Exhibit B – Scope of Work

Bonita High School Running Track Replacement

Bid No. 2025-26-02

Prepared by Architecture 9 PLLLP

Architecture 9 PLLLP

SPECIFICATIONS

Project:	Bonita High School Running Track Replacement
District:	Bonita Unified School District
Architect:	Architecture 9 PLLLP 8816 Foothill Boulevard #103-224 Rancho Cucamonga, California 91730

Steven M. Gelsinger C-28546
Architect

Exhibit B – Scope of Work

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BONITA UNIFIED SCHOOL DISTRICT

SYNTHETIC TRACK REPLACEMENT

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A. Scope of Work.

B. Work Sequence.

C. Use of Premises.

D. Owner Occupancy.

E. Changes in the Work.

1.02 RELATED REQUIREMENTS

Requirements in General Conditions apply to this Work.

1.03 SCOPE OF WORK (SITE CONTRACTOR)

. Work of the Contractor: Perform, within the time stipulated, the contract, including its component parts, and everything required to be performed, and to provide and furnish labor, materials, tools, expendable equipment, and applicable taxes, and utility and transportation services necessary to perform the contract and complete, in a workmanlike matter, the Work required in connection with the following titled Project in strict conformity with the Contract Documents.

. Project Scope of Work:

. **Base Bid**: Work to include but not be limited to Scrape and dispose of existing track surface remove and dispose of existing asphalt paving sub base protect existing track entrance and existing track curbs excavate and removal of existing base scarify and compact sub grade to required depth and finish grade base install new asphalt paving sub base supply and install new synthetic track surface BSS 300RC by Beynon and all associated track line striping to match existing. Repaint striping at existing accessible parking spaces area.

C. Time for Completion, Liquidated Damages, Work Sequence:

. Reference: See General Conditions and Agreement.

. Time limit(s) for completion of the Work are:

a. The Work is to be completed in accordance with the time limit(s) stated in the Agreement.

. Agreed Liquidated Damages shall be as stated in Agreement.

1.04 WORK SEQUENCE

A. Work to be continuous from Notice to Proceed to Completion.

1.05 USE OF PREMISES

A. Contractor shall limit use of premises to allow:

1. Owner occupancy.
2. Public usage.
3. Work by other contractors.

B. Coordinate use of premises under direction of Owner.

C. Assume full responsibility for protection and safekeeping of products under this Contract.

D. Obtain and pay for use of additional storage or work areas needed for operations under this Contract.

E. Noise Control: The Contractor is advised that the District prohibits high noise activities, such as jack-hammering, between the hours of 8:00 AM and 3:00 PM, Monday through Friday, while school is in session. Coordinate with District.

1.06 OWNER OCCUPANCY

Owner will occupy premises during entire construction period for conduct of his normal operations. Cooperate with Owner in scheduling operations to minimize conflict and to facilitate Owner usage. Perform the Work so as not to interfere with the Owner's operations.

1.07 CHANGES IN THE WORK

A. Changes in the Work shall be done by Addenda or Change Order, only with in accordance with Title 24, Part I, Section 4-338, as follows:
   1. General: Work shall be executed in accordance with the approved Drawings, addenda and change orders. Changes in the Drawings and Specifications shall be made by addenda or change orders.
   2. Addenda: Changes or alterations of the approved Drawings or Specifications prior to letting a construction contract for the work involved shall be made by means of addenda to contractors. Original copies of addenda shall be manually signed by the Architect or Engineer in general responsible charge of preparation of the Drawings and Specifications and by the Architect or registered Engineer delegated responsibility for the portion affected by the addenda.
   3. Change Orders: Changes or alterations of the approved Drawings or Specifications after a Contract for the Work has been let shall be made only by means of change orders prior to commencement of the Work shown thereon. Change orders shall state the reason for the change and the scope of work to be accomplished, and, where necessary, shall be accompanied by supplementary drawings referenced in the text of the change order. All change orders and supplementary drawings shall be manually signed by the Architect or Engineer in general responsible charge of observation of the Work of construction of the Project and by the Architect or registered Engineer delegated responsibility for observation of the portion of the Work of construction affected by the change order, shall bear the approval of the District and shall indicate the associated change in the Project cost, if any.
   4. Field Change Documents: In order to expedite construction, field change documents may be submitted. Field change documents shall meet all the requirements necessary for a change order, with the exception of the

approval of the District and the associated change, if any, in costs. The field change document does not require the stamp or seal, but does require the signature of the Architect or Engineers. Work may proceed in accordance with the approved field change document. An official change order shall be submitted to follow up on the field change document as soon as possible.

PART 2 - PRODUCTS
Not Used.

PART 3 - EXECUTION
Not Used.

END OF SECTION

PART 1 - GENERAL

1.01 SECTION INCLUDES

. This Section specified administrative and procedural requirements governing Contract allowances.

. Allowances as set forth in the Specification are to be used as compensation for items as set forth in this Section. The amounts listed in the schedule and/or Specifications are to be included in the base bid and shall be listed separately in the Schedule of Values and Application for Payment.

1.0 ALLOWANCES

A. Use the allowances only as authorized for DISTRICT purposes and only by an approved allowance disbursement form that indicate the amounts to be charged to the respective allowance amount.

B. At Substantial Completion of the Work or at any time designated by the ARCHITECT and DISTRICT credit unused amounts remaining in the allowances to the DISTRICT by Change Order.

1.0 ALLOWANCE DISBURSEMENT

A. CONTRACTOR shall submit a request for allowance disbursement on an allowance disbursement form. Include all substantiating and/or required data along with the request.

B. The request shall have the requested amount listed as an allowance disbursement without CONTRACTOR overhead and markup.

C. Once the ARCHITECT and DISTRICT has accepted the disbursement, ARCHITECT and ARCHITECT will sign the allowance disbursement form.

PART - EXECUTION

.01 SCHEDULE OF ALLOWANCES

A. Include in the base bid the following allowances in the following amounts:

Description	Amount
Bid Form	$ 0,000 00

END OF SECTION

PART 1 - GENERAL

1.01 DESCRIPTION

A. Product List
   1. Within five (5) working days prior to Bid Opening, submit to the Architect five (5) copies of complete lists of all products which are proposed substitutions and those proposed as "or equal:" to products specified, and in accordance with Contract documents.
   2. For products specified only by reference standards, select any product meeting standards, by any manufacturer.
   3. For products specified by naming several products or manufacturers, select any products and manufacturer named.

1.02 SUBSTITUTIONS

A. Requests for substitutions shall be made only in writing on the "SUBSTITUTIONS REQUEST" form attached with all blanks completed except those reserved for the Design Consultant. All substitution requests shall be made by the Contractor.

B. In connection with the use of any substitute item approved by the Architect it shall be the Contractor's responsibility to see that such items meet all space requirements, and that any alterations to connecting items necessitated by use of the alternate items are properly made, at no increase in cost to the District.

C. In making request for substitutions, Bidder/Contractor represents that:
   1. He has investigated the proposed products or method and determined that it is equal or better in all respects to that specified and that it fully complies with all requirements of the Contract Documents.
   2. He will meet all contract obligations with regards to this substitution;
   3. He will coordinate installation of accepted substitutions into the work, making all such changes and any required schedule adjustments, at no additional cost to the District, as may be required for the work to be completed in all respects;
   4. He waives all claims for additional costs and additional time related to substitutions which consequently become apparent. He also agrees to hold the District and Architect harmless from claims for extra costs and time incurred by other subcontractors and suppliers, or additional services which may have to be performed by the Architect, for changes or extra work that may, at some time or date, be determined to be necessary in order for the work to function in the manner intended in the Contract Documents.
   5. He shall provide the same warranty and guarantee, and perform any work required in accordance therewith, for the substitution that is applicable to the specified item for which the substitution is requested;

6. Material shall be installed, handled, store, adjusted, tested, and operated in accordance with the manufacturer's recommendation and as specified in the Contract Documents.
7. In all cases, new materials shall be used unless this provision is waived by written notice from the Architect or unless otherwise specified in the Contract Documents; and
8. All material and workmanship shall in every respect be in accordance with and in conformity with approved modern and accepted industry practices, and shall conform to all applicable codes, regulations, laws, ordinances, and Contract Documents.

1.03 DESIGN PROFESSIONAL OPTIONS

A. The Architect will be sole judge of acceptability of any proposed substitutions, and only approved substitutions that are accepted in writing may be used on contract work.

B. Each request for substitution approval shall include:
   1. "Substitution Request" form with all required data completed, and accompanying specifications, etc., in triplicate.
   2. Identity of product for which substitution is requested; include specifications page and paragraph number.
   3. Identity of substitution; include complete product description, drawings, photographs, performance and test data, and any other information necessary for evaluation.
   4. Quality and technical specification comparison of proposed substitution with specified products.
   5. A description of changes required in other work because of substitution.
   6. Effect on construction progress schedule.
   7. Cost comparison of proposed substitution with specified product.
   8. Any required license fees or royalties.
   9. Availability of local maintenance service within a 50 mile air radius of the project.
   10. Source of replacement material or spare parts; if necessary, within a 50 mile air radius of the project.

1.04 SUBSTITUTION REQUESTS DURING BIDDING PERIOD

No request for substitution approval will be considered unless written request in triplicate has been submitted on the "Substitution Request" form included herein, and has been received by the Architect at least ten (10) working days prior to bid opening date. The Architect will issue addenda prior to bid opening listing all approved substitutions, should there be any approved.

1.05 SUBSTITUTION REQUESTS AFTER CONTRACT AWARD

A. Approval will be granted only when:
   1. Specified product cannot be delivered without project delay, or
   2. Specified product has been discontinued, or,
   3. Specified product has been replaced by superior product, or

4. Specified product cannot be guaranteed as specified, or
5. Specified product will not fit within designated space, or
6. Substitution otherwise determined by the District to be in its best interest.

B. The Contractor's request for substitution shall be accompanied by evidence documenting the reason for the substitution falls within one or more of the cases listed in A1 through A6 above.

C. A Construction Change Document authorizing substitutions and revising Contract Sum where appropriate will be issued for approved substitutions.

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION - (NOT USED)

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Procedure for requesting clarification of the intent of the Contract Documents.

1.02 RELATED SECTIONS

A. Section 01 11 00: Summary of the Project

B. Section 01 77 00: Project Closeout

PART 2 - PRODUCTS (Not applicable)

PART 3 - EXECUTION

3.01 PROCEDURE

A. Prime Contractor shall prepare a Request for Information on the form provided and approved by the Architect and District. Prior to the submission of any RFI Prime Contractor is responsible for thoroughly reviewing all contract documents to insure that the answer to the question is not contained therein. Prime Contractor shall transmit the Request for Information to the Architect with any supporting information.

B. Prime Contractor shall maintain a log of all RFI's that he submits to the Architect on a weekly basis at the weekly project meetings. RFI's shall be identified with a sequential number and be dated. Reference your company's name and the name of the subcontractor asking the question, if applicable, as well as the scope of work.

C. RFI question and location shall be specific and clear. Indicate reference to construction documents sheet and detail number, as well as specification section.

D. ARCHITECT response is a clarification of the intent of the Contract Documents and does not authorize changes in the Contract Amount, Milestones and/or Contract Time.

E. A Request for Information may be returned with a stamp or notation "Not Reviewed", if, in the opinion of ARCHITECT:
   1. The requested clarification is ambiguous or unclear to ARCHITECT.
   2. The requested clarification is equally available to the requesting party by researching and/or examining the Contract Documents.
   3. Prime Contractor has not reviewed the Request for Information prior to submittal to Architect.

END OF SECTION

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Procedure for submission of a Schedule of Values for review and approval by the District Representative.

1.02 RELATED SECTIONS

A. General Conditions.

B. Construction Services Agreement

C. Section 01 21 00: Allowances.

D. Section 01 23 00: Alternates.

E. Section 01 29 76: Progress Payment Procedures.

F. Section 01 31 13: Project Coordination.

G. Section 01 32 13: Construction Schedule.

H. Section 01 32 29: Project Forms.

I. Section 01 33 00: Submittal Procedures.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION

3.01 PREPARATION

A. In accordance with the General Conditions, Contractor shall commence preparation of a Schedule of Values on the form included in Section 01 32 29.

B. Contractor shall coordinate the preparation of a Schedule of Values with preparation of the Construction Schedule as set forth in Section 01 32 13.

C. Round amounts to the nearest whole dollar; the total shall equal the Contract Amount.

D. Provide a breakdown of the Contract Amount in enough detail acceptable to District Representative to facilitate continued evaluation of Application for Payment and progress reports. Coordinate with the Project Manual table of contents and Schedule of Values form under Section 01 32 29. Provide breakdown of all subcontract amounts.

E. Provide separate line items for items in the Schedule of Values for total installed value of that part of the Work.

F. Provide separate line item for labor and material when applicable.

G. 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 except the amounts shown as separate line items as indicated under Schedule of Values form.

H. Temporary facilities and other cost items that are not direct cost of actual work-in-place shall be shown as separate line items as indicated under Schedule of Values form.

I. If at any time, District Representative determines, in its reasonable discretion, that the schedule of Values does not approximate the actual cost being incurred by Contractor to perform the Work, Contractor shall prepare, for District Representative approval, a revised Schedule of Values, which then shall be used as the basis for future progress payments. Without changing the Contract Amount, District Representative reserves the right to require Contractor:

   1. To increase or decrease amounts within the line items in the Schedule of Values; and,

   2. To conform the price breakdown to Owner accounting practice.

END OF SECTION

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. This Section specifies administrative and procedural requirements relative to an Application for Payment.
   1. Coordinate the Schedule of Values and Application for Payment with, but not limited to, the Construction Schedule, submittal log, and list of Subcontractors.

1.02 RELATED SECTIONS

A. General Conditions.

B. Construction Services Agreement.

C. Section 01 21 00: Allowances.

D. Section 01 23 00: Alternates.

E. Section 01 29 73: Schedule of Values Procedures.

F. Section 01 32 13: Construction Schedule.

G. Section 01 32 29: Project Forms.

H. Section 01 77 00: Contract Closeout.

PART 2 - PRODUCTS (Not applicable)

PART 3 – EXECUTION

3.01 APPLICATION FOR PAYMENT

A. Each Application for Payment shall be consistent with previous applications and payments as reviewed by Project Inspector, Architect, and District Representative. The following Applications for Payment involve additional requirements:
   1. The Initial Application for Payment
   2. The Final Application for Payment

B. Payment Application Times: The period of Work covered by each Application for Payment is the payment date for each progress payment as specified in the General Conditions. The period covered by each Application for Payment is the previous month.

C. Contractor shall submit a draft Application for Payment seven (7) days prior to the first of each month, to be reviewed by the Architect, District Representative, and Project Inspector.

D. Application Preparation: Complete every entry on the form. Include execution by a person authorized to sign legal documents on behalf of Contractor.

E. Transmittal: Submit a minimum of five (5) wet signature originals of each Application for Payment to the District Representative. All copies shall be complete, including releases and similar attachments.
   1. Transmit each copy with a transmittal form listing attachments and recording appropriate information related to the application, in a manner acceptable to District Representative.

F. *Initial Application for Payment*: Administrative actions and submittals, that must precede or coincide with submittal for the first Application for Payment include, but are not limited to, the following:
   1. Schedule of Values.
   2. Construction Schedule.
   3. Submittal Schedule.
   4. Emergency Contact List.
   5. OCIP Enrollment.
   6. Cal/OHSA Trenching Permit and Named Competent Person.

G. *Applications for Payment*: Administrative actions and submittals that must precede or coincide with submittal of Progress Applications for Payment include, but are not limited to, the following:
   1. Certified Payroll (submitted directly to Labor Compliance Consultant in electronic format as specified by District Representative).
   2. Updated and current Project Record Drawings (as-built). Visual verification necessary only.
   3. Monthly Construction Schedule (updated, submitted and approved).
   4. Approved Schedule of Values.
   5. List of Subcontractors (Payments Summary).
   6. Waivers and Releases.
   7. Updated Submittal Schedule.
   8. Material invoices, evidence of equipment purchases, rentals, and other backup materials to support cost as requested by the District Representative.

H. *Final Payment Application*: Administrative actions and submittals that must precede or coincide with submittal of the final Application for Payment include, but are not limited to, the following:
   1. Project Inspector's sign-off and final approval of Project's DSA Form(s) 152.
   2. Contractor's submission of Contractor's Verified Report DSA Form 6-C.
   3. Completion of Contract Closeout requirements.
   4. Updated and Final As-Built drawings - in accordance with General Conditions.
   5. Completion and acceptance of final punch list items.
   6. Delivery of extra materials, products, and/or stock.
   7. Identification of unsettled claims.
   8. Proof that taxes, fees, and similar obligations are paid.

9. Operating and maintenance instruction manuals.
10. Consent of surety to final payment.
11. Waivers and releases.
12. Warranties, guarantees and maintenance agreements.
13. Training.
14. Removal of temporary facilities and services.
15. Removal of surplus materials, rubbish, and similar elements.
16. Deductive items pursuant to the General Conditions.
17. Completion and submission of all final change orders for the project.

I. Any payments made to Contractor where criteria set forth above have not been met shall not constitute a waiver of said criteria by District Representative. Instead, such payment shall be construed as a good faith effort by District Representative to resolve differences so Contractor may pay its Subcontractors and suppliers and that Contractor agrees that failure to submit such items may constitute a breach of contract by Contractor and may subject Contractor to termination.

END OF SECTION

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED
- A. Coordination of Work of Contract.

1.02 RELATED REQUIREMENTS
- A. Section 00700 - General Conditions
- B. Section 01 25 13 - Substitutions and Product Options
- C. Section 01 31 19 - Project Meetings
- D. Section 01 33 00 - Shop Drawings, Product Data and Samples
- E. Section 01 77 00 - Contract Closeout

1.03 SUBMITTALS
- A. Coordination Drawings: Submit in accordance with Section 01 33 00, as specified herein.
- B. Work Plans: Submit as specified herein.

1.04 DESCRIPTION
- A. Coordinate scheduling, work activities, submittals, including deferred approvals, District separate contracts and work of the various sections of Specifications in accordance with the Master Project Schedule.
- B. Coordinate sequence of Work to accommodate District's separate contract and District's Occupancy as specified in Section 01 11 00.
- C. Set up control procedures so that the Master Project Schedule is adhered. Contractor's responsibility is to properly notify District's Project Manager of anticipated and actual time delays. Refer to General Conditions.
- D. Coordinate the Work and do not delegate responsibility for coordination to any Subcontractor.
- E. Anticipate the interrelationship of all Subcontractors, District separate contracts, and their relationship with the Work
- F. Resolve differences or disputes between Subcontractors concerning coordination, OR interference of Work between SECTIONS.

1.05 NOT USED

1.06 NOT USED

1.07 COORDINATION

A. General: Work of the Contract includes coordination of the entire work of the Project, from beginning of construction activity through Project close-out and warranty periods.

B. Mechanical/Electrical Requirements of General Work: Comply with applicable requirements of Division 23 Sections for Mechanical Provisions within units of General Work, and comply with applicable requirements of Division 26 for Electrical provisions within units of General Work.

C. Service Connections: Except as otherwise indicated, final connection of mechanical services to general work is defined as being mechanical work, and final connection of electrical services to general work is defined as electrical work.

D. Coordination: The Project will require close cooperation and coordination with the school site administration, the Architectural team, District Project Manager, and Contractor and Subcontractors. The Contractor shall consider all such coordination in his work inclusive, but not limited to, scheduling and proper sequencing of the Work with subcontractors and the District school site calendar and times that work cannot be, or occupied areas of the project school site that cannot be undertaken, during the entire project. In particular, the coordination of work before District's substantial completion of each project phase, and ensuring the site administration, the Architectural team, Inspector, and District Project Manager are fully advised of his activities to complete the Work in accordance with the Master Project Schedule.

E. Coordination/Engineering Drawings:
   1. Contractor shall prepare and submit complete 1/4 " = 1'-0" coordination drawings, Including plans, sections, details, etc., indicating the complete layout and all mechanical and electrical materials and equipment in all areas and within the ceiling spaces for new and existing conditions, including bottom of duct, pipe, conduit and elevations to allow District Architectural team to review with other Prime Trade Contractors' work that Contractor ensures will be coordinated properly.
   2. Mechanical, plumbing and electrical Prime Trade Contractors shall be responsible for providing all vertical sections through floors showing structural physical restraints, architectural restraints, plenum spaces and all other physical obstructions that may affect work.
   3 Electronic reproduction or photo reproduction of the project's Architectural, Structural, or MEP drawings will not be acceptable.

F. Mechanical, plumbing and electrical Prime Trade Contractors shall prepare a 1/4" sleeving layout indicating size and location of sleeves. Provide copies to applicable trades and District Architectural team.

G. Coordination/Engineering Drawings: These drawings are for the Contractor's and District's Representative's use during construction and shall not be construed as replacing any shop drawings, "as-built", or Record Drawings required elsewhere in these Contract Documents.

H. Debris Removal and Material Access: An area will be designated for debris removal and material access as agreed by the Contractor and Architectural team at the school site.

1.08 EQUIPMENT COORDINATION

A. Equipment Coordination: With respect to mechanical and electrical features of Contractor and/or District supplied equipment, complete data must be exchanged directly between the Contractor and those vendors and subcontractors involved as the progress of the Project requires. The person requesting the information shall advise when it will be required.

B. The Prime Trade Contractor's for casework and equipment are expressly required to provide large scale layout drawings for casework and equipment showing the required rough-in locations of all services (dimensioned from building features) service characteristics, and locations of studs where the location is critical to mounting or otherwise installing equipment and casework. Furnish sizes and spacing required for Mechanical and Electrical cutouts, and a complete brochure of fittings, sinks, outlets, or other information to provide complete data on the items and accessories being furnished.

C. In the event of incorrect, incomplete, delayed or improperly identified information, the entity causing the delay or error shall be responsible and pay for any modifications or replacements necessary to provide a correct, proper and new installation, including relocations required.

1.09 MEETINGS

A. In addition to progress meetings specified in Section 01 31 19, attend coordination meetings and pre-installation conferences with requisite personnel to assure coordination of Work when scheduled with the Architectural, Engineer, Inspector, or Project Manager.

1.10 COORDINATION OF SUBMITTALS

A. Schedule and coordinate submittals as required and as specified in Section 01 33 00.

B. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such materials and equipment.

C. Coordinate requests for substitutions to assure compatibility of space, of operating elements, and effect on work of other sections.

D. Prime Trade Contractors shall submit the following drawings for review and approval:
   1. Fire Protection Drawings: Refer to Division 21.
   2. Fire Alarm System: Refer to Division 28.

1.11 COORDINATION OF SPACE

A. Mechanical, plumbing and electrical Prime Trade Contractors shall coordinate use of Project space and sequence of installation of mechanical, and electrical work which is indicated diagrammatically on Drawings. Follow routings shown for pipes, ducts, and conduits as closely as practicable, with due allowance for available physical space; make runs parallel with lines of building. Utilize space efficiently to maximize accessibility for other installations, for maintenance, and for repairs.

B. In finished areas, except as otherwise shown, conceal pipes, ducts, and wiring in the construction. Coordinate locations of fixtures and outlets with finish elements.

C. Off-Site Fabrication: Off-site fabrication is encouraged as much as possible and deliveries scheduled so materials and equipment can be installed immediately after delivery. The Contractors shall alert and advise material men of the need to hold deliveries until they are notified the materials are required on the site.

1.12 ELECTRICAL COORDINATION

A. Provide supervision, communications, and coordination necessary to meet the requirements of electrical power connection as set forth by the designated power company.

B. Provide reasonable and convenient staging and access areas near buildings to permit the respective Utility or its vendors or subcontractors, to install, modify or remove equipment and other components of the electrical power system furnished and installed by the designated power company.

1.13 COORDINATION OF CONTRACT CLOSEOUT

A. Coordinate completion and cleanup of work of separate sections in preparation of District school site occupancy with approval of final cleanup by the Inspector and Project Manager.

B. After District occupancy of premises, coordinate access to site by various sections for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of District/school activities.

C. Assemble and coordinate closeout submittals specified in Section 01 77 00.

1.14 NOT USED

1.15 PROTECTION OF EXISTING STRUCTURES AND UTILITIES

A. The Drawings show, if applicable, existing above and below grade structures, drainage lines, storm drains, sewers, water, gas, electrical, hot water, and other utilities which are known to the District.

B. Locate all known existing installations before proceeding with construction operations which may cause damage to such installations. Existing installations shall be kept in service where possible and damage to them shall be repaired with no adjustment of Contract Sum. District archives as-built drawings, and Contractor shall be responsible to request to view any and all drawings for the areas that may be affected in the construction before the work begins.

C. If any unforeseen structures or utilities are encountered, request District's Architectural Team to provide direction on how to proceed with the Work.

D. If any structure or utility is damaged, take appropriate action to ensure the safety of persons and property and report the same to the District's Architectural Team, and begin immediate remediation of any safety-related condition.

PART 2 - PRODUCTS - NOT USED.

PART 3 - EXECUTION - NOT USED.

END OF SECTION

PART 1-GENERAL

1.01 SUMMARY

A. Work Included in this Section:

1. The Contractor's participation in preconstruction conference, application for payment, and guarantees, bonds, service and maintenance contracts review meetings.
2. The Contractor's administration and participation in project weekly progress meetings, pre-installation conferences and other meetings, as necessary.

1.02 PRE-CONSTRUCTION CONFERENCE

A. Prior to commencement of Work, attend a pre-construction conference at time and a place selected by the School District to discuss procedures to be followed during the course of the work.

B. The purpose of the conference is to introduce the District Project with the Architectural Team, the Inspector, the Construction/Project Managers, and the School's Representative key personnel, to review the contract provisions, project procedures, and other items pertaining to the Project; distribute documents including sample forms referenced in the Contract Documents; answer any questions related to construction contract administration; and establish schedule and procedures for future meetings. (This meeting is NOT to discuss any construction related specific specifications and drawings, nor address any requests for substitutions, etc.)

C. Attending shall be:

1. District Representatives from Planning, Development and Facilities, Facility and Support Operations, and/or the Business Office.
2. School Site Representatives, including the Construction Liaison
3. The Project Inspector of Record
4. The Architect of Record, and Architect's Construction Architect
5. The Engineering Consultants
6. The Contractor's Contracts Representative/Project Manager
7. The Contractor's on Site Representative/Superintendent
8. Representatives of the major subcontractors, as necessary

1.03 CONSTRUCTION PROGRESS MEETINGS

A. During the course of construction, progress meetings will be held to discuss and resolve field problems.

B. Meeting Schedule: At maximum one-week intervals or more often when required by the Architect/Inspector and/or Project Manager.

C. Meeting Location: As designated by the District's Project Manager, in conjunction with the School Site liaison.

D. Attending shall be:
   1. The District's Representative from Planning, Development and Facilities, Facility and Support Operations, and/or the Business Office
   2. The Project Inspector of Record
   3. The Architect's Construction Architect
   4. The Engineering Consultants as appropriate to the Meeting Minute format, and as agreed upon by the Contractor and the Project Manager beforehand
   5. The Contractor's On-Site Superintendent
   6. The Contractor's Representative/Project Manager
   7. Representatives of subcontractors/major suppliers as appropriate to a specific item of the Meeting Minute format, and at the time the specific item is reflected on the Meeting Minutes.
   8. Others as appropriate to the Meeting Minute format and as agreed upon by the Contractor and the Project Manager beforehand.

   NOTE: Representatives of the Contractor, subcontractors and suppliers attending Construction Progress Meetings shall be qualified and authorized to act on behalf of the entity each represents.

E. Suggested Agenda:
   1. Review and approve minutes of previous meeting.
   2. Review Construction Project Schedule and Daily Reports.
   3. Review of work progress since previous meeting.
   4. Review of upcoming work to take place on Two-week-Look-Ahead Schedule.
   5. Discuss School Site concerns with regard to safety, paths of travel, and any upcoming events that may affect the work schedule.
   6. Discuss field observations, problems, and decisions, affecting the work.
   7. Review submittals schedule and status of submittals.
   8. Review status of proposed substitutions, if any.
   9. Review off-site fabrication and delivery schedules.
   10. Review maintenance of progress schedule.
   11. Agree on corrective measures to regain projected schedules, as necessary.
   12. Review planned progress during succeeding work period.
   13. Review coordination of projected progress.
   14. Review maintenance of quality and work standards.
   15. Review project safety of workers and practices.
   16. Review any Inspector of Record Field Notices, or Deviations logs.
   17. Other items relating to the Work.

F. The Architect, in coordination with the Project Manager, will make physical arrangements for project meetings, and the Architect shall prepare agenda, preside at meetings, record minutes, and distribute electronic draft copies of Minutes within three working days after Construction Project Meetings to the Project Manager, Inspector, conference participants and those affected by

the decisions made at the conference. The Architect will record in the minutes significant discussions and agreements and disagreements.

1.04 PRE-INSTALLATION CONFERENCES

A. The Architect/Inspector may conduct a pre-installation conference at the site before each construction activity that the Architect/Inspector deems requires coordination with other construction or when required by the Construction documents.

B. Attendance will be required of parties directly affecting, or affected by, or involved in the installation, and its coordination or integration with other materials and installations that have preceded or will follow the particular item of work or activity under consideration. Parties attending the conference shall be qualified and authorized to act on behalf of entity each represents.

C. Conference Schedule: Schedule conference to assure a sufficient amount of time prior to the scheduled work or activity under consideration so that any concerns, problems or disagreements can be resolved without delaying the Project.

D. The Architect, on conjunction with the Inspector, will make physical arrangements for conferences, prepare the agenda, preside at conferences, record minutes, and distribute copies within two working days after a conference to the Project Manager, Inspector, conference participants and those affected by the decisions made at the conference. The Architect will record in the progress meeting minutes significant discussions and agreements and disagreements as takes place in pre-installation conferences.

E. Suggested Agenda: Review the progress of other construction activities and preparations for the particular activity under consideration, including requirements for:
   1. Contract Documents
   2. Options
   3. Related Change Orders
   4. Purchases
   5. Deliveries
   6. Shop Drawings, Product Data and quality control Samples
   7. Possible conflicts
   8. Compatibility problems
   9. Time Schedules
   10. Weather limitations
   11. Manufacturer's recommendations
   12. Compatibility of materials
   13. Acceptability of substrates
   14. Temporary facilities
   15. Space and access limitations
   16. Governing regulations

17. Safety
18. Inspection and testing requirements
19. Required performance results
20. Recording requirements
21. Protection

F. Do not proceed with the work or activity if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of work and reconvene the conference at the earliest feasible date.

1.05 OTHER REQUIRED MEETINGS

A. Project Closeout Meeting:
   1. Thirty (30) days prior to the estimated substantial completion the project/phase, the Architect, Inspector, and Project will coordinate a meeting to review required construction maintenance manuals, guarantees, closeout submittals, bonds, and service contracts for materials and equipment; review and implement repair and replacement of defective items, and extend service and maintenance contracts, and schedule site training for all equipment.
   2. Attending shall be:
      a. The District's Representative of Planning, Development and Facilities, Facility and Support Operations, and/or Business Office
      b. The Project Inspector
      c. The Construction/Project Manager
      d. The Engineering Consultants, as appropriate
      e. The Contractor's on-site Superintendent
      f. Subcontractors, as appropriate
      g. Suppliers, as appropriate
      h. Others, as appropriate

B. Guarantees, Bonds, and Service and Maintenance Review Meeting:
   1. Eleven months following the date of Substantial Completion, the District Project Manager will convene a meeting for the purpose of reviewing the guarantees, bonds, and service and maintenance contracts for materials and equipment.
   2. Attending shall be:
      a. The District's Representative
      b. The Architect
      c. The Engineering Consultants, as appropriate
      d. The Contractor's Representative
      e. Subcontractors and Suppliers, only as appropriate
      f. Others as appropriate

1.06 PRIME TRADE CONTRACTOR MEETINGS

A. Construction Progress Meetings:

1. To be held at maximum one-week intervals or more often when required by the Architect/Inspector/Construction Project Manager.
2. Meeting Location: Contractor Jobsite trailer
3. All Prime Trade Contractors shall attend in order to review progress of work, and submit any questions or requests to the Contractor in order to ensure coordination of installations during the work schedule.

END OF SECTION

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Construction Project Schedule procedures, preparation, submittal, updates, and revisions.

1.02 RELATED REQUIREMENTS

A. General Conditions.

B. Construction Services Agreement.

C. Section 01 11 00: Summary of Work.

D. Section 01 29 73: Schedule of Values Procedures.

E. Section 01 29 76: Progress Payment Procedures.

F. Section 01 31 13: Project Coordination.

G. Section 01 33 00: Submittal Procedures.

H. Section 01 45 23: Testing and Inspection.

I. Section 01 50 00: Construction Facilities and Temporary Controls.

J. Section 01 78 36: Warranty and Bonds.

1.03 PROCEDURES

A. Within seven (7) calendar days after date of Notice to Proceed, Contractor shall submit to District Representative for review, a detailed Construction Schedule ("Preliminary Baseline Schedule") setting forth all requirements for complete execution of the Work.

B. Within seven (7) calendar days after receipt of the District Representative's review comments, submit a final Construction Schedule acceptable to District Representative ("Approved Baseline Schedule").

C. Include a written summary narrative sufficiently comprehensive to explain basis of Contractor's approach to work.

D. If a Construction Project Schedule is considered by District Representative to not be in compliance with any requirement of the Contract, Contractor will be notified to review and revise the Construction Schedule and bring it into compliance. Failure of Contractor to submit a Construction Schedule in full compliance with the Contract Documents will result in withholding of progress payment in accordance with the General Conditions or Construction Services Agreement. The Construction Schedule is to be used in evaluating progress for payment approval.

E. Subsequently with each Progress Payment Request, Contractor shall deliver to District Representative an updated Construction Schedule reflecting Work progress to the end of the Progress Payment Request period. Each such Construction Schedule shall indicate actual progress to date in execution of the Work, together with a projected schedule for completion of all the Work.

1.04 SCHEDULE SUBMITTAL PREPARATION GUIDELINES

A. The Contract Work shall be scheduled and progress monitored using a Critical Path Method (CPM) network type scheduling system. Schedule shall be broken into sub-activities which shall, as a minimum, include major suppliers, all submittal approvals, all major trades, plumbing, mechanical, electrical, security, fire, and elevators and escalators. Scheduling system shall indicate all inter-relationships between trades and suppliers.

B. Contractor shall utilize the Critical Path Method (CPM) in the development and maintenance of the construction schedule network.

C. Duration and events indicated on schedule shall conform to phasing set forth in Section 01 12 16: Phasing of the Work (if applicable) and shall show any area or building within a particular phase. Schedule shall indicate any and all Contract "milestone events" and other milestones agreed to by District Representative, but no other manually-imposed dates will be accepted unless approved by District Representative.

D. Construction Schedule shall represent a practical plan to complete the Work within the Contract time requirement.
   1. A schedule extending beyond Contract time or less than Contract time will not be acceptable.
   2. A schedule found unacceptable by District Representative shall be revised by Contractor and resubmitted.

E. Construction schedule shall clearly indicate sequence of construction activities, grouped by applicable phase and sorted by areas, buildings, or facilities within phase, and shall specifically indicate:
   1. Start and completion of all Work items, their major components, and interim milestone completion dates, as determined by Contractor and District Representative.
   2. Activities for procurement, delivery, installation of equipment, materials, and other supplies, including:
      a. Time for submittals, resubmittals, and reviews. Include decision dates for selection of finishes.
      b. Time for manufactured products for the Work fabrication and delivery.
      c. Interdependence of procurement and construction activities.
      d. As applicable, dates for testing, balancing equipment, and final inspection.

F. Schedule shall be in sufficient detail to assure adequate planning and execution of the Work.
   1. Each task activity shall range in duration from a 1 workday minimum to a fifteen (15) workday maximum and shall be total of actual days required for completion. The activity duration shall include consideration of weather impact on completion of that activity.
   2. Schedule shall be suitable, in judgment of District Representative, to allow monitoring and evaluation of progress in performance of the Work; it shall be calendar time-scaled.
   3. Activities shall include:
      a. Description; what is to be accomplished and where.
      b. Workday duration.
      c. Scheduled activities shall indicate continuous flow, from left to right.
   4. Contractor shall setup up the schedule calendar to identify workdays per week and shifts per day worked, non-work days, weekends and holidays.

G. Failure to include any element of Work required for performance of this Contract shall not excuse Contractor from completing Work required to comply with the Contract Documents, notwithstanding acceptance of Construction Schedule.

H. Submittal of Construction Schedule shall be understood to be Contractor's confirmation that the schedule meets requirements of the Contract Documents, and that the Work will be executed in sequence indicated in schedule.

I. All Construction Schedule submittals shall be transmitted with a Letter of Transmittal and shall include six (6) copies and one reproducible copy of a sufficient agreed upon size and the electronic file of the schedule in the format as required by District Representative.

1.05 REVIEWS, UPDATES, AND REVISIONS

A. District Representative will review and return the initial submittal of Contractor's Construction Schedule, with summary comments. If revisions are required, Contractor shall resubmit Schedule within seven (7) calendar days following receipt of District Representative's comments.

B. After Contractor and District Representative agree to a base line schedule, it will become the Project Construction Schedule. No changes to the Baseline Schedule will be allowed unless accepted by District Representative.

C. Contractor shall analyze and update the Project Construction Schedule:
   1. As part of monthly payment application, Contractor shall submit to and participate with District Representative in a schedule review to include:
      a. Actual start dates for Work items started during report period.
      b. The percent complete on activities that have actual start dates.

c. Actual completion dates for Work items completed during report period.
d. Estimated remaining duration for Work items in progress, which will not exceed original duration for activity.
e. Estimated start dates for Work items scheduled to start during month following report period, if applicable.
f. Changes in duration of Work items.

2. In case of a change to Contractor's planned sequence of Work, Contractor shall include a narrative report with updated progress schedule which shall include, but not be limited to, a description of problem areas, current and anticipated delaying factors, and any proposed revisions for a recovery plan.
3. Change Orders affecting the scheduled completion date shall be clearly identified as separate and new activities integrated into the schedule at the appropriate time and in the appropriate sequence as reviewed and approved by District Representative.
4. The Project Construction Schedule Review will not relieve Contractor of responsibility for accomplishing all Work in accordance with the Contract Documents.

D. Updates: Contractor shall submit to District Representative, with each payment application, an up-to-date Project Construction Schedule. Contractor submission of the Monthly Updated Project Construction Schedule is a condition precedent to District Representative's approval of Progress Payments. The Update Project Construction Schedule shall include the following:
1. Work Item Report: Detailing Work items and dependencies as indicated on the Schedule.
2. Actual Start and End Dates of Activities under construction
3. Separate listing of activities completed during reporting period.
4. Separate listing of activities which are currently in progress, indicating their remaining duration and percentages completed.
5. Separate listing of activities which are causing delay in Work progress.
6. Narrative report to define problem areas, anticipated delays, and impact on the Project Construction Schedule. Contractor shall report corrective action taken, or proposed, and its effect, including effect of changes on schedules of separate contractors.
7. Resolution of conflict between actual Work progress and schedule logic: when out-of-sequence activities develop in the Schedule because of actual construction progress, Contractor shall submit a revised schedule to conform to current job sequence and direction.

E. If, according to current updated Project Construction Schedule, District Representative determines Contractor is behind schedule or any interim milestone completion dates will not be met, considering all time extensions to which Contractor is entitled, Contractor shall submit a revised recovery

schedule, showing a workable plan and a narrative description to complete the project on time. Refer to General Conditions.

F. Scheduling of change or extra Work orders is responsibility of Contractor.
   1. Contractor shall revise the Project Construction Schedule to incorporate all activities involved in completing change orders or extra Work orders and submit it to District Representative for review.

G. If District Representative finds Contractor is entitled to extension of any completion date, under provisions of the Contract, District Representative's determination of total number of days of extension will be based upon an analysis of the current Project Construction Schedule, and upon data relevant to the extension.

H. Contractor acknowledges and agrees that delays to non-critical activities will not be considered a basis for a time extension unless activities become critical. Non-critical activities are those activities which, when delayed, do not affect an interim or Substantial Completion date.

I. Contractor shall allow Float time for inclement weather, Government Delay, and Project Float in the Baseline Schedule in accordance with the General Conditions. The Inclement Weather Float and the Government Delay Float shall each be identified as a Critical Activity in the Baseline Schedule. No other activities may be concurrent with them. When rainfall at the Project site impacts Critical Path activities, Contractor may provide District Representative with a written request for a rain impact day describing the inclement weather delay on the Critical path activities. The inclement weather delay must be clearly indicated by a seventy-five percent (75%) decrease in the normal field labor workforce hours on Critical Path activities on the day in question as indicated by Contractor's Daily reports from the day in question and the scheduled Work days prior to the day in question. Upon District Representative's independent confirmation of the amount of rainfall and impact, District Representative will authorize Contractor to reduce the duration of the Rain Day Impact Allowance by one day. Rainfall on non-scheduled workdays shall not be granted as rain impact days. If the effects of rain from a non-scheduled Work day carry forward to a scheduled work day and impacts the Critical Path as noted above, then the scheduled work day will be considered impacted by rain.

1.06 CONTRACTOR'S RESPONSIBILITY

A. Nothing in these requirements shall be deemed to be an usurpation of Contractor's authority and responsibility to plan and schedule Work as Contractor sees fit, subject to all other requirements of Contract Documents.

B. Contractor shall provide at all times sufficient competent labor, materials, and equipment to properly carry on Work and to insure completion of each part in accordance with Construction Schedule and within time allowed in the Contract.

C. Contractor shall be responsible for ensuring that all submittals to the District Representative are accurate and consistent. Damage, including extra time and cost, caused by inaccuracies from Contractor will be compensated by Contractor.

1.07 SUSPENSION OF PAYMENTS

A. Initial Submittal: If Contractor fails to comply with the specified requirements, District Representative reserves the right to engage an independent scheduling consultant to fulfill these requirements. Upon additional notice to Contractor, District Representative shall retain against Contractor all incurred costs for additional services.

B. Update Submittals: District Representative has the right to withhold progress payments if Contractor fails to update and submit the Project Construction Schedule and reports as required by District Representative.

1.08 RECORD COPY

A. Prior to the Contract Completion, Contractor shall submit the Project Construction Schedule showing the as-built sequence. The as-built schedule shall have all activities with actual start and end dates.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

PART 1 - GENERAL

1.01 SECTION INCLUDES:

A. Coordinate both the listing and timing of reports and other activities required by provisions of this and other Sections, so as to provide consistency and logical coordination between the reports. Maintain coordination and correlation between separate reports by updating at monthly or shorter time intervals. Make monthly distribution of the progress schedule and update to all parties involved in the work including the Architect, Inspector, and Project Manager, along with the Request/Application for Payment. In particular provide definition and coordination of the progress schedule, with phases, changes, schedule of values, funding sources and progress reports.

B. Project (CPM) Schedule:
   1. Secure critical time commitments for performing major elements of the work of for the entire duration of the Contract. Within 30 days after the Notice to Proceed, submit a comprehensive Critical Path Method (CPM) chart progress schedule indicating, by stage-coded symbols, milestones for each major specification section, category, or tunit of work to be performed; include minor elements of work, which are, nevertheless, involved in overall sequencing of the work. Include dates for completion of each phase of work. Arrange schedule to show graphically the major sequences of work necessary for the completion of related elements of work. Arrange the schedule to allow for the Architect's review of submittals as well as procedure for certification of substantial completion. Prepare and maintain the schedule on a sheet of sufficient width (or a series of sheets) to show the required data clearly for the entire construction time. Prepare the schedule on sheets of stable transparency, or other reproducible material, to permit reproduction for the required distribution.
   2. Utilize MS Project or similar project management software.
   3. Provide a minimum 3 days prior to Project Job Meeting to Architect, IOR and District Representative.

C. Daily Reports: Prepare a daily report, recording the following information concerning events at the site; make available to the Inspector for on-site review and submit duplicate copies to the Inspector and Architect upon request:
   1. List of Contractor personnel at the site
   2. List of Subcontractors at the site
   3. Accurate Count of personnel at the site by trade, and Subcontractor
   4. Material and Equipment Deliveries
   5. High/low temperatures, and general weather conditions.
   6. Accidents or injuries.
   7. Meetings and significant decisions.
   8. Unusual events.
   9. Stoppages, delays, shortages, losses.
   10. Emergency procedures, field orders.

11. Orders/requests by governing authorities, signed.
12. Services connected, disconnected.
13. Equipment or system tests and start-ups.
14. Partial completions, occupancies.
15. Substantial completion requested.
16. Substantial completion authorized.
17. Requests for Inspections

D. Progress Reports: Contractor shall submit "Verified Reports", on prescribed form, of construction per requirements of Title 24, CCR.

E. Two-Week-Look-Ahead Schedule:
   1. Contractor to provide a Two-Week-Look-Ahead Schedule at every Project Job Meeting.
   2. Schedule to include but not limited to the following:
      a. All work that is projected to occur in the two upcoming weeks.
      b. Inspections needed to occur.
      c. Submittal required from Architect.
      d. District-require items.
      e. City and/or DSA needed approvals.
      f. Any site construction that may affect school activities.
      g. School events that may affect construction activities.
   3. Provide a minimum 3 days prior to Project Job Meeting to Architect, IOR and District Representative.

PART 2 - PRODUCTS - NOT APPLICABLE

PART 3 - EXECUTION - NOT APPLICABLE

END OF SECTION

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

A. Procedures.

B. Contract.

C. Construction Progress Schedules and Contract Breakdown.

D. Shop Drawings, Product Data, and Samples.

E. Manufacturers' Instructions and Certificates.

1.02 RELATED REQUIREMENTS

Requirements in Addenda, Alternates, Conditions, and Division 1 collectively apply to this Work.

1.03 PROCEDURES

A. All Submittals must be approved by Architect no later than **fourteen (14)** calendar days after the issuance of the **Notice to Proceed**.

B. Prepare a listing showing principal work-related submittals and their initial submittal dates as required for coordination of the Work. Organize the listing by the related specification number sequence. Submit the listing within seven (7) days after the award of the Contract.

C. Submit Shop Drawings and product data in accordance with General Conditions. Submittals shall be approved and on file at the Site(s) prior to the initial use of the material, product, plan or system on Site.

D. Deliver submittals to Architect at address listed on cover of Project Manual.

E. Identify Project, Contractor, subcontractor, and major supplier; identify pertinent Drawing sheet and detail number, Specifications Section number, as appropriate. Identify deviations from Contract Documents. Provide space for Contractor and Architect review stamps.

F. Comply with progress schedule for submittals related to Work progress. Coordinate submittal of related items.

G. The Contractor shall approve submissions prior to submitting for the Architect's review. By approving and submitting Shop Drawings, the Contractor represents that he has determined and verified materials, field measurements, and field construction related criteria, or will do so, and that he has checked and coordinated the information contained with such submittals with the requirements of the Work and the Contract Documents.

H. After Architect's review of submittal, revise and resubmit as required, identifying changes made since previous submittal.

I. Distribute copies of reviewed submittals to concerned persons. Instruct recipients to promptly report any inability to comply with provisions.

1.04 CONTRACT

A. Furnish simultaneously three (3) executed copies of:
   1. Agreement.
   2. Performance Bond.
   3. Payment Bond.
   4. Certificate - Worker's Compensation.
   5. Certificates showing Proof of Carriage of Insurance required by General Conditions.

1.05 PROJECT FORMS

A. Submit to District and Architect the following Project Forms for review and approval:
   1. Pay Application
   2. Schedule of Values
   3. Change Order Form
   4. Request for Information
   5. Critical Path Schedule
   6. 2 - Week Look Ahead Schedule
   7. Daily Report

1.06 CONSTRUCTION PROGRESS SCHEDULES AND CONTRACT BREAKDOWN

A. Construction Schedules:
   1. Submit horizontal bar chart with separate bar for each major trade or operation, identifying first workday of each week.
   2. Show complete sequence of construction by activity, identifying work of separate stages and other logically grouped activities. Show projected percentages of completion for each item of Work as of each Application for Progress Payment.
   3. Show submittal dates required for shop drawings, product data, and samples and product delivery dates, including those furnished by Owner.

B. Furnish Contract Breakdown per General Conditions:
   1. Format: Table of Contents of this Project Manual. Identify each item with number and title of the major Specifications Sections.

1.07 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

A. General: Refer to General Conditions for basic procedures including Contractor's review of Shop Drawings, product data and samples before submittal to Architect. Submittals without a Contractor's stamp of approval will be returned by the Architect with no action taken.

B. Coordination: Coordinate the submittals so that one submittal will not be delayed by the Architect's/Engineer's need to review a related submittal. The Architect/Engineer reserves the right to withhold action on any submittal requiring coordination with other submittals until related submittals are forthcoming.

C. Shop Drawings:
   1. Modify General Conditions requirements to conform to the following.
   2. Conform to this Article, except where individual Specifications Section requirements are more stringent.
   3. Submit in the form of one reproducible and three (3) opaque reproductions. After review, reproduce and distribute in accordance with requirements in Article on Procedures, above.

D. Product Data:
   1. Product data includes standard printed information on manufactured products that has not been specifically prepared for this project, including but not limited to the following items:
      a. Manufacturer's product specifications and installation instructions.
      b. Standard color charts.
      c. Catalog cuts.
      d. Standard product operating and maintenance manuals.
      e. ICC reports, if applicable.
   2. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to the Work.
   3. Submit the number of copies, which Contractor requires, plus two copies, which will be retained by Architect.

E. Samples:
   1. Include identification on each sample to indicate use, project and building name, manufacturer's name supplier or subcontractor name, and submittal date.
   2. Submit full range of manufacturers' standard colors, textures, and patterns for Architect selection. Submit samples for selection of finishes within seven (7) days after date of Contract.
   3. Submit samples to illustrate functional characteristics of the product, with integral parts and attachment devices. Coordinate submittal of different categories for interfacing work.
   4. Submit the number specified in respective Specifications section; one will be retained by Architect. Reviewed samples, which may be used in the Work, are indicated in the Specifications Section.
   5. Color Schedule Preparation:
      a. Promptly submit to Architect samples for materials requiring color selections.

1) Submit two (2) sets of samples for materials requiring color selection only.
2) Submit four (4) sets of samples for materials requiring color, pattern, and texture selection.
3) Additional quantities may be requested by Architect.

b. After such samples are received, Architect will select colors and issue a comprehensive Color Schedule. Color selections will not be made until all samples, indicating color, pattern and texture have been received.

PART 2 - PRODUCTS
Not Used.

PART 3 - EXECUTION
Not Used.

END OF SECTION

PART 1 - GENERAL

1.01 SECTION INCLUDES:

A. Regulatory requirements pertaining to the Work and is supplementary to all other regulatory requirements mentioned or referenced elsewhere in the Contract Documents.

1.02 REQUIREMENTS OF REGULATORY AGENCIES:

All pertaining statutes, ordinances, laws, rules, codes, regulations, standards, and the lawful orders of all public authorities having jurisdiction of the Work are hereby incorporated into these Contract Documents the same as if repeated in full herein and such are intended where any reference is made in either the singular or plural to Code or Building Code unless otherwise specified including, without limitation, those in the list below. Contractor shall make available at the site such copies of the listed documents applicable to the Work as the Architect or Owner may request including mentioned portions of the California Administrative Code (CAC).

A. With respect to the Division of the State of Architect and State Fire Marshal, most-recent adopted Edition.

B. California Building Standards Code (CBSC), Title 19 CBSC (Public Safety, State Fire Marshal Regulations) Latest Edition and Amendments.

C. Building Standards Administrative Code, Part 1, Title 24 CBSC, Latest Edition.

D. California Building Code (CBC), Part 2, Title 24, CBSC (International Building Code with California Amendments) Latest Editions.

E. California Electrical Code (CEC), Part 3, Title 24, CBSC (National Electrical Code and California Amendments) Latest Editions.

F. California Mechanical Code (CMC), Part 4, Title 24 CBSC (Uniform Mechanical Code and California Amendments) Latest Editions.

G. California Plumbing Code (CPC), Part 5, Title 24 CBSC (Uniform Plumbing Code and California Amendments) Latest Editions.

H. California Energy Code, Part 6, Title 24 CBSC, Latest Edition.

I. California Fire Code, Part 9, Title 24 C.C.R. (International Fire Code and California Amendments) Latest Editions.

J. California Green Building Standards (CALGREEN), Part 11, Title 24 CBSC, Latest Edition.

K. California Referenced Standards, Part 12, Title 24, C.C.R., Latest Edition.

L. State and Local Public Health Codes, Latest Editions and Amendments.

M. Other statutes, ordinances, laws, regulations, rules, orders, and codes specified in other Sections of the Specifications or bearing on the Work.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 DESCRIPTION

A. All inspection and testing required to establish compliance with Contract Documents and Title 24 CCR requirements, except as may be otherwise specified, shall be made by an independent professional testing agency or firm selected and paid by the Owner/District (or as otherwise noted). All work prior to the call out of the inspection services shall be approved by the Inspector of Record as ready for the inspection services.

B. The cost of most services for testing and inspection in compliance with Contract Documents requirements will be paid by the Owner. If initial tests indicate non-compliance with Contract Document requirements, any non-compliance testing shall be performed by the same inspection service and back charged to the General Contractor. Schedule portions of the work requiring testing and inspection services so that the time of the agency on the work is as continuous and brief as possible. Should an inspection service be called out without proper pre-inspection and approval by the Inspector of Record, and the Contractor causes the inspection service to be on site for longer than the minimum call-out costs, or the Contractor causes the inspection service to make a return call to the site for the same inspection, the additional costs shall be back-charged to the Contractor.

C. Concrete Coring Procedures: Prior to the start of any concrete coring, the Contractor shall submit a detailed coring plan, indicating the size and precise locations of the cores, for approval by the Architectural Team/Structural Engineer. Proposed coring locations must be marked in the field and verified by the District IOR. The project Architectural Team/Structural Engineer may also request to perform a field inspection if deemed necessary. The Contractor SHALL arrange for and bear the costs of all Pachometer tests of the areas to be cored.

1.02 CONTRACTOR'S RESPONSIBILITY

A. Coordination: The Contractor shall initiate and coordinate testing and inspections required by the Contract Documents and public authorities having jurisdiction over the work through the Architect and/or Inspector of Record.

B. Access: Furnish free and safe access to the various parts of the work and assist testing and inspection personnel in the performance of their duties at no additional cost to the Owner.

C. Data: Furnish records, drawings, certificates, and similar data as may be required by the testing and inspection personnel to assure compliance with the Contract Documents.

D. Notification: Provide the Architect and/or Inspector of Record and Testing Laboratory with at least 72 hours advance notification of required testing.

E. Defective work: Remove and replace any work found defective or not complying with Contract Document requirements at no additional costs to the Owner (shall apply to 1, 2, and 3 immediately below). Where testing personnel take cores or cut-outs to verify compliance, repair prior to acceptance and as approved by the District IOR.
   1. Concrete: If test cylinders for concrete fail to meet design stresses, make core and load tests as may be directed by the Design Professional; make core tests in accordance with an ASTM C42 or most recent update and load tests in accordance with ACI 318 or most recent update. Correct all deficiencies found in forms, reinforcing steel and embedded items.
   2. Structural Steel: Should any weld or structural connection fail to meet design stresses, provide sonic or x-ray examination of all structural connections as directed by the Architect/engineer. Replace or repair all defective connections as directed.
   3. Roofing membrane work: Should roofing membrane, including associated flashing and jointing, indicate non-compliance with Contract Document requirements, provide corrective work as directed.

F. Lead Levels in Water: The domestic water piping system shall be protected during tie-ins or other construction activities that have the potential to elevate the lead levels in the water. The water in the domestic water piping shall be tested prior to the start of work and the lead levels documented. Testing shall also be performed upon the completion of all work and any lead contamination, above the levels documented prior to the start of work shall be the Contractors responsibility to reduce the levels to the pre-project levels.
   1. If the domestic water system is contaminated as a result of construction activities, the Contractor shall decontaminate the domestic water system. The procedures shall comply with applicable regulatory requirements.

1.03 TESTING LABORATORY RESPONSIBILITY

A. Taking Specimens: Specimens and samples for testing, unless otherwise provided in the Contract Documents, will be taken by the testing personnel. Sampling equipment and personnel will be provided by the testing laboratory. Deliveries of specimens and samples of the testing laboratory will be performed by the testing laboratory.
   1. When the testing laboratory is ready to test, but is prevented from testing or taking specimens due to incompleteness of the work or other scheduling lapses, all extra charges for testing attributable to the delay may be back-charged to the Contractor and shall not be borne by the Owner.

B. Test Reports: Reports shall include all tests made, regardless of whether such tests indicate that material is satisfactory or unsatisfactory. Samples taken but not tested shall also be reported. Reports shall state which requirements with which the material or materials were sampled and tested. Test reports shall show the indicated or specified design strength(s) and state definitely whether or not the materials tested comply with the specification requirements.

Report distribution shall be made as follows:

Owner's Rep	1 copy, and 1 electronic pdf.
Architect	1 copy, and 1 electronic pdf
Structural Engineer	1 copy
Contractor	2 copies
DSA	1 copy
IOR	1 copy

C. The inspection agency shall cooperate with the Contractor so as to cause no delay in the progress of the work, but shall be directly responsible to the Owner for his actions. The inspection agency shall have no authority to direct the work of the Contractor.

D. Submittals: Promptly submit copies of reports of inspections and tests, mill analysis, concrete mix designs and certifications per applicable sections of the specification.
   1. Comply with requirements of each technical specification section and DSA requirements.
   2. Reports shall include all tests made, regardless of whether such test indicate that the material is satisfactory or unsatisfactory. Samples taken but not tested shall also be reported. Records of special sampling operations as required shall also be reported. The reports shall show that the material or materials were samples and tested in accordance with the requirements of the Title 24 and with the approved specifications. Test reports shall show the specified design strength. They shall also state definitely whether or not the material or materials tested comply with requirements.
   3. Testing Agency is not authorized to:
      a. Release, revoke, alter, or enlarge on, requirements of Contract Documents.
      b. Perform any duties of the Contractor.

1.04 REQUIRED INSPECTIONS & TESTS

The following are inspection services and tests required of but not limited to the Inspection and Testing Agency.

A. Sitework inspections & tests: Perform the following services as required to assure compliance with requirements of Division 2 of the technical specifications.

Compaction & bearing: Test and verify bearing capacity of all load bearing earth, test compaction fills for compliance with required densities.

B. Concrete work inspections & tests: Perform the following services as required to assure compliance with requirements of Division 3 of the technical specifications.
   1. Cast-in-place concrete: Make slump tests for each batch delivered or at least 1 test per hour during continuous pours in accordance with requirements of ASTM C143/C143M-12; check and verify batch consistency. Inspect forms and verify sizes and conditions. Inspect reinforcing and verify its proper placement. Furnish continuous inspection during replacement, repair and patching operations, and curing of concrete. Make cure, and test at least 3 test cylinders of each strength, of concrete for each 50 cubic yards (38.23 m3) placed or for each day's pour, whichever is greater. Report exact mix tested, minimum size aggregate, location of pour in the work, cylinder identification, data of receipt of cylinder in laboratory, slump data, cement brand and type, admixtures used, dates and records offset cylinders, names of inspectors and laboratory personnel, and evaluation or analysis of cause, in case of test failure, and recommendations of remedial action.
   2. Cure specimens under laboratory conditions except when there is possibility of surrounding air temperature falling at project below 40F. In this case, additional specimens will be required to be cured under job conditions. For all test unless otherwise directed, break 1 cylinder at 7 days, 2 at 28 days.
   3. If 7 day tests appear to be marginal or fall below normal requirements, concrete shall be tested with an approved impact hammer. Should these readings verify low test cylinders, procedure of work beyond this point will be Contractor's responsibility until decision is reached as to removal of substandard concrete at each of 28 day period.

C. Metal work inspection & tests: Perform the following services as required to assure compliance with requirements of Division 5 of the technical specifications.
   1. Structural steel fabrication: Furnish visual inspection of all shop fabricated parts including joists and joist girders. This inspection may be done in shop or in field after delivery. Furnish inspection and testing of shop welds in accordance with requirements for welding specification hereinafter. Check shapes, sizes, classes, and types of steel. Verify conformance of structural steel materials with requirements of Contract Documents. Test end welded studs, replace studs damaged by test.
   2. Structural steel field inspection & tests: Check location and fit of all anchorage and inserts. Verify adjustments to fit inaccuracies. Furnish visual inspection of erection of all structural steel components of the work. Furnish inspection and testing of all field welding in accordance with requirements for welding in accordance with requirements for bolting specific hereinafter. Inspect and test all bolted connections in

accordance with requirements for welding specified hereinafter. Inspect for compliance with AISC Code of Standard Practice with requirements of the Contract Documents; other duties and responsibilities as may be noted on drawing.

3. Welding requirements: Furnish visual inspection of all field fillet welding. Furnish inspection of fillet welds in accordance with requirements of AWS D1.1 (Rev. I): allow for inspection of a minimum of 15% of fillet welds by magnetic particle or dry penetrant methods
4. Bolting requirements: Furnish visual inspection of structural joints where ASTM A325-10e1 bolts are used; verify the applicable requirements of AISC specifications are met.

D. Thermal and moisture protection work testing & inspection: Perform services as required to assure compliance with requirements of Division 7 of the technical specification.

E. Roofing: Check deck surfaces prior to application of roofing materials and verify that substrate is in satisfactory conditions to receive roofing. Furnish continuous inspection during application of roofing, including application of vapor barriers, insulation and roofing. Inspect all sheet metal flashings, counterflashing and reglets for satisfactory and waterproof installation.

F. Wood: Check framing lumber moisture content prior to framing.

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION - (NOT USED)

END OF SECTION

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. The Contractor shall ensure that all employees, visitors, subcontractors, subcontractor employees, and suppliers, while on the worksite, comply with the requirements of OSHA, these requirements, and the safety precautions contained in the several Specification Sections.

B. The Contractor shall promptly and fully comply with and execute, without separate charge thereof to the District, shall enforce compliance with the provisions of the Williams Steiger Occupational Safety Health Act of 1970 (Public Law 91-596 with most recent updates and amendments) with particular attention paid, but not limited to, Title 29-Labor, Chapter XVII - Occupational Safety and Health Administration, Department of Labor Part 1926 - (Safety and Health Regulations for Construction), and part 1910 - (Occupational Safety and Health Standards), as printed, respectively, in the June 24, 1974, and June 27, 1974, Federal Register, and latest adopted amendments and changes thereto.

1.02 PRELIMINARY WORK

A. Prior to the start of and during the course of the work (above and below ground) the Contractor shall make a thorough survey of the entire worksite to determine all potential hazards. Workmen shall be made aware of those hazards and shall be instructed in procedures and the use of equipment for their protection. The Contractor shall verify the location and condition ("live" or "dead") of all utilities on and near the worksite and take precautions to protect his employees, subcontractors, material men, the general public, and the property.

1.03 IMMINENT DANGER

A. The District may stop those operations which create an imminent danger to employees (as defined by OSHA), to the public and to property.

B. The Contractor shall be wholly responsible for any accident (including death) occurring at any time during the progress of the work and until the final acceptance of the work by the District which may happen to any of his employees/workmen or those of any Subcontractor employed on the building, the property, or for any damage or injuries (including death) which his work and operations may cause to the work being constructed, or to existing buildings, or to any tenants and occupants of the property, or of the adjoining properties, or to the public, or to any public or private property.

1.04 COOPERATION:

A. The Contractor shall cooperate with the safety representatives of the District, District's Insurance Managers and the District's Insurance Company in any and all inquiries before, during, and after the project.

1.05 SAFETY RESPONSIBILITIES:

A. Contractor's Superintendent shall:

1. Ensure compliance with these requirements, OSHA requirements and other safety requirements, and provide and implement an Injury and Illness Prevention Program (IIPP) at the project site.
2. Provide, supervise, and support a Contractor's Project Safety Supervisor and enable him/her to execute effectively their duties and responsibilities.
3. Authorize immediate action to correct substandard safety conditions.
4. Review and act to ensure compliance with safety procedures with his supervisors, subcontractors and suppliers.
5. Take an active part in all supervisory safety meetings.
6. Cooperate with safety representatives of the District, District Insurance Managers, and the District's insurance company.
7. Ensure that all security and temporary fencing has been secured to prevent any movement or causal action that could contribute to any hazardous or unsafe condition, or which ultimately may cause harm.

B. Contractor's Project Safety Supervisor shall:

1. Make thorough daily safety inspections of the worksite and immediately act to eliminate unsafe acts and unsafe conditions, and record all suggestions make and corrective action taken.
2. Investigate worksite accidents and recommend immediate corrective action.
3. Weekly safety meetings shall be conducted and documented in the daily report of activity by the contractor. Weekly safety meeting notes shall be recorded, noting the contractors and trades on site, the topics that were discussed and the attendance by contractor name, workmen name and trade, in attendance on the project that day.
4. Review safety meetings reports submitted by job foremen and act to ensure that meaningful weekly safety meetings are held by the job foremen.
5. Attend foremen "tool box" safety meetings and evaluate effectiveness.
6. Assist in the preparation of accident investigation and reporting procedures.
7. Implement training programs for supervisors and employees as they apply to their specific responsibilities.
8. Be responsible for the control, availability, and use of safety equipment, including employee personal protective equipment.
9. Coordinate his activities with those of the District's Inspector and/or Project Manager, and immediately implement their safety suggestions.
10. Coordinate public relations aspects of the Contractor's safety program.

C. Contractor's Job Foreman shall:

1. Instruct workmen regarding safe work practices and work methods at the time workmen are given work assignments.

2. Furnish and enforce the use of personal protective equipment and suitable tools that are equipped with all the manufacturer's supplied safety features, and have not been altered in any way, for the job.
3. Continuously check to see that no unsafe practices and conditions are allowed to exist on this portion of the work.
4. Set a good example for his personnel.
5. Make a complete investigation of accidents to determine facts necessary to take corrective action to prevent a recurrence, and record the facts in a written report to accompany the daily report as set forth in the IIPP.
6. Promptly supply information for, or complete, an Accident Report and Investigation Form as directed by the Contractor Safety Supervisor and Contractor's Superintendent/Project Manager.
7. Hold weekly "tool box" safety meetings with his personnel to:
   a. Discuss observed unsafe work practices and unsafe conditions.
   b. Review the accident experience of his crew and discuss correction of the accident causes.
   c. Encourage safety suggestions from his crew and report those suggestions to the Safety Supervisor.
8. Ensure that first aid is promptly administered to an injured employee.
9. Report immediately, to Contractor's Superintendent/Project Manager, or Safety Supervisor, any injuries, or violations of job safety and security.

D. Subcontractor's Job Superintendent shall:
1. Plan and execute his work so as to comply with the Construction Safety Program.
2. Furnish and enforce the use of personal protective equipment.
3. Attend supervisory personnel safety meetings schedule by the Contractor.
4. Schedule and attend weekly "tool box" safety meetings to be held by job foremen for all employees.
5. Report to the Contractor's Project Safety Supervisor or Contractor's Superintendent all observed unsafe conditions, unsafe practices, and violations of job security.
6. Cooperate with the District's safety representative.

1.06 CONTRACTOR'S SAFETY SUPERVISOR:

A. Contractor shall designate a full-time employee as Contractor Project Safety Supervisor.

B. Qualifications must be approved by the District. Supervisor shall:
1. Have heavy construction experience of not less than three (3) years, one of which must have been in a supervisory capacity.
2. Be familiar with job safety laws and regulations.
3. Have accident prevention experience.

C. Duties: Project Safety Supervisor shall conduct regular inspections of the work, shall ensure compliance with job safety requirements, shall maintain the Contractor's safety program IIPP on site and available for review by the District's Inspector and/or Project Manager and shall enforce safe practices, use of safety equipment and personal protective equipment, and other such activities as may be required by OSHA, the safety requirements, and the safety precautions contained in the several Specification Sections.

D. If the Project Safety Supervisor is not effective in executing the duties assigned him, the District may request, in writing, that the Contractor furnish a new Project Safety Supervisor.

E. If the Contractor desires to replace the Project Safety Supervisor, he shall so notify the District and the District's Insurance Managers, in writing and shall submit the name, experience and qualifications of the proposed Project Safety Supervisor for approval.

1.07 VEHICLE ESCORT

A. provide a vehicle, construction equipment and/or any motorized equipment with a forward and rear escort at all times when children are on-site. Escort shall be continuous from parking lot to point-of-construction.

1.08 REQUEST FOR VARIANCES

A. Request for variances to deviate from OSHA requirements must follow the current established procedures by that Agency.

1.09 FAILURE TO COMPLY

A. If the Contractor fails to comply with the requirements of OSHA, the safety requirements, and the safety precautions contained in the Specifications Sections, or to provide an on-site IIPP, the District may modify or stop the work and portions thereof, until such failure is remedied. Willful and repeated failure to comply could result in the shutdown of the work, and portions thereof. No part of the time lost due to any such modification of operations or stop orders shall be made the subject of a claim for extension of time or for increased costs of damage by the Contractor.

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION - (NOT USED)

END OF SECTION

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

A. The District will provide a Project Inspector, or Inspector of Record (IOR) for this project.

B. Contractor shall submit an Inspection Request Form to the Project Inspector (IOR) at least 48 hours prior to the time the inspection is needed, and on the form required. Contractor shall not cover any work requiring inspection until the Project Inspector (IOR) has inspected and approved the subject work.

C. For work not in conformance with the Contract Documents, the Project Inspector (IOR) shall submit to the Contractor a Deviation/Non-conforming Notice.

D. Contractor to provide continuous observation of work any time an employee, sub-contractor, vendor, delivery service, consultant is on-site.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 SECTION INCLUDES:

A. Temporary utilities, construction facilities and project sign(s) which are to be provided and maintained by the Contractor.

B. Dust and noise control.

C. General temporary items including staging area for material delivery and safety and security lighting.

1.02 TEMPORARY UTILITIES:

A. Water:

1. Arrange for water with District Construction/Project Manager and install all necessary water lines, connections and metering devices for project, and upon completion of the work, remove such temporary facilities.
2. District will pay for all water needed for construction. Water conservation techniques are to be observed by all workmen. Contractor is to provide and maintain all water conveyance equipment, hoses, nozzles, hose bib connections, free from leaks, and equip all hoses with positive closing, hand-squeeze-type operating nozzles - - it is not permitted to operate a hose without a positive closing nozzle.
3. Provide suitable drainage system, subject to the approval of the Architect/Engineer and as indicated on the approved SWPPP, to carry construction waste water from site to an approved disposal location.

B. Electricity:

1. District will pay for all electricity needed for construction. Contractor is to arrange for and install all necessary temporary poles, wiring and metering devices and, upon completion of the work, remove such temporary facilities. Electricity conservation best management practices shall be observed by all workmen, and any unnecessary lighting, or electrical discharge shall be turned off at the end of each shift. Only safety lighting is allowed after each shift is concluded.
2. Furnish and install area distribution boxes, so located that the individual trades may use 100 foot maximum length extension cords to obtain adequate power and work task lighting, at points where required for the work, for inspection and for safety.

3. Provide all electricity needed for construction including connections for construction equipment requiring power.
4. Lighting in the construction work area shall be sufficient to allow safe travel for workmen and the Architectural team during normal working hours of the project, and shall be shut down to conserve energy after normal construction working hours.

C. Natural Gas: The Contractor shall provide and install gas equipment and piping necessary to perform his work, and shall remove same upon completion of the work. The Contractor shall pay for the Natural gas used in the work.

D. Telephone/Communications/Data:
1. Make necessary arrangements and pay costs for installation and operation of telephone, communication, or data service to the Contractor's office at the site.

E. Use all means necessary to maintain temporary facilities and controls in proper and safe condition throughout progress of the work.

F. Make required connections to existing utility systems with minimum disruption to services in the existing utility systems. When disruption of the existing service is required, do not proceed without the Architect and/or Inspector's approval with at least 72 hours written request and approval. When required, provide alternate temporary service, should it be necessary as deemed by the Architect and/or Inspector, or Project Manager.

1.03 CONTRACTOR'S FACILITIES:

Contractor shall provide temporary offices, storage sheds, fencing, barricades, signage, hoists, scaffolds, railings and other facilities as required and specified. Installation and maintenance of such items shall be the responsibility of the Contractor.

A. Temporary Offices for Contractor, the District Project Manager and District Inspector of Record.
1. Not Required.

B. Sanitary Facilities:
   1. The Contractor shall provide temporary toilet facilities which may consist of portable chemical toilets, and hand washing equipment. Number of toilets shall be based on number of workers with a minimum of 1 toilet facility per 10 workers. Placement of temporary toilet facilities shall be agreed upon at the site with the District Construction/Project Manager.
   2. Toilet facilities shall be kept supplied with toilet paper, and kept in a clean and sanitary condition until completion of the work, and then be removed from the work site. Upon removal, that portion of the site shall be properly cleaned and graded/repaired.

C. Contractor's Security Barricade:
   1. The Contractor shall erect the temporary security barricades for the purpose of defining construction lay-down areas, staging area and work zones. Temporary security barricades shall be provided on school site at exterior locations, and at building interiors, as necessary to provide a clear, obvious separation between school users and construction personnel. New or used material may be used.
   2. Unless otherwise indicated or specified, barricade shall be constructed of 6'-0" high chain link fence material with T-post condition at bottom for stability, shall have top rails, and 6 gauge minimum wire support at the bottom, BLACK screen material securely attached to the chain link material. Space posts not to exceed 10 feet on centers. Posts shall be of the following nominal pipe dimensions: terminal, corner, and gate posts 2-1/2", line posts 2", with diagonal supports at each corner. Chain link fabric shall be not less than 13 gauge, 2" mesh, and in one width. Posts, fabric and accessories shall be galvanized. Some fencing may require terminal posts to be sunk in the ground, or with appropriately placed concrete footings, and/or may require sandbags for ballast, as determined by the Inspector and/or Project Manager.
   3. Chain link fencing shall be free from barbs, icicles or other projections resulting from the galvanizing process, and shall be knuckle-knuckle. Fence fabric having such defects will be rejected even though it has been erected.

4. Gates shall be fabricated of steel pipe with welded corners, and horizontal and diagonal bracing as required to prevent flexing. Fabric to be attached to the frame at 12 inch centers. Provide all gate hardware of a strength and quality to perform satisfactorily until the barricade is removed upon completion of the work. Provide locks sufficient to secure the area, and that can be opened with one hand (e.g. combination locks).
5. At the completion of the work, remove barricade and concrete post footings from the site; backfill and compact fence footing holes by patching with like materials. Existing surface paving that is cut into or removed shall be patched and sealed to match the surrounding areas with like materials, and in the same finishes.
6. Contractor shall maintain all fencing and gates in good order on a daily basis, including the masking of graffiti as deemed necessary by the Inspector, and/or Project Manager, and shall secure the project fencing and gates at the end of every work day.

D. Other Enclosures:
   1. Provide temporary weather-tight enclosures at openings in exterior walls to create acceptable working conditions, and/or to allow for temporary heating and for necessary security.
   2. Provide protective barriers that shall be at least 4' in height, and extend to protect all areas at tree drip lines, around plants and other improvements designated to remain, as determined by the Inspector and/or Project Manager and related specification sections.

E. Storage Yards and Storage Containers:
   1. The Contractor shall fence and maintain storage yards in an orderly manner.
   2. Provide steel storage containers, lockable, free from graffiti, and in good condition for materials and equipment that cannot be stored offsite or in a bonded and agreed-upon warehouse.
   3. Exact location, size and access of storage yards and steel storage containers shall be approved by the District Construction/Project Manager.
   4. Remove storage yards and containers as rapidly as progress of the work will permit.

1.04 REQUIRED SIGNS AT GATES

A. Contractor shall post at the work site signs not greater than twenty-five feet (25') apart at all gates stating "Authorized Personnel Only - Construction Area" and "No Parking - Fire Lane," as determined by the contract specifications and drawings, and/or as designated by the Inspector and/or Project Manager

1.05 HARD HAT SIGN

A. Contractor shall post a sign at each gate and/or entry to any area of construction, identifying the job site as a "hard hat area". No person without a hard hat shall be allowed in the sections of the project under construction. This shall be the responsibility of the Contractor's Project Safety Inspector to enforce.

1.06 DUST AND NOISE CONTROL

A. Throughout the entire construction period, Contractor shall maintain dust control by use of water or other environmental controls as may be approved by the Architect, Inspector, and/or Project Manager.

B. Noise Control: Muffle all equipment to a maximum of 85 Dba at 5' from equipment. Noise control is to be kept to a minimum to perform the operations of construction. NO Radios or projected sound will be allowed on the job site.

1.07 GENERAL ITEMS

A. Staging areas for delivery of materials and equipment will be at locations designated by the drawings and specifications, and/or as approved by the Architect, Inspector, and/or Project Manager.

B. Safety and Security Lighting: Provide 5 foot candles outside.

C. Noise Control: Muffle all equipment to a maximum of 85 Dba at 5' from equipment.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

A. Protection for Products, including District - Provided Products, After Installation.

B. Protection of Existing Utilities and Interference.

1.02 EXISTING UTILITIES

A. The known existing utilities are shown on the drawings in their approximate location and the Prime Trade Contractor shall exercise care in avoiding damage to these facilities as the Prime Trade Contractor will be held responsible for their repair if damaged. Hand excavation shall be utilized when digging in close proximity to existing utilities. The District's Architectural Team does not guarantee that all utilities or obstructions are shown or that the locations indicated are accurate.

B. No work shall be performed on energized electrical equipment unless scheduled with the District Inspector of Record. The District Inspector of Record reserves the right to specify specific conditions for all work involving energized high voltage electrical equipment, and its scheduled modification proposal.

C. If interferences occur at locations other than the general locations shown on the plans, and such utilities are damaged before their locations have been established, or create an interference, the Prime Trade Contractor shall notify the District's Construction/Project Manager and a method for correcting said interference shall be supplied by the District's Engineering representatives. Payment for additional work due to interferences not shown on the plans shall be in accordance with the General Conditions.

D. Drawings showing location of equipment, piping, etc., are diagrammatic and job conditions will not always permit their installation in location shown. When this situation occurs, bring to the District Architect's, and/or Inspector's attention immediately to determine relocation in joint conference.

E. Information shown relative to existing power and signal service is based upon available records and data but shall be regarded as approximate only. Minor deviations found necessary to conform to actual locations and conditions shall be made without extra cost to the District.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 PROTECTION AFTER INSTALLATION

A. Adequately protect all installed equipment and materials until completion and acceptance by the Architect, Inspector, and Project Manager.

B. Protect installed products and control traffic in immediate area to prevent damage in subsequent operations.

C. Provide protective coverings at walls, projections, corners, and jambs, sills, and stiff openings in and adjacent to traffic areas.

D. Cover walls and floors of elevator cabs, and jambs of cab doors, when elevators are used by construction personnel. Protect elevator area until final acceptance.

E. Protect finished floors and stairs from dirt, wear, and damage:
   1. Secure heavy sheet goods or similar protective materials in place, in areas subject to construction foot traffic, and/or material deliveries.
   2. Lay planking or similar rigid materials in place, in areas subject to movement of heavy objects over existing surfaces.
   3. Lay planking or similar rigid materials in place in areas where storage of products will occur.

F. Protect waterproofed and roofed surfaces:
   1. Restrict use of surfaces for traffic of any kind, and for storage of products.
   2. When an activity is mandatory, obtain recommendations for protection of surface from manufacturer. Install protection and remove on completion of activity. Restrict use of adjacent unprotected areas.

G. Restrict traffic of any kind across planted lawn and landscape areas through the use of temporary barricades, fencing, signage, and until final acceptance and maintenance period.

H. Care shall be exercised to prevent damage to adjacent facilities including walks, curbs, and gutters, etc. Where equipment will pass over these obstructions, suitable planking and protection shall be placed, and damaged facilities, due to the Contractor(s) operations, shall be removed and replaced at the Prime Trade Contractor's expense.

I. Prime Trade Contractor shall be responsible for overloading of any part or parts of structures beyond their safe calculated carrying capacities by placing of materials, equipment, tools machinery or any other item thereon.

J. All existing improvements and facilities shall be protected from damage of any type resulting from the operations, equipment or workers of the Contractor(s) during the time the project.

K. All damaged work shall be replaced, repaired and restored to its original condition with no additional cost to the District.

L. Where existing utilities are damaged or disrupted on account of any act, omission, neglect or misconduct by the Contractors in the manner or method of executing the work, or due to non-execution of work, such damage shall be immediately repaired to maintain operation regardless of the time of occurrence with no cost to the District.

M. Provide temporary construction necessary for protection of the building and their parts. Close buildings as soon as possible as protection from the weather and vandalism. Protect existing buildings and controlled temperature areas from excessive temperature variances below 68 degrees Fahrenheit, and above 76 degrees Fahrenheit, and from any damage.

N. Protect doors, millwork and mill counters and cases and hardware from damage, including abrading and scratching of finishes.

O. Protect doors and frames and hardware from mechanical damage and damage to finish coatings.

P. Remove protective coatings, wrappings, temporary coverings, etc., as required to leave work in condition for painting and finishing, final cleaning, etc.

Q. Protect all exterior work, including existing asphalt paving, concrete flatwork, common sidewalk, and City curb, gutter, and aprons. Protect all existing and newly placed landscaping and irrigation systems.

R. Repair or replace all damaged work promptly as directed by District Construction/Project Manager, District IOR, or District Architect at no cost to the District.

END OF SECTION

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

A. Security Program.

B. Entry Control.

C. Personnel Identification.

D. Miscellaneous Restrictions

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 SECURITY PROGRAM

A. Protect work, existing premises, and School operations from theft, vandalism and unauthorized entry.

B. Security of the job area shall be strictly maintained. The Prime Trade Contractor shall be responsible for keeping areas involved in the work locked and secure at all times when work is not in progress, and no Contractor representative is on site.

3.02 ENTRY CONTROL

A. Restrict entrance of persons and vehicles into Project site and existing facilities under construction. Allow entrance only to authorized persons with proper identification, and appropriate footwear, and hard hats, as determined by the Contractor Project Safety Inspector, and/or District Inspector.

B. Prime Trade Contractor shall control entrance of own persons and vehicles related to construction operations in accordance with the conditions during work, and not allow intrusion by others.

3.03 BADGES AND ESCORT REQUIREMENTS

A. All personnel shall wear badges distinguishing personnel requiring an escort (YELLOW badges) to areas of the campus outside of the work area from those not requiring an escort (GREEN badges).

B. Personnel without fingerprint and acceptable background check on file with the District shall require an escort to any area outside of the work area.

C. The Contract and Pre-Construction meeting wording lays out the appropriate procedures for Contractor and Subcontractor personnel in working on the school site.

END OF SECTION

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. The Environmental Mitigation requirement for this project is recorded in this Specification Section 01 56 40. The measures mitigations may include, but are not limited to, procedures and standards to control:
   1. Dust
   2. Noise
   3. Fumes
   4. Timing of work activities
   5. Erosion
   6. Archaeological resources found during excavation
   7. Preservation of trees
   8. Demolition process and materials.

1.02 EXECUTION

A. The Contractor shall comply with the mitigation below in terms of what is to be controlled, acceptable methods, and standards (e.g. equipment must be muffled and noise levels may not exceed specified decibel levels).

B. The Contractor shall provide documentation of having met the mitigation requirements as described below to the Inspector and/or Project Manager within five (5) working days of the Notice to Proceed and at each phase of the project.

C. To reduce dust emissions and noise during construction by implementing the following:
   1. Exposed surfaces should be watered twice daily.
   2. Stockpiles of excavated materials should be covered.
   3. Trucks carrying excavated materials from the site should be covered and should have their tires and undercarriages washed prior to exiting the site.
   4. Streets affected by fugitive sand and dust are to be swept regularly by Prime Trade Contractors responsible for tracking of mud and/or sand to these streets.
   5. Uncovered soil should be bound (by grass or similar groundcover) as soon as is reasonably possible.
   6. Excavation should not be conducted when surface winds exceed 11 mph.
   7. Unnecessary idling of construction vehicles and equipment should be avoided adjacent to areas of instruction, or adjacent to fresh air ductwork, or where noise will affect the areas of instruction.
   8. Limit construction activities to a schedule that minimizes disruption as much as possible to area residences surrounding the project site property boundaries.
   9. Schedule activities with the highest noise potential for the times when disruption of any instruction, or area of residences surrounding the project site will be at a minimum.

10. Require contractors to employ the lowest-decibel level equipment, or employ alternative equipment or to muffle/control noise from available equipment to the maximum extent possible.
11. Perform noisy operations (e.g., mixing concrete, hydraulic/mechanical demolition) off-site or on portions of the site furthest from noise sensitive receptors whenever possible, and in consult with the Inspector and/or Project Manager.

END OF SECTION

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED
A. Surveying and Field Engineering Services.

1.02 QUALITY CONTROL
A. Land Surveyor: Registered in the State of California and acceptable to the District's Architect, Inspector, and/or Project Manager.

1.03 LINES AND GRADES
A. The Contractor shall provide all construction survey work required for the accurate location of the work. Horizontal and vertical control for the work shall be from the project reference marks as shown on the Drawings. In all questions arising as to the proper location of the work, the District's A&E teams, and the Inspector's decision shall be final.

B. The Contractor shall verify final configuration of the project during demolition work. Minor adjustments of the work to accommodate existing field conditions shall be the responsibility of the Contractor.

C. Replace, at no increase in Contract Sum, control points which may be lost or destroyed; base requirements on original survey control.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 INSPECTION
A. Verify locations of survey control points prior to starting work. Promptly notify District Architect and Inspector of any discrepancies discovered.

3.02 SURVEY REFERENCE POINTS
A. Protect survey control points prior to starting site work; preserve permanent reference points during construction. Make no changes without prior written notice to the Architect and Inspector.

B. Promptly report to the Architect and the Inspector the loss or destruction of any reference point or relocation required because of changes in grades or other reasons. Replace dislocated survey points based on original survey control.

3.03 SURVEY REQUIREMENTS
A. Establish a minimum of three (3) permanent bench marks on site, referenced to establish control points. Record locations, with horizontal and vertical data, on Project Record Documents.

B. Establish lines and levels, locate and lay out by instrumentation and similar appropriate means:
   1. Site improvements, including pavements; stakes for grading, fill and topsoil placement; and utility locations, slopes and invert elevations.
   2. Grid or axis for structures.
   3. Building foundation, column locations, and ground floor elevations.
   4. Controlling lines and levels required for mechanical and electrical work.
   5. Verify layouts as Work proceeds to assure compliance with required lines, levels and tolerances.

C. Periodically certify layouts by same means, with same approvals by the Architect and Inspector.

3.04 RECORDS

A. Maintain a complete and accurate log of all control and survey Work as it progresses.

B. On completion of foundation walls and major site improvement, including underground utilities, prepare a certified survey showing all dimensions, locations, angles, and elevations of construction to the Architect and Inspector for review and approval of the final survey for the Project record.

END OF SECTION

PART 1 - GENERAL

1.01 SECTION INCLUDES.

A. Maintain premises and adjacent public and private properties free from accumulations of waste, debris, and rubbish, caused by operations during the project.

B. At completion of Work, remove waste materials rubbish, tools, equipment, machinery and surplus materials, and clean all exposed surfaces; leave project clean and ready for occupancy.

PART 2 - PRODUCTS

2.01 MATERIALS:

A. Use only cleaning materials recommended by the manufacturer of surface to be cleaned.

B. Use cleaning materials only on proper surfaces recommended by the manufacturer.

PART 3 - EXECUTION

3.01 DURING CONSTRUCTION:

A. Execute daily cleaning plans from each trade to ensure that buildings, grounds, and public and private properties are maintained free from accumulations of waste materials, rubbish and trash on a daily basis.

B. Wet down dry materials and rubbish to prevent blowing dust and debris on and from the construction work.

C. Daily, during progress of work, clean construction site and utilized public properties, and dispose of waste materials, debris and rubbish.

D. Provide on-site steel dump containers and appropriately sized trash containers for collection of waste materials, debris and rubbish.

E. Remove waste materials, debris and rubbish from site and legally dispose of at public or private dumping areas off the District's property.

F. Vacuum clean and wet wipe interior building walls, floors, doors, windows, and hardware in preparation for and when ready to receive finish preparation and painting. Continue vacuum cleaning on an as-needed basis until building is ready final inspection by the Architect, Inspector, and Project Manager and determined to be ready for substantial completion and occupancy.

G. Handle materials in a controlled manner to minimize any unnecessary waste or debris emanating from the construction areas. Do not drop or throw materials from heights: rather, a closed chute shall be used, to minimize unnecessary dust, waste or debris from the construction area.

H. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not migrate into new equipment or furniture, or onto wet, newly painted surfaces.

3.02 FINAL CLEANING:

A. Employ experienced workmen, or professional cleaners, for final cleaning.

B. Exterior: Clean surfaces of the construction and site including, but not limited to, fixtures, walls, soffits, floors, hardware, roofs, window and opening ledges and sills, horizontal projections, steps and platforms, walkways, rails and all like surfaces, and adjoining private and public property to the extent soiled by the Contractor's operations.

C. Interior: Leave all horizontal and vertical surfaces in vacuum cleaned, wet-wiped condition with all dust, dirt, stains, hand marks, paint spots, droppings, and other blemishes and defects completely removed, and conform to the following requirements:

1. Hard Floors: Freshly administer specified product sealants, and Wet mop/wash and dry, concrete, portland cement flooring, tile, elastomeric, epoxy, refinished and colored concrete, and similar hard floor surfaces free of dust, streaks or stains.
2. Resilient Flooring: Freshly wax and buff as specified in Section 09650.
3. Wood Flooring: Remove defects and blemishes by sanding surface and painting according to Section 09900.
4. Resilient Bases: Clean off adhesive smears and wipe clean with wet-wipe methods.
5. Unpainted and Painted Surfaces: Clean of dust, lint, streaks or stains, utilizing wet-wipe methods as necessary.
6. Tile Walls: Clean and polish per manufacturer's specifications.
7. Hardware and Metal Surfaces: Clean and polish all exposed surfaces using non-corrosive and nonabrasive materials.
8. Glass: Wash and polish both sides, and leave free of dirt, spots, streaks, and labels. Clean and polish mirrors.
9. Ceilings: Clean and free of stains, hand marks, and defacing.
10. Replace air conditioning filters as specified in Mechanical Specifications.
11. Clean ducts, blowers and coils, if air conditioning units were operated without filters during construction, and after final inspection.
12. Lighting fixtures: Replace lamps and clean fixtures and lenses if fixtures or lamps are dirty or have smudges or dust.

13. Fixtures and Equipment: Clean and polish mechanical and electrical fixtures and like items. Leave lighting fixtures free of dust, dirt, stains or waste material. Clean and service equipment and machinery, leaving ready for use.
14. Surfaces Not Mentioned: Clean according to the intent of this Section and as required for Architect's approval.

D. Contaminated Earth: Final clean-up operation includes the removal and disposal of earth that is contaminated or unsuitable for support of plant life in planting areas, and filling the resulting excavations with suitable soil as directed and approved by the Architect, Inspector, and/or Project Manager.

Contaminated areas include those used for disposal of waste concrete, mortar, plaster, masonry, paints, and similar materials, and areas in which washing out of concrete and plaster mixers or washing of tools and like cleaning operations have been performed, and all areas and adjacent areas that have been oiled, paved, or chemically treated.

Do not dispose of waste, oil, solvents, paints, solutions, or like penetrating material by depositing or burying on School property; dispose of such material in a lawful manner.

END OF SECTION

PART 1 - GENERAL

1.01 SECTION INCLUDES
A. Procedures for closing-out Project.

1.02 RELATED SECTIONS
A. Closeout Submittals: See Respective Specification Sections.

1.03 GENERAL
A. As a prerequisite for final payment release, Contractor shall complete the work of this Section.

B. Comply with requirements stated in Conditions of the Contract and in Specifications for administrative procedures in closing out the Work.

1.04 PRE-FINAL INSPECTION; SUBSTANTIAL COMPLETION
A. Pre-final Inspection:
1. Upon "substantial completion" of the Work AS AGREED TO BY Contractor, Architect/Engineer, DSA Inspector of Record and District Project Manager, Contractor shall notify Architect/Engineer, and DSA Inspector and request a "pre-final inspection" of the Work.
2. If Architect/Engineer, Inspector, and Project Manager concur that work of the contract project/phase is "substantially complete", he will review and list any items that need to be corrected on a punch list. List will be amended as required to include items on the correction or punch list subsequently observed.

B. Substantial Completion Defined: "Substantial Completion" of the Work is the status, as approved by the Architect/Engineer when construction is sufficiently complete, in accordance with the Contract Documents, so the District/Owner can occupy or utilize the Work for the use for which it is intended.

1.05 FINAL INSPECTION
A. Reference: See Supplementary Conditions.

B. Final Inspection: When Contractor has complied with above Article at the end of the final phase, Architect/Engineer and DSA Inspector and Project Manager will review the Work and list any items that are not completed or need to be corrected.

C. Contractor shall complete and/or correct the Work in a timely manner as outlined in the contract documents.

1.06 GUARANTEES

A. General: Contractor shall guarantee in writing to District/Owner that:

"Contractor will repair or replace any or all of such work, together with any other adjacent work which may be displaced in connection with such replacement, that may prove to be defective in workmanship or material within a period of one year from the date of acceptance of the above mentioned structure by the Glendale Unified School District, ordinary wear and tear, and unusual abuse or neglect excepted."

B. Format: Contractor shall submit guarantees typed in the format indicated in "Guarantee Form".

C. Number of Copies: Submit in triplicate (3) to Architect/Engineer with one electronic pdf.

D. Required Guarantees:
   1. General: Submit all guarantees listed herein or required by various Spec. Sections.
   2. General Guarantee:
      a. By General Contractor; For the Entire Work: 1 Year.

1.07 WARRANTIES

A. General: Comply with Section 017836. Submit all warranties required by various Specification Sections.

1.08 CERTIFICATES

A. General: Submit in triplicate (3) all certificates required by various Specification Sections or listed herein, notarized as required.

B. Certificates:
   1. Division 8: Finish Hardware installation acceptance.
   2. Division 28: Fire Alarm System testing and approval.

1.09 OPERATION AND MAINTENANCE DATA

A. General: Submit all manuals required by various Specification Sections or listed herein; three (3) copies each, and one electronic pdf. Provide durable binders, no less than 8-1/2" x 11" in size and provide the following information:
   1. Identification on, or readable through, the front cover stating general nature of the manual.
   2. Neatly typewritten index at the front of the Manual, furnishing immediate information as to location in the Manual of all data or equipment included.
   3. Complete instructions regarding operation and maintenance of all equipment included.
   4. Complete nomenclature of all replaceable parts, their part numbers, current cost, and name and address of nearest vendor of parts.
   5. Copy of all Guarantees and Warranties issued.
   6. Copy of the approved Shop Drawings with all data concerning changes made during construction.

B. Extraneous data: Where contents of Manuals include Manufacturers' catalog pages, clearly indicate the precise items included in this installation by clouding, or highlighting, and delete, all manufacturers' data with which this installation is not concerned.

1.10 RECORD DRAWINGS

A. Procedures:
   1. Promptly following contract award, General Contractor shall secure from the District one complete set of Drawings. Identify the set as "Record."
   2. Timing of Entries: Make entries within 24 hours after receipt of information on any changes by Contractor or Sub Contractors.

3. Contractor shall be responsible for maintaining and recording the changes on the set, and by affixing any related RFI, COR, and/or ASI applicable to the changes.
4. Do not use the "Record" set for any purpose except entry of new data and for review by the Architect. Maintain separate job sets for subcontractors and workers daily use.
5. Maintain the "Record" set at the job site where designated by the Architect/Engineer, in conjunction with the DSA Inspector.
6. Use all means necessary to protect the "Record" set from deterioration, loss or damage until completion of the work.
7. Making entries on Drawings: Using an erasable colored pencil, other than blue or black, not ink or indelible pencil, and clearly describe the change by note and by graphic line as required. Date all entries. Call attention to the entry by a "cloud" around the area or areas affected. In the event of overlapping changes, different colors may be used for each of the changes.
    a. Changes due to approved change orders may be indicated by referencing the change order number and scope of change in lieu of revising the Drawings.
    b. The location and depth below finish grade or above ceilings and attic spaces of utilities shall be fully dimensioned and indicated on Drawings. Dimensions shall be taken to building lines or permanent landmarks.
8. The architect's approval of the current status of the "Record" drawings will be a prerequisite to the Architect/Engineer's and DSA Inspector's approval of requests for progress payments and request for final payment release.
    a. Progress approvals: Prior to submitting each request for progress payments, secure the District DSA Inspector's approval of the status of the "Record" Drawings.
    b. Prior to submitting request for final payment and final inspection, General Contractor shall submit the "Record Drawing" set to the District DSA Inspector, with transmittal letter, in duplicate, for approval and further processing through the Architect/Engineers for their approval and acceptance, and delivery to the District.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 SUBMITTAL REQUIREMENTS:

A. Assemble Warranties, Bonds, and Service and Maintenance Contract, executed by each of the respective Manufacturers, Suppliers, and Subcontractors, and submit to the Architect/Engineer for review and approval before Final Payment will be approved and released.

B Number of original signed copies required: Three (3) each and one electronic pdf.

C. Table of Contents Neatly typed in orderly sequence.

D. Provide complete information for each item:
   1. Product or work Item.
   2. Firm, with name of principal, address and telephone number.
   3. Beginning date of Warranty, Bond, or Service and Maintenance Contract.
   4. Duration of Warranty, Bond of Service, and Maintenance Contract.
   5. Provide the following information for District/Owner's Personnel:
      a) Procedure in case of failure or malfunction.
      b) Instances which affect Warranty or Bond validity.
   6. Contractor, name of responsible principal, address, telephone number and email address.

1.02 SUBMITTAL FORM:

A. Punch sheets for standard 3-ring binder.

B. Size: 8-1/2 x 11 inches.

C. Fold larger sheets to fit into binder.

D. Cover: Identify each packet with typed or printed title 'WARRANTIES AND BONDS" 1st:
   1. Title of Project.
   2. Name of Contractor.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

. Work Includes:
  . Remove designated e isting sythetic running track sub base and base as indicated on rawings and Specification.
  . Remove excavated spoils from site.
  . Refer to Drawings for additional Scope of Work.

. Related Work:
  . Requirements in Addenda, Alternates, Conditions and Division 1 collectively apply to this work.

1.02 QUALITY ASSURANCE

A. Demolition shall be in compliance with Title 24 of the California Code of Regulations and conform to the California Building Code, current edition.

B. Utilities disconnection, capping and re-installation shall be by workmen licensed to perform such work.

1.03 SUBMITTALS

A. Two (2) copies of permits and notices.

B. Upon completion of work in this Section, submit record documents recording the extent of active and abandoned underground utilities.

1.04 EXISTING CONDITIONS

A. Contractor shall contact the local underground service alert company for information on buried utilities and pipelines.

B. Conduct demolition to minimize interference with adjacent structures, trees and properties.

C. Provide, erect and maintain temporary barriers and security devices.

D. Conduct operations with minimum interference to public or private thoroughfares. Maintain egress and access at all times.

E. Traffic: Conduct site-clearing operations to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities. Do not close or obstruct streets, walks, or other occupied or used facilities without permission from authorities having jurisdiction.

F. Prior to demolition or heavy vehicular activity, examine structures adjacent to the designated demolition, including concrete walks and asphaltic concrete paving. Obtain District Inspector's confirmation by signature for the following:
   1. Record on the Project Record Documents any pre-existing conditions that could later be construed as Contractor damage.
   2. Document each recorded pre-existing condition with a supporting photograph.

G. Protection of Existing Utilities: Protect existing utilities, including irrigation system from damage.
   1. Contact the local underground service alert company and the District prior to any trenching for determining location of underground utilities/irrigation lines.
   2. Contact the District for repair instructions for damaged lines.
   3. REPAIR OF HIDDEN DAMAGED PRODUCTS, DISCOVERED BY THE DISTRICT, WILL BE CHARGED DIRECTLY TO THE CONTRACTOR.

H. Protection of Existing Improvements: Provide protection necessary to prevent damage to existing improvements not indicated to be demolished and/or removed.
   1. Protect improvements on adjoining properties and on Owner's property.
   2. Restore damaged improvements to their original condition, as acceptable to property owners.

I. Protection of Existing Trees and Vegetation: Protect existing trees and other vegetation indicated to remain in place against unnecessary cutting, breaking or skinning of roots, skinning or bruising of bark, smothering of trees by stockpiling construction materials or excavated materials within drip, excess foot or vehicular traffic, or parking of vehicles within drip line. Provide temporary guards to protect trees and vegetation to be left standing.
   1. Water trees and other vegetation to remain within limits of Contract Work as required to maintain their health during course of construction operations.
   2. Replace damaged trees that are damaged by construction activities.

PART 2 - PRODUCTS
Not Used.

PART 3 - EXECUTION

3.01 PREPARATION

A. Verify that structures to be demolished are unoccupied and discontinued in use.

B. Prevent movement or settlement of adjacent structures. Provide bracing and shoring.

C. Protect existing landscaping materials, appurtenances and structures, which are noted to remain.

D. Notify School maintenance personnel and utility authorities to locate and flag underground lines. Disconnect, remove and cap designated utility lines within demolition areas. Obtain release from respective utility companies that utilities have been capped in a safe manner.

E. Mark location of disconnected utilities. Identify utilities and indicate capping locations on project record documents.

3.02 EXECUTION

A. Remove excavated turf andsoil/rocks in association with the installation of the new work. Dispose of rocks and excavated debris to off-site dump. Top soil shall be stockpiled/relocatabe to another District Site or spread on-site in accordance with District's wishes at each indicated site.

B. Asphaltic concrete paving shall be saw cut to a straight line on the demolition border, prior to paving demolition.

C. Cease operations and notify Architect immediately if adjacent structures appear to be endangered. Do not resume operations until corrective measures have been taken.

D. Remove and promptly dispose of contaminated, vermin infested or dangerous materials encountered.

E. Do not burn or bury materials on Site.

F. Keep work sprinkled to minimize dust. Provide hoses and water main or hydrant connections for this purpose.

3.03 SITE CLEARING

A. Removal of Improvements: Remove existing above-grade and below-grade improvements as indicated and as necessary to facilitate new construction. Saw cut existing paving at boundary of areas to be removed.

3.04 DISPOSAL OF WASTE MATERIALS

A. Burning on Owner's Property: Burning is not permitted on Owner's property.

B. Removal from Owner's Property: Remove waste materials and unsuitable or excess topsoil from Owner's property.

END OF SECTION

PART 1 - GENERAL

1.1 SECTION INCLUDES

. Aggregate base material.

. Installation standards.

C. Spreading of material.

. Compacting.

E. Field quality control.

1.2 . T SE

1.3 CLASSIFICATION

A. Aggregate bases are designated as Class 1 or Class 2. The class of aggregate base shall be as indicated.

1.4 MEASUREMENT AND PAYMENT

A. General: Measurement and payment for aggregate base course will be either by the lump-sum method or by the unit-price method as determined by the listing of the bid item for aggregate base course indicated in the Bid Schedule of the Bid Form.

1.5 REFERENCES

A. American Society for Testing and Materials (ASTM):
   1. ASTM C136 Test Method for Sieve Analysis of Fine and Coarse Aggregates
   2. ASTM D421 Practice for Dry Preparation of Soil Samples for Particle-Size Analysis and Determination of Soil Constants
   3. ASTM D1241 Specification for Materials for Soil-Aggregate Subbase, Base, and Surface Courses
   4. ASTM D1557 Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort
   5. ASTM D2419 Test Method for Sand Equivalent Value of Soils and Fine Aggregate
   6. ASTM D2844 Test Method for Resistance R-Value and Expansion Pressure of Compacted Soils
   7. ASTM D2922 Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
   8. ASTM D3017 Test Method for Moisture Content of Soil and Soil- Aggregate

in Place by Nuclear Methods (Shallow Depth)
9. ASTM D3744 Test Method for Aggregate Durability Index

B. State of California, Department of Transportation (Caltrans), Standard Specifications, 1992 edition:
1. Section 17 Watering
2. Section 26 Aggregate Bases

1.6 SUBMITTALS

A. General: Refer to Section 01 33 00 - Submittal Procedures, for submittal requirements and procedures.
B. Product Data: Submit source, gradation, R-value, sand equivalent, and durability for the proposed base course material.
C. Test Reports: Submit plant and field test reports as specified in Articles 2.02 and 3.05 herein.

PART 2 - PRODUCTS

2.1 AGGREGATE BASE MATERIAL

A. Aggregate for the two classes of aggregate bases at the time the base material is deposited on the prepared sub grade or sub base shall conform with ASTM D1241 and the following requirements:
1. Class 1 Aggregate Base:
a. Class 1 aggregate base shall consist of crushed stone or gravel, free from vegetable matter and other deleterious substances. Aggregate shall consist of material of which 90 percent by weight shall be crushed particles. Composition of aggregate base, in percentages by weight, shall conform to one of the following gradings, determined in accordance with ASTM C136:

Percentage Passing Sieves

Sieve Sizes	1-1/2 inch Maximum	3/4-inch Maximum
2-inch	100	-----
1-1/2 inch	90-100	100
3/4-inch	50-85	90-100
No. 4	30-45	35-55
No. 30	10-25	10-30
No. 200	2-9	2-9

b. Class 1 aggregate base shall conform to the following additional requirements:

ASTM Test

Tests	Method	Requirements
Resistance (R-Value)	D2844	80 min.
Sand Equivalent	D2419	50 min.
Durability Index	D3744	40 min.

2. Class 2 Aggregate Base:
   a. Class 2 aggregate base shall be free of vegetable matter and other deleterious substances. Coarse aggregate, material contained on the No. 4 sieve, shall consist of material of which 25 percent by weight shall be crushed particles. Class 2 aggregate base shall conform to one of the following gradings, determined in accordance with ASTM C136:

Percentage Passing Sieves

Sieve Sizes	1-1/2 inch Maximum	3/4-inch Maximum
2-inch	100	-----
1-1/2 inch	90-100	-----
1-inch	-----	100
3/4-inch	50-85	90-100
No. 4	25-45	35-55
No. 30	10-25	10-30
No. 200	2-9	3-9

   b. Class 2 aggregate base shall conform to the following additional requirements:

ASTM Test

Tests	Method	Requirements
Resistance (R-Value)	D2844	78 min.
Sand Equivalent	D2419	30 min.
Durability Index	D3744	35 min.

2.2 SOURCE QUALITY CONTROL

A. The Contractor shall perform sampling and tests of the aggregate base material in accordance with the ASTM Test Methods herein specified, to determine compliance with specified requirements. Samples shall be taken from material as delivered to the site, and shall be prepared in accordance with ASTM D421, as applicable.
B. Aggregate grading or sand equivalent test shall represent no more than 500 cubic yards of base course material or one day's production, whichever is the greater amount.

PART 3 - EXECUTION

3.1 EXAMINATION

A. The Contractor shall call for an inspection by the Engineer and obtain written acceptance of the prepared sub grade or sub base before proceeding with the placement of aggregate base course.
B. The sub grade or sub base to receive aggregate base course, immediately prior to spreading, shall conform to the compaction and elevation tolerances indicated for the material involved and shall be free of standing water and loose or extraneous material.

3.2 INSTALLATION STANDARDS

A. Aggregate base course shall be applied over the prepared sub grade or sub base and compacted in accordance with Section 26 of the Caltrans Standard Specifications.
B. Aggregate base course shall have minimum uniform thickness after compaction of dimensions indicated. Where not indicated, compacted thickness shall be 6 inches.
C. All compaction expressed in percentages in this section refers to the maximum dry density as determined by ASTM D1557.

3.3 SPREADING OF MATERIAL

A. Aggregate for base course shall be delivered as uniform mixture of fine and coarse aggregate and shall be spread in layers without segregation.
B. Aggregate base course material shall be free from pockets of large and fine material. Segregated materials shall be remixed until uniform.
C. Aggregate base material shall be moisture-conditioned to near optimum moisture content in accordance with the applicable requirements of Section 17 of the Caltrans Standard Specifications.
D. Aggregate base course 6 inches and less in thickness may be spread and compacted in one layer. For thickness greater than 6 inches, the base course aggregate shall be spread and compacted in two or more layers of uniform thickness not greater than 6 inches each.

3.4 COMPACTING

A. Relative compaction of each layer of compacted aggregate base material shall be not less than 95 percent as determined by ASTM D1557.
B. Thickness of finished base course shall not vary more than 3/4 inch from the indicated thickness at any point. Base that does not conform to this requirement shall be reshaped or reworked, watered, and recompact to achieve compliance with specified requirements.
C. The surface of the finished aggregate base course at any point shall not vary more than 3/4 inch above or below the indicated grade.

3.5 FIELD QUALITY CONTROL

A. The Contractor shall perform field tests in accordance with ASTM D2922 to determine compliance with specified requirements for density and compaction of aggregate base material, and with ASTM D3017 to determine moisture-content compliance of the installed base course.
B. Testing frequency shall be not less than one test for every 2,000 square feet of base course material, per layer or lift.

END OF SECTION

Exhibit B – Scope of Work

PART 1 - GENERAL

1.01 SUMMARY OF WORK

. Asphaltic concrete paving: per Synthetic Track manufacturer recommendations.

1.02 RELATED WORK

. Section 32 17 23.13 - Pavement Marking.

1.03 REFERENCES

A. California Department of Transportation (CALTRANS), Division of Highways Standard Specifications, as last amended.

B. Per Synthetic Track manufacturer recommendations.

1.04 QUALITY ASSURANCE

A. Perform work in accordance with CALTRANS Standard Specifications.

B. Off-site work to conform to local governing agency requirements. Obtain and pay for required permits and licenses. Do required testing.

C. Allowable Tolerances:

1. Material Weights: Weights of base course and paving materials delivered to Site shall be computed as follows:
   a. Asphalt Concrete Paving: 12 lbs/sf/inch of thickness.
   b. Rock Base Course: 9-1/2 lbs/sf/inch of thickness.
2. Paving Surface Smoothness: 3/8" maximum permissible from a true plane measured from 10' straight edge placed on surface non-cumulative.

1.05 SUBMITTALS

A. Submit product data.

B. Submit test reports of field quality control tests.

C. Submit Weighmaster's Certificates showing net weight of each load of base and paving materials.

1.06 ENVIRONMENTAL REQUIREMENTS

A. Place asphalt when base surface temperature is above 40°F and dry, and when weather is stable.

B. Do not commence work until installation of underground pipes and utilities is complete.

1.07 GUARANTEE

A. In addition to guarantee specified in Contract Close-Out, Section 01700, the Contractor shall repair or restore to first class condition any portion of asphaltic paving and surface coating in which weed growth, creeping, shoving, cracking, delamination, raveling, softening, excessive or uneven settlement due to improperly compacted subgrade, or other defects due to improper placing or defective materials, become apparent within one (1) year from acceptance date by the District.

B. Effectiveness of type of weed control is sole responsibility of the Contractor.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Weed Control:
   1. Herbicide: Only use of borates, sodium chlorate, or other nonpoisonous chemicals will be permitted.
   2. Option: The Contractor may, at his option and expense, use Nox-Weed 310 emulsion.

B. Base Course: Untreated rock using a pit run unwashed stream bar material, crusher run material, or blend of commercial products; graded as follows:
   1. Class 2 Aggregate Base, per Section 26, CALTRANS Standard Specifications.
   2. Mixing: Thoroughly blend material by blading or other suitable means.

C. Asphalt Concrete Paving:
   1. General: CALTRANS Standard Specifications, except as modified herein.
   2. Asphalt: 40 or 50 penetration.

3. Aggregate: Graded mix as follows:

TOTAL PERCENTAGE PASSING SIEVES

Sieve Size	Percentage	
3/4"	100%	
1/2"	90%-100%	
3/8"	74%-89%	
No. 4	53%-67%	
No. 8	40%-50%	
No. 30	20%-30%	
No. 200	3%-8%	
Paving Asphalt	5-1/2 % to 7%	by weight of total mix.

4. Mixing: Plant mix aggregate and asphalt, to produce a dense mixture with minimum of voids, per Section 39, CALTRANS Standard Specifications.

D. Surface Seal Coat For All Paving Areas:
1. Meet Green Book, Specification No. 203-9-Seal Coat Asphalt Base.
2. Sealer shall be Ove Kote Asphalt Pavement Coating by Diversified Asphalt Products or approved equal.

PART 3 - EXECUTION

3.01 INSPECTION

A. Verify compacted subgrade is dry and ready to support paving and imposed loads.

B. Verify gradients and elevations of base are correct.

C. Beginning of installation means acceptance of substrate.

3.02 PREPARATION

A. Subgrade Preparation: After areas are brought to approximate required subgrade, finish by scarifying to depth of 3", moistening and rolling with a self-propelled tandem roller, weighting 8 tons minimum, until surface is firm and unyielding. Bring any depressions and high areas to required grade by scarifying, filling or cutting, and rolling to density and stability of adjoining material.

B. Weed Control: Just prior to paving work, apply herbicide to earth as per manufacturer's printed recommendations.

C. Coat surfaces of manhole catch basin metal surface frames with oil to prevent bond with asphalt paving.

3.03 INSTALLATION - BASE COURSE

. Spread to uniform thickness; water and roll until firm enough to support material trucks without displacement or rutting.

. Compacted Base:
  . Density Required: 90% minimum.

3.04 INSTALLATION - PAVEMENT WEARING COURSE

. General: Conform to Section 39, CALTRANS Standard Specifications.

. Placing: Spread to headers and/or temporary screeds, where required, with Barber-Greene self-propelled mechanical spreading and finishing equipment, or Architect-approved equal. Hand spread only in places inaccessible to mechanical spreader. Heat shovels, forks and rakes.

C. Edges: At headers, lay to a thickness 4" deep x 8" wide at bottom, forming a footing. Slope bottom up 3:1 to meet typical paving thickness. Where paving stops against buildings, walls, curbs, or concrete walks, thickened edges are not required.

. Abutting Work: Where paving contacts rigid structures, thoroughly clean and coat contact surfaces with a film of asphalt emulsion and/or asphalt cement. Protect adjoining work from spotting and splashing or asphalt materials.

E. Rolling and Smoothness: Roll per Section 39, CALTRANS Standard Specifications. Finished surface to be even, smooth, of uniform texture free of roller welts, true to place and line, and drain as indicated. Paving to have a density such that water will not penetrate.

3.05 APPLICATION -

. Preventive measures shall be taken to protect existing concrete surfaces including curbs, walks, light pole mounting piers, etc, from over-splash by seal coat.

3.06 TYPE E ASPHALT - PAVING REPLACEMENT

. Establish subgrade elevations allowing for new asphalt layers.

. Rip established subgrade surface to depth to 10 - 12" and bring to optimum moisture content and compact to 95% minimum.

C. Prepare and sterilize new surface per CALTRANS Standards.

3.07 FIELD QUALITY CONTROL

A. On-Site Work:
   1. Water Test: Flood test paving to show surfaces are free of standing puddles, and drain properly.
   2. Material Tests:
      a. Made at District's option, by District selected Testing Lab.
      b. District's Inspector to select test sample locations.
      c. The Contractor is to repair test areas at no additional cost to District.
      d. Testing costs by Contractor.

3.08 CLEANING

Remove equipment, excess materials, debris, and material splashes from abutting work.

3.09 REPAIR EXISTING CRACKS:

A. Less than ¼" up to 1/2": Repair with OverKote, Crack Filler by Diversified Asphalt Products or approved equal.

B. Greater than 1/2" but less than 1": Remove asphalt a minimum of 2" down or to sound pavement and re-pack area with asphalt paving mix following procedures under paragraph 3.06.

C. Greater than 1": Follow procedures under paragraph 3.06.

3.10 PATCHING EXISTING PAVEMENT

. Remove any defective pavement and existing deteriorated in areas defined and all pavement disturbed by construction activity to minimum 6" in depth or until sound subgrade is obtained. Extend limits minimum 1' into sound pavement; make cuts in straight lines.

. Contractor to remove spoils from site and dispose of properly.

C. Apply tack coat to sides and bottom of excavated areas.

. Place asphaltic concrete in maximum 4" high lifts thoroughly and evenly compact using equipment which will obtain maximum compaction without damage to surrounding pavement.

E. Contour and blend patches to lines and elevations of adjacent surfaces.

. Determine location of "bird baths". Apply tack coat and blend new leveling asphalt to existing surface.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

. Section Includes:
  . Traffic lines and markings.
  . Synthetic Track Graphics.

. Related Sections:
  . Section 32 12 16 - Asphalt Paving.

C. Provisions of Division 1 to apply to this section.

1.2 REFERENCES

A. American Association of State Highway and Transportation Officials:
  1. AASHTO M247 - Standard Specification for Glass Beads Used in Traffic Paint.

B. ASTM International:
  1. ASTM D34 - Standard Guide for Chemical Analysis of White Pigments.
  2. ASTM D126 - Standard Test Methods for Analysis of Yellow, Orange, and Green Pigments Containing Lead Chromate and Chromium Oxide Green.
  3. ASTM D562 - Standard Test Method for Consistency of Paints Using the Stormer Viscometer.
  4. ASTM D711 - Standard Test Method for No-Pick-Up Time of Traffic Paint.
  5. ASTM D713 - Standard Practice for Conducting Road Service Tests on Fluid Traffic Marking Materials.
  6. ASTM D969 - Standard Test Method for Laboratory Determination of Degree of Bleeding of Traffic Paint.
  7. ASTM D1301 - Standard Test Methods for Chemical Analysis of White Lead Pigments.
  8. ASTM D1394 - Standard Test Methods for Chemical Analysis of White Titanium Pigments.
  9. ASTM D1475 - Standard test Method for Density of Liquid Coatings, Inks, and Related Products.
  10. ASTM D1640 - Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature.
  11. ASTM D2202 - Standard Test Method for Slump of Sealants.
  12. ASTM D2371 - Standard Test Method for Pigment Content of Solvent-Reducible Paints.

13. ASTM D2621 - Standard Test Method for Infrared Identification of Vehicle Solids From Solvent-Reducible Paints.
14. ASTM D2743 - Standard Practices for Uniformity of Traffic Paint Vehicle Solids by Spectroscopy and Gas Chromatography.

C. California Manual on Uniform Traffic Control Devices (CMUTCD).

D. Standard Specifications for Public Works Construction (SSPWC).

E. California Building Code, 2010 Edition (CBC-10).

1.3 PERFORMANCE REQUIREMENTS

A. Paint Adhesion: Adhere to road surface forming smooth continuous film one minute after application.

B. Paint Drying: Tack free by touch so as not to require coning or other traffic control devices to prevent transfer by vehicle tires within two minutes after application.

1.4 SUBMITTALS

A. Product Data: Submit paint formulation for each type of paint.

B. Samples:
1. Submit eight (8) sample plates of each color of material. Prepare four (4) plates without glass beads and four (4) with glass beads for each different batch of material. After approval, Owner will retain these plates for field comparisons of applied paint.
2. Submit two gallons and four one quart paint samples accompanied by properly executed test reports.
3. Submit samples of glass bead in compliance with AASHTO M247.

C. Test Reports: Submit source and acceptance test results in accordance with AASHTO M247.

D. Manufacturer's Installation Instructions: Submit instructions for application temperatures, eradication requirements, application rate, line thickness, type of glass beads, bead embedment and bead application rate, and any other data on proper installation.

E. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

A. Sustainable Design Requirements:
1. Regional Materials: Furnish materials extracted, processed, and manufactured within 500 miles of Project site.

B. Perform Work in accordance with SSPWC, CBC-10 and the MUTCD.

C. Maintain one (1) copy each document on site.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing Products specified in this section with minimum three (3) years documented experience.

B. Applicator: Company specializing in performing work of this section with minimum three (3) years documented experience and approved by Architect/Engineer.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Invert containers several days prior to use when paint has been stored more than 2 months. Minimize exposure to air when transferring paint. Seal drums and tanks when not in use.

B. Glass Beads. Store glass beads in cool, dry place. Protect from contamination by foreign substances.

1.8 ENVIRONMENTAL REQUIREMENTS

A. Do not apply materials when surface and ambient temperatures are outside temperature ranges required by paint product manufacturer.

B. Do not apply exterior coatings during rain or snow when relative humidity is outside humidity ranges, or moisture content of surfaces exceed those required by paint product manufacturer.

C. Do not apply paint when temperatures are expected to fall below 50 degrees F for 24 hours after application.

D. Volatile Organic Content (VOC). Do not exceed State or Environmental Protection Agency maximum VOC on traffic paint.

1.9 WARRANTY

A. Furnish three (3) year manufacturer's warranty for traffic paints.

1.10 MAINTENANCE SERVICE

A. Furnish service and maintenance of traffic paints for three years from Date of Substantial Completion.

PART 2 PRODUCTS

2.1 PAINTED PARKING LOT/TRAFFICE PAVEMENT MARKINGS

A. Manufacturers:
   1. Pervo Paint Company.
   2. Pathmark Traffic Products.
   3. Safety Coatings Inc.
   4. Franklin Paint Company.
   5. EZ-Liner Industries Model.
   6. Substitutions: Permitted with prior approval of Architect/Engineer.

B. Furnish materials in accordance with SSPWC and the CMUTCD.

C. Paint: Ready mixed, conventional and fast dry waterborne traffic paints,

lead-free, non-toxic, NASSHTO Test Deck, minimum retroreflectance of 100 mcds, durability rating of 6 or more after in place for 9 months; within following limits:

1. Pigment, percent by weight: 60 plus or minus 2.
2. Vehicle, percent by weight: 40 plus or minus 2.
3. Non-Volatile, percent by weight of paint: 76.0.
4. Weight per gallon, pounds minimum 13.0.
5. Viscosity: 80-95 Kreb Units at 77 degrees F.
6. Grind (Hegeman Guage), minimum Field Tested no tracking time under ambient conditions: 20-90 seconds.
7. Dry Through Time, 15 mils wet at 90 percent relative humidity, 72 degrees F, ASTM D1640: 125 minutes maximum.
8. VOC (Volatile Organic Content): One lbs/gal maximum.

D. Glass Beads: AASHTO M247, Type 1, coated to enhance embedment and adherence with paint.

2.2 EQUIPMENT

A. Continuous Longitudinal Line Application Machine: Use application equipment with following capabilities.

1. Dual nozzle paint gun to simultaneously apply parallel lines of indicated width in solid or broken patterns or various combinations of those patterns.
2. Pressurized bead-gun to automatically dispense glass beads onto painted surface, at required application rate.
3. Measuring device to automatically and continuously measure length of each line placed, to nearest foot.
4. Device to heat paint to approved temperature for fast dry applications.

B. Machine Calibration:

1. Paint Line Measuring Device: Calibrate automatic line length gauges to maintain tolerance of plus or minus 25 feet per mile.

2. Cycle Length/Paint Line Length Timer: Calibrate cycle length to maintain tolerance of plus or minus 6 inches per 40 feet; calibrate paint line length to maintain tolerance to plus or minus 3 inches per 10 feet.
3. Paint Guns: Calibrate to simultaneously apply paint binder at uniform rates as specified with an allowable tolerance of plus or minus 1 mil.
4. Bead Guns: Calibrate to dispense glass beads simultaneously at specified rate. Check guns by dispensing glass beads into gallon container for predetermined fixed period of time. Verify weight of glass beads.

C. Other Equipment:

1. For application of crosswalks, intersections, stop lines, legends and other miscellaneous items by walk behind stripers, hand spray or

stencil trucks, apply with equipment meeting requirements of this section. Do not use hand brushes or rollers. Optionally apply glass beads by hand.

2.3 SOURCE QUALITY CONTROL

A. Test and analyze traffic paints in accordance with these specifications.

B. Make paints and glass beads available for inspection at manufacturer's factory prior to packaging for shipment. Notify Architect/Engineer at least seven days before inspection is allowed.

C. Allow witnessing of factory inspections and test at manufacturer's test facility. Notify Architect/Engineer at least seven days before inspections and tests are scheduled.

2.4 PAINTED S T ET C TR C STRIPPING/GRAPHIC

. Manufacturer: Per Synthetic Track anufacturer recommendation.
. Furnish materials in accordance with LEED and the SCAQMD
C. Paint: Per Synthetic Track anufacturer recommendation.
. Colors: To match e isting including style of graphics.

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not apply paint to concrete surfaces until concrete has cured for 28 days, unless otherwise approved by Architect/Engineer.

3.2 PREPARATION

A. Maintenance and Protection of Traffic:
   1. Provide short term traffic control in accordance with Section 01 50 00 - Temporary Facilities and Controls.
   2. Prevent interference with marking operations and to prevent traffic on newly applied markings before markings dry.
   3. Maintain travel lanes between 7: 00 AM to 9: 00 AM, and between 4: 00 PM and 6: 00 PM. Unless otherwise approved by Architect/Engineer.
   4. Maintain access to existing businesses and other properties requiring access.

B. Surface Preparation.
   1. Clean and dry paved surface prior to painting.
   2. Blow or sweep surface free of dirt, debris, oil, grease or gasoline.
   3. Spot location of final pavement markings as specified and as indicated on Drawings by applying pavement spots 25 feet on center.
   4. Notify Architect/Engineer after placing pavement spots and minimum three (3) days prior to applying traffic lines.

3.3 EXISTING WORK

A. Remove existing markings in an acceptable manner. Do not remove existing pavement markings by painting over with blank paint. Remove by methods that will cause least damage to pavement structure or pavement surface. Satisfactorily repair any pavement or surface damage caused by removal methods.

B. Clean and repair existing remaining or reinstalled lines and legends.

3.4 APPLICATION

A. Agitate paint for 1-15 minutes prior to application to ensure even distribution of paint pigment.

B. Dispense paint at approved temperature to wet-film thickness of 15 mils, except dispense edge markings to wet-film thickness of 12 mils.

C. Apply glass beads at rate of six (6) pounds per gallon of paint.

D. Apply markings to indicated dimensions at indicated locations.

E. Prevent splattering and over spray when applying markings.

F. Unless material is track free at end of paint application convoy, use traffic cones to protect markings from traffic until track free. When vehicle crosses a marking and tracks it or when splattering or over spray occurs, eradicate affected marking and resultant tracking and apply new markings.

G. Collect and legally dispose of residues from painting operations.

H. Install Work in accordance with SSPWC and CMUTCD.

3.5 APPLICATION TOLERANCES

A. Maximum Variation from Wet Film Thickness: 1 mil.

B. Maximum Variation from Wet Paint Line Width: Plus or minus 1/8 inch.

C. Maintain cycle length for skip lines at tolerance of plus or minus six (6) inches per 40 feet and line length of plus or minus three (3) inches per 10 feet unless otherwise approved by Architect/Engineer.

D. Maximum Variation from Specified Application Temperature: Plus or minus 5 degrees F

3.6 FIELD QUALITY CONTROL

A. Inspect for incorrect location, insufficient thickness, line width, coverage, retention, uncured or discolored material, and insufficient bonding.

B. Repair lines and markings, which after application and curing do not meet following criteria:
   1. Incorrect Location: Remove and replace incorrectly placed patterns.
   2. Insufficient Thickness, Line Width, Paint Coverage, Glass Bead Coverage or Retention: Prepare defective material by acceptably grinding or blast cleaning to remove substantial amount of beads and to roughen marking surface. Remove loose particles and debris. Apply new markings on cleaned surface in accordance with this Section.
   3. Uncured or Discolored Material, Insufficient Bonding: Remove defective markings in accordance with this Section and clean pavement surface one foot beyond affected area. Apply new markings on cleaned surface in accordance with this Section.

C. Replace defective pavement markings as specified throughout a three (3) year warranted period. Replace markings damaged by anti-skid materials, studded tires, tire chains, chemical deicers, snow plowing or other loss of marking material regardless of cause. When markings are damaged by pavement failure or by Owner's painting, crack sealing, or pavement repair operations, Contractor is released from warranty requirements for damaged work. If this requirement is different in the Contract Documents, then the Contract Documents override this specification.

D. A three member team will evaluate warranty provisions. Team will consist of one member from Owner, one member from Contractor, and third person who is mutually acceptable to Owner and Contractor. Any costs for third person will be equally shared between Owner and Contractor. At least once each year, beginning with year after acceptance, team shall:
   1. Observe Owner taking readings by retroreflectometer, or review Owner records of such evaluation. The number of readings will be as large as necessary to ensure that minimum criteria are satisfied. Readings will be during period from March 15 through October, when pavement is clean and dry.
   2. Determine color fade, discoloration or pigment loss based on visual color comparison between original sample plates with glass beads and in-place pavement markings.
   3. Determine magnitude of material loss.

E. Prepare list of defective areas and areas requiring additional inspection and evaluation to decide where material may need replaced. Provide traffic control as necessary if markings require more detailed evaluation.

F. Replace failed or defective markings in entire section of defective markings within 30 days after notification when any of the following exists during warranty period:
   1. Average retro-reflectivity within any 528 foot section is less than 1225 mcd/m2/1x for white pavement markings and 100 mcd/m2/1x for yellow pavement markings.
   2. Marking is discolored or exhibits pigment loss, and is determined to be unacceptable by three member team based on visual comparison with beaded color plates.
   3. More than 15 percent of area of continuous line, or more than 15 percent of combined area of skip lines, within any 528 foot section of roadway is missing.

G. Replace pavement marking material under warranty using original or better type material. Continue warranty to end of original three (3) year period even when replacement materials have been installed as specified.

H. When eradication of existing paint lines is necessary, eradicate by shot blast or water blast method. Do not gouge or groove pavement more than 1/16 inch during removal. Limit area of removal to area of marking plus 1 inch on all sides. Prevent damage to transverse and longitudinal joint sealers, and repair any damage according to requirements in Section 32 13 13 or Section 32 12 16.

I. Maintain daily log showing work completed, results of above inspections or tests, pavement and air temperatures, relative humidity, presence of any moisture on pavement, and any material or equipment problems. Make legible entries in log in ink, sign and submit by end of each work day. Enter environmental data into log prior to starting work each day and at two additional times during day.

3.7 PROTECTION OF FINISHED WORK

A. Protect painted pavement markings from vehicular and pedestrian traffic until paint is dry and track free. Follow manufacturer's recommendations or use minimum of 30 minutes. Consider barrier cones as satisfactory protection for materials requiring more than 2 minutes dry time.

3.8 SCHEDULES

A. Pavement Markings: Use the following schedule unless otherwise specified in construction drawings.

Items	Location
4 inch White Conventional	Edge
4 inch White Fast Dry	Edge
24 inch White Fast Dry	Stop Line
4 inch Yellow Conventional	Center
4 inch Yellow Fast Dry	Center

END OF SECTION

Exhibit B – Scope of Work

32 18 23

BSS 300

Embedded Polyurethane Sandwich with Light Encapsulation Retention Coat Synthetic Track Surfacing System Specifications

Part 1 – General

1.1 Scope

A. The synthetic surfacing contractor shall furnish all labor, materials, equipment, supervision, and services necessary for the proper completion of the **BSS 300 RC** Synthetic Track Surfacing System and related work indicated on the drawings and specified herein.

B. Basis of design is the Beynon BSS 300 RC or approved equal.

C. Contact: Mason Farnsworth
4668 N. Sonora Ave. Suite 101, Fresno, CA 93722
Phone: 559-237-2590
Email: mfarnsworth@beynonsports.com

D. Equals are to be approved by addendum only, 7 days prior to bid date. Equals must submit data and samples per Section 3.1 Quality Assurance.

E. The synthetic surfacing contractor shall refer to the drawings for the required locations of synthetic track surfacing to be installed. All quantities and dimensions shall be field verified by the synthetic surfacing contractor.

1.2 Specific Scope of Work

A. Install a WORLD ATHLETICS (WA) approved, impermeable polyurethane synthetic track system consisting of SBR Rubber and BEYPUR, a single- component polyurethane binder and BEYPUR, a poured-in-place, two- component U.V. stabilized elastomeric polyurethane with an embedded textured wearing layer with a light encapsulated finish.

B. Layout and paint all track lines and event markings as required and specified by owner and the applicable governing body for the specified project; either WORLD ATHLETICS (WA), NCAA, NFSHSA rules and or Owner requirements.

1.3 Coordination

A. The synthetic surfacing contractor shall coordinate the work

specified with an authorized and appointed representative of the owner to perform the work during a period and in a manner acceptable to the owner.

Part 2 – Codes and Standards

2.1 Applicable Publications

A. Codes and standards follow the current guidelines set forth by the WORLD ATHLETICS (WA), the National Collegiate Athletic Association (NCAA) and the National Federation of State High School Associations (NFSHSA), along with the current material testing guidelines as published by the American Society of Testing and Materials (ASTM).

2.2 Performance Standards

The BSS 300 synthetic track surfacing system shall exhibit the following minimum performance standards as required by WORLD ATHLETICS (WA):

A.	Thickness:	(12-13mm) or as specified
B.	Force Reduction	35-50%
C.	Vertical Deformation:	0.6mm-2.5mm
D.	Coefficient of Friction:	□ 0.5 (47 TRRL Scale)
E.	Tensile Strength:	□ 0.5 Mpa
F.	Elongation:	□ 40%

Part 3 – Quality Assurance

3.1 Contractor and Manufacturer Qualifications

A. The CONTRACTOR and the MANUFACTURER must be the same.

B. The CONTRACTOR and MANUFACTURER must have a minimum of 5 years of experience in the installation of poured-in-place, two-component elastomeric polyurethane synthetic track surfacing in the California market.

C. The CONTRACTOR shall be able to furnish evidence that they have been in business for a period of not less than 3 years, under the present name, and if required, furnish financial statements for each of the past 3 years.

D. The CONTRACTOR must have a current California contractor's license and DIR
number at time of bid.

E. The CONTRACTOR must have installed a minimum of 10 outdoor track

facilities in California in the last 3 years using the exact, WORLD ATHLETICS (WA) certified BSS 300 synthetic track surfacing, as specified herein with the
contractor bidding this project. CA install reference form is to be included with bid and or with equal submittal request.

F. The MANUFACTURER must have a minimum of 10 years of experience with compound two-part polyurethane for athletic surfaces.

G. The CONTRACTOR is required to provide documentation that shows the selected specified and installed product meets current WORLD ATHLETICS (WA) Performance Standards for Synthetic Surfaced Athletics Tracks (Outdoor) and is certified in terms of the WORLD ATHLETICS (WA) certification system as updated to present day.

H. The MANUFACTURER must offer a minimum of seven (7) WORLD ATHLETICS (WA) Certified Track Systems.

I. All polyurethane components must be MANUFACTURED in the United States in an **ISO 9001:2015 Certified** facility to ensure the highest quality materials.

J. The CONTRACTOR/MANUFACTURER must supply a five (5) year third party insured warranty covering this project.

3.2 Submittals

The following submittals must be received prior to installation and be reviewed and approved by the owner:

A. Standard printed specifications of the synthetic track surfacing system to be installed on this project.

B. An affidavit attesting that the synthetic track surfacing material to be installed meets the requirements defined by the manufacturers currently published specifications and any modifications outlined in those technical specifications.

C. A synthetic track surfacing system sample, 4" x 6" (min.) in size, of the same synthetic track surfacing system to be installed on this project.

D. A list of completed facilities, including the installing supervisor, of the exact synthetic track surfacing system.

E. A current WORLD ATHLETICS (WA) Certificate proving the product to be installed meets the current WORLD ATHLETICS (WA) Performance Standards for Synthetic Surfaced Athletics Tracks (Outdoor).

Part 4 – Materials

4.1 Elastomeric Polyurethane

A. BEYPUR, the two-component U.V. stabilized elastomeric polyurethane compounded from polyol and isocyanate components, based on one hundred percent (100%) Methylene Diphenyl Isocyanate (MDI). No Toluene Diisocyanate Isocyanate (TDI) will be allowed.

4.2 EPDM Granulate

A. The EPDM granulates shall be approximately 1 to 3mm in size

B. The EPDM granulates and the U.V. stabilized elastomeric polyurethane shall be color matched.

4.3 Rubber Granulate of the Base Course

A. Styrene Butadiene Rubber (SBR) processed ground to a graded size of 1- 3mm.

B. A maximum of 82%, by weight of the paved-in-place base layer, of SBR will be allowed.

4.4 Single Component Polyurethane Binder

A. This binder shall be BEYPUR 300, a single-component polyurethane binder with a long cure time for use in paved mat specifications; a minimum of 18%, by weight of the paved-in-place base layer.

4.5 Seal Coat

A. This seal coat shall be BEYPUR 200, a two-component polyurethane pore sealer use with paved rubber granule mats. The granular SBR and binder layer shall be sealed with the BEYPUR 200. The application of EPDM dust is not allowed.

4.6 Line Marking Paint

A. All line and event markings shall be applied by experienced personnel utilizing the manufacturer's recommended pigmented paint compatible with the BSS 300 Track Surfacing material.

4.7 Light Encapsulation Retention Spray Coating

A. Shall be a highly pigmented single component water based aliphatic material, applied in opposite directions for uniform coverage
B. The protective light encapsulation retention coat helps lock the EPDM granules in place, limiting migration and offers increased color retention, stain resistance and ease of maintenance

Part 5 – Installation

5.1 Subbase Requirements

A. Asphalt Compaction

a. The Synthetic Track Surfacing System shall be laid on an approved subbase. The General Contractor shall provide compaction test results of 92-96% for the installed subbase and asphalt surface.

b. For NCAA certification the following criteria must be followed. The track surface, i.e., asphalt substrate, shall not vary from planned cross slope by more than +/- 0.2%, with a maximum lateral slope outside to inside of 1%, and a maximum slope of 0.1% in any running direction. The finished asphalt shall not vary under a 10' straight edge more than 1/8".

c. It should be the responsibility of the asphalt-paving contractor to flood the surface immediately after the asphalt is capable of handling traffic. If, after 20 minutes of drying time, there are birdbaths evident, it shall be the responsibility of the architect, in conjunction with the surfacing contractor, to determine the method of correction. No cold tar patching, skin patching or sand mix patching will be acceptable.

B. Asphalt Quality

a. No Recycled Asphalt Pavement (RAP) shall be used in the wear course asphalt mix design as the inclusion of RAP as an off-set to virgin asphalt binder results in a brittle hot-mix asphalt (HMA) with significantly lower tensile strength and fatigue resistance. The sports surfacing contractor will not be held responsible for asphalt failures resulting from the inclusion RAP in the HMA mix design of the wear course.

b. Any oil spills (hydraulic, diesel, motor oil, etc.) must be completely removed, either by chipping out or removing and replacing with new, keyed in asphalt. The minimum depth of any asphalt replacement shall be one inch. The curing time for the asphalt base is 28 days. It shall be the responsibility of the surfacing contractor to determine if the asphalt substrate has cured sufficiently prior to the application of polyurethane surfacing system.

C. Responsibility of Others
   a. It shall be the responsibility of the general contractor to determine if the asphalt substrate meets all design specifications, i.e., cross slopes, planarity, and specific project criteria. After all the above conditions are met, the synthetic surfacing contractor must, in writing, accept the planarity of the asphalt receiving base before work can commence.

5.2 Thickness

A. The thickness of the **BSS 300 RC** Synthetic Track Surfacing System shall be 13mm.

5.3 Equipment

A. The **BSS 300 RC** Synthetic Track Surfacing System components shall be processed and installed by specially designed machinery and equipment. A mechanically operated paver with variable regulated speed and thermostatically controlled screed shall be used in the installation of the base mat. The wearing course shall be installed using automatic electronic portioning, which provides continuous mixing and feeding for an accurate, quality-controlled installation.

B. No hand mixing is allowed.

5.4 Installation

A. Base Course

The SBR granules and BEYPUR 300 shall be mixed on site to regulate the ratio/quantity of SBR, not to exceed 82% in the base mat portion of the system. The BEYPUR 300 shall be mixed with the SBR rubber so that a minimum of 20%, by weight, exists in the final mixture. This mixture is then mechanically installed using the paver.

B. Seal Coat

The two BEYPUR 200 components are mixed at the prescribed ratio homogeneously with a suitable mixing device. The coating is squeegee applied to the base mat, making it impermeable.

C. Wearing Course

The 1 to 3mm EPDM granules shall be integrated into the BEYPUR to achieve the full depth of the 5 mm wearing course. The resilient embedded textured finish shall be a dense matrix of exposed EPDM granules. The homogeneous wearing course shall be applied in situ with the base course. The surface color shall be Dark Blue with Mid Grey relay zones.

D. Light Encapsulation Retention Spray Coating

The light encapsulating spray shall be a minimum weight of .6 pound per square yard and shall be applied in a minimum of 2 spray applications using equipment specifically designed for the application of synthetic track surfaces. The 2 spray layers shall be sprayed in opposite directions to achieve a uniform application.

5.5 Site Conditions

A. Installation shall not take place if adjacent or concurrent construction generates excessive dust, abrasives, or any other by-product that, in the opinion of the installer, would be harmful to the track material, until completion of such works.

B. Apply Synthetic Track Surfacing in dry weather when pavement and atmospheric temperatures are fifty (50) degrees Fahrenheit or above and are anticipated to remain above fifty (50) degrees Fahrenheit for twenty-four
(24) hours after completing application.

C. The maximum temperature cannot exceed 105 degrees at any point during a 24 - hour period.

D. Rain cannot be falling. If there is a threat of rain, work shall cease until dry conditions can be re-established on the track pavement. Work is to proceed only when adequate curing can be guaranteed by the manufacturer.

Exhibit B – Scope of Work

6.1 Layout

A. Line striping and event markings shall be laid out in accordance with the owner and in reference to the project's governing body for current WORLD ATHLETICS (WA), NCAA, NFSHSA rules and or Owner requirements.

6.2 Certification

A. Upon completion of the installation, the owner shall be supplied with all necessary computations and drawings as well as a letter of certification attesting to the accuracy of the markings.

Part 7 – Guarantee

A. The BSS 300 Synthetic Track Surfacing System shall be fully guaranteed by a third party against faulty workmanship and material failure for a period of ten (10) years from the date of acceptance.

B. Synthetic surfacing material found to be defective because of faulty workmanship and/or material failure shall be replaced or repaired at no charge, upon written notification within the guarantee period.

END OF SECTION