

**CITY OF WEST CHICAGO**  
**UTILITY PERMIT TECHNICAL SPECIFICATIONS**  
**(October 1, 2021)**

**STANDARD SPECIFICATION COMPLIANCE REQUIREMENT**

Unless otherwise identified, the provisions of the following specifications and Special Provisions supplement the “Standard Specification for Road and Bridge Construction”, latest edition; “Supplemental Specifications and Recurring Special Provisions”; these Technical Specifications; “Illinois Manual on Uniform Traffic Control Devices for Streets and Highways”, latest edition; “Manual of Test Procedures for Materials” in effect on the date of invitation for bids; “Standard Specifications for Water and Sewer Main Construction in Illinois”, latest edition; American Water Works Association (AWWA); Environmental Regulations for the State of Illinois; Title 35 of the Illinois Administrative Code; City Ordinances; City’s Material List; and the City of West Chicago requirements for utility construction, which apply to and govern the proposed improvement project and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and govern.

Any reference to standards throughout the Plans or Special Provisions shall be interpreted as the latest standard of the Illinois Department of Transportation.

**WORKING HOURS**

Construction operations shall be limited to the following period:

Monday thru Friday.....7:00 a.m. to 6:00 p.m.  
Saturday.....8:00 a.m. to 4:00 p.m.

No work shall be performed on Sundays or Holidays. Time regulations shall not apply to sawing construction joints and traffic control devices such as barricades, signs, and lighting.

**CERTIFICATION OF MATERIALS**

The City shall be furnished with a list of sources of materials before material are shipped so materials can be inspected before shipping, if desired. All materials shall be subject to inspection at the source and at the job site. The City may reject any materials at either location. All materials incorporated in this project shall be new materials from the approved City Material list. Use of existing material or recycled materials shall not be permitted without the written consent of the City. The utility company shall furnish the City with the manufacturer’s certificates for all materials supplied to the project if requested by the City.

## **PROTECTION OF EXISTING DRAINAGE FACILITIES DURING CONSTRUCTION**

All existing drainage structures are to be kept free of all debris resulting from construction operations. Any debris in the drainage structures resulting from construction operations shall be promptly removed at the utility company's own expense.

During construction if the utility company encounters or otherwise becomes aware of any sewers, underdrains or field drains within the right-of-way other than those shown on the Plans, he shall so inform the City who shall direct the work necessary to maintain or replace the facilities in service and to protect them from damage during construction if maintained. Existing facilities to be maintained that are damaged because of noncompliance with this provision shall be replaced at the utility company's own expense.

## **PUBLIC SAFETY AND CONVENIENCE**

The utility company shall maintain entrances along the proposed improvement. Interference with traffic movements and inconvenience to owners of abutting property and the public shall be kept to a minimum. The utility company is to plan their work so that there will be no open holes in the pavement and that all barricades will be removed from the roadway and walkways during non-working hours, except where required for public safety.

## **PROTECTION OF CONCRETE**

Special attention is called to Article 107.30 of the Standard Specifications. Any defaced work and any sidewalk not acceptable to the City shall be replaced by the utility company at their sole expense.

It is the utility company's responsibility to guard and protect newly poured concrete against any foreign markings, initials, writings, footprints, handprints, and all other graffiti and imperfections that may occur as a result of vandalism or innocent pranks. The utility company shall remove all concrete damaged in this manner and replace same, all at their expense and no cost to the City. It is suggested that the utility company either place the concrete in the morning prior to noon or provide security to protect their work.

In addition, any adjacent sidewalk damaged by the utility company during the removal or replacement operations shall be removed and replaced by the utility company at no cost to the City.

## **QUALITY CONTROL/QUALITY ASSURANCE OF CONCRETE MIXTURES**

**Description.** Check Sheet #31: Quality Control/Quality Assurance of Concrete Mixtures (Eff. 4-1-92) (Rev. 1-1-09) of the Supplemental Specifications and Recurring Special Provisions, specifies the quality control responsibilities of the utility company for Portland cement concrete

mixtures and controlled low-strength material incorporated in the project, and defines the quality assurance and acceptance responsibilities.

### **PROTECTIVE COAT**

This work shall conform to the requirements of Articles 420.18 and 1023.01 of the Standard Specifications except that the protective coat shall be applied in all cases regardless of the calendar date limitations contained in Article 420.21. The protective coating shall be applied to the exposed surfaces of the concrete curb and gutter and sidewalk. Concrete curing shall be limited to methods specified in Article 1020.13 (a) [1], [2], and [3]. This item consists of applying two applications of protective coating over new concrete.

### **PAVEMENT RESTORATION - CLASS D PATCH, 8 INCH**

Work shall be done in accordance with Section 442 of the Standard Specifications with the following addition:

The existing pavement to be removed shall be saw cut to its full depth to eliminate damages to the existing pavement. Any damage to the existing pavement, or adjacent curb, shall be removed and replaced by the utility company at their expense.

The depth of the Class D Patch shall match the thickness of the existing pavement. If the existing pavement thickness is 8 inches or less, the Class D Patch shall have a thickness of 8 inches (8-inch minimum).

Prior to placement of the Class D Patch, the subbase is to be prepared as Trench Backfill.

**Warranty:** Per the City of West Chicago's Code of Ordinance, Article III – Construction of Utility Facilities in the rights-of-way, maintenance / restoration of the pavement's disturbance will be the responsibility of the private utility company for a period of three (3) years from the date of restoration.

### **TRENCH BACKFILL**

The provisions of Section 208 of the Standard Specifications shall be modified such that the material used for trench backfill shall be CA-6 coarse aggregate. The trench backfill shall be compacted only by Method 1 as defined in Article 550.07 of the Standard Specifications.

Trench backfill shall be used as subbase for pavement restoration and where sidewalk and curb & gutter is located. Trench backfill shall consist of select granular backfill material (CA-6) and shall be installed to the proposed bottom of pavement elevation, sidewalk depth, or curb & gutter depth. The select granular backfill material shall be placed in 6-inch maximum layers of

the specified materials and compacted by mechanical means. Each layer shall be compacted to 95 percent of the maximum dry density.

Where City utilities are exposed, bedding, haunching, backfilling, and initial trench backfill shall be performed with CA-7, in accordance with Section 20 of the Water and Sewer Specifications except as modified in these Special Provisions. If over City utilities, CA-7 is to be used up to a depth of one foot above the top of pipe, with the remaining trench backfill consisting of compacted CA-6.

The standard test to define maximum densities of all compaction work shall be ASTM 01557. All densities shall be expressed as a percentage of the maximum density obtained in the laboratory by the ASTM 01557 standard procedure. Each layer shall be compacted by mechanical means to 95 percent of the maximum dry density.

Native backfill material (common) excavated from the site may be placed back in the trench, only where the trench is located two (2) feet or more away from any permanent structure (pavement, sidewalk, curb & gutter, driveway, etc.). Only select material free of organics, rocks, and debris shall be place back into the trench and only as approved by the City. The common backfill material shall be placed in one foot layers and compacted by mechanical means from one foot above the top of the pipe to the bottom of required topsoil. Each layer shall be compacted to 90 percent of the maximum dry density.

### **TEMPORARY PAVEMENT**

This work consists of furnishing equipment, labor, tools and materials necessary for the temporary replacement of existing pavement composition according to the applicable requirements of Section 408 of the Standard Specifications for Road and Bridge Construction.

Bituminous pavement crossings or utility trenches shall not be left in gravel over any particular weekend or stoppage in work lasting longer than two (2) days. This will include the main road and side streets. TEMPORARY PAVEMENT, 3" thick, may be used in lieu of permanent pavement replacement.

Utility company shall take care in protecting the adjacent pavement structure to be left in place. Any damage to the existing pavement to remain in place due to utility company's negligence shall be repaired by the utility company at no cost to the City.

Upon completion of utility work, the Temporary Pavement is to be removed by the utility company and full-depth Pavement Restoration must be immediately performed.

### **COMBINATION CURB AND GUTTER REMOVAL**

This work consists of the removal of existing combination curb and gutter (and barrier curb) and existing sub-base material in accordance with the details shown on the Plans and Section 440 of the Standard Specifications for Road and Bridge Construction with the following revisions:

The existing curb to be removed shall be saw cut to its full depth to eliminate damages to adjacent curb remaining in place. Any damage to adjacent curb shall be removed and replaced by the utility company at their expense.

### **COMBINATION CONCRETE CURB AND GUTTER**

This work shall be performed in accordance with Standard 606001, the details shown on the Plans and Section 606 of the Standard Specifications for Road and Bridge Construction with the following revisions:

The new curb and gutter shall be constructed to the same shape and depth as the adjacent curb except that the curb flag shall be a minimum of ten (10) inches in thickness. Dowel bars shall be used at all locations when replacement curb is longer than two and a half (2.5) feet. Two No. 4 reinforcement bars shall be installed continuously in the curb and gutter when replacement curb length exceeds eight (8) feet.

Transverse contraction joints shall be saw cut every fifteen (15) feet and transverse expansion joints shall be every 105 feet and at all points of curve in the curb radii.

The curb and gutter shall be placed on 12" of compacted CA-6 aggregate base. The City shall observe existing or compacted sub-base material prior to each concrete pour.

Curing and protection shall be in accordance with Article 1020.13(a) and 1020.13(c) and shall have white pigment added.

### **SIDEWALK REMOVAL**

This work consists of the removal of existing Portland cement concrete sidewalk (and approach walks) and existing aggregate sub-base and subgrade material in accordance with Section 440 of the Standard Specifications for Road and Bridge Construction except as follows:

Where existing concrete sidewalks are to be removed, the concrete shall be saw cut its full depth to prevent spalling and shall be removed to the nearest joint.

Excavation and grading for the proposed aggregate base course improvement for the full width of the proposed Portland cement concrete sidewalk shall be performed in accordance with Section 202 of the Standard Specification.

Any tree roots encountered during removal shall be completely removed from the construction zone. Roots shall be clean cut by means of a saw.

### **PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH, SPECIAL**

This work consists of the installation of a Portland Cement Concrete Sidewalk on a compacted aggregate base in accordance with Section 424 of the Standard Specifications.

At driveway apron locations, the depth of concrete shall be increased to 6 inches minimum for residential driveways and 7 inches minimum for non-residential driveways.

All PCC sidewalks shall be placed on 4 inches of compacted aggregate base course, Type B.

The City shall observe existing or compacted sub-base material prior to each concrete pour. Expansion joints shall be placed at intervals of not more than 50 feet and against all existing concrete structures. Expansion joints shall be placed where the sidewalk abuts existing sidewalk, driveway pavement, and curb and gutter. Sidewalk ramps shall be constructed according to the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

Curing and protection shall be in accordance with Article 1020.13(a) and 1020.13(c) and shall have white pigment added.

### **TACTILE/DETECTABLE WARNING SURFACE**

**If required by the City,** Detectable warnings shall meet the specifications of Article 424.09 of the Standard Specifications for Road and Bridge Construction with the following revisions and additions:

Materials. Detectable warnings shall consist of a surface of truncated domes meeting the requirements of the Accessibility Guidelines (ADAAG) and shall be cast-in-place wet-set (not cast-in-place composite shell) detectable warnings manufactured by ADA Solutions Inc.'s, or approved equal. Any approved detectable warnings shall consist of homogeneous glass and carbon reinforcement composite material, have a minimal thickness of 0.22" with stainless steel mounting anchors, and consist of the following physical characteristics: compressive strength of 28,900 psi, tensile strength of 11,600 psi, flexural strength of 29,300 psi, dome spacing 2.35" center to center, and wet-slip resistance of 1.05. The color of the detectable warnings shall be homogenous Federal Standard color 30166 (red brick) in order to meet ADAAG requirements.

The company must receive City of West Chicago approval of materials and color prior to installing the detectable warnings.

Where applicable, radial tile panels may be required. If using radial tiles, the company shall verify that the curb radius matches the available tile radii with the tile manufacturer. The utility company must make this determination and verify in the field.

### **HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 3”**

Replacement of HMA driveways shall consist of 6” (CA-6 gradation) compaction aggregate base course and a minimum of 3” HMA. If the existing thickness of the HMA driveway is greater than 3”, the HMA shall be increased to match the existing thickness. The driveway’s construction shall be performed in accordance with Section of the Standard Specifications for Road and Bridge Construction.

### **PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH**

Replacement of PCC driveways shall consist of 4” (CA-6 gradation) compaction aggregate base course and a minimum of 6” Portland Cement. If the existing thickness of the PCC driveway is greater than 6”, the PCC shall be increased to match the existing thickness. The driveway’s construction shall be performed in accordance with Sections 311 and 424 of the Standard Specifications for Road and Bridge Construction.

### **TRAFFIC CONTROL AND PROTECTION**

The utility company shall be responsible for all signing and traffic control required for this project in accordance with the latest revision of the State of Illinois Manual on Uniform Traffic Control Devices and in accordance with Section 701 of the Standard Specifications for Road and Bridge Construction, except as herein modified.

END OF UTILITY PERMIT TECHNICAL SPECIFICATIONS SECTION