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# VILLAGE OF DOWNERS GROVE Report for the Village Council Meeting 7/12/2016

| SUBJECT:   | SUBMITTED BY:                          |
|--|--|
| Award of Contract for Parking Deck Rehabilitation and Maintenance, Phase 1 | Nan Newlon<br>Director of Public Works |

#### SYNOPSIS

A motion is requested to award a contract for Parking Deck Rehabilitation and Maintenance, Phase 1 (P-013) to J. Gill & Company of South Holland, Illinois in the amount of \$209,020.00.

#### STRATEGIC PLAN ALIGNMENT

The goals for 2015-2015 include *Top Quality Infrastructure*.

#### **FISCAL IMPACT**

The FY16 budget includes \$220,000 in the Parking Fund for this project.

### **UPDATE & RECOMMENDATION**

This item was discussed at the July 5, 2016 Village Council meeting. Staff recommends approval on the July 12, 2016 Consent Agenda.

## **BACKGROUND**

In 2004 the Village constructed the parking deck in the Downtown Business District. It consists of five floors and 778 parking stalls. Twelve years after its construction, the deck is beginning to require increased maintenance efforts as some of its structure and systems begin to age and wear. To provide a functional facility and extend the service life of the deck, the proper preventive and proactive maintenance repairs are being applied to minimize more costly future repairs. In 2015 the Village commissioned the development of a Parking Deck Maintenance Plan. This plan consists of an assessment of the current condition of the parking deck along with an annual repair plan forecasting the next ten years of recommended maintenance activities and estimated costs for budgeting purposes. The plan also discusses significant longer-term maintenance and replacement requirements so that planning may begin for some of these more costly items.

This project, which is Phase 1 of recommended maintenance activities, includes various concrete, masonry, and façade repairs, removal and replacement of sealant materials, replacement of 4<sup>th</sup>-floor sprinkler system, door and frame replacement and miscellaneous repairs throughout the deck. The project includes one alternate: an upgraded, more durable replacement door.

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A Call for Bids (CFB) was issued and published in accordance with the Village's Purchasing Policy. Three bids were received by the due date of June 23, 2016. Below is the synopsis of the bids received. The synopsis includes the base bid, and the base bid with the alternate bid for the replacement door.

| <u>Contractor</u>                  | Base Bid     | <b>Base + Alt. 1</b> |         |
|------------------------------------|--------------|----------------------|---------|
| J. Gill & Company                  | \$207,320.00 | \$209,020.00         | Low Bid |
| JLJ Contracting, Inc.              | \$241,500.00 | \$245,625.00         |         |
| National Restoration Systems, Inc. | \$316,880.00 | \$322,630.00         |         |

J. Gill & Company has received positive recommendations from the communities of Des Plaines, Arlington Heights, Elgin, and Bloomington for work similar in size and scope.

# **A**TTACHMENTS

**Contract Documents** 



# CALL FOR BIDS – FIXED WORKS PROJECT

- I. Name of Company Bidding: J. Gill & Company
- II. Instructions and Specifications:
  - A. Bid No.: P-013-16
  - B. For: PARKING DECK REHABILITATION AND MAINTENANCE, PHASE 1
  - C. Bid Opening Date/Time: THURSDAY, JUNE 23, 2016 @ 10:00 AM
  - D. Pre-Bid Conference Date/Time: THURSDAY, JUNE 16, 2016 @ 10:00 AM (OPTIONAL)
  - E. Pre-Bid Conference Location: <u>PUBLIC WORKS BUILDING</u>, 5101 WALNUT AVENUE, <u>DOWNERS GROVE</u>, IL 60515
- III. Required of All Bidders:
  - A. Bid Deposit: 5%
  - B. Letter of Capability of Acquiring Performance Bond: YES
- IV. Required of Awarded Contractor(s)
  - A. Performance Bond or Letter of Credit: YES
  - B. Certificate of Insurance: YES

Legal Advertisement Published: FRIDAY, JUNE 10, 2016

This document comprises <u>42</u> pages, plus "Specifications for Village of Downers Grove Parking Structure" by Walker Restoration Consultants consisting of 104 pages.

RETURN <u>ORIGINAL</u> BID IN SEALED ENVELOPE MARKED WITH THE BID NUMBER AS NOTED ABOVE TO:

JIM TOCK, P.E.

ENGINEERING MANAGER VILLAGE OF DOWNERS GROVE 5101 WALNUT AVENUE

DOWNERS GROVE, IL 60515 PHONE: 630/434-2453

FAX: 630/434-5495

www.downers.us

# CALL FOR BIDS - FIXED WORKS PROJECT

**Bid No.:** P-013-16

The VILLAGE OF DOWNERS GROVE will receive bids Monday thru Friday, 8:00 A.M. to 5:00 P.M. at the Public Works Building, 5101 Walnut Avenue, Downers Grove, IL 60515.

The Village Council reserves the right to accept or reject any and all bids, to waive technicalities and to accept or reject any item of any Bid.

The documents constituting component parts of this Contract are the following:

- I. CALL FOR BIDS
- II. TERMS & CONDITIONS
- III. GENERAL PROVISIONS
- IV. SPECIAL PROVISIONS
- V. BID & CONTRACT FORM

All Bidders MUST submit the entire bid package, with one original Bid Form. Upon formal Award, the successful Bid will automatically convert to a Contract, and the successful Bidder will receive a copy of the executed contract upon formal award of the Bid with the Notice of Award.

# DO NOT DETACH ANY PORTION OF THIS DOCUMENT. INVALIDATION COULD RESULT.

# I. CALL FOR BIDS and INSTRUCTIONS TO BIDDERS

### 1. GENERAL

1.1 Notice is hereby given that Village of Downers Grove will receive sealed bids up to: THURSDAY, JUNE 23, 2016 @ 10:00 AM

## 1.2 Defined Terms:

- 1.2.1 Village the Village of Downers Grove acting through its officers or agents.
- 1.2.2 Contract Documents this document plus any drawings issued therewith, any addenda and the Bidder's completed proposal, bonds and all required certifications.
- 1.2.3 Bid this document completed by an individual or entity and submitted to the Village.
- 1.2.4 Bidder the individual or entity who submits or intends to submit a bid proposal to the Village.
- 1.2.5 Contractor the individual or entity whose bid is selected by the Village and who enters into a contract with the Village.
- 1.2.6 Work the construction or service defined herein.
- 1.2.7 Day unless otherwise stated all references to day "Days", "day" or "days" shall refer to calendar days.
- 1.2.8 Proposal Guaranty the required bid deposit.
- 1.3 Bids must be received at the Village by the time and date specified. Bids received after the specified time and date will not be accepted and will be returned unopened to the Bidder.
- 1.4 Bids shall be sent to the Village of Downers Grove, ATTN: JIM TOCK, P.E., in a sealed envelope marked "SEALED BID FOR PARKING DECK REHABILITATION AND MAINTENANCE, PHASE 1." The envelope shall be marked with the name of the project, date, and time set for receipt of Bids. The bid package may be submitted any time prior to the time set for receipt of Bids.
- 1.5 All Bids must be submitted on the forms supplied by the Village and signed by a proper official of the company submitting the Bid. Telephone, email and fax Bids will not be accepted.
- 1.6 Under penalty of perjury, the Bidder certifies by submitting this Bid that he has not acted in collusion with any other Bidder or potential Bidder.

## 2. BID PREPARATION

- 2.1 It is the responsibility of the Bidder to carefully examine the Contract Documents and to be familiar with all of the requirements, stipulations, provisions, and conditions surrounding the proposed Work.
- 2.2 The Bidder shall inspect the site of the proposed Work in detail, investigate and become familiar

with all the local conditions affecting the Work and become fully acquainted with the detailed requirements of the Work. Submitting a Bid shall be a conclusive assurance and warranty that the Bidder has made these examinations and that the Bidder understands all requirements for the performance of the Work. If the Bid is accepted, the Bidder will be responsible for all errors in the Bid resulting from his willing or neglectful failure to comply with these instructions. IN NO CASE WILL THE VILLAGE BE RESPONSIBLE FOR ANY COSTS, EXPENSES, LOSSES OR CHANGES IN ANTICIPATED MARGINS OF PROFIT RESULTING FROM THE WILLING OR NEGLECTFUL FAILURE OF THE BIDDER TO MAKE THESE EXAMINATIONS. THE VILLAGE WILL NOT BE RESPONSIBLE FOR ANY COSTS, EXPENSES, LOSSES OR CHANGES IN ANTICIPATED MARGINS OF PROFIT RESULTING FROM THE WILLING OR NEGLECTFUL FAILURE OF THE CONTRACTOR TO PROVIDE THE KNOWLEDGE, EXPERIENCE AND ABILITY TO PERFORM THE WORK REQUIRED BY THIS CONTRACT. No changes in the prices, quantities or contract provisions shall be made to accommodate the inadequacies of the Bidder, which might be discovered subsequent to award of contract. The Bidder shall take no advantage of any error or omission in the Contract Documents nor shall any error or omission in the Contract Documents serve as the basis for an adjustment of the amounts paid to the Bidder.

- 2.3 When the Contract Documents include information pertaining to subsurface explorations, borings, test pits, and other preliminary investigations, such information is included solely for the convenience of the Bidder. The Village assumes no responsibility whatsoever with respect to the sufficiency of the information, and does not warrant, neither expressly nor by implication, that the conditions indicated represent those existing throughout the Work, or that unanticipated developments may not occur.
- 2.4 Any information shown in the Contract Documents regarding the locations of underground utility facilities is included solely for the convenience of the Bidder. The Village assumes no responsibility whatsoever with respect to the sufficiency, accuracy or inadequacy of such information. It shall be the Bidder's responsibility to obtain detailed information from the respective utility companies relating to the location of their facilities and the work schedules of the utility companies for removing or adjusting them. Utilities whose facilities may be affected by the work include, but may not be limited to, the following: Nicor, ComEd, SBC, Comcast Cable, Downers Grove Sanitary District, and Village water, storm sewer, and street lighting systems.
- No oral or telephone interpretations of specifications shall be binding upon the Village. All requests for interpretations or clarifications shall be made in writing and received by the Village at least five (5) business days prior to the date set for receipt of Bids or the pre-bid conference, if offered. The Village shall make all changes or interpretations of the Contract Documents in a written addendum and shall provide an addendum to any Bidder of record. Any and all changes to the Contract Documents are valid only if they are included by written addendum to all Bidders. Each Biddermust acknowledge receipt of any addenda by indicating same on the Bid Form. Each Bidder, by acknowledging receipt of any addenda, is responsible for the contents of the addenda and any changes to the Bid therein. Failure to acknowledge any addenda may cause the Bid to be rejected. The Village will not assume responsibility for receipt of any addenda. In all cases, it will be the Bidder's responsibility to obtain all addenda issued. Bidders will provide written acknowledgement of receipt of each addendum issued with the bid submission.
- 2.6 An estimate of the quantities of Work to be performed and the materials to be furnished is shown in

the Bid Form. It is given as a basis for comparing the properly submitted Bids, and shall be used by the Village in awarding the Contract. The Village does not expressly warrant nor imply that the estimated quantities shown will correspond with those quantities required to perform the Work. No Bidder shall plead misunderstanding or deception because of such an estimate of quantities, or because of the character, location or other conditions pertaining to the Work. Payment shall be based on the actual quantities of work properly performed in accordance with the Contract, at the Contract unit prices specified. The Village reserves the right to increase, decrease or omit entirely, any or all items. No allowance will be made for any change in anticipated profits due to an increase or decrease in the original estimate of quantities.

- 2.7 The Bidder must submit his Bid on the form furnished by the Village. The Bid shall be executed properly, and Bids shall be made for all items indicated in the Bid Form. The Bidder shall indicate, in figures, a unit price or lump sum price for each of the separate items called for in the Bid Form. The Bidder shall show the products of the respective quantities and unit prices in the column provided for that purpose. The gross sum shown in the place indicated in the Bid Form shall be the summation of said products. All writing shall be with ink or typewriter, except the signature of the Bidder, which shall be written with ink.
- 2.8 In case of error in the extension of prices in the Bid, the hourly rate or unit price will govern. In case of discrepancy in the price between the written and numerical amounts, the written amount will govern.
- 2.9 All costs incurred in the preparation, submission, and/or presentation of any Bid including the Bidder's travel or personal expenses shall be the sole responsibility of the Bidder and will not be reimbursed by the Village.
- 2.10 The Bidder hereby affirms and states that the prices quoted herein constitute the total cost to the Village for all work involved in the respective items, as well as the materials to be furnished in accordance with the collective requirements of the Contract Documents. The Bidder also affirms that this cost includes all insurance, bonds, royalties, transportation charges, use of all tools and equipment, superintendence, overhead expense, profits and other work, services and conditions necessarily involved in the work to be done.

- 2.11 The Bidder shall complete and submit with the Bid an "Affidavit" (IDOT Form BC-57, or similar)listing all uncompleted contracts, including subcontract work; all pending low bids not yet awarded or rejected, and equipment available.
- 2.12 The Bidder shall complete and submit with the Bid a "Municipal Reference List" indicating other municipalities for which the Bidder has successfully performed similar work.

### 3. PRE-BID CONFERENCE

- 3.1 A pre-bid conference may be offered to provide additional information, inspection or review of current facilities or equipment, and to provide an open forum for questions from Bidders. This pre-bid conference is not mandatory (unless stated "Mandatory" on the cover of this document), but attendance by Bidders is strongly advised as this will be the last opportunity to ask questions concerning the Bid.
- 3.2 Questions may be posed in writing to the Village (faxed and emailed questions are acceptable), but must be received by the Village prior to the scheduled time for the pre-bid conference. Questions received will be considered at the conference. An addendum may be issued as a result of the pre-bid conference. Such an addendum is subject to the provisions for issuance of an addendum as set forth in Section 2.5 above.
- 3.3 No Contract Documents will be issued after the pre-bid conference except to attendees.

### 4. BID SUBMISSION

- 4.1 An original copy of the sealed bid marked as indicated in Section 1 shall be submitted to the Village.
- 4.2 A bid deposit will be required, which shall not exceed ten percent (10%) of the estimated cost of the work to be furnished. Such bid deposit shall be in the form of a bid bond, certified check, cash or money order. Checks shall be drawn upon a bank of good standing payable to the order of the Village and said deposit shall be forfeited to the Village in the event the Bidder neglects or refuses to enter into a contract and bond when required, with approved sureties, to execute the Work or furnish the material for the price mentioned in his Bid and according to the plans and specifications in case the contract shall be awarded to him.
- 4.3 Bids shall be publicly opened at the hour and place indicated above.

# 5. BID MODIFICATION OR WITHDRAWAL

5.1 A Bid that is in the possession of the Village may be altered by a letter bearing the signature or name of the person authorized for submitting a Bid, provided that it is received prior to the time and date set for the bid opening. Telephone, email or verbal alterations of a Bid will not be accepted.

- A Bid that is in the possession of the Village may be withdrawn by the Bidder, up to the time set for the bid opening, by a letter bearing the signature or name of the person authorized for submitting Bids. Bids may not be withdrawn after the bid opening and shall remain valid for a period of ninety (90) days from the date set for the bid opening, unless otherwise specified.
- 5.3 Any Bidder who does not submit a Bid is requested to return the enclosed Statement of "No Bid" postcard. Bidders not submitting Bids or "No Bid Statement" may otherwise be removed from the Village's bid mailing list.

#### 6. BID REJECTION

Bids that contain omissions, erasures, alterations, additions not called for, conditional bids or alternate bids not called for, or irregularities of any kind, shall be rejected as informal or insufficient. Bids otherwise acceptable, which are not accompanied by the proper Proposal Guaranty, shall also be rejected as informal or insufficient. The Village reserves the right however, to reject any or all Bids and to waive such technical error as may be deemed best for the interest of the Village.

### 7. BIDDER COMPETENCY

7.1 No Bid will be accepted from or contract awarded to any person, firm or corporation that is in arrears or is in default upon any debt or contract. The Bidder, if requested, must present evidence to the Village of ability and possession of necessary facilities, and financial resources to comply with the terms of the Contract Documents. Evidence must be presented within three (3) business days.

# 8. BIDDER DISQUALIFICATION

- 8.1 Any one or more of the following causes may be considered as sufficient for the disqualification of a Bidder and the rejection of their Bid.
  - 8.1.1 More than one Bid for the same Work from an individual, firm partnership, or corporation under the same or different names.
  - 8.1.2 Evidence of collusion among Bidders.
  - 8.1.3 Unbalanced Bids in which the prices for some items are substantially out of proportion to the prices for other items.
  - 8.1.4 Failure to submit a unit price for each item of Work listed in the Bid Form.
  - 8.1.5 Lack of competency as revealed by financial statement or experience questionnaire.
  - 8.1.6 Unsatisfactory performance record as shown by past work, judged from the standpoint of workmanship and progress.
  - 8.1.7 Uncompleted work which, in the judgment of the Village, might hinder or prevent the prompt completion of this Work.
  - 8.1.8 Failure to submit a signed Bidder's Certificate stating the following:
    - 8.1.8.1 That the Bidder is not barred from bidding on this Contract as a result of a violation of Sections 720 ILCS 5/33-E3 and 720 ILCS 5/33-E4 of the Illinois Compiled

Statutes; and

- 8.1.8.2 The Bidder is not delinquent in the payment of any tax administered by the Illinois Department of Revenue; and
- 8.1.8.3 The Bidder will maintain the types and levels of insurance required by the terms of this contract; and
- 8.1.8.4 The Bidder will comply with the Illinois Prevailing Wage Act, 820 ILCS 130/1 et seq.

# 9. BASIS OF AWARD

9.1 The Village reserves the exclusive right to accept or reject any and all Bids or to waive sections, technicalities and irregularities, or to accept or reject any Bid or any item of any Bid.

# 10. AWARD OF CONTRACT

- 10.1 Unless the Village exercises its right to reject all Bids, the Contract will be awarded to that responsible Bidder whose Bid, conforming to the Contract Documents, will be most advantageous to the Village, price and other factors considered. (the credentials, financial information, bonding capacity, insurance protection, qualifications of the labor and management of the firm, past experience and ability to complete the project within time frame required lowest responsible bidder)
- 10.2 Unless otherwise specified, if a Contract is not awarded within ninety (90) days after the opening of Bids, a Bidder may file a written request with the Village for the withdrawal of their Bid. The Village will have a maximum of ten (10) days after the receipt of such request to award the Contract or release the Bidder from further obligation by return of the Bidder's bid deposit. Any attempt or actual withdrawal or cancellation of a Bid by the awarded contractor who has been notified by the Village of the acceptance of said Bid shall be considered a breach of contract.

### 11. RETURN OF BID DEPOSIT

11.1 The bid deposit of all except the three (3) lowest responsive bidders on each contract will be returned within fifteen (15) days after the opening of Bids. The remaining bid deposits of each contractor will be returned within fifteen (15) days after the Village Council has awarded the contract and the required appurtenances to the contract have been received.

# 12. FAILURE TO ENTER INTO CONTRACT

- Failure on the part of the successful Bidder to execute a Contract and provide acceptable bonds, as provided herein, within ten (10) days from the date of receipt of the Contract and Notice of Award from the Village, will be considered as just cause for the revocation of the award. The Bidder's bid security shall then be forfeited to the Village, not as a penalty but in payment of liquidated damages sustained as a result of such failure.
- 12.2 The Bidder shall not be allowed to claim lack of receipt where the Contract and Notice of Award was mailed by U.S. Postal Services certified mail to the business address listed in his Bid. In case the Village does not receive evidence of receipt within ten (10) days of the date of Notice of Award, the Village may revoke the award. The Bidder shall then forfeit the bid security to the Village, not

- as a penalty but in payment of liquidated damages sustained as the result of such failure to execute the Contract.
- 12.3 By submitting a Bid, the Bidder understands and agrees that, if his Bid is accepted, and he fails to enter into a contract forthwith, he shall be liable to the Village for any damages the Village may thereby suffer.

### 13. SECURITY FOR PERFORMANCE

13.1 The successful Bidder shall, within ten (10) days after acceptance of the Bidder's Bid by the Village, furnish a Performance Bond and a Materials and Labor Payment Bond acceptable to the Village in the full amount of the Bid. Said bonds shall guarantee the Bidder's performance under the Contract Documents and shall guarantee payment of all subcontractors and material suppliers. Any bond shall include a provision as will guarantee faithful performance of the Illinois Prevailing Wage Act, 820 ILCS 130/1 et seq.

# 14. TAX EXEMPTION

14.1 The Village is exempt from Illinois sales or use tax for direct purchases of materials and supplies. A copy of the Illinois Sales Tax Exemption Form will be issued upon request. The Village's federal identification number will also be provided to the selected Bidder.

### 15. RESERVED RIGHTS

15.1 The Village reserves the right to waive sections, irregularities, technicalities and informalities to this Contract and to accept any Bid and to reject any and all Bids and to disapprove of any and all subcontractors as may be in the best interest of the Village. Time and date requirements for receipt of Bids, however, will not be waived.

## 16. CATALOGS AND SHOP DRAWINGS

16.1 Each Bidder shall submit catalogs, descriptive literature, and detailed drawings, where applicable, to fully illustrate and describe the work or material he proposes to furnish.

### 17. TRADE NAMES AND SUBSTITUTIONS

17.1 Certain materials and equipment are specified by a manufacturer or trade name to establish standards or quality and performance and not for the purpose of limiting competition. Products of other manufacturers may be substituted, if, in the opinion of the Village, they are equal to those specified in quality, performance, design, and suitability for intended use. If the Bidder proposes to furnish an "equal", the proposed "equal" item must be so indicated in the written Bid. Where two or more items are specified, the selection among those specified is the Bidder's option, or he may submit his Bid on all such items. Detail specification sheets shall be provided by Bidder for all substituted items.

# II. TERMS AND CONDITIONS

# 18. VILLAGE ORDINANCES

18.1 The successful Bidder, now the Contractor, will strictly comply with all ordinances of the Village of Downers Grove and laws of the State of Illinois.

## 19. USE OF VILLAGE'S NAME

19.1 The Contractor is specifically denied the right of using in any form or medium the name of the Village for public advertising unless the Village grants express permission.

# 20. HOURS OF WORK

20.1 The Contractor shall do no work between the hours of 7:00 p.m. and 7:00 a.m., nor on Saturdays, Sundays or legal holidays, unless otherwise approved in writing by the Village. However, such work may be performed at any time if necessary, for the proper care and protection of work already performed, or in case of an emergency. All after-hour work is still subject to the permission of the Village. Any work, including the starting and/or idling of vehicles or machinery, or a congregation of workers prior to starting work, which may cause any noise level that can be heard by adjacent residents, performed outside of these hours of work and not authorized by the Village shall be subject to a fine of \$250 per day, per violation.

#### 21. PERMITS AND LICENSES

21.1 The Contractor shall obtain all necessary permits and licenses required to complete the Work. The cost of acquisition of all necessary permits, bonds, insurance and services as specified herein shall be considered INCIDENTAL, and no additional compensation will be allowed the Contractor.

## 22. INSPECTION

22.1 The Village shall have a right to inspect, by its authorized representative, any material, components or workmanship as herein specified. Materials, components or workmanship that have been rejected by the Village as not in accordance with the terms of the contract specifications shall be replaced by the Contractor at no cost to the Village.

### 23. DELIVERIES

23.1 All materials shipped to the Village must be shipped F.O.B. designated location, Downers Grove, Illinois.

## 24. SPECIAL HANDLING

24.1 Prior to delivery of any product that is caustic, corrosive, flammable or dangerous to handle, the Contractor will provide written directions as to methods of handling such products, as well as the antidote or neutralizing material required for its first aid before delivery. Contractor shall also notify the Village and provide material safety data sheets for all substances used in connection with this Contract which are defined as toxic under the <u>Illinois Toxic Substances Disclosure to Employees Act.</u>

### 25. NONDISCRIMINATION

- 25.1 Contractor shall, as a party to a public contract:
  - 25.1.1 Refrain from unlawful discrimination in employment and undertake affirmative action to assure equality of employment opportunity and eliminate the effects of past discrimination;

- 25.1.2 By submission of this Bid, the Contractor certifies that he is an "equal opportunity employer" as defined by Section 2000(e) of Chapter 21, Title 42, U.S. Code Annotated and Executive Orders #11246 and #11375, which are incorporated herein by reference. The Equal Opportunity clause, Section 6.1 of the Rules and Regulations of the Department of Human Rights of the State of Illinois, is a material part of any contract awarded on the basis of this Bid.
- 25.2 It is unlawful to discriminate on the basis of race, color, religion, sex, national origin, ancestry, age, marital status, physical or mental handicap, military status, order of protection status, sexual orientation or unfavorable discharge for military service. Contractor shall comply with standards set forth in Title VII of the Civil Rights Act of 1964, 42 U.S.C. Sec. 2000 et seq., The Human Rights Act of the State of Illinois, 775 ILCS 5/1-101 et. seq., and The Americans With Disabilities Act, 42 U.S.C. Sec. 1210l et. seq.

# 26. SEXUAL HARASSMENT POLICY

- 26.1 The Contractor, as a party to a public contract, shall have a written sexual harassment policy that:
  - 26.1.1 Notes the illegality of sexual harassment;
  - 26.1.2 Sets forth the State law definition of sexual harassment;
  - 26.1.3 Describes sexual harassment utilizing examples;
  - 26.1.4 Describes the Contractor's internal complaint process including penalties;
  - 26.1.5 Describes the legal recourse, investigative and complaint process available through the Illinois Department of Human Rights and the Human Rights Commission and how to contact these entities; and
  - 26.1.6 Describes the protection against retaliation afforded under the Illinois Human Rights Act.

### 27. EQUAL EMPLOYMENT OPPORTUNITY

- 27.1 In the event of the Contractor's non-compliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act or the Rules and Regulations of the Illinois Department of Human Rights ("Department"), the Contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be canceled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation. During the performance of this Contract, the Contractor agrees as follows:
  - 27.1.1 That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental disability unrelated to ability, military status, order of protection status, sexual orientation, sexual identity, or an unfavorable discharge from military service; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.

- 27.1.2 That, if it hires additional employees in order to perform this Contract or any portion thereof, it will determine the availability (in accordance with the Department's Rules and Regulations) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.
- 27.1.3 That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental disability unrelated to ability, military status, order of protection status, sexual orientation, or an unfavorable discharge from military services.
- 27.1.4 That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor's obligations under the Illinois Human Rights Act and the Department's Rules and Regulations. If any such labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Act and Rules and Regulations, the Contractor will promptly so notify the Department and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.
- 27.1.5 That it will submit reports as required by the Department's Rules and Regulations, furnish all relevant information as may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations.
- 27.1.6 That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Department for purpose of investigation to ascertain compliance with the Illinois Human Rights Act and the Department's Rules and Regulations.
- 27.1.7 That it will include verbatim or by reference the provisions of this clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so that such provisions will be binding upon such subcontractor. In the same manner as with other provisions of this Contract, the Contractor will be liable for compliance with applicable provisions of this clause by such subcontractors; and further it will promptly notify the contracting agency and the Department in the event any subcontractor fails or refuses to comply therewith. In addition, the Contractor will not utilize any subcontractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivision or municipal corporations.

### 28. DRUG FREE WORK PLACE

- 28.1 Contractor, as a party to a public contract, certifies and agrees that it will provide a drug free workplace by:
  - 28.1.1 Publishing a statement:
    - (1) Notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance, including cannabis, is prohibited in the Village's or Contractor's workplace.

- (2) Specifying the actions that will be taken against employees for violations of such prohibition.
- (3) Notifying the employee that, as a condition of employment on such contract or grant, the employee will:
  - (A) abide by the terms of the statement; and
  - (B) notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.
- 28.1.2 Establishing a drug free awareness program to inform employees about:
  - (1) the dangers of drug abuse in the workplace;
  - (2) the Village's or Contractor's policy of maintaining a drug free workplace;
  - (3) any available drug counseling, rehabilitation and employee assistance programs;
  - (4) the penalties that may be imposed upon employees for drug violations.
- 28.1.3 Providing a copy of the statement required by subparagraph 1.1 to each employee engaged in the performance of the contract or grant and to post the statement in a prominent place in the workplace.
- 28.1.4 Notifying the contracting or granting agency within ten (10) days after receiving notice under part (3)(B) of subparagraph 1.1 above from an employee or otherwise receiving actual notice of such conviction.
- 28.1.5 Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program by, any employee who is so convicted as required by section 5 of the Drug Free Workplace Act.
- 28.1.6 Assisting employees in selecting a course of action in the event drug counseling, treatment and rehabilitation is required and indicating that a trained referral team is in place.
- 28.1.7 Making a good faith effort to continue to maintain a drug free workplace through implementation of the Drug Free Workplace Act.

# 29. SUBSTANCE ABUSE PREVENTION ON PUBLIC WORKS PROJECTS ACT

In the event this is a public works project as defined under the Prevailing Wage Act, 820 ILCS 130/2, Contractor agrees to comply with the Substance Abuse Prevention on Public Works Projects Act, 820 ILCS 265/1 et seq., and further agrees that all of its subcontractors shall comply with such Act.. As required by the Act, Contractor agrees that it will file with the Village prior to commencing work its written substance abuse prevention program and/or that of its subcontractor(s) which meet or exceed the requirements of the Act.

# 30. PREVAILING WAGE ACT

30.1 Contractor agrees to comply with the Illinois Prevailing Wage Act, 820 ILCS 130/1 et seq., for all work completed under this Contract. Contractor agrees to pay the prevailing wage and require that all of its subcontractors pay prevailing wage to any laborers, workers or mechanics who perform work pursuant to this Contract or related subcontract. For applicable rates, go to the State of Illinois – Department of Labor website (www.state.il.us/agency/idol/rates/rates.HTM) and use the most current DuPage County rate. The Department revises the prevailing wage rates and the Contractor or subcontractor has an obligation to check the Department's website for revisions to prevailing

wage rates throughout the duration of this Contract.

- 30.2 Contractor and each subcontractor shall keep or cause to be kept accurate records of all laborers, mechanics and other workers employed by them on the public works project, which records must include each worker's name, address, telephone number when available, social security number, classification, hourly wage paid (including itemized hourly cash and fringe benefits paid in each pay period), number of hours worked each day, and the starting and ending times of work each day These records shall be open to inspection at all reasonable hours by any representative of the Village or the Illinois Department of Labor and must be preserved for five (5) years from the date of the last payment on the public work.
- 30.3 Since this is a contract for a public works project, as defined in 820 ILCS 130/2, Contractor agrees to post at the job site in an easily accessible place, the prevailing wages for each craft or type of worker or mechanic needed to execute the contract or work to be performed.
- 30.4 Because this is a public works project as defined under the Prevailing Wage Act, 820 ILCS 130/2, any and all contractors and subcontractors shall submit certified payroll records to the Village no later than the tenth (10<sup>th</sup>) day of each calendar month for the immediately preceding month in which construction on a public works project has occurred. WITHOUT THIS PAPERWORK, NO INVOICE SHALL BE PAID BY THE VILLAGE. Contractors and subcontractors must also submit a statement affirming that the records are true and accurate, that the wages paid to each worker are not less than the prevailing rate, and that the contractor and subcontractor are aware that filing false records is a Class A misdemeanor. The records must include the name, address, telephone number, social security number, job classification, hours of work, hourly rate, and start and end time of work each day for every worker employed on the public work. The Village reserves the right to check the pay stubs of the workers on the job. The Village further cautions that payment for any services rendered pursuant to this Contract may be predicated upon receipt of said records.
- 30.5 In the event that this is a construction project where Motor Fuel tax monies or state grant monies are used in the construction, maintenance and extension of municipal streets, traffic control signals, street lighting systems, storm sewers, pedestrian subways or overhead crossings, sidewalks and off-street parking facilities, and the like, the Village will require an Apprenticeship and Training Certification, attached after the Bidder's Certification.
- Any bond furnished as security for performance shall include a provision as will guarantee faithful performance of the Illinois Prevailing Wage Act, 820 ILCS 130/1 et seq.

#### 31. PATRIOT ACT COMPLIANCE

31.1 The Contractor represents and warrants to the Village that neither it nor any of its principals, shareholders, members, partners, or affiliates, as applicable, is a person or entity named as a Specially Designated National and Blocked Person (as defined in Presidential Executive Order 13224) and that it is not acting, directly or indirectly, for or on behalf of a Specially Designated National and Blocked Person. The Contractor further represents and warrants to the Village that the it and its principals, shareholders, members, partners, or affiliates, as applicable are not, directly or indirectly, engaged in, and are not facilitating, the transactions contemplated by this Contract on behalf of any person or entity named as a Specially Designated National and Blocked Person. The Contractor hereby agrees to defend, indemnify and hold harmless the Village, and its elected or appointed officers, employees, agents, representatives, engineers and attorneys, from and against

any and all claims, damages, losses, risks, liabilities and expenses(including reasonable attorney's fees and costs) arising from or related to any breach of the foregoing representations and warranties.

# 32. INSURANCE REQUIREMENTS

32.1 Prior to starting the Work, Contractor and any Subcontractors shall procure, maintain and pay for such insurance as will protect against claims for bodily injury or death, or for damage to property, including loss of use, which may arise out of operations by the Contractor or Subcontractor or any Sub-Sub Contractor or by anyone employed by any of them, or by anyone for whose acts any of them may be liable. Such insurance shall not be less than the greater of coverages and limits of liability specified below or any coverages and limits of liability specified in the Contract Documents or coverages and limits required by law unless otherwise agreed to by the Village.

| Workers Compensation  | \$500,000                                 | Statutory   |
|---|---|---|
| Employers Liability   | \$1,000,000<br>\$1,000,000<br>\$1,000,000 | Each Accident Disease Policy Limit Disease Each Employee      |
| Comprehensive General Liability                                     | \$2,000,000<br>\$2,000,000                | Each Occurrence Aggregate (Applicable on a Per Project Basis) |
| Commercial Automobile<br>Liability                                  | \$1,000,000                               | Each Accident   |
| Professional Errors<br>& Omissions<br>(pursuant to section.9 below) | \$2,000,000<br>\$2,000,000                | Each Claim<br>Annual Aggregate                                |
| Umbrella Liability  | \$ 5,000,000                              |   |

- 32.2 Comprehensive General Liability Insurance required under this paragraph shall be written on an occurrence form and shall include coverage for Products/Completed Operations, Personal Injury with Employment Exclusion (if any) deleted, Blanket XCU and Blanket Contractual Liability insurance applicable to defense and indemnity obligations and other contractual indemnity assumed under the Contract Documents. The limit must be on a "Per Project Basis".
- 32.3 Commercial Automobile Liability Insurance required under this paragraph shall include coverage for all owned, hired and non-owned automobiles.
- 32.4 Workers Compensation coverage shall include a waiver of subrogation against the Village.
- 32.5 Comprehensive General Liability, Employers Liability and Commercial Automobile Liability Insurance may be arranged under single policies for full minimum limits required, or by a combination of underlying policies with the balance provided by Umbrella and/or Excess Liability policies.

- 32.6 Contractor and all Subcontractors shall have their respective Comprehensive General Liability (including products/completed operations coverage), Employers Liability, Commercial Automobile Liability, and Umbrella/Excess Liability policies endorsed to add the "Village of Downers, its officers, officials, employees and volunteers" as "additional insureds" with respect to liability arising out of operations performed; claims for bodily injury or death brought against the Village by any Contractor or Subcontractor employees, or the employees of Subcontractor's subcontractors of any tier, however caused, related to the performance of operations under the Contract Documents. Such insurance afforded to the Village shall be endorsed to provide that the insurance provided under each policy shall be *Primary and Non-Contributory*.
- 32.7 Contractor and all Subcontractors shall maintain in effect all insurance coverages required by the Contract Documents at their sole expense and with insurance carriers licensed to do business in the State of Illinois and having a current A. M. Best rating of no less than A-VIII. In the event that the Contractor or any Subcontractor fails to procure or maintain any insurance required by the Contract Documents, the Village may, at its option, purchase such coverage and deduct the cost thereof from any monies due to the Contractor or Subcontractor, or withhold funds in an amount sufficient to protect the Village, or terminate this Contract pursuant to its terms.
- 32.8 All insurance policies shall contain a provision that coverages and limits afforded hereunder shall not be canceled, materially changed, non-renewed or restrictive modifications added, without thirty (30) days prior written notice to the Village. Renewal certificates shall be provided to the Village not less than five (5) days prior to the expiration date of any of the required policies. All Certificates of Insurance shall be in a form acceptable to the Village and shall provide satisfactory evidence of compliance with all insurance requirements. The Village shall not be obligated to review such certificates or other evidence of insurance, or to advise Contractor or Subcontractor of any deficiencies in such documents, and receipt thereof shall not relieve the Contractor or Subcontractor from, nor be deemed a waiver of the right to enforce the terms of the obligations hereunder. The Village shall have the right to examine any policy required and evidenced on the Certificate of Insurance.
- 32.9 If the Work under the Contract Documents includes design, consultation, or any other professional services, Contractor or the Subcontractor shall procure, maintain, and pay for Professional Errors and Omissions insurance with limits of not less than \$2,000,000 per claim and \$2,000,000 annual aggregate. If such insurance is written on a claim made basis, the retrospective date shall be prior to the start of the Work under the Contract Documents. Contractor and all Subcontractors agree to maintain such coverage for three (3) years after final acceptance of the Project by the Village or such longer period as the Contract Documents may require. Renewal policies during this period shall maintain the same retroactive date.
- 32.10 Any deductibles or self-insured retentions shall be the sole responsibility of the Insured. At the option of the Village, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Village, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

# 33. INDEMNITY AND HOLD HARMLESS AGREEMENT

33.1 To the fullest extent permitted by law, the Contractor shall indemnify, keep and save harmless the

Village and its agents, officers, and employees, against all injuries, deaths, strikes, losses, damages, claims, suits, liabilities, judgments, costs and expenses, which may arise directly or indirectly from any negligence or from the reckless or willful misconduct of the Contractor, its employees, or its subcontractors.

33.2 The Contractor shall at its own expense, appear, defend and pay all charges of attorneys and all costs and other expenses arising therefrom or incurred in connection therewith, and, if any judgment shall be rendered against the Village in any such action, the Contractor shall, at its own expense, satisfy and discharge the same. This agreement shall not be construed as requiring the Contractor to indemnify the Village for its own negligence. The Contractor shall indemnify, keep and save harmless the Village only where a loss was caused by the negligent, willful or reckless acts or omissions of the Contractor, its employees, or its subcontractors.

# 34. SUBLETTING OF CONTRACT

34.1 No contract awarded by the Village shall be assigned or any part subcontracted without the written consent of the Village. In no case shall such consent relieve the Contractor from his obligation or change the terms of this Contract.

All approved subcontracts shall contain language which incorporates the terms and conditions of this Contract.

# 35. TERMINATION OF CONTRACT

- 35.1 The Village reserves the right to terminate the whole or any part of this Contract, upon written notice to the Contractor, for any reason.
- 35.2 The Village further reserves the right to terminate the whole or any part of this Contract, upon written notice to the Contractor, in the event of default by the Contractor. Default is defined as failure of the Contractor to perform any of the provisions of this Contract or failure to make sufficient progress so as to endanger performance of this Contract in accordance with its terms. In the event that the Contractor fails to cure the default within the timeframe provided in the notice, and the Village declares default and termination, the Village may procure, upon such terms and in such manner as it may deem appropriate, supplies or services similar to those so terminated. The Village may also contact the issuer of the Performance Bond to complete the Work. The Contractor shall be liable for any excess costs for such similar supplies or services. Any such excess costs incurred by the Village may be set-off against any monies due and owing by the Village to the Contractor.

# 36. BILLING AND PAYMENT PROCEDURES

- Payment will be made upon receipt of an invoice referencing Village purchase order number. Once an invoice and receipt of materials or service have been verified, the invoice will be processed for payment in accordance with the Village's payment schedule. The Village will comply with the Local Government Prompt Payment Act, 50 ILCS 505/1 et seq., in that any bill approved for payment must be paid or the payment issued to the Contractor within 60 days of receipt of a proper bill or invoice. If payment is not issued to the Contractor within this 60 day period, an interest penalty of 1.0% of any amount approved and unpaid shall be added for each month or fraction thereof after the end of this 60 day period, until final payment is made.
- 36.2 The Village shall review each bill or invoice in a timely manner after its receipt. If the Village

determines that the bill or invoice contains a defect making it unable to process the payment request, the Village shall notify the Contractor as soon as possible after discovering the defect pursuant to rules promulgated under 50 ILCS 505/1 et seq. The notice shall identify the defect and any additional information necessary to correct it.

- As this Contract is for work defined as a "fixed public work" project under the Illinois Prevailing Wage Act, 820 ILCS 130/2, any contractor or subcontractor is required to submit certified payroll records along with the invoice. No invoice shall be paid without said records.
- 36.4 Please send all invoices to the attention of: Village of Downers Grove, Public Works, 5101 Walnut Avenue, Downers Grove, IL 60515.

# 37. COMPLIANCE WITH OSHA STANDARDS

37.1 Equipment supplied to the Village must comply with all requirements and standards as specified by the Occupational Safety and Health Act. All guards and protectors as well as appropriate markings will be in place before delivery. Items not meeting any OSHA specifications will be refused.

### 38. CERCLA INDEMNIFICATION

- 38.1 The Contractor shall, to the maximum extent permitted by law, indemnify, defend, and hold harmless the Village, its officers, employees, agents, and attorneys from and against any and all liability, including without limitation, costs of response, removal, remediation, investigation, property damage, personal injury, damage to natural resources, health assessments, health settlements, attorneys' fees, and other related transaction costs arising under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, 42 U.S.C.A. Sec. 9601, et seq., as amended, and all other applicable statutes, regulations, ordinances, and under common law for any release or threatened release of the waste material collected by the Contractor, both before and after its disposal.
- 38.2 If the Contractor encounters any waste material governed by the above Act, it shall immediately notify the Village and stop working in the area until the above requirements can be met.

# 39. COPYRIGHT or PATENT INFRINGEMENT

39.1 The Contractor agrees to indemnify, defend, and hold harmless the Village against any suit, claim, or proceeding brought against the Village for alleged use of any equipment, systems, or services provided by the Contractor that constitutes a misuse of any proprietary or trade secret information or an infringement of any patent or copyright.

### 40. BUY AMERICA

- 40.1 The Contractor agrees to comply with 49 U.S.C.5323(j), the Federal Transportation Administration's (FTA) Buy America regulations at 49 C.F.R. Part 661, and any amendments thereto, and any implementing guidance issued by the FTA, with respect to this Contract, when financed by Federal funds (through a grant agreement or cooperative agreement).
- 40.2 As a condition of responsiveness, the Contractor agrees to submit with its Bid submission, an executed Buy America Certificate, attached hereto.

# 41. CAMPAIGN DISCLOSURE

41.1 Any contractor, proposer, bidder or vendor who responds by submitting a bid or proposal to the

- Village of Downers Grove shall be required to submit with its bid submission, an executed Campaign Disclosure Certificate, attached hereto.
- 41.2 The Campaign Disclosure Certificate is required pursuant to the Village of Downers Grove Council Policy on Ethical Standards and is applicable to those campaign contributions made to any member of the Village Council.
- 41.3 Said Campaign Disclosure Certificate requires any individual or entity bidding to disclose campaign contributions, as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4), made to current members of the Village Council within the five (5) year period preceding the date of the bid or proposal release.
- 41.4 By signing the bid documents, contractor/proposer/bidder/vendor agrees to refrain from making any campaign contributions as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4) to any Village Council member and any challengers seeking to serve as a member of the Downers Grove Village Council.

#### 42. GUARANTEE PERIOD

42.1 The Contractor shall guarantee all work and provide a maintenance bond for the full amount of the contract, covering a minimum period of one (1) year after approval and acceptance of the Work. The bond shall be in such form as the Village may prescribe, unless otherwise noted in the Specifications, and shall be submitted before receiving final payment. If longer guarantee periods are required, they will be noted in the Special Provisions for this project.

## 43. SUCCESSORS AND ASSIGNS

43.1 The terms of this Contract will be binding upon and inure to the benefit of the parties and their respective successors and assigns; provided, however, that neither party will assign this Contract in whole or in part without the prior written approval of the other. The Contractor will provide a list of key staff, titles, responsibilities, and contact information to include all expected subcontractors.

### 44. WAIVER OF BREACH OF CONTRACT

44.1 The waiver by one party of any breach of this Contract or the failure of one party to enforce at any time, or for any period of time, any of the provisions hereof will be limited to the particular instance and will not operate or be deemed to waive any future breaches of this Contract and will not be construed to be a waiver of any provision except for the particular instance.

#### 45. CHANGE ORDERS

- 45.1 The contract price is a "not-to-exceed" cost. At any time additional work is necessary or requested, and the not-to-exceed price is increased thereby, all parties must agree to any change, addition or price increase in writing.
- 45.2 Change orders for public works projects which authorize an increase in the contract price that is 50% or more of the original contract price or that authorize or necessitate any increase in the price of a subcontract under the contract that is 50% or more of the original subcontract price must be resubmitted for bidding in the same manner by which the original contract was bid. (50 ILCS 525/1)

### 46. SEVERABILITY OF INVALID PROVISIONS

46.1 If any provisions of this Contract are held to contravene or be invalid under the laws of any state,

country or jurisdiction, contravention will not invalidate the entire Contract, but it will be construed as if not containing the invalid provision and the rights or obligations of the parties will be construed and enforced accordingly.

### 47 GOVERNING LAW

47.1 This Contract will be governed by and construed in accordance with the laws of the State of Illinois. Venue is proper only in the County of DuPage for state cases or the Northern District of Illinois for federal cases.

#### 48. NOTICE

48.1 Any notice will be in writing and will be deemed to be effectively served when deposited in the mail with sufficient first class postage affixed, and addressed to the party at the party's place of business. Notices shall be addressed to the Village as follows:

Village Manager Village of Downers Grove 801 Burlington Ave. Downers Grove, IL 60515

And to the Contractor as designated on the Contract Form.

#### 49. AMENDMENT

49.1 This Contract will not be subject to amendment unless made in writing and signed by all parties.

# 50. COOPERATION WITH FOIA COMPLIANCE

50.1 Contractor acknowledges that the Freedom of Information Act may apply to public records in possession of the Contractor or a subcontractor. Contractor and all of its subcontractors shall cooperate with the Village in its efforts to comply with the Freedom of Information Act. 5 ILCS 140/1 et.seq.

## 51. EMPLOYMENT OF ILLINOIS WORKERS ON PUBLIC WORKS ACT

51.1 If the work contemplated by this Contract is funded or financed in whole or in part with State Funds or funds administered by the State, Contractor agrees to comply with the terms of the Employment of Illinois Workers on Public Works Act by employing at least 90% Illinois laborers on the project. 30 ILCS 570/1 et seq. Contractor agrees further to require compliance with this Act by all of its subcontractors.

# **III. GENERAL PROVISIONS**

## 1. STANDARD SPECIFICATIONS

- 1.1 The following standards shall govern the construction of the proposed improvements:
  - 1.1.1 <u>Standard Specifications for Water and Sewer Main Construction in Illinois</u>, Seventh Edition, 2014 (the Water & Sewer Specs.); and
  - 1.1.2 <u>Standard Specifications for Road and Bridge Construction</u> as adopted by the Illinois Department of Transportation, April 1, 2016; along with <u>Supplemental Specifications and Recurring Special Provisions</u> (collectively the "SSRBC") as adopted by the Illinois Department of Transportation, April 1, 2016; and
  - 1.1.3 Standard Detail Drawings, Village of Downers Grove, Illinois revised May, 2014.
- 1.2 These Contract Documents shall take precedence whenever there are conflicts in the wording or statements made by the above specifications and these Contract Documents.
- 1.3 Unless otherwise referenced herein, Division I of the Water and Sewer Specs and Section 102 and Articles 104.02, 104.03, 104.07, 107.02, 107.27, 107.35, 108.10, 108.11, and 108.12 of the SSRBC are hereby suspended.

# 2. COOPERATION OF CONTRACTOR

- 2.1 The Contractor will be supplied with a minimum of 2 sets of approved plans and contract assemblies including Special Provisions, one set of which the Contractor shall keep available on the work site at all times. The Contractor shall give the work site constant attention necessary to facilitate the progress thereof, and shall cooperate with the Village in every way possible.
- 2.2 The Contractor shall have on the work site at all times, as the Contractor's agent, a competent English-speaking representative capable of reading and thoroughly understanding the Contract Documents, and thoroughly experienced in the type of work being performed. The representative shall also be capable of receiving instruction from the Village, and shall have full authority to promptly respond to such instruction. He shall be capable of supplying such materials, equipment, tools, labor and incidentals as may be required. The Contractor shall not replace him without prior written notification to the Village.

## 3. LEGAL REGULATIONS AND RESPONSIBILITY TO THE PUBLIC

- 3.1 Section 107 of the SSRBC shall govern the Contractor's legal regulations and responsibility to the public, with the following additions:
  - 3.1.1 PROJECT SAFETY. Add the following to Article 107.28:
    - 3.1.1.1 The Contractor shall conduct his work in such a manner as to provide an environment consistent with the safety, health and well being of those engaged in the completion of the Work specified in this Contract.
    - 3.1.1.2 The Contractor shall comply with all State and Federal Safety Regulations as outlined in the latest revisions of the Federal Construction Safety Standards

(Series 1926) and with applicable provisions and/or regulations of the Occupation Safety and Health Administration (OSHA) and Standards of the Williams-Stelger Occupational Health Safety Act of 1970 (Revised). SPECIAL ATTENTION SHALL BE PAID TO COMPLIANCE WITH OSHA'S SUBPART P – EXCAVATIONS STANDARD.

- 3.1.1.3 The Contractor and Village shall each be responsible for their own respective agents and employees.
- 3.1.1.4 The Contractor shall, prior to performing any work, request information from the Village regarding any existing confined spaces owned by the Village that may be entered in the course of the work, and shall obtain all required confined space entry permits prior to entering any confined spaces. Contractor shall follow all current laws and regulations with regard to confined space entry. Contractor shall maintain and, upon request, provide full documentation of compliance with the appropriate confined space permits for each separate confined space entered on the project.
- 3.1.2 BACKING PRECAUTIONS. Pursuant to Sections 14-139(b) and 14-171.1 of the Downers Grove Municipal Code, any motor vehicle which has an obstructed view to the rear and is to be operated at any time in reverse gear on the public streets of the Village by the Contractor or any subcontractor shall either be equipped with a reverse signal alarm (backup alarm) audible above and distinguishable from the surrounding noise level, or shall provide an observer to signal that it is safe to back up.
- 3.1.3 OVERWEIGHT, OVERWIDTH AND OVERHEIGHT PERMITS. The Village has and supports an overweight truck enforcement program. Contractors are required to comply with weight requirements and safety requirements as established by Illinois Law or Village Ordinance, for vehicles, vehicle operators and specialty equipment. In some instances, specialty equipment for road repairs or construction projects requires the movement of overweight, overwidth, or overheight loads utilizing a Village roadway. Such movement will require obtaining a permit from the Village Police Department's Traffic Supervisor.
- 3.1.4 BARRICADES AND WARNING SIGNS. The Contractor shall provide the Village with a telephone number of a person or company who is available 24 hours per day, seven days per week, to erect additional barricades or signs. If the Village or its representative deems it necessary for the Public's safety to erect additional barricades or signs during normal working hours, the Contractor will furnish the necessary barricades or signs, and have them in place within 30 minutes. If, after normal working hours, the requested signs are not in place within three hours after the request is made, the Village reserves the right to have the barricades and signs erected. The cost of erecting the barricades and signs shall be deducted by the Village from any payments due the Contractor.

## 4. PROSECUTION AND PROGRESS

- 4.1 Section 108 of the SSRBC shall govern the prosecution and progress of the work, with the following additions:
  - 4.1.1 The Contractor shall schedule his work such that all improvements shall be substantially complete by October 28, 2016. The completion date will remain binding throughout the duration of the Contract unless revised in writing by the Village.
  - 4.1.2 The Contractor shall also make special note of the following work schedule requirements:

    (a) N/A
  - 4.1.4 Should the Contractor fail to complete the work on or before the specified completion dates set forth in Sections 4.1.1, 4.1.2 or 4.1.3 or within such extended time as may be allowed, the Contractor shall be liable for liquidated damages in accordance with the applicable sections of Article 108.09 of the SSRBC.
  - 4.1.5 Prior to commencing construction, a meeting will be held with the Contractor and the Village. Any questions concerning procedures, general conditions, special provisions, plans or specific items related to the project shall be answered and clarified. No Pre-Construction meeting shall be scheduled until submittals, performance bonds, and certificates of insurance are delivered to, and approved by, the Village.
  - 4.1.6 Weekly progress meetings may be required by the Village. If required, the Contractor shall have a capable person, such as a site superintendent or project manager, attend such meetings and be prepared to report on the prosecution of the Work according to the progress schedule. The Village reserves the right to require adjustments to scheduling of work.

## 5. MEASUREMENT AND PAYMENT

- 5.1 Section 109 of the SSRBC shall govern measurement and payment, with the following additions:
  - 5.1.1 Modifies Article 109.07 Partial payments will be made per Section 36 of Part II of this document (Billing and Payment Procedures.)
  - 5.1.2 The Village will require that partial and final affidavits for all labor, materials and equipment used on the Project, be submitted with the partial and final payment requests. Such waivers shall indicate that charges for all labor, materials and equipment used on the project have been paid. Partial waivers from suppliers and subcontractors may be submitted after the first payment to the Contractor, and before the subsequent payment to that which they apply. However, partial waivers from the Contractor must accompany the invoice of the payment to which it applies. All final waivers, from all suppliers and subcontractors MUST accompany the Contractor's invoice upon submittal for final payment. A sworn statement by the Contractor shall accompany full waivers. Such requirement for full waivers is solely for the benefit of the Village and shall not be construed to benefit any other person. Partial payment for work done shall in no way imply acceptance of the work to that date.

# IV. SPECIAL PROVISIONS

The following Special Provisions in conjunction with the attached specifications by Walker Restoration Consultants labeled "Specifications for Village of Downers Grove Parking Structure Maintenance Repairs" shall modify, supercede, or supplement the Standard Specifications referred to in Section III - General Provisions. Furthermore, Sections I, II, III, or IV of this Call for Bid document shall modify, supercede, or supplement any discrepancy or redundancy between this Call for Bid document and the attached "Specifications for Village of Downers Grove Parking Structure Maintenance Repairs." References to "Owner" in the attached "Specifications for Village of Downers Grove Parking Structure Maintenance Repairs" refer to the Village as defined in Section 1.2 of this Call for Bid document.

Where any section, subsection, paragraph, or subparagraph of the Standard Specifications is *supplemented* by any of the following paragraphs, the provisions of such section, subsection, paragraph, or subparagraph shall remain in effect. The Special Provisions shall govern in addition to the particular Standard Specification so supplemented, and not in lieu thereof.

Where any section, subsection, paragraph, or subparagraph of the Standard Specifications is *amended*, *voided*, *or superceded* by any of the following paragraphs, any provision of such section, subsection, paragraph, or subparagraph standing unaffected, shall remain in effect. The Special Provisions shall govern in lieu of any particular provision of the Standard Specification so amended, voided, or superceded, and not in addition to the portion changed.

# SP-1 GENERAL SCOPE OF WORK

The Parking Deck Rehabilitation and Maintenance, Phase 1 project consists of concrete repairs, removal and replacement of sealant materials, traffic membrane installation, plumbing & masonry repairs, door and frame replacement and miscellaneous repairs.

The Village reserve the right to award based on any bid, combination of bids or all bids, whatever is deemed to be in the best interest of the Village.

# **SP-2 GENERAL CONSTRUCTION REQUIREMENTS**

The following general requirements are intended to govern the overall priority for the performance of the work described in this contract. As general requirements, they are not intended to dictate to the Contractor the precise method by which these tasks shall be performed.

### **WORK SEQUENCE**

Contractor shall be allowed to remove at most two bays of parking at any given time for construction activities (one bay to work on and one bay below for shoring). A bay is generally defined as one third of the parking deck on any level, i.e. the area bound by columns 1 to 12 by columns A to B. Contractor shall provide secured drive lanes through all work and shoring areas at all times; to fulfill this requirement, the Contractor will be required to phase work within each parking bay. The contractor will receive no additional compensation for constructing the project in phases.

Contractor shall incorporate into their proposed construction schedule work taking place on the Roof Level first, followed by work on the Fourth Level.

Prior to commencement of work, the Contractor shall meet with Engineer/Architect and Owner representatives to establish sequence and schedule of work for each level. The contractor will not be allowed to proceed to another phase without the approval of the Engineer.

Contractor shall remove all broken concrete and debris from work area on daily basis and dispose of same at authorized dump sites. Contractor shall remove dust and air transported sand/debris from remainder of facility at conclusion of operations in work area.

# SP-3 QUALIFICATIONS OF BIDDER

In addition to those requirements set forth in Section 10.1 above, in order to be considered a responsible bidder, the bidder must have particular expertise in having successfully constructed projects of a similar size and scope, specifically including concrete repairs, removal and replacement of sealant materials, traffic membrane installation, plumbing & masonry repairs, door and frame replacement and miscellaneous repairs. The Bidder must submit the following information for itself and for each Sub-Contractor:

- a. Similar Project Experience
  - i. Bidder must provide detailed information regarding past similar projects performed by the submitting firm within the past five (5) years.
  - ii. Bidder must submit a list of references of previous projects identifying the location of the work, the dollar value of the work, the owner or agency responsible for the work, and the name and phone number of the contact person.
- b. Proposed Project Team the Bidder must identify the project manager and full-time onsite construction supervisor (can be the same person) on the Certification of Qualifications form. Bidder must also provide qualifications of the project manager and full-time onsite construction supervisor. The individuals proposed must be utilized for the duration of this project unless an alternate is approved in writing by the Village.
- c. Bidder must completely fill out and submit the Certification of Qualifications form with the Bid.

**BIDDER:** 

J. Gill & Company

Company Name

Village of Downers Grove – Parking Deck Rehabilitation and Maintenance, Phase 1 (P-013-16)

# V. BID and CONTRACT FORM (Village)

\*\*\*THIS BID WHEN ACCEPTED AND SIGNED BY AN AUTHORIZED SIGNATORY OF THE VILLAGE OF DOWNERS GROVE SHALL BECOME A CONTRACT BINDING UPON BOTH PARTIES.

6/23/16

Date

Entire Form Must Be Completed If a Submitted Bid Is To Be Considered For Award

|  | ` `  |
|--|--|
| 236 E. 161st Place, Suite A                            | jimb@jgillandcompany.com                                 |
| Street Address of Company                              | E-mail Address   |
|  |  |
| South Holland, IL 60473                                | Jim Bax  |
| City, State, Zip                                       | Contact Name (Print)                                     |
| <br>  708–596–4455                                     |  |
| Business Phone   | 24-Hour Telephone  |
| Dusiness I none  | 24-Hour relephone  |
| 708-339-6269   | 20 Liel  |
| Business Fax   | Signature of Officer, Partner or Sole Proprietor         |
|  |  |
|  | James J. Gill - President                                |
| ATTEST: if a Corporation                               | Print Name & Title                                       |
|  |  |
| Signature of Corporation Secretary                     |  |
| Signature of Corporation Secretary                     |  |
| We hereby agree to furnish the Village of Downers      | Grove all necessary materials, equipment, labor, etc. to |
|  | ified herein and in accordance with the provisions,      |
| instructions and specifications for the unit prices sh |  |
|  |  |
| VILLAGE OF DOWNERS GROVE:                              | ATTEST:  |
|  |  |
|  |  |
| Authorized Signature                                   | Village Clerk  |
|  |  |
| Title  |  |
| I ILLC   |  |
| Date   | Date   |
|  | — <del>111 -</del>                                       |

In compliance with the specifications, the above-signed offers and agrees, if this Bid is accepted within 90 calendar days from the date of opening, to furnish any or all of the services upon which prices are quoted, at the price set opposite each item, delivered

at the designated point within the time specified above.

BIDDER:

Village of Downers Grove - Parking Deck Rehabilitation and Maintenance. Phase 1 (P-013-16)

# V. BID and CONTRACT FORM (Contractor)

\*\*\*THIS BID WHEN ACCEPTED AND SIGNED BY AN AUTHORIZED SIGNATORY OF THE VILLAGE OF DOWNERS GROVE SHALL BECOME A CONTRACT BINDING UPON BOTH PARTIES.

Entire Form Must Be Completed If a Submitted Bid Is To Be Considered For Award

| J. Gill & Company Company Name   | 6/23/16<br>Date  |
|--|--|
| 236 E. 161st Place, Suite A Street Address of Company  | jimb@jgillandcompany.com E-mail Address  |
| South Holland, IL 60473 City, State, Zip   | Jim Bax Contact Name (Print)   |
| 708-596-4455<br>Business Phone   |  |
| 708–339–6269   | 24-Hour Telephone  |
| Business Fax   | Signature of Officer, Partner or Sole Proprietor   |
| ATTEST: if a Corporation   | James J. Gill - President Print Name & Title   |
| Signature of Corporation Secretary   |  |
| We hereby agree to furnish the Village of Downers complete the project within the timeframe specinstructions and specifications for the unit prices shape. | Grove all necessary materials, equipment, labor, etc. to ified herein and in accordance with the provisions, town on the Schedule of Prices. |
| VILLAGE OF DOWNERS GROVE:  | ATTEST:  |
| Authorized Signature   | Village Clerk  |
| Title  |  |
| Date   | Date   |

In compliance with the specifications, the above-signed offers and agrees, if this Bid is accepted within 90 calendar days from the date of opening, to furnish any or all of the services upon which prices are quoted, at the price set opposite each item, delivered at the designated point within the time specified above.

J. Gill & Company

# **SCHEDULE OF PRICES:**

# Base Bid

| WORK<br>ITEM                                       | DESCRIPTION  | UNITS   | QUANTITY   | UNIT<br>PRICE | TOTAL<br>PRICE |
|--|--|---------|--|---------------|----------------|
| PART I: GENERAL REQUIREMENTS / PRELIMINARY MATTERS |  |         |  |               |                |
| 1.0  | General Requirements   |         | arte and the second of the sec |               |                |
| 1.1<br>1.1.2<br>1.1.3<br>1.1.4<br>1.1.5            | General Requirements Concrete Formwork Concrete Shores and Reshores Concrete Reinforcement Temporary Signage | L.S.    | 1  | \$14,900.00   | \$14,900.00    |
| 7.0  | Concrete Wall Repair   |         |  |               |                |
| 7.5  | Wall Façade Panel Repair   | S.F.    | 20   | \$350.00      | \$7,000.00     |
| 10.0   | Expansion Joint Repair and Repl  | acement |  | ·             |                |
| 10.6   | Expansion Joint – Silicone Seal  | L.F.    | 108  | \$85.00       | \$9,180.00     |
| 10.6.1   | Expansion Joint – Silicone Seal<br>w/Flashing  | L.F.    | 160  | \$\$95.00     | \$15,200.00    |
| 11.0   | Crack and Joint Repair   |         |  |               |                |
| 11.1   | Seal Random Cracks   | L.F.    | 650  | \$6.00        | \$3,900.00     |
| 11.2   | Control Joint Sealant  | L.F.    | 380  | \$6.25        | \$2,375.00     |
| 11.3   | Vertical Joint Sealant   | L.F.    | 50   | \$20.00       | \$1,000.00     |
| 11.5   | Epoxy Injection  | L.F.    | 20   | \$75.00       | \$1,500.00     |
| 11.7   | Cove Sealant   | L.F.    | 2,180  | \$7.00        | \$15,260.00    |
| 25.0   | Mechanical - Drainage  |         |  |               |                |
| 25.7   | Re-Cork Floor Drains   | EA.     | 10   | \$265.00      | \$2,650.00     |
| 26.0   | Mechanical – Fire Protection   |         |  |               |                |
| 26.2   | Replace Sprinkler System   | L.S.    | 1  | \$80,860.00   | \$80,860.00    |
| 35.0   | Brick / Masonry Repairs  |         |  |               |                |
| 35.1   | Tuckpointing   | L.F.    | 40   | \$35.00       | \$1,400.00     |

J. Gill & Company

| WORK<br>ITEM | DESCRIPTION                                | UNITS | QUANTITY | UNIT<br>PRICE | TOTAL<br>PRICE       |
|--------------|--|-------|----------|---------------|----------------------|
| 37.0         | Door, Frame and Hardware                   |       |          |               |                      |
| 37.1         | Door & Frame Replacement<br>(Hollow Metal) | EA.   | <b>A</b> | \$2,900.00    | \$2,900.00           |
| 37.5         | Door Threshold Waterproofing               | EA.   | 3        | \$600.00      | \$1,800.00           |
| 40.0         | Connections / Bearings                     |       |          |               |                      |
| 40.6         | Panel Supports                             | EA.   | 7        | \$425.00      | \$2,975.00           |
| 40.7         | Column Cover Supports                      | EA.   | 90       | \$395.00      | \$35,550.00          |
| 45.0         | Painting                                   |       |          |               |                      |
| 45.2         | Paint Concrete/Masonry Walls               | L.S.  | ·        | \$4,370.00    | \$4,370.00           |
| 45.4         | Paint Doors and Frames                     | EA.   | 4        | \$220.00      | \$880.00             |
| 45.5         | Paint Window Frames                        | EA.   | 6        | \$220.00      | \$1,320.00           |
| 91.0         | Coatings / Staining                        |       |          |               |                      |
| 91.5         | Elastomeric Coating                        | S.F.  | 400      | \$5.75        | \$2,300.00           |
|              | TOTAL BASE BID                             |       |          |               | \$ <u>207,320.00</u> |

# Alternate Bid Items

| 37.0 | Door, Frame and Hardware                            |     |   |            |            |
|------|---|-----|---|------------|------------|
| 37.1 | Door & Frame Replacement<br>(FRP) – Alternate No. 1 | EA. | 1 | \$4,600.00 | \$4,600.00 |

# **BIDDER'S CERTIFICATION (page 1 of 3)**

Parking Deck Rehabilitation
With regard to And Maintenance, Phase 1 . Bidder J. Gill & Company
(Name of Project) (Name of Bidder)
hereby certifies the following:

- 1. Bidder is not barred from bidding this Contract as a result of violations of Section 720 ILCS 5/33E-3 (Bid Rigging) or 720 ILCS 5/33E-4 (Bid-Rotating);
- 2. Bidder certifies that it has a written sexual harassment policy in place and full compliance with 775 ILCS 5/2-105(A)(4);
- 3. Bidder certifies that not less than the prevailing rate of wages as determined by the Village of Downers Grove, DuPage County or the Illinois Department of Labor shall be paid to all laborers, workers and mechanics performing work for the Village of Downers Grove. All bonds shall include a provision as will guarantee the faithful performance of such prevailing wage clause. Bidder agrees to comply with the Illinois Prevailing Wage Act, 820 ILCS 130/1 et seq., for all work completed. Bidder agrees to pay the prevailing wage and require that all of its subcontractors pay prevailing wage to any laborers, workers or mechanics who perform work pursuant to this Contract or related subcontract. Bidder and each subcontractor shall keep or cause to be kept an accurate record of names, occupations and actual wages paid to each laborer, workman and mechanic employed by the Bidder in connection with the contract. This record shall be sent to the Village on a monthly basis along with the invoice and shall be open to inspection at all reasonable hours by any representative of the Village or the Illinois Department of Labor and must be preserved for five (5) years following completion of the contract. Bidder certifies that Bidder and any subcontractors working on the project are aware that filing false payroll records is a Class A misdemeanor and that the monetary penalties for violations are to be paid pursuant to law by the Bidder, contractor and subcontractor. The Village shall not be liable for any underpayments. If applicable: Since this is a contract for a fixed public works project, as defined in 820 ILCS 130/2, Contractor agrees to post at the job site in an easily accessible place, the prevailing wages for each craft or type of worker or mechanic needed to execute the contract or work to be performed:
- 4. Bidder certifies that it is in full compliance with the Federal Highway Administrative Rules on Controlled Substances and Alcohol Use and Testing, 49 C.F.R. Parts 40 and 382 and that all employee drivers are currently participating in a drug and alcohol testing program pursuant to the Rules;
- 5. Bidder further certifies that it is not delinquent in the payment of any tax administered by the Department of Revenue, or that Bidder is contesting its liability for the tax delinquency or the amount of a tax delinquency in accordance with the procedures established by the appropriate Revenue Act. Bidder further certifies that if it owes any tax payment(s) to the Department of Revenue, Bidder has entered into an agreement with the Department of Revenue for the payment of all such taxes that are due, and Bidder is in compliance with the agreement.

# **BIDDER'S CERTIFICATION (page 2 of 3)**

| BY: James J. Gill  Bidder's Authorized Agent   |  |
|--|--|
| 3 6 - 4 1 1 2 3 2 8 FEDERAL TAXPAYER IDENTIFICATION NUMBI  | ER   |
| OrSocial Security Number   |  |
|  | Subscribed and sworn to before me  |
|  | this 23 day of June , 2016.  Sugar M Charles Official SEAL                           |
| (Fill Out Applicable Paragraph Below)  | SUSAN M CHRISTOFANELLI<br>NOTARY PUBLIC - INDIANA<br>My Comm. Expires Sept. 20, 2023 |
| (a) <u>Corporation</u> The Bidder is a corporation organized and existing unde operates under the Legal name of <u>J. Gill &amp; Comparation</u> names of its Officers are as follows: | r the laws of the State of Illinois, which   |
| President: James J. Gill   |  |
| Secretary:   |  |
| Treasurer:   |  |
| and it does have a corporate seal. (In the event that this behind a certified copy of that section of Corporate Bywhich permits the person to execute the offer for the corp           | Laws or other authorization by the Corporation                                       |
| (b) <u>Partnership</u> Signatures and Addresses of All Members of Partnership:   |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

# BIDDER'S CERTIFICATION (page 3 of 3)

| The partnership does business under the legal name of:                            |   |
|---|---|
| which name is registered with the office of                                       | in the state of                           |
| (c) Sole Proprietor The Bidder is a Sole Proprietor whose full name is:           |   |
| and if operating under a trade name, said trade name is:                          |   |
| which name is registered with the office of                                       | in the state of                           |
|   |   |
| 6. Are you willing to comply with the Village's insurance re of the contract? Yes | quirements within 13 days of the award    |
| INSURER'S NAME: RWC Insurance Group   |   |
| AGENT: Ray Matthews   |   |
| Street Address: 7239 W. Laraway Road  |   |
| City. State. Zip Code: Frankfort, IL 60423  |   |
| Telephone Number: 815-469-6585  |   |
|   |   |
| 1/We hereby affirm that the above certifications are true and accura them.        | te and that I/we have read and understand |
| Print Name of Company: J. Gill & Company  |   |
| Print Name and Title of Authorizing Signature: James J. G111                      | - President                               |
| Signature: D& Die   |   |
| Date: 6/23/16   |   |

J. Gill & Company

# **MUNICIPAL REFERENCE LIST**

Municipality: City of Des Plaines Address: 1420 Miner Street Contact Name: Phone #: 847-391-5464 Tom Bueser Name of Project: City of Des Plaines Parking Structures 2015 Maintenance Repairs Contract Value: \$366,373.00 Date of Completion: 9/10/15 City of Elmhurst Municipality: Address: 209 N. York Street Kent Johnson Contact Name: Phone #: 630-530-3000 Name of Project: City of Elmhurst Adelaide Ave. Parking Structure Maintenance Repairs \$170,272.00 Contract Value: Date of Completion: 9/25/15 Municipality: City of Elgin 150 Dexter Court Address: Contact Name: Tom Migatz Phone #: 847-931-5987 Name of Project: Fulton Street Parking Structure - Maintenance Repairs \$36,160.00 Contract Value: Date of Completion: 10/30/15 Municipality: Village of Arlington Heights Address: 33 S. Arlington Heights Road Cris Papierniak Contact Name: Phone #: 847–368–5807 Name of Project: Village of Arlington Heights Parking Structures Maintenance Repairs Contract Value: \$749,994.00 Date of Completion: 9/18/15 Municipality: -City of Bloomington Address: 109 East Olive Street Contact Name: Russ Waller Phone #: 309-434-2492 Name of Project: Lincoln Parking Garage Improvements Contract Value: \$245,265.00 Date of Completion: 11/20/15

J. Gill & Company

# **SUBCONTRACTORS LIST**

The Bidder hereby states the following items of work will not be performed by its organization. (List items to be subcontracted as well as the names, addresses and phone numbers of the subcontractors.)

| ) Fettes, Love & Sieben           | Type of Work Plumbing |             |  |  |
|-----------------------------------|-----------------------|-------------|--|--|
| Addr: 4325 N. Lincoln Avenue      |                       |             |  |  |
| 2) National Decorating Service    | Type of Work          | Painting    | ·····  |  |
| Addr: 2210 Camden Court           | City <u>Oak Brook</u> | State IL    | Zip_60523  |  |
| 3) Global Fire Protection Company |                       | Sprinkler   | Piping   |  |
| Addr: 5121 Thatcher Road          | Downers<br>CityGrove  | _ State_IL  | Zip_60515  |  |
| 4)                                | Type of Work          |             | And the second s |  |
| Addr:                             | City                  | _ State     | Zip  |  |
| 5)                                | Type of Work          |             |  |  |
| Addr:                             | City                  | _ State     | Zip  |  |
| 6)                                | Type of Work          |             |  |  |
| Addr:                             | City                  | State       | _Zip   |  |
| 7)                                | Type of Work          | <del></del> |  |  |
| Addr:                             |                       |             |  |  |
| 8)                                | Type of Work _        |             |  |  |
| Addr:                             | City                  | State       | _ Zip  |  |
|                                   |                       |             |  |  |

Village of Downers Grove - Parking Deck Rehabilitation and Maintenance, Phase 1 (P-013-16)

## **CERTIFICATION OF QUALIFICATIONS**

| Project Leam                    |   |   |                                       |
|---------------------------------|---|---|---------------------------------------|
| Project Manager; <u>Jir</u>     | n Bax                                       |   |                                       |
| Construction Supervis           | or: Joe Gill                                |   |                                       |
| Team Member: <u>Davio</u>       | l Christofanell                             | i   |                                       |
| Team Member:                    |   |   |                                       |
| Team Member:                    |   |   |                                       |
|                                 |   |   |                                       |
| Team Member:                    |   |   |                                       |
| Team Member:                    |   |   |                                       |
| SP-3 in                         | cluding at least thr<br>rs, and can provide | bidder hereby certifies that it complies with ee (3) contracts of similar nature and scope detailed supporting information upon requences J. Gill | within the last five est.  (Corporate |
|                                 | Title: Pre                                  | sident  | ·                                     |
|                                 | Name & Addres                               | ss: J. Gill & Company   | <del></del>                           |
|                                 | of Contractor                               | 236 E. 161st Place, Suite A   |                                       |
|                                 | or Vendor                                   | South Holland, IL 60473   |                                       |
| Subscribed and sworn me this 23 | to before<br>day of June                    | 2016 M. M. Meste frel   | Je                                    |
| Authorized Signature            | Liel  | OFFICIAL SEAL SUSAN M CHRISTOFANELLI NOTARY PUBLIC - INDIANA My Comm. Expires Sept. 20, 2023  |                                       |

Village of Downers Grove – Parking Deck Rehabilitation and Maintenance, Phase 1 (P-013-16)



## VENDOR W-9 REQUEST FORM

The law requires that we maintain accurate taxpayer identification numbers for all individuals and partnerships to whom we make payments, because we are required to report to the I.R.S all payments of \$600 or more annually. We also follow the I.R.S. recommendation that this information be maintained for all payees including corporations.

Please complete the following substitute W-9 letter to assist us in meeting our I.R.S. reporting requirements. The information below will be used to determine whether we are required to send you a Form 1099. Please respond as soon as possible, as failure to do so will delay our payments.

| soon as possible, as fa | illure to do so will delay our payments.   |  |
|-------------------------|--|--|
| BUSINESS (PLEASE P      | PRINT OR TYPE):  |  |
| NAME: J.                | Gill & Company   |  |
| Address:                | 236 E. 161st Place, Suite A  |  |
| CITY:                   | South Holland  |  |
| STATE:                  | Illinois   |  |
| Zíp:                    | 60473  |  |
| PHONE: _70              | 8-596-4455 FAX: 708-339-6269   |  |
| •                       | ): 36-4112328 a social security number, please give your full name)  |  |
| REMIT TO ADDRESS (      | (IF DIFFERENT FROM ABOVE):   |  |
| NAME:                   |  |  |
| ADDRESS:                |  |  |
| CITY:                   |  |  |
| STATE:                  | Zip:   |  |
| Sole                    | (CIRCLE ONE):  ividual Limited Liability Company – Individual/Sole Proprietor  e Proprietor Limited Liability Company-Partnership  thership Limited Liability Company-Corporation  Corporation |  |
| Cha                     | ritable/Nonprofit Government Agency  |  |
| Signature:              | DATE: 6/23/16  |  |
|                         |  |  |

Date: 6/23/16

Village of Downers Grove - Parking Deck Rehabilitation and Maintenance, Phase 1 (P-013-16)

# Apprenticeship and Training Certification

| (Does not apply to federal aid projects. Applicable only to maintenance and construction projects that use Motor Fuel Tax funds or state grant monics.)  |
|--|
| Name of Bidder: J. Gill & Company  |
| In accordance with the provisions of Section 30-22 (6) of the Illinois Procurement Code, the Bidder certifies that it is a participant, either as an individual or as part of a group program, in the approved apprenticeship and training programs applicable to each type of work or craft that the bidder will perform with its own forces. The Bidder further certifies for work that will be performed by subcontract that each of its subcontractors submitted for approval either (a) is, at the time of such bid, participating in an approved, applicable apprenticeship and training program; or (b) will, prior to commencement of performance of work pursuant to this Contract, begin participation in an approved apprenticeship and training program applicable to the work of the subcontract. The Illinois Department of Labor, at any time before or after award, may require the production of a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors. Applicable apprenticeship and training programs are those that have been approved and registered with the United States Department of Labor. The Bidder shall list in the space below, the official name of the program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the Bidder is a participant and that will be performed with the Bidder's forces. Types of work or craft work that will be subcontracted shall be included and listed as subcontract work. The list shall also indicate any type of work or craft job category that does not have an applicable apprenticeship or training program. The Bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project is accounted for and listed. Return this with the Bid.  Carpenters, Laborers, Tuckpointers, and Cement Masons |
|  |
| The requirements of this certification and disclosure are a material part of the Contract, and the Contractor shall require this certification provision to be included in all approved subcontracts. In order to fulfill this requirement, it shall not be necessary that an applicable program sponsor be currently taking or that it will take applications for apprenticeship, training or employment during the performance of the work of this Contract.   |
| Print Name and Title of Authorizing Signature: James J. Gill - President   |
| Signature: D. J. Liel  |

Village of Downers Grove - Parking Deck Rehabilitation and Maintenance, Phase 1 (P-013-16)

## **BUY AMERICA CERTIFICATION**

Certification requirement for procurement of steel, iron, or manufactured products when Federal funds (Grant Agreement or Cooperative Agreement) are used.

Instructions:

Certificate of Compliance

Bidder to complete the Buy America Certification listed below. Bidder shall certify EITHER COMPLIANCE OR NON-COMPLIANCE (not both). This Certification MUST BE submitted with the Bidder's bid response. Special Note: Make sure you have signed only one of the above statements – either Compliance OR Non-Compliance (not both).

| The bidder or offeror hereby certifies that it will meet the requirements of 49 U.S.C. 5323(j)(1), as amended, and the applicable |
|---|
| regulations in 49 CFR Part 661.   |
| Signature J. Fiel   |
| Company Name J. Gill & Company  |
| Title President   |
| Date 6/23/16  |
|   |
| Certificate of Non-Compliance   |

| Certificate of Non-Compliance  |
|--|
| The bidder or offeror hereby certifies that it <b>cannot comply</b> with the requirements of 49 U.S.C. 5323(j)(1), as amended, and 49 C.F.R. 661, but it may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 C.F.R. 661.7. |
| Signature  |
| Company Name   |
| Title  |
| Date   |

AFTER THIS CERTIFICATE HAS BEEN EXECUTED, A BIDDER MAY NOT SEEK A WAIVER.

Note: The U.S/Canadian Free Trade Agreement does not supersede the Buy America requirement.

Village of Downers Grove - Parking Deck Rehabilitation and Maintenance, Phase 1 (P-013-16)

## Suspension or Debarment Certificate

Non-Federal entities are prohibited from contracting with or making sub-awards under covered transactions to parties that are suspended or debarred or whose principals are suspended or debarred. Covered transactions include procurement for goods or services equal to or in excess of \$100,000.00. Contractors receiving individual awards for \$100,000.00 or more and all sub-recipients must certify that the organization and its principals are not suspended or debarred.

By submitting this offer and signing this certificate, the Bidder certifies to the best of its knowledge and belief, that the company and its principals:

- 1. Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any federal, state or local governmental entity, department or agency;
- 2. Have not within a three-year period preceding this Bid been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction, or convicted of or had a civil judgment against them for a violation of Federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- 3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (2) of this certification; and
- 4. Have not within a three-year period preceding this application/proposal/contract had one or more public transactions (Federal, State or local) terminated for cause or default.

If the Bidder is unable to certify to any of the statements in this certification, Bidder shall attach an explanation to this certification.

| Company Name: J. Gill & Company            |                              |
|--|------------------------------|
| Address: 236 E. 161st Place, Suite         | e A                          |
| City: South Holland                        | Zip Code: 60473              |
| Telephone: ( 708 ) 596-4455                | Fax Number: ( 708 ) 339-6269 |
| E-mail Address: jimb@jgillandcompa         | ny.com                       |
| Authorized Company Signature:              | ) J Liee                     |
| Print Signature Name: <u>James J. Gill</u> | Title of Official: President |
| Date: 6/23/16                              |                              |

Village of Downers Grove – Parking Deck Rehabilitation and Maintenance, Phase 1 (P-013-16)

#### CAMPAIGN DISCLOSURE CERTIFICATE

Any contractor, proposer, bidder or vendor who responds by submitting a bid or proposal to the Village of Downers Grove shall be required to submit with its bid submission, an executed Campaign Disclosure Certificate.

The Campaign Disclosure Certificate is required pursuant to the Village of Downers Grove Council Policy on Ethical Standards and is applicable to those campaign contributions made to any member of the Village Council.

Said Campaign Disclosure Certificate requires any individual or entity bidding to disclose campaign contributions, as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4), made to current members of the Village Council within the five (5) year period preceding the date of the bid or proposal release.

By signing the bid documents, contractor/proposer/bidder/vendor agrees to refrain from making any campaign contributions as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4) to any Village Council member and any challengers seeking to serve as a member of the Downers Grove Village Council.

| Bidder/vendor has <u>not</u> (5) years.  | contributed to any elected Village position within the last five |
|--|--|
| Signature Fiel   | James J. Gill Print Name   |
| D Bidder/vendor has con Village Council within the last Print the following information:  Name of Contributor: |  |
|  |  |
|  | (company or individual)  |
|  | (company or individual)  |
| <br>To whom contribution was ma  |  |

Village of Downers Grove - Parking Deck Rehabilitation and Maintenance, Phase 1 (P-013-16)

## **BID SUBMITTAL CHECKLIST**

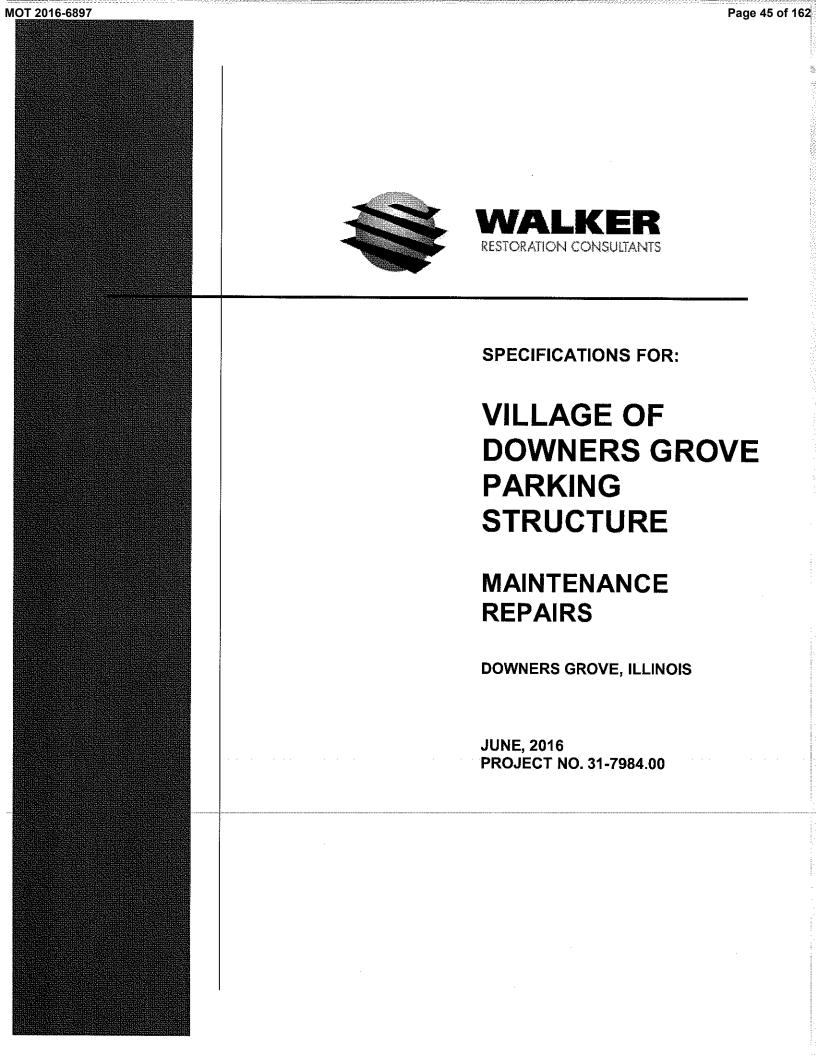
Each Bidder's Bid Package must be submitted with all requisite forms properly completed, and all documentation included. The following list is not all-inclusive, but is designed to facilitate a good, competitive bidding environment.

| 1.  | to the | Instructions to Bidders read and understood. Any questions must be asked according instructions.  |
|-----|--------|---|
| 2.  |        | Cover sheet filled-in   |
| 3.  | them.  | Bid Form copies filled-in. All copies must have original signatures and seals on  |
| 4.  |        | Bid Bond or cashier's check enclosed with bid package.  |
| 5.  |        | Schedule of Prices completed. Check your math!  |
| 6.  |        | Bidder Certifications signed and sealed.  |
| 7.  |        | Letter from Surety ensuring issuance of Performance and Labor Bonds.  |
| 8.  |        | Letter from Insurance Agent or Carrier ensuring issuance of required job coverage.  |
| 9.  |        | Municipal Reference List completed.   |
| 10. |        | Certification of Qualifications   |
| 11. |        | Vendor request form W-9 completed.  |
| 12. |        | Affidavit (IDOT Form BC-57, or similar).  |
| 13. |        | Bid package properly sealed and labeled before delivery. If sending by mail or nger, enclose in a second outer envelope or container. Project plan sheets do not have neluded with the bid package. |

Village of Downers Grove - Parking Deck Rehabilitation and Maintenance, Phase 1 (P-013-16)

## Specifications for Village of Downers Grove Parking Structure

by Walker Restoration Consultants



Parking Structure Maintenance Repairs Project Number 31-7984.00

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000110

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#### SECTION 011110 - SUMMARY OF WORK

#### **PART 1 - GENERAL**

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 01 Specification Sections apply to this Section.

#### 1.2 PROJECT DESCRIPTION

- A. Work will be performed at locations within the parking structure as shown on Drawings and shall be completed within six months time frame.
- B. All required or warranted overtime and benefits shall be included in the unit prices in order to meet the project schedule.
- C. Work required in these areas and estimated quantities are listed on Bid Form. Bid Quantities associated with Work Items listed on Drawings have been estimated and are subject to measurement as defined in Article "Measurements." Where additional Work Items are described, but not specifically located and/or shown on Drawings, Contractor shall be responsible for locating and marking areas to be repaired. Owner and/or Engineer/Architect reserves right to increase or decrease quantities up to 25% at same unit cost, as required by job conditions. Unit costs will be established in accordance with Supplementary Conditions, Article "Changes" for quantity variations exceeding 25 %.
- D. Work Item specifications and details shall govern all repair operations. Locations where Work Items apply are shown on Drawings as symbols.
- E. Final payment shall be made on basis of actual approved Work performed as measured in place.
- F. Work consists of repairing the parking structure to its original condition. Work includes concrete repairs, removal and replacement of sealant materials, traffic membrane installation, plumbing & masonry repairs, door and frame replacement and miscellaneous repairs

#### 1.3 MEASUREMENTS

- A. Before ordering any material or doing any Work, Contractor shall verify all measurements at Project site and shall be responsible for correctness of same.
- B. Before proceeding with each Work Item, Contractor shall locate, mark, and measure quantity of each item and report quantities to Engineer/Architect. If measured

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quantities exceed Engineer/Architect's estimate, Contractor shall obtain written authorization to proceed from Owner before executing Work required for that Work Item.

- C. Measurement of quantities for individual Work Items will be performed by Contractor and reviewed by Engineer/Architect. Coordinate measurements with inspection as required in Section "Project Management and Coordination."
- D. Cost of Work included in each Work Item for quantities as indicated in Contract Documents shall be included in Base Bid.
  - Additions to or deductions from lump sum price for quantities of each Work Item added to or deducted from Work respectively shall be at unit prices indicated in Bid Form and shall constitute payment or deductions in full for all material, equipment, labor, supervision and incidentals necessary to complete Work.

#### 1.4 WORK SEQUENCE

- A. Contractor shall be allowed to remove two bays of parking at any given time for construction activities. (One bay to work on and one bay below for shoring).
- B. Contractor shall provide secured drive lanes through the work area when cars need to reach the upper levels of the structure, when working on the lower levels.
- C. Prior to commencement of work, meet with Engineer/Architect and Owner representatives to establish sequence and schedule of Work for each level.
- D. Contractor shall remove all broken concrete and debris from Work area on daily basis and dispose of same at authorized dump sites.
- E. Contractor shall remove dust and air transported sand/debris from remainder of facility at conclusion of operations in Work area.

#### 1.5 CONTRACTOR USE OF PREMISES

- A. General: Limit use of premises to construction activities in areas indicated; allow for Owner occupancy and use by public.
  - Confine operations to areas within Contract limits indicated. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed.
  - Keep driveways and entrances serving the premises clear and available to the Owner and Owner's employees at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.
- B. Contractor's use of premises shall not interfere with operation of same. Elevators shall not be used for transfer of materials or equipment.

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- C. Contractor's debris removal path shall be over non-repaired services unless physical restraints prevent use of such path.
- D. On-Site Storage: Contractor shall not store materials or equipment at site of Work for more than one week prior to time that materials or equipment are incorporated into Work.

#### 1.6 BARRICADES

A. Provide positive barricading to separate Work areas from areas open to public. Minimum acceptable separation: 6 ft. 0 in. high temporary barrier constructed of wood and visqueen or chain link fence with tarps. Provide additional barriers as required to prevent damage to vehicle due to airborne debris. See "Temporary Facilities" for additional requirements.

#### 1.7 CLAIMS

A. Contractor shall promptly address all damages claims. Owner reserves right to resolve any claims not addressed by Contractor within 2 weeks after claim is received by Contractor. Any amounts paid by Owner will be deducted from Contractor's next progress payment.

### PART 2 - PRODUCTS (NOT APPLICABLE)

#### PART 3 - EXECUTION (NOT APPLICABLE)

#### **END OF SECTION 011110**

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## SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

#### **PART 1 - GENERAL**

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

### 1.2 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
  - 1. General project coordination procedures.
  - 2. Coordination Drawings.
  - 3. Administrative and supervisory personnel.
  - 4. Project meetings.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
  - 1. Division 01 Section "Construction Progress Documentation" for preparing and submitting the Contractor's Construction Schedule.
  - 2. Division 01 Section "Closeout Procedures" for coordinating Contract closeout.

#### 1.3 COORDINATION

- A. Coordination: Coordinate construction operations included in various Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.
  - Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
  - Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
  - 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. If necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.

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- 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
  - 1. Preparation of Contractor's Construction Schedule.
  - 2. Preparation of the Schedule of Values.
  - 3. Installation and removal of temporary facilities and controls.
  - 4. Delivery and processing of submittals.
  - 5. Progress meetings.
  - 6. Project closeout activities.

#### 1.4 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
  - 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Engineer of scheduled meeting dates and times.
  - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
  - 3. Minutes: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Engineer, within 3 days of the meeting.
- B. Preconstruction Conference: Schedule a preconstruction conference before starting construction, at a time convenient to Owner and Engineer. Hold the conference at Project site or another convenient location. Conduct the meeting to review responsibilities and personnel assignments.
  - 1. Attendees: Authorized representatives of Owner, Engineer, and their consultants; Contractor and its superintendent; major subcontractors; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
- C. Progress Meetings: Conduct progress meetings at monthly intervals. Coordinate dates of meetings with preparation of payment requests.
  - Attendees: In addition to representatives of Owner and Engineer, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.

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- Reporting: Distribute minutes of the meeting to each party present and to parties
  who should have been present. Include a brief summary, in narrative form, of
  progress since the previous meeting and report.
  - a. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

**END OF SECTION 013100** 

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## SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
  - 1. Contractor's Construction Schedule.
  - Submittals Schedule.
- B. Related Sections include the following:
  - 1. Division 01 Section "Project Management and Coordination" for submitting and distributing meeting and conference minutes.
  - 2. Division 01 Section "Submittal Procedures" for submitting schedules and reports.
  - 3. Division 01 Section "Quality Control" for submitting a schedule of tests and inspections.
  - 4. Division 01 Section "Closeout Procedures" for submitting photographic negatives as Project Record Documents at Project closeout.

#### 1.3 SUBMITTALS

- A. Submittals Schedule: Submit three copies of schedule. Arrange the following information in a tabular format:
  - Scheduled date for first submittal.
  - 2. Specification Section number and title.
  - 3. Submittal category (action or informational).
  - 4. Name of subcontractor.
  - 5. Description of the Work covered.
  - 6. Scheduled date for Engineer's final release or approval.
- B. Preliminary Construction Schedule: Submit two printed copies.
- C. Contractor's Construction Schedule: Submit two printed copies of initial schedule, large enough to show entire schedule for entire construction period.

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## 1.4 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.
  - 1. Secure time commitments for performing critical elements of the Work from parties involved.
  - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

#### **PART 2 - PRODUCTS**

## 2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal Gantt-chart-type, Contractor's Construction Schedule within 5 days of date established for commencement of the Work.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
  - 1. For construction activities that require 3 months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.

#### **PART 3 - EXECUTION**

## 3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
  - Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
  - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
  - 3. As the Work progresses, indicate Actual Completion percentage for each activity.

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- B. Distribution: Distribute copies of approved schedule to Engineer, Owner, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
  - 1. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

## **END OF SECTION 013200**

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#### **SECTION 013300 - SUBMITTAL PROCEDURES**

#### **PART 1 - GENERAL**

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals.
- B. Related Sections include the following:
  - Division 01 Section "Payment Procedures."
  - 2. Division 01 Section "Project Management and Coordination" for submitting Coordination Drawings.
  - 3. Division 01 Section "Quality Control" for submitting test and inspection reports and Delegated-Design Submittals.
  - 4. Division 01 Section "Closeout Procedures" for submitting warranties.

## 1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Engineer's responsive action.
- B. Informational Submittals: Written information that does not require Engineer's approval. Submittals may be rejected for not complying with requirements.

#### 1.4 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
  - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
    - a. Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

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- B. Submittals Schedule: Comply with requirements in Division 01 Section "Construction Progress Documentation" for list of submittals and time requirements for scheduled performance of related construction activities.
- C. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Engineer's receipt of submittal.
  - Initial Review: Allow 7 days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. Engineer will advise Contractor when a submittal being processed must be delayed for coordination.
  - 2. If intermediate submittal is necessary, process it in same manner as initial submittal.
  - 3. Allow 7 days for processing each resubmittal.
  - 4. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.
- D. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Engineer will return submittals, without review, received from sources other than Contractor.
  - On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Engineer on previous submittals, and deviations from requirements of the Contract Documents, including minor variations and limitations. Include the same label information as the related submittal.
  - 2. Include Contractor's certification stating that information submitted complies with requirements of the Contract Documents.
- E. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- F. Use for Construction: Use only final submittals with mark indicating action taken by Engineer in connection with construction.

#### PART 2 - PRODUCTS

#### 2.1 SHOP DRAWINGS

- A. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
  - 1. Preparation: Include the following information, as applicable:
    - Dimensions.

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- b. Identification of products.
- c. Fabrication and installation drawings.
- d. Shopwork manufacturing instructions.
- e. Schedules.
- f. Design calculations.
- g. Compliance with specified standards.
- h. Notation of coordination requirements.
- i. Notation of dimensions established by field measurement.
- 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 30 by 40 inches.
- 3. Number of Copies: Submit three blue- or black-line prints of each submittal, unless prints are required for operation and maintenance manuals. Engineer will retain one and forward one to the Owner; remainder will be returned. As an alternative and with prior notice to the Engineer, submit shop drawings electronically via e-mail.
- B. Samples: Prepare physical units of materials or products, including the following:
  - 1. Comply with requirements in Division 01 Section "Quality Control" for mockups.
  - Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
  - Submit Samples for review of kind, color, pattern, and texture for a final check of these characteristics with other elements and for a comparison of these characteristics between final submittal and actual component as delivered and installed.
    - a. If variation in color, pattern, texture, or other characteristic is inherent in the product represented by a Sample, submit at least three sets of paired units that show approximate limits of the variations.
    - b. Refer to individual Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
  - 4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
    - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
    - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
- C. Product Schedule or List: Prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:

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- 1. Type of product. Include unique identifier for each product.
- 2. Number and name of room or space.
- 3. Location within room or space.
- D. Delegated-Design Submittal: Comply with requirements in Division 01 Section "Quality Control."
- E. Submittals Schedule: Comply with requirements in Division 01 Section "Construction Progress Documentation."
- F. Application for Payment: Comply with requirements in Division 01 Section "Payment Procedures."
- G. Schedule of Values: Comply with requirements in Division 01 Section "Payment Procedures."

#### 2.3 REQUESTS FOR INFORMATION

- A. Engineer reserves the right to reject, unprocessed, any Request for Information (RFI) that the Engineer, at its sole discretion, deems frivolous.
- B. Engineer reserves the right to reject, unprocessed, any RFI that the Engineer, at its sole discretion, deems already answered in the Contract Documents.
- C. RFI process shall not be used for requesting substitutions. Procedures for substitutions are clearly specified elsewhere in the contract documents.

## **PART 3 - EXECUTION**

#### 3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Engineer.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

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## 3.2 ENGINEER'S ACTION

- A. General: Engineer will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Engineer/Architect or its subconsultant will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
  - 1. See Section 007300 "Supplementary Conditions" for description of terminology on Engineer's Stamp.
- C. Submittals not required by the Contract Documents will not be reviewed and may be discarded.

#### **END OF SECTION 013300**

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## **SECTION 014500 - QUALITY CONTROL**

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 01 Specification Sections apply to this Section.

#### 1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for quality control services.
- B. Quality control services include inspections, tests and related actions including reports, performed by independent agencies, governing authorities, and the Contractor. They do not include Contract enforcement activities performed by Engineer/Architect.
- C. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with Contract Document requirements.
- D. Requirements of this Section relate to customized fabrication and installation procedures, not production of standard products.
  - 1. Specific quality control requirements for individual construction activities are specified in the Sections that specify those activities. Those requirements, including inspections and tests, cover production of standard products as well as customized fabrication and installation procedures.
  - 2. Inspections, tests and related actions specified are not intended to limit the Contractor's quality control procedures that facilitate compliance with Contract Document requirements.
  - 3. Requirements for the Contractor to provide quality control services required by Engineer/Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
- E. Related Sections: Following Sections contain requirements that relate to this Section:
  - Division 01 Section "Cutting and Patching" specifies requirements for repair and restoration of construction disturbed by inspection and testing activities.

#### 1.3 RESPONSIBILITIES

A. Contractor Responsibilities:

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- 1. Retesting: Contractor is responsible for retesting where results of required inspections, tests or similar services prove unsatisfactory and do not indicate compliance with Contract Document requirements, regardless of whether the original test was the Contractor's responsibility.
  - Cost of retesting construction revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original construction.
- B. Owner Responsibilities: Owner will provide inspections, tests and similar quality control services specified to be performed by independent agencies and not by the Contractor, except where they are specifically indicated as the Contractor's responsibility or are provided by another identified entity. Costs for these services are not included in the Contract Sum.
  - Owner will employ and pay for the services of an independent agency, testing laboratory or other qualified firm to perform services which are the Owner's responsibility.
- C. Coordination: Contractor and each agency engaged to perform inspections, tests and similar services shall coordinate the sequence of activities to accommodate required services with a minimum of delay. In addition Contractor and each agency shall coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.
  - 1. Contractor is responsible for scheduling times for inspections, tests, taking samples and similar activities.

#### 1.4 SUBMITTALS

- A. Testing Agency shall submit a certified written report of each inspection, test or similar service, to Engineer/Architect, in duplicate, unless Contractor is responsible for the service. If Contractor is responsible for the service, submit a certified written report of each inspection, test or similar service through the Contractor, in duplicate.
  - 1. Submit additional copies of each written report directly to the governing authority, when the authority so directs.
  - 2. Report Data: Written reports of each inspection, test or similar service shall include, but not be limited to:
    - a. Date of issue.
    - b. Project title and number.
    - c. Name, address and telephone number of testing agency.
    - d. Dates and locations of samples and tests or inspections.
    - e. Names of individuals making the inspection or test.
    - f. Designation of the Work and test method.
    - g. Identification of product and Specification Section.
    - h. Complete inspection or test data.
    - i. Test results and interpretations of test results.

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- Comments or professional opinion as to whether inspected or tested Work complies with Contract Document requirements.
- k. Name and signature of laboratory inspector.
- Recommendations on retesting.

### PART 2 - PRODUCTS (NOT APPLICABLE).

#### **PART 3 - EXECUTION**

## 3.1 REPAIR AND PROTECTION

- A. General: Upon completion of inspection, testing, sample-taking and similar services, repair damaged construction and restore substrates and finishes to eliminate deficiencies, including deficiencies in visual qualities of exposed finishes. Comply with Contract Document requirements for "Cutting and Patching."
- B. Protect construction exposed by or for quality control service activities, and protect repaired construction.
- C. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing or similar services.

#### **END OF SECTION 014500**

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## SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

#### **PART 1 - GENERAL**

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes minimum requirements for construction facilities and temporary controls, including temporary utilities, support facilities, and security and protection. The Contractor retains all responsibility for the adequacy and sufficiency of all jobsite safety precautions and programs.
- B. Support facilities include, but are not limited to, the following:
  - 1. Temporary Project identification signs and bulletin boards.
  - 2. Waste disposal services.
  - 3. Construction aids and miscellaneous services and facilities.
- C. Security and protection facilities include, but are not limited to, the following:
  - Barricades, warning signs, lights.

#### 1.3 QUALITY ASSURANCE

- A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction, including but not limited to, the following:
  - 1. Building Code requirements.
  - 2. Health and safety regulations.
  - 3. Police, Fire Department and Rescue Squad rules.
  - 4. Environmental protection regulations.
- B. Standards: Comply with NFPA Code 241, "Standard for Safeguarding Construction, Alterations, and Demolition Operations," ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition," and NECA Electrical Design Library "Temporary Electrical Facilities."
  - Electrical Service: Comply with NEMA, NECA and UL standards and regulations for temporary electric service. Install service in compliance with NFPA 70, "National Electric Code."

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C. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

#### **PART 2 - PRODUCTS**

#### 2.1 MATERIALS

- A. General: Provide new materials; if acceptable to Engineer/Architect, undamaged previously used materials in serviceable condition may be used. Provide materials suitable for use intended.
- B. Water: Provide potable water approved by local health authorities.

#### 2.2 EQUIPMENT

- A. General: Provide new equipment; if acceptable to Engineer/Architect, undamaged, previously used equipment in serviceable condition. Provide equipment suitable for use intended.
- B. Water Hoses: Provide 0.75 in. heavy-duty, abrasion-resistant, flexible rubber hoses 100 ft. long, with pressure rating greater than maximum pressure of water distribution system; provide adjustable shut-off nozzles at hose discharge.
- C. First Aid Supplies: Comply with governing regulations.
- D. Fire Extinguishers: Provide hand-carried, portable UL-rated, class "A" fire extinguishers for temporary offices and similar spaces. In other locations provide hand-carried, portable, UL-rated, class "ABC" dry chemical extinguishers, or a combination of extinguishers of NFPA recommended classes for the exposures.
  - 1. Comply with NFPA 10 and 241 for classification, extinguishing agent and size required by location and class of fire exposure.

#### **PART 3 - EXECUTION**

#### 3.1 INSTALLATION

- A. Use qualified personnel for installation of temporary facilities. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.
- B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed, or are replaced by authorized use of completed permanent facilities.
- C. All temporary facilities shall be located within work area.

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D. Installation of temporary facilities shall not block pedestrian and vehicular traffic to adjacent non-work areas.

## 3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Engage appropriate local utility company to install temporary service or connect to existing service. Where the company provides only part of the service, provide the remainder with matching, compatible materials and equipment. Comply with company recommendations.
  - 1. Arrange with company and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
  - 2. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.
  - 3. Obtain easements to bring temporary utilities to site where Owner's easements cannot be used for that purpose.
  - 4. Use Charges: Cost or use charges for temporary facilities are not chargeable to the Owner or Engineer/Architect. Neither Owner nor Engineer/Architect will accept cost or use charges as basis of claims for Change Orders.
- B. Sanitary facilities include temporary toilets, wash facilities, and drinking-water fixtures. Comply with regulations and health codes for the type, number, location, operation, and maintenance of fixtures and facilities. Install where facilities will best serve the Project's needs.
  - 1. Provide toilet tissue, paper towels, paper cups, and similar disposable materials for each facility. Provide covered waste containers for used material.
- C. Toilets: Use of the Owner's existing toilet facilities will be permitted, so long as:
  - 1. Facilities and access routes to facilities are cleaned and maintained in a condition acceptable to Owner.
  - 2. Contractor personnel do not cause, in Owner's opinion, a significant disturbance to Owner's staff during use of facilities.
  - 3. At substantial completion, or upon notice by Owner that Contractor personnel are no longer permitted to use restrooms, restore facilities and access routes to condition existing at time of initial use.
- D. Collection and Disposal of Waste: Collect waste from construction areas and elsewhere daily. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than 7 days during normal weather or 3 days when temperature is expected to rise above 80°F. Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material in lawful manner.

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## 3.3 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Barricades, Warning Signs and Lights: Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics and warning signs to inform personnel and public of hazard being protected against. Where appropriate and needed provide lighting, including flashing red or amber lights.
- B. Security Enclosure and Lockup: Install substantial temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft and similar violations of security.
  - Storage: Where materials and equipment must be stored, and are of value or attractive for theft, provide secure lockup. Enforce discipline in connection with the installation and release of material to minimize opportunity for theft and vandalism.
- C. Environmental Protection: Provide protection, operate temporary facilities and conduct construction in ways and by methods that comply with environmental regulations, and minimize possibility that air, waterways and subsoil might be contaminated or polluted, or that other undesirable effects might result. Avoid use of tools and equipment which produce harmful noise. Restrict use of noise making tools and equipment to hours that will minimize complaints from persons or firms near site.

#### **END OF SECTION 015000**

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### **SECTION 017300 - EXECUTION**

#### **PART 1 - GENERAL**

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
  - 1. General installation of products.
  - 2. Progress cleaning.
  - 3. Protection of installed construction.
  - 4. Correction of the Work.
  - 5. Construction Phasing.
  - 6. Maintaining public access through or adjacent to the Work.

#### B. Related Sections include the following:

- 1. Division 01 Section "Project Management and Coordination" for procedures for coordinating field engineering with other construction activities.
- 2. Division 01 Section "Submittal Procedures" for submitting surveys.
- Division 01 Section "Cutting and Patching" for procedural requirements for cutting and patching necessary for the installation or performance of other components of the Work.
- 4. Division 01 Section "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.
- 5. Division 02 Section "Work Items" for coordinating restoration construction activities to maintain Owner's operations during construction.

#### PART 2 - PRODUCTS (NOT APPLICABLE)

#### **PART 3 - EXECUTION**

#### 3.1 EXAMINATION

A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work,

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investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.

- B. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
  - 1. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
  - 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
  - 3. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

#### 3.2 PREPARATION

- A. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
  - 1. Notify Engineer and Owner not less than two days in advance of proposed utility interruptions.
  - 2. Do not proceed with utility interruptions without Engineer's and Owner's written permission.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

### 3.3 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
  - 1. Make vertical work plumb and make horizontal work level.
  - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.

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- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- F. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
  - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Engineer.
  - 2. Allow for building movement, including thermal expansion and contraction.
- G. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- H. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

#### 3.4 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
  - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
  - 2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F (27 deg C).
  - Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
  - Remove liquid spills promptly.
  - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not

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recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Cutting and Patching: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.
  - Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials. Restore damaged pipe covering to its original condition.
- H. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- I. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- J. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

#### 3.5 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

## 3.6 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 01 Section "Cutting and Patching."
  - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.

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- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

## **END OF SECTION 017300**

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# **SECTION 017423 - FINAL CLEANING**

# **PART 1 - GENERAL**

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 01 Specification Sections apply to this Section.

### 1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for final cleaning at Substantial Completion.
  - 1. Special cleaning requirements for specific elements of Work are included in appropriate Sections of Divisions 02 through 14, 21-27, and 31-33.
- B. General Project closeout requirements are included in Section "Closeout Procedures."
- C. General cleanup and waste removal requirements are included in Section "Temporary Facilities and Controls."
- D. Environmental Requirements: Conduct cleaning and waste disposal operations in compliance with local laws and ordinances. Comply fully with federal and local environmental and anti-pollution regulations.

### **PART 2 - PRODUCTS**

### 2.1 MATERIALS

A. Cleaning Agents: Use cleaning materials and agents recommended by the manufacturer or fabricator of surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property, or that might damage finished surfaces.

#### **PART 3 - EXECUTION**

# 3.1 FINAL CLEANING

A. General: Provide final cleaning operations when indicated. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of Work to the condition expected from commercial building cleaning and maintenance program. Comply with manufacturer's instructions.

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- Complete following cleaning operations before requesting inspection for Certification of Substantial Completion for entire Project or a portion of Project.
  - Clean Project site, yard and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste materials, litter and foreign substances. Sweep paved areas broom clean. Remove petro-chemical spills, stains and other foreign deposits. Rake grounds that are neither planted nor paved, to a smooth even-textured surface.
  - 2. Remove tools, construction equipment, machinery and surplus material from the site.
  - Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
  - 4. Broom clean concrete floors in unoccupied spaces.
  - 5. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
  - 6. Touch-up and otherwise repair and restore marred exposed finishes and surfaces. Replace finishes and surfaces that can not be satisfactorily repaired or restored, or that show evidence of repair or restoration. Do not paint over "UL" and similar labels, including mechanical and electrical name plates.
  - 7. Leave Project clean and ready for occupancy.
- C. Removal of Protection: Remove temporary protection and facilities installed during construction to protect previously completed installations during remainder of construction period.
- D. Compliances: Comply with governing regulations and safety standards for cleaning operations. Remove waste materials from the site and dispose of in a lawful manner.
  - Where extra materials of value remain after completion of associated construction have become Owner's property, dispose of these materials as directed.

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### **SECTION 017700 - CLOSEOUT PROCEDURES**

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 01 Specification Sections apply to this Section.

### 1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for project closeout, including but not limited to:
  - 1. Inspection procedures.
  - 2. Submittal of warranties.
  - 3. Final cleaning.
- B. Closeout requirements for specific construction activities are included in appropriate Sections in Divisions 02 through 14, 21-27, and 31-33.

### 1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for certification of Substantial Completion, complete following. List exceptions in request.
  - In Application for Payment that coincides with, or first follows, date Substantial Completion is claimed, show 100% completion for portion of Work claimed as substantially complete. Include supporting documentation for completion as indicated in these Contract Documents and statement showing an accounting of changes to Contract Sum.
    - a. If 100% completion cannot be shown, include list of incomplete items, value of incomplete construction, and reasons Work is not complete.
  - 2. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications and similar documents.
  - Obtain and submit releases enabling Owner unrestricted use of Work and access to services and utilities; include occupancy permits, operating certificates and similar releases.
  - 4. Complete final clean up requirements, including touch-up painting. Touch-up and otherwise repair and restore marred exposed finishes.
- B. Inspection Procedures: On receipt of request for inspection, Engineer/Architect will either proceed with inspection or advise Contractor of unfilled requirements.

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Engineer/Architect will prepare Certificate of Substantial Completion following inspection, or advise Contractor of construction that must be completed or corrected before certificate will be issued.

- 1. Engineer/Architect will repeat inspection when requested and assured that Work has been substantially completed.
- 2. Engineer/Architect will provide one repeat inspection under its contract with Owner. Subsequent inspections shall be at Contractor's expense.
- 3. Results of completed inspection will form basis of requirements for final acceptance.

#### 1.4 FINAL ACCEPTANCE

- A. Preliminary Procedures: Before requesting final inspection for certification of final acceptance and final payment, complete the following. List exceptions in request.
  - 1. Submit final payment request with releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
  - 2. Submit an updated final statement, accounting for final additional changes to Contract Sum.
  - 3. Submit certified copy of Engineer/Architect's final inspection list of items to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance, and list has been endorsed and dated by Engineer/Architect.
- B. Reinspection Procedure: Engineer/Architect will reinspect Work upon receipt of notice that Work, including inspection list items from earlier inspections, has been completed, except items whose completion has been delayed because of circumstances acceptable to Engineer/Architect.
  - 1. Engineer/Architect will provide one repeat inspection under its contract with Owner. Subsequent inspections shall be at Contractor's expense.
  - 2. Upon completion of reinspection, Engineer/Architect will prepare certificate of final acceptance, or advise Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.
  - 3. If necessary, reinspection will be repeated.

### PART 2 - PRODUCTS (NOT APPLICABLE).

# **PART 3 - EXECUTION**

#### 3.1 CLOSEOUT PROCEDURES

A. Operating and Maintenance Instructions: Arrange for each installer of equipment that requires regular maintenance to meet with Owner's personnel to provide instruction in

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proper operation and maintenance. If installers are not experienced in procedures, provide instruction by manufacturer's representatives. Include detailed review of following items:

- 1. Maintenance manuals.
- 2. Warranties and bonds.
- 3. Maintenance agreements and similar continuing commitments.

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# **SECTION 017836 - WARRANTIES**

#### **PART 1 - GENERAL**

### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for warranties required by Contract Documents, including manufacturers standard warranties on products and special warranties.
  - Refer to General Conditions for terms of Contractor's period for correction of Work.
- B. Related Sections: Following Sections contain requirements that relate to this Section:
  - 1. Division 01 Section "Submittal Procedures" specifies procedures for submitting warranties.
  - 2. Division 01 Section "Closeout Procedures" specifies contract closeout procedures.
  - 3. Divisions 02 through 14, 21-27, and 31-33 Sections for specific requirements for warranties on products and installations specified to be warranted.
  - 4. Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in Contract Documents.
- C. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of warranty on Work that incorporates products. Manufacturer's disclaimers and limitations on product warranties do not relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

#### 1.3 DEFINITIONS

- A. Standard Product Warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by manufacturer to Owner.
- B. Special warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

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### 1.4 WARRANTY REQUIREMENTS

- A. Related Damages and Losses: When correcting failed or damaged warranted construction, remove and replace construction that has been damaged as result of such failure or must be removed and replaced to provide access for correction of warranted construction.
- B. Reinstatement of Warranty: When Work covered by warranty has failed and been corrected by replacement or rebuilding, reinstate warranty by written endorsement. Reinstated warranty shall be equal to original warranty with equitable adjustment for depreciation.
- C. Replacement Cost: Upon determination that Work covered by warranty has failed replace or rebuild Work to an acceptable condition complying with requirements of Contract Documents. Contractor is responsible for cost of replacing or rebuilding defective Work regardless of whether Owner has benefited from use of Work through portion of its anticipated useful service life.
- D. Owner's Recourse: Expressed warranties made to Owner are in addition to implied warranties, and shall not limit duties, obligations, rights and remedies otherwise available under law. Expressed warranty periods shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations, rights, or remedies.
  - 1. Rejection of Warranties: Owner reserves right to reject warranties and to limit selection to products with warranties not in conflict with requirements of Contract Documents.
- E. Where Contract Documents require a special warranty, or similar commitment on Work or part of Work, Owner reserves the right to refuse to accept Work, until Contractor presents evidence that entities required to countersign such commitments are willing to do so.

### 1.5 SUBMITTALS

- A. Submit written warranties to Engineer/Architect prior to date certified for Substantial Completion. If Engineer/Architect's Certificate of Substantial Completion designates commencement date for warranties other than date of Substantial Completion for Work, or designated portion of Work, submit written warranties upon request of Engineer/Architect.
- B. When designated portion of Work is completed and occupied or used by Owner, by separate agreement with Contractor during construction period, submit properly executed warranties to Engineer/Architect within 15 days of completion of that designated portion of Work.
- C. Forms for special warranties are included at end of this Section. Prepare written document utilizing appropriate form, ready for execution by Contractor, or by

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Contractor and subcontractor, supplier or manufacturer. Submit draft to Owner through Engineer/Architect for approval prior to final execution.

- 1. Refer to Divisions 02 through 14, 21-27, and 31-33 Sections for specific content requirements and particular requirements for submittal of special warranties
- D. Form of Submittal: At Final Completion compile 2 copies of each required warranty properly executed by Contractor, or by Contractor, subcontractor, supplier, or manufacturer. Organize warranty documents into an orderly sequence based on table of contents of Project Manual.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

**END OF SECTION 017836** 

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### SECTION 020010 - WORK ITEMS

### PART 1 - GENERAL

### **RELATED DOCUMENTS**

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections apply to this Section.

# PART 2 - PRODUCTS (NOT APPLICABLE)

### PART 3 - EXECUTION

#### WI 1.0 GENERAL REQUIREMENTS

## A. Scope of Work

Work consists of performing all tasks, specifically required and incidental, which
are not identified under separate Work Item designation, but necessary to
perform the work identified in this project. This work includes, but is not limited
to the following items:

WI 1.1 – General Requirements

WI 1.1.2 - Concrete Formwork

WI 1.1.3 - Concrete Shores and Reshores

WI 1.1.4 - Concrete Reinforcement

WI 1.1.5 - Temporary Signage

### WI 1.1 GENERAL REQUIREMENTS

## A. Scope of Work

 Work consists of coordinating, scheduling, obtaining and assembling at construction site all equipment, materials, permits, supplies, manpower and other essentials and incidentals necessary to perform Work defined in this Contract. Payment of lump sum amount for mobilization shall be according to following schedule and shall be based on percentage of original contract amount earned.

#### B. Materials

1. None

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#### C. Execution

- 1. At execution of agreement by all parties, payment of not more than 25% of mobilization lump sum amount.
- 2. When amount earned is greater than 10% but less than 25% of original contract amount, an additional amount will be paid to bring total payment for mobilization to 50% of mobilization lump sum amount.
- 3. When amount earned is equal to or greater than 25% but less than 50% of original contract amount, an additional amount will be paid to bring total payment for mobilization to 75% of mobilization lump sum amount.
- 4. When amount earned is equal to or greater than 50% of original contract amount, an additional amount will be paid to bring total payment for mobilization to 100% of mobilization lump sum amount.

### WI 1.1.2 CONCRETE FORMWORK

### A. Scope of Work

 Work consists of furnishing all labor, materials, equipment, supervision, and incidentals necessary to install shoring and formwork as required for cast-inplace concrete.

#### B. Materials

- Forms for Exposed Finish Concrete: Plywood, metal, metal-framed plywood faced, or other acceptable panel-type materials, to provide continuous, straight, smooth, exposed surfaces. Furnish in largest practicable sizes to minimize number of joints and to conform to joint system shown on Drawings.
  - use overlaid plywood complying with U.S. Product Standard PS-1 "A-C or B-B High Density Overlaid Concrete Form," Class I
  - b. Use plywood complying with U.S. Product Standard PS-1 "B-B (Concrete Form) Plywood," Class I, Exterior Grade or better, mill-oiled and edge-sealed, with each piece bearing legible inspection trademark.
- Forms for Unexposed Finish Concrete: Plywood, lumber, metal, or other acceptable material. Provide lumber dressed on at least 2 edges and one side for tight fit.
- Form Coatings: Provide commercial formulation form-coating compounds with a
  maximum VOC of 350 mg/l that will not bond with, stain, or adversely affect
  concrete surfaces and will not impair subsequent treatments of concrete
  surfaces, including but not limited to water-curing, curing compound, stains, or
  paints.
- 4. Form Ties: Factory-fabricated, adjustable-length, removable or snap-off metal form ties, designed to prevent form deflection and to prevent spalling concrete upon removal. Provide units that will leave no metal closer than 1.5 in. to exposed surface.

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a. Provide ties that, when removed, will leave holes not larger than 1.0 in. diameter in concrete surface.

### 5. Shores:

- a. Nail Ellis clamps, if used with wood shores, to shores with minimum of two nails to prevent slipping.
- b. Wedges: Hardwood or steel. Softwood wedges prohibited.

- Work shall conform to requirements of ACI 301 "Standard Specifications for Structural Concrete," ACI 302.1 R "Guide for Concrete Floor Slab Construction," ACI 318 "Building Code Requirements for Reinforced Concrete," and ACI 347 "Recommended Practice for Concrete Formwork" except as modified by the following paragraphs.
- 2. Store all formwork and formwork materials clear of ground, protected, so as to preclude damage.
- 3. Construct forms to sizes, shapes, lines, and dimensions shown and to obtain accurate alignment, location, grades, level, and plumb work in finished structures. Provide for openings, offsets, sinkages, keyways, recesses, moldings, rustications, reglets, chamfers, blocking, screeds, bulkheads, anchorages and inserts, and other features required in work. Use selected materials to obtain required finishes. Solidly butt joints and provide backup at joints to prevent leakage of cement paste.
- 4. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush plates or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces where slope is too steep to place concrete with bottom forms only. Kerf wood inserts for forming keyways, reglets, recesses, and the like, for easy removal.
- 5. Provide temporary openings where interior area of formwork is inaccessible for cleanout, for inspection before concrete placement, and for placement of concrete. Securely brace temporary openings and set tightly to forms to prevent loss of concrete mortar. Locate temporary openings in forms at inconspicuous locations.
- 6. Chamfer exposed corners and edges as indicated, using wood, metal, PVC, or rubber chamfer strips fabricated to produce uniform smooth lines and tight edge joints.
- 7. Provisions for Other Trades: Provide openings in concrete formwork to accommodate work of other trades. Determine size and location of openings, recesses, and chases from trades providing such items. Accurately place and securely support items built into forms.
- 8. Cleaning and Tightening: Thoroughly clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, or other debris just before concrete is placed. Retighten forms and bracing before concrete placement as required to prevent mortar leaks and maintain proper alignment.
- 9. Set edge forms or bulkheads and intermediate screed strips for slabs to obtain required elevations and contours in finished slab surface. Provide and secure

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- units sufficiently strong to support types of screed strips by use of strike-off templates or accepted compacting type screeds
- 10. Coat contact surfaces of forms with accepted, nonresidual, low-VOC form-coating compound before reinforcement is placed.
- 11. Coat steel forms with non-staining, rust-preventive form oil or otherwise protect against rusting. Rust-stained steel formwork not acceptable.
- 12. For post-tensioned concrete, formwork shall remain in place until post-tensioning has been completed. Do not place additional loads on structure until concrete has been properly reshored.
- 13. For non-post-tensioned concrete, formwork shall remain in place until concrete has reached minimum two-thirds of 28-day strength. Do not place additional loads on structure until concrete has been properly reshored.
- 14. Clean and repair surfaces of forms to be re-used in Work. Split, frayed, delaminated or otherwise damaged form facing material will not be acceptable for exposed surfaces. Apply new form coating compound as specified for new formwork.
- 15. When forms are extended for successive concrete placement, thoroughly clean surfaces, remove fins and laitance, and tighten forms to close joints. Align and secure joint to avoid offsets. Do not use "patched" forms for exposed concrete surfaces, except as acceptable to Engineer/Architect.

### WI 1.1.3 CONCRETE SHORES AND RESHORES

#### A. Scope of Work

 Work consists of furnishing all labor, materials, equipment, supervision, and incidentals necessary to install temporary floor slab shoring and to maintain shores in place until restoration Work requiring shores and associated concrete has properly cured.

### B. Materials

 Shores shall be steel, rated at a minimum allowable load of 4,500 pounds at 12 ft extension or steel shoring towers rated at a minimum allowable load of 40,000 pounds per four leg tower.

- 1. Comply with ACI 301 and ACI 347 for shoring and reshoring in multi-story construction, except as modified in this Section.
- 2. For purpose of calculations: Construction load = 50 psf; dead load = 85 psf for the floor plus the dead load of the beams and girders.
- 3. Shore/Reshore loads on the structure shall not exceed 40 psf distributed load on the slab and concentrated loads shall not exceed posted wheel loads or 2,000 lbs., whichever is less. Concentrated contract bearing pressures on concrete shall not exceed 1,500 psi.

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- Shore/Reshore loads on concrete slab-on-grade shall be distributed by steel grillage or timber grillage so as not to exceed soil bearing capacity or 1,500 psf, whichever is smaller.
- Shore/Reshore loads on asphalt slab-on-grade shall be distributed by steel grillage or timber grillage so as not to exceed asphalt/soil bearing capacity, with consideration of the reduced asphalt bearing capacity during extreme hot weather.
- 6. Shore/Reshore loads shall be distributed horizontally and/or distributed to more than one level to meet shore/reshore load limitations.
- 7. Shore/Reshore loads shall be distributed to multiple framing members (beams/joists/double tee stems) and extend beyond the immediate work area to ensure proper distribution of loads throughout the structure.
- 8. Whenever temporary shoring is required, the contractor shall hire an Illinois Licensed Structural Engineer to design all required shoring and bracing to complete the repairs. The contractor's structural engineer shall determine all areas where shoring is required. The contractor's structural engineer shall prepare signed and sealed shoring and bracing scheme drawings for all areas requiring shoring and bracing.
- 9. Walker Restoration Consultants will review shoring scheme for general conformance to requirements stated herein. If it does not conform, Contractor will be informed to resubmit another shoring scheme. See requirements of Division 1 Section, "Submittal Procedures," Part 1 heading, "Submittal Procedures," for limits to resubmittals.
- Remove shores and reshore in planned sequence to avoid damage to partially cured concrete. Locate and provide adequate reshoring to safely support Work without excessive stress or deflection.
- 11. Keep reshores in place as required until heavy loads due to construction operations have been removed.
- 12. If during construction, modifications are necessary to accommodate other trades, revise and resubmit erection plan to Engineer/Architect for review.

### WI 1.1.4 CONCRETE REINFORCEMENT

### A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision, and incidentals necessary to fabricate and install all mild steel reinforcement and epoxy coated reinforcement.

### B. Materials

- 1. Reinforcement materials shall be as specified in ACI 301 "Standard Specifications for Structural Concrete."
- 2. Welded wire reinforcement: provide mats only. Roll stock prohibited.
- 3. Epoxy Coating Materials for Reinforcement: ASTM A775 and A884:
- 4. Supplier shall be certified currently under CRSI Fusion Bonded Epoxy Coating Applicator Plant Certification Program.

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- 5. Provide one of following epoxy coatings for reinforcement and steel accessories as noted on Drawings:
  - a. "Scotchkote 413," 3M Company.
  - b. "Nap-Gard 7-2709," DuPont Powder Coatings, USA, Inc.
  - c. "Epoxiplate R346 or R349," Armstrong Products Company.
- 6. Use patching material recommended by epoxy powder manufacturer, compatible with epoxy coating and inert in concrete. Acceptable:
  - a. "Scotchkote 413 PC," 3M Company.
  - b. "Armatec 110," Sika Corporation.
  - c. "MasterEmaco P22," Master Builders Solutions.
  - d. "Corr Bond," The Euclid Chemical Company.
- 7. Epoxy Coating for Existing Exposed Non-prestressed Steel Reinforcement or Welded wire reinforcement:
  - a. "Sikadur 32 Hi-Mod," Sika Chemical Corp., Lyndhurst, NJ.
  - b. "MasterSeal Concressive Liquid LPL," Master Builders Solutions, Shakopee, MN.
  - c. "Scothkote 413 PC," 3M Company.
  - d. "Armatec 110," Sika Corporation.
  - e. "Euco 452," The Euclid Chemical Company, Cleveland, OH.
  - f. "Resi-Bond (J-58)," Dayton Superior Corporation, OH.

- Work shall conform to requirements of ACI 301 "Standard Specifications for Structural Concrete," ACI 315-80 "Details and Detailing of Concrete Reinforcement," ACI 318 "Building Code Requirements for Reinforced Concrete," and Concrete Reinforcing Steel Institute (CRSI), "Manual of Standard Practice."
- Submittals required include: Product data for proprietary materials and items, including reinforcement and forming accessories, admixtures, patching compounds, waterstops, joint systems, curing compounds, and others as requested by Engineer/Architect including, but not limited to:
  - a. Manufacturer's product data and installation instructions for proprietary form coatings, manufactured form systems, ties, and accessories.
  - b. Steel producer's certificates of mill analysis, tensile tests, and bend tests.
  - c. Manufacturer's product data, specifications, and installation instructions for proprietary materials, welded and mechanical splices, and reinforcement accessories.
  - d. Epoxy Coating for Reinforcement:
    - Written certification from coating manufacturer that coating resin for reinforcement has been approved by National Bureau of Standards.

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- 2) Written information from coating manufacturer on proper use and application of coating resin.
- Coating applicator's written certification of results of quality control program.
- e. Submit all materials and methods for concrete curing to Engineer/Architect for approval before beginning concreting Work. Include certification of curing compound allowable moisture loss.
- 3. Store concrete reinforcement materials at site to prevent damage and accumulation of dirt or excessive rust.
- 4. Epoxy Coated Reinforcement:
  - a. Contact areas of handling and hoisting systems shall be padded or be made of nylon or other acceptable material.
  - b. Use spreader bars to lift bundles of coated steel to prevent bar-to-bar abrasion.
  - c. Pad bundling bands or fabricate of nylon or other acceptable material.
  - d. Store coated steel on padded or wooden cribbing.
  - e. Do not drag coated steel members.
  - f. After placement, restrict traffic on coated steel to prevent damage.
- 5. Reinforcement with any of following defects will be rejected:
  - a. Lengths, depths and bends exceeding CRSI fabrication tolerances.
  - b. Bends or kinks not indicated on Drawings or final Shop Drawings.
  - c. Reduced cross-section due to excessive rusting or other cause.
- 6. General: Comply with Concrete Reinforcing Steel Institute's recommended practice for "Placing Reinforcing Bars," for details and methods of reinforcement placement and supports and as herein specified.
  - a. Avoiding cutting or puncturing vapor retarder during reinforcement placement and concreting operations.
  - b. Examine conditions under which concrete reinforcement is to be placed, and immediately notify Engineer/Architect in writing of unsatisfactory conditions. Do not proceed with Work until unsatisfactory conditions have been corrected in acceptable manner.
  - c. Clean reinforcement of loose rust and mill scale, earth, ice, and other materials that reduce or destroy bond with concrete.
  - d. Fabricate reinforcement to conform to required shapes and dimensions, with fabrication tolerances complying with CRSI MSP. In case of fabricating errors, do not re-bend or straighten reinforcement in manner that will injure or weaken material.
  - e. Bends in reinforcement are standard 90° bends unless noted otherwise.
  - f. Reinforcement with any of following defects will be rejected:
    - 1) Lengths, depths and bends exceeding CRSI fabrication tolerances.
    - 2) Bends or kinks not indicated on Drawings or final Shop Drawings.

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- 3) Reduced cross-section due to excessive rusting or other cause.
- g. Perform all welding of mild steel reinforcement, metal inserts and connections with low hydrogen welding electrodes in accordance with AWS D1.4.
- h. Epoxy coated reinforcement: Fabricator and applicator to provide installer with written instructions to handle, store and place epoxy coated reinforcement to prevent damage to coating.
- i. Comply with ACI 301, Chapter 3 for placing reinforcement.
- j. Use rebar chairs and accessories to hold all reinforcing positively in place. Provide rebar chairs at all formed surfaces, both vertical and horizontal, to maintain minimum specified cover. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces. Maximum spacing of chairs and accessories shall be per CRSI Manual of Standard Practice. In situations not covered by CRSI, provide support at 4 ft on center maximum each way.
- k. Install welded wire reinforcement in as long lengths as practicable. Lap adjoining pieces at least one full mesh and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.
- I. Splices:
  - 1) Provide standard reinforcement splices by lapping ends, placing bars in contact, and tying tightly with wire. Comply with requirements of ACI 318 for minimum lap of spliced bars.
  - 2) For mechanical tension splices of reinforcement:
    - a) Column bar lengths shall not exceed 30 ft between splices. In any bar, no splices shall occur at any floor level.
    - b) Exercise care to assure that no reduction of cross-sectional area of reinforcement occurs.
    - c) Use Barsplice Products, Inc., Bar-Grip or Grip-Twist, NMB Splice Sleeve, or Erico LENTON splices.
    - d) For all mechanical splices, perform splicing in strict accordance with manufacturer's requirements and instructions.
    - e) All splices to develop 125% of specified yield strength of bars, or of smaller bar in transition splices.
    - f) Stagger splices in adjacent bars.
    - g) Except where shown on Drawings, welding of reinforcement prohibited without prior written authorization by Engineer/Architect.
  - 3) Compression splices: Mechanically coupled splices in accordance with ACI 318, Chapter 12.
- m. Epoxy Coated Reinforcement:
  - Rest epoxy coated steel members supported from formwork on coated wire bar supports, or on bar supports made of dielectric material or other suitable material.

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- Coat wire bar supports with dielectric material for minimum distance of 2 in. from point of contact with coated steel member.
- Fasten epoxy-coated steel members with nylon-, epoxy-, or plasticcoated tie wire, or other suitable material acceptable to Engineer/Architect.
- Mechanical connections, when required, shall be installed in accordance with splice device manufacturer's recommendations. Repair any damage to coating.
- 5) All parts of mechanical connections on epoxy-coated steel, including steel splice sleeves, bolts, and nuts shall be coated with same material used for repair of coating damage.
- 6) Do not cut epoxy-coated steel unless permitted by Engineer/Architect. When cut, coat ends with material used for repair of coating damage.
- 7) All welding of epoxy-coated steel shall conform to AWS D1.4.
- 8) Adequate ventilation shall be provided when welding epoxy-coated steel.
- 9) After welding, repair coating damage as specified in Part 3 heading "Quality Control Testing During Construction," paragraph "Epoxy Coated Material."

# WI 1.1.5 TEMPORARY SIGNAGE

# A. Scope of Work

 Work consists of furnishing all labor, materials, equipment and supervision necessary to provide and install and remove following completion of project, temporary signage as required for traffic control and user information during construction and as required by Owner/Engineer/Architect.

#### B. Materials

- 1. Temporary signage shall meet following minimum requirements:
  - a. Minimum size: 2' x 4'
  - b. Backing material: 0.5 in. medium density overlay plywood.
  - c. Colors:
    - 1) Background: medium orange or white.
    - 2) Symbols/Lettering: black
  - d. Lettering: silk screened or die-cut.
    - 1) Font Style: Helvetica or similar.
    - 2) Size: 2 in. high minimum for pedestrian information; 4 in. high minimum for traffic information.

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- 1. Mounting height: 5 ft. to bottom of sign. Provide mounting brackets as required.
- 2. Contractor shall submit shop drawings detailing sign size, layout, colors, and mounting schemes for approval prior to fabricating signs and mounting brackets.
- 3. Typical regulatory signs (that is, STOP, YIELD, etc.) and "Handicap" signs shall conform to all Federal, state, and local requirements for sizes, materials, and colors.

### WI 7.0 CONCRETE WALL REPAIR

### A. Scope of Work

 Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to locate existing spalls, locate and remove delaminated and unsound concrete, prepare cavities and place patching materials to restore concrete walls to original condition and appearance. Refer to Detail Series 7.0 for specific requirements.

### B. Materials

 Trowel applied patching material shall be as specified in Section "Trowel Applied Mortar." This material may be used for shallow removal and repair Work Item only.

- Contractor shall locate and mark all Work areas as specified in Section "Surface Preparation for Patching," Article "Inspection."
- 2. Procedure for delaminated, spalled and unsound concrete removal shall be as specified in Section "Surface Preparation for Patching," Article "Preparation."
- 3. Engineer/Architect shall inspect all cavities for condition according to Section "Surface Preparation for Patching," Article "Inspection of Repair Preparation."
- 4. All steel exposed within cavities shall be cleaned to bare metal by sandblasting according to Section "Surface Preparation for Patching," Article "Cleaning of Reinforcement within Delamination and Spall Cavities," and damaged and defective reinforcement replaced as specified in Section "Surface Preparation for Patching," Article "Reinforcement and Embedded Materials in Repair Areas." Exposed steel shall be coated with an approved corrosion inhibitor coating as specified in Section "Cast-in-Place Concrete."
- Contractor shall prepare cavities for patch placement as specified in Section "Surface Preparation for Patching," Article "Preparation of Cavity for Patch Placement."
- 6. Patch materials and associated reference specifications are listed in Work Item "Concrete Wall Repair," Article "Materials," above. Patch installation procedures shall be in accordance with referenced specifications for selected material.
- 7. Contractor shall take care to protect adjacent areas from overspray if "Shotcrete" is used. Area adjacent to repair shall be cleaned to Owner's satisfaction prior to leaving site.

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# WI 7.5 WALL FAÇADE PANEL REPAIR

A. Refer to Work Item "Concrete Wall Repair" for scope of Work, materials and procedure associated with this Work Item. Refer to Detail 7.5 for specific requirements.

### WI 10.0 EXPANSION JOINT REPAIR AND REPLACEMENT

### A. Scope of Work

 Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to remove existing expansion joints, prepare adjacent concrete and furnish and install new expansion joint system. Refer to Detail Series 10.0 for specific requirements.

### B. Materials

- Expansion joint system materials shall be as specified in Section "Expansion Joint Assemblies," installed in strict accordance with manufacturer's recommendations.
- 2. Cast-in-place concrete repair materials shall be as specified in Section "Cast-in-Place Concrete", "Cast-in-Place Concrete Restoration", "Cast-in-Place Repair Mortar", and/or Section "Latex Modified Concrete and Mortar."
- 3. Trowel applied patching material shall be as specified in Section "Trowel Applied Mortar." This material may be used for shallow removal and repair Work Items only.

### C. Execution

- 1. Contractor shall remove existing expansion materials in manner that minimizes damage to adjacent concrete.
- 2. Alterations to existing expansion joint blockout required for installation of new expansion joint system shall be performed in accordance with Work Item Series "Expansion Joint Preparation."
- 3. Joint installation procedures shall be in accordance with referenced specifications and manufacturer's recommendations.
- 4. In-place testing: Prior to opening to traffic, test joint seal for leaks with 2 in. water depth maintained continuously for 12 hrs. Repair leaks revealed by examination of seal underside. Repeat test and repairs until all leaks stopped for full 12 hrs.

### WI 10.6 EXPANSION JOINT - SILICONE SEAL

A. Refer to Work Item "Expansion Joint Repair and Replacement" for scope of Work, materials and procedure associated with this Work Item. Refer to Detail 10.6 for specific requirements.

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### WI 10.6.1 EXPANSION JOINT - SILICONE SEAL W/FLASHING

A. Refer to Work Item "Expansion Joint Repair and Replacement" for scope of Work, materials and procedure associated with this Work Item. Refer to Detail 10.6.1 for specific requirements.

#### WI 11.0 CRACK AND JOINT REPAIR

### WI 11.1 SEAL RANDOM CRACKS

### A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to locate, prepare and seal random cracks in concrete floor. Refer to Detail 11.1 for specific requirements.

#### B. Materials

 Approved materials for use in this Work are specified in Section "Joint Sealants."

- 1. Contractor shall thoroughly clean and inspect concrete slabs and/or topping for cracks and unsealed construction joints. Those identified as either greater than 0.03 in. wide or showing evidence of water and/or salt staining on ceiling below shall be sealed. All cracks and joints identified for repair shall be marked with chalk to aid in precision routing. Obtain depths to top reinforcing bars and P-T tendons in area of repair by use of a pachometer. Determine depth of electrical conduit (metal or plastic). Do not exceed this depth of routing where the crack to be repaired crosses the embedded items. Damage to embedded items will require repair or replacement at no cost to the Owner.
- Cracks shall be ground or sawcut to an adequate width and depth as required by Work Item Detail. Routing shall be performed by mechanized device that has positive mechanical control over depth and alignment of cut. Hand held power grinders with abrasive disks shall not be used on control/construction joints, but may be used on random cracks.
- Cavities shall be thoroughly cleaned by either sandblasting or grinding to remove all laitance, unsound concrete and curing compounds which may interfere with adhesion. Groove shall be air blasted to remove remaining debris.
- 4. Sealant materials and associated reference specifications are listed in Work Item "Random Floor Cracks," Article "Materials," above. Sealant installation procedures shall be in accordance with referenced specifications for selected material.
- Traffic topping manufacturer shall specify joint sealant type compatible with traffic topping. Crack and joint sealant work shall be incidental to traffic topping system.

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#### WI 11.2 CONTROL JOINT SEALANT

# A. Scope of Work

 Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to locate and mark failed joint sealant, remove existing sealant, prepare edges and reseal control joints. Refer to Detail 11.2 for specific requirements.

#### B. Materials

1. Approved materials for use in this Work are specified in Section "Concrete Joint Sealant."

#### C. Execution

- 1. Contractor shall locate failed joint sealant by visual inspection.
- 2. Contractor shall remove existing sealant from joints.
- When existing joint dimensions do not conform to Detail 11.2, joints shall be routed or sawcut to an adequate width and depth as required by Work Item Detail. Routing shall be performed by mechanized device that has positive mechanical control over depth and alignment of cut.
- 4. Cavities shall be thoroughly cleaned by either sandblasting or grinding to remove all remaining sealant and unsound concrete which may interfere with adhesion. Groove shall also be air blasted to remove remaining debris.
- 5. Sealant materials and associated reference specifications are listed in Work Item "Control Joint Sealant," Article "Materials," above. Sealant installation procedures shall be in accordance with referenced specifications for selected material.
- 6. Traffic topping manufacturer shall specify joint sealant type compatible with traffic topping. Control joint sealant work shall be incidental to traffic topping system.

#### WI 11.3 VERTICAL JOINT SEALANT

### A. Scope of Work

 Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to locate and mark failed vertical joint sealant, remove existing sealant, prepare edges and reseal vertical joints. Refer to Detail 11.3 for specific requirements.

### B. Materials

- Approved materials for use in this Work are specified in Section "Concrete Joint Sealants"
- 2. Materials used shall be as specified in Section "Architectural Joint Sealants."

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### C. Execution

- 1. Contractor shall locate failed crack/joint sealant by visual inspection.
- 2. Contractor shall remove existing sealant from joints and/or cracks.
- 3. When existing joint dimensions do not conform to Detail 11.3, joints shall be routed or sawcut to an adequate width and depth to match Work Item Detail. Routing shall be performed by mechanized device that has positive mechanical control over depth and alignment of cut.
- 4. Cavities shall be thoroughly cleaned by either sandblasting or grinding to remove all remaining sealant and unsound concrete which may interfere with adhesion. Groove shall also be air blasted to remove remaining debris.
- 5. Sealant materials and installation procedures shall be in accordance with referenced specifications for selected material.
- 6. If traffic topping will contact vertical joint sealant, traffic topping manufacturer shall verify in writing that joint sealant is compatible with traffic topping.

#### WI 11.5 EPOXY INJECTION

# A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to locate cracks, prepare and pressure inject cracks with an epoxy resin so as to create waterproof barrier and/or structural repair as indicated in the Drawings. Refer to Detail 11.5 for specific requirements.

### B. Materials

1. Epoxy injection materials shall be as specified in Section "Epoxy Injection Systems."

# C. Execution

- 1. Epoxy injection work and materials shall be performed in accordance with Section "Epoxy Injection Systems."
- 2. Contractor is responsible for location of all locations requiring epoxy injection prior to start of Work.
- 3. Contractor shall allow for Engineer/Architect inspection of all epoxy injection sites for condition as specified.
- 4. No payment will be allowed for Work executed without Engineer/Architect inspection and verification.
- 5. Remove and patch all ports, holes, temporary seal materials to match existing conditions. This is considered incidental to the Work.
- 6. Clean and paint the repair area limited to the disturbed surfaces to match existing surfaces.

### WI 11.7 COVE SEALANT

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### A. Scope of Work

 Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to prepare concrete surfaces and install cove sealant between floor and vertical surfaces as shown on Drawings. Refer to Detail 11.7 for specific requirements.

#### B. Materials

- 1. Joint sealant materials shall be as specified in Section "Waterproofing System."
- 2. Joint sealant material shall be compatible with traffic topping materials specified in Section "Waterproofing System."

### C. Execution

- Wall-floor intersection to be sealed shall be thoroughly cleaned by sandblasting to remove all contaminants and foreign material.
- 2. Entire Work area shall then be cleaned with compressed air to assure that all loose particles have been removed and that intersection is dry.
- 3. Properly prepared intersection shall be coated evenly and completely with joint primer material on each of intersecting faces in accordance with sealant manufacturer's recommendations.
- 4. After primer has cured, apply cove sealant to intersection such that sealant extends 0.75 in. onto each of intersecting faces.
- 5. Work cove sealant into joint so that all air is removed and tool to concave shape such that minimum throat dimension of no less than 0.5 in. is maintained.
- 6. Remove excess sealant and allow to cure.
- 7. Apply coating on horizontal and vertical surfaces where shown on Drawings in even layers in strict accordance with manufacturer's recommendations. Sealant material and associated reference specifications are listed in Work Item "Cove Sealant," Article "Materials," above for traffic topping coating materials and installation requirements.

# WI 25.0 MECHANICAL - DRAINAGE

#### WI 25.7 RE-CORK FLOOR DRAINS

### A. Scope of Work

 Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to re-cork the existing pipe joints and drain head to prevent water from leaking outside the floor drain and around drainage pipe.

### B. Materials

- 1. Approved materials for all joints shall be pvc glued, urethane or silicone sealant.
- C. Execution

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- 1. Contractor shall locate and mark all areas where piping is leaking.
- 2. Contractor shall remove and replace the existing pipe joints.
- 3. Pipes joints shall be water tested during the prenence of the owner or engineer in insure joints are water tight..
- 4. Contractor shall provide all necessary hoses and water for test.

### WI 26.0 MECHANICAL – FIRE PROTECTION

### WI 26.2 SPRINKLER SYSTEM REPLACEMENT

### A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to remove the existing sprinkler system and replace with all new piping, sprinkler heads, pipe hangers, supports, valves, pressure switches and all other materials to replace the existing system in kind.

#### B. Materials

- 1. All new piping materials shall be as equal or better than the existing system and meet or exceed NFPA requirements. No exceptions.
- 2. Piping be be black steel with black cast/malleable iron joints.
- 3. Line piping shall be schedule 40 standard wall.
- 4. Cross main piping, bulk main piping and riser piping shall be schedule 10 thin wall.
- 5. Hangars shall be installed as required by NFPA for supporting sprinkler piping.

### C. Excution

- Contractor shall make a record drawing of the existing sprinkler system before it is removed.
- 2. After removal, replace all piping, heads, supports, hangars and pressure switches as indicated on detail.
- 3. System shall be tested by the Village Fire Department prior to acceptance.
- 4. System shall be painted to match remaining existing sprinkler system.

#### WI 35.0 BRICK / MASONRY REPAIRS

#### WI 35.1 TUCKPOINTING

#### A. Scope of Work

 Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to tuckpoint defective, cracked, broken or eroded joints in

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existing brick work, and side vertical joints and top masonry joint where new brick abuts existing. Refer to detail 35.1 for specific requirements.

# B. Materials

- 1. Portland Cement: ASTM C 150, Type I or II.
- 2. Quickline: ASTM C5; pulverized lime.
- 3. Hydrated Lime: ASTM C 207, Type N.
- 4. Aggregate for Mortar: ASTM C 144; except for joints less than 0.25 in., use aggregate graded with 100% passing the No. 16 sieve.
- 5. Water: Portable
- 6. Mortar shall match existing color.

#### C. Execution

- 1. Contractor shall locate and mark all Work areas. Engineer/Architect shall verify locations prior to start of Work.
- 2. All defective joints which are cracked, broken, or eroded to depth of 0.5 in. or more, and all vertical side joints and top masonry joints where new brick abuts existing shall be tuckpointed.
- Joints to be tuckpointed shall be cut back to depth of 0.75 in., or to full depth of
  deterioration. Use mechanically operated blades only to perform cutting. Joint at
  back of cut shall have square shoulder. Remove all mortar from upper and
  lower surfaces and sides of mortar joint being prepared.
- 4. Contractor shall flush all mortar joints thoroughly with clean water under pressure prior to tuckpointing to remove all dust, dirt, and laitance. Brick shall be damp and free of excess water before tuckpointing commences. Take all necessary precautions to prevent water from entering cavity space during cleaning operations.
- 5. Tuckpointing shall be performed using Type N mortar in accordance with Section "Clay Masonry Restoration" unless otherwise directed by Engineer. Match existing mortar color. Mortar shall be dry and mixed thoroughly prior to adding water. Add one-half required mixing water and allow to stand 1 hour, then add balance of mixing water.
- 6. Press mortar into prepared joint using pointing tool 0.125 in. smaller than width of joint until joint is packed full. Finish point joint with pointing tool at least 0.125 in. wider than prepared joint.
- 7. Prior to initial set of mortar, tool joints to match existing.
- 8. Allow 3 to 7 days for mortar to harden prior to cleaning of brick wall.
- 9. Dispose of all accumulated material and leave premises in clean condition.
- 10. Masonry surfaces that become dirty or smeared during joint cutting and repointing of joint surfaces shall be cleaned with bristle brushes and plain water
- 11. Unnecessary damage to surrounding brick shall be repaired by Contractor at no cost to Owner.

### WI 37.0 DOORS, FRAMES AND HARDWARE

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#### WI 37.1 DOOR & FRAME REPLACEMENT

# A. Scope of Work

 Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to remove the existing deteriorated door and frame and replace with a new hollow metal doors, frame, hinges, kick plates and door handle lockset.

### B. Materials

- New door and frames shall be manufactured by Ceco Door, Custom Metal Products, Gensteel Doors, Hollow Metal Inc., Mesker Doors or engineer approved equilvant. Doors and frames shall be NAAMM-HMMA 860, 1-3/4" thick. All metal shall be 0.053 inch thick.
- 7. Butt hinges shall be zinc plated with stainless steel mortise lockset latch sets with surface mounted closers. Keying shall match existing locks.

#### C. Excution

- a. Contractor shall locate and mark all areas where doors are to be removed and replaced.
- b. Contractor shall verify directional swing of all doors.
- c. Colors of all door & frame shall match existing exit doors and frames or upon owner selection.
- d. Contractor shall submit shop drawings to Engineer for approval before ordering doors and frames.
- e. Doors and frames shall be installed in accordance with manufacture requirements.
- f. Contractor shall have <u>approved shop drawings</u> from the Engineer before ordering doors and frames.
- g. Doors and frames shall be factory prime painted. A final painting shall be done after the doors and frame have be installed.

#### WI 37.1 DOOR & FRAME REPLACEMENT - ALTERNATE NO.1

### A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to remove the existing deteriorated door and frame and replace with a new fiberglass reinforced door and frame.

#### B. Materials

1. New door and frames shall be manufactured by "Chem-Pruf Fire Rated FRP Doors" of Brownsville, Texas, 78523; 1-800-444-6924. No exceptions.

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2. Doors to include stainless steel continous hindges, door bottoms and knobs and latch sets, closers, and kick plate.

### C. Excution

- Contractor shall locate and mark all areas where doors are to be removed and replaced.
- b. Contractor shall verify directional swing of all doors.
- c. Colors of all door & frame shall match existing exit doors and frames or upon owner selection.
- d. Contractor shall submit shop drawings to Engineer for approval before ordering doors and frames.
- e. Doors and frames shall be installed in accordance with manufacture requirements.
- f. Contractor shall have <u>approved shop drawings</u> from the Engineer before ordering doors and frames.

### WI 37.5 DOOR THRESHOLD WATERPROOFING

# A. Scope of Work

 Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to remove existing door threshold, install sealant material underneath them, re-install threshold with new anchors and remove the door sweeps and install new door sweeps to the doors. Refer to Detail 37.5 for specific requirements.

### B. Materials

1. Approved materials for use in this Work are specified in Section "Architectural Joint Sealant."

- 1. Contractor shall locate the door threshold that will be waterproofed.
- 2. Contractor shall remove existing threshold from under door.
- Surfaces shall be thoroughly cleaned by either sandblasting or grinding to remove any sealant, debris and unsound concrete which may interfere with adhesion of new sealant.
- 4. Threhold shall than reinstalled with new anchors and provide a sealant bead around the perimeter of the threshold.
- Sealant materials and associated reference specifications are listed in Work Item "Door Threshold Waterproofing," Article "Materials," above. Sealant installation procedures shall be in accordance with referenced specifications for selected material.
- 6. Existing door sweeps shall then be removed and replaced with new sweeps. New sweeps shall match the existing style and shape of the original sweeps.

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### WI 40.0 CONNECTIONS / BEARINGS

### WI 40.6 PANEL SUPPORTS

# A. Scope of Work

 Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to install panel support connections on the precast façade panel as indicated on the Drawings. Refer to Detail 40.6 for specific requirements.

#### B. Materials

- 1. Angles shall be galvanized ASTM A36 steel or Grade 304 stainless steel.
- 2. Anchor bolts, washers and all hardware shall be the same type and finish of steel angles above.
- 3. Anchoring system shall be as shown on the referenced detail.

#### C. Execution

- 1. Contractor shall locate and layout Work areas and verify location with Engineer/Architect.
- 2. Contractor shall provide and install panel support connections as indicated on the Drawings and Detail 40.6.

### WI 40.7 COLUMN COVER SUPPORTS

### A. Scope of Work

 Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to install panel support connections on the precast façade column covere as indicated on the Drawings. Refer to Detail 40.7 for specific requirements.

#### B. Materials

- 1. Angles shall be galvanized ASTM A36 steel or Grade 304 stainless steel.
- 2. Anchor bolts, washers and all hardware shall be the same type and finish of steel angles above.
- Anchoring system shall be as shown on the referenced detail.

- 1. Contractor shall locate and layout Work areas and verify location with Engineer/Architect.
- 2. Contractor shall provide and install column cover support connections as indicated on the Drawings and Detail 40.7.

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### WI 45.0 PAINTING

### WI 45.2 PAINT CONCRETE/MASONTY WALLS

# A. Scope of Work

 Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to locate, layout and paint existing concrete and/or masonry walls or other vertical surfaces.

### B. Materials

- 1. Sherwin Williams Loxon A24W300 Exterior Masonry Acrylic Primer.
- 2. Sherwin Williams A-100 Exterior Latex Satin Finish A82 Series.

### C. Execution

- 1. Contractor shall locate and layout Work areas as indicated on Drawings.
- 2. Contractor shall prepare surface to be painted in accordance with Section "Exterior Painting" and manufacturer's recommendations.
- 3. Contractor shall apply paint in accordance with referenced specification section listed in Work Item "Paint Concrete/Masonry Walls," Article "Materials," above and manufacturer's recommendations.

# WI 45.4 PAINT DOOR AND FRAMES

### A. Scope of Work

 Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to contain, with full height barriers, sandblasting debris and paint during operations and prepare, prime and paint all steel handrails, existing metal stringer and miscellaneous metal items as located on Drawings.

#### B. Materials

- Sherwin Williams Kem Kromik Universal Metal Primer.
- 2. Sherwin Williams Steel Master™ 9500 Coating, B56-300 Series.

- 1. Contractor shall locate and verify with Engineer/Architect all Work areas.
- Contractor shall verify color selection with Owner prior to start of Work.
- Contractor shall take all necessary measures to contain, with full height barriers, sandblasting debris and paint to immediate Work area to protect public from injury and vehicles and public property from damage.

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- Contractor shall solvent clean any surface area with oil or grease build-up prior to receiving sandblast preparation in accordance with SSPC-SP1 and Section "Painting."
- Contractor shall sandblast all surfaces with surface corrosion to near-white metal blast cleaning in accordance with SSPC-SP10 and Section "Exterior Painting."
- 6. Contractor shall air blast and remove all debris from Work area prior to application of primer or paint.
- 7. Contractor shall apply primer to all sandblasted metal surfaces on same day (within 8 hrs) as sandblast operations. Apply primer according to Section "Exterior Painting" and in strict accordance with manufacturer's recommendations.
- 8. Contractor shall apply paint in accordance with referenced specification section listed in Work Item "Paint Structural Steel," Article "Materials," above.

### WI 45.5 PAINT WINDOW FRAMES

# A. Scope of Work

 Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to contain, with full height barriers, sandblasting debris and paint during operations and prepare, prime and paint all steel handrails, existing metal stringer and miscellaneous metal items as located on Drawings.

### B. Materials

- 1. Sherwin Williams Kem Kromik Universal Metal Primer.
- 2. Sherwin Williams Steel Master<sup>™</sup> 9500 Coating, B56-300 Series.

- 1. Contractor shall locate and verify with Engineer/Architect all Work areas.
- 2. Contractor shall verify color selection with Owner prior to start of Work.
- 3. Contractor shall take all necessary measures to contain, with full height barriers, sandblasting debris and paint to immediate Work area to protect public from injury and vehicles and public property from damage.
- Contractor shall solvent clean any surface area with oil or grease build-up prior to receiving sandblast preparation in accordance with SSPC-SP1 and Section "Painting."
- Contractor shall sandblast all surfaces with surface corrosion to near-white metal blast cleaning in accordance with SSPC-SP10 and Section "Exterior Painting."
- 6. Contractor shall air blast and remove all debris from Work area prior to application of primer or paint.
- 7. Contractor shall apply primer to all sandblasted metal surfaces on same day (within 8 hrs) as sandblast operations. Apply primer according to Section "Exterior Painting" and in strict accordance with manufacturer's recommendations.

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8. Contractor shall apply paint in accordance with referenced specification section listed in Work Item "Paint Structural Steel," Article "Materials," above.

# WI 91.0 FAÇADE COATING

### WI 91.5 ELASTOMERIC COATING

# A. Scope of Work

- 1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to prepare existing façade surfaces and install elastomeric coating at locations shown in Construction Documents.
- 2. Installation of new crack and/or joint sealant as part of proper substrate preparation for coating installation shall be paid for under other Work Items, unless noted otherwise.

#### B. Materials

1. Approved materials for use in this Work are as specified in Section "Elastomeric Coatings."

#### C. Execution

- 1. Surface preparation shall be performed by coating system applicator or under its direct supervision.
- 2. Contractor shall locate and layout Work areas as indicated on Drawings.
- 3. Contractor shall clean concrete/masonry surfaces.
- 4. Contractor shall prepare surface to be coated in accordance with referenced specification Section and manufacturer's recommendations.
- 5. Protect adjacent non-coated surfaces from being coated. Mask off adjacent features not receiving coating. Contractor caused damage to elements not scheduled for coating application shall be cleaned and/or repaired to satisfaction of the Owner and at no additional cost to Owner.
- 6. Install mock up installation area, and receive Owner approval of application results, color, texture and finished appearance prior to proceeding with additional application.
- 7. Contractor shall apply primer and/or coating in accordance with referenced specification section, and manufacturer's recommendations.
- 8. Elastomeric coating shall be installed by licensed applicators in strict accordance with manufacturer's recommendations and referenced specification section.
- 9. Coating system shall be thoroughly cured prior to Work areas being returned to service.

### **END OF SECTION 020010**

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# SECTION 025130 - GENERAL CONCRETE SURFACE PREPARATION

#### **PART 1 - GENERAL**

#### 1.1 DEFINITIONS

- A. **DELAMINATIONS**: Fracture planes, "internal cracks," within concrete. Typically these fractures are parallel to the member face and vary in depth.
- B. **NEAR-VERTICAL CHIPPED EDGES:** Provide an edge dressed to within 20° of perpendicular of finished surface.
- C. SPALLS: Potholes, cavities or voids in floor slabs, beams, columns, and walls. Usually result of delamination migrating to face of concrete member. When fracture finally reaches surface, concrete encompassed by delamination breaks away, resulting in spall.
- D. **UNSOUND CONCRETE:** Concrete exhibiting one or more of:
  - 1. Incipient fractures present beneath existing delaminated or spalled surfaces.
  - Honeycombing.
  - 3. Friable or punky areas.
  - 4. Deterioration from freeze-thaw action.
- E. **SCALING**: Deterioration which attacks mortar fraction (paste) of concrete mix. First appears as minor flaking and disintegration of concrete surface. Scaling eventually progresses deeper into concrete, exposing aggregate which breaks away. Concrete scaling is caused by freeze-thaw action. If concrete is frozen in saturated state, excess water freezing in concrete causes high internal stresses.
- F. **SHOTBLASTING:** Scarification of concrete surfaces using an abraded metal shot-rebound. See Corps of Engineer's Manual EM 1110-2-2002 and the National Cooperative Highway Research Program's Report #99 for a more detailed definition.

### PART 2 - PRODUCTS (NOT APPLICABLE)

### PART 3 - EXECUTION (NOT APPLICABLE)

### **END OF SECTION 025130**

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### **SECTION 025140 - SURFACE PREPARATION**

#### **PART 1 - GENERAL**

### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 01 Specification Sections apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes the provision of all labor, materials, equipment, supervision and incidentals necessary to locate and remove all delaminated and unsound concrete and preparation of cavities created by removal to receive patching material and preparation of existing surface spalls and potholes to receive patching material.
- B. Related Sections: Following Sections contain requirements that relate to this Section:
  - 1. Division 03 Section "Latex Modified Concrete and Mortar"
  - 2. Division 03 Section "Trowel Applied Mortar"

### 1.3 REFERENCES

- A. "Specifications for Structural Concrete for Buildings" (ACI 301) by American Concrete Institute, herein referred to as ACI 301, is included in total as specification for this structure except as otherwise specified herein.
- B. Comply with provisions of following codes, specifications and standards except where more stringent requirements are shown on Drawings or specified herein:
  - 1. "Guide for Repair of Concrete Bridge Superstructures" (ACI 546.1), American Concrete Institute.

### PART 2 - PRODUCTS (NOT APPLICABLE)

### **PART 3 - EXECUTION**

### 3.1 INSPECTION

### A. Floor Slabs:

1. Floor slab delaminations: locate by sounding surface with hammer, rod, or chain drag.

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- 2. When delaminated area is struck, distinct hollow sound is heard.
- 3. Contractor: sound all designated floors for delaminations.
- 4. Certain structural systems that contain thin slab thicknesses with Welded Wire Reinforcement or other small diameter reinforcing, such as waffle slab or precast tees, may have significant deterioration without evidence of delaminations. These structural systems require qualified personnel to provide additional inspections, primarily visual in nature, to define the extent of deterioration.
- 5. Contractor: Visually inspect thin slab thicknesses with small diameter reinforcing for deterioration.

### B. Vertical and Overhead Surfaces:

- 1. Vertical and overhead surface delaminations: locate by sounding appropriate member with hammer or rod.
- 2. Cracks, usually horizontal in orientation along beam faces, and vertical in orientation near column corners are indicators of delaminated concrete.
- 3. Contractor: sound only vertical and overhead surfaces that show evidence of cracking and/or salt and water staining.
- C. Delaminated areas, once located by Contractor, shall be further sounded to define limits. Mark limits with chalk or paint.
- D. Contractor: locate spalls by visual inspection and mark boundaries with chalk or paint after sounding surface.
- E. Engineer/Architect will define and mark additional unsound concrete areas for removal, if required.
- F. Areas to be removed shall be as straight and rectangular as practical to encompass repair and provide neat patch.
- G. Contractor: Locate and determine depth of all embedded REINFORCEMENT, and ELECTRICAL CONDUIT in repair area and mark these locations for reference during concrete removal. Do **NOT** nick or cut any embeds unless approved by Engineer/Architect.

#### 3.2 PREPARATION

- A. Temporary shoring may be required at concrete floor repair areas exceeding 5 sq ft and at any beam, joist, or column repair. Contractor: Review all marked removal and preparation areas and request clarification by Engineer/Architect of shoring requirements in questionable areas. Shores shall be in place prior to concrete removal and cavity preparation in any area requiring shores.
- B. Delaminated, spalled and unsound concrete floor areas: mark boundaries. All concrete shall be removed from within marked boundary to minimum depth of 0.5 in. using 15 to 30 lb chipping hammers equipped with chisel point bits. When directed by Engineer/Architect, chipping hammers less than 15 lb shall be used to minimize damage to sound concrete. If delaminations exist beyond minimum removal depth,

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chipping shall continue until all unsound and delaminated concrete has been removed from cavity.

- C. Where embedded reinforcement or electrical conduit is exposed by concrete removal, exercise extra caution to avoid damaging it during removal of unsound concrete. If bond between exposed embedded reinforcement and adjacent concrete is impaired by Contractor's removal operations, Contractor shall perform additional removal around and beyond perimeter of reinforcement for minimum of 0.75 in. along entire length affected at no cost to Owner.
- D. If rust is present on embedded reinforcement where it enters sound concrete, additional removal of concrete along and beneath reinforcement required. Additional removal shall continue until non-rusted reinforcement is exposed, or may be terminated as Engineer/Architect directs.
- E. Sawcut to depth of 0.5 in. into floor slab, unless otherwise noted. For vertical and overhead surfaces marked boundary may be sawcut, ground or chipped to depth of 0.5 in.. into existing concrete, measured from original surface. All edges shall be straight and patch areas square or rectangular-shaped. Diamond blade saw or grinder with abrasive disk suitable for cutting concrete is acceptable for performing work. Edge cut at delamination boundary shall be dressed perpendicular to member face. It shall also be of uniform depth, for entire length of cut. Exercise extra caution during sawcutting to avoid damaging existing reinforcement and electrical conduit and any other embedded items near surface of concrete. Any damage to existing reinforcement during removals shall be repaired by Contractor with Engineer/Architect-approved methods at no additional cost to Owner.

### 3.3 INSPECTION OF REPAIR PREPARATION

- A. After removals are complete, but prior to final cleaning, cavity and exposed reinforcement shall be inspected by Contractor and verified by Engineer/Architect for compliance with requirements of this Section. Where Engineer/Architect finds unsatisfactory cavity preparation, Engineer/Architect shall direct Contractor to perform additional removals. Engineer/Architect shall verify areas after additional removals.
- B. Contractor shall inspect embedded reinforcement and conduits exposed within cavity for defects due to corrosion or damage resulting from removal operations. Contractor shall notify Engineer/Architect of all defective and damaged reinforcement or conduits. Replacement of damaged or defective reinforcement or conduits shall be performed according to this Section and as directed by Engineer/Architect.

# 3.4 REINFORCEMENT AND EMBEDDED MATERIALS IN REPAIR AREAS

A. All embedded reinforcement exposed during surface preparation that has lost more than 15 % (10 % if 2 or more consecutive parallel bars and/or tendons are affected) of original cross-section due to corrosion shall be considered DEFECTIVE. All nondefective exposed reinforcement that has lost section to extent specified above as direct result of Contractor's removal operations shall be considered DAMAGED.

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- B. Embedded materials including, but not limited to, electrical conduit, corrosion protection systems and snow/ice melting equipment shall be protected by Contractor during removal operations. Damage due to removal operations shall be repaired by Contractor in accordance with national code requirements at no cost to Owner. Embedded materials which are defective due to pre-existing conditions may be repaired or replaced by Contractor or abandoned at Owner's option and cost.
- C. Supplement defective or damaged embedded reinforcement by addition of reinforcement of equal diameter with Class "B" minimum splice per ACI 318 beyond damaged portion of reinforcement. Secure new reinforcement to existing reinforcement with wire ties and/or approved anchors. Supplemental reinforcement shall be ASTM A615 Grade 60 steel installed in accordance with Section "Cast-in-Place Concrete." Tendon supplement or repair materials, when applicable, shall be as required by Section "Work Items."
- D. Loose and supplemental reinforcement exposed during surface preparation shall be securely anchored prior to patch placement. Loose reinforcement shall be adequately secured by wire ties to bonded reinforcement or shall have drilled-in anchors installed to original concrete substrate. Drilled-in anchors shall be Powers "Tie-Wire Lok-Bolt" anchors, ITW Ramset/Red Head "TW-1400" anchor, or approved equivalent. Supplemental reinforcing needed to be held off substrate shall be adequately secured by drilled-in anchors installed to original concrete substrate with Powers "Tie-Wire Spike", ITW Ramset/Red Head Redi-Drive "TD4-112" anchors, or approved equivalent. Engineer/Architect will determine adequacy of wire ties and approve other anchoring devices prior to their use. Securing loose and supplemental reinforcement is incidental to surface preparation and no extras will be allowed for this Work.
- E. Concrete shall be removed to provide minimum of 3/4 in. clearance on all sides of defective or damaged exposed embedded reinforcement that is left in place. Minimum of 1.5-in. concrete cover shall be provided over all new and existing reinforcement. Concrete cover over reinforcement may be reduced to 1 in. with Engineer/Architect's approval if coated with an approved epoxy resin.
- F. Supplemental reinforcement and concrete removals required for repairs of defective or damaged reinforcement shall be paid for as follows:
  - 1. Concrete removals and supplemental reinforcement required for repairs of DEFECTIVE reinforcement shall be paid for by Owner at unit price bid.
  - 2. Concrete removals and supplemental reinforcement required for repairs of DAMAGED reinforcement shall be paid for by Contractor.

## 3.5 CLEANING OF REINFORCEMENT WITH DELAMINATION AND SPALL CAVITIES

A. All exposed steel shall be cleaned of rust to bare metal by sandblasting. Cleaning shall be completed immediately before patch placement to insure that base metal is not exposed to elements and further rusting for extended periods of time. Engineer/Architect may require entire bar diameter be cleaned.

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B. After all sandblasting operations and cleanup are completed, paint all exposed steel with an approved epoxy. Protect prepared surfaces from damage prior to and during patch placement.

## 3.6 PREPARATION OF CAVITY FOR PATCH PLACEMENT

- A. Cavities will be examined prior to commencement of patching operations. Sounding surface shall be part of examination. Any delamination noted during sounding shall be removed as specified in this Section.
- B. Cavities shall be sandblasted. Airblasting is required as final step to remove sand. All debris shall be removed from site prior to commencement of patching.

#### **END OF SECTION 025140**

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# SECTION 033750 - LATEX MODIFIED CONCRETE AND MORTAR

#### **PART 1 - GENERAL**

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 01 Specification Sections apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes the provision of all labor, materials, and equipment necessary for production and installation of latex modified concrete or mortar for patching floor spalls and overlays.
- B. Related Sections: Following Sections contain requirements that relate to this Section:
  - Division 02 Section "Surface Preparation for Patching."
  - 2. Division 07 Section "Waterproofing System."
  - Division 09 Section "Pavement Marking."

#### 1.3 QUALITY ASSURANCE

- A. Work shall conform to requirements of ACI 301 and ACI 318 except where more stringent requirements are shown on Drawings or specified in this Section.
- B. Testing Agency:
  - 1. Independent testing laboratory employed by Owner and acceptable to Engineer/Architect.
  - 2. Accredited by AASHTO under ASTM C1077. Testing laboratory shall submit documented proof of ability to perform required tests.
- C. Sampling and testing of concrete and mortar shall be performed by ACI certified Concrete Field Technicians Grade I. Certification shall be no more than 3 years old.
- D. Testing Agency is responsible for conducting, monitoring and reporting results of all tests required under this Section. Testing Agency has authority to reject concrete or mortar not meeting Specifications.
- E. Proportioning, production, placement and finishing of latex modified concrete or mortar shall be overseen by, and have approval of, latex manufacturer. Latex admixture supplier shall make available qualified individual experienced in placement of latex modified concrete overlays, to aid Contractor during placement of all latex modified concrete overlay. Qualification of supplier's representative shall be acceptable to Engineer/Architect.

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- F. Testing Agency shall submit following information for field testing of concrete unless modified in writing by Engineer/Architect:
  - 1. Project name and location.
  - 2. Contractor's name.
  - 3. Testing Agency's name, address and phone number.
  - 4. Concrete supplier.
  - 5. Date of report.
  - 6. Testing Agency technician's name (sampling and testing).
  - 7. Placement location within structure.
  - 8. Concrete mix data (quantity and type):
    - a. Cement.
    - b. Fine aggregates.
    - c. Coarse aggregates.
    - d. Water.
    - e. Water/cement ratio.
    - f. Latex emulsion.
    - g. Latex emulsion per cu yd of concrete.
    - h. Other admixtures.
  - 9. Weather data:
    - a. Air temperatures.
    - b. Weather.
    - c. Wind speed.
  - 10. Field test data:
    - a. Date, time and place of test.
    - b. Slump.
    - c. Air content.
    - d. Unit weight.
    - e. Concrete temperature.
  - 11. Compressive test data:
    - a. Cylinder number.
    - b. Age of concrete when tested.
    - c. Date and time of cylinder test.
    - d. Curing time (field and lab).
    - e. Compressive strength.
    - f. Type of break.

#### 1.4 REFERENCES

A. American Concrete Institute (ACI):

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- ACI 214, "Recommended Practice for Evaluation of Strength Test Results of Concrete."
- 2. ACI 301, "Standard Specifications for Structural Concrete."
- 3. ACI 302.1R, "Guide for Concrete Floor and Slab Construction."
- 4. ACI 305R, "Hot Weather Concreting."
- 5. ACI 306R, "Cold Weather Concreting."
- 6. ACI 306.1, "Standard Specification for Cold Weather Concreting."
- ACI 318, "Building Code Requirements for Reinforced Concrete."
- 8. ACI 347, "Recommended Practice for Concrete Formwork."

# B. American Society for Testing and Materials (ASTM):

- 1. ASTM C31, "Method of Making and Curing Concrete Test Specimens in the Field."
- ASTM C33, "Specification for Concrete Aggregates."
- 3. ASTM C39, "Test Method for Compressive Strength of Cylindrical Concrete Specimens."
- 4. ASTM C94, "Specification for Ready-Mixed Concrete."
- 5. ASTM C109, "Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or 50-mm Cube Specimens)."
- 6. ASTM C138, "Test Method for Unit Weight, Yield, and Air Content (Gravimetric) of Concrete."
- 7. ASTM C143, "Test Method for Slump of Portland Cement Concrete."
- ASTM C150, "Specification for Portland Cement."
- 9. ASTM C172, "Method of Sampling Freshly Mixed Concrete."
- ASTM C173, "Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method."
- 11. ASTM C231, "Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method."
- 12. ASTM C260, "Specification for Air-Entraining Admixtures for Concrete."
- 13. ASTM C494, "Specification for Chemical Admixtures for Concrete."
- ASTM C685, "Specification for Concrete Made by Volumetric Batching and Continuous Mixing."
- 15. ASTM C1040, "Standard Test Method for Density of Unhardened and Hardened Concrete by Nuclear Methods."
- 16. ASTM C1077, "Standard Practice for Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation."
- 17. ASTM C1218, "Sampling and Testing for Water Soluble Chloride Ion in Concrete and Concrete Raw Materials."

# C. Concrete Reinforcing Steel Institute (CRSI):

- CRSI MSP, "Manual of Standard Practice."
- D. Contractor shall have following ACI publications at Project construction site:
  - 1. ACI SP-15, "Standard Specifications for Structural Concrete ACI 301 with selected ACI and ASTM References."
  - ACI 302.1R, "Guide for Concrete Floor and Slab Construction."
  - 3. ACI 305R, "Hot Weather Concreting."

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- 4. ACI 306R, "Cold Weather Concreting."
- 5. ACI 306.1, "Standard Specification for Cold Weather Concreting."

# 1.5 SUBMITTALS

- A. Make submittals in accordance with requirements of Division 01 of this Specification, and as herein specified.
- B. Contractor shall submit concrete mix design reviewed and approved by latex manufacturer to Engineer/Architect 2 weeks prior to placing concrete. Use mix design submittal form included at end of this Section. Proportion mix designs as defined in ACI 301, 4.2.3. Include following information for each concrete mix design:
  - 1. Method used to determine proposed mix design (per ACI 301, 4.2.3).
  - 2. Gradation of fine and coarse aggregates: ASTM C33.
  - 3. Proportions of all ingredients including all admixtures added either at time of batching or at job site.
  - 4. Water-cement ratio.
  - 5. Slump: ASTM C143.
  - 6. Certification of chloride content of admixtures.
  - 7. Air content of freshly mixed concrete by pressure method, ASTM C231.
  - 8. Unit weight of concrete: ASTM C138.
  - 9. Strength at 3 and 28 days.
  - Water soluble chloride ion content of concrete per ASTM C1218.
- C. Contractor: At pre-concrete meeting, submit procedures to protect fresh concrete from rain and hot and cold weather conditions.
- D. Testing Agency: Promptly report all concrete test results to Engineer/Architect, Contractor and concrete supplier. Include following information:
  - 1. See Article "Quality Assurance," paragraph "Testing Agency shall submit...."
  - 2. Weight of concrete, ASTM C138.
  - 3. Slump, ASTM C143.
  - 4. Air content of freshly mixed concrete by pressure method, ASTM C231 or volumetric method, ASTM C173.
  - 5. Concrete temperature (at placement time).
  - 6. Air temperature (at placement time).
  - 7. Strength determined in accordance with ASTM C39.
- E. Concrete batched on-site shall be placed and finished within 30 minutes of adding water to mixture.
- F. See requirements of Division 01 Section, "Submittal Procedures," Part 1 heading, "Submittal Procedures," for limits to resubmittals.

#### **PART 2 - PRODUCTS**

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#### 2.1 MATERIALS

- A. Aggregates (ACI 301, Article 4.2.1):
  - 1. Normal weight concrete aggregates:
    - a. Coarse aggregate: Crushed and graded limestone or approved equivalent conforming to ASTM C33, Class Designation 5S.
    - Fine aggregate: Natural sand conforming to ASTM C33 and having preferred grading shown for normal weight aggregate in ACI 302.1R, Table 4.2.1.
  - 2. Coarse aggregate: Nominal sizes indicated below, conforming to ASTM C33, Table 2:
    - a. 0.375 in. for patch cavities 0.75 to 1.5 in. deep.
    - 0.5 in. for patch cavities greater than 1.5 in. deep and overlay work. For overlays limit maximum size of aggregates to one-third nominal thickness of overlay.
  - Chloride Ion Level: Chloride ion content of aggregates shall be tested by laboratory making trial mixes. Also, total water soluble chloride ion content of mix including all constituents shall not exceed 0.06% chloride ions by weight of cement for prestressed concrete, and 0.15% chloride ions by weight of cement for reinforced concrete. Test to determine chloride ion content shall conform to Test Method ASTM C1218.
- B. Cement (ACI 301, 4.2.1.1):
  - 1. Portland cement, Type I, ASTM C150. Use 1 cement clinker source throughout project. No change in brand without prior written approval from Engineer/Architect.
- C. Water (ACI 301, 4.2.1.3):
  - 1. ASTM C94.
- D. Latex Emulsion:
  - 1. "Dow Reichhold Modifier A/NA, Dow Reichhold Specialty Latex LLC, Research Triangle Park, N.C.
  - 2. "Styrofan 1186," BASF Corporation, Chattanooga, TN.
- E. Admixtures (ACI 301, 4.2.1.4):
  - 1. Only admixtures listed shall be acceptable. Do not submit alternates.
  - 2. Concrete supplier and manufacturer shall certify compatibility of all ingredients in each mix design.
  - 3. Use admixtures in strict accordance with manufacturer's recommendations.

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- 4. Prohibited Admixtures: Calcium chloride, thiocyanates or admixtures containing more than 0.5% chloride ions, by weight of admixture, are <u>not</u> permitted. Additionally, each admixture shall not contribute more than 5 ppm, by weight, of chloride ions to total concrete constituents.
- F. Storage of Materials (ACI 301, 4.1.4).

#### 2.2 CONCRETE MIX DESIGN

A. Selection of concrete proportions shall be in accordance with ACI 301, 4.2.3.1. Before any concrete is placed for project, Contractor shall submit to Engineer/Architect data showing method used for determining proposed concrete mix design, including fine and coarse aggregate gradations, proportions of all ingredients, water-cement ratio, slump, air content, cylinder breaks and other required data specified in Article "Submittals," second para, for each different concrete type specified. Mix design shall meet following minimum requirements:

Compressive Strength
Water-Cement Ratio

0.25 to 0.40

Latex Content Per Sack of Cement

3.5 gal. 4 in. ± 2 in.

Slump\*
Cement Content

658-800 lb./c.y.

4500 psi @ 28 days (2500 psi @ 3 days)

Cement Content
Air Content

Less than 6.5%

\*For concrete placed by vibratory screeds, slump shall not exceed 4 in. at point of deposit.

- B. Chloride Ion Level: See Article "Materials," paragraph "Chloride Ion Level."
- C. Bonding Grout: Bonding grout shall consist of sand, cement, and latex emulsion in proportions similar to mortar in concrete with sufficient water to form stiff slurry to achieve consistency of "pancake batter."

#### **PART 3 - EXECUTION**

# 3.1 PRODUCTION OF MORTAR OR CONCRETE

- A. Production of latex modified mortar or concrete shall be in accordance with requirements of ACI 301, 4.3.1, except as otherwise specified herein.
- B. Concrete or mortar, mixed at site, shall be proportioned by continuous mixer used in conjunction with volumetric proportioning. Volumetric batching/continuous mixers shall conform to ASTM C685. In addition, self-contained, mobile, continuous type mixing equipment shall comply with following:
  - 1. Mixer shall be capable of producing batches of not less than 6 cu vds.

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- Mixer shall be capable of positive measurement of cement being introduced into mix. Recording meter visible at all times and equipped with ticket printout shall indicate this quantity.
- 3. Mixer shall provide positive control of flow of water into mixing chamber. Water flow shall be indicated by flowmeter and shall be readily adjustable to provide for minor variations in aggregate moisture.
- 4. Mixer shall be capable of being calibrated to automatically proportion and blend all components of indicated composition on continuous or intermittent basis, as required by finishing operation, and shall discharge mixed material through conventional chute into transporting device or directly in front of finishing machine. Sufficient mixing capacity of mixers shall be provided to permit intended pour to be placed without interruption.
- 5. Mixer shall be calibrated to accurately proportion specified mix. Yield is required to be within tolerance of 1.0 %.
- C. On-site mortar or concrete batching in mixer of at least 0.125 cu yd capacity shall be permitted only with approval of Engineer/Architect. On-site concrete batching and mixing shall comply with requirements of ACI 301, 4.3.1.

# 3.2 PREPARATION (ACI 301, 5.3.1)

- A. Cavity surfaces shall be clean and dry prior to commencement of patch or overlay installation. Preparation of surfaces to receive new concrete shall be in accordance with Section "Surface Preparation for Patching" and/or "Surface Preparation for Overlay."
- B. Bonding Grout: (For Overlays)
  - 1. For overlays, bonding grout shall be applied to damp (but not saturated) concrete surface in uniform thickness of 0.0625 in. to 0.125 in. over all surfaces to receive patching or overlay. Grout shall not be allowed to dry or dust prior to placement of patch or overlay material. If concrete placement is delayed and the coating dries, cavity or surface shall not be patched or overlaid until it has been recleaned and prepared as specified in Section "Surface Preparation for Patching" or "Surface Preparation for Overlay." Grout shall not be applied to more area than can be patched or overlaid within 0.5 hr by available manpower.
- C. For patches, surface shall be surface saturated damp, (SSD), with potable water. Do not allow water to accumulate in the patch. Broom out all excess water.
- D. Receive Owner's and Engineer/Architect's written approval of concrete surface finish used on flatwork before beginning of construction.

#### 3.3 INSTALLATION

A. Placing (ACI 301, 5.3.2):

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- 1. Do not place concrete when temperature of surrounding patch area or air is less than 50° F. unless following conditions are met:
  - a. Place concrete only when temperature of surrounding air is expected to be above 45° F. for at least 36 hours.
  - b. When above conditions are not met, concrete may be placed only if insulation or heating enclosures are provided in accordance with ACI 306, "Recommended Practice for Cold Weather Concreting." Submit proposed protective measures in writing for Engineer/Architect's review prior to concrete placement.
  - c. Cost for precautionary measures required shall be borne by Contractor.
- Concrete shall be manipulated and struck off slightly above final grade. Concrete shall then be consolidated and finished to final grade with internal and surface vibration devices. Proposed consolidation method shall be submitted for Engineer/Architect's review prior to concrete placement.
  - a. Do not place concrete if mix temperature exceeds 85° F.
  - b. Do not place concrete under hot weather conditions. Hot weather is defined as air temperature which exceeds 80° F. or any combination of high temperature, low humidity and high wind velocity which causes evaporation rates in excess of 0.10 psf per hr as determined by ACI 305R, Figure 2.1.5.
- 3. Fresh concrete 3 in. or more in thickness shall be vibrated internally in addition to surface vibration.
- Concrete shall be deposited as close to its final position as possible. All concrete shall be placed in continuous operation and terminated only at bulkheads or designated control or construction joints.
- 5. On ramps with greater than 5 % slope, all concreting shall begin at low point and end at high point. Contractor shall make any necessary adjustment to slump or equipment to provide wearing surface without any irregularities or roughness.
- 6. For overlays concrete consolidation shall be by vibrating screeds meeting following requirements:
  - a. Placing and finishing equipment shall not exceed maximum weight of 6,000 lbs or 3,000 lbs per axle.
  - b. Screed shall be designed to consolidate concrete to 98% of unit weight determined in Section 2.04.A in accordance with ASTM C138. Sufficient number of identical vibrators shall be effectively installed such that at least 1 vibrator is provided for each 5 ft of screed length.
  - c. Bottom face of screeds shall not be less than 4 in. wide and shall be metal covered with turned-up or rounded leading edge to minimize tearing of surface of plastic concrete.
  - d. Screed shall be capable of forward and reverse movement under positive control. Screed shall be provided with positive control of vertical position and angle of tilt.
  - e. Screed shall be capable of vibrating at controlled rate, adjustable to between 3,000 and 6,000 vpm.

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- B. Finishing (ACI 301, 5.3):
  - Flatwork (BROOM Finish, 5.3.4.2.d):
    - a. When tight and uniform concrete surface has been achieved by screeding and finishing operation, give slab surface coarse transverse scored texture by drawing broom across surface. Texture shall be accepted by Owner and Engineer/Architect from sample panels.
    - b. Finishing tolerance: ACI 301, 5.3.4.2; Class B tolerance.
    - c. Finish all concrete surfaces to proper elevations to insure that all surface moisture will drain freely to floor drains, and that no puddle areas exist. Contractor shall bear cost of any corrections to provide for positive drainage.
    - d. Before installation of overlay and after submittal, review, and approval of concrete mix design, Contractor shall fabricate 2 acceptable test areas simulating finishing techniques and final appearance to be expected and used on Project. Test overlay area shall be minimum of 200 so ft and shall be cast to thickness of typical wearing surface in Project. Test overlay area's shall be cast from concrete supplied and batched in accordance with project specifications. Contractor shall finish test areas following requirements of items a and b above, and shall adjust finishing techniques to duplicate appearance of concrete surface of each test area. Finished overlay areas (1 or both) may be rejected by Owner or Engineer/Architect. in which case Contractor shall repeat procedure until Owner or Engineer/Architect acceptance is obtained. Accepted test overlay areas shall be cured in accordance with Specifications. Accepted test areas shall serve as basis for acceptance/rejection of final finished surfaces of all flatwork.
- C. Joints in Concrete (ACI 301, 2.2.2.5):
  - 1. Construction, control and isolation joints are located and detailed on Drawings:
    - a. Tool joints at time of finishing. Sawcut joints are prohibited.
    - b. Isolation joints interrupt structural continuity resulting from bond, reinforcement or keyway.
    - c. Coordinate configuration of tooled joints with control joint sealants.

## D. Curing:

- Latex modified mortar and concrete shall be cured according to latex manufacturer's recommendations and according to following minimum requirements:
  - a. Surface shall be covered with single layer of clean, wet burlap as soon as surface will support it without deformation. Cover burlap with continuous single thickness of polyethylene film for 24 hours.
  - b. After 24 hours remove polyethylene film and allow burlap to dry slowly for an additional 24 to 48 hours.

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- c. Remove burlap and allow concrete to air dry for an additional 48 hours.
- d. Curing time shall be extended, as Engineer/Architect directs, when curing temperature falls below 50° F.
- E. Repair of Defects (ACI 301, 5.3.7):
  - 1. Repair all surface defects exceeding 0.25 in. width or depth.
  - 2. Match color of concrete to be repaired.
  - 3. Submit samples of materials and relevant literature and test data on proprietary compounds and procedures used for adhesion or patching ingredients to Engineer/Architect for its review before patching concrete.
  - 4. Receive written approval of Engineer/Architect of method and materials prior to making repairs to concrete.

# 3.4 FIELD QUALITY CONTROL BY TESTING AGENCY (ACI 301, 1.6)

- A. Air Content:
  - Sample freshly-mixed concrete per ASTM C172 and conduct 1 air content test per ASTM C231 or ASTM C173 for each 10 cubic yards of concrete placed or each day's production, whichever is less.
- B. Concrete Compressive Strength:
  - 1. Mold test cylinders in accordance with ASTM C31 and test in accordance with ASTM C31 as follows:
    - a. Take minimum of 6 cylinders for each 25 cubic yards or fraction thereof, of each mix design of concrete placed in any 1 day. Use of 4 in. x 8 in. cylinders in lieu of standard cylinders is acceptable.
    - b. Additional 2 cylinders shall be taken and field cured under conditions of cold weather concreting, and when directed by Engineer/Architect.
  - Cover specimens properly, immediately after finishing. Protect outside surfaces
    of cardboard molds, if used, from contact with sources of water for first 24 hours
    after molding.
  - 3. Fabricate and cure test cylinders per ASTM C31, except as follows:
    - a. To verify compressive strength, test cylinders required due to cold weather concreting conditions:
      - Store test specimens on structure as near to point of sampling as possible and protect from elements in same manner as that given to portion of structure as specimen represents.
      - 2) Transport to test laboratory no more than 4 hours before testing. Remove molds from specimens immediately before testing.
    - b. To verify 28-day compressive strength:

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- 1) During first 24 hours after molding, store test specimens under conditions that maintain temperature immediately adjacent to specimens in range of 60 to 80° F. and prevent loss of moisture from specimens.
- 2) Remove test specimens from molds at end of 20 ± 4 hours and store at 73 ± 3° F., 50 ±4% relative humidity in laboratory until moment of test.

# 4. Compression tests:

- a. Test 2 cylinders at 3 days.
- b. Test 2 cylinders at 28 days.
- c. Hold 2 cylinders in reserve for use as Engineer/Architect directs.
- 5. Unless notified by Engineer/Architect, reserve cylinders may be discarded without being tested after 56 days.

# C. Slump Test:

1. Conduct 1 slump test in accordance with ASTM C143 for each 10 yards of concrete placed, or each day's production, whichever is less.

# D. Yield and Proportioning Tests (ASTM C685):

- 1. When concrete placements involve more than 100 cu yds, accuracy of on-site batching equipment output indicators shall be verified at 50 cu yd intervals.
- 2. Accuracy of on-site batching equipment proportioning of concrete mixture shall be verified at 100 cu yd intervals.

# E. Evaluation and Acceptance of Concrete (ACI 301, 1.6.7 and ACI 318, 4.7):

- Concrete compression tests will be evaluated by Engineer/Architect in accordance with ACI 301, 1.6.7. If number of tests conducted is inadequate for evaluation of concrete or test results for any type of concrete fail to meet specified strength requirements, core tests may be required as directed by Engineer/Architect.
- 2. Core tests, when required, per ACI 301, 1.6.7.3.
- Should tested hardened concrete meet these specifications, Owner will pay for coring and testing of hardened concrete. Should tested hardened concrete not meet these specifications, concrete contractor will pay for coring and testing of hardened concrete and for any corrective action required for unaccepted concrete.

## F. Acceptance of Structure (ACI 301,1.7);

- Acceptance of completed concrete Work will be according to provisions of ACI 301, 1.7.
- 2. Patched and overlaid areas shall be sounded by Contractor with chain drag after curing for 7 days. Contractor shall repair all hollowness detected by removing and replacing patch or affected area at no extra cost to Owner.

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3. If shrinkage cracks appear in overlay when initial 24 hours curing period is completed, overlay shall be considered defective, and it shall be removed and replaced by Contractor at no extra cost.

#### **END OF SECTION 033750**

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# MIX DESIGN SUBMITTAL FORM LATEX MODIFIED CONCRETE

(Submit separate form for each mix design)

| I. GENERAL INFO                       | RMATION               |                       |               |          |
|---------------------------------------|-----------------------|-----------------------|---------------|----------|
| Project:                              | City:                 |                       |               |          |
| General Contractor:                   |                       |                       |               |          |
| Mix Design Identificatio              | n No.:                |                       |               |          |
| Use (Describe) <sup>(1)</sup> :       |                       |                       |               |          |
| <sup>(1)</sup> Overlay, Floor Patchir | ng, Beam Repairs      | s, etc.               |               |          |
| II. MIX DESIGN PR                     | REPARATION            |                       |               |          |
| Mix Design Based on (Check one):      | Standard Deviat<br>or | ion Analysis:         | Trial Mix Tes | st Data: |
| Design Characteristics:               | Density:              | pcf;                  | Air:          | %        |
|                                       | Strength:             | psi (28 day);         | Slump         | in.      |
| Ti<br>D                               | ame:<br>itle:ate:     | Manufacturer Approval |               |          |

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| III. <u>MATERIALS</u>   |      |                               |  |
|---|------|-------------------------------|--|
| Aggregates: (size; type; source; gradation report; specification) |      |                               |  |
| Coarse:   |      |                               |  |
| Fine:   |      |                               |  |
| Other Materials:  | Туре | Product-Manufacturer (Source) |  |
| Cement:   |      |                               |  |
| Latex Admixture:  |      |                               |  |
| Other(s):   |      |                               |  |
|   |      |                               |  |

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| IV. MIX PROPORTIONS (per yd³) |               |                         |
|-------------------------------|---------------|-------------------------|
|                               | WEIGHT (lbs.) | ABSOLUTE VOL. (cu. ft.) |
| Cement:                       |               |                         |
| Fine Aggregate: (1)           |               |                         |
| Coarse Aggregate: (1)         |               |                         |
| Latex: <sup>(2)</sup>         |               |                         |
| Water: (3)                    |               |                         |
| Other(s):                     |               |                         |
| TOTALS:                       |               |                         |

# NOTES:

- (1) Based on saturated surface dry weights of aggregates.
- (2) Include only weight of solids portion of latex admixture. Confirm with manufacturer actual percentages of solids and water in suspension and coordinate with Note 3.
- (3) Includes ALL WATER, including added water, free water contained on aggregates, and water suspension portion of latex admixture.

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| V. <u>RATIOS</u>                |            |
|---------------------------------|------------|
| Water (4) = Cement              | lb.<br>lb. |
| <u>Fine Agg.</u> =<br>Total Agg | lb.<br>lb. |

| VI.  | SPECIFIC GRAVITIES |   |
|------|--------------------|---|
| Fine | Aggregate          | · |
| Coar | se Aggregate       |   |

| VII. <u>ADMIXTURES</u>         |     |                      |
|--------------------------------|-----|----------------------|
| Air Entraining Agent (A.E.A.): | 0z. | per 100# ce-<br>ment |
| Water Reducer                  | oz. | per 100# ce-<br>ment |
| Latex Emulsion                 | gal | per sack ce-<br>ment |
| Other(s)                       |     |                      |

|   | The state of the s |               |  |  |
|---|--|---------------|--|--|
| VIII. STANDARD DEVIATION ANALYSIS:  | <u>Yes</u>   | N/A           |  |  |
| (Complete this section only if mix design was developed using standard deviation analysis of previous project test results. If other method was used, check "N/A".) |  |               |  |  |
| Number of Test Cylinders Evaluated: Standard Deviation:   |  |               |  |  |
| Mix Designs Proportioned to Achieve f'cr = f'c + psi  |  |               |  |  |
| NOTE: Mix designs shall be proportioned to achieve f'cr equ f'cr = f'c + 1.34s [s= calculated standard deviati or f'cr = f'c + 2.33s - 500                          | al to or greater than<br>on]   | the larger of |  |  |
| (Refer to ACI 301 for increased deviation factor when less than 30 tests are available.)  |  |               |  |  |

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| IX. TRIAL MIXTURE TEST DATA                     |                                     | <u>Yes</u>  | <u>N/A</u>                   |
|---|-------------------------------------|---|------------------------------|
|   |                                     | based on data from trial<br>od was used, check "N/A |                              |
| <u>Age</u><br>(days)                            | <u>Trial Mix #1</u><br>(comp. str.) | <u>Trial Mix #2</u><br>(comp. str.)                 | Trial Mix #3<br>(comp. str.) |
| <u>7</u>  |                                     |   |                              |
| 7   |                                     |   |                              |
| <u>28</u>                                       |                                     |   |                              |
| <u>28</u>                                       |                                     |   |                              |
| 28 day average compre                           | essive strength:                    | psipsi  |                              |
| DESIGN MIX CHARAC                               |                                     |   |                              |
| Slump =   | in.                                 | Air Content =                                       | %                            |
| Unit Wet Wt. =                                  | pcf                                 | Unit Dry Wt. =                                      | pcf                          |
| Mix Design Proportione (1200 psi increases to 1 |                                     |   |                              |
| ACTUAL MIX CHARAC                               | CTERISTICS                          |   |                              |
| Initial Slump =                                 | in.                                 | Final Slump   | in.                          |
| Unit Wet Wt.=                                   | pcf.                                | Unit Dry Wt. =                                      | pcf                          |
| Air Content =                                   | %                                   |   |                              |

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| X.     | OTHER REQUIRED TESTS   |  |
|--------|--|--|
|        | ble Chloride Ion Content of mix:<br>ter soluble by ASTM 1218 OR AASHTO T260) | _ % by weight of cement                    |
|        |  |  |
| XI.    | REMARKS  |  |
|        |  |  |
|        |  |  |
|        |  |  |
| Subn   | nitted by:   |  |
| Late   | x Modified Concrete Supplier   |  |
| Nam    | e:   |  |
| Addr   | ess:   |  |
| Phor   | ne Number:   |  |
| Date   |  |  |
| My sig | gnature below certifies that I have read, underst<br>s Section.              | ood, and will comply with the requirements |
|        | Signature  |  |
|        | Typed or Printed Name  |  |
|        |  |  |

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| REQUIRED ATTACHMENTS |   |  |
|----------------------|---|--|
|                      | Coarse aggregate grading report   |  |
|                      | Fine aggregate grading report   |  |
|                      | Concrete compressive strength data used for standard deviation calculations |  |
|                      | Chloride ion data and related calculations                                  |  |
|                      | Admixture compatibility certification letter                                |  |

#### INSTRUCTIONS:

- Fill in all blank spaces. Use -0- (Zero) or N.A. (Not Applicable) where appropriate. See "Design and Control of Concrete Mixtures: 13th Edition by Portland Cement Association, for assistance in completing this form.
- 2. Provide the necessary documentation to support any laboratory test results or compliance to standard ASTM test methods or specifications referenced in the mix design submittal form.
- 3. If mix design utilizes multiple aggregate material sources, submit chloride ion content test data of each component from material suppliers. Test data shall be not more than 1 yr old.

Attach letter of certification that all admixtures, including latex admixture, are compatible for this mix design.

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#### **SECTION 033760 - TROWEL APPLIED MORTAR**

#### **PART 1 - GENERAL**

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 01 Specification Sections apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes the provision of all labor, materials, supervision and incidentals necessary to prepare deteriorated or damaged concrete surfaces and install patches to overhead and vertical surfaces to restore original surface condition and integrity.
- B. Related Sections: Following Sections contain requirements that relate to this Section:
  - Division 02 Section "Surface Preparation for Patching."
  - 2. Division 03 Section "Latex Modified Concrete and Mortar."

#### 1.3 QUALITY ASSURANCE

- A. Work shall conform to requirements of ACI 301 as applicable except where more stringent requirements are shown on Drawings or specified in this Section.
- B. Testing Agency:
  - 1. Independent testing laboratory employed by Owner and acceptable to Engineer/Architect.
- C. Sampling and testing of mortar shall be performed by ACI certified Concrete Field Technicians Grade I. Certification shall be no more than three years old.
- D. Testing Agency is responsible for conducting, monitoring and reporting results of all tests required under this Section. Testing Agency has authority to reject mortar not meeting Specifications.
- E. Testing Agency shall submit following information for Field Testing of Concrete unless modified in writing by Engineer/Architect:
  - 1. Project name and location.
  - 2. Contractor's name.
  - 3. Testing Agency's name, address and phone number.
  - 4. Mortar manufacturer.
  - 5. Date of report.
  - Testing Agency technician's name (sampling and testing).

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- 7. Placement location within structure.
- 8. Weather data:
  - a. Air temperatures.
  - b. Weather.
  - c. Wind speed.
- 9. Date, time, and place of test.
- 10. Compressive test data:
  - a. Cube number.
  - b. Age of mortar when tested.
  - c. Date and time of cube test.
  - d. Compressive strength.

#### 1.4 REFERENCES

- A. "Standard Specification for Structural Concrete" (ACI 301) by American Concrete Institute, herein referred to as ACI 301, is included in total as specification for this structure except as otherwise specified herein.
- B. Comply with provisions of following codes, specifications and standards except where more stringent requirements are shown on Drawings or specified herein:
  - 1. "Building Code Requirements for Structural Concrete" (ACI 318), American Concrete Institute, herein referred to as ACI 318.
  - 2. "Hot Weather Concreting" reported by ACI Committee 305.
  - 3. "Cold Weather Concreting" reported by ACI Committee 306.
- C. American Society for Testing and Materials (ASTM):
  - 1. ASTM C109, "Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or 50-mm Cube Specimens)."

# 1.5 SUBMITTALS

- A. Make submittals in accordance with requirements of Division 01 and as specified in this Section.
- B. Testing Agency: Promptly report all mortar test results to Engineer/Architect and Contractor. Include following information:
  - See Article "Quality Assurance," paragraph "Testing Agency shall submit...."
  - 2. Strength determined in accordance with ASTM C109.

#### **PART 2 - PRODUCTS**

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#### 2.1 MATERIALS

- A. Acceptable materials shall have minimum 3 day compressive strength of 3,000 psi and 5,000 psi at 28 days as certified by manufacturer.
- B. Acceptable materials for overhead and vertical work are:
  - 1. "Planitop X or XS," Mapei Systems, Deerfield Beach, FL
  - 2. "SikaRepair SHB with LatexR," Sika Corporation, Lyndhurst, NJ
  - 3. "MasterEmaco N 400 RS," Master Builders Solutions, Shakopee, MN
  - 4. "Verticoat Supreme," Euclid Chemical Company, Cleveland, OH
- C. Acceptable materials for horizontal repair work are:
  - 1. "Planitop 18," Mapei Systems, Deerfield Beach, FL
  - 2. "SikaTop 122 Plus," Sika Corporation, Lyndhurst, NJ
  - 3. "MasterEmaco R 310 Cl," Master Builders Solutions, Shakopee, MN
  - 4. "Concrete Top Supreme," by Euclid Chemical Company, Cleveland, OH

#### **PART 3 - EXECUTION**

#### 3.1 PREPARATION

A. Surface Preparation: Cavity surfaces shall be clean and dry prior to commencement of patch installation. Preparation of cavity to receive new mortar shall be in accordance with Section "Surface Preparation for Patching" and manufacturer's instructions.

#### 3.2 INSTALLATION

- A. Bonding Grout:
  - Apply bonding grout in strict accordance with manufacturer's recommendations.
  - 2. If bonding grout dries, cavity shall not be patched until it has been recleaned and prepared as specified in Section "Surface Preparation for Patching." Grout shall not be applied to more cavities than can be patched within 0.25 hr by available manpower.
- B. Placement: Patching materials shall be placed immediately following grout application in strict accordance with manufacturer's instructions. Properly proportioned and mixed patch material shall be placed using trowels to consolidate patch so that no voids exist within new material and continuous contact with base concrete is achieved. Supplemental wire mesh shall be required for delamination and spall repairs greater than two inches in depth. Fresh bonding grout is required between successive lifts of patching material.

#### 3.3 CURING

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- A. Initial Curing: Immediately after finishing, keep patch material continually moist for at least 24 hours by misting, sprinkling, or using absorptive mat or fabric covering kept continually moist.
- B. Final Curing: Curing compounds complying with ASTM C309 may be used in accordance with recommendations of ACI 506.7, "Specification for Concrete." Provide additional curing immediately following initial curing and before patch material has dried. Use one of following materials or methods:
  - 1. Continue method used in initial curing.
  - 2. Material conforming to ASTM C171.
  - Curing compounds conforming to ASTM C309.
  - 4. Other moisture retaining covering as approved by Engineer/Architect.
  - 5. Duration of Curing: Continue curing for first 7 days after patch placement. During initial and final curing periods maintain patch material above 50° F.
  - 6. Prevent rapid drying at end of curing period.
  - 7. Provide additional curing as required or recommended by manufacturer.

#### 3.4 FIELD QUALITY CONTROL BY TESTING AGENCY

- A. Concrete Compressive Strength:
  - 1. Mold test cubes in accordance with ASTM C-109 as follows:
    - a. Take minimum of 12 cubes for each 10 cu ft, or fraction thereof, of each repair mortar placed in any one day. Use 2 in. x 2 in. cubes.
  - 2. Cover specimens properly, immediately after finishing. Protect molds from contact with sources of water for first 24 hours after molding.
  - 3. Fabricate and cure test cubes per ASTM C-109, except as follows:
    - a. Do not remove specimens from molds before 24 hours.
      - 1) During first 24 hours after molding, store test specimens under conditions that maintain temperature immediately adjacent to specimens in range of 60 to 80° F. and prevent loss of moisture from specimens.
      - 2) Remove test specimens from molds at end of 24 hours and air dry in laboratory until moment of test.
  - 4. Compression Test:
    - a. Test 3 cubes at 3 days.
    - b. Test 3 cubes at 7 days.
    - c. Test 3 cubes at 28 days.
    - d. Hold 3 cubes in reserve for use as Engineer/Architect directs.
  - 5. Unless notified by Engineer/Architect, reserve cubes may be discarded without being tested after 56 days.

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# 3.5 EVALUATION AND ACCEPTANCE OF TROWEL APPLIED MORTAR REPAIRS

- A. Acceptance of Repairs (ACI 301):
  - Acceptance of completed concrete Work will be according to provisions of ACI 301.
  - 2. Patched areas shall be sounded by Engineer/Architect and Contractor with hammer or rod after curing for 72 hours. Contractor shall repair all hollowness detected by removing and replacing patch or affected area at no extra cost to Owner.
  - 3. If shrinkage cracks appear in patch area when initial curing period is completed, patch shall be considered defective, and it shall be removed and replaced by Contractor at no extra cost.

#### **END OF SECTION 033760**

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## **SECTION 071800 - TRAFFIC COATINGS**

#### **PART 1 - GENERAL**

# 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 01 Specification Sections apply to this Section.

# 1.2 SUMMARY

- A. A single installer shall be responsible for providing complete water proofing system including all products specified in the following Sections:
  - 1. Division 07 Section, "Traffic Coatings"
  - 2. Division 07 Section, "Joint Sealants"
- B. This Section includes traffic topping: Fluid applied, waterproofing, traffic-bearing elastomeric membrane with integral wearing surface.
- C. Materials shall be compatible with materials or related Work with which they come into contact, and with materials covered by this Section.
- D. Related Sections: Following Sections contain requirements that relate to this Section.
  - 1. Division 07 Section, "Concrete Joint Sealants"
  - 2. Division 09 Section, "Pavement Markings."

## 1.3 ADMINISTRATIVE REQUIREMENTS

## A. Coordination:

- 1. Materials shall be compatible with materials or related Work with which they come into contact, and with materials covered by this Section.
- 2. Distribute reviewed submittals to all others whose Work is related.
- B. Pre-installation Conference: Meet at project site well in advance of time scheduled for Work to proceed to review requirements for Work and conditions that could interfere with successful topping performance. Require every party concerned with topping Work, or required to coordinate with it or protect it thereafter, to attend. Include manufacturer's technical representative and warranty officer.
- C. Make submittals in accordance with requirements of Division 01 Section, "Submittal Procedures:"

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- 1. See requirements of Division 01 Section, "Submittal Procedures," Part 1 heading, "Submittal Procedures," for limits to resubmittals.
- 2. See requirements of Division 01 Section, "Submittal Procedures," Part 2 heading, "Requests for Information," for RFI constraints.
- D. Submittals and Resubmittals: Engineer will review each of Contractor's shop drawings and/or submittal data the initial time and, should resubmittal be required, one additional time to verify that reasons for resubmittal have been addressed by Contractor and corrections made. Resubmittal changes/revisions/corrections shall be circled. Engineer will review only circled items and will not be responsible for non-circled changes/revisions/corrections and additions. Should additional resubmittals be required, Contractor shall reimburse Owner for all costs incurred, including the cost of Engineer's services made necessary to review such additional resubmittals. Owner shall in turn reimburse Engineer.

## 1.4 CLOSEOUT SUBMITTALS

- A. Three copies of System Maintenance Manual.
- B. Five copies of snow removal guidelines for areas covered by Warranty.
- C. Final executed Warranty.

#### 1.5 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Owner retains right to reject any manufacturer.
  - 1. Evidence of acceptable previous work on WALKER-designed projects. If none, so state.
  - 2. Evidence of financial stability acceptable to Engineer/Architect.
  - 3. Listing of 20 or more projects completed with submitted system, to include:
    - a. Name and location of project.
    - b. Type of system applied.
    - c. On-Site contact with phone number.
- B. Manufacturer's technical representative, acceptable to Engineer/Architect, shall be on site during surface preparation and initial stages of installation.
- C. Installer's Qualifications: Owner retains right to reject any manufacturer.
  - 1. Evidence of compliance with Summary article paragraph "A single installer. . . "
  - 2. Evidence that installer has successfully performed or has qualified staff who have successfully performed at least 5 verifiable years of installations similar to those involved in this Contract, and minimum 10 projects with submitted system.
  - 3. Listing of 5 or more installations in climate and size similar to this Project performed by installer's superintendent.

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 Testing Agency: Independent testing laboratory employed by Owner and acceptable to Engineer/Architect.

#### E. Certifications

- Licensing/certification document from manufacturer that confirms system installer is a licensed/certified applicator for the manufacturer and is legally licensed to perform work in the State of Illinois.
- 2. Licensing/certification agreement shall include following information:
  - a. Applicator's financial responsibility for warranty burden under agreement terms.
  - b. Manufacturer's financial responsibility for warranty burden under agreement terms.
  - c. Process for dispute settlement between manufacturer and applicator in case of system failures where cause is not evident or cannot be assigned.
  - d. Authorized signatures for both Applicator Company and Manufacturer.
  - e. Commencement date of agreement and expiration date (if applicable).

# 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver all materials to site in original, unopened containers, bearing following information:
  - 1. Name of product.
  - 2. Name of manufacturer.
  - 3. Date of preparation.
  - Lot or batch number.
- B. Store materials under cover and protect from weather. Replace packages or materials showing any signs of damage with new material at no additional cost to Owner.
- C. Do not store material on slabs to be post-tensioned before final post-tensioning of slabs is accomplished. At no time shall weight of stored material being placed on slab area, after post-tensioning is completed and concrete has reached specified 28 day strength, exceed total design load of slab area. Between time final post-tensioning is accomplished and time concrete has reached specified 28 day strength, weight of stored material placed on slab area shall not exceed half total design load of slab area.

## 1.7 FIELD CONDITIONS

A. Weather and Substrate Conditions: Proceed with work only when existing and forecast weather and temperature of concrete substrate will permit work in accordance with manufacturer's recommendations.

#### 1.8 WARRANTY

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- A. System Manufacturer Furnish Owner with written total responsibility Joint and Several Warranty, detailing responsibilities of manufacturer and applicator with regard to warranty requirements (Joint and Several). The warranty shall provide that system will be free of defects, water penetration and chemical damage related to system design, workmanship or material deficiency, consisting of:
  - 1. Any adhesive or cohesive failures.
  - 2. Spalling surfaces.
  - 3. Weathering.
  - 4. Surface crazing (does not apply to traffic topping protection course).
  - 5. Abrasion or tear failure resulting from normal traffic use.
  - 6. Failure to bridge cracks less than 0.0625 in. or cracks existing at time of traffic topping installation on double tees only.
- B. If material surface shows any of defects listed above, supply labor and material to repair all defective areas and to repaint all damaged line stripes.
- C. Warranty period shall be a 5 year Joint and Several Warranty commencing with date of acceptance of work.
- D. Perform any repair under this warranty at no cost to Owner.
- E. Address the following in the terms of the Warranty: length of warranty, change in value of warranty if any- based on length of remaining warranty period, transferability of warranty, responsibilities of each party, notification procedures, dispute resolution procedures, and limitations of liability for direct and consequential damages.
- F. Snowplows, vandalism, and abnormally abrasive maintenance equipment are not normal traffic use and are exempted from warranty.

#### PART 2 - PRODUCTS

## 2.1 MANUFACTURERS

- A. Manufacturer:
  - Master Builders Solutions (MBS), Shakopee, MN.
  - 2. Neogard Division of Jones-Blair Company (Neogard), Dallas, TX.
  - 3. Tremco (Tremco), Cleveland, OH.
  - 4. Lymtal International Inc. (Lymtal), Lake Orion, MI.
  - Advanced Polymer Technology (APT), Harmony, PA
  - 6. Sika Corporation (Sika), Lyndhurst, NJ.

# 2.2 MATERIALS, TRAFFIC TOPPING

A. Acceptable toppings are listed below:

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- 1. Heavy Duty Low Odor, High Solids (100%)
  - a. AutoGard FC HD-48, Autogard E, Neogard.
  - b. Iso-Flex 760 U HL AR and 760 U HL AL, Lymtal.
  - c. MasterSeal Traffic 2500, Master Builders Solutions.
  - d. Qualideck Heavy Vehicular HD-80 (152/252/372/512), APT
  - e. Sikalastic 720/745, Sika.
  - f. Vulkem 360NF/950NF and 951NF, Tremco.
- B. Provide ultraviolet screening for all traffic topping placed on this project.
- C. Finish top coat shall be colored grey.
- D. Substitutions: **None** for this project. Contact Engineer/Architect for consideration for future projects.

#### **PART 3 - EXECUTION**

## 3.1 EXAMINATION

- A. Examine surfaces to receive Work and report immediately in writing to Engineer/Architect any deficiencies in surface which render it unsuitable for proper execution of Work.
- B. Coordinate and verify that related Work meets following requirements before beginning surface preparation and application:
  - Concrete surfaces are finished as acceptable for system to be installed. Correct all high points, ridges, and other defects in a manner acceptable to the Engineer/Architect.
  - 2. Curing compounds used on concrete surfaces are compatible with system to be installed.
  - 3. Concrete surfaces have completed proper curing period for system selected.
  - 4. Joint Sealants are compatible with traffic toppings.

#### 3.2 PREPARATION

- A. Seal all openings to occupied space to prevent cleaning materials, solvents and fumes from infiltration. All protective measures and/or ventilating systems required to prevent infiltration-are-incidental-to-this-Work.
- B. Acid etching is prohibited.
- C. Remove all laitance and surface contaminants, including oil, grease and dirt by shotblasting. Prepare by sandblasting all surfaces inaccessible to shotblast equipment.

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- D. Before applying materials, apply system to small area to assure that it will adhere to substrate and joint sealants and dry properly and to evaluate appearance.
- E. All cracks on concrete surface shall be prepared in accordance with manufacturer's recommendations.
- F. All random cracks on concrete surface less than 0.03 in. wide and showing no evidence of water and/or salt water staining on ceiling below shall receive detail coat unless more complete treatment required in accordance with manufacturer's recommendations. Rout and seal random cracks, construction joints and control joints prior to installation of primer or base coat. Crack preparation including installation of joint sealant material, where required, is incidental to traffic topping work.
- G. Mask off adjoining surfaces not to receive traffic topping and mask off drains to prevent spillage and migration of liquid materials outside membrane area. Provide neat/straight lines at termination of traffic topping.

#### 3.3 INSTALLATION/APPLICATION

- A. Do all Work in accordance with manufacturer's written instructions and specifications including, but not limited to, moisture content of substrate, atmospheric conditions (including relative humidity and temperature), coverages, mil thicknesses and texture, and as shown on Drawings.
- B. A primer coat is required for all systems. No exception.
- C. Do not apply traffic topping material until concrete has been air dried at temperatures at or above 40°F. for at least 30 days after curing period specified.
- D. Cease material installation under adverse weather conditions, or when temperatures are outside manufacturer's recommended limitations for installation, or when temperature of work area or substrate are below 40°F.
- E. All adjacent vertical surfaces shall be coated with traffic topping minimum of 4 in. above coated horizontal surface. Requirement includes, but is not limited to pipes, columns, walls, curbs (full height of vertical faces of all curbs) and islands.
- F. Complete all Work under this Section before painting line stripes.
- G. Clean off excess material and material smears adjacent to joints as work progresses using methods and materials approved by manufacturers.

#### 3.4 FIELD QUALITY CONTROL

A. Develop a quality control plan for assured specified uniform membrane thickness that utilizes grid system of sufficiently small size to designate coverage area of not more than 5 gallons at specified thickness. In addition, employ wet mil gauge to continuously monitor thickness during application. Average specified wet mil thickness shall be

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maintained within grid during application with minimum thickness of not less than 80% of average acceptable thickness. Immediately apply more material to any area not maintaining these standards.

- B. Testing Agency employ wet mil gauge to periodically monitor thickness during application.
- C. Install 1 trial section of topping system for each duty grade specified. Do not proceed with further topping application until trial sections accepted in writing by Engineer/Architect. Remove and replace rejected trial sections with acceptable application. Trial section shall also be tested for:
  - 1. Wet mil thickness application.
  - 2. Adhesion to concrete substrate.
  - Overall dry mil thickness.
- D. Use trial sections to determine adequacy of pre-application surface cleaning. Obtain Owner, Engineer/Architect and manufacturer acceptance of cleaning before proceeding with topping application.
- E. Determine overall topping system mil thickness:
  - Contractor shall provide 6 in. by 6 in. bond breaker (topping coupon) on concrete surface for each 25,000 sq ft, or fraction thereof, of topping to be placed as directed by Engineer/Architect and manufacturer. Dimensionally locate coupon for easy removal.
  - Contractor shall assist Testing Agency in removing topping coupons from concrete surface at completion of manufacturer-specified cure period. Contractor shall repair coupon area per topping manufacturer's instructions.
  - 3. Testing Agency shall determine dry mil thickness of completed Traffic Topping System, including bond breaker. Take 9 readings (minimum), 3 by 3 pattern at 2 in. on center. No reading shall be taken closer than 1 in. from coupon edge. Report individual readings and overall topping system average to Engineer/Architect. Readings shall be made with micrometer or optical comparator.

## **END OF SECTION 071800**

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#### **SECTION 079233 – CONCRETE JOINT SEALANTS**

#### **PART 1 - GENERAL**

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 01 Specification Sections apply to this Section.

#### 1.2 SUMMARY

- A. A single installer shall be responsible for providing complete water proofing system including all products specified in the following Sections:
  - 1. Division 07 Section, "Water Repellents"
  - 2. Division 07 Section, "Joint Sealants"
- B. This Section includes the following:
  - 1. Exterior joints in the following horizontal traffic bearing surfaces:
    - a. Construction joints in cast-in-place concrete.
    - b. Joints between precast concrete units.
- C. Related Sections: Following Sections contain requirements that relate to this Section.
  - 1. Division 03 Section, "Latex Modified Concrete and Mortar."
  - 2. Division 07 Section, "Water Repellents."
  - 3. Division 09 Section, "Pavement Markings."

#### 1.3 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
  - 1. Materials shall be compatible with materials or related Work with which they come into contact, and with materials covered by this Section.
  - 2. Distribute reviewed submittals to all others whose Work is related.
  - 3. Coordinate layout of joint system and approve methods for providing joints with precast concrete and concrete contractors.
  - 4. Inspect site and precast plant before precast production to insure proper joint configuration.
- B. Make submittals in accordance with requirements of Division 01 Section, "Submittal Procedures:"

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- 1. See requirements of Division 01 Section, "Submittal Procedures," Part 1 heading, "Submittal Procedures," for limits to resubmittals.
- C. Submittals and Resubmittals: Engineer will review each of Contractor's shop drawings and/or submittal data the initial time and, should resubmittal be required, one additional time to verify that reasons for resubmittal have been addressed by Contractor and corrections made. Resubmittal changes/revisions/corrections shall be circled. Engineer will review only circled items and will not be responsible for non-circled changes/revisions/corrections and additions. Should additional resubmittals be required, Contractor shall reimburse Owner for all costs incurred, including the cost of Engineer's services made necessary to review such additional resubmittals. Owner shall in turn reimburse Engineer.

#### 1.4 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Owner retains right to reject any manufacturer.
  - Evidence of acceptable previous work on WALKER-designed projects. If none, so state.
  - Evidence of financial stability acceptable to Engineer/Architect.
  - 3. Listing of 20 or more projects completed with submitted system, to include:
    - a. Name and location of project.
    - b. Type of system applied.
    - c. On-Site contact with phone number.
- B. Manufacturer's technical representative, acceptable to Engineer/Architect, shall be on site during surface preparation and initial stages of installation.
- C. Installer's Qualifications: Owner retains right to reject any manufacturer.
  - 1. Evidence of compliance with Summary article paragraph "A single installer. . . "
  - 2. Evidence that installer has successfully performed or has qualified staff who have successfully performed at least 5 verifiable years of installations similar to those involved in this Contract, and minimum 10 projects with submitted system.
  - 3. Listing of 5 or more installations in climate and size similar to this Project performed by installer's superintendent.
- D. Testing Agency: Independent testing laboratory employed by Owner and acceptable to Engineer/Architect.

#### E. Certifications:

- 1. Licensing/certification document from system manufacturer that confirms system installer is a licensed/certified applicator for the manufacturer and is legally licensed to perform work in the State of Illinois.
- 2. Licensing/certification agreement shall include following information:

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- a. Applicator's financial responsibility for warranty burden under agreement terms.
- b. Manufacturer's financial responsibility for warranty burden under agreement terms.
- c. Process for dispute settlement between manufacturer and applicator in case of system failures where cause is not evident or cannot be assigned.
- d. Authorized signatures for both Applicator Company and Manufacturer.
- e. Commencement date of agreement and expiration date (if applicable).

# 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver all materials to site in original, unopened containers, bearing following information:
  - 1. Name of product.
  - 2. Name of manufacturer.
  - 3. Date of preparation.
  - 4. Lot or batch number.
- B. Store materials under cover and protect from weather. Replace packages or materials showing any signs of damage with new material at no additional cost to Owner.
- C. Do not store material on slabs to be post-tensioned before final post-tensioning of slabs is accomplished. At no time shall weight of stored material being placed on slab area, after post-tensioning is completed and concrete has reached specified 28 day strength, exceed total design load of slab area. Between time final post-tensioning is accomplished and time concrete has reached specified 28 day strength, weight of stored material placed on slab area shall not exceed half total design load of slab area.

#### 1.6 FIELD CONDITIONS

A. Weather and Substrate Conditions: Proceed with work only when existing and forecast weather and temperature of concrete substrate will permit work in accordance with manufacturer's recommendations.

#### 1.7 WARRANTY

- A. System Manufacturer: Furnish Owner with written total responsibility Joint and Several Warranty, detailing responsibilities of manufacturer and installer with regard to warranty requirements (Joint and Several). The warranty shall provide that system will be free of defects, water penetration and chemical damage related to system design, workmanship or material deficiency, consisting of:
  - 1. Any adhesive or cohesive failures.
  - Weathering.
  - 3. Abrasion or tear failure resulting from normal traffic use.

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- B. If material surface shows any of defects listed above, supply labor and material to repair all defective areas and to repaint all damaged line stripes.
- C. Warranty period shall be a 5 year Joint and Several Warranty commencing with date of acceptance of work.
- D. Perform any repair under this warranty at no cost to Owner.
- E. Address the following in the terms of the Warranty: length of warranty, change in value of warranty if any- based on length of remaining warranty period, transferability of warranty, responsibilities of each party, notification procedures, dispute resolution procedures, and limitations of liability for direct and consequential damages.
- F. Snowplows, vandalism, and abnormally abrasive maintenance equipment are not normal traffic use and are exempted from warranty.

### **PART 2 - PRODUCTS**

### 2.1 MANUFACTURERS

- A. Manufacturer: Subject to compliance with requirements, provide products of 1 of following, only where specifically named in product category:
  - 1. Master Builders Solutions (MBS), Shakopee, MN.
  - 2. Lymtal International Inc. (Lymtal), Lake Orion, MI.
  - 3. Sika Corporation (Sika), North Canton, OH.
  - 4. Sonneborn, a Division of BASF Construction Chemicals (BASF).
  - Tremco (Tremco), Cleveland, OH.

### 2.2 MATERIALS, JOINT SEALANT SYSTEM

- A. Provide complete system of compatible materials designed by manufacturer to produce waterproof, traffic-bearing control joints as detailed on Drawings.
- B. Compounds used for sealants shall not stain masonry or concrete. Aluminum pigmented compounds not acceptable.
- C. Color of sealants shall match adjacent surfaces.
- D. Closed cell or reticulated backer rods: Acceptable products:
  - "Sof Rod," Nomaco Inc., 501 NMC Drive, Zebulon, NC 27597. (800) 345-7279 ext. 341.
  - 2. "ITP Soft Type Backer Rod," Industrial Thermo Polymers Limited, 2316 Delaware Ave., Suite 216, Buffalo, NY 14216. (800) 387-3847.
  - 3. "Sonneborn Soft Type Backer Rod," Sonneborn, Minneapolis, MN.

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- E. Bond breakers and fillers: as recommended by system manufacturer.
- F. Primers: as recommended by sealant manufacturer.
- G. Acceptable sealants are listed below. Sealants shall be compatible with all other materials in this Section and related work.
- H. Acceptable polyurethane control joint sealants (traffic bearing):
  - 1. MasterSeal SL-2, MBS.
  - 2. Iso-flex 880 GB, Lymtal.
  - 3. Sikaflex-2c SL, Sika.
  - THC-900/901, Vulkem 45SSL, or Vulkem 245, Tremco.
- I. Acceptable polyurethane vertical and cove joints sealants (non-traffic bearing):
  - 1. Sikaflex-2c NS, Sika.
  - 2. MasterSeal NP-2, MBS.
  - 3. Dymeric 240/240FC or THC 901 (cove only), Tremco.
  - 4. Iso-flex 881, Lymtal.
- J. Proposed Substitutions: **None** for this project. Contact Engineer/Architect for consideration for future projects.

### 2.3 SILICONE JOINT SEALANTS

- A. Silicone Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied chemically curing sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.
- B. Single-Component Silicone Sealant:
  - Approved Products:
    - a. Dow Corning Corporation; 790.
    - b. GE Silicones; SilPruf LM SCS2700.
    - c. Tremco; Spectrem 1 (Basic).
  - Type and Grade: S (single component) and NS (nonsag).
  - 3. Class: 50.
  - Use Related to Exposure: NT (nontraffic).
  - 5. Uses Related to Joint Substrates: M, G, A, and, as applicable to joint substrates indicted, O.
- Proposed Substitutions: None for this project. Contact Engineer/Architect for consideration for future projects

### **PART 3 - EXECUTION**

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### 3.1 EXAMINATION

- A. Examine surfaces to receive Work and report immediately in writing to Engineer/Architect any deficiencies in surface which render it unsuitable for proper execution of Work.
- B. Coordinate and verify that related Work meets following requirements before beginning installation
  - 1. Concrete surfaces are finished as acceptable for system to be installed.
  - 2. Curing compounds used on concrete surfaces are compatible with system to be installed.
  - 3. Concrete surfaces have completed proper curing period for system selected.

### 3.2 PREPARATION

- A. Seal all openings to occupied space to prevent cleaning materials, solvents and fumes from infiltration. All protective measures and/or ventilating systems required to prevent infiltration are incidental to this Work.
- B. Correct unsatisfactory conditions before installing sealant system.
- C. Acid etching is prohibited.
- D. Grind joint edges smooth and straight with beveled grinding wheel before sealing. All surfaces to receive sealant shall be dry and thoroughly cleaned of all loose particles, laitance, dirt, dust, oil, grease or other foreign matter. Obtain written approval of method from system manufacturer before beginning cleaning.
- E. Check preparation of substrate for adhesion of sealant.
- F. Prime and seal joints and protect as required until sealant is fully cured. A primer coat is required for all systems.

### 3.3 INSTALLATION/APPLICATION

- A. Do all Work in strict accordance with manufacturer's written instructions and specifications including, but not limited to, moisture content of substrate, atmospheric conditions (including relative humidity and temperature), thicknesses and texture, and as shown on Drawings.
- B. Completely fill joint without sagging or smearing onto adjacent surfaces.
- C. Fill horizontal joints slightly recessed to avoid direct contact with wheel traffic.
- D. Clean off excess material and material smears adjacent to joints as work progresses using methods and materials approved by manufacturers.

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E. Cease material installation under adverse weather conditions, or when temperatures are outside manufacturer's recommended limitations for installation, or when temperature of work area or substrate are below 40°F.

### 3.4 FIELD QUALITY CONTROL

- A. Contractor and Engineer/Architect will jointly determine which one of following 2 methods of sealant testing to verify sealant profile:
  - 1. Contractor, at Engineer/Architect's direction, shall cut out lesser of 1% of total lineal footage placed or total of 100 lineal ft. of joint sealant at isolated/random locations (varying from in. to ft. of material) for Engineer/Architect and Manufacturer's Representative inspection of sealant profile.
  - 2. Contractor, at Engineer/Architect's direction, shall install 3 trial joint sections of 20 ft each. Contractor shall cut out joint sections, as selected by Engineer/Architect, for Engineer/Architect and Manufacturer's Representative inspection. Additional isolated/random removals may be required where sealant appears deficient. Total cut out sealant shall not exceed lesser of 1% of total lineal footage placed or total of 100 lineal ft of joint sealant at isolated/random locations (varying from in. to ft of material) for Engineer/Architect and Manufacturer's Representative inspection of sealant profile.
- B. Repair all random joint sealant "cut out" sections at no cost to Owner.
- C. Flood test joints where shown on Drawings.
- D. Testing Agency:
  - 1. Check shore hardness per ASTM standard specified in sealant manufacturer's printed data.
  - 2. If flood test of joints required by this Section, report results to Engineer/Architect.

### **END OF SECTION 079233**

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# Andrea States Bepartment of Andreas

Office of Apprenticeship Arxining, Amployer and Ashor Services

Mureau of Apprenticeship and Araining

Chicagoland Laborers' J.A.1.C. Carol Stream, Illinois Certificate of Registration

For the Trade - Construction Craft Laborer

Registered as part of the National Apprenticeship Program in accordance with the basic standards of apprenticeship

established by the Secretary of Babor

S.C. chas

Little

April 12, 1999 Dave REVISED August 13, 2004

11 017990001

Registration No.

1200 Old Gary Avenue Carol Stream, Illinois 60188

Tel.: 630.653.0006 Fax: 630.653.2762

Chicagoland Laborers' District Council Training and Apprentice Fund

LABORER TRN CNTR

13 March 2012

Ms. Sue Christofanelli
Office Manager
J. Gill & Company
236 East 161<sup>st</sup> Place, Suite A
South Holland, Illinois 60473

Dear Ms. Christofanelli:

Enclosed you will please find a copy of the Department of Labor certification that you requested recently.

You may also use this letter as verification that J. Gill & Company is indeed signatory to the Chicago Laborers District Council and contributes to the Laborers Apprenticeship Fund.

Should you require anything further, please do not hesitate to contact me.

Yours very truly,

Mahum J Bulkly
Robbin L. Blakely
Office Manager

RLB

**ENC** 

Management Trustees
David Lorig
Donald Henderson
Thomas Nordeen
Robert G. Krug
Larry Keefe
Joseph Koppers



Peter Ruff Administrator Labor Trustees
James P. Connolly

Charles V. LoVerde III Uberato Naimoli Martin Flanagan Toby Koth

Anthony DeLuca



### Dureau of Apprenticealtip and Training **Certificate** of **Aeqistration**

POINITER, CLEANERS & CAULKERS UNION LOCAL #52 APPRENTICESHIP TRUST CHICAGO, ILLINOIS

THE TRADE OF TUCKPOINTER, CLEANER & CAULKER

Registered as part of the National Apprenticeship Program in accordance with the basic standards of apprenticeship established by the Secretary of Babor Kom 16. Bil

Just Lucape Director, Bureau of Thyroceteen part Lucione

Registration No.

TLOOS - 0817

MAY 6, 1996 REVISION

### Tuckpointers Local 52 Illinois Apprenticeship Trust

2140 Corporate Drive • Addison, Illinois 60101 • 630/396-7143 • Fax 630/953-2106



March 13, 2012

To Whom It May Concern:

Please be advised that:

J. Gill & Company 236 E. 161<sup>st</sup> Place, Suite A South Holland, IL 60473

is a signatory contractor to the bargaining agreement and participates in the Pointer, Cleaners and Caulkers Union Local #52 Apprenticeship Trust.

The Pointer, Cleaners and Caulkers Union Local #52 Apprenticeship and Training Program is officially registered with the USDOL/BAT. The registration number is IL008-0817.

If you have any questions, please do not hesitate to call our office at 630-396-7143.

Sincerely,

Michael Hunt

Apprentice Coordinator - PCC

States Department of States



# Bureau of Apprenticeship and Craining

## Certificate of Registration

CEMENT MASONS' AREA JOINT APPRENTICESHIP & CEMENT MASONS UNION LOC, NO, 502 BELLWOOD, ILLINOIS

FOR THE TRADE OF: CEMENT MASON

Registered as part of the National Apprenticeship Program in accordance with the basic standards of apprenticeship established by the Secretary of Babor the metangeni

Secretary of Babar

James I lan Golf.

Viredar, Bureau of Roprenticeship and Training

Registration No.

### CEMENT MASONS' UNION LOCAL No. 502

"Unified Strength Since 1914"

OPERATIVE PLASTERERS' AND CEMENT MASONS' INTERNATIONAL ASSOCIATION OF THE UNITED STATES AND CANADA

739 SOUTH 25th AVENUE - BELLWOOD, ILLINOIS 60104 PHONE: 708-544-9100 FAX: 708-544-0232



### To Whom It May Concern:

Our Apprenticeship Program #IL008820041 is registered with the Department of Labor, Office of Apprenticeship.

Sincerely,

Patrick La Cassa President



### Document A310<sup>™</sup> – 2010

Conforms with The American Institute of Architects AIA Document 310

### Bid Bond

### CONTRACTOR:

(Name, legal status and address)
J. Gill & Company
236 E. 161st Place
Suite A
South Holland, IL 60473

### OWNER:

(Name, legal status and address)
Village of Downers Grove
5101 Walnut Avenue
Downers Grove, IL 60515

### SURETY:

(Name, legal status and principal place of business)
The Ohio Casualty Insurance Company
62 Maple Avenue
Keene, NH 03431

### **Mailing Address for Notices**

The Ohio Casualty Insurance Company Attention: Surety Claims Department 1001 4th Avenue, Suite 1700 Seattle, WA 98154 This document has important legal consequences.
Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

(Seal)

**BOND AMOUNT:** 5% of Bid Amount

### PROJECT:

(Name, location or address, and Project number, if any)
Parking Deck Rehabilitation and Maintenance, Phase 1

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

ttorney-In-Fact

Signed and sealed this 14th

day of June

, 2016

J. Gill & Company

(Principal)

(Title) President

The Ohio Casualty Insurance Company

(Surety)

Magnet Att Cathere

### ACKNOWLEDGEMENT OF ATTORNEY-IN-FACT FOR SURETY

### STATE OF ILLINOIS

COUNTY OF WILL

On this 14<sup>th</sup> of June, 2016 before me personally appeared Raymond A. Mathews, Attorney-in-Fact, of The Ohio Casualty Insurance Company, with whom I am personally acquainted, who being by me duly sworn, did depose and say, that he resides in Will County; that he is the Attorney-in-Fact of The Ohio Casualty Insurance Company, the corporation named in and which executed the within instrument; that he knows the corporate seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed and executed the said instrument as Attorney-in-Fact of said corporation by like order.

Notary Public\_

State County

My Commission Expires\_\_\_

OFFICIAL SEAL
JUDY SWING
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 08/04/2017

(Notarial Seal)

### **POWER OF ATTORNEY**

The Ohio Casualty Insurance Company

| Bond | Number: |  |
|------|---------|--|
| Bond | Number: |  |

Principal: J. Gill & Company

Agency Name: RWC INSURANCE GROUP

Obligee: Village of Downers Grove

Agent Code: 128652

Know All Men by These Presents: That The Ohio Casualty Insurance Company, pursuant to the authority granted by Article IV, Section 12 of the Code of Regulations and By-Laws of The Ohio Casualty Insurance Company, do hereby nominate, constitute and appoint: G. Mark Duncan, Raymond A. Mathews of FRANKFORT, Illinois its true and lawful agent(s) and attorney(ies)-in-fact, to make, execute, seal and deliver for and on its behalf as surety, and as its act and deed any and all BONDS, UNDERTAKINGS, and RECOGNIZANCES, excluding, however, any bond(s) or undertaking(s) guaranteeing the payment of notes and interest thereon.

And the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Company, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of said Company at their administrative offices in Keene, New Hampshire, in their own proper persons. The authority granted hereunder supersedes any previous authority heretofore granted the above named attorney(ies)-in-fact.

In WITNESS WHEREOF, the undersigned officer of the said The Ohio Casualty Insurance Company has hereunto subscribed his name and affixed the Corporate Seal of said Company this 18th day of November, 2013.



David M. Carey, Assistant Secretary

### STATE OF PENNSYLVANIA COUNTY OF MONTGOMERY

On this 18th day of November, 2013 before the subscriber, a Notary Public of the State of Pennsylvania, in and for the County of Montgomery, duly commissioned and qualified, came David M. Carey, Assistant Secretary of The Ohio Casualty Insurance Company, to me personally known to be the individual and officer described in, and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn deposes and says that he is the officer of the Company aforesaid, and that the seal affixed to the preceding instrument is the Corporate Seal of said Company, and the said Corporate Seal and his signature as officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal at the City of Plymouth Meeting, State of Pennsylvania, the day and year first above written.



### COMMONWEALTH OF PENNSYLVANIA

Notarial Seal Teresa Pastella, Notary Public Plymouth Twp. Montgomery County My Commission Expires March 28, 2017

Member, Pennsylvania Association of Notaries

Notary Public in and for County of Montgomery, State of Pennsylvania My Commission expires March 28, 2017

This power of attorney is granted under and by authority of Article IV, Section 12 of the By-Laws of The Ohio Casualty Insurance Company, extracts from which read:

### ARTICLE IV - Officers: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bond, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall-have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary.

Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

This certificate and the above power of attorney may be signed by facsimile or mechanically reproduced signatures under and by authority of the following vote of the board of directors of The Ohio Casualty Insurance Company effective on the 15th day of February, 2011:

VOTED that the facsimile or mechanically reproduced signature of any assistant secretary of the company, wherever appearing upon a certified copy of any power of attorney issued by the company in connection with surety bonds, shall be valid and binding upon the company with the same force and effect as though manually affixed.

### CERTIFICATE

I, the undersigned Assistant Secretary of The Ohio Casualty Insurance Company, do hereby certify that the foregoing power of attorney, the referenced By-Laws of the Company and the above resolution of their Board of Directors are true and correct copies and are in full force and effect on this date.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Company this



Gregory W. Davenport, Assistant Secretary



### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 6/22/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

| Ste. A                             |    |            | INSURER D:                               |              |
|------------------------------------|----|------------|--|--------------|
| J. Gill & Company 236 E. 161st Pl. |    |            | INSURER C:                               |              |
| INSURED                            |    |            | INSURER B: Auto Owners Insurance Co. A++ | 18988        |
| Frankfort                          | IL | 60423-7767 | INSURER A Owners Insurance Co. A++       | 32700        |
| 7239 W. Laraway Rd.                |    |            | INSURER(S) AFFORDING COVERAGE            | NAIC #       |
| Ray Weidenaar & Co.                |    |            | E-MAIL<br>ADDRESS:                       |              |
| RWC Insurance Group                |    |            |  | 15) 469-6165 |
| PRODUCER                           |    |            | CONTACT<br>NAME:                         |              |

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES, LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

|             | VOLUGIONS AND CONDITIONS OF SUCH                       |        |      |                                       |                            |                            | ).<br>                                       | ,  |            |
|-------------|--|--------|------|---------------------------------------|----------------------------|----------------------------|--|----|------------|
| INSR<br>LTR | TYPE OF INSURANCE                                      | ADDL   | MAD  | POLICY NUMBER                         | POLICY EFF<br>(MM/DD/YYYY) | POLICY EXP<br>(MM/DD/YYYY) | LIMITS                                       | S  |            |
|             | X COMMERCIAL GENERAL LIABILITY                         |        |      |                                       |                            |                            | EACH OCCURRENCE                              | \$ | 1,000,000  |
| A           | CLAIMS-MADE X OCCUR                                    |        |      |                                       |                            |                            | DAMAGE TO RENTED<br>PREMISES (Ea occurrence) | \$ | 100,000    |
|             |  |        |      | 0705939315                            | 11/13/2015                 | 11/13/2016                 | MED EXP (Any one person)                     | \$ | 10,000     |
| A           | X Contractual Liability                                |        |      |                                       |                            |                            | PERSONAL & ADV INJURY                        | \$ | 1,000,000  |
|             | GEN'L AGGREGATE LIMIT APPLIES PER:                     |        |      |                                       |                            |                            | GENERAL AGGREGATE                            | \$ | 2,000,000  |
| 1           | POLICY X PRO-  |        |      |                                       |                            |                            | PRODUCTS - COMP/OP AGG                       | \$ | 2,000,000  |
|             | OTHER:   |        |      |                                       |                            |                            |  | \$ |            |
|             | AUTOMOBILE LIABILITY                                   |        |      |                                       |                            |                            | COMBINED SINGLE LIMIT (Ea accident)          | \$ | 1,000,000  |
| A           | X ANY AUTO   |        |      |                                       |                            |                            | BODILY INJURY (Per person)                   | \$ |            |
|             | ALL OWNED SCHEDULED AUTOS                              |        |      | 4901151900                            | 11/13/2015                 | 11/13/2016                 |  | \$ |            |
| 1           | X HIRED AUTOS X NON-OWNED AUTOS                        |        |      |                                       |                            |                            | PROPERTY DAMAGE<br>(Per accident)            | \$ |            |
|             |  | Ĺ      |      |                                       |                            |                            |  | \$ |            |
|             | X UMBRELLA LIAB X OCCUR                                |        |      |                                       |                            |                            | EACH OCCURRENCE                              | \$ | 10,000,000 |
| В           | EXCESS LIAB CLAIMS-MADE                                |        |      |                                       |                            |                            | AGGREGATE                                    | \$ | 10,000,000 |
|             | DED X RETENTION\$ N/A                                  |        |      | 4901157900                            | 11/13/2015                 | 11/13/2016                 |  | \$ |            |
| 1           | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY          |        |      |                                       |                            |                            | X PER OTH-                                   |    |            |
|             | ANY PROPRIETOR/PARTNER/EXECUTIVE                       | N/A    |      |                                       |                            |                            | E.L. EACH ACCIDENT                           | \$ | 1,000,000  |
| A           | (Mandatory in NH)                                      | ,,,,,, |      | 07059388                              | 11/13/2015                 | 11/13/2016                 | E.L. DISEASE - EA EMPLOYEE                   | \$ | 1,000,000  |
|             | If yes, describe under DESCRIPTION OF OPERATIONS below |        |      |                                       |                            |                            | E.L. DISEASE - POLICY LIMIT                  | \$ | 1,000,000  |
| A           | Leased/Rented Equipment                                |        |      | 0705939315                            | 11/13/2015                 | 11/13/2016                 | Limit-                                       |    | \$210,000  |
|             |  |        |      |                                       |                            |                            | Deductible-                                  |    | \$250      |
|             |  |        |      |                                       |                            |                            |  |    | ,          |
| nce         | CRIPTION OF OPERATIONS / LOCATIONS / VEHIC             | 1 22 1 | ACOR | D 404 Additional Demarks Sahadula may | the etteched if a          | 040 00000 in 100           | aluad)                                       |    |            |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Re: Bid# P-013-16 / Parking Deck Rehabilitation and Maintenance, Phase I Additional Insureds with respects to General Liability only when required by written contract on a primary and non-contributory basis: Village of Downers Grove, its officers, officials, employees and volunteers.

| CERTIFICATE HOLDER   | CANCELLATION   |
|--|--|
| Village of Downers Grove<br>801 Burlington Avenue<br>Downers Grove, IL 60515 | SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. |
| 2011020 02010  | AUTHORIZED REPRESENTATIVE  |
|  | R Mathews/AGRADY   |

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Bureau of Construction 2300 South Dirksen Parkway/Room 322 Springfield, Illinois 62764

| <b>Affidavit</b> | of   | <b>Availa</b> | bility |
|------------------|------|---------------|--------|
| For the Let      | itin | g of          | -      |

structions: Complete this form by either typing or using black ink. "Authorization to Bid" will not be issued less both sides of this form are completed in detail. Use additional forms as needed to list all work.

### Part I. Work Under Contract

List below all work you have under contract as either a prime contractor or a subcontractor. It is required to include all pending low bids not yet awarded or rejected. In a joint venture, list only that portion of the work which is the responsibility of your company. The uncompleted dollar value is to be based upon the most recent engineer's or owners estimate, and must include work subcontracted to others. If no work is contracted, show NONE.

|  | 1              | 2                             | 3           | 4                        | Awards Pending |                       |
|--|----------------|-------------------------------|-------------|--------------------------|----------------|-----------------------|
| Contract Number  |                | ŀ                             |             |                          |                |                       |
| Contract With  | Grand Victoria | Village of<br>Arimsten Height | Cityet      | Bresence<br>Resurrection |                |                       |
| Estimated Completion Date                                | AUGUST 2016    | Auryst 2014                   | Nov. 2016   | Nev Joit                 |                |                       |
| Total Contract Price                                     | 400,000,00     | 345,337.00                    | 6.849,42500 | 5,295,000.00             |                | Accumulated<br>Totals |
| Uncompleted Dollar Value if Firm is the Prime Contractor | 100,000.00     | 150,000.00                    | 3.6 mil     | 5,100,000.00             |                | 8,950,0000            |
| Uncompleted Dollar Value if Firm is the Subcontractor    | N/A            | N/A                           | N/A         | N/A                      |                | 0.00                  |
| 318000-  |                |                               |             | Total Value              | of All Work    | 8,950,000             |

Part II. Awards Pending and Uncompleted Work to be done with your own forces.

| List below the uncompleted dollar value subcontracted to others will be listed on the company. If no work is contracted, show N | e reverse of this t | form. In a joint vent | ure, list only that port | ion of the work to be done by you | Accumulated Totals |
|---|---------------------|-----------------------|--------------------------|-----------------------------------|--------------------|
| Earthwork   |                     |                       |                          |                                   |                    |
| Portland Cement Concrete Paving   |                     |                       |                          |                                   |                    |
| HMA Plant Mix   |                     |                       |                          |                                   |                    |
| HMA Paving  |                     |                       |                          |                                   |                    |
| Clean & Seal Cracks/Joints  |                     |                       |                          |                                   |                    |
| Aggregate Bases & Surfaces  |                     |                       |                          |                                   |                    |
| Highway, R.R. and Waterway Structures   |                     |                       |                          |                                   |                    |
| Drainage  |                     |                       |                          |                                   |                    |
| Electrical  |                     |                       |                          |                                   |                    |
| Cover and Seal Coats  |                     |                       |                          |                                   |                    |
| Concrete Construction   |                     |                       |                          |                                   |                    |
| Landscaping   |                     |                       |                          |                                   |                    |
| Fencing   |                     |                       |                          | ·                                 |                    |
| Guardrail   |                     |                       |                          |                                   |                    |
| Painting  |                     |                       |                          |                                   |                    |
| Signing   |                     |                       |                          |                                   |                    |
| Cold Milling, Planning & Rotomilling  |                     |                       |                          |                                   |                    |
| Demolition  |                     |                       |                          |                                   |                    |
| Pavement Markings (Paint)   |                     |                       |                          |                                   |                    |
| Other Construction (List)   |                     |                       |                          | ·                                 |                    |
| concrete repair à restoration   | (00,000.00          | 100,000.00            | 3,300,00000              | 5,025,000                         | \$ 0.              |
| Totals  | 160,000,00          | 100,000.00            | 3,300,000.00             | 5,075,000.00                      | 8,525,000          |

Disclosure of this information is **REQUIRED** to accomplish the statutory purpose as outlined in the "Illinois Procurement Code." Failure to comply will result in non-issuance of an "Authorization To Bid." This form has been approved by the State Forms Management Center.

### Part III. Work Subcontracted to Others.

For each contract described in Part I, list all the work you have subcontracted to others.

|                       | 1          | 2          | 3                   | 4            | Awards Pending |
|-----------------------|------------|------------|---------------------|--------------|----------------|
| Subcontractor         | NJA        | DSI        | <b>1</b> % <b>T</b> | PSI          |                |
| Type of Work          |            | Bourses    | Berrier             | Burrierables |                |
| Subcontract Price     |            | 50,00000   | 368,000.00          | 75,000.00    |                |
| Amount<br>Uncompleted |            | 50,000.00  | 300,000,00          | 75,000.00    |                |
| Subcontractor         |            |            |                     |              |                |
| Type of Work          |            |            |                     |              |                |
| Subcontract Price     |            |            |                     |              |                |
| Amount<br>Uncompleted |            |            |                     |              |                |
| Subcontractor         |            |            |                     |              |                |
| Type of Work          |            |            |                     |              |                |
| Subcontract Price     |            |            |                     |              |                |
| Amount<br>Uncompleted |            |            |                     |              |                |
| Subcontractor         |            |            |                     |              | 140            |
| Type of Work          |            |            |                     |              |                |
| Subcontract Price     | ****       |            |                     |              |                |
| Amount<br>Uncompleted |            |            |                     |              |                |
| Subcontractor         |            |            |                     |              |                |
| Type of Work          |            |            |                     |              | 1              |
| Subcontract Price     |            |            |                     |              |                |
| Amount<br>Uncompleted |            |            |                     |              |                |
| Total Uncompleted     | 100,000.00 | 150,000.00 | 3,400,000-00        | 5,100,000,00 |                |

I, being duly sworn, do hereby declare that this affidavit is a true and correct statement relating to ALL uncompleted contracts of the undersigned for Federal, State, County, City and private work, including ALL subcontract work, ALL pending low bids not yet awarded or rejected and ALL estimated completion dates.

| Subscribed and sworn to before me this 33 day of June, , 30                                  | Type or Print Name Jawes Jaill Officer or Director | President<br>Title |
|--|--|--------------------|
| Sugar M. Christofivelli<br>Notary Public Vg-20-23  | Signed Signed                                      |                    |
| (Notary Seal)  | Company J Gill and Company                         |                    |
| OFFICIAL SEAL SUSAN M CHRISTOFANELLI NOTARY PUBLIC - INDIANA My Comm. Expires Sept. 20, 2023 | South Holland, IL Goy13                            |                    |