



**ADDISON TRAIL AND WILLOWBROOK
HIGH SCHOOLS**

DuPage High School District 88
Addison Trail and Willowbrook High Schools
Pavement and Seal Coat Improvements
Summer 2020 Work

**Project Manual
Issued for Bid – May 6, 2020**

SPECIFICATIONS FOR CONSTRUCTION

Project: DuPage High School District 88
Addison Trail High School and Willowbrook High School
Pavement and Seal Coat Improvements
2020 Summer Work

Owner: DuPage High School District 88
2 Friendship Plaza
Addison, Illinois 60101

Date: May 6, 2020

DIVISION SECTION TITLE

DIVISION 00 – PROCUREMENT AND CONTRACT REQUIREMENTS

Section 001100	Advertisement for Bids
002213	Supplementary Instructions to Bidders
004113	Bid Form
005213	Owner – Contractor Agreement
007200	General Conditions of the Contract for Construction
007300	Supplementary Conditions of the Contract for Construction

DIVISION 01 – GENERAL REQUIREMENTS

Section 011000	Summary
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013100	Project Management and Coordination
013200	Construction Progress Documentation
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024113.13	Paving Removal
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DIVISION 02 (NOT USED)

DIVISION 03 (Not Used)

DIVISION 04 – MASONRY (Not Used)

DIVISION 07 - THERMAL & MOISTURE PROTECTION (Not Used)

DIVISION 08 (Not Used)

DIVISION 09 (Not Used)

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DIVISION 32 – EXTERIOR IMPROVEMENTS

Section 321216	Hot Mix Asphalt
321216.10	Flexible Paving Patch
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END OF SECTION 000110

DIVISION 00 - PROCUREMENT AND CONTRACTING

REQUIREMENTS

SECTION 001100 – ADVERTISEMENT FOR

BIDS

ADVERTISEMENT FOR BIDS

The Board of Education, DuPage High School District 88, Addison, IL, hereinafter referred to as the OWNER, requests sealed, single lump-sum proposals for:



**PAVEMENT AND SEAL COAT IMPROVEMENTS
ADDISON TRAIL HIGH SCHOOL
WILLOWBROOK HIGH SCHOOL
2020 SUMMER WORK**

Project Locations are:

Addison Trail High School – 213 N. Lombard Road, Addison, IL 60101
Willowbrook High School – 1250 S. Ardmore Avenue, Villa Park, IL 60181

Proposals will be received by the OWNER in accordance with the following:

Place: DuPage High School District 88
Administrative Office
c/o Mr. Ryan Domeracki
2 Friendship Plaza
Addison, Illinois 60101

Time: No Later than 1:00pm LOCAL TIME, May 19th, 2020.

Plans and specifications will be available on May 6th, 2020. Please reach out to Tom Manka, Director of Buildings and Grounds at TManka@Dupage88.net

Proposals will be publicly opened and read aloud commencing at 1:00pm LOCAL TIME, May 19, 2020 at the District Administrative Office, noted above or remotely via Zoom. Action on said Proposals will be taken by the OWNER at a later date, at a regular, adjourned, or special meeting of the Board of Education. A MANDATORY pre-bid meeting will be held starting at 10:00 AM on May 11, 2020, at Addison Trail High School, 213 N. Lombard Road, Addison, Illinois; sign in at the main entrance.

All proposals received after the stipulated time and date will be rejected and/or will not be accepted.

To ensure bidders are added to the official plan holder's list and receive all addenda or other project related correspondence, bidders must visit www.dupage88.net to view or download this project online.

DIVISION 00 - PROCUREMENT AND CONTRACTING

REQUIREMENTS

SECTION 001100 – ADVERTISEMENT FOR BIDS

This project is subject to the Illinois Prevailing Wage Act (820 ILCS 130/1-12). The OWNER reserves the right to reject any or all bids and waive irregularities in the bidding procedure as their interests may appear.

BY ORDER OF DUPAGE HIGH SCHOOL DISTRICT 88.

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 002213 - SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

GENERAL

The following supplements modify the "Instructions to Bidders" A.I.A. Document A701, 1997. Where a portion of the Instructions to Bidders is modified or deleted by these Supplementary Instructions to Bidders, the unaltered portions of the Instructions to Bidders shall remain in effect.

ARTICLE 3 - BIDDING DOCUMENTS

3.3 SUBSTITUTIONS

Add Paragraphs 3.3.5 and 3.3.6:

3.3.5 Items of other manufacturers, or design, quality, and capacity, will be considered as alternates or substitutes to those specified or noted on the Drawings only if the Bidder, at the time of submitting their Base Bid (and Alternate Bids), offers to make such substitution and quotes any addition to, or deduction from, the amount of the Base Bid if such substitution should be accepted in the space provided on the Bid Form.

3.3.6 The Owner reserves the right to reject under the Bid any substitute offered for items specified or noted on the Drawings. Only the successful Bidder's proposed Alternates will be evaluated.

ARTICLE 5 - CONSIDERATION OF BIDS

5.3 ACCEPTANCE OF BID (AWARD)

Add Paragraphs 5.3.3, 5.3.4 and 5.3.5:

5.3.3 The award of a Contract will be made within 60 calendar days after the opening of proposals, to the lowest responsible and qualified Bidder whose proposal complies with all the requirements prescribed.

5.3.4 No bids will be withdrawn for a period of 60 days after the Bid opening date without consent of the Owner.

5.3.5 If Contracts cannot be awarded promptly, the Owner may permit the three lowest Bidders to substitute bid bonds executed by corporate surety companies satisfactory to the Owner for any cashier's checks or certified checks submitted with their Bids as Bid guarantees, but such substitution shall not be made until a period of 3 days has elapsed after the date of opening Bids.

ARTICLE 8 - FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

Add Paragraph 8.2 - EXECUTION OF AGREEMENT:

8.2 EXECUTION OF AGREEMENT

8.2.1 The Agreement shall be executed by the successful Bidder or Bidders and returned within

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 002213 - SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

5 days after the Contract has been mailed to the Bidder.

8.2.2 If the Bidder or Bidders to whom award is made is a corporation organized under the laws of a state other than Illinois, the Bidder shall furnish the Owner a copy of the corporation's Certificate of Authority to do business in the State of Illinois with the return of the executed Contract. Failure to furnish such evidence of a Certificate of Authority within the time required will be considered as just cause for the annulment of the award and forfeiture of the proposal guarantee to the Owner, not as a penalty, but in payment of liquidated damages sustained as a result of such failure.

Add Paragraph 8.3 - FAILURE TO EXECUTE AGREEMENT:

8.3 FAILURE TO EXECUTE AGREEMENT

8.3.1 Failure of the successful Bidder to execute the Agreement within 5 days after the Contract has been mailed to Bidder shall be just cause for the cancellation of the award and the forfeiture of the Bid guarantee, which shall become the property of the Owner, not as a penalty but in liquidation of damages sustained. Award may then be made to the next lowest responsible Bidder or the Work may be readvertised.

Add ARTICLE 9 – TIME OF COMPLETION:

ARTICLE 9 - TIME OF COMPLETION

9.1.1 Time is of the essence in the completion of the Project and the Contract will be predicated upon full compliance with the Contractor's stated time of completion for Owner's useful occupancy included in his Bid. The Owner will evaluate each Bidder's capability in this regard in awarding the Contract.

9.1.2 Bidders are informed that administrative work must be started immediately following the award and signing of Contracts and Work must be carried on continuously thereafter until completion and be fully completed within the time stated in the Bid Form, except on written order from the Engineer. Construction activities must be carefully coordinated with the Owner so as to minimize conflict with normal activities and events.

END OF SECTION 002213

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 004113 - BID FORM

To enter into and execute a contract with the Owner, if awarded on the basis of this bid, and in connection therewith to:

1. Furnish all bonds and insurance required by the bidding documents.
2. Accomplish the work in accordance with the contract.
3. Complete the work within the contract time herein specified.

COMPLETION TIME

The undersigned agrees to commence and bring all Work under the Contract to Final Completion according to the schedule indicated under Section 011000 Summary of Work.

BID DEPOSIT

The undersigned furnishes herewith, as required in the Instructions to Bidders, a bid deposit in the amount of 10% of the amount bid in the form of Cashier's Check, or Certified Check, made payable to the Owner or Bid Bond, naming the Owner as obligee. (Bidder to check form of deposit furnished.)

It is understood and agreed that should the undersigned fail to enter into a contract with the Owner or furnish acceptable contract security within the time and in the manner herein provided. The bid deposit shall be retained by the Owner as liquidated damages and not as a forfeiture. As it is impossible to determine precisely an exact amount of damages the Owner will sustain, it is agreed that the bid deposit is a fair and equitable estimate of such damages.

BASE BID

1. For all Base Bid Pavement and Seal Coat Improvements at ATHS and WBHS.

The TOTAL sum of: _____ Dollars (\$ _____)

BID ACCEPTANCE

If written notice of the acceptance of this bid is mailed, telegraphed or delivered to the undersigned within the time noted herein, after the date of opening of bids or at any time thereafter before this bid is withdrawn, the undersigned agrees that he will execute a construction contract (AIA Document A101, 1997 Edition, or newer) in accordance with the bids as accepted. He will obtain performance and payment bonds with such surety or sureties as the Owner may approve, the cost of which shall be included in the base bid.

The Owner reserves the right to award the contract to his best interests, to reject any of all bids, to waive any informalities in bidding and to hold all bids for the bid guarantee period.

REPRESENTATIONS AND CERTIFICATIONS

The bidder makes the following representations and certifications as part of his bid on the project herein identified in the Bid Form. In the case of a joint venture bid, each party represents and certifies as to his own organization.

SURETY. I have notified a Surety Company that I am submitting a bid for work to be performed on the project. The Surety Company has agreed to issue a performance and labor and material payment bond for my work, if requested by the Owner, if my bid is accepted and the contract awarded to me.

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 004113 - BID FORM

AVAILABILITY. The number and amount of contracts and awards pending which I am and/or will be obligated to perform, now and during the course of the project, will not interfere with or hinder the timely prosecution of my work.

INDEPENDENT PRICE DETERMINATION. The contract sum in this bid has been arrived at independently. Without consultation, communication or agreement for the purpose of restricting completion.

PREVAILING WAGE. The contractor and each subcontractor shall pay not less than the general prevailing rate of hourly wages for work of a similar character in the locality in which the work is performed and not less than general prevailing rate of hourly wages for legal holidays and overtime work in the performance of work under this contract, as established by the Illinois Department of Labor, pursuant to an act of the General Assembly of the State of Illinois approved June 26, 1941 as amended according to the Illinois Revised Statutes, Chapter 48, Section 39s-1, et seq.

Pursuant to Illinois Revised Statutes, Chapter 48, Section 34s-5, the contractor and each contractor shall keep an accurate record showing the names and occupation of all laborers, workers and mechanics employed by them, and also showing the actual hourly wages paid to each such individual, which record shall be open at all reasonable hours to inspection by the Owner, its officers and agents, and to agents of the Illinois Department of Labor.

The contractor and each subcontractor hereby agree, jointly and severally, to defend, indemnify and hold harmless the Owner from any and all claims, demands, liens or suits of any kind or nature whatsoever (including suits for injunctive relief) by the Illinois Department of Labor under the Illinois Prevailing Wage Act, Illinois Revised Statutes, Chapter 48, Section 39s-1, et seq., or by any laborer, worker or mechanic employed by the contractor or the subcontractor who alleges that he has been paid for his services in a sum less than prevailing wage rates required by Illinois law. The Owner agrees to notify the contractor or subcontractor of the pendency of any such claim, demand, lien or suit.

BID-RIGGING/BID ROTATING. The undersigned is not barred from bidding on this project as a result of a violation of either Section 33E-3 (Bid-rigging) or Section 38E-4 (Bid rotating) under Article 33E of Chapter 38 of the Illinois Revised Statutes.

The current prevailing wage rates are included in the specifications for reference only. The contractor and subcontractor must pay the prevailing wage rates in effect at the actual time the labor is performed.

CERTIFICATE OF COMPLIANCE WITH ILLINOIS PREVAILING WAGE RATE ACT. Pursuant to the provisions of the Illinois Prevalent Wage Rate Act. (Illinois Rev. Stat. 1989, Ch. 48, Pars 39N. et seq.), contractor hereby certifies that all workers will be paid at the prevailing wage rate as published by the Cook County Department of Labor.

Initials_____

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 004113 - BID FORM

CERTIFICATE OF ELIGIBILITY TO CONTRACT. Pursuant to Section 33 E-11 of the Illinois Criminal Code of 1961 as amended, contractor hereby certifies that neither they nor any of the officers, partners, or owners of this business have been convicted in the past five years of the offense of bid-rigging under Section 33 E-3, nor bid-rotating under Section 33 E-4, nor bribing or attempting to bribe an officer or an employee of the State of Illinois, or made an admission of guilt or such conduct which is a matter of record.

Initials_____

CERTIFICATE OF COMPLIANCE WITH ILLINOIS DRUG-FREE WORKPLACE ACT. Pursuant to Section 3 of the Illinois Drug-Free Workplace Act, having twenty-five or more employees, contractor does hereby certify that they shall provide a drug-free workplace for all employees engaged in the performance of work under this contract by complying with Illinois Drug-Free Workplace Act, and, further certifies that they are not ineligible for award of this contract by reason of debarment for a violation of the Illinois Drug-Free Workplace Act.

Initials_____

CERTIFICATE REGARDING SEXUAL HARASSMENT POLICY. Pursuant to Section 2-105 of the Illinois Human Rights Act (775 IL-CS5/2-105), contractor certifies they have a written sexual harassment policy that includes, at a minimum, the following information: (i) the illegality of sexual harassment; (ii) the definition of sexual harassment under State law; (iii) a description of sexual harassment, utilizing examples; (iv) an internal complaint process including penalties; (v) the legal recourse, investigative and compliant process available through the Department of Human Rights Commission; (vi) directions of how to contact the Department of Human Rights and Human Rights Commission; and (vii) protection against retaliation.

Initials_____

CERTIFICATE REGARDING CONTRACT BROKERS. The contractor must have an organization composed of a minimum of basic trade (i.e. paving trade) which in turn manages and directly employs a labor force exclusively of its own. This labor force shall have a long and continuous employment record with the general contractor at which time they have, own and operate a full line working equipment. This expressly states that “jobbers”, “brokers”, “storefront” establishments that claim to be general contractors but then sub contract the project to yet another general contractor shall be considered a non-responsive bid.

Initials_____

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 004113 - BID FORM

Signature: _____

Respectfully submitted this _____ day of _____, 20_____.

Type of Firm (Bidder to indicate)

_____	Individual
_____	Partnership
_____	Corporation
_____	Other

(Firm Name)

(Address)

(Telephone Number)

(Bidder's Signature)

(Bidder's Printed Name)

(Title)

Subscribed and sworn to me

this _____ day of _____, 20_____.

(NOTARY SEAL)

END OF SECTION 004113

PART 1 - GENERAL

1.1 FORM OF AGREEMENT

- A. The Agreement shall be executed on the American Institute of Architects "Standard Form of Agreement Between Owner and Contractor," Document Number A101 2007 edition, as modified by Section 007300 - Supplementary Conditions of the Project Manual. Copies of Agreement may be examined or obtained at the Engineer's office.
- B. AIA Document A101 is expressly incorporated herein by reference as if fully set forth.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 005213

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 007200 – GENERAL CONDITIONS

PART 1 - GENERAL

1.1 THE PROJECT

- A. Title: Pavement and Seal Coat Improvements
Addison Trail High School and Willowbrook High
School 2020 Summer Work

- B. Owner: DuPage High School District 88
2 Friendship Plaza
Addison, IL 60101

1.2 GENERAL SCOPE OF WORK

- A. The Work that is to be performed under the Contract for this Project consists of furnishing all the materials, equipment, supplies, labor and transportation which is required to complete the Work described by the Contract Documents titled as above. All in strict accordance with the Contract Documents and whatever other documents are issued by the Engineer in amplification or clarification during the prosecution of the work.

1.3 GENERAL CONDITIONS

- A. This Project will be governed by the American Institute of Architects General Conditions, AIA Document Number A201, 2007 edition, or newer, as modified by Section 007300 - Supplementary Conditions of the Project Manual. The "General Conditions" referred to throughout these Bidding Documents shall mean the above two documents taken together. Copies of General Conditions may be examined or obtained at the Engineer's office.

- B. AIA Document A201 is expressly incorporated herein by reference as if fully set forth.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 007200

DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 007300 - SUPPLEMENTARY CONDITIONS

GENERAL

The following supplements modify AIA Document A201-2007, General Conditions of the Contract for Construction. Where a portion of the General Conditions is modified or deleted by these Supplementary Conditions, the unaltered portions of the General Conditions shall remain in effect.

ARTICLE 1 - GENERAL PROVISIONS

§ 1.1 BASIC DEFINITIONS

Change Section 1.1.1 to read:

§ 1.1.1 THE CONTRACT DOCUMENTS

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Advertisement or Invitation to Bid, Instruction to Bidders, Bid Form, the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement and Modifications issued after execution of the Contract. A Modification is a (1) a written amendment of the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive or (4) a written order for a minor change in the work issued by the Engineer.

§ 1.2 EXECUTION, CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

Add the following Section 1.2.1.1:

§ 1.2.1.1 In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following priorities:

- .1 Modifications.
- .2 The Agreement.
- .3 Addenda, with those of later date having precedence over those of earlier date.
- .4 The Supplementary Conditions.
- .5 The General Conditions of the Contract for Construction.
- .6 Division 01 of the Specifications.
- .7 Drawings and Division 02 to 49 of the Specifications.
- .8 Other documents specifically enumerated in the Agreement as part of the Contract Documents.

In the case of conflicts or discrepancies between Drawings and Specifications or within or among the Contract Documents and not clarified by Addendum, the better quality or greater quantity of work shall be provided in accordance with the Engineer's interpretation. Large-scale drawings shall take precedence over small-scale drawings; figured dimensions on the Drawings over scaled dimensions and noted materials over graphic representatives.

Requests for information / clarifications are encouraged during the bidding process. Please submit all questions to Tom Manka no later than 5 days prior to the bid due date.

ARTICLE 2 - OWNER

§ 2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER

Change Section 2.2.5 to read:

§ 2.2.5 The Contractor will be furnished, free of charge, all copies of the Drawings and Project Manuals returned by other bidders. Additional copies required by the Contractor shall be furnished at cost of reproduction, postage and handling.

ARTICLE 3 - CONTRACTOR

§ 3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

Add the following Sections:

§ 3.2.2.1 The exactness of grades, elevations, dimensions, or locations given on any drawings issued by the Engineer or the work installed by other contractors, is not guaranteed by the Engineer or Owner.

§ 3.2.2.2 The Contractor shall, therefore, satisfy itself as to the accuracy of all grades, elevations, dimensions and locations. In all cases of interconnection of the Contractor's work with existing or other work, Contractor shall verify at the site all dimensions relating to such existing or other work. Any errors due to the Contractor's failure to so verify all such grades, elevations, locations or dimensions shall be promptly rectified by the Contractor without extra cost to the Owner.

§ 3.4 LABOR AND MATERIALS

Add the following Section:

§ 3.4.4 The Contractor and each subcontractor shall pay not less than the general prevailing rate of hourly wages for work of a similar character in the locality in which the work is performed and not less than general prevailing rate of hourly wages for legal holidays and overtime work in the performance of work under this Contract, as established by the Illinois Department of Labor, pursuant to the Prevailing Wage Act, 820 ILCS 130/0.01, et. seq. Pursuant to the Prevailing Wage Act, the Contractor and each subcontractor shall keep an accurate record showing the names and occupation of all laborers, workers and mechanics employed by them, and also showing the actual hourly wages paid to each such individual, which record shall be open at all reasonable hours to inspection by the Owner, its officers and agents, and to agents of the Illinois Department of Labor. The Contractor and each subcontractor hereby agree, jointly and severally, to defend, indemnify and hold harmless the owner from any and all claims, demands, liens or suits of any kind or nature whatsoever (including suits for injunctive relief) by the Illinois Department of Labor under the Illinois Prevailing Wage Act, 820 ILCS 130/0.01, et. seq., or by any laborer, worker or mechanic employed by the Contractor or the subcontractor who alleges that he/she has been paid for his services in a sum less than prevailing wage rates required by Illinois law. The Owner agrees to notify the Contractor or subcontractor of the pendency of any such claim, demand, lien or suit. The current Prevailing Wage Rates are included in these specifications as Appendix 1 for reference only. Contractor must pay prevailing wages in effect at time labor is performed.

DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 007300 - SUPPLEMENTARY CONDITIONS

§ 3.6 TAXES

Change Section 3.6 to read:

§ 3.6 The Owner is exempted by Section 3 of the Illinois Use Tax Act (Section 3, House Bill 1610, approved July 31, 1961, 35 ILCS 105/3 from paying any of the taxes imposed by the Act and Sales to Owner are exempt by Section 2, House Bill 1609, approved July 31, 1961, 35 ILCS 120/2) from any of the taxes imposed by the Act. The Department of Revenue of the State of Illinois under Rule No. 15, issued August 9, 1961, has declared that sales of materials to construction contractors for conversion into real estate for schools, governmental bodies, agencies and instrumentalities are not taxable retail sales.

ARTICLE 8 - TIME

§ 8.3 DELAYS AND EXTENSIONS OF TIME

Add the following Section:

8.3.2.1. Notwithstanding any other provision in the Contract Documents to the contrary, no claim for damage or any claim other than for extension of time as herein provided shall be made or asserted against the Owner by reason of any delays caused by the reasons herein above mentioned.

Section 8.3.3. Delete the term "either party" and replace it with "the Owner."

ARTICLE 9 - PAYMENTS AND COMPLETION

§ 9.3 APPLICATIONS FOR PAYMENT

Add the following Section 9.3.1.3:

9.3.1.3 Until final completion, the Owner shall pay no more than 90 percent of the amount due the Contractor on account of progress payments.

ARTICLE 11 - INSURANCE AND BONDS

§ 11.1 CONTRACTOR'S LIABILITY INSURANCE

11.1.1.1 Delete the semicolon at the end of Section 11.1.1.1 and add: , including private entities performing Work at the site and exempt from the coverage on account of number of employees or occupation, which entities shall maintain voluntary compensation coverage at the same limits specified for mandatory coverage for the duration of the Project;

11.1.1.2 Delete the semicolon at the end of Section 11.1.1.2 and add: or persons or entities excluded by statute from the requirements of Section 11.1.1.1 but required by the Contract Documents to provide the insurance required by that section.

11.1.1.6 Delete the semicolon at the end of Section 11.1.1.6 and add: and coverage shall be written on a comprehensive automobile policy that includes coverage for owned, non-owned and hired motor vehicles.

Add the following Sections 11.1.1.9, 11.1.1.10 and 11.1.1.11.

11.1.1.9 Liability insurance shall be written on the comprehensive general liability basis, and

DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 007300 - SUPPLEMENTARY CONDITIONS

shall include, but not be limited to, the following sub-lines:

- A. Premises and Operations including x, c, u coverages (explosion, collapse, underground).
- B. Products and Completed Operations.
- C. Independent Contractor's Protective.
- D. Broad Form Comprehensive General Liability Endorsement:
 - 1. Contractual Liability, including Contractors obligation under Section 3.18.
 - 2. Personal Injury & Advertising Injury Liability.
 - 3. Premises Medical Payments.
 - 4. Host Liquor Law Liability.
 - 5. Fire Legal Liability - Real Property.
 - 6. Broad Form Property Damage Liability (including Completed Operations).
 - 7. Incidental Medical Malpractice Liability.
 - 8. Non-owned Watercraft Liability.
 - 9. Limited Worldwide Liability.
 - 10. Additional Persons Insured, including employees for personal and advertising injury.
 - 11. Extended Bodily Injury Liability.
 - 12. Automatic Coverage - Newly Acquired Organizations (90 days).

11.1.1.10 If liability insurance is written under the new simplified form - Commercial General Liability, the above listed coverages shall be included.

11.1.1.11 If the General Liability coverages are provided by a Commercial General Liability Policy on a claims-made basis, the policy date or retroactive date shall predate the Contract; the termination date of the policy shall be no earlier than the termination date of coverages required to be maintained after final payment, certified in accordance with Section 9.10.2, and an extended period endorsement "Supplemental Tail," shall be purchased.

11.1.2 Add the following Section 11.1.2.1:

11.1.2.1 The insurance required by Section 11.1.1 shall be written for not less than the following limits, or greater if required by law:

- 1. Worker's Compensation:
 - a. State: Statutory.
 - b. Applicable Federal (e.g., Longshoremen's): Statutory.
 - c. Employer's Liability:

<u>\$ 500,000.00</u>	Per Accident.
<u>\$ 500,000.00</u>	Disease, Policy Limit.
<u>\$ 500,000.00</u>	Disease, Each Employee.

2A. If written under Comprehensive General Liability Policy Form (including sub-lines specified in Section 11.1.1.8):

- 1. Bodily Injury:

<u>\$1,000,000.00</u>	Each Occurrence.
<u>\$1,000,000.00</u>	Aggregate.

DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 007300 - SUPPLEMENTARY CONDITIONS

2. Property Damage:
- | | |
|-----------------------|------------------|
| <u>\$1,000,000.00</u> | Each Occurrence. |
| <u>\$1,000,000.00</u> | Aggregate. |

3. Bodily Injury and Property Damage combined:
- | | |
|-----------------------|------------------|
| <u>\$1,000,000.00</u> | Each Occurrence. |
| <u>\$1,000,000.00</u> | Aggregate. |

4. Personal Injury:
- | | |
|-----------------------|------------|
| <u>\$1,000,000.00</u> | Aggregate. |
|-----------------------|------------|

2B. If written under Commercial General Liability Policy Form:

- | | | |
|----|-----------------------|--|
| 1. | <u>\$1,000,000.00</u> | General Aggregate. |
| 2. | <u>\$1,000,000.00</u> | Products Completed Operations Aggregate. |
| 3. | <u>\$1,000,000.00</u> | Personal and Advertising Injury. |
| 4. | <u>\$1,000,000.00</u> | Each Occurrence. |
| 5. | <u>\$ 50,000.00</u> | Fire Damage (any one fire). |
| 6. | <u>\$ 5,000.00</u> | Medical Expense (any one person). |

3. Business Automobile Liability (including owned, non-owned and hired vehicles):

- a. Bodily Injury:
- | | |
|-----------------------|---------------|
| <u>\$1,000,000.00</u> | Per Person. |
| <u>\$1,000,000.00</u> | Per Accident. |

- b. Property Damage:
- | | |
|-----------------------|-----------------|
| <u>\$1,000,000.00</u> | Per Occurrence. |
|-----------------------|-----------------|

- c. Bodily Injury and Property Damage Combined:
- | | |
|-----------------------|-----------------|
| <u>\$1,000,000.00</u> | Per Occurrence. |
|-----------------------|-----------------|

4. Umbrella Excess Liability:
- | | |
|-----------------------|---|
| <u>\$2,000,000.00</u> | Over Primary Insurance. |
| <u>\$ 10,000.00</u> | Retention for Self-Insured Hazards Each Occurrence. |

§ 11.1.3 Add the following sentences to Section 11.1.3:

On the Certificate of Insurance, delete in the cancellation provision the following words, "Endeavor to" and "but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives."

§ 11.2 OWNER'S LIABILITY INSURANCE

Delete Section 11.2 and in its place, add the following Section 11.2.1, 11.2.2, 11.2.3:

11.2.1 In any and all claims against the Owner or the Engineer or any of their agents or

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SECTION 007300 - SUPPLEMENTARY CONDITIONS

employees by any employee of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the insurance obligation under this Section shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any subcontractor under Workmen's Compensation Acts, disability benefit acts or other employee benefit acts.

11.2.2 The insurance obligations of the Contractor under this Section shall not extend to the liability of the Engineer, his agents or employees arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications or (2) the giving of or failure to give directions or instruction by the Engineer, his agents or employees provided that such giving or failure to give is the primary cause of the injury damage.

11.2.3 The Contractor shall give the Owner an original policy. The named insured in this Protective Liability Policy shall be:

1. DuPage High School District 88
2 Friendship Plaza
Addison, IL 60101

§ 11.3 PROPERTY INSURANCE

Delete Sections 11.3.1, 11.3.1.1, 11.3.1.2, 11.3.1.3, 11.3.1.4 and 11.3.1.5 and in their place add the following Sections:

11.3.1 The Builder's Risk Insurance is required and shall be purchased and maintained until the date established for Substantial Completion of the Project by the Contractor.

11.3.1.1 The policy shall be a completed Value All-Risk Builder's Risk policy and shall cover all work (including that of all contractors) in the course of construction including temporary structures and materials used in the construction process stored on or within 100 feet of the construction site and while awaiting installation. The policy shall be written in an amount equal to 100 percent of the total sum of all contracts.

11.3.1.2 Coverage shall include, but not be limited to:

- A. Fire and Extended Coverage (Lightning, wind storm, hail, explosion, riot, civil commotion, aircraft, vehicle and smoke).
- B. Vandalism and Malicious Mischief.

11.3.1.3 Coverage shall not extend to:

- A. Tools and equipment of:
 1. Contractors.
 2. Subcontractors.
 3. The Engineer/Engineer.
- B. Property owned by employees of any of the foregoing.
- C. Vehicles of any kind.

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- D. Trees and shrubs.
- E. Drawings and specifications.

11.3.1.4 The Owner and the Engineer/Engineer and all other contractors shall be named as additional insured as their interest may appear.

11.3.1.5 A deductible clause of \$1,000 per loss shall be included. The party purchasing the Builder's Risk Insurance shall be responsible for apportioning the amount of losses within the deductible or portions not insurable amount the insured contractors.

11.3.1.6 The policy by its terms or endorsement shall specifically permit and allow for beneficial or partial occupancy prior to completion or acceptance of the Project by the Owner.

11.3.1.7 The Owner, the Engineer/Engineer and each contractor waive all rights each against the others for damages caused by fire or any other peril to the extent any loss or claim is covered by Builder's Risk Insurance or any other permanent insurance applicable to the Project except such rights as they may have to the proceeds of such insurance held by any of the insured as a result of loss. Each insured contractor shall require similar waivers of subrogation from all subcontractors and sub-subcontractors engaged on the Project.

11.3.1.8 The prompt repair or reconstruction of the Work as a result of any insured loss or damage shall be the Contractor's responsibility and shall be accomplished at no additional cost to the Owner or Engineer/Engineer. The Contractor shall furnish the proper assistance in the adjustment and settlement of any loss. Loss will be adjustable with and payable to the party purchasing the Builder's Risk Insurance who shall be responsible for apportioning the loss proceeds to each and every entity involved in the loss to the extent of his interest. The policy shall contain a provision that the policy will not be canceled, changed or altered until at least 30 calendar days prior to written notice has been given to the named insured.

§ 11.4 PERFORMANCE BOND AND PAYMENT BOND

Delete Section 11.4.1 and substitute the following:

11.4.1 The Contractor shall furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder. Bonds may be obtained through the Contractor's usual source and the cost thereof shall be included in the Contract sum. The amount of each bond shall be equal to 100 percent of the Contract sum.

11.4.1.1 The Contractor shall require the attorney-in-fact who executed the required bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney.

ARTICLE 13 - MISCELLANEOUS PROVISIONS

§ 13.6 INTEREST

Delete in its entirety. All references to interest payments throughout the Contract Documents are hereby voided.

Add the following Section 13.6:

§ 13.6 REGULATIONS

§ 13.6.1 The Contractor or subcontractor warrants that he/she is familiar with and he/she shall comply with Federal, State and local laws, statutes, ordinances, rules and regulations and the

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orders and decrees of any courts or administrative bodies or tribunals in any manner affecting the performance of the Contract including without limitation Workmen's Compensation Laws, minimum salary and wage statutes and regulations, laws with respect to permits and licenses and fees in connection therewith, laws regarding maximum working hours. No plea of misunderstanding or ignorance thereof will be considered.

13.6.1.1 Whenever required, the Contractor or subcontractor shall furnish the Engineer with satisfactory proof of compliance with said Federal, State and local laws, statutes, ordinances, rules, regulations, orders and decrees.

13.6.2 Each contractor shall carefully examine the Occupational Safety and Health Act (OSHA) of 1970, published in May 1971, as issued by the Federal Register, and the specific regulations governing procedures, techniques, safety precautions, equipment design, and the configuration of the same as required under this Act and each contractor agrees as evidenced by his submission of a bid to comply with all terms of the Act and to perform and complete in a workmanlike manner all work required in full compliance with said Act.

13.6.3 Each bidder agrees as evidenced by his submission of a bid to comply with all terms of the Equal Employment Opportunity Clause of the Illinois Fair Employment Practices Commission.

ARTICLE 15 – CLAIMS AND DISPUTES

15.4 ARBITRATION

Delete Section 15.4 in its entirety. All references to “arbitration” throughout the Contract Documents are hereby voided.

END OF SECTION 007300

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. Section Includes:

1. Work covered by the Contract Documents.
2. Type of the Contract.
3. Work Schedule.
4. Use of premises.
5. Owner's occupancy requirements.
6. Work restrictions.
7. Specification formats and conventions.

B. Related Requirements:

1. Division 01 Section "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: DuPage High School District 88, Addison Trail High School and Willowbrook High School Pavement and Seal Coat Improvements 2020 Summer Work, project number .

1. Project Locations:

Addison Trail High School – 213 N. Lombard Road – Addison, IL 60601

Willowbrook High School (WBHS) – 1250 S. Ardmore Ave – Villa Park, IL 60181

- B. Owner: DuPage High School District 88 – 2 Friendship Plaza – Addison, IL 60101

1. Owner's Representative: Tom Manka, Director of Buildings & Grounds
Phone: (773) 499-9785

- D. The Work consists of the following:
 - 1. The Scope of Work includes pavement removal and patching, crack filling, seal coat and pavement markings.

1.4 TYPE OF CONTRACT

- A. Project will be constructed under a single prime contract.

1.5 WORK SCHEDULE

- A. The Work shall be conducted in one phase in the following order:
 - 1. Mandatory Pre-Bid meeting: May 11th, 2020 at 10:00 AM local time
 - 2. Bid Opening: May 19, 2020 at 1:00 PM local time
 - 3. Pre-Construction Meeting: TBD
 - 4. Start of General Construction: On or after June 9th, 2020
 - 5. Final Completion: No later than July 30th, 2020

1.6 USE OF PREMISES

- A. General: Contractor shall have limited use of premises for construction operations as indicated on Drawings by the Contract limits.
- B. Use of Site: Limit use of premises to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Owner Occupancy: Allow for Owner occupancy of Project site and use by the public.
 - 2. Driveways and Entrances: Keep driveways loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
 - c. Construction Access: Enter at receiving door when required – see plans.
 - d. Construction Parking: Near receiving entrance as directed by the Owner's Representative.
- C. Use of Existing Building: Maintain existing building in a weathertight condition throughout construction period. Repair damage caused by construction operations. Protect building and its occupants during construction period.

1.7 OWNER'S OCCUPANCY REQUIREMENTS

- A. Full Owner Occupancy: Owner will occupy site and existing building during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits, unless otherwise indicated.
 - 1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
 - 2. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.

1.8 WORK RESTRICTIONS

- A. On-Site Work Hours: Work shall be generally performed outside the existing building during normal business working hours of 7:30 a.m. to 3:30 p.m., Monday through Friday, except otherwise indicated.
 - 1. Weekend Hours: As approved by Owner.
 - 2. Early Morning Hours: As approved by Owner.
 - 3. Hours for Utility Shutdowns: As approved by Owner.
- B. 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 Owner not less than three days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Owner's written permission.

1.9 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the 50-division format and CSI/CSC's "MasterFormat" numbering system.
 - 1. Section Identification: The Specifications use Section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.
 - 2. Division 01: Sections in Division 01 govern the execution of the Work of all Sections in the Specifications.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words

shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.

2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
3. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

1.10 MISCELLANEOUS PROVISIONS

- A. Materials used in this Project shall be polychlorinated biphenyl (PCB), mercury, and asbestos free. No PCB, mercury, or asbestos-containing-building materials (ACM), as defined by federal regulation A.H.E.R.A., E.P.A., and Illinois Department of Public Health are permitted for this Project.
- B. Installation of a product on surfaces prepared by others constitutes acceptance of the surface.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

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 specifies administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Sections include the following:
 - 1. Division 01 Section "Product Requirements" for administrative procedures for handling requests for substitutions made after Contract award.

1.3 MINOR CHANGES IN THE WORK

- A. Owner will issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time.

1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Owner will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Proposal Requests issued by Engineer are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
 - 2. Within 3 days after receipt of Proposal Request, submit a detailed quotation of cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. Provide a detailed labor, material and equipment breakdown.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Allow, for changes in the work an added percentage to compensate for the Contractor's profit margin, on the following basis:
 - 1) For work performed by the Contractor's own forces, maximum 10 percent.
 - 2) For work performed by Subcontractors to the contractor, maximum 5 percent.
 - d. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship.

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SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

- B. Contractor-Initiated Proposals: If latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change to Engineer.
1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 4. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship.
 5. Comply with requirements in Division 01 Section "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.
- C. Proposal Request Form: Use AIA Document G709 for Proposal Requests.

1.5 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Proposal Request, Engineer will issue a Change Order for signatures of Owner and Contractor on AIA Document G701.

1.6 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Engineer may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

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 specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Sections include the following:
 - 1. Division 01 Section "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
 - 2. Division 01 Section "Construction Progress Documentation" for administrative requirements governing preparation and submittal of Contractor's Construction Schedule and Submittals Schedule.

1.3 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.
 - 1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with Continuation Sheets.
 - b. Submittals Schedule.
 - c. Contractor's Construction Schedule.
 - 2. Submit the Schedule of Values to Engineer at earliest possible date but no later than fourteen days before the date scheduled for submittal of initial Applications for Payment.
- B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the Schedule of Values.
 - 1. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of Engineer.
 - c. Engineer's project number.

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- d. Contractor's name and address.
 - e. Date of submittal.
2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed.
- a. Related Specification Section or Division.
 - b. Description of the Work.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator.
 - e. Name of supplier.
 - f. Change Orders (numbers) that affect value.
 - g. Dollar value.
- 1) Percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
3. Provide a breakdown of the Contract Sum, including differentiation of phases, in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide several line items for principal subcontract amounts, where appropriate.
4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
5. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
- a. Differentiate between items stored on-site and items stored off-site. Include evidence of insurance or bonded warehousing if required.
6. Provide separate line items, including differentiation of phases, in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
7. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
- a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at Contractor's option.
8. Schedule Updating: Update and resubmit the Schedule of Values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Engineer and paid for by Owner.
 - 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Forms: Use AIA Document G702 and AIA Document G703 Continuation Sheets as form for Applications for Payment.

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- C. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Engineer will return incomplete applications without action.
1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions were made.
 2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- D. Transmittal: Submit three signed and notarized original copies of each Application for Payment to Engineer by a method ensuring receipt within five days after notification by Engineer. One copy shall include waivers of lien and similar attachments if required.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- E. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from every entity who is lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.
1. Submit partial waivers on each item for amount requested, before deduction for retainage, on each item.
 2. When an application shows completion of an item, submit final or full waivers.
 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
 4. Waiver Delays: Submit each Application for Payment with Contractor's waiver of mechanic's lien for construction period covered by the application.
 - a. Submit final Application for Payment with or preceded by final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
 5. Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.
- F. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. List of subcontractors.
 2. Schedule of Values.
 3. Contractor's Construction Schedule (preliminary if not final).
 4. Products list.
 5. Submittals Schedule (preliminary if not final).
 6. List of Contractor's staff assignments.
 7. List of Contractor's principal consultants.
 8. Copies of building permits.
 9. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 10. Initial progress report.
 11. Report of preconstruction conference.
 12. Certificates of insurance and insurance policies.
 13. Performance and payment bonds.
 14. Data needed to acquire Owner's insurance.
 15. Initial settlement survey and damage report if required.

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- G. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- H. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 3. Updated final statement, accounting for final changes to the Contract Sum.
 4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
 5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
 6. AIA Document G707, "Consent of Surety to Final Payment."
 7. Evidence that claims have been settled.
 8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
 9. Final, liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

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. Conservation.
 - 3. Coordination Drawings.
 - 4. Administrative and supervisory personnel.
 - 5. Project meetings.
 - 6. Requests for Interpretation (RFIs).
- B. Each contractor shall participate in coordination requirements. Certain areas of responsibility will be assigned to a specific contractor.
- C. 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 "Execution Requirements" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
 - 3. Division 01 Section "Closeout Procedures" for coordinating Contract closeout.

1.3 DEFINITIONS

- A. RFI: Request from Contractor seeking interpretation or clarification of the Contract Documents.

1.4 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.
 - 1. 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.

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2. 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.
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. Preinstallation conferences.
 7. Project closeout activities.
 8. Startup and adjustment of systems.
- D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.
1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work.

1.5 SUBMITTALS

- A. Coordination Drawings: Prepare Coordination Drawings if limited space availability necessitates maximum utilization of space for efficient installation of different components or if coordination is required for installation of products and materials fabricated by separate entities.
1. Indicate relationship of components shown on separate Shop Drawings.
 2. Indicate required installation sequences.
- B. Staff Names: Within 5 days of starting construction operations, submit a list of principal staff assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.

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1.6 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

- A. General: In addition to Project superintendent, provide other administrative and supervisory personnel as required for proper performance of the Work.
 - 1. Include special personnel required for coordination of operations with other contractors.

- B. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.
 - 1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Coordinate and secure pre-approval from Engineer for scheduled meeting dates and times.
 - 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 - a. Contract Documents.
 - b. Options.
 - c. Related Change Orders.
 - d. Purchases.
 - e. Deliveries.
 - f. Submittals.
 - g. Review of mockups.
 - h. Possible conflicts.
 - i. Compatibility problems.
 - j. Time schedules.
 - k. Weather limitations.
 - l. Manufacturer's written recommendations.
 - m. Warranty requirements.
 - n. Compatibility of materials.
 - o. Acceptability of substrates.
 - p. Temporary facilities and controls.
 - q. Space and access limitations.
 - r. Regulations of authorities having jurisdiction.
 - s. Testing and inspecting requirements.
 - t. Required performance results.
 - u. Protection of construction and personnel.
 - 3. Record significant conference discussions, agreements, and disagreements.
 - 4. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.

- C. Coordination Meetings: Project coordination meetings will be scheduled at regular intervals. Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and preinstallation conferences.
 - 1. Attendees: In addition to representatives of the Owner, 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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2. Agenda: Review and correct or approve minutes of the previous coordination meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Combined Contractor's Construction Schedule: Review progress since the last coordination meeting. Determine whether each contract is on time, ahead of schedule, or behind schedule, in relation to Combined Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - b. Schedule Updating: Revise Combined Contractor's Construction Schedule after each coordination meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.
 - c. Review present and future needs of each contractor present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Work hours.
 - 10) Hazards and risks.
 - 11) Progress cleaning.
 - 12) Quality and work standards.
 - 13) Change Orders.
3. Reporting: Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

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- B. Content of the RFI: Include a detailed, legible description of item needing interpretation and the following:
1. Project name.
 2. Date.
 3. Date of requested response.
 4. Name of Contractor.
 5. Name of Engineer.
 6. RFI number, numbered sequentially.
 7. Specification Section number and title and related paragraphs, as appropriate.
 8. Drawing number and detail references, as appropriate.
 9. Field dimensions and conditions, as appropriate.
 10. Contractor's suggested solution(s). If Contractor's solution(s) impact the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 11. Contractor's signature.
 12. Attachments: Include drawings, descriptions, measurements, photos, Product Data, Shop Drawings, and other information necessary to fully describe items needing interpretation.
 - a. Supplementary drawings prepared by Contractor shall include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments.
- C. Software-Generated RFIs: Software-generated form with substantially the same content as indicated above.
1. Attachments shall be electronic files in Adobe Acrobat PDF format.
- D. Engineer's Action: Engineer will review each RFI, determine action required, and return it. Allow seven working days for Engineer's response for each RFI. RFIs received after 1:00 p.m. will be considered as received the following working day.
1. The following RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for coordination information already indicated in the Contract Documents.
 - d. Requests for adjustments in the Contract Time or the Contract Sum.
 - e. Requests for interpretation of Engineer's actions on submittals.
 - f. Incomplete RFIs or RFIs with numerous errors.
 2. Engineer's action may include a request for additional information, in which case Engineer's time for response will start again.
 3. Engineer's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Division 01 Section "Contract Modification Procedures."
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Engineer in writing within 10 days of receipt of the RFI response.

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- E. On receipt of Engineer's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Engineer within seven days if Contractor disagrees with response.

- F. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Include the following:
 - 1. Project name.
 - 2. Name and address of Contractor.
 - 3. Name and address of Engineer.
 - 4. RFI number including RFIs that were dropped and not submitted.
 - 5. RFI description.
 - 6. Date the RFI was submitted.
 - 7. Date Engineer's response was received.

 - 8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

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. Preliminary Construction Schedule.
 - 2. Contractor's Construction Schedule.
 - 3. Submittals Schedule.
 - 4. Daily construction reports.
 - 5. Material location reports.
 - 6. Field condition reports.
 - 7. Special reports.
 - 8. Construction photographs.
- B. Related Sections include the following:
 - 1. Division 01 Section "Payment Procedures" for submitting the Schedule of Values.
 - 2. Division 01 Section "Project Management and Coordination" for submitting and distributing meeting and conference minutes.
 - 3. Division 01 Section "Submittal Procedures" for submitting schedules and reports.
 - 4. Division 01 Section "Quality Requirements" for submitting a schedule of tests and inspections.
 - 5. Division 01 Section "Closeout Procedures" for submitting photographic jpg files as Project Record Documents at Project closeout.

1.3 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
- B. Event: The starting or ending point of an activity.
- C. Float: The measure of leeway in starting and completing an activity.
 - 1. Float is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
 - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the following activity.
 - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.

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- D. Major Area: A story of construction, a separate building, or a similar significant construction element.
- E. Milestone: A key or critical point in time for reference or measurement.

1.4 SUBMITTALS

- A. Qualification Data: For firms and persons specified in "Quality Assurance" article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of Engineers and owners, and other information specified.
- B. Submittals Schedule: Submit three copies of schedule. Arrange the following information in a tabular format:
 - 1. 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.
- C. Contractor's Construction Schedule: Submit two printed copies of initial schedule.
- D. Daily Construction Reports: Submit one copy at weekly intervals.
- E. Material Location Reports: Submit one copy at weekly intervals.
- F. Field Condition Reports: Submit one copy at time of discovery of differing conditions.
- G. Special Reports: Submit one copy at time of unusual event.

1.5 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.

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PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Procedures: Comply with procedures contained in AGC's "Construction Planning & Scheduling."
- B. Time Frame: Extend schedule from date established for the Notice of Award to date of Substantial Completion.
 - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- C. Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:
 - 1. Activity Duration: Define activities so no activity is longer than 30 days, unless specifically allowed by Engineer.
 - 2. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 - 3. Submittal Review Time: Include review and resubmittal times indicated in Division 01 Section "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with Submittals Schedule.
 - 4. Startup and Testing Time: Include not less than five days for startup and testing.
 - 5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Engineer's administrative procedures necessary for certification of Substantial Completion.
- D. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
 - 1. Phasing: Arrange list of activities on schedule by phase.
 - 2. Work under More Than One Contract: Include a separate activity for each contract.
 - 3. Work by Owner: Include a separate activity for each portion of the Work performed by Owner.
 - 4. Products Ordered in Advance: Include a separate activity for each product. Include delivery date indicated in Division 01 Section "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
 - 5. Owner-Furnished Products: Include a separate activity for each product. Include delivery date indicated in Division 01 Section "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
 - 6. Work Restrictions: Show the effect of the following items on the schedule:
 - a. Coordination with existing construction.
 - b. Limitations of continued occupancies.
 - c. Uninterruptible services.
 - d. Partial occupancy before Substantial Completion.
 - e. Use of premises restrictions.
 - f. Provisions for future construction.
 - g. Seasonal variations.
 - h. Environmental control.
 - 7. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
 - a. Subcontract awards.

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- b. Submittals.
 - c. Purchases.
 - d. Mockups.
 - e. Fabrication.
 - f. Sample testing.
 - g. Deliveries.
 - h. Installation.
 - i. Tests and inspections.
 - j. Adjusting.
 - k. Curing.
 - l. Startup and placement into final use and operation.
8. Area Separations: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:
- a. Structural completion.
 - b. Permanent space enclosure.
 - c. Completion of mechanical installation.
 - d. Completion of electrical installation.
 - e. Substantial Completion.
- E. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and Final Completion.
- F. Cost Correlation: At the head of schedule, provide a cost correlation line, indicating planned and actual costs. On the line, show dollar volume of the Work performed as of dates used for preparation of payment requests.
- 1. Refer to Division 01 Section "Payment Procedures" for cost reporting and payment procedures.
- G. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis to demonstrate the effect of the proposed change on the overall project schedule.

2.2 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
- 1. List of subcontractors at Project site.
 - 2. List of separate contractors at Project site.
 - 3. Approximate count of personnel at Project site.
 - 4. High and low temperatures and general weather conditions.
 - 5. Accidents.
 - 6. Meetings and significant decisions.
 - 7. Unusual events (refer to special reports).
 - 8. Stoppages, delays, shortages, and losses.
 - 9. Meter readings and similar recordings.
 - 10. Emergency procedures.
 - 11. Orders and requests of authorities having jurisdiction.
 - 12. Change Orders received and implemented.
 - 13. Construction Change Directives received.
 - 14. Services connected and disconnected.
 - 15. Equipment or system tests and startups.

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- 16. Partial Completions and occupancies.
- 17. Substantial Completions authorized.

- B. Material Location Reports: At weekly intervals, prepare a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site.
- C. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare a detailed report. Submit with a request for information on CSI Form 13.2A. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.3 SPECIAL REPORTS

- A. General: Submit special reports directly to Owner within one day of an occurrence. Distribute copies of report to parties affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.

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.
 - 1. 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.
- B. Distribution: Distribute copies of approved schedule to Engineer, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
 - 1. Post copies in Project meeting rooms and temporary field offices.
 - 2. 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

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:
 - 1. Division 01 Section "Payment Procedures" for submitting Applications for Payment.
 - 2. Division 01 Section "Project Management and Coordination" for submitting Coordination Drawings.
 - 3. Division 01 Section "Construction Progress Documentation" for submitting schedules and reports, including Contractor's Construction Schedule and the Submittals Schedule and construction photographs.
 - 4. Division 01 Section "Quality Requirements" for submitting test and inspection reports and Delegated-Design Submittals and for erecting mockups.
 - 5. Division 01 Section "Closeout Procedures" for submitting warranties Project Record Documents and operation and maintenance manuals.
 - 6. Division 01 Section "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.

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. General: Electronic copies of the Contract Drawings will be provided by Engineer, upon request, for Contractor's use in preparing submittals.
- B. 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.

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- a. Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

- C. 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.

- D. 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.
 - 1. Initial Review: Allow 15 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. Concurrent Review: Where concurrent review of submittals by Engineer's consultants, Owner, or other parties is required, allow 15 days for initial review of each submittal.
 - 3. Direct Transmittal to Consultant: Where the Contract Documents indicate that submittals may be transmitted directly to Engineer's consultants, provide duplicate copy of transmittal to Engineer. Submittal will be returned to Engineer, before being returned to Contractor.
 - 4. If intermediate submittal is necessary, process it in same manner as initial submittal.
 - 5. Allow 15 days for processing each resubmittal.
 - 6. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.

- E. Identification: Place a permanent label or title block on each submittal for identification.
 - 1. Indicate name of firm or entity that prepared each submittal on label or title block.
 - 2. Provide a space approximately 4 by 5 inches on label or beside title block to record Contractor's review and approval markings and action taken by Engineer.
 - 3. Include the following information on label for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name and address of Engineer.
 - d. Name and address of Contractor.
 - e. Name and address of subcontractor.
 - f. Name and address of supplier.
 - g. Name of manufacturer.
 - h. Unique identifier, including revision number.
 - i. Number and title of appropriate Specification Section.
 - j. Drawing number and detail references, as appropriate.
 - k. Location(s) where product is to be installed, as appropriate.
 - l. Other necessary identification.
 - 4. Identify all options within submittal that require selection by Engineer.

- F. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract Documents on submittals.

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- G. Additional Copies: Unless additional copies are required for final submittal, and unless Engineer observes noncompliance with provisions of the Contract Documents, initial submittal may serve as final submittal.
1. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Engineer.
 2. Additional copies submitted for maintenance manuals will not be marked with action taken and will be returned.
- H. 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.
1. 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.
- I. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
1. Note date and content of previous submittal.
 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 3. Resubmit submittals until they are marked "Approved" or "Approved as Noted".
- J. 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.
- K. Use for Construction: Use only final submittals with mark indicating action taken by Engineer in connection with construction.

PART 2 - PRODUCTS

2.1 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
1. Submit electronic submittals via email in pdf format.

Email to: Tom Manka,
TManka@Dupage88.net

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- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to show which products and options are applicable.
 3. Include the following information, as applicable:
 - a. Manufacturer's written recommendations.
 - b. Manufacturer's product specifications.
 - c. Manufacturer's installation instructions.
 - d. Standard color charts.
 - e. Manufacturer's catalog cuts.
 - f. Wiring diagrams showing factory-installed wiring.
 - g. Printed performance curves.
 - h. Operational range diagrams.
 - i. Mill reports.
 - j. Standard product operating and maintenance manuals.
 - k. Compliance with recognized trade association standards.
 - l. Compliance with recognized testing agency standards.
 - m. Application of testing agency labels and seals.
 - n. Notation of coordination requirements.
- C. 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:
 - a. Dimensions.
 - b. Identification of products.
 - c. Fabrication and installation drawings.
 - d. Roughing-in and setting diagrams.
 - e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
 - f. Shopwork manufacturing instructions.
 - g. Templates and patterns.
 - h. Schedules.
 - i. Design calculations.
 - j. Compliance with specified standards.
 - k. Notation of coordination requirements.
 - l. Notation of dimensions established by field measurement.
 - m. Relationship to adjoining construction clearly indicated.
 - n. Seal and signature of professional engineer if specified.
 - o. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
 2. Format: PDF
 3. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches (215 by 280 mm) but no larger than 11 by 17 inches.

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4. Submit final hardcopy submittals as described in Close-Out Procedures.
- D. Coordination Drawings: Comply with requirements in Division 01 Section "Project Management and Coordination."
- E. Samples: Prepare physical units of materials or products, including the following:
 1. Comply with requirements in Division 01 Section "Quality Requirements" for mockups.
 2. 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.
 3. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from the same material to be used for the Work, cured and finished in manner specified, and physically identical with the product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 4. Preparation: Mount, display, or package Samples in manner specified to facilitate review of qualities indicated. Prepare Samples to match Engineer's sample where so indicated. Attach label on unexposed side that includes the following:
 - a. Generic description of Sample.
 - b. Product name or name of manufacturer.
 - c. Sample source.
 5. Additional Information: On an attached separate sheet, prepared on Contractor's letterhead, provide the following:
 - a. Size limitations.
 - b. Compliance with recognized standards.
 - c. Availability.
 - d. Delivery time.
 6. 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.
 7. Number of Samples for Initial Selection: Submit two full sets of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Engineer will return submittal with options selected.

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8. Number of Samples for Verification: Submit three sets of Samples. Engineer will retain two Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a Project Record Sample.
 - a. Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 9. 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.
- F. 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:
1. Type of product. Include unique identifier for each product.
 2. Number and name of room or space.
 3. Location within room or space.
- G. Delegated-Design Submittal: Comply with requirements in Division 01 Section "Quality Requirements."
- H. Contractor's Construction Schedule: Comply with requirements in Division 01 Section "Construction Progress Documentation" for Engineer's action.
- I. Submittals Schedule: Comply with requirements in Division 01 Section "Construction Progress Documentation."
- J. Application for Payment: Comply with requirements in Division 01 Section "Payment Procedures."
- K. Schedule of Values: Comply with requirements in Division 01 Section "Payment Procedures."
- 2.2 INFORMATIONAL SUBMITTALS
- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
1. Submit electronic submittals directly to extranet specifically established for Project.
 2. Notify Engineer via email pdf transmittal when submittals have been uploaded to extranet.
 3. Submit final hardcopy submittals as described in Close-Out Procedures.
 4. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.

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5. Test and Inspection Reports: Comply with requirements in Division 01 Section "Quality Requirements."
- B. Contractor's Construction Schedule: Comply with requirements in Division 01 Section "Construction Progress Documentation."
- C. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of Engineers and owners, and other information specified.
- D. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements.
- E. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.
- F. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements and, where required, is authorized for this specific Project.
- G. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements. Include evidence of manufacturing experience where required.
- H. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements.
- I. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements.
- J. Preconstruction Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements.
- K. Compatibility Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- L. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements.
- M. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

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- N. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
1. Name of evaluation organization.
 2. Date of evaluation.
 3. Time period when report is in effect.
 4. Product and manufacturers' names.
 5. Description of product.
 6. Test procedures and results.
 7. Limitations of use.
- O. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements in Division 01 Section "Operation and Maintenance Data."
- P. Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
- Q. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:
1. Preparation of substrates.
 2. Required substrate tolerances.
 3. Sequence of installation or erection.
 4. Required installation tolerances.
 5. Required adjustments.
 6. Recommendations for cleaning and protection.
- R. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:
1. Name, address, and telephone number of factory-authorized service representative making report.
 2. Statement on condition of substrates and their acceptability for installation of product.
 3. Statement that products at Project site comply with requirements.
 4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 6. Statement whether conditions, products, and installation will affect warranty.
 7. Other required items indicated in individual Specification Sections.
- S. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.

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- T. Material Safety Data Sheets: Submit information directly to Contractor. If submitted to Engineer, Engineer will not review this information but will return it with no action taken.

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.

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 will review each submittal, make marks to indicate corrections or modifications required, and return it. Engineer will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
 - 1. Approved
 - 2. "Approved as Noted"
 - 3. "Revise & Resubmit"
 - 4. "Rejected"
 - 5. "Not Reviewed"
 - 6. "Other"
- C. Informational Submittals: Engineer will review each submittal and will not return it, or will reject and return it if it does not comply with requirements. Engineer will forward each submittal to appropriate party.
- D. Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- E. Submittals not required by the Contract Documents will not be reviewed and may be discarded.

END OF SECTION 013300

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 quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specific quality-control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for Contractor to provide quality-control services required by Engineer, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
- C. Related Sections include the following:
 - 1. Division 01 Section "Construction Progress Documentation" for developing a schedule of required tests and inspections.
 - 2. Division 01 Section "Cutting and Patching" for repair and restoration of construction disturbed by testing and inspecting activities.
 - 3. Divisions 02 through 49 Sections for specific test and inspection requirements.

1.3 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and ensure that proposed construction complies with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that completed construction complies with requirements. Services do not include contract enforcement activities performed by Engineer.
- C. Mockups: Full-size, physical example assemblies to illustrate finishes and materials. Mockups are used to verify selections made under Sample submittals, to demonstrate aesthetic effects and, where indicated, qualities of materials and execution, and to review construction, coordination, testing, or operation; they are not Samples. Mockups establish the standard by which the Work will be judged.
- D. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

1.4 REGULATORY REQUIREMENTS

- A. Contractor shall be familiar with all applicable regulations affecting the work, and shall advise the Engineer of any contract requirements which would deviate from such regulations.

1.5 SUBMITTALS

- A. Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

- B. Schedule of Tests and Inspections: Prepare in tabular form and include the following:

1. Specification Section number and title.
2. Description of test and inspection.
3. Identification of applicable standards.
4. Identification of test and inspection methods.
5. Number of tests and inspections required.
6. Time schedule or time span for tests and inspections.
7. Entity responsible for performing tests and inspections.
8. Requirements for obtaining samples.
9. Unique characteristics of each quality-control service.

- C. Reports: Prepare and submit certified written reports that include the following:

1. Date of issue.
2. Project title and number.
3. Name, address, and telephone number of testing agency.
4. Dates and locations of samples and tests or inspections.
5. Names of individuals making tests and inspections.
6. Description of the Work and test and inspection method.
7. Identification of product and Specification Section.
8. Complete test or inspection data.
9. Test and inspection results and an interpretation of test results.
10. Ambient conditions at time of sample taking and testing and inspecting.
11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting and reinspecting.

- D. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.6 QUALITY ASSURANCE

- A. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

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SECTION 014000 - QUALITY REQUIREMENTS

- B. **Factory-Authorized Service Representative Qualifications:** An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- C. **Installer Qualifications:** A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- D. **Manufacturer Qualifications:** A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance.
- E. **Professional Engineer Qualifications:** A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.
- F. **Specialists:** Certain sections of the Specifications require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
 - 1. Requirement for specialists shall not supersede building codes and similar regulations governing the Work, nor interfere with local trade-union jurisdictional settlements and similar conventions.
- G. **Testing Agency Qualifications:** An agency with the experience and capability to conduct testing and inspecting indicated, as documented by ASTM E 548, and that specializes in types of tests and inspections to be performed.
- H. **Preconstruction Testing:** Testing agency shall perform preconstruction testing for compliance with specified requirements for performance and test methods.
 - 1. **Contractor Responsibilities:** include the following:
 - a. Provide test specimens and assemblies representative of proposed materials and construction. Provide sizes and configurations of assemblies to adequately demonstrate capability of product to comply with performance requirements.
 - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
 - c. Fabricate and install test assemblies using installers who will perform the same tasks for Project.
 - d. When testing is complete, remove assemblies; do not reuse materials on Project.
 - 2. **Testing Agency Responsibilities:** Submit a certified written report of each test, inspection, and similar quality-assurance service to Engineer, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

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- I. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
 - 1. Build mockups in location and of size indicated or, if not indicated, as directed by Engineer.
 - 2. Notify Engineer seven days in advance of dates and times when mockups will be constructed.
 - 3. Demonstrate the proposed range of aesthetic effects and workmanship.
 - 4. Obtain Engineer's approval of mockups before starting work, fabrication, or construction.
 - 5. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
 - 6. Demolish and remove mockups when directed, unless otherwise indicated.

1.7 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
 - 1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of the types of testing and inspecting they are engaged to perform.
 - 2. Payment for these services will be made from testing and inspecting allowances, as authorized by Change Orders.
 - 3. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
- B. Contractor Responsibilities: Unless otherwise indicated, provide quality-control services specified and required by authorities having jurisdiction.
 - 1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - a. Contractor shall not employ the same entity engaged by Owner, unless agreed to in writing by Owner.
 - 2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
 - 3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 - 4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 - 5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. Special Tests and Inspections: Owner will engage a testing agency to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner.
 - 1. Testing agency will notify Engineer and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.

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2. Testing agency will submit a certified written report of each test, inspection, and similar quality-control service to Engineer, with copy to Contractor and to authorities having jurisdiction.
 3. Testing agency will submit a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
 4. Testing agency will interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 5. Testing agency will retest and reinspect corrected work.
- D. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing.
- E. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that revised or replaced Work that failed to comply with requirements established by the Contract Documents.
- F. Testing Agency Responsibilities: Cooperate with Engineer and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
1. Notify Engineer and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 2. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 3. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 4. Do not release, revoke, alter, or increase requirements of the Contract Documents or approve or accept any portion of the Work.
 5. Do not perform any duties of Contractor.
- G. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
1. Access to the Work.
 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 4. Facilities for storage and field-curing of test samples.
 5. Delivery of samples to testing agencies.
 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 7. Security and protection for samples and for testing and inspecting equipment at Project site.
- H. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.

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SECTION 014000 - QUALITY REQUIREMENTS

- I. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents. Submit schedule within 20 days of date established for the Notice to Proceed.
 1. Distribution: Distribute schedule to Owner, Engineer, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Prepare a record of tests and inspections. Include the following:
 1. Date test or inspection was conducted.
 2. Description of the Work tested or inspected.
 3. Date test or inspection results were transmitted to Engineer.
 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for Engineer's reference during normal working hours.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
 1. Provide materials and comply with installation requirements specified in other Sections of these Specifications. Restore patched areas and extend restoration into adjoining areas in a manner that eliminates evidence of patching.
 2. Comply with the Contract Document requirements for Division 01 Section "Cutting and Patching."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000

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 requirements for construction facilities and temporary controls, including temporary utilities, support facilities, and security and protection.
- B. Temporary utilities include, but are not limited to, the following:
 - 1. Water distribution.
 - 2. Temporary electric power and light.
 - 3. Sanitary facilities, including drinking water.
 - 4. Storm and sanitary sewer.
- C. Support facilities include, but are not limited to, the following:
 - 1. Temporary enclosures.
 - 2. Temporary project identification signs and bulletin boards.
 - 3. Waste disposal services.
 - 4. Construction aids and miscellaneous services and facilities.
- D. Security and protection facilities include, but are not limited to, the following:
 - 1. Temporary fire protection.
 - 2. Barricades, warning signs, and lights.
 - 3. Environmental protection.

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. Utility company regulations.
 - 4. Police, fire department, and rescue squad rules.
 - 5. Environmental protection regulations.

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- B. Standards: Comply with NFPA 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."
 - 1. 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."
- C. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

1.4 PROJECT CONDITIONS

- A. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Relocate temporary services and facilities as the Work progresses. Do not overload facilities or permit them to interfere with progress. Take necessary fire-prevention measures. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on-site.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Provide new materials. If acceptable to the Engineer, the Contractor may use undamaged, previously used materials in serviceable condition. Provide materials suitable for use intended.
- B. Lumber and Plywood:
 - 1. For signs and directory boards, provide exterior-type, Grade B-B high-density concrete form overlay plywood of sizes and thicknesses indicated.
 - 2. For safety barriers, and similar uses, provide minimum 5/8-inch-thick exterior plywood.
- C. Paint:
 - 1. For exposed lumber and plywood, provide exterior-grade acrylic-latex emulsion over exterior primer.
 - 2. For sign panels and applying graphics, provide exterior-grade alkyd gloss enamel over exterior primer.
- D. Tarpaulins: Provide waterproof, fire-resistant, UL-labeled tarpaulins with flame-spread rating of 15 or less. For temporary enclosures, provide translucent, nylon-reinforced, laminated polyethylene or polyvinyl chloride, fire-retardant tarpaulins.
- E. Water: Provide potable water approved by local health authorities.

2.2 EQUIPMENT

- A. General: Provide new equipment. If acceptable to the Engineer, the Contractor may use undamaged, previously used equipment in serviceable condition. Provide equipment suitable for use intended.
- B. Water Hoses: Provide 3/4-inch, heavy-duty, abrasion-resistant, flexible rubber hoses 100 feet long, with pressure rating greater than the maximum pressure of the water distribution system. Provide adjustable shutoff nozzles at hose discharge.
- C. Electrical Outlets: Provide properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-Volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button, and pilot light for connection of power tools and equipment.
- D. Electrical Power Cords: Provide grounded extension cords. Use hard-service cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.
- E. Lamps and Light Fixtures: Provide general service incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered-glass enclosures where exposed to breakage. Provide exterior fixtures where exposed to moisture.
- F. 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 NFPA 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 the 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.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with utility company, Owner, 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.
- B. Temporary Water Service: Use of Owner's existing water service will be permitted, as long as equipment is maintained in a condition acceptable to Owner.
- C. Temporary Electric Power Service: Use of Owner's existing electric power service will be permitted, as long as equipment is maintained in a condition acceptable to Owner.
- D. Temporary Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
- E. Toilets: Use of the Owner's existing toilet facility, will be permitted, so long as facilities are cleaned and maintained in a condition acceptable to the Owner. At Substantial Completion, restore these facilities to the condition prevalent at the time of initial use.
- F. Drinking-Water Facilities: Use of the Owner's existing drinking water facilities will be permitted, so long as facilities are cleaned and maintained in a condition acceptable to the Owner. At Substantial Completion, restore these facilities to the condition prevalent at the time of initial use.
- G. Sewers and Drains: Use of the Owner's existing sewers and drains will be permitted, so long as facilities are are cleaned and maintained in a condition acceptable to the Owner. At Substantial Completion, restore these facilities to the condition prevalent at the time of initial use.
 - 1. Provide temporary connections to remove effluent that can be discharged lawfully.
 - 2. Filter out excessive amounts of construction debris, chemicals, oils, and similar contaminants that might clog sewers or pollute waterways before discharge.

3.3 SUPPORT FACILITIES INSTALLATION

- A. Locate field offices, storage sheds, and other temporary construction and support facilities for easy access.
 - 1. Maintain support facilities until near Substantial Completion. Remove prior to Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to the Owner.
- B. Provide incombustible construction for offices, shops, and sheds located within the construction area or within 30 feet of building lines. Comply with requirements of NFPA 241.

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SECTION 015000 – TEMPORARY FACILITIES AND CONTROLS

- C. Project Identification and Temporary Signs: Prepare project identification and other signs of size indicated. Install signs where indicated to inform the public and persons seeking entrance to the Project. Support on posts or framing of preservative-treated wood or steel. Do not permit installation of unauthorized signs.
 - 1. Project Identification Signs: Engage an experienced sign painter to apply graphics. Comply with details indicated.
 - 2. Temporary Signs: Prepare signs to provide directional information to construction personnel and visitors.

- 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 the temperature is expected to rise above 80 deg F. Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material lawfully.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Except for use of permanent fire protection as soon as available, do not change over from use of temporary security and protection facilities to permanent facilities until Substantial Completion, or longer, as requested by the Engineer.

- B. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241.
 - 1. Locate fire extinguishers where convenient and effective for their intended purpose, but not less than one extinguisher on each floor at or near each usable stairwell.
 - 2. Store combustible materials in containers in fire-safe locations.
 - 3. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire-protection facilities, stairways, and other access routes for fighting fires. Prohibit smoking in hazardous fire-exposure areas.
 - 4. Provide supervision of welding operations, combustion-type temporary heating units, and similar sources of fire ignition.

- C. 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 the public of the hazard being protected against. Where appropriate and needed, provide lighting, including flashing red or amber lights.

- D. 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.
 - 1. Storage: Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lockup. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.

- E. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways, and subsoil might be contaminated or polluted or that other undesirable effects might result. Avoid use of tools and equipment that produce harmful noise.

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SECTION 015000 – TEMPORARY FACILITIES AND CONTROLS

Restrict use of noise-making tools and equipment to hours that will minimize complaints from persons or firms near the site.

3.5 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.
- B. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage.
 - 1. Maintain operation of temporary enclosures and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Termination and Removal: Unless the Engineer requests that it be maintained longer, remove each temporary facility when the need has ended, when replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are the Contractor's property. The Owner reserves the right to take possession of project identification signs.
 - 2. At Substantial Completion, clean and renovate permanent facilities used during the construction period including, but not limited to, the following:
 - a. Replace air filters and clean inside of ductwork and housings.
 - b. Replace significantly worn parts and parts subject to unusual operating conditions.
 - c. Replace lamps burned out or noticeably dimmed by hours of use.

END OF SECTION 015000

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 the following administrative and procedural requirements: selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.
- B. Related Sections include the following:
 - 1. Division 01 Section "Closeout Procedures" for submitting warranties for contract closeout.
 - 2. Divisions 01 through 49 Sections for specific requirements for warranties on products and installations specified to be warranted.

1.3 DEFINITIONS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation, shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility, except that products consisting of recycled-content materials are allowed, unless explicitly stated otherwise. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
- C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.
- D. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.

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SECTION 016000 - PRODUCT REQUIREMENTS

- E. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.

1.4 SUBMITTALS

- A. Product List: Submit a list, in tabular form, showing specified products. Include generic names of products required. Include manufacturer's name and proprietary product names for each product.

1. Coordinate product list with Contractor's Construction Schedule and the Submittals Schedule.
2. Form: Tabulate information for each product under the following column headings:
 - a. Specification Section number and title.
 - b. Generic name used in the Contract Documents.
 - c. Proprietary name, model number, and similar designations.
 - d. Manufacturer's name and address.
 - e. Supplier's name and address.
 - f. Installer's name and address.
 - g. Projected delivery date or time span of delivery period.
 - h. Identification of items that require early submittal approval for scheduled delivery date.
3. Initial Submittal: Within 30 days after date of commencement of the Work, submit three copies of initial product list. Include a written explanation for omissions of data and for variations from Contract requirements.
 - a. At Contractor's option, initial submittal may be limited to product selections and designations that must be established early in Contract period.
4. Completed List: Within 60 days after date of commencement of the Work, submit three copies of completed product list. Include a written explanation for omissions of data and for variations from Contract requirements.
5. Engineer's Action: Engineer will respond in writing to Contractor within 15 days of receipt of completed product list. Engineer's response will include a list of unacceptable product selections and a brief explanation of reasons for this action. Engineer's response, or lack of response, does not constitute a waiver of requirement that products comply with the Contract Documents.

- B. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified material or product cannot be provided.
 - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as

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- performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. List of similar installations for completed projects with project names and addresses and names and addresses of Engineers and owners.
 - g. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - h. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
 - i. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.
 - j. Cost information, including a proposal of change, if any, in the Contract Sum.
 - k. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
 - l. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
2. Engineer's Action: If necessary, Engineer will request additional information or documentation for evaluation within one week of receipt of a request for substitution. Engineer will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.
- a. Form of Acceptance: Change Order.
 - b. Use product specified if Engineer cannot make a decision on use of a proposed substitution within time allocated.
- C. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 01 Section "Submittal Procedures." Show compliance with requirements.
- 1.5 QUALITY ASSURANCE
- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.
- 1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
 - 2. If a dispute arises between contractors over concurrently selectable but incompatible products, Engineer will determine which products shall be used.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
 - 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 - 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 - 4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
 - 5. Store products to allow for inspection and measurement of quantity or counting of units.
 - 6. Store materials in a manner that will not endanger Project structure.
 - 7. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
 - 8. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
 - 9. Protect stored products from damage.

- B. Storage: Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.
 - 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 - 2. Specified Form: Forms are included with the Specifications. Prepare a written document using appropriate form properly executed.
 - 3. Refer to Divisions 02 through 49 Sections for specific content requirements and particular requirements for submitting special warranties.

- C. Submittal Time: Comply with requirements in Division 01 Section "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT OPTIONS

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged, and unless otherwise indicated, that are new at time of installation.
1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 4. Where products are accompanied by the term "as selected," Engineer will make selection.
 5. Where products are accompanied by the term "match sample," sample to be matched is Engineer's.
 6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
 7. Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved," comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product.
- B. Product Selection Procedures: Procedures for product selection include the following:
1. Product: Where Specification paragraphs or subparagraphs titled "Product" name a single product and manufacturer, provide the product named.
 - a. Substitutions may be considered, unless otherwise indicated and as approved by Engineer.
 2. Manufacturer/Source: Where Specification paragraphs or subparagraphs titled "Manufacturer" or "Source" name single manufacturers or sources, provide a product by the manufacturer or from the source named that complies with requirements.
 - a. Substitutions may be considered, unless otherwise indicated, and as approved by Engineer.
 3. Products: Where Specification paragraphs or subparagraphs titled "Products" introduce a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
 - a. Substitutions may be considered, unless otherwise indicated, and as approved by Engineer.
 4. Manufacturers: Where Specification paragraphs or subparagraphs titled "Manufacturers" introduce a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
 - a. Substitutions may be considered, unless otherwise indicated, and as approved by Engineer.

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5. Available Products: Where Specification paragraphs or subparagraphs titled "Available Products" introduce a list of names of both products and manufacturers, provide one of the products listed or another product that complies with requirements. Comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product.
6. Available Manufacturers: Where Specification paragraphs or subparagraphs titled "Available Manufacturers" introduce a list of manufacturers' names, provide a product by one of the manufacturers listed or another manufacturer that complies with requirements. Comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product.
7. Product Options: Where Specification paragraphs titled "Product Options" indicate that size, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide either the specific product or system indicated or a comparable product or system by another manufacturer. Comply with provisions in "Product Substitutions" Article.
8. Basis-of-Design Products: Where Specification paragraphs or subparagraphs titled "Basis-of-Design Product" are included and also introduce or refer to a list of manufacturers' names, provide either the specified product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product.
 - a. Substitutions will not be considered, unless otherwise indicated.
9. Visual Matching Specification: Where Specifications require matching an established Sample, select a product (and manufacturer) that complies with requirements and matches Engineer's sample. Engineer's decision will be final on whether a proposed product matches satisfactorily.
 - a. If no product available within specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract Documents on "substitutions" for selection of a matching product.
10. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product (and manufacturer) that complies with other specified requirements.
 - a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Engineer will select color, pattern, or texture from manufacturer's product line that does not include premium items.
 - b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Engineer will select color, pattern, or texture from manufacturer's product line that includes both standard and premium items.

2.2 PRODUCT SUBSTITUTIONS

- A. Timing: Engineer will consider requests for substitution if received within 30 days after the Notice of Award. Requests received after that time may be considered or rejected at discretion of Engineer.

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SECTION 016000 - PRODUCT REQUIREMENTS

- B. Conditions: Engineer will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Engineer will return requests without action, except to record noncompliance with these requirements:
1. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Engineer for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 2. Requested substitution does not require extensive revisions to the Contract Documents.
 3. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 4. Substitution request is fully documented and properly submitted.
 5. Requested substitution will not adversely affect Contractor's Construction Schedule.
 6. Requested substitution has received necessary approvals of authorities having jurisdiction.
 7. Requested substitution is compatible with other portions of the Work.
 8. Requested substitution has been coordinated with other portions of the Work.
 9. Requested substitution provides specified warranty.
 10. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

2.3 COMPARABLE PRODUCTS

- A. Where products or manufacturers are specified by name, submit the following, in addition to other required submittals, to obtain approval of an unnamed product:
1. Evidence that the proposed product does not require extensive revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
 2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 3. Evidence that proposed product provides specified warranty.
 4. List of similar installations for completed projects with project names and addresses and names and addresses of Engineers and owners, if requested.
 5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

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. Coordination of Owner-installed products.
 - 3. Progress cleaning.
 - 4. Starting and adjusting.
 - 5. Protection of installed construction.
 - 6. Correction of 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.
 - 3. 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.

PART 2 - PRODUCTS (Not Used)

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, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
 - 1. Before construction, verify the location and points of connection of utility services.

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SECTION 017300 - EXECUTION REQUIREMENTS

- B. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.
 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- C. 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. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - a. Description of the Work.
 - b. List of detrimental conditions, including substrates.
 - c. List of unacceptable installation tolerances.
 - d. Recommended corrections.
 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 3. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 4. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 5. 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 not less than seven days in advance of proposed utility interruptions.
 2. Do not proceed with utility interruptions without Engineer'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.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Engineer. Include a

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detailed description of problem encountered, together with recommendations for changing the Contract Documents.

3.3 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
- 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.
- 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 other contracts 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.
 - 3. 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.
 - 1. Remove liquid spills promptly.

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SECTION 017300 - EXECUTION REQUIREMENTS

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 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.
 1. 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.
- K. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.5 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 01 Section "Quality Requirements."

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SECTION 017300 - EXECUTION REQUIREMENTS

3.6 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.

3.7 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.
- 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

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. Section Includes: Furnish all labor, tools, materials, equipment and supervision required for, or incidental to, cleaning as indicated on the Drawings and specified herein.
- B. Related Requirements:
 - 1. Respective Specification Section for cleaning for specific products of work.
- C. Maintain premises and public properties free from accumulation of waste, debris and rubbish caused by construction operations.
- D. At completion of work, remove all waste materials, rubbish, tools, equipment, machinery, and surplus materials from areas of work and clean all visible surfaces; leave project clean and ready for occupancy.

1.3 SAFETY REQUIREMENTS

- A. Standards: Maintain project in accord with following safety and insurance standards.
 - 1. Occupational Safety and Health Administration (OSHA).
 - 2. Applicable codes and ordinances.
- B. Hazard Control:
 - 1. Store volatile wastes in covered metal containers and remove from premises daily.
 - 2. Prevent accumulation of wastes which create hazardous conditions.
 - 3. Provide adequate ventilation during use of volatile or noxious substances.
- C. Conduct cleaning and disposal operations to comply with Federal, State and local ordinances and anti-pollution laws.
 - 1. Do not burn or bury rubbish and waste materials on project site.
 - 2. Do not dispose of volatile wastes such as mineral spirits, oil or paint thinner in storm or sanitary sewer drains.
 - 3. Do not dispose of wastes into streams or waterways.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Select and use all cleaning materials and equipment with care to avoid scratching, marring, defacing, staining or discoloring surfaces cleaned.

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SECTION 017400 – CLEANING AND WASTE MANAGEMENT

- B. Use only cleaning materials recommended by manufacturer of surface to be cleaned.
- C. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

PART 3 - EXECUTION

3.1 DURING CONSTRUCTION

- A. Contractor shall provide and maintain at a location approved by the Owner, suitable trash and disposal bins for the collection of trash and debris. He shall empty said bins and remove accumulated debris from the project site as required or directed by the Engineer. All sub-contractors at all times shall keep the premises free from accumulation of waste materials and rubbish caused by his operations. The contractors and all subcontractors shall deposit waste materials and rubbish collected during daily clean-up in trash disposal bins as described above.
- B. Dry clean (vacuum and broom) the work area each room after work is complete in that room.
- C. If Contractors fail to accomplish the provisions of this Article, the Owner will do the work and backcharge the Contractor at fault. Such charge shall be a direct lien against issue of final certificates of payment and final payment.
- D. Execute cleaning to ensure that building(s), grounds and public properties are maintained free from accumulations of waste materials and rubbish.
- E. At the end of each day's work, clean site and public properties and dispose of waste materials, debris and rubbish. Each room shall be left in a condition that permits the room's immediate use for its designed purpose.
- F. Remove waste materials, debris and rubbish from site and legally dispose of at a public or private dumping areas off Owner's property.
- G. Handle materials in a controlled manner with as few handlings as possible. Do not drop or throw materials from heights.
- H. Besides the general broom and vacuum cleaning, the contractor shall do the following special cleaning at completion of work.
- I. Removing of all temporary protection: Contractor shall remove all temporary protections and leave site in its original condition.
- J. Repair, patch and restore marred surfaces to specified finish, to match adjacent surfaces.

END OF SECTION 017400

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 contract closeout, including, but not limited to, the following:
 - 1. Inspection procedures.
 - 2. Project Record Documents.
 - 3. Maintenance Manuals.
 - 4. Warranties.
 - 5. Final cleaning.
 - 6. Instruction of Owner's personnel.
- B. Related Sections include the following:
 - 1. Division 01 Section "Payment Procedures" for requirements for Applications for Payment for Substantial and Final Completion.
 - 2. Division 01 Section "Execution Requirements" for progress cleaning of Project site.
 - 3. Divisions 01 through 49 Sections for specific closeout requirements for products of those Sections.

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
 - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
 - 2. Advise Owner of pending insurance changeover requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 5. Prepare and submit Project Record Documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
 - 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
 - 7. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.

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8. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
9. Complete final cleaning requirements, including touchup painting.
10. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Owner will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Engineer, that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection will form the basis of requirements for Final Completion.

1.4 FINAL COMPLETION

A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:

1. Submit a final Application for Payment according to Division 01 Section "Payment Procedures."
2. Submit certified copy of Engineer's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Engineer. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training videotapes.

B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

A. Preparation: Submit three copies of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.

1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.

3. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Engineer and Construction Manager.
 - d. Name of Contractor.
 - e. Page number.

1.6 PROJECT RECORD DOCUMENTS

- A. General: Do not use Project Record Documents for construction purposes. Protect Project Record Documents from deterioration and loss. Provide access to Project Record Documents for Engineer's and Construction Manager's reference during normal working hours.
- B. Record Drawings: Maintain and submit one set of black-line white prints of Contract Drawings and Shop Drawings. Submit (2) labeled compact discs (CD) containing organized PDF files of all Record Drawings.
 1. Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
 - a. Give particular attention to information on concealed elements that cannot be readily identified and recorded later.
 - b. Accurately record information in an understandable drawing technique.
 - c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
 - d. Mark Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. Where Shop Drawings are marked, show cross-reference on Contract Drawings.
 2. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at the same location.
 3. Mark important additional information that was either shown schematically or omitted from original Drawings.
 4. Note Construction Change Directive numbers, Change Order numbers, alternate numbers, and similar identification where applicable.
 5. Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location. Organize into manageable sets; bind each set with durable paper cover sheets. Include identification on cover sheets.
- C. Record Specifications: Submit one copy of Project's Specifications, including addenda and contract modifications. Mark copy to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications. Submit (2) labeled compact discs (CD) containing organized Adobe PDF files of all Record Specifications.
 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 3. Note related Change Orders, Record Drawings, and Product Data, where applicable.

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- D. Record Product Data: Submit one copy of each Product Data submittal. Mark one set to indicate the actual product installation where installation varies substantially from that indicated in Product Data.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 - 3. Note related Change Orders, Record Drawings, and Record Specifications, where applicable.

- E. Miscellaneous Record Submittals: Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

1.7 MAINTENANCE MANUALS

- A. Assemble two complete sets of operation and maintenance data indicating the operation and maintenance of each system, subsystem, and piece of equipment not part of a system. Include operation and maintenance data required in individual Specification Sections and as follows:
 - 1. Maintenance Data:
 - a. Manufacturer's information, including list of spare parts.
 - b. Name, address, and telephone number of Installer or supplier.
 - c. Maintenance procedures.
 - d. Maintenance and service schedules for preventive and routine maintenance.
 - e. Maintenance record forms.
 - f. Sources of spare parts and maintenance materials.
 - g. Copies of maintenance service agreements.
 - h. Copies of warranties and bonds.

 - B. Organize maintenance manuals into suitable sets of manageable size. Bind and index data in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, with pocket inside the covers to receive folded oversized sheets. Identify each binder on front and spine with the printed title "MAINTENANCE MANUAL," Project name, and subject matter of contents.

1.8 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Engineer for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.

- B. Partial Occupancy: Submit properly executed warranties within fifteen days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.

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SECTION 017700 - CLOSEOUT PROCEDURES

- C. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
- D. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch (115-by-280-mm) paper.
 - 1. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 - 2. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
- E. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the 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. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - d. Remove snow and ice to provide safe access to building.

DIVISION 01 - GENERAL REQUIREMENTS
SECTION 017700 - CLOSEOUT PROCEDURES

- e. 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.
 - f. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - g. Sweep concrete floors broom clean in unoccupied spaces.
 - h. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
 - i. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - j. Remove labels that are not permanent.
 - k. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
 - l. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - m. Replace parts subject to unusual operating conditions.
 - n. Clean ducts, blowers, and coils if units were operated without filters during construction.
 - o. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
 - p. Leave Project clean and ready for occupancy.
- C. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

3.2 INSTRUCTION OF OWNER'S PERSONNEL

- A. Program Structure: Develop an instruction program that includes individual training modules for each system and equipment not part of a system, as required by individual Specification Sections. For each training module, develop a learning objective and teaching outline. Include instruction for the following:
- 1. System design and philosophy.
 - 2. Review of documentation.
 - 3. Maintenance.
 - 4. Repair.

END OF SECTION 017700

PART 1 - GENERAL

1.1 WORK INCLUDES

- A. All labor and equipment to remove the existing bituminous concrete pavement, concrete drives, slabs, pavement pads, curbs, gutters, brick or block walls and sidewalk as required by the contract documents.

1.2 RELATED DOCUMENTS

- A. Specified Elsewhere:
 - 1. 024113.15 – Saw Cutting Pavement
 - 2. 321216 – HMA Paving

1.3 QUALITY ASSURANCE

- A. The following documents shall provide the standards for construction within the City of Addison and Village of Villa Park, Illinois unless otherwise stated in these specifications. In the event of conflict between these specifications and the existing Municipal codes, the Municipal codes will prevail.
 - 1. The Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition, and the latest editions of Supplemental Specifications and Recurring Special Provisions (herein referred to as the “Standard IDOT Specifications”).
- B. Exceptions: All references in the Illinois Department of Transportation Standard Specifications to method of measurements and compensation shall not apply.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

- A. The material removed shall be disposed of legally by the Contractor away from the site.
- B. Sawing to a full depth of pavement, before removal operations begin, will be required for any joint between surface to be removed and surface to remain.
- C. The Trade Contractor shall use extreme care when removing material adjacent to existing construction. Any damage to the brick walls, foundation, or any other building feature or to adjacent pavement, curbs or sidewalks, shall be repaired by the Contractor to the satisfaction of the Construction Manager without additional compensation.

END OF SECTION 024113.13

DIVISION 2 – EXISTING CONDITIONS
SECTION 024113.15 – SAW CUTTING PAVEMENT

PART 1 - GENERAL

1.1 WORK INCLUDES

- A. This item consists of sawing joints in the pavements in order to separate that portion to be removed from that which will remain in place. This work must be performed at the locations specified on the plans and as otherwise designated by the Engineer.

1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, including but not limited to:
 - 1. 321216 – Asphalt Paving
- B. Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction, latest revision, along with the Supplemental Specifications and Recurring Special Provisions (herein referred to as the “Standard IDOT Specification”). (Method of Measurement and Basis of Payment shall not apply.)

1.3 QUALITY ASSURANCE

- A. The following documents shall provide the standards for construction within the Village of Addison and Village of Villa Park, Illinois unless otherwise stated in these specifications. In the event of conflict between these specifications and the existing Municipal codes, the Municipal codes will prevail.
 - 1. Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction, latest revision, along with the Supplemental Specifications and Recurring Special Provisions. (Method of Measurement and Basis of Payment shall not apply.)
- B. Exceptions: All references in the Illinois Department of Transportation Standard Specifications to method of measurements and compensation shall not apply.

1.4 SUMMARY

- A. The Contractor must saw a full depth vertical cut at locations where pavement removal is required as noted on the plans. It is the responsibility of the Contractor to determine the composition and thickness of the existing pavement, and the extent to which it is reinforced. No additional compensation will be allowed because of variations from the assumed thickness or from thickness shown on the plans or for variations in the amount of reinforcement. Should the Contractor deface the edge, a new sawed joint must be constructed and any additional work, including removal and replacement, will be done at the Contractor's expense.
- B. The Contractor must make all saw cuts with a concrete sawing machine meeting the approval of the Construction Manager.

END OF SECTION 024113.15

024113.15 - 1/1

PART 1 - GENERAL

1.1 WORK INCLUDES

- A. All labor, materials, and equipment required to satisfactorily complete paving as shown on the plans.

1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, including but not limited to:
- B. Work under this Section shall be done in accordance with the applicable provisions of the "Code of Ordinances", latest edition, as adopted by the Village of Addison and Village of Villa Park, Illinois.

1.3 QUALITY ASSURANCE

- A. Unless specifically stated in the specifications, the following documents shall provide general requirements and covenants applicable to construction within the Village of Addison and Village of Villa Park. In the event of conflict between the contents of this document and the existing Municipal codes, the former will supercede the latter and/or the decision of the Municipality will prevail.
 - 1. Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction, latest revision, along with the Supplemental Specifications and Recurring Special Provisions. (Method of Measurement and Basis of Payment shall not apply.)
 - 2. I.S.P.E., Consulting Engineers Council of Illinois, et. al., Standard Specifications for Water and Sewer Main Construction in Illinois, latest revision.

1.4 SUMMARY

- A. This section includes provisions for IDOT Class I hot-mixed asphalt paving over prepared base, as follows:
PAVEMENT:
 - 1. Base Course – Existing
 - 2. Binder Course – 3.0" Hot Mix Asphalt Binder Course, IL 19.0, N50.
 - 3. Surface Course – 1.5" Hot Mix Asphalt Surface Course, Mix "D", IL 9.5, N50

DIVISION 32 – EXTERIOR IMPROVEMENTS
SECTION 321216 –HOT MIX ASPHALT PAVING

1.5 SUBMITTALS

- A. Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections:
 - 1. Material Certificates: Provide copies of materials certificates signed by material producer and Trade Contractor, certifying that each material item complies with, or exceeds, specified requirements.

END OF SECTION 321216

PART 1 - GENERAL

1.1 WORK INCLUDES

- A. This work shall consist of furnishing all labor, material, and equipment necessary to remove the existing pavement from existing elevation to subbase elevations where pavement removal and replacement is required, as directed by the Engineer. This work shall also consist of removing gravel and preparing the subgrade for installation of a bituminous pavement as directed by the Engineer.
- B. Work under this item shall be performed in accordance with Section 442 of the Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction, latest revision except as herein modified.

1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, including, not but limited to:
 - 1. 024113.15 – Saw Cutting Pavement
 - 2. 321216 – Hot Mix Asphalt Paving
 - 3. 312300 – Excavation and Fill
- B. Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction, latest revision, along with the Supplemental Specifications and Recurring Special Provisions (herein referred to as the “Standard IDOT Specification”). (Method of Measurement and Basis of Payment shall not apply.)
- C. Work under this Section shall be done in accordance with the applicable construction standards set by the Village of Addison and Village of Villa Park, Illinois.

1.3 QUALITY ASSURANCE

- A. The following documents shall provide the standards for construction within the Village of Addison and Village of Villa Park unless otherwise stated in these specifications. In the event of conflict between these specifications and the existing Municipal codes, the Municipal codes will prevail.
 - 1. Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction, latest revision, along with the Supplemental Specifications and Recurring Special Provisions. (Method of Measurement and Basis of Payment shall not apply.)
- B. Exceptions: All references in the Illinois Department of Transportation Standard Specifications to method of measurements and compensation shall not apply.

PART 2 – PRODUCT

- A. Replacement material shall be 3.0" Hot Mix Asphalt Binder Course, IL 19.0, N50 and 1½" Hot Mix Asphalt Surface Course, Mix "D", IL 9.5, N50. Full depth patching will include Aggregate Base (CA-6) to a depth matching existing base course. This material shall not be paid for separately but shall be included as part of this item.

The limits of the existing base to be replaced shall be sawcut full depth prior to removal. The saw cutting of the base shall not be paid for separately but considered incidental to CLASS D PATCHES.

PART 3 – EXECUTION

- A. Refer to Section 442 of the Standard Specifications.
- B. Bituminous concrete shall not be placed in soft, muddy, frozen or non-compacted subgrade or subbase. Preparation of the subgrade or subbase shall not be paid for separately but considered incidental to this item.

END OF SECTION 321216.10

SECTION 321211 –PAVEMENT SEAL COAT APPLICATION

PART 1 - GENERAL

1.1 WORK INCLUDES

- A. All labor, material, and equipment required for the placement of crack fill, seal coat and traffic markings indicated on the drawings, as hereinafter specified, or as required to properly complete the work.

1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, including, but not limited to:
 - 1. 321216 – HMA Paving.
- B. Work under this Section shall be done in accordance with the applicable provisions of the “Code of Ordinances”, latest edition, as adopted by the Village of South Elgin, Illinois.

1.3 QUALITY ASSURANCE

- A. Unless specifically stated in the specifications, the following documents shall provide general requirements and covenants applicable to construction within the municipality. In the event of conflict between the contents of this document and the existing municipality codes, the more stringent requirement will govern.
 - 1. Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction, latest revision, along with the Supplemental Specifications and Recurring Special Provisions. (Method of Measurement and Basis of Payment shall not apply.)
- B. The Illinois Department of Transportation Supplemental Specifications and Recurring Special Provisions, latest revision.
 - 1. Exceptions: All reference in the IDOT Specifications to method of compensation shall not apply.
- C. Manufacturer Qualifications: Products shall be provided from a manufacturer that specializes in the production of asphaltic materials, including sealcoats, with not less than five (5) years experience.
- D. Installer Qualifications: Engage an experienced Installer, who is authorized or approved in writing by the sealcoat product manufacturer(s), who has completed not less than three (3) sealcoat applications over the last five (5) years that were similar in material, design, and extent to that indicated for the Project — as determined by the Architect - and which have resulted in installations with a record of successful in-service performance. Provide reference project names, locations, completion dates, names and telephone numbers of each project's Architect and Owner.
- E. The Installer shall employ only skilled tradesmen who are thoroughly experienced with the materials and equipment to be used for the Work. The Installer shall maintain a full- time

supervisor/foreman who is on the Site during the time the sealcoat work is in progress and who is experienced in installing sealcoat systems similar to type required for the Project.

- F. Source Limitations: Obtain primary sealcoat materials from a single manufacturer. Provide other products as recommended by manufacturer of primary products for use with the sealcoat materials to be applied.
- G. Regulatory Requirements: Comply with requirements of authorities having jurisdiction in regards to application of, and disposal of excess, sealcoat materials, including stormwater pollution prevention requirements.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials in original unopened containers, with manufacturer's original labels identifying manufacturer's name, product name, and directions for storing and handling.
- B. Coordinate delivery of materials to minimize need for on-site storage and to avoid Delays.
- C. Store sealcoat materials within the temperature range required by the manufacturer.

1.5 FIELD CONDITIONS

- A. Do not apply sealcoat materials if asphalt pavement is wet or excessively damp, if rain is imminent or expected before time required for adequate cure or 24 hours following application, whichever is greater.
- B. Apply pavement marking products only on clean, dry surfaces and when ambient air temperature is not less than 50 deg F, but less than 95 deg F, and forecasted to remain above 50 deg F for not less than 24 hours following application.

PART 2 - PRODUCTS

2.1 SUBMITTALS

- A. Material Certificates: Provide copies of materials certificates signed by material producer and Contractor, certifying that each material item complies with, or exceeds, specified requirements.

2.2 MATERIALS

- A. Sealcoat: Polymer modified asphalt emulsion sealcoat complying with ASTM D 2939; containing no coal tar; and containing less than 10 g/L volatile organic compounds (VOC's). Seal Master Polymer Modified Master Seal (PMM) Ultra Pavement Sealer. No Substitute.
- B. Joint Sealant: ASTM D 6690, Type II or III, hot-applied, single-component, polymer-modified bituminous sealant.
- C. Pavement- Marking Paint: Latex, waterborne emulsion, lead and chromate free, ready mixed complying with FS TT-P-1952, Type II, with drying time of less than 45 minutes.

1.VOC Content: Products shall comply with VOC limits of authorities having jurisdiction and the following VOC limits when calculated according to the 40 CFR 59, Subpart D (EPA Method 24):

A. Traffic Marking Coatings: 150 g/L.

2. Colors: As indicated below. For items not indicated below, provide color(s) as indicated on the Drawings or, if not indicated, as required by the Architect or Board Authorized Representative.

A. Standard Parking Stalls: White

B. Accessible Parking Stall and Access Ailes: Yellow.

C. International Symbol of Accessibility: Blue field with international symbol of Accessibility either yellow or white.

D. Stop lines and other Traffic symbols: White.

PART 3 – EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions, with Installer present, for compliance with sealcoat manufacturer's requirements for conditions affecting sealcoat installation.

B. Verify that existing asphalt paving is dry and free of irregularities, defects, vegetation, and substances, including vehicular oils, fuels, or other fluids, that may adversely affect adhesion of sealcoat.

1. Defects include, but are not limited to, alligator cracking, rotting, depressions, ridging and potholes.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

1. Repairs to asphalt pavement shall be performed according to requirements in Division 32 Section "Hot Mix Asphalt Paving."

3.2 PREPARATION

A. Remove existing wheel stops, traffic calming devices, and ground-mounted signage. Store in protected location until reinstalled or replaced as indicated.

B. Protection:

1. Provide surface-applied protection over surface catch basins, drains, manholes, and similar items that are not to receive sealcoat.

2. Protect adjacent curbs, fences, sidewalks, driveways, and other surfaces from application of primers and sealcoat.

3. ALL UTILITY MANHOLES SHALL BE PROTECTED TO ENSURE THEY ARE NOT SEALED SHUT.

4. ALL UTILITY MANHOLES SHALL BE ABLE TO BE FREELY OPENED UPON COMPLETION.

- C. Remove surface spots of oil, gas, grease, and other fluids — use household cleaner only as recommended by sealcoat manufacturer. Identify stained areas where oil spot primer is to be applied.
 - 1. All surfaces to be seal coated are to be cleared as needed to assure adherence of seal coat materials. Cleaning is to be done with a “brush vacuum type street sweeper” and followed up with manual sweeping and blowers. Oil spots will be cleaned and primed to insure adhesion of sealer.
 - 2. All debris is to be removed from school district property.

- D. Crack and Joint Filling:
 - 1. General: Comply with sealcoat manufacturer's written instructions regarding preparation, including routing, of cracks and joints in existing asphalt pavement.
 - 2. Remove all vegetation, dirt, debris, and loose material from cracks and joints.
 - 3. Ensure edges of cracks and joints are dry. Remove wetness from surfaces of cracks and joints.
 - 4. Clean cracks and joints in existing hot-mix asphalt pavement. Remove existing joint sealant and rout cracks and joints as recommended by sealcoat manufacturer.
 - 5. Cracks and joints less than 1/4-inch wide shall be routed to not less than 1/2-inch wide by 1/2-inch deep. Clean routed joints and cracks of debris and loose material.
 - 6. Use hot-applied joint sealant to seal cracks and joints more than 1/4-inch wide, including routed cracks and joints. Fill flush with surface of existing pavement and remove excess.

- E. Cleaning: Immediately before placing primers and sealcoat materials, remove dust, dirt, and other loose foreign materials, mud and other lightly adhered materials, and debris from surface of asphalt pavement with air blower, power sweeper, or brooms. Water washing or flushing shall not be allowed unless approved in writing by primer manufacturer.

- F. Prewetting: Asphalt pavement to receive sealcoat shall be prewetted with clean water as recommended by manufacturer. The surface is properly dampened when no free water appears on the palm of the hand when pressed against the pavement, yet it has a wet appearance.

3.3 PRIMER APPLICATION

- A. Prepare and thoroughly mix oil spot and asphalt primers in strict accordance with manufacturer's written instructions. Mix during use/application as recommended by manufacturer.
 - 1. Sand can be used to improve traction and fill voids. Sand may be 30.65 masonry or #2 blast sand. A latex rubber additive will be included in the mixture at a rate of 4 gallons per 100 gallons of sealer to provide added flexibility and durability.
 - 2. Sand should be clean and free of all contaminants.
 - 3. Sand is to be added at the rate of 3 lbs. per gallon and mixed thoroughly. Mixing should continue throughout the application to insure dispersion. Small amounts of water may be added to obtain a good workable consistency.

- B. Apply primers with equipment, and at application rates, recommended by manufacturer for the condition of the asphalt pavement, including staining, to be sealed.
 - 1. Apply primer over hot-applied joint sealant as recommended by manufacturer.

3.4 SEALCOAT APPLICATION

- A. Prepare and thoroughly mix pavement sealcoat in strict accordance with manufacturer's written instructions to achieve homogeneous mix and consistency recommended by manufacturer for condition of asphalt pavement.
- B. Apply sealcoat mix in accordance with manufacturer's written instructions and as indicated. mechanical equipment and applicators shall be capable of accurately and uniformly depositing/spreading the sealcoat mix over the asphalt pavement on a continuous basis. Mechanical equipment and agitators shall be capable of periodically, or continually, agitating the sealcoat mix, as recommended by the manufacturer and as required to ensure proper suspension and uniformity of mix throughout application.
 - 1. Hand tools shall be used where space limitations prevent use of mechanical equipment or where neatly dressed detail work is required. Care shall be taken to ensure areas of hand tool work are visually comparable to adjacent sealcoat applied by mechanical equipment.
 - 2. Each coat of sealcoat mix shall be applied at minimum rate of 0.12 gallons / sq. yard (1.33 gal. / 100 s.f.).
 - 3. Two coats of sealcoat shall be applied to all asphalt pavement areas at application rates indicated and as recommended by manufacturer for the Project and anticipated amount of traffic.
 - a. Three coats of sealcoat shall be applied where indicated, as recommended by manufacturer, and/or as requested by Architect or Board Authorized Representative in areas where high traffic volumes are anticipated.
 - 4. Allow initial and intermediate coat (when required) to thoroughly dry (tack free and resistant to scuffing) prior to application of subsequent coat of sealcoat.
 - 5. Sealcoat shall be applied uniformly, free of holidays and pinholes.

3.5 MARKING / STRIPING

- A. General: Do not apply pavement-marking paint until layout of striping, directional arrows and other special designations, colors, and placement as indicated on Drawings have been verified with Architect and Board Authorized Representative.
- B. Do not apply pavement marking paint until applied sealcoat is thoroughly dry (tack free and resistant to scuffing) or at least 24 hours following application of the final coat of sealcoat whichever is greater.
- C. Sweep and clean pavement surfaces to remove dust, dirt, and other loose foreign materials, mud and other lightly adhered materials, and debris from surface of asphalt pavement with air blower, power sweeper, or brooms. Water washing or flushing shall NOT be allowed unless approved in writing by marking paint manufacturer.
- D. Apply paint with mechanical equipment to produce pavement markings, of dimensions indicated, with uniform, straight edges. Apply at manufacturer's recommended rates to provide a minimum wet film thickness of 15mils.

1. Apply graphic symbols and letting with paint-resistant, die-cut stencils, firmly secured to pavement. Mask an extended area beyond edges of each stencil to prevent paint application beyond the stencil. Apply paint so that it cannot run beneath the stencil.

3.6 PROTECTION

- A. Prohibit pedestrian (foot) and vehicular (wheeled) traffic from seal coated asphalt pavement for not less than 48 hours after sealcoat application is completed.

- B. Before opening seal coated asphalt pavement areas to traffic, examine all areas over which sealcoat materials were applied, with Installer, Architect, Authorized Representative, and manufacturer's technical field representative present, to verify that sealcoat materials are thoroughly dry (tack free and resistant to scuffing) and free from tracking to adjacent areas.

3.7 CLEANING

- A. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended in writing by manufacturer of affected construction to the satisfaction of the Architect and Authorized Representative.

END OF SECTION 321211