INTRODUCTION

A. THIS STANDARD PLAN MODIFIES THE PROVISIONS IN THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" (SSPWC), 1997 EDITION.

B. THIS STANDARD PLAN SHALL TAKE PRIORITY IN THE EVENT OF A CONFLICT WITH ANY OTHER STANDARD PLAN.

C. REFERENCES TO AN S-SERIES STANDARD PLAN (E.G., S-251) SHALL MEAN THE LATEST ADOPTED VERSION OF THAT STANDARD PLAN (E.G., S-251-1) UNLESS OTHERWISE SPECIFIED ON THE PLANS OR THE SPECIAL PROVISIONS.
### 1-3. ABBREVIATIONS

1-3.2 **Common Usage**  
Modify by the addition of the following abbreviations:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Word or Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADA</td>
<td>Americans with Disabilities Act</td>
</tr>
<tr>
<td>AGB</td>
<td>Alley grating basin</td>
</tr>
<tr>
<td>ATSAC</td>
<td>Automated Traffic Surveillance and Control System</td>
</tr>
<tr>
<td>BPW</td>
<td>Board of Public Works</td>
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<tr>
<td>BSJ</td>
<td>Bell and spigot joint</td>
</tr>
<tr>
<td>BSL</td>
<td>Bureau of Street Lighting</td>
</tr>
<tr>
<td>CCR</td>
<td>California Code of Regulations</td>
</tr>
<tr>
<td>CGB</td>
<td>Curbside grating basin</td>
</tr>
<tr>
<td>DBE</td>
<td>Disadvantaged Business Enterprise</td>
</tr>
<tr>
<td>DWPPS</td>
<td>Los Angeles Department of Water &amp; Power, Power System</td>
</tr>
<tr>
<td>DWPWS</td>
<td>Los Angeles Department of Water &amp; Power, Water System</td>
</tr>
<tr>
<td>GC</td>
<td>Grade change</td>
</tr>
<tr>
<td>GTE</td>
<td>General Telephone Company</td>
</tr>
<tr>
<td>IPW</td>
<td>Inspector of Public Works</td>
</tr>
<tr>
<td>LADGS</td>
<td>Los Angeles Department of General Services</td>
</tr>
<tr>
<td>LADOT</td>
<td>Los Angeles Department of Transportation</td>
</tr>
<tr>
<td>LACDPW</td>
<td>Los Angeles County Department of Public Works</td>
</tr>
<tr>
<td>MBE</td>
<td>Minority Business Enterprise</td>
</tr>
<tr>
<td>MCR</td>
<td>Middle of curb return</td>
</tr>
<tr>
<td>MSM</td>
<td>Mandatory subcontracting minimum</td>
</tr>
<tr>
<td>MTA</td>
<td>Metropolitan Transportation Authority (of L.A. County)</td>
</tr>
<tr>
<td>MWD</td>
<td>Metropolitan Water District</td>
</tr>
<tr>
<td>OSA</td>
<td>Office of the State Architect</td>
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<tr>
<td>OBE</td>
<td>Other Business Enterprise</td>
</tr>
<tr>
<td>PACBELL</td>
<td>Pacific Bell (Pacific Telesis Group)</td>
</tr>
<tr>
<td>RCC</td>
<td>Rail Construction Corporation</td>
</tr>
<tr>
<td>SCG</td>
<td>Southern California Gas Company</td>
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<tr>
<td>SOCB</td>
<td>Side opening catch basin</td>
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<tr>
<td>SRJ</td>
<td>Steel ring joint (for RCP)</td>
</tr>
<tr>
<td>TCP</td>
<td>Traffic control plan</td>
</tr>
<tr>
<td>TH</td>
<td>Test hole</td>
</tr>
<tr>
<td>VT</td>
<td>Variable thickness</td>
</tr>
<tr>
<td>WBE</td>
<td>Women Business Enterprise</td>
</tr>
<tr>
<td>WUT</td>
<td>Western Union Telegraph</td>
</tr>
</tbody>
</table>
1-4 METRIC INTERNATIONAL SYSTEM (SI)

1-4.1 General. Replace the entire paragraph with the following:

The International System of Units, also called the SI or metric system, is used as the principal
measurement system in these specifications, with their equivalent U.S. Standard Measures (U.S.
Customary System) units shown as alternate in parenthesis. A summary of the abbreviations used in
metric units are included in 1-4.2, whereas the conversion factors used for converting U.S.
Customary Units into Metric (SI) Units are shown in 1-4.3. Reference is also made to ASTM E 380
for definitions of various units of the SI system and a more comprehensive set of conversion factors.
SECTION 2 - SCOPE AND
CONTROL OF THE WORK

2-3 SUBCONTRACTS.

2-3.1 General. Replace the first sentence of the next to last paragraph with the following:

On contracts within the public R/W, the Contractor shall perform, with its own organization, contract work amounting to at least 50 percent of the Contract Price. On contracts outside of the public R/W, such as municipal buildings, fire stations, parks, etc., the Contractor shall perform work amounting to at least 30 percent of the Contract Price. Any designated specialty items may be performed by subcontract and the amount of any such specialty items so performed may be deducted from the Contract Price before computing the amount of work required to be performed by the Contractor with its own forces.

2-4 CONTRACT BONDS. Replace the first paragraph with the following:

Before the execution of the Contract by the Agency, the Bidder shall file with the Agency surety bonds satisfactory to the Board in the amounts and for purposes noted below. Bonds shall be duly executed by a responsible corporate surety, authorized to issue such bonds in the State of California and secured through an authorized agent with an office in California. Bonds shall be issued by a surety who is listed in the latest revision of U.S. Department of Treasury Circular 570, who is authorized to issue bonds in California, whose bonding limitation shown in said circular is sufficient to provide bonds in the amount required by the Contract. The Bidder shall pay all bond premiums, costs, and incidentals. On contracts estimated by the City Engineer to be less than $2 million, bonds may be obtained from an insurance company with a certificate of authority from the California Insurance Commissioner authorizing the company to write surety insurance within the State of California.

2-5 PLANS AND SPECIFICATIONS.

2-5.1 General. Add the following to the end of second paragraph:

All work on traffic signal installations shall conform to the latest edition including amendments of the LADOT “Special Provisions and standard drawings for the installation and modification of traffic signals.” All work on parking meter posts shall conform to the Department of Transportation Specifications No. 82-012-02, “Detail of Parking Meter Posts,” available at 221 N. Figueroa Street, Suite 500, Los Angeles, CA 90012.

2-5.3 Shop Drawings and Submittals.

2-5.3.2 Shop Drawings. Add the following to Table 2-5.3.2(A)

Layout diagrams or schedules are required for pipelines utilizing pipe materials conforming to the indicated subsections. The diagrams or schedules shall be submitted for reference only, except curve layouts are required for approval:
The diagrams shall be of a size and scale to show clearly all necessary details. Pipeline layout, for reference only, may be submitted in tabulated form in increasing order of alignment stationing.

Pipeline layout diagrams or schedules required for approval shall be submitted in accordance with 2-5.3.

2-8 RIGHT-OF-WAY. Add the following paragraph (applicable to asphalt emulsion-aggregate slurry projects only):

The Contractor shall be fully responsible for locating and obtaining permission to use stockpile sites. Aggregate may be stockpiled on City streets if the Contractor has received a permit from the Street Use Division of the Bureau of Street Maintenance. Where the Contractor may find it advantageous to use private property, it shall make its own arrangements for its use and assume full responsibility for its rental, preparation, maintenance and cleanup in a manner satisfactory to the City and the property owner. Precautions shall be taken to insure that stockpiles do not become contaminated with oversize rock, clay, silt or excessive amounts of moisture. Segregation of the aggregate will not be permitted. Aggregate samples will be taken by the Inspector from field stockpile locations prior to the addition of mineral fillers such as cement or lime, to determine the sand equivalent value in accordance with revised 203-5.2. The Contractor shall notify the Bureau of Contract Administration by noon of the previous working day when and where the aggregate materials will be delivered. The aggregate shall be delivered at least 1 working day prior to commencing slurry sealing. Mineral fillers such as cement, lime or sulphate may be added during application of the slurry mixture to the City streets. The Contractor shall provide suitable storage facilities for the asphalt emulsion. Suitable heat shall be provided to maintain the asphalt emulsion between 10 °C and 55 °C (50 °F and 130 °F) temperature range.

2-9 SURVEYING

2-9.1 Permanent Survey Markers. Replace the first paragraph with the following:

The Contractor shall be responsible for the preservation of survey monuments and bench marks except as noted herein. At least 2 working days prior to the start of construction, the Contractor shall submit acceptable preconstruction survey tie notes to the City Engineer’s office for all survey markers or bench marks that may be lost or disturbed due to construction. Monuments that are lost or disturbed shall be replaced at the Contractor’s expense by a California licensed land surveyor or registered civil engineer authorized to practice land surveying. Postconstruction survey monument ties acceptable to the City Engineer shall be submitted to the City Engineer’s office before the completion of the Work (see “Monuments”, Section 8771, Land Surveyors Act, Division 3, Chapter 15 of the Business and Professions.
Code). The City Engineer will re-establish the monuments and bench marks where survey services are provided by the City Engineer, providing the Contractor protects the preconstruction reference points. In this case where monuments are to be removed or damaged by the Contractor, the Contractor shall notify the City Engineer in writing 7 days before starting the Work.

2-9.4 **Private Engineers.** *Replace the section title and the paragraph with the following:*

**Private Engineers or Land Surveyors.** Surveying shall be performed by a California licensed land surveyor or registered civil engineer authorized to practice land surveying. Surveying work shall conform to the quality and practice required by the City Engineer.

Unless otherwise specified, stakes will be set and stationed for curbs, headers, SS, SD, structures, and rough grade and a corresponding cut-or fill-to-FG (or FL) indicated on a grade sheet.

2-10 **AUTHORITY OF BOARD AND ENGINEER.** *Add the following to the end of last paragraph:*

On B-permit projects, the private Engineer is responsible for the review and approval of shop and other supplemental drawings except those pertaining to street lighting facilities which are to be approved by the Bureau of Street Lighting. Four copies of approved drawings shall be transmitted by the private engineer directly to the Bureau of Contract Administration, Suite 700, 221 North Figueroa Street, Los Angeles, California 90012.

The Inspector of Public Works (IPW) is authorized to enforce compliance with the Plans and Specifications, to determine the acceptability of materials and quality of work, administer requirements with respect to subcontracts, and to prepare and process progress payment estimates. In the event of a dispute between the Contractor and the Inspector, the latter is authorized to reject materials or suspend the Work until any questions at issue can be referred to and decided by the BPW or, in engineering matters, by the City Engineer.

The IPW is authorized to sample and test all materials to be incorporated into the Work. The IPW may delegate the authority to sample materials for construction and will request the LADGS, Standards Laboratory, or an approved private testing laboratory to perform any necessary tests.

The Director of the Bureau of Street Lighting is authorized to perform the functions of the Engineer in street lighting matters.

2-11 **INSPECTION.** *Add the following as last paragraph:*

All work and material are subject to inspection pursuant to 2-10. Call (213) 580-5080 for projects in the metropolitan area, and (818) 756-8335 for projects in the San Fernando Valley. All calls for inspection shall be made before noon of the working day before inspection is required.

When shop fabrication is required, call (213) 580-1390, 24 hours in advance; but when the fabrication site is more than 50 miles from City of Los Angeles boundaries, call 2 weeks in advance.
SECTION 3 - CHANGES IN WORK

3-2 CHANGES INITIATED BY THE AGENCY.

3-2.2 Payment.

3-2.2.3 Agreed Prices. Add the following after the first sentence:
Agreed prices shall be negotiated prior to commencement of the Work.

3-3 EXTRA WORK.

3-3.2 Payment.

3-3.2.3 Markup. Replace subparagraphs (a) and (b) with the following:

(a) Work by Contractor. The following percentages shall be added to the Contractor’s costs and shall constitute the markup for all overhead and profits:

1) Labor ................................................. 20
2) Materials ............................................. 15
3) Equipment Rental ............................ 15
4) Other Items and Expenditures ............. 15

To the sum of the costs and markups provided for in this subsection, 1 percent shall be added as compensation for bonding.

(b) Work by Subcontractor. When all or any part of the extra work is performed by a Subcontractor, the markup established in 3-3.2.3(a) shall be applied to the Subcontractor’s actual cost of such work. A markup of 10 percent on the first $5,000 of the subcontracted portion of the extra work and markup of 5 percent on work added in excess of $5,000 of the subcontracted portion of the extra work may be added by the Contractor.

3-2.2.1 Contract Unit Prices. Modify the first paragraph as follows:

If a change is ordered in an item of work covered by a Contract Unit Price, and such change does not involve a substantial change in character or quantity of the work from that shown on the Plans or included in the Specifications, then an adjustment in payment will be made. This adjustment will be based upon the increase or decrease in quantity and the Contract Unit Price.

Modify the third paragraph as follows:

If a change is ordered in an item of work covered by a Contract Unit Price, and such change does involve a substantial change in the character or quantity of the work from that shown on the Plans or included in the Specifications, an adjustment in payment will be made in accordance with 3-2.2.3.

3-3.3 Daily Reports by Contractor. Add the following as the first sentence:

The Contractor shall notify the Engineer at the beginning of each day when extra-work is in progress.
SECTION 4 - CONTROL OF MATERIALS

4-1 MATERIALS AND WORKMANSHIP.

4-1.1 General. Add the following after the last paragraph:

No product containing asbestos shall be used for any purpose. When removing asbestos products, requirements of Title 8, CCR, General Industry Safety Orders and Construction Safety Orders shall be complied with by the Contractor.

4-1.2 Protection of Work and Materials. Add the following paragraph (applicable to asphalt emulsion-aggregate slurry projects only):

The Contractor shall be fully responsible for locating and obtaining permission to use stockpile sites. Aggregate may be stockpiled on City streets if the Contractor has received a permit from the Street Use Division of the Bureau of Street Maintenance. Where the Contractor may find it advantageous to use private property, it shall make its own arrangements for its use and assume full responsibility for its rental, preparation, maintenance and cleanup in a manner satisfactory to the City and the property owner. Precautions shall be taken to insure that stockpiles do not become contaminated with oversize rock clay, silt or excessive amounts of moisture. Segregation of the aggregate will not be permitted. Aggregate samples will be taken by the Inspector from field stockpile locations prior to the addition of mineral fillers such as cement or lime, to determine the sand equivalent value in accordance with revised SSPWC 203-5.2. The Contractor shall notify the Bureau of Contract Administration by noon of the previous working day when and where the aggregate materials will be delivered. The aggregate shall be delivered at least one (1) working day prior to commencing slurry sealing. Mineral fillers such as cement, lime or sulphate may be added during application of the slurry mixture to the City streets. The Contractor shall provide suitable facilities for the asphalt emulsion. Suitable heat shall be provided to maintain the asphalt emulsion between 10 °C and 55 °C (50 °F and 130 °F) temperature range.

4-1.3 Inspection Requirements.

4-1.3.1 General. Add in line 4 of the first paragraph, after structural concrete, “precast concrete steel lighting poles, PCC pullboxes,” just ahead of metal fabrication, etc., Line 2 of the second paragraph is modified by adding after asbestos-cement, “plastic,” just ahead of cast iron pipe. Line 7 of the second paragraph is modified by replacing “job site only” with “source.”

4-1.3.2 Inspection of Materials Not Locally Produced. Replace with the following:

When the Contractor intends to purchase material, fabricated products, or equipment from sources located more than 50 miles outside the geographical limits of the City, an inspector or accredited testing laboratory (approved by the IPW), shall be engaged by the Contractor at its expense, to inspect the materials, equipment or process. Approval of this third party inspector or laboratory shall be obtained before producing any material or equipment. The approved third party inspector or representative of the testing laboratory shall judge materials by the requirements of the Plans and Specifications. The approved third party inspector or laboratory shall forward required reports to the IPW. No materials or equipment shall be shipped nor shall any processing, fabrication or treatment of such materials be done without required inspection by the approved third party inspector or laboratory. Approval by
said third party inspector or laboratory shall not relieve the Contractor of its responsibility for complying with the Contract requirements.

4-1.3.3 Inspection by the Agency. *Replace with the following:*

When the Contractor intends to purchase materials, fabricated products, or manufactured equipment from sources located within 80 km (50 miles) of the geographical limits of the City, the Contractor shall notify the IPW at least 24 hours prior to the scheduled date of test at all stages of manufacture specified herein. For private contracts, all cost of inspection at the source, including salaries and mileage costs, shall be paid by the permittee.

*Add the following as a new subsection:*

4-1.3.4 Third Party Inspection Requirements. The Contractor shall obtain written approval from the IPW for proposed use of third party inspector or testing agency prior to the start of production of materials or fabrication of any product or equipment. The Contractor’s request for approval of a proposed third party inspection agency and/or test laboratory shall be submitted in writing to the IPW. The IPW will respond to the Contractor’s request in writing.

An approved testing laboratory/inspection agency shall not sublet or assign its work to any other agency and shall take direction from, and be responsible to the IPW. The work and activities of the third party testing laboratory/inspection agency shall be subject to examination and inspection by the IPW to ensure strict compliance with the Specifications.

4-1.4 Test of Materials. *Add the following after the first paragraph:*

All frame and covers used with or installed on vaults, MH, PB, tree wells, and similar structures in sidewalks, parkways, driveways, streets, and alleys in the public way shall be designed, manufactured and tested in accordance with latest version of Standard Plan S-601.

**SECTION 5 - UTILITIES**

5-1 LOCATION. *Add the following after the last paragraph:*

The Contractor, in conformance with Los Angeles City Ordinance No. 150,478 shall pothole existing subsurface installations carrying unstable substances to determine their locations and elevations prior to commencing excavation.

Before commencing any excavation, the Contractor shall obtain an Underground Service Alert inquiry I.D. number by calling 1-800-422-4133. Two working days shall be allowed after the I.D. number is obtained and before the excavation work is started so that utility owners can be notified. The I.D. number together with the date acquired shall be reported to the Bureau of Contract Administration when calling for inspection: Metro, (213) 580-5080; Valley, (818) 756-8335. I.D. numbers will not be given more than 10 days prior to starting excavation work.
SECTION 6 - PROSECUTION, PROGRESS, AND ACCEPTANCE OF THE WORK

6-8 COMPLETION AND ACCEPTANCE. *Add the following after last paragraph:*

Upon request of the Contractor to the IPW for final inspection – Metro: (213) 580-1394, Valley: (818) 756-9199, or Hyperion: (310) 524-8173 – and upon determination that the Work has been completed in accordance with the Plans and Specifications as provided herein, including cleanup, as provided in 7-8.1, a “Statement of Completion” will be issued to the Contractor.

On Cash Contracts, the improvements shall be placed in service upon issuance of the “Statement of Completion,” unless otherwise provided in the statement. The Contractor will then be relieved of its contractual liability for subsequent injury or damage to persons, property, or the Work, and relieved of the duty to maintain and protect the Work. However, in no event shall the Contractor be relieved of its obligation to have performed the Work completely and in strict accordance with the Plans and Specifications.

On Assessment Act Contracts, the Contractor shall maintain and protect the Work and remain fully liable for injury or damage to persons, property, or the Work until confirmation of the assessment by the City Council unless the Contractor has submitted to the City its written consent authorizing the City to use the improvement prior to such confirmation of assessment. Upon receipt of such consent and issuance of the “Statement of Completion,” the improvement shall be placed in service and the Contractor will be relieved of the duty to maintain and protect the Work and of its contractual liability for subsequent injury or damage to persons, property, or the Work provided, however, that in no event shall the Contractor be relieved of its obligation to have performed the Work completely and in strict accordance with the Plans and Specifications.

On Class B permits, the permittee will be held responsible for maintaining and protecting the Work until issuance of a “Certificate of Acceptance” by the City Engineer as provided in section 62.113 of the Municipal Code, except that after issuance of the “Statement of Completion” or “Statement of Partial Completion” and the completed improvements in dedicated areas are placed in service, the permittee will be relieved of the duty to maintain and protect such completed improvements resulting from public use, action of the elements, or other cause not due to the permittee’s own operations or negligence. Any dangerous or hazardous condition created by a permittee or its Contractor as found and determined by the IPW, shall immediately be corrected upon demand by the City. Upon failure to correct as required, the City may make the correction without further notice to the permittee-Contractor or its Surety, and all costs incurred shall be paid by the permittee-Contractor or its Surety.

SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

7-7 COOPERATION AND COLLATERAL WORK. *Add the following at the end of second paragraph:*

Paving of roadway areas shall be withheld until planned utility changes or installations
have been made under City permits and until verifications of completion of all such changes or installations have been received by the Bureau of Contract Administration. The Contractor is responsible for assuring that verifications are submitted by the utilities. Underground final inspection and acceptance of SS and SD installations shall precede paving operations.

The Contractor is required to notify affected City offices of work to be done as specified in the following Table 7-7(A):

<table>
<thead>
<tr>
<th>Item</th>
<th>Office of LADOT to be notified</th>
<th>Cost to be borne by</th>
<th>Required Notice (working days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work on signal - controlled intersection</td>
<td>Traffic Signal Inspector: Central Area: (213) 485-1071 Western Area: (213) 485-6834 Valley Area: (818) 756-7852 ATSAC Project Engineer: (213) 485-2815</td>
<td>Contractor</td>
<td>3</td>
</tr>
<tr>
<td>Traffic Signal and Interconnect damage</td>
<td>Signal Superintendent Daytime: (213) 847-2991 After Hours: (213) 485-2046</td>
<td>Contractor</td>
<td>Immediate</td>
</tr>
<tr>
<td>Parking meter damage</td>
<td>Parking Meter Supervisor: (213) 485-2273</td>
<td>Contractor</td>
<td></td>
</tr>
<tr>
<td>Parking meter head removal and replacement</td>
<td>Parking Meter Planning Supervisor: (213) 913-4605</td>
<td>Contractor</td>
<td></td>
</tr>
<tr>
<td>Material and labor by LADOT</td>
<td>Sign/Striping: (213) 485-2185 Signal: (213) 485-2194</td>
<td>City**</td>
<td>5</td>
</tr>
<tr>
<td>Traffic Sign removal, relocation and replacement</td>
<td>Appropriate District Transportation Engineer*:</td>
<td>City**</td>
<td>10</td>
</tr>
<tr>
<td>Parking restrictions, changes relating to temporary striping</td>
<td>Central District: (213) 485-2284</td>
<td>Contractor</td>
<td>5</td>
</tr>
<tr>
<td>Final traffic striping and pavement marking</td>
<td>East Valley District: (818) 756-8441 Hollywood District: (213) 485-4282</td>
<td>Contractor</td>
<td>30</td>
</tr>
<tr>
<td>Temporary Traffic Control Plan</td>
<td>West Valley District: (818) 756-8784</td>
<td>Contractor</td>
<td>2</td>
</tr>
<tr>
<td>Temporary striping installation mark out</td>
<td>Western District: (310) 575-8138</td>
<td>Contractor</td>
<td>5</td>
</tr>
<tr>
<td>Offsite Detour Signs</td>
<td>Southern District: (310) 548-7651</td>
<td>Contractor</td>
<td></td>
</tr>
<tr>
<td>Placement of temporary “No Parking” signs</td>
<td>Special Traffic Control Section: (213) 485-2298</td>
<td>Contractor</td>
<td>4</td>
</tr>
</tbody>
</table>

* For B-Permit projects, notify citywide investigations, (213) 580-5215.
** On B-Permit projects, the costs shall be charged to the permittee as required by section 62.110 of the Los Angeles Municipal Code.
7-8 PROJECT SITE MAINTENANCE

7-8.1 Cleanup and Dust Control. Add the following two paragraphs after the first paragraph.

The road(s) on the construction site shall be paved immediately after the installation of planned utilities and the construction and underground/final inspection of SS, SD, curbs, and gutters. The exit road on the construction site shall be paved first.

Vehicles exiting the construction site shall have all dirt clods and mud removed from their tires.

7-8.6 Water Pollution Control. Add the following to the end of paragraph:

For any project that involves grading or disturbing 2 ha (5 acres) or more of surface drainage area, the affected City department or permittee will apply for coverage under the General Construction Activity Stormwater Permit (GCASP) by filing a Notice of Intent (NOI) with the State Regional Water Quality Control Board. The Contractor shall comply with all of the requirements of the GCASP, including the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP), using guidelines prescribed by the City Engineer. A copy of the GCASP is available at any of the four Engineering District public counters in the Bureau of Engineering, or from the Stormwater Management Division (213) 847-6350.

Add the following new section:

7-8.8 Graffiti Control. Throughout all phases of work, including suspension of work, and until final acceptance, the Contractor shall keep all equipment, field offices, storage facilities and other facilities free of graffiti. Graffiti shall be painted over, masked or cleaned off within 24 hours after notification by the Inspector.

7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS. Add the following to the end of third paragraph:

When existing planted areas are regraded, or removed and replaced because of the Contractor’s operations, the soil in these areas shall be adequately prepared and the area replanted-in-kind. All materials shall conform to SSPWC 212. Soil preparation, planting, and plant maintenance during the establishment period shall conform to SSPWC 308. Topsoil shall be Class C. If the existing topsoil at the planted areas is not reused, Class “B” topsoil shall be used. The soil for ground cover and lawn areas shall be conditioned by mixing 14 kg (30 lbs) per 93 m² (1000 sq ft) of commercial fertilizer, having an 8-8-4 analysis, with the top 150 mm (6 in) of soil. Mulch shall be provided and shall be Type 5 for ground cover and Type 1 or 2 for lawn areas.

For unplanted parkway areas, the upper 300 mm (12 in) of all topsoil shall be Class C.

Add the following after the last paragraph:

Fire and police call boxes and conduits shall be protected by the Contractor. Should said facilities be damaged by Contractor’s operations, immediate notification shall be given to the Department of General Services (213) 485-7299. Damaged facilities will be replaced by the City at the Contractor’s expense.

When provided for in a permit, Plans or Specifications, civil defense sirens shall be removed by the Contractor and delivered to the LADGS South District Yard at 3330 West 36th
The Contractor shall protect and maintain all existing traffic warning, regulatory and guide signs, street name signs (both of the intersection and advance types), signals and parking meters, including those temporary control devices which may be necessitated by the Work. The Contractor shall notify the appropriate District Transportation Engineer of any signs maintained by LADOT which will interfere with the completion of its work and which cannot be properly protected. The Department will remove, relocate, or reinstall signs at the appropriate times at no expense to the Contractor with the exception of Class B permits in which case the permittee shall bear said expenses as required by section 62.110 of the Los Angeles Municipal Code. The Contractor shall bear the cost of installation by the Department of all signs in-place at the start of construction which are necessary to the traffic operation of the completed improvement and which are found to be missing or damaged upon the completion of this work.

The Contractor shall protect all existing traffic signal equipment and interconnect systems, including any existing Automated Traffic Surveillance and Control (ATSAC) system. This may be achieved by installing temporary facilities, which may include overhead spans of fiber optic, communication cables and signal conductors, plus any equipment necessary to maintain such facilities. The temporary facilities are expressly to maintain normal traffic and interconnect operations. In case temporary facilities are installed, the Contractor shall maintain the facilities until the complete restoration of the permanent traffic signal and interconnect system. At no time during the construction period is the traffic system to be “off-line” from the ATSAC system.

The Contractor shall maintain all existing traffic signal loop detectors. In case of damage to existing loop detectors, the ATSAC Project Engineer shall be notified, and repairs made within 24 hours. If the Contractor fails to make repairs, any work done by City forces to restore the operation of damaged loop detectors will be at the Contractor’s expense.

The Contractor shall be responsible for the removal, furnishing, and installation of parking meter posts when required on the Plans or found to be missing or damaged upon completion of the Work.

7-10 PUBLIC CONVENIENCE AND SAFETY.

7-10.1 Traffic and Access. Modify second paragraph by adding “residences” to the list of facilities to which access shall be provided, and by adding the following after the second paragraph:

The Contractor shall provide and install steel plates to bridge any excavation in the public right-of-way. Such bridging shall be in accordance with the provisions of the latest edition of the Work Area Traffic Control Handbook (WATCH), and in addition, shall have a nonskid surface static coefficient of friction of 0.35 per California Test 342 for all steel plates within traveled roadway of streets and alleys. When required by the IPW, the Contractor or permittee shall certify in writing to the IPW that steel plates to be used in the Work meet the required static coefficient of friction. Also when required by the IPW, the Contractor or permittee shall have steel plates to be used in the Work tested in accordance with the above standards for the verification of required static coefficients of friction. Testing shall be done by an independent laboratory approved by the IPW. The Contractor or permittee shall pay for any costs associated with the testing of steel plates.
At least 10 days before the start of construction, the Contractor is required to notify abutting property occupants of the proposed construction start date.

The Contractor shall notify the MTA Superintendent of Transportation Services office (213) 922-4646 at least 48 hours prior to any work which will affect normal bus operations.

Replace seventh paragraph with the following:

Work shall be performed in only one-half of the roadway at one time. One-half shall be kept open and unobstructed until the opposite side is ready for use by traffic. The Contractor shall phase the removal operations so as to maintain the specified traffic lanes on existing pavement until sufficient new pavement is constructed to accommodate the traffic requirements. If one-half of a street only is being improved, a smooth, even surface and a condition satisfactory for traffic shall be maintained on the other one-half.

Where no pavement exists in a roadway and traffic is to be maintained through the worksite, the Contractor shall conduct its operations in a manner to provide a smooth, even surface satisfactory for traffic, reasonably free of mud or dust.

7-10.2 Storage of Equipment and materials in Public Streets. Add the following paragraph (applicable to asphalt emulsion-aggregate slurry projects only):

The Contractor shall be fully responsible for locating and obtaining permission to use stockpile sites. Aggregate may be stockpiled on City streets if the Contractor has received a permit from the Street Use Division of the Bureau of Street Maintenance. Where the Contractor may find it advantageous to use private property, it shall make its own arrangements for its use and assume full responsibility for its rental, preparation, maintenance and cleanup in a manner satisfactory to the City and the property owner. Precautions shall be taken to insure that stockpiles do not become contaminated with oversize rock, clay, silt or excessive amounts of moisture. Segregation of the aggregate will not be permitted. Aggregate samples will be taken by the Inspector from field stockpile locations prior to the addition of mineral fillers such as cement or lime, to determine the sand equivalent value in accordance with revised SSPWC 203-5.2. The Contractor shall notify the Bureau of Contract Administration by noon of the previous working day when and where the aggregate materials will be delivered. The aggregate shall be delivered at least one (1) working day prior to commencing slurry sealing. Mineral fillers such as cement, lime or sulphate may be added during application of the slurry mixture to the City streets. The Contractor shall provide suitable storage facilities for the asphalt emulsion. Suitable heat shall be provided to maintain the asphalt emulsion between 10 °C and 55 °C (50 °F and 130 °F) temperature range.

7-10.3 Street Closures, Detours, Barricades. Add the following after second paragraph:

When specified on the Plans or permit, the Contractor shall install advance construction notice signs per Standard Plan S-791 not less than 7 days prior to start of construction and shall maintain them for the duration of construction, removing them only after final acceptance of the project by the Engineer. All costs incurred in furnishing, installing, maintaining and removing the signs shall be included in other items for which bids are entered.

Add the following after the last paragraph:

The Contractor shall comply with the requirements of the latest adopted edition of the “Work Area Traffic Control Handbook,” obtainable from Building News, Inc., 10801 National
A street with local traffic crossing a street in which work is being performed may be closed to traffic providing the adjacent cross streets are kept open. The Contractor shall notify the Police and Fire Departments whenever such a street is to be closed to traffic, but the 48-hour requirement is waived. If the closing is to be one of long duration, a single notification by phone to each department the last working day before the closing will suffice. A similar notification shall then be made at the time the street is again opened to traffic. If the closing is to be of short duration or different sections of the street are to be closed at different times, the notification to the Police and Fire Departments shall be on a day-by-day basis, giving information regarding the conditions expected to prevail on the next working day. The Contractor shall notify the Inspector which streets are to be closed, duration of closures, and person(s) and telephone numbers contacted in the Fire and Police Departments.

All signs, including offsite detour signs, lights, or devices installed by the Contractor shall be approved by LADOT before use.

Offsite detour signs shall be installed, maintained, and removed by the Contractor.

“No Parking” signs shall be posted and removed only by LADOT upon request from the Contractor. LADOT will charge and collect its actual cost for each temporary sign installed and for each sign replaced during the authorized period. To be enforceable, temporary “No Parking” signs shall be installed by LADOT 24 hours prior to the time when needed. Their removal by LADOT shall take place as the work progresses to restore parking spaces. See Table 7-7(A).

7-10.4 Safety. Add the following:

Agency worker protection. The Contractor shall provide safety equipment, material, and assistance to Agency personnel to properly inspect all phases of the Work, including final inspection. Such equipment, material and assistance shall include, but not be limited to testing for the presence of explosive or toxic gases and oxygen deficiency in confined spaces, blowers, ventilators, first aid supplies and equipment, ladders, scaffolds, shoring, harnesses, self-contained breathing apparatus, and personnel for standby assistance as required. Personal equipment and clothing, such as hard hats, safety glasses, traffic vests and earplugs are not subject to these provisions. When asbestos is being removed, the requirements of the CCR, Title 8, Div. 1, Chapter 4, Subchapter 4, “Construction Safety Orders”, and Subchapter 7, “General Industry Safety Orders”, shall be implemented.

In all cases involving exposure of City Agency personnel to toxic/hazardous materials and/or elements, the City of Los Angeles Personnel Department, Occupational Safety Office, shall have field review authority over the Contractor’s operations.

7-10.4.1 Safety Orders. Add the following to the end of paragraph:

The Contractor shall completely fence all excavations to provide protection against anyone falling into the excavation and to the satisfaction of the IPW. The fencing shall be in place at all times except when workers are present and actual construction operations are in progress.

The fencing material shall be chain link fabric or welded wire fabric (6x6–W9xW9 minimum) and 1.5 m (5 ft) high, constructed in accordance with one of the following:

a) Tensioned fencing material and have top and bottom tension wires securely fastened to driven steel posts or other equally rigid elements at a maximum spacing of 3.6 m (12 feet); or

b) Untensioned fencing material securely fastened to extended trench shoring elements at
a maximum spacing of 2.4 m (8 ft) and fastened to continuous top and bottom rails constructed of
nominal 50 mm x 100 mm (2 in x 4 in) lumber or equally rigid material. Framed panels with suitable
supporting elements fastened together to form a continuous fence may also be used.

The IPW will provide a competent person trench/excavation certification form to the
Contractor. It shall be completely filled out prior to any worker access to trench or excavation and
returned to the Inspector before the end of the first working day. The Contractor shall certify by this
form the name of the competent person administering the Work, the soil classification, and the type
of excavation protective system provided and/or installed.
PART 2
CONSTRUCTION MATERIALS
SECTION 200 - ROCK MATERIALS

200-1 Rock Products

200-1.4 Coarse Aggregate for Portland Cement Concrete. Add the following after Table 200-1.4(B):

The Engineer may at any time select samples for testing of Specific Gravity (SG). SG of the coarse aggregate for AC and PCC shall be 2.58 (min.), and 2.70 (max). If the SG of the coarse aggregate is found to be greater than 2.70, the Engineer may allow its use subject to the following provisions:

a) The weight of coarse aggregate to be furnished by the Contractor shall be increased by:

\[
\left(\frac{\text{Tested} \times 2.65}{2.65}\right) \times 100 \text{ percent}
\]

b) If the coarse aggregate furnished is not a separate Bid item but included as part of another Bid item, the Contractor shall not receive any additional compensation for extra-coarse aggregate required to be furnished by the provisions of this note; and

c) If the coarse aggregate furnished is a separate Bid item measured by a unit of weight, the actual weight of coarse aggregate furnished by the Contractor pursuant to subnote (a) above shall be, for purposes of determining the weight of coarse aggregate for which the Contractor shall be compensated as a Bid item, reduced by subnote (a) above.

200-2 UNTREATED BASE MATERIALS

200-2.1 General. Replace first sentence of the second paragraph with the following:

When base material without further qualification is specified, the Contractor shall supply Crushed Miscellaneous Base (CMB) or higher classification.

SECTION 201-CONCRETE
MORTAR AND RELATED MATERIALS

201-1 PORTLAND CEMENT CONCRETE.

201-1.1 Requirements.

201-1.1.4 Test of Portland Cement Concrete. Replace last two paragraphs with the

\

following:

PCC compressive cylinder strength tests representing PCC which has been poured-in-place, shall attain the 28-day compressive strength specified.

In-place PCC represented by a compressive cylinder strength test which fails to meet the requirements herein shall be removed from the Work. As an alternative to the removal of PCC represented by a failed cylinder compressive strength test and subject to the approval of the Engineer, the PCC represented by the failed compressive strength cylinder tests may be cored-in-place. The corings shall be completed no later than 10 days from notification of failure by the Engineer. The cores shall be made by the Contractor in the presence of the Engineer and tested at the Contractor’s expense in accordance with ASTM C 42 by a certified laboratory acceptable to the Engineer. The cores shall be 100 mm (4 in) in diameter minimum, unless otherwise directed by the Engineer. At least three cores shall be taken in each area represented by a failed 28-day PCC compressive strength cylinder test. Unless otherwise directed by the Engineer, the cores shall be immersed/water-cured 40 hours immediately prior to compressive test. If each core tests at least 85 percent of the specified 28-day PCC compressive strength, the PCC represented may be accepted provided the Contractor accepts the conditions in 201-1.1.5 and 201-1.1.6 as modified herein.

Add the following new subsection:

201-1.1.5 Correction of Mix Design for failed Concrete Tests.

If the compressive cylinder strength test for in-place PCC yields test results below the specified 28-day PCC compressive strength and the Engineer determines a corrective change is necessary, the Contractor shall at its own expense make corrective changes in the mix proportions. The changes in the mix proportions or PCC placement procedures shall be approved by the Engineer, before any additional PCC is poured on the job.

Add the following new subsection:

201-1.1.6 Payment

Payment to the Contractor for PCC accepted by the Engineer based on core test results in accordance with 201-1.1.4 as modified hereinbefore, but represented by a failed compressive cylinder strength test, shall be reduced as follows:

a) When the result of a single-PCC compressive cylinder strength test is less than the specified 28-day PCC compressive strength but at least 95 percent, the Contractor shall pay the City $15 per each cubic yard in-place represented by the deficient PCC compressive strength cylinder test as determined by the actual sampling interval; and,

b) When the result of a single-PCC compressive strength cylinder test is less than 95 percent of the specified 28-day PCC compressive strength but is alternatively accepted per 201-1.1.4 as modified hereinbefore, the Contractor shall pay the City $20 per each cubic yard in-place represented by the deficient PCC compressive strength cylinder test as determined by the actual sampling interval.

PCC rejected in accordance with the conditions of 201-1.1.4 as modified hereinbefore, shall not be paid for and shall be removed from the jobsite work.
SECTION 203 - BITUMINOUS MATERIALS

203-1 PAVING ASPHALT.

203-1.3 Test Reports and Certification. Add the following as the last paragraph:
When requested by the City, the Contractor shall furnish, without charge, samples of the aggregate, emulsion and slurry it proposes to use. Such materials shall be tested in accordance with the procedures described in the Contract Documents.

203-6 ASPHALT CONCRETE.

203-6.1 General. Add the following to the end of the first paragraph:
In lieu of Asphalt Concrete, the Contractor may use hot mixed RAC in accordance with section 203-7, unless dictated otherwise by site conditions or Special Provisions.

203-6.2 Materials.

203-6.2.2 Aggregate. Add the following after the last paragraph:
The Engineer may at any time select samples for testing of Specific Gravity (SG). SG of the coarse aggregate for AC and PCC shall be 2.58 (min.) and 2.70 (max). If the SG of the coarse aggregate is found to be greater than 2.70, the Engineer may allow its use subject to the following provisions:

a) The weight of coarse aggregate to be furnished by the Contractor shall be increase by:

\[
\frac{\text{TestedSG} - 2.65}{2.65} \times 100 = \text{percent}
\]

b) If the coarse aggregate furnished is not a separate Bid item but included as part of another Bid item, the Contractor shall not receive any additional compensation for extra-coarse aggregate required to be furnished by the provisions of this note; and
c) If the coarse aggregate furnished is a separate Bid item measured by a unit of weight, the actual weight of coarse aggregate furnished by the Contractor pursuant to subnote (a) above shall be, for purposes of determining the weight of coarse aggregate for which the Contractor shall be compensated as a Bid item, reduced by subnote (a) above.

203-6.3 Asphalt Concrete Mixtures.

203-6.3.2 Composition and Grading. Add the following mixture to Table 203-6.3.2(A)
TABLE 203-6.3.2 (A)

<table>
<thead>
<tr>
<th>CLASS</th>
<th>Percentage Passing Sieves</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Nominal Sieve Size Opening</td>
<td>Dense Coarse</td>
</tr>
<tr>
<td>25.0 mm (1 in.)</td>
<td>100</td>
</tr>
<tr>
<td>19.0 mm (¾ in.)</td>
<td>78 - 90</td>
</tr>
<tr>
<td>12.5 mm (½ in.)</td>
<td>64 - 78</td>
</tr>
<tr>
<td>9.5 mm (⅛ in.)</td>
<td>54 - 68</td>
</tr>
<tr>
<td>4.75 mm (No. 4)</td>
<td>34 - 48</td>
</tr>
<tr>
<td>2.36 mm (No. 8)</td>
<td>25 - 35</td>
</tr>
<tr>
<td>600 Fm (No. 30)</td>
<td>12 - 22</td>
</tr>
<tr>
<td>300 Fm (No. 50)</td>
<td>8 - 16</td>
</tr>
<tr>
<td>75 Fm (No. 200)</td>
<td>3 - 6</td>
</tr>
<tr>
<td>Asphalt Binder %</td>
<td>4.5 - 5.5</td>
</tr>
</tbody>
</table>

Add the following after the last paragraph:

For any asphalt concrete mixture required by the Plans or itemized proposal, the Contractor shall formulate, and submit to the Engineer for approval, a job-mix formula that satisfies the general limits imposed by Table 203-6.3.2 (A). In addition, the formula shall state the mineral aggregate sources, asphalt grade and source, and mixing and compacting temperatures. The optimum asphalt binder content for the proposed gradation shall be determined by the Contractor using the procedures contained in Chapter 5 of the Asphalt Institute’s Manual Series No. 2 (MS-2) current edition for Marshall Method of Mix Design in accordance with ASTM D 1559.

Job-Mix Formula Tolerances

<table>
<thead>
<tr>
<th>Material</th>
<th>Tolerance (±)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate Passing Sieve Size:</td>
<td></td>
</tr>
<tr>
<td>4.75 mm (No. 4) or larger</td>
<td>7%</td>
</tr>
<tr>
<td>2.36 mm (No. 8)</td>
<td>6%</td>
</tr>
<tr>
<td>600 Fm (No. 30) and 300 Fm (No. 50)</td>
<td>5%</td>
</tr>
<tr>
<td>75 Fm (No. 200)</td>
<td>2%</td>
</tr>
<tr>
<td>Asphalt Binder</td>
<td>0.45%</td>
</tr>
</tbody>
</table>

Temperature of mix 6.7 °C (20 °F)

Job-mix tolerances shown above shall be applied to the job-mix formula to establish a job control grading band. The full tolerances will still apply if application of the job-mix tolerances results in a job control grading band outside the master grading band.

Deviation from the final approved design job-mix formula shall not be greater than the tolerances permitted and shall be based on daily plant extraction in accordance with ASTM D 2172. The resultant mixture shall have the following Marshall properties:
Marshall Mix Method - ASTM D 1559  
Applicable to all Classes of AC or RAC

<table>
<thead>
<tr>
<th>Test Item</th>
<th>Residential and Local alleys</th>
<th>Major, Secondary and Collector Streets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability Value¹, N (lb.)</td>
<td>8,006 - 13,344</td>
<td>9,786 - 17,792</td>
</tr>
<tr>
<td>Flow, 0.25 mm (0.01 in.)</td>
<td>8 - 16</td>
<td>8 - 14</td>
</tr>
<tr>
<td>Percent Air Voids, per ASTM D 2041, D 2726, or D 1188</td>
<td>3 - 5</td>
<td>3 - 5</td>
</tr>
</tbody>
</table>

**NOTE**
1. The stability value of the Marshall Method may be replaced by the stability value of the Hveem method per California Tests 304 and 366; the minimum stability value shall be as described in SSPWC 203-6.3.2. The test requirements shall be substantiated by the Contractor/supplier through LADGS Standards Division (213) 485-2242.

**203-7 RECYCLED ASPHALT CONCRETE - HOT MIXED.**

**203-7.3 Recycled Asphalt Concrete mixtures.**

**203-7.3.2 Composition and Grading.** *Add the following RAC mixtures to TABLE 203-7.3.2(A):*

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percentage Passing Sieves</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A-RAC</td>
</tr>
<tr>
<td>25.4 mm (1 in.)</td>
<td>100</td>
</tr>
<tr>
<td>19.0 mm (¾ in.)</td>
<td>78 - 90</td>
</tr>
<tr>
<td>12.5 mm (½ in.)</td>
<td>64 - 78</td>
</tr>
<tr>
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<td>12 - 22</td>
</tr>
<tr>
<td>300 Fm (No. 50)</td>
<td>8 - 16</td>
</tr>
<tr>
<td>75 Fm (No. 200)</td>
<td>3 - 6</td>
</tr>
</tbody>
</table>

| RAC Binder (%)   | 4.5 - 6.5                 | 4.8 - 7.5                  |

*Replace third paragraph with the following:*

For any RAC mixture required by the Plans or itemized proposal, the Contractor shall formulate and submit to the Engineer for approval, a job-mix formula that fulfills the general limits imposed by Table 203-7.3.2(A), RAC mixtures. In addition, the formula shall show the amount of RAP of the total mix, RAC binder composition (the asphalt cement grade shall not be higher than AR-4000), the mineral aggregate sources, mixing and compacting temperatures. The optimum RAC binder content for the proposed gradation shall be determined by the Contractor using the procedures contained in Chapter 5, “Marshall Method of Mix Design”, of the Asphalt Institute’s Manual Series No. 2 (MS-2), current edition, and in accordance with ASTM D 1559.
These tests shall be in addition to the tests for RAP stockpile specified in 203-7.2.2.

See Table 203-6.3.2(A), for parameters applicable to all RAC mixtures except Class A-RAC. Test requirements shall be substantiated by the Contractor/supplier through LADGS, Standards Division (213) 485-2242.

Source of RAP shall be from L.A. City streets only, unless otherwise specified or approved by the Engineer. Pavement to be removed as a part of the Work shall be the primary source, or shall be incorporated into the stockpiles of the supplier to replace RAP used in the Work on a tonne-for-tonne (ton-for-ton) basis. Where additional RAP is required, and City street sources are unavailable as determined by the Engineer, alternative sources may be submitted for approval.

SECTION 207 - PIPE

207-2 REINFORCED CONCRETE PIPE (RCP)

207-2.5 Joints. Replace third paragraph with the following:

SD Pipes. RCP joint deflection shall not exceed 5 degrees, except that 10 degrees is permissible for horizontal curves where a radius of 6.8 m (22.5 ft) is specified on the Plans and for CB pipes at grade breaks and vertical curves. Either one or both ends may be beveled to provide a well-fit joint.

SS Pipes. RCP shall be beveled at the spigot end of the pipe. The bevel shall be limited to a maximum of 4 degrees. Pipe shall be furnished with plastic T-Lock® liner conforming to 210-2, the project Plans and Special Provisions.

207-2.9 Basis of Acceptance.

207-2.9.2 D-Load Bearing Strength Test. Delete last paragraph.

207-2.9.5 Acceptance of Stockpiled Pipe. Replace first paragraph with the following:

Stockpiled pipe (pipe which was not inspected during manufacture) may be used only for culverts and SD. Not more than 48 m (160 ft) of stockpiled pipe may be used on any one project and only in sizes smaller than 900 mm (36 in.) ID. Such pipe must be properly identified and certified by the Inspector at the plant prior to shipment to the jobsite. One pipe section per lot shall be tested and the pipe shall meet applicable requirements, including 115 percent of specified D-Load.

207-15 ABS SOLID WALL PIPE.
207-16 ABS OR PVC COMPOSITE PIPE.
207-17 PVC PLASTIC PIPE.
207-19 POLYETHYLENE (PE) SOLID WALL PIPE AND LINER.
207-20 CENTRIFUGALLY CAST FIBERGLASS REINFORCED PLASTIC MORTAR (CCFRPM) PIPE.
207-22 CENTRIFUGALLY CAST FIBERGLASS REINFORCED PLASTIC MORTAR (CCFRPM) MICROTUNNELING PIPE.

All above sections (207-15 thru 207-17, 207-19, 207-20 and 207-22) are modified by the
addition of the following paragraphs:

**General.** These provisions establish the requirements for plastic pipe for SS and SSHC. The general term “plastic pipe” refers to acrylonitrile butadiene styrene (ABS) pipe (solid wall or composite), polyvinyl chloride (PVC) pipe (solid wall or composite), high density polyethylene (HDPE) solid wall pipe, and centrifugally cast fiberglass reinforced plastic mortar (CCFRPM) pipe. Only those pipe products approved by the City Engineer, a list of which is on file in the office of the City Engineer, may be used. Pipe shall be tested per 306-1.2.12 and installed per 306-1.2.13.

**Verification.** At least 20 working days prior to installation, the Contractor shall submit a written “Material Certification” and “Testing Data” to the Engineer, in accordance with the following guidelines:

**Material Certification:** Shall state that the pipe which satisfied the Chemical Resistance Test continues to be the supplied pipe, and that no changes in formulation, compound, constituent, supplier or material source has since occured.

**Testing Data:** Shall include test results performed and reported by a laboratory approved by the Engineer for the following:

1. Initial Tensile Strength and Elongation (ASTM D638);
2. Initial Flexural Modulus (ASTM D790);
3. Specific Gravity;
4. Impact Strength (ASTM D256) or Shore D Hardness (ASTM D2240);
5. Apparent Cell Classification (ASTM D1784, D3262 or D3350, as applicable).

The Engineer will evaluate the Testing Data and compare them to archived samples of pipe formulations which have satisfied the sewer chemical resistance tests. The Engineer will accept reports by an approved laboratory which were performed within the previous 24 months. Otherwise, the Contractor shall engage the services of an approved laboratory, at no cost to the City, to perform the specified tests and provide current Testing Data.

Pipe whose Testing Data does not conform to the archived samples are rejected and shall not be delivered to the jobsite.

**SECTION 208 - PIPE JOINT TYPES AND MATERIALS**

**208-3 GASKETS FOR CONCRETE PIPE.** Table 208-3(A), seventh element is modified as follows:

The ozone concentration of the physical requirements after exposure test is reduced from 150 pphm to 50 pphm.
SECTION 209 - ELECTRICAL COMPONENTS

209-2 MATERIALS. Add the following new subsection:

209-2.5 Pullboxes (PBs). All electrical PBs shall conform to the Bureau of Street Lighting’s Special Specifications for the Construction of Street Lighting Systems, Standard Drawing No. L-201 and shall be subject to shop inspection by the Bureau of Contract Administration.

SECTION 210 - PAINT AND PROTECTIVE COATINGS

210-2 PLASTIC LINER.

210-2.1 General. Add the following after the first paragraph:

Liners which satisfy 210-2 are classified as Type I Protective Linings. Except as permitted below, a Type I Lining shall be installed wherever Standard Plan S-121 is referenced on the Plans or in the Special Provisions.

The Contractor may, at its option and expense, provide a Type II Lining/Coating for SSMH. Except for the underside of the MH cover, all interior surfaces of the SSMH shall be protected with either a Type I or a Type II Lining/Coating.

Type II Lining/Coatings shall be installed per the manufacturer’s recommendations and the Special Provisions. The minimum installed lining thickness or spray-applied dry film thickness shall meet or exceed the product samples submitted to the Engineer for qualification testing. Apply sprayed coatings only after all components of the SSMH are assembled and all joints are mortared. Submit a field repair procedure to the Engineer for approval prior to application.

All linings and coatings shall satisfy chemical resistance tests at a laboratory approved by the Engineer. A list of approved linings and coatings which satisfy Type I and Type II along with their minimum required thickness is available in the office of the City Engineer.

Upon completion, the surface will be spark-tested by the Engineer using a holiday detector set to 9,000 volts (minimum) for protective coatings, and 20,000 volts (minimum) for plastic liners. All areas failing to meet the test shall be repaired and retested.

210-2.3 Tests.

210-2.3.3 Chemical Resistance Test (Pickle Jar Test) Add the following after Table 210-2.3.3(A):

At 28-day intervals, specimens shall be removed from each chemical solutions and tested. If any specimen fails to meet the 112-day requirements specified in the previous subsection before completion of the 112-day exposure, the material will be rejected.

Whenever the formulation, compound, constituent, supplier or material changes, the
Contractor shall, at no cost to the City, re-qualify the product for the Chemical Resistance Test. The Contractor shall engage the services of a laboratory approved by the Engineer. No extension of time will be granted for product re-qualification.

**Verification.** At least 20 working days prior to installation, the Contractor shall submit a written “Material Certification” and “Testing Data” to the Engineer, in accordance with the following guidelines:

*Material Certification:* Shall state that the liner (or lining or coating) which satisfied the Chemical Resistance Test continues to be the supplied liner (or lining or coating), and that no changes in formulation, compound, constituent, supplier or material source has since occurred.

*Testing Data:* Shall include test results performed and reported by a laboratory approved by the Engineer for the following:

1. Initial Tensile Strength and Elongation (ASTM D638);
2. Initial Flexural Modulus (ASTM D790);
3. Specific Gravity;
4. Impact Strength (ASTM D256) or Shore D Hardness (ASTM D2240);
5. Apparent Cell Classification (ASTM D1784, D3262 or D3350, as applicable).

The Engineer will evaluate the Testing Data and compare them to archived samples of product formulations which have satisfied the sewer chemical resistance tests. The Engineer will accept reports by an approved laboratory which were performed within the previous 24 months. Otherwise, the Contractor shall engage the services of an approved laboratory, at no cost to the City, to perform the specified tests and provide current Testing Data.

All products whose Testing Data does not conform to the archived samples are rejected and shall not be delivered to the jobsite.

**210-2.3.6 Shop-Welded Joints.** Replace the first sentence with the following:

Replace the first sentence with the following:

All PVC liners shall be field tested for holes with a holiday spark tester set to provide 20,000 volts (minimum). The Contractor shall notify the Standards Division, LADGS, telephone (213) 485-2242, at least 48 hours prior to delivery of the PVC lined SSMH sections to the jobsite so that the spark test can be conducted above ground prior to installation.

**210-3 GALVANIZING.**

**210-3.2 Requirements of Coating.** Add the following after Table 210-3.2(A):

Mechanical galvanizing per ASTM B 695 and electro-deposited galvanizing per ASTM B 633 and included in 210-3.2 shall not be permitted when the items are to be installed:

a) In any wastewater treatment or wastewater reclamation plant;
b) In any SS pumping plant or lift station;
c) In connection with any SS; or
d) Within 1 mile of any body of seawater, including bays, harbors, or any estuary containing seawater.
Add the following new subsection:

210-6 Coal-tar epoxy coating. The formulation of the coating material shall be approved by the Engineer.

The coating shall be applied to surfaces which are clean and dried to the extent practicable and, in any event, free of surface moisture. The approved system manufacturer’s directions shall be followed. All surfaces to be coated shall be given one prime coat and at least two additional coats. The thickness of each coat shall be checked by the Inspector using a wet-film thickness gauge. The sum of thicknesses shall be at least 380 Fm (15 mils.) The worksite shall be properly ventilated. All necessary provisions shall be made for the safety of workers and inspection, including the furnishing of ointments, protective clothing, masks, and facilities for washing at the immediate site.

SECTION 211 - SOILS AND AGGREGATE TESTS

211-2 COMPACTATION TESTS.

Replace the entire subsection 211-2.1 with the following:

211-2.1 Laboratory maximum dry density. Compaction test will be performed in accordance with ASTM D 1557 Method A, except that rock retained on the 4.75 mm (No. 4) sieve shall not be discarded. If rock is retained on the 4.75 mm (No. 4) sieve, the relative compaction will be the ratio C/C'' where:

\[ C = \text{field dry density in kilogram per cubic meter (pounds per cu. ft.)} \]
\[ C'' = \frac{PC'}{MC' + NP} = \text{corrected laboratory maximum dry density for (+4) material} \]
\[ C' = \text{laboratory maximum dry density in kilogram per cubic meter (pounds per cu. ft.) of the portion of the test material which passes the 4.75 mm (No. 4) sieve} \]
\[ M = \frac{\text{dry weight of (+4) rock/dry weight of entire sample}}{} \]
\[ N = \frac{\text{dry weight of (-4) material/dry weight of entire sample}}{} \]
\[ P = \frac{\text{dry density of (+4) rock in kilogram per cubic meter (pounds per cu. ft.) or specific gravity of (+4) x 1000 kg/m}^3\text{ (62.4 pounds per cu. ft.)}}{} \]

\[ (+4) \text{ material} = \text{all rock retained in 4.75 mm (No. 4) sieve} \]
\[ (-4) \text{ material} = \text{all material passing 4.75 mm (No. 4) sieve} \]

211-2.3 Relative Compaction: Replace the entire paragraph with the following:

The term “relative compaction” shall mean the ratio of the field dry density to the laboratory maximum dry density, or corrected laboratory density, expressed as a percentage.
SECTION 214 - PAVEMENT MARKERS

214-6 EPOXY ADHESIVE.

214-6.1 General. Add the following:
Adhesives, including epoxy resin types used in bonding extruded AC curb and PCC and mortar to existing surfaces, or used to attach precast PCC units to existing surfaces shall be approved by the Engineer. Any surface to which the adhesive is applied shall be dry, clean, free of loose material, prepared in conformance with the adhesive manufacturer’s approved instructions/recommendations, and shall be approved by the Inspector prior to application. Mixing and application shall be done in accordance with the approved manufacturer’s recommendations in the presence of the Inspector.
300-1 CLEARING AND GRUBBING.

300-1.1 General. Add the following to the end of third paragraph:
No tree shall be removed except as shown on the Plans, by permit, or ordered by the BPW.

The cutting down or removal of trees is prohibited between 6:00 PM and 7:00 AM and on any Saturday, Sunday or legal holiday unless permission is obtained from the BPW.

300-1.3 Removal and Disposal of Materials.

300-1.3.1 General. Add the following to the end of paragraph:
When removing asbestos products, current requirements of the California General Industry Safety Orders and Construction Safety Orders shall be complied with.

300-1.3.2 Requirements. Insert the following before paragraph (a):
Removals on bridges and culverts and close to other structures shall be performed carefully to prevent damage to the facility. Stomping will not be permitted in these locations.

Replace paragraph (a) with the following:

(a) Bituminous pavement. Bituminous pavement shall be removed to clean, straight lines. Sawcutting of edges to be joined is optional. Where only the surface of existing bituminous pavement is to be removed, the removal shall be by coldplaning or other approved method. Sufficient removal shall be made to allow a minimum laying depth of 25 mm (1 in.) of new AC material. Where the existing pavement is to be resurfaced by overlay, a minimum width of 1.5 m (5 ft) of surface shall be removed by coldplaning adjacent to existing PCC gutters and other join lines. Unless the resurfacing immediately follows the removal of the existing wearing surface, temporary pavement shall be placed and maintained-in-good condition adjacent to all stepped edges and in rough areas within the area to be resurfaced to provide a safe surface for traffic. In any event, the removal of existing wearing surface shall be coordinated with the resurfacing schedule so as to meet the time limitation of 302-5.1 as modified. When a trench is to be resurfaced, the pavement edges adjacent to the trench shall be trimmed to neat, straight lines before resurfacing to ensure that all areas to be resurfaced are accessible to the rollers used to compact the subgrade or paving materials.
Add the following after the second sentence of paragraph (b):
Sawcuts shall be a minimum of one-half of the pavement thickness.

The City’s Bureau of Street Maintenance shall do any necessary preparation of the existing pavement including removal of any growth in the roadway and/or parkway that may interfere with the operation. This includes applying herbicide to all weeds growing in the roadway. The Contractor shall thoroughly sweep or clean the surface prior to the application of the slurry. The Contractor shall resweep the street not less than 48 hours, nor more than 168 hours following the placement of slurry seal in order to remove the gravel rebound from vehicular traffic.

Add the following to the end of paragraphs (a) and (b):

When sawcutting bituminous or PCC pavement, the maximum overrun allowed for any sawcut beyond the boundary removal limits of existing pavement shall be 50 mm (2 in.). Correction for exceeding this 50 mm (2 in.) limit shall be at the Contractor’s expense and shall be corrected either by:

a) Enlarging the removal area to limit the overrun to 50 mm (2 in.), maximum, at all corners of the sawcut boundary; or,

b) Installing an Engineer approved epoxy sealant and completely filling the excess sawcut. The epoxy sealant shall conform with current Caltrans’ Standard Specifications.

300-1.4 Payment. Add the following to the end of last paragraph:

When pavement is to be removed, an adjustment in Contract payments shall be made only when the existing pavement thickness exceeds, or is less than, the thickness indicated on the Plans or in the Specifications by more than 50 mm (2 in.). Payment adjustments shall then be for the entire difference in accordance with stipulated prices.

SECTION 301 - TREATED SOIL, SUBGRADE PREPARATION AND PLACEMENT OF BASE MATERIALS

301-4.6 Compacting. Add the following after the third paragraph:

If the AC base course is 150 mm (6 in.) or thicker, the Contractor may, at its option, construct the base course in one paving operation using one 7.2- to 9.1 tonne (8- to 10-ton) tandem roller; one 12.6-tonne (14-ton) 3-axle tandem roller; and one 10.8 (12-ton) tandem roller for each mechanical spreading machine used, with no limitation on daily tonnage laid. Partial breakdown shall be accomplished by the 7.2- to 9.1-tonne (8- to 10-ton) tandem roller immediately after the base material is laid. The 3-axle tandem roller shall complete the compaction of the base material within 30 minutes of laying. Subsequent rolling to smooth the surface and complete the densification shall be accomplished by the 10.8-tonne (12-ton) tandem roller.
SECTION 302 - ROADWAY SURFACING

302-5 ASPHALT CONCRETE PAVEMENT.

302-5.1 General. Add the following to the end of first paragraph:

The AC mixes in the following table shall be used:

<table>
<thead>
<tr>
<th>Class</th>
<th>Usage</th>
<th>Viscosity Grade(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Base course for streets (machine-laid)</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Base course for streets (machine- or hand-laid)</td>
<td>AR-8000(^2): Major,</td>
</tr>
<tr>
<td></td>
<td>Base course for alleys (machine- or hand-laid)</td>
<td>Secondary, and</td>
</tr>
<tr>
<td></td>
<td>Base course for trench resurfacing (machine-laid)</td>
<td>Collector streets</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and commercial</td>
</tr>
<tr>
<td></td>
<td></td>
<td>streets and alleys</td>
</tr>
<tr>
<td>C2</td>
<td>Wearing surface for streets and alleys (machine-laid)</td>
<td>AR-4000: Residential</td>
</tr>
<tr>
<td></td>
<td>Leveling course (machine-laid)</td>
<td>streets and alleys(^3)</td>
</tr>
<tr>
<td></td>
<td>Overlay (capping) 38 mm (1½ in.) minimum thickness (machine-laid)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surfacing for streets, 100 mm (4 in.) total thickness (machine-laid)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Base course for trench (hand-laid)</td>
<td></td>
</tr>
<tr>
<td>D2</td>
<td>Wearing surface for streets and alleys (hand-laid)</td>
<td>AR-8000</td>
</tr>
<tr>
<td></td>
<td>Wearing surface for trench resurfacing (machine-laid)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Overlay (capping) less than 38 mm (1½ in.) thick (machine-laid)</td>
<td></td>
</tr>
<tr>
<td>D2</td>
<td>Extruded curb</td>
<td>AR-8000</td>
</tr>
<tr>
<td>E</td>
<td>Restricted areas</td>
<td>AR-4000</td>
</tr>
<tr>
<td></td>
<td>Featheredging</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wearing surface for trench (hand-laid)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AC sidewalks</td>
<td></td>
</tr>
</tbody>
</table>

1) The inspector may alter the mix to meet field conditions.
2) Use AR-4000 when the AC mix contains RAP.
3) For grades over 10 percent, use AR-8000 and the next coarser aggregate grade.

At least two courses shall be laid when the new AC pavement is thicker than 100 mm (4 in.). The top course shall be a wearing surface course 50 mm (2 in.) thick.

Where a new ACWS is to be laid over pavement from which the wearing surface has been removed, no more than 10 days shall elapse between that removal and the placing of the resurfacing. When resurfacing is to be done at separate, widely spaced areas, the Contractor shall schedule sufficient equipment and labor to meet this time limitation.

302-5.2 Cold Milling Asphalt Concrete Pavement. Add the word “coldplaning” as a synonym for “coldmilling.”

302-5.5 Distribution and Spreading. Replace the first sentence of the first paragraph with the following:

Wherever AC pavement does not terminate against a curb, gutter, or another pavement, the Contractor shall provide and install a redwood header at the line of termination.

302-5.8 Manholes (and other structures). Add the following to the end of third paragraph:

The placement of the ACWS shall be completed within 4 working days after a MH frame has been set to grade.
302-6 PORTLAND CEMENT CONCRETE PAVEMENT.

302-6.7 Traffic and Use Provisions. Replace the second paragraph with the following:
When approved by the Engineer, PCC 390-A-23 (660-A-3250) with a 0.5 maximum water-
cement ratio may be substituted to allow vehicular traffic on the PCC pavement 72 hours after
finishing. Calcium chloride or other admixture or accelerators shall not be permitted unless
specifically approved by the Engineer in writing.

SECTION 303 - CONCRETE AND
MASONRY CONSTRUCTION

303-1 CONCRETE STRUCTURES.

303-1.3 Forms. Replace condition (1) in the last paragraph with the following:
1) The excavation limit faces shall be firm, compact, able to stand without sloughing, and
outside the PCC lines at all points. If the surfaces ravel/slough, the PCC structure shall be
formed or the excavation faces gunited per Method “A” of 303-2.1.2 to prevent the
raveling/sloughing.

Add new condition (7) to the end of the last paragraph:
7) PCC wall and invert slab thickness shall not exceed 150 percent of the thickness shown on
the Plans.

303-1.7 Placing Reinforcement.

303-1.7.1 General. Replace the first paragraph with the following:
The Contractor shall submit reinforcing steel placing plans in accordance with 2-5.3, only if
the reinforcing details differ from that shown on the Plans.

303-1.9 Surface Finishes.

303-1.9.1 General. Replace the second paragraph with the following:
The invert of cast-in-place SS and SD structures shall be given a steel trowel finish. The invert
of a circular section is defined as the unlined portion of lined construction or the bottom 60 degrees of
unlined construction. Untrowelled PCC inverts shall be 390-B-26 (660-B-3750). A wood-float finish
will be permitted on cast-in-place rectangular main line SD structures 600 mm (24 in.) or higher in
interior height.

303-5 CONCRETE CURBS, WALKS, GUTTERS, CROSS GUTTERS, ALLEY
INTERSECTIONS, ACCESS RAMPS, AND DRIVEWAYS.

303-5.4 Joints.
303-5.4.1 General. Remove and replace the paragraph with the following:
Joints in concrete curb, gutter and walk shall be designed as expansion joints, weakened
plane joints and contact joints.

303-5.4.2 Expansion Joints. First, second and third paragraphs are replaced with the following:

Expansion joint filler 6 mm (¼ in.) thick shall be placed only around utility poles located in sidewalks and around all structures projecting through the pavement on PCC bikeways. The joint filler shall conform with 201-3.2.

303-5.4.3 Weakened Plane Joints. Replace the first and second paragraphs of subsection (a) with the following and delete subsection (b):

Weakened plane joints shall be straight and constructed in accordance with subsection (c) 9 below, unless otherwise shown on the Plans.

In sidewalks, joints shall be perpendicular to the curb and at regular intervals not exceeding 3 m (10 ft). Joints at a BCR or ECR shall be full sidewalk width, except at alleys when sidewalk is not the full width of parkway. They shall be located for the full s/w width each side of tree wells, CBs, and other structures measuring more than 760 mm (30 in.) along the curb. Joints shall also be placed on each side for the full sidewalk width at locations where sidewalk is to be omitted or removed for the installation of street lighting or traffic signal facilities. Where sidewalk is wider than 6 m (20 ft), a weakened plane joint shall be installed longitudinally at the midpoint.

In bikeways, the joints shall be at 3 m (10 ft) o.c. and at the BCR/ECR. Joints may be sawcut.

303-5.5 Finishing.

303-5.5.3 Walk. Delete the fourth sentence in the fourth paragraph, and add the following as the last paragraph:

The PCC bikeway finish shall be a stiff broom finish transverse to the centerline.

303-5.5.5 Alley Intersections, Access Ramps and Driveways. Add the following to the end of paragraph:

Access ramps shall be referred to as curb ramps and shall be constructed either per Standard Plan S-442-2M, or as shown on the Plans, or as directed by the Engineer.

303-6 STAMPED CONCRETE.

303-6.1 General. Add the following as the last paragraph:

Coloring, stamping, or special material for sidewalk, driveway, bikeway, or pavement shall require prior approval by the Engineer. See 2-5.3.

SECTION 304 - METAL FABRICATION AND CONSTRUCTION

304-1 STRUCTURAL STEEL.

304-1.11 Bent Plates. Add the following after the last paragraph:

The CB curb inlet and support details 8 mm (5/16-in.) thick steel support plate per Standard
Plan S-340 shall be milled smooth free of burrs at the exposed top edge and rounded 1.6 mm (1/16-in.) on the leading edge toward the curb face prior to bending and galvanizing.

**SECTION 306 - UNDERGROUND CONDUIT CONSTRUCTION**

306-1 OPEN TRENCH OPERATIONS.

306-1.1 Trench Excavation.

306-1.1.1 General. *Add the following as the last paragraph:*

Unless otherwise provided, all existing SS, SD, and laterals thereof which cross or partially cross trenches shall be supported as shown on Standard Plan S-253.

306-1.1.5 Removal and Replacement of Surface Improvements. *Add the following as a second paragraph:*

The Contractor shall remove and replace all loose or overhanging pieces of PCC/AC pavement within the limits of any trench or excavation and up to 1 foot beyond. The cost for such removal and replacement shall be included in the Bid price for the trench or excavation items and/or operations.

306-1.2 Installation of Pipe. *This subsection is modified in part by the addition of the following regarding plastic pipe (per 207-15 through 207-20 of this Standard Plan):*

Main Line Pipe. When the Contractor selects the option of installing plastic pipe, such option shall apply to all pipe between any two MHs and shall include the SSHCs in that reach. Also in that reach, a Type “Z” Joint per 208-5, or other approved flexible joint shall be constructed at the join with any existing stub.

House Connections. SSHCs shall be constructed of the same material as main line SS unless approved fittings and flexible adapters are utilized. All materials shall meet the requirements of the appropriate specifications as well as 210-2.3.3 and be approved by the Engineer prior to installation. Wye connections shall be used when connecting to a main line of a material other than VCP or DIP. Tee connections will not be permitted when the main line SS is other than VCP or DIP.

306-1.2.2 Pipe Laying. *Add the following to the end of the third paragraph:*

The Contractor may, with the approval of the Engineer, change the location of a SS or SD MH up to ½ a standard pipe length or 1.2 m (4 ft), whichever is less, to avoid cutting a standard pipe length. The MH shall not be placed in an existing or future pedestrian crosswalk.

*Add the following to the end of the fourth paragraph:*

Monolithic connections per Standard Plan S-331 shall be used to join all connector pipes to all CBs and SDMHs. Monolithic connections may be extended up to 1.2 m (4 ft) to avoid cutting standard lengths of pipe.
Add the following after the last paragraph:

Removal of RCP SD shall be in full pipe lengths to the nearest pipe joint beyond the removal limits. Connection between the remaining pipe and new pipe shall be made with a PCC collar per Standard Plan S-333. The join between remaining pipe and a new structure shall be made with a connection cast monolithically with the structure, except that new pipe shall be used between the remaining pipe and the structure if the length of the gap is more than 1.2 m (4 ft).

Any cutting of new or existing RCP in the field shall be governed by the following:

a) Cutting operations shall be so conducted that the pipe will be reasonably free-of-spalling. Interior spalls with thickness less than 5 percent of the pipe wall thickness need not be repaired. Spalls of thickness between 5 percent and 20 percent inclusive, of the pipe wall thickness shall be repaired prior to joining other construction. Pipe with spalls of thickness exceeding 20 percent of the pipe wall thickness shall not be used. Repairs shall be made by filling with an approved epoxy resin compound or epoxy resin bonded cement mortar. Surfaces to be repaired shall be prepared in accordance with 207-3.3.3.

b) Acceptability of cracks in the pipe caused by cutting will be limited by 207-2.8.

306-1.2.3 Field Joining of Clay Pipe. Add the following:

Type “Z” joints may also be used for VCP SS.

For Type “D” joints used on 6-inch plain-end VCP SSHC, the maximum deflection at each joint shall be 2½ degrees.

306-1.2.4 Field Joining of Reinforced Concrete Pipe. Add the following:

SD Pipe. Pipe with square or beveled ends may be pulled to provide a smooth curve. Pulling of joints shall be limited to 19 mm (¾-in.) from normal closure for pipe 36-inch or smaller ID, and to 25 mm (1 in.) from normal closure for pipe 975 mm (39 in.) or larger ID.

A PCC collar will be permitted only at locations shown on the Plans and where a joint cannot be made within allowable pull limitations. PCC collars shall be per Standard Plan S-333.

SS Pipe. Pulling of joints for lined RCP shall be limited to 13 mm (½-in.) from normal closure for use around curves when pipe does not have beveled ends and for adjusting beveled ends to meet field conditions.

306-1.2.9 Field Joining of Solvent-Welded ABS and PVC Pipe. Add the following to the end of the first paragraph:

The ends of ABS and PVC composite pipe shall be thoroughly and completely coated with solvent cement.

306-1.2.12 Field Inspection for Plastic Pipe and Fittings. Add the following after the last paragraph:

After the mandrel test has been satisfactorily conducted, or whenever requested by the Engineer, the Contractor shall provide access and assistance to the Engineer for the purpose of allowing the Engineer to test the pipe by pulling a deflectometer through the pipe. The deflectometer and the personnel required to operate it shall be provided by the City at no cost to the Contractor. All costs incurred by the Contractor attributable to mandrel or deflectometer testing, including delays, shall be borne by the Contractor and at no cost to the City.

The Contractor shall furnish a mandrel for each type, size and designation of solid wall
ABS or PVC pipe, and for ABS or PVC composite pipe, in sizes 8-inch (nominal) and larger. The mandrel shall be calibrated by LADGS, Standards Laboratory, and approved by the Engineer.

306-1.3 Backfill and Densification.

306-1.3.1 General. *Add the following paragraph between the second and third paragraphs:*

Permits that have continuous backfill inspection shall use the provisions of the SSPWC or if called for on the plan, the provisions of Standard Plan S-251. Other excavations performed under permit within the roadway portion of all streets and alleys shall be backfilled with a ¾-sack cement-sand slurry. Alternate backfill may be approved by the Engineer when a written request is submitted by the permittee with specifications stating the type of backfill and method of compaction.

306-1.3.3 Water-Densified Backfill. *Add the following:

Jetting shall utilize a continuous supply of water at a minimum of 272 kPa gauge (40 psig) pressure through a 38 mm (1½-in.) minimum ID pipe starting within 600 mm (2 ft) of the bottom of the excavation and rising at a rate which will *totally saturate* and densify the backfill material. A water truck with pump will be considered as meeting this requirement providing the truck capacity exceeds the trench jetting requirement without refill. The densification shall be accomplished in one continuous operation. For cuts smaller than 1.2 m (4 ft) square by 1.2 m (4ft) deep, a minimum of 19 mm (¾-in.) ID pipe may be used for jetting.

*Add the following new subsection:*

306-1.3.7 Soil Cement Backfill. Backfilling of trenches on steep slopes may be done by the use of soil cement when permitted on the Plans or Special Provisions. The soil cement backfill shall consist of a mixture of 45 kg (100 pounds) of Portland cement to 0.76 m³ (1 cu. yd.) of soil, shall be thoroughly mixed and moistened with water, and placed and compacted in 150 mm (6 in.) lifts. The soil used in the soil-cement backfill shall have a minimum sand equivalent of 20. Relative compaction shall be 90 percent (minimum).

306-1.4 Testing Pipelines.

306-1.4.1 General. *Provisions pertaining to SS are replaced by the following:*

Gravity SS pipe 525 mm (21 in.) ID or smaller - Air pressure test shall be required.
Pressure SS (force mains) - Water pressure test shall be conducted at 150 percent of the maximum operating pressure specified on the Plans or in the Special Provisions.

Payment for testing and the repairs necessary to bring the pipeline within acceptable limits shall be considered as included in the items for which bids are entered.

306-1.4.4 Air Pressure Test. *Replace first and second paragraphs with the following:*

For gravity SS 200 mm to 300 mm (8 in. to 12 in.) ID, the Contractor shall furnish all materials, equipment, and labor for making an air test. Air test equipment shall be approved by the Engineer.
For gravity SS 375 mm to 525 mm (15 in. to 21 in.) ID, the City will furnish main line plugs, air hoses, and air gauges. The Contractor shall furnish at the test sites all other equipment, including but not limited to air compressor, main line plug bracing, ladders, and barricades, and furnish the necessary labor to assist in the performance of the test. The air compressor shall be capable of delivering 11.3 m³/min (400 cfm) at 680 kPa gauge (100 psig.) pressure.

Payment for furnishing any necessary equipment and labor for air-pressure testing of SS shall be considered as included in other items for which bids are entered.

306-1.5 Trench Resurfacing.

306-1.5.1 Temporary Resurfacing. **Add the following as the last paragraph:**

Payment for temporary resurfacing material will be limited to that quantity used to resurface the nominal trench width. Nominal trench width shall be defined as the outside width of the conduit or structure plus 900 mm (3 ft) measured at the pavement surface. Excavation beyond the nominal trench width shall be deemed to be for the Contractor’s convenience. Material ordered placed outside the nominal trench width shall be at no cost to the City.

306-1.5.2 Permanent Resurfacing. **Add the following to the end of first paragraph:**

When slurry backfill is used in trench replacement, the final resurfacing shall be per Table 306-1.5.2(A):

<table>
<thead>
<tr>
<th>Existing Pavement</th>
<th>Final Pavement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td><strong>Thickness “T_E”</strong></td>
</tr>
<tr>
<td>AC</td>
<td>T_E &lt; 180 mm (7 in.)</td>
</tr>
<tr>
<td></td>
<td>T_E ≥ 180 mm (7 in.)</td>
</tr>
<tr>
<td>PCC</td>
<td>T_E &lt; 180 mm (7 in.)</td>
</tr>
<tr>
<td></td>
<td>T_E ≥ 180 mm (7 in.)</td>
</tr>
<tr>
<td>AC+PCC</td>
<td>T_E &lt; 180 mm (7 in.)</td>
</tr>
<tr>
<td></td>
<td>T_E ≥ 180 mm (7 in.)</td>
</tr>
</tbody>
</table>

The resurfacing schedule shown on the Plans may not necessarily indicate the type or thickness of the existing pavement.
306-1.6 Basis of Payment for Open Trench Installations. Add the following to the end of second paragraph.

The price per lineal foot of SD or SS installed in areas where street paving is a part of the project shall exclude permanent resurfacing. The permanent trench resurfacing shall be included in the quantities shown for street improvement items.

306-5 ABANDONMENT OF CONDUITS AND STRUCTURES. Replace first and second sentences in the first paragraph with the following:

When SS or SD conduits have been or are to be abandoned, and are found to interfere with construction, the interfering portion shall be removed and both ends of the abandoned conduits shall be sealed. Where the greatest internal dimension of the conduit is 1.2 m (4 ft) or less, the seal shall consist of a minimum of 300 mm (12 in.) thick PCC wall. If existing pipe is ACP, see modification to 300-1.3.1.

Add the following to the end of the fifth paragraph:

Grating sets shall be salvaged and delivered by the Contractor, at its expense, to any City sewer maintenance yard. Yard locations may be obtained by telephoning (213) 485-5884.

306-6 REMODELING EXISTING SEWER FACILITIES. Replace the first paragraph with the following:

The Contractor shall provide all temporary SS bypasses. The Contractor shall submit the details of the proposed control operations to be used for the bypass and the proposed schedule of activities to the Engineer for approval in accordance with 2-5.3. The Engineer, in concurrence with the Division Manager II of the Wastewater Collection Systems Division of the Bureau of Sanitation (located at 2335 Dorris Place, Los Angeles, CA 90031, phone [213] 485-5888), shall have approval responsibility for the procedures to be used and the schedule. If any emergency should arise during the bypass activities, the Wastewater Collection Systems Division should be contacted at (310) 823-5507.

When new work is to be constructed inside an SS structure against an existing brickwork or PCC surface that has been exposed to sewage or an hostile aerial environment, the existing surface shall be prepared as follows:

a) All soft and loose materials shall be removed and the surface cleaned by sandblasting;
b) Joints of existing brickwork shall be repointed. Loose brick shall be replaced with new bricks if the surface is to be plastered;
c) The surface shall be washed with a 3 percent solution of soda ash (Na₂CO₃) followed by a rinsing with domestic-supplied water; and
d) The surface shall then be washed with a 3 percent solution of hydrochloric acid followed by a final rinsing with domestic supplied water.

Any existing SS to be intercepted by a new SS shall be maintained-in-service or bypassed until authority to connect to the new SS is granted by the BPW. Such authority is contingent upon final inspection and acceptance of all new SS construction downstream from the required point of connection.

All existing SS shall be considered permit-required confined spaces in accordance with 7-10.4.4. Hazards to which workers may be exposed include but are not limited to: (1) engulfment; (2) hydrogen sulfide gas; (3) explosive/flammable gases; and/or (4) oxygen deficiency. The Contractor shall implement a permit space program in accordance with 7-10.4.4.
306-7 CURB DRAINS. Replace third paragraph with the following:
Curb drains and fittings shall be constructed of pipe per SSPWC:
   a) Plain PCC (207-1);
   b) VCP (207-8);
   c) CIP or DIP (207-9); and
   d) Solid wall PVC (207-17) except that only PVC pipe conforming to ASTM D 3034, SDR 23.5; or ASTM D 2241, SDR 21; or ASTM D 1785, Schedule 80 shall be permitted.
Curb drains and fittings shall be joined in accordance with approved manufacturers’ recommendations or as approved by the Engineer.

SECTION 307 - STREET LIGHTING AND TRAFFIC SIGNALS

307-1 GENERAL

307-1.1 Description. Add the following to the end of last paragraph:
All work on street lighting installations shall conform to the provisions of street lighting special specifications and applicable amendments-in-effect on the date of advertisement of the project for bids. Copies of such special specifications are available at the offices of the BSL, telephone (213) 847-5410.

The Contractor shall protect and maintain all street lighting facilities existing in the work area. Should any damage to an existing street lighting system occur, the Contractor shall immediately notify the BSL, Field Operations Division (FOD), by telephoning (213)913-4743. The Contractor shall arrange for the immediate repair and restoration to service of the damaged lighting system at no cost to the City. Electrical safety clearance shall be obtained prior to performing any work on existing energized street light circuits. Clearance for emergency repairs shall be obtained from the DWPPS, Street Light Maintenance Section, telephone (213) 367-9966. The BSL (FOD) at (213) 913-4743 shall be notified of location, date and time of the circuit clearance prior to performing work on any street lighting circuits. All temporary or permanent street lighting repairs shall be made by a licensed electrical Contractor. All equipment and materials utilized for repair of the street lighting system shall be approved by the street lighting construction and repair superintendent prior to the re-energizing of the affected lighting circuits, telephone (213) 913-4743. Whenever the word “Approved” appears in 307-2 and 307-3, it shall mean “Approved by the Engineer.”

In cases where a temporary removal or relocation of street lighting equipment (not shown on the Plans) is required, the Contractor shall submit detailed plans indicating the change to the BSL, Construction Engineer, (213) 847-5419, for review and approval prior to performing any such work. All such work shall be accomplished by a licensed electrical Contractor at no cost to the City, or upon deposit for estimated costs with the BSL, the FOD will perform the work.

307-1.5 Maintenance of Existing Systems. Replace second sentence in the third paragraph with the following:
All temporary overhead conductors shall be slack-spanned with a minimum of 6 m (20 ft) overhead clearance across thoroughfares and a minimum of 3.6 m (12 ft) clearance above sidewalk areas.
307-4 TRAFFIC SIGNAL CONSTRUCTION.

307-4.2 Temporary Signal Systems. Add the following after the first sentence in the first paragraph:
“If a mast arm is required, then a temporary mast arm shall be installed.”

307-5 INSPECTION AND TESTING.

307-5.2 Testing. Add the following to the end of paragraph:
Traffic signal equipment installed by the Contractor shall be inspected by the Traffic Signal Inspector before signal circuits are energized. Call (213) 485-1071 (Central Area), (213) 485-6834 (Western Area), or (818) 756-7852 (Valley Area) for inspection.

SECTION 308 - LANDSCAPE AND IRRIGATION INSTALLATION

308-1 GENERAL. Add the following as the last paragraph:
When existing planted areas are to be widened, the soil shall be prepared and planting shall be done as required for restoration of existing plantable areas as modified. For unplanted areas that are widened, the upper 300 mm (12 in) of topsoil shall be Class B. All costs to the Contractor for work done in accordance with this paragraph shall be considered as included in the other work for which Bid items are entered.

308-4 PLANTING.

308-4.6 Plant Staking and Guying.

308-4.6.1 Method “A” Tree Staking. Replace the first sentence with the following:
The tree shall be staked with a 38 mm (1½ in.) (nominal diameter) by 10ft long steel (ASTM F 1083) pipe. The pipe shall be new galvanized Schedule 40, or new second class (pipe disqualified during manufacture) ungalvanized pipe with a minimum wall thickness of 3.4 mm (0.135 in.). Second class pipe that meets material and thickness requirements and is straight, free of dents, pits, rust, scale, or other foreign matter is acceptable. Ungalvanized pipe and pipe with galvanizing defects shall be painted with a green colored enamel recommended by the manufacturer as suitable for steel surfaces. The minimum paint coat (or coats) thickness shall be 76\(\mu m\) (3 mils). The stake shall be installed vertically and shall be positioned at least 150 mm (6 in.) from the trunk at ground level and 760 mm (30 in.) into the soil in a manner to avoid injury to the roots or breaking the root ball.

308-6 MAINTENANCE AND PLANT ESTABLISHMENT. Add the following to the end of first paragraph:
Maintenance shall include continuous operations of watering, weeding, mowing, rolling, trimming, edging, cultivation, fertilization, spraying, control of pests, insects, and rodents, reseeding, plant replacement (irrespective of cause), or any other operations necessary to assure normal plant growth.
Add the following to the end of second paragraph:
Unless otherwise approved by the Engineer, each ground planted tree not watered by an automatic system shall receive approximately 75 litres (20 gallons) of water every 7 days. Water shall be applied at a rate which will avoid erosion or loss of water.

Add the following paragraph prior to the last paragraph:
As a part of the Work required under the plant maintenance period, the Contractor shall provide and apply commercial fertilizer as specified under 212-1.2.3, with a 8-8-4 analysis to lawns and groundcover areas only, at the rate of 7.3 kg per 100 m² (15 pounds per 1000 square feet.) This material shall be applied no later than 15 days prior to the termination of the establishment period. The Inspector shall be notified to inspect the project prior to the application of the 8-8-4 fertilizer, to confirm the amount delivered and applied and to approve the method of application.

Add the following to the end of last paragraph:
The maintenance period is a part of, but may extend beyond, the period specified for completion of the Work under the Contract.

SECTION 310 - PAINTING

310-5 PAINTING VARIOUS SURFACES

310-5.6 Painting Traffic Striping, Pavement Markings, and Curb Markings

310-5.6.1 General. Replace first and second paragraphs with the following:
Temporary Striping. Temporary or detour striping, as specified on the plan, shall be performed by the Contractor or permittee. The Contractor shall submit a Comprehensive Traffic Control Plan (TCP) for approval to LADOT at the appropriate District Office not less than 30 calendar days prior to start of construction and shall be signed by the LADOT District Engineer prior to construction. The plan shall be prepared by and signed by a traffic Engineer registered in the State of California. The plan shall include all regulatory, warning and guidance devices conforming to the requirements of the latest adopted edition of the WATCH Handbook and the State Traffic Manual.

The Contractor shall be responsible for all work related to the approved temporary striping plan including but not limited to sandblasting, detour striping tape, mark out, striping, delineators, nonregulatory signing, and barricading. LADOT shall be responsible for detour-related regulatory signing. For detours of 6 months or less, black detour tape should be used to cover old striping and “detour grade” tape shall be installed to delineate temporary striping. For detours longer than 6 months, old striping shall be sandblasted and temporary striping painted. Paint cover of old striping is not acceptable. The installation of each striping stage and the removal of the previous stage shall be performed on the same day. During striping implementation, traffic may be restricted to one lane in each direction between 8:30 AM and 4:00 PM, unless otherwise specified in the Special Provisions.

Necessary removal of existing and temporary striping and markings shall be performed by the Contractor or permittee. The removal of striping and markings shall be performed prior to the mark out of detour or final striping. Quantities for painted, taped or thermoplastic striping removal and the
installation of temporary striping shall be bid and paid in a lump sum. Mark-out shall be by heavy paint brush markings over a pulled rope in the respective white and yellow colors of the proposed striping (striping gaps shall be dotted). If the mark-out is to remain overnight before final striping, temporary reflectorized overlay markers shall be installed per LADOT Standard Drawing S-453.0.

**Final Striping.** The mark-out and installation of final striping and pavement markings shall be performed by the Contractor. Quantities for painted or plastic striping removal of existing striping and installation of permanent striping shall be bid as shown on the LADOT approved final striping plan or as indicated elsewhere in the Contract Documents. Mark-out shall be by heavy paint brush markings over a pulled rope in the respective white and yellow colors of the proposed striping (striping gaps shall be dotted). If the mark-out is to remain overnight before final striping, temporary reflectorized overlay markers shall be installed per LADOT Standard Drawing S-453.0. Striping and pavement markings shall be in hot applied alkyd thermoplastic in accordance with LADOT Specification Nos. 51-005-04 and 76-012-09.

**310-5.6.4 Geometry, Stripes and Traffic Lanes.** Replace first paragraph with the following:

Permanent and temporary striping and marking shall be in accordance with 310-5.6.1 as modified above.

Refer to LADOT standard drawings S-401.0, S-401.1, S-402.0 and S-414.4 for geometry, stripes, and traffic lanes.
PART 5

SECTION 500 - PIPELINE SYSTEM REHABILITATION

500-1 PIPELINE REHABILITATION

500-1.1 Requirements.

500-1.1.6 Material Control. Replace the entire section with following:

Field Sampling. All materials are subject to sampling and testing in accordance with 4-1.4.

Verification. At least 20 working days prior to installation, the Contractor shall submit a written Material Certification and Testing Data to the Engineer.

Material Certification: Stating that the rehabilitation system which satisfied the Chemical Resistance Test continues to be the supplied rehabilitation system and that no changes in formulation, compound or constituent has since occurred.

Testing Data: Tests performed and reported by a laboratory approved by the Engineer for the following:
1) Initial Tensile Strength and Elongation (ASTM D638);
2) Initial Flexural Modulus (ASTM D790);
3) Specific Gravity;
4) Impact Strength (ASTM D256) or Shore D Hardness (ASTM D2240);
5) Apparent Cell Classification (ASTM D1784, D3262 or D3350).

The Engineer will evaluate the Testing Data compared to archived samples of rehabilitation systems which have satisfied the sewer chemical resistance tests. The Engineer will accept reports by an approved laboratory which were performed within the previous 24 months. Otherwise, the Contractor shall engage the services of an approved laboratory, at no cost to the Agency, to perform the specified tests and provide current Testing Data.

Rehabilitation systems whose Testing Data does not conform to the archived samples are rejected and shall not be delivered to the jobsite.

500-1.3 High-Density Polyethylene (HDPE) Solid-Wall Pipe Liner.

500-1.3.5 Chemical Resistance and Physical Testing. Delete the last sentence of the paragraph.

500-1.4 Cured-in-Place Pipe Liner (CIPP Liner).
500-1.4.4 Chemical Resistance. Replace the entire paragraph with the following:
The CIPP liner system furnished shall include an epoxy resin and meet the chemical resistance test requirements of 210-2.3.3.

500-1.5 Polyvinyl Chloride (PVC) Pipe Lining System.

500-1.5.5 Chemical Resistance. Replace the entire paragraph with the following:
The PVC and cured sealant/adhesive material furnished shall conform to the chemical resistance test requirements of 210-2.3.3.

500-1.7 Deformed/Re-formed HDPE Pipe Liner.

500-1.7.5 Chemical Resistance and Physical Testing. Delete the last sentence of the paragraph.

500-1.10 Folded and Re-formed PVC Pipe Liner.

500-1.10.2 Type A Folded and Re-formed PVC Pipe Liner.

(e) Chemical Resistance and Physical Testing. Delete the last sentence of the paragraph.

500-1.10.3 Type B Folded and Re-formed PVC Pipe Liner.

(e) Chemical Resistance and Physical Testing. Delete the last sentence of the paragraph.