                                                                                        | Required record                                                                           |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| <b>Risk and urgency</b>       | Evaluate public safety, loose or unstable elements, water infiltration, structural or attachment concerns, ongoing damage, and likely consequence of deferral.                            | Clear statement of immediate, near-term, or monitor-only needs.                           |
| <b>Treatment alternatives</b> | Compare recommended scope with localized emergency repair, stabilization, monitoring, interior-applied measures where technically valid, that may help avoid need for a license agreement | No change to scope of work shall be recommended if a license agreement cannot be avoided. |
| <b>Recommendation</b>         | For scope that may affect neighbors, select the least intrusive technically responsible scope that addresses documented conditions.                                                       | Direction to the design teams that can be acted upon.                                     |

### 3.2.2 Recommendations

- Review related reports to determine whether significant deterioration exists and whether a narrower intervention can responsibly address the conditions and avoid need for a license agreement.
- Where significant deterioration is not substantiated, recommend deferral, monitoring, or a limited scope, as appropriate, and document the technical basis.
- Where significant deterioration is substantiated, recommend the technically appropriate restoration scope.
- Do not omit/defer work needed to address an unsafe condition, active failure, material instability, consequential water infiltration, or other unacceptable risk merely to avoid a license agreement.

## 4. Design Process, Deliverables, and Approvals-Capacity Projects

The setback assessment shall be maintained as a live design control from project initiation through construction documents. The project manager shall ensure that unresolved constraints are elevated before the design becomes dependent on off-site rights.

### 4.1 Stage-Gate Deliverables

| Stage                       | Designer submission                   | Minimum content                                                                                                | Decision                                                   |
|-----------------------------|---------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| <b>Planning / Pre-scope</b> | Setback constraints memorandum        | Survey basis, adjacent conditions, initial 21-foot diagram, likely work envelope, known access dependencies.   | Confirm planning assumptions and required studies.         |
| <b>Schematic Design</b>     | Setback compliance plan               | Dimensioned plans/sections, massing or treatment alternatives, height analysis for Capacity work,              | Accept compliant approach or direct exception analysis.    |
| <b>Design Development</b>   | Access and constructability narrative | Temporary systems, protection, excavation, scaffold/access concept, maintenance strategy, outstanding neighbor | Authorize development; identify legal/safety coordination. |

| Stage                         | Designer submission                       | Minimum content                                                                                                     | Decision                                    |
|-------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
|                               |                                           | dependencies per SCA Safety Unit direction.                                                                         |                                             |
| <b>Construction Documents</b> | Final setback and access certification    | Final drawings, survey references, exception approval, required license limits, protection and monitoring criteria. | Confirm bid readiness and unresolved risks. |
| <b>Preconstruction</b>        | Contractor means-and-methods verification | Contractor plan compared with design assumptions; changes that extend toward or onto adjacent property.             | Escalate conflicts before mobilization.     |

## 4.2 Exception Request

An exception is required when the proposed permanent work or reasonably foreseeable temporary work cannot maintain the 21-foot separation. The request shall be submitted before the affected design is advanced and shall include:

- The exact location, length, height, and amount of encroachment into the 21-foot zone
- Survey and drawings identifying the verified property line and adjoining improvements
- Reason(s) the criterion cannot be met
- Alternatives studied, including a compliant option where practicable
- Feasibility study of, whether additional height or revised massing would improve the condition
- Recommended disposition and required NYCSCA technical, legal, safety, and executive approvals
- Exceptions may only be granted with the joint approval of the Vice President of Architecture & Engineering (A&E) and the Vice President of Construction Management (CM).

## 4.3. Designer Compliance Checklist

| Control                                               | Verification item                                                                                                                                                                                            |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> <b>Survey</b>                | Current boundary survey obtained and property lines reconciled with site conditions.                                                                                                                         |
| <input type="checkbox"/> <b>Measurement</b>           | 21-foot dimension shown from the verified adjacent property line to the closest applicable permanent and temporary work limit.                                                                               |
| <input type="checkbox"/> <b>Adjacent conditions</b>   | Neighboring buildings, yards, roofs, projections, fences, retaining conditions.                                                                                                                              |
| <input type="checkbox"/> <b>Construction envelope</b> | Access, scaffold/platform, hoisting, excavation, protection, waterproofing, roofing, facade installation, testing, and inspection needs assessed.                                                            |
| <input type="checkbox"/> <b>Capacity massing</b>      | Compliant massing option tested; vertical alternative evaluated where appropriate.                                                                                                                           |
| <input type="checkbox"/> <b>High-rise analysis</b>    | If the project may place an occupied floor more than 75 feet above the lowest level of fire department vehicle access, the governing classification and triggered requirements have been formally evaluated. |

| Control                                            | Verification item                                                                                                                       |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> <b>Future Repairs</b>     | Future inspection, cleaning, repair, replacement, and emergency access strategy demonstrated from DOE owned property where practicable. |
| <input type="checkbox"/> <b>Licenses</b>           | Any remaining off-site rights precisely identified, not assumed.                                                                        |
| <input type="checkbox"/> <b>Exception</b>          | Required exception package submitted and approved before advancing affected work.                                                       |
| <input type="checkbox"/> <b>Coordination</b>       | Code, zoning, fire, safety, environmental, legal, construction, maintenance, and educational-program stakeholders coordinated.          |
| <input type="checkbox"/> <b>Contract documents</b> | Drawings and specifications accurately reflect accepted setback assumptions and do not shift unresolved access risk to construction.    |

## 5. Governance, References, and Approval

### 5.1 Roles

**AEoR:** Perform and document the setback, code, facade-condition, access, constructability, and maintenance analyses within the professional scope.

**NYCSCA Design Project Manager:** Maintain the criterion as project control, coordinate reviews, and elevate constraints and exception requests.

**A&E Technical Reviewers:** Review the technical basis, alternatives, code implications, envelope scope, and consistency with NYCSCA standards.

**Construction / Safety / Legal:** Review project-specific means, protection, off-site access, license, risk, and contractual implications within their respective authority.

**NYCSCA Approving Authority:** Approve this guideline and any project-specific exception in accordance with delegated authority.

### 5.2 Reference Basis

- New York City Building Code classification of high-rise building: A building with an occupied floor located more than 75 feet above the lowest level of fire department vehicle access.
- Applicable edition of the New York City Construction Codes, Fire Code, Zoning Resolution, and agency rules for the project.
- NYCSCA standard contracts, design requirements, safety requirements, project procedures, and legal forms in effect for the project.
- Project-specific survey, geotechnical information, facade investigation, existing-condition records, and authority determinations.

5.3 Approval Record

| Review / Approval            | Name and Signature | Date |
|------------------------------|--------------------|------|
| A&E Technical Review         |                    |      |
| Construction / Safety Review |                    |      |
| Legal Review                 |                    |      |
| Final Approval               |                    |      |