

SECTION 013203**PROGRESS DOCUMENTATION****PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Design-Builder's construction schedule.
 - 2. Daily construction reports.
- B. Related Sections:
 - 1. Section 011000 – Summary
 - 2. Section 011400 – Work Restrictions
 - 3. Section 013100 - Project Management and Coordination
 - 4. Section 013300 - Submittal Procedures

1.3 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the project. Except for Milestone Activities, activities included in a schedule consume time and resources.
 - 1. Critical Activity: An activity, if delayed, would result in the delay to the overall completion.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.
 - 4. Milestone Activity: An activity that does not occupy time or resources, but highlights an event.
- B. Activity Codes: Values assigned to schedule activities to organize the schedule into groups for reporting and analysis. Examples include Responsibility, Building, and Location.
- C. Calendar: Defines the week for different activities within the CPM schedule. Examples of calendars include 5-day week minus holidays, 7-day week, and 6-day week. Different calendar types may be used in the CPM schedule.

- D. Constraint: In the CPM schedule, a constraint is used to affect the float, duration, or date of an activity.
- E. Cost Loading: Applying the Contract Price to the CPM schedule activities. Each work activity is assigned a value that accurately reflects the estimated cost of the described work, including labor, materials, equipment, etc. The sum of the activities values shall equal the Contract Price. Updates to the cost loaded schedule shall constitute the means by which Progress Payments are determined. CPM Schedules for this Contract shall be cost loaded.
- F. CPM: Critical Path Method, which is a method of planning and scheduling a project where activities are arranged based on activity relationships.
1. CPM Network: A sequence of inner-connected activities. Network calculations determine the critical path and when activities can be performed.
- G. Critical Path: The network of schedule activities that establishes the minimum overall Project duration.
- H. Data Date: The date used as the starting point for schedule calculations. For baseline CPM schedules, the Data Date is the first date of Contract Time, as determined by the Notice to Proceed. For monthly updates, the Data Date is the first workday after the monthly cutoffs as decided by the Construction Manager.
- I. Day: A calendar day, unless otherwise specifically defined.
- J. Delay: An interruption to the work. Refer to “Contract Time” Article within the General Conditions.
- K. Milestone: The starting or ending point of an activity or linked series of activities. A milestone in the schedule contains zero duration.
1. Key Milestone: A major event or milestone. A key event or milestone includes, but is not limited to the following: Notice to Proceed, Phase Start Date, and Phase Finish Date. The Construction Manager may direct the Design-Builder to add additional Key Milestones.
 2. Contractual Milestone: A milestone tied to Liquidated Damages. Substantial Completion is both a Key and Contractual Milestone.
- L. Float: The measure of leeway in starting and completing an activity.
1. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
 2. Total float is the amount of time by which a part of the Work may be delayed from its early dates before it delays a succeeding activity.
 3. Contract Float: the amount of time between the Design-Builder’s anticipated dates for early completion of the Work, or specified part, and the corresponding Contract Time.
 4. Ownership of Float: Total float and contract float belong to the project and are not for the exclusive benefit of any party. Total float and Contract float are jointly owned, and are resources available to the District or the Design-Builder on a first-come-first-served-

basis to accommodate changes in the Work, or to mitigate the effects of float for the benefit of the project. The Construction Manager and Design-Builder shall monitor float to determine if any float erosion is for the benefit of the project.

5. Float Manipulation: Utilizing unrealistic or inflated durations, imposed dates, artificial logic and/or lags, preferential logic, date constraints, and others that results in an impact to Float. The Design-Builder shall not manipulate float, and the Design-Builder shall add detail within the schedule in order to mitigate the use of Float manipulation. The Construction Manager can direct the Design-Builder to provide a detailed written explanation in the Baseline Narrative for items seen as potential float manipulation. After a review of the Baseline Schedule and the detailed written explanation, any such actions ultimately seen as Float manipulation by the Construction Manager may result in direction for a Baseline revision and re-submittal.
- M. Lag: An adjustment of time between tied CPM schedule activities.
- N. Near-Critical Activity: A non-critical activity with a Total Float value within 10 workdays of the Critical Path.
- O. Percent Complete: The portion of an activity that is complete based on the measurement of work accomplished. Percent completes are ultimately decided by the Construction Manager.
- P. Relationships: Ties between activities within the CPM schedule.
- Q. Target Schedule: A different version of the CPM schedule that can be used as a basis for comparison against another CPM schedule.
- R. CPA: Contemporaneous Period Analysis. Refer to associated section herein.

1.4 INFORMATIONAL SUBMITTALS

- A. Submittal Items: Submit required items per the following:
 1. PDF electronic file(s).
 2. Electronic software files (for all CPM schedule submittals). The Design-Builder shall provide a unique file name in the schedule software for all CPM Schedules.
 - a. For P3 schedules, Design-Builder shall submit a "PRX" file.
 - b. For P6 schedules, Design-Builder shall submit a "XER" file and a "XML" file.
 3. One (1) paper copy of all required reports and charts (see Section 1.4.C below), unless otherwise directed by the Construction Manager.
- B. Design-Builder's Construction Schedule:
 1. Submit a working electronic copy of schedule with label to comply with requirements for submittals. Include type of schedule (baseline, monthly update, etc.) and submittal date on label.
- C. Reports: As part of every CPM schedule submittal, submit each of the following report:
 1. Detailed Gantt Chart: Individual columns on left shall contain activity number, activity description, original duration, remaining duration, early start date, early finish date, late start date, late finish date, calendar identifier, total float, budgeted cost, predecessors and

successors. Activities shall be grouped by the AREA activity code, unless directed otherwise by the Construction Manager. All activities shall be depicted, and activities shall be sorted by early start dates, then total float and early finish dates. Gantt chart shall be on a page of sufficient width required to display entire schedule for Contract Time. Size of paper/sheet is at discretion of Construction Manager, and sheet size may range from 11" x 17" to ARCH E (36" x 48"). Gantt chart shall depict relationship lines between activities, and Gantt Chart shall also clearly show the critical path.

- a. Columns on monthly updates shall also include: current month's percent complete.
2. Critical Path Gantt Chart: a Detailed Gantt Chart, but filtered to only show Critical activities. Size of paper/sheet is at discretion of the Construction Manager, but shall be either 8.5" x 11" or 11" x 17".
3. Progress Payment Summary Layout: For each Monthly Schedule Update submittal, prepare as a layout from the CPM software application. This Layout shall act as the Schedule of Values.
 - a. Activities shall be coded, grouped and summarized in a manner acceptable to the Construction Manager (also refer to Attachment A, "Activity Codes Dictionary").
 - b. Columns shall include: budgeted cost, percent complete, period actual cost, cumulative actual cost, cost to complete, cost at completion.
4. Schedule Narrative Report: With every CPM schedule submittal, the Design-Builder is required to submit a schedule narrative. The narrative report shall contain the following:
 - a. Baseline Schedule: Sufficiently detailed explanations of assumptions in baseline schedule development, including:
 - 1) General work sequencing
 - 2) Crew movements, and flow of work
 - 3) Justification of the critical path
 - 4) Long lead equipment or material items
 - 5) Constraints and challenges to completing the work
 - 6) Lags used, with a detailed explanation for each use
 - 7) Constraints used, with a detailed explanation for each use
 - 8) Coordination assumptions, both with subcontractors (e.g. coordination drawings, Building Information Modeling, etc.) and other parties (e.g., District, Architect/Engineer, School Site Staff, Utility entities, etc.)
 - 9) Work week schedule, work hours and non-working days, including holidays
 - 10) Person(s) preparing and providing input towards schedule submittal
 - b. Monthly Update: Items in this narrative report shall include:
 - 1) Physical progress accomplished during the report period, broken down by each building and site area (e.g. parking lot, second floor, etc.).
 - 2) Explanation of Critical Path if changed from previous month's update (or accepted Baseline, if first Monthly Schedule Update).
 - 3) Explanation of Near-Critical items that were not near-critical on the previous month's update (or accepted Baseline, if first Monthly Schedule Update).
 - 4) Explanation of potential delays and/or problems and their estimated impact on Key and/or Contractual Milestones.

- 5) All Notices of Delay (see General Conditions 6.6.4.) submitted to the Construction Manager.
 - 6) Alternatives for possible schedule recovery to mitigate delay or potential delay.
 - 7) Known or anticipated problems with delivery of materials or equipment.
 - 8) Approved weather/weather impact dates incurred in previous month, along with affected CPM schedule activity identification numbers and activity descriptions.
 - 9) Description of approved incorporated change orders for the report period, if any.
5. Other variations of the above reports, as directed by the Construction Manager.
- D. Daily Construction Reports: Submit to Construction Manager as described herein.
- E. Qualification Data: For scheduler, in the form of a résumé.

1.5 QUALITY ASSURANCE

- A. Scheduler Qualifications: The Design-Builder shall retain or employ an experienced specialist in CPM scheduling and reporting with a minimum of three (3) years' experience in scheduling work of similar nature, scope and value, and is capable of satisfying the requirements described herein. The Scheduler is to provide planning, evaluation, reporting and delay analysis using CPM scheduling. Neither the Design-Builder's Project Manager nor Superintendent can also be the Scheduler.
1. Within the first three (3) days of Contract Time, the Design-Builder shall submit for review and acceptance by the Construction Manager the résumé of scheduling personnel retained or employed by the Design-Builder. The résumé shall include projects of similar nature, scope and value, along with role/job title on each listed project. The Construction Manager has the right to reject a Scheduler based upon a lack of experience as required by this Section, or based on a lack of performance, or timeliness of schedule submittals on past projects. If the Construction Manager disapproves of the submitted scheduler, the Design-Builder has seven (7) days from disapproval to submit another résumé. The Construction Manager, at any time during performance of the work, may request replacement of the scheduler if the Construction Manager feels that the scheduler's work is unsatisfactory. In this instance, the Design-Builder has seven (7) calendar days to submit another résumé. If the Design-Builder wants to replace the scheduler, the new scheduler's résumé shall be submitted to the Construction Manager for acceptance or rejection. The scheduler must be accepted by the Construction Manager prior to starting any site related work. Any delays due to the lack of an accepted Scheduler shall be deemed inexcusable.
 2. Meetings: Scheduler shall attend the Preconstruction conference as well as all meetings related to alleged delays, and time impact.
- B. Schedule Software: All CPM schedules shall be prepared with a Windows operating system based CPM scheduling computer software program that is either Primavera Project Planner (P3) version 3.1, or Primavera P6 Professional version 8.1 or later.

1.6 COORDINATION

- A. Coordinate Design-Builder's construction schedule with the list of subcontracts, submittal register, progress reports, payment requests, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from entities involved.
 - 2. Coordinate each activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 DESIGN-BUILDER'S CONSTRUCTION SCHEDULE, PRELIMINARY CPM SCHEDULE

- A. During the Design Phase and Pre-Construction Phase, the Design-Builder shall prepare, submit and maintain a Preliminary CPM Schedule. The Preliminary Schedule shall detail the work, and shall be used to measure performance and determine progress payments until the Contractor's Baseline Construction Schedule is accepted.
 - 1. From the date noted as the Contract Time start date within the Notice to Proceed, The Design-Builder has thirty (30) days to submit a Preliminary CPM Schedule to the Construction Manager, who shall accept, accept as noted, or direct the Design-Builder to revise and re-submit. The Construction Manager has ten (10) days for a review, and the Design-Builder has seven (7) days for any re-submittal.
 - 2. During this time, the Design-Builder shall identify requirements, major milestones for stakeholders, interfacing with other agencies (e.g. Division of State Architect, City of San Diego, San Diego Gas and Electric, etc.), construction sequencing, potential challenges to construction (e.g. long lead procurements, physical constraints, etc.), and operation and facility requirements.
- B. It is understood that any reference within the Preliminary Schedule to Construction Phase is for planning purposes only, and that information necessary for a detailed CPM schedule may not yet be available during the Design Phase.
- C. At such time that the Baseline Construction Schedule is being prepared, the Preliminary Schedule shall be incorporated into the Baseline Construction Schedule.

2.2 DESIGN-BUILDER'S CONSTRUCTION SCHEDULE, BASELINE

- A. Baseline Schedule: The Design-Builder shall prepare and submit a baseline CPM schedule that shall show the breakdown of all work into activities to the extent required to effectively plan and execute the project, track and report work progress, effectively analyze time impacts and show all logical relationships (ties) between activities. The Construction Manager shall accept, accept as noted, or direct the Design-Builder to revise and re-submit, the Baseline Schedule submittal. The Construction Manager's Baseline Schedule review shall be based on the Construction Manager's evaluation of the Baseline schedule's reasonableness and compliance with the

contract documents. The Contract CPM Schedule shall be the basis for monitoring the Design-Builder's progress against milestone dates and Contract Time, and the evaluation and reconciliation of extensions in Contract Time. The Baseline Schedule shall communicate and constitute the Design-Builder's detailed intent for planning and executing the work. The Design-Builder is to construct the Baseline schedule based on the bid documents, including any addenda received during the bid phase. When the Design-Builder submits the Baseline Schedule submittal, the District assumes that the Design-Builder has coordinated with all subcontractors when developing the Baseline.

1. Breakout of Work into multiple Schedules: Even if multiple school sites or DSA numbers are attributed to a Contract, multiple schedules that break out work by school site, DSA number, etc., are not allowed.
2. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Substantial Completion, as defined in the General Conditions.
 - a. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
 - b. Early Completion: If the Construction Manager accepts an early completion schedule and the Construction Manager does not revise the completion date per Article 6.2 of the General Conditions, the Baseline must first include a Float activity that fills the time between the early completion and the contractual substantial completion date. The Design-Builder agrees to forego any extended overhead between Early Completion noted in the Baseline and the contractual substantial completion date.
3. Activities in the Baseline schedule shall comply with the following:
 - a. Activity Duration: The Design-Builder shall estimate the amount of time to start and complete each activity. Define field work activities so no activity is longer than 15 workdays, unless specifically allowed by the Construction Manager.
 - b. Units of Time: Workdays shall be the default unit of time for an activity in the schedule.
 - c. Critical Path: Critical Path is to be easily identifiable. Any part of the Baseline's Critical Path deemed unreasonable by the Construction Manager may result in direction for a Baseline revision and re-submittal.
 - d. Percentage of Activities within Critical Path: The Design-Builder shall plan the Work and provide for and allocate resources in the execution of the Work so that the proportion of schedule activities with a Total Float of 20 workdays or less within the Critical Path shall not exceed 33%, unless acceptance for a greater proportion is granted by the Construction Manager.
 - e. Procurement Cycle Activities: Procurement cycle activities include, but are not limited to, submittals, shop drawing submittals, submittal reviews and approvals, purchasing, fabrication, and delivery. Unless waived by the Construction Manager, include detailed procurement cycle activities as separate activities in the Baseline Schedule for each Specification section number. The detailed Procurement Cycle activities shall constitute the Submittal Schedule, and shall align with the Submittal Register. Procurement Cycle activities shall be logically tied in the Baseline Schedule to the associated construction activities. Unless waived by the

Construction Manager, include detailed procurement cycle activities as separate activities in the Baseline Schedule for each Specification Section number, with separate activities for the following:

- 1) Submittal Preparation.
- 2) Submittal Review / Approval.
- 3) Procurement / Fabrication.
- 4) Delivery.

- Note: The Design-Builder shall include the Specification Section number either within the activity's identification number or activity's name/description.

- f. Submittal Review Time: Include review times indicated in Division 01 Section "Submittal Procedures" in schedule.
- g. Relationships and CPM Network: CPM networks are to be closed, whereby every activity shall have, at a minimum, one predecessor and one successor relationship. The exceptions to this closed network rule are the network's start and finish milestones.
- h. Constraints: Constraints shall be scrutinized as constraints shall only be used to reflect contractually and/or environmentally imposed conditions, and the Design-Builder shall add schedule activities and detail to mitigate the use of Constraints. Constraints are not permitted where an activity or logical relationship is appropriate, unless specifically accepted by the Construction Manager. The Construction Manager can direct the Design-Builder to provide a detailed written explanation in the Baseline Narrative for any and all Constraints. After a review of the Baseline Schedule and the detailed written explanation, any Constraints ultimately deemed unreasonable by the Construction Manager may result in direction for a Baseline revision and re-submittal.
- i. Lags: Lags shall be scrutinized, and the Design-Builder shall add schedule activities and detail to mitigate the use of Lags. Lags of less than -1 are not permitted, unless specifically accepted by the Construction Manager. The Construction Manager can direct the Design-Builder to provide a detailed written explanation in the Baseline Narrative for relationships with negative lag less than -1. After a review of the Baseline Schedule and the detailed written explanation, any lags ultimately deemed unreasonable by the Construction Manager may result in direction for a Baseline revision and re-submittal.
- j. Schedule Settings: The setting in the CPM scheduling software shall be set so that the logic shall be retained when calculating the schedule. Critical activities shall be defined as Longest Path. The "progress override" option shall not be utilized, unless directed otherwise by the Construction Manager. Autocost, Resource, and Schedule calculation rules shall be set to the default settings.
- k. Activity Detail: Field work activities shall not reflect a combining of work located in separate buildings or site areas, work corresponding to different Specifications Sections, work performed by different subcontractors, or rough and finish work of the same trade. The CPM Schedule shall include activities and appropriate time for temporary items (e.g. scaffolding and concrete formwork), curing, testing, items that interface with work performed by others (e.g. Owner Furnished Owner

Installed items), regulatory agency approvals, permitting, City of San Diego and utility activities, physical checkout, startup, mobilization, operational and maintenance manual preparation, equipment and systems training, cleanup, and Design-Builder’s internal punch list.

- l. Activity Descriptions: Descriptions for schedule activities shall provide adequate detail that defines the activity, scope and location.
- m. Activity Coding: Activities shall be mapped to the Activity Code Dictionary depicted in Attachment A.
- n. Milestones: Include Key Milestones and Contractual Milestones indicated in the Contract Documents in schedule.
- o. Negative Float: The Baseline Schedule shall not contain negative float.
- p. Weather:
 - 1) The baseline schedule shall include, during the period from the start of mobilization (or start of field work activity, whichever starts first) through the date of Substantial Completion, workdays for anticipated weather delays affecting the critical path.
 - 2) The weather allowance shall be depicted as a separate activity in the CPM schedule as the final activity prior to the Substantial Completion milestone, and shall be on the critical path with no concurrent activities.
 - a) The Design-Builder shall include weather days as an allowance in the CPM schedule per the following:

Weather Table												
	Month											
Anticipated Weather Days	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	7	5	7	2	1	1	0	0	1	2	3	5

- b) If the Contract Time starts or ends in the middle of a month, the weather allowance shall be prorated. For example, if mobilization starts on February 1 and Substantial Completion is November 20 of the same year, the weather allowance is 20 workdays.
- 3) Unused weather allowance days become jointly owned Float.
- 4) If the number of approved weather days in a month exceed the number depicted in the Weather Table, or if the grand total of approved weather days exceed the number allotted in the contract, the number of weather days in excess are excusable and non-compensable.
- 5) Weather or the results of weather on non-scheduled workdays will not be considered. Reference documents shall include CPM schedules and Look Ahead schedules to determine scheduled workdays.
- 6) If the Design-Builder considers weather or the results of weather as an impact to the critical path and/or a Contractual Milestone, the Design-Builder has two (2) workdays from the date in question to provide written justification for the weather day request, describing the Primavera activity/activities impacted, as well as describing how over 50% of the Critical Path work for the requested day was impacted. The Design-Builder must also describe work done to mitigate weather impact.

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- 7) The Construction Manager determines if a weather day has been incurred, and the Critical Path and/or Contractual Milestone so affected. If the Design-Builder does not provide written justification regarding weather impacts, the Construction Manager can still determine if weather days have been incurred.
 - a) If weather impacts a Contractual Milestone for a phase that is not on the critical path, then the Design-Builder shall get excusable and non-compensable relief equal to the number of days impacted by weather.
- q. Cost Loading:
 - 1) Costs are applied to one activity resource that is to be titled "COST". Resource curves shall only be Linear.
 - 2) Estimated values for each work activity shall be assigned to the activity's budgeted cost in the CPM software application. Round amounts off to the nearest whole dollar.
 - 3) No site-related activity shall have a budgeted cost exceeding \$100,000, unless specifically accepted by the Construction Manager.
 - 4) The Design-Builder's General Conditions costs shall be set apart as a separate activity that spans the Contract Time.
 - 5) Bonds and Insurance are separate and distinct activities in the CPM Schedule.
 - 6) The Design-Builder shall not cost load submittal or procurement activities except as accepted or directed by the Construction Manager.
 - 7) For materials that are eligible for payment as provided by the Contract Documents, the Design-Builder may load the value of the materials on a one-day delivery activity.
 - 8) Payment for uninstalled materials is limited to major items with a cost value in excess of \$10,000. 80% of the material/equipment delivery cost shall be loaded on to the delivery activity, and the remaining 20% shall be loaded on to the associated construction activity/activities.
 - 9) Mobilization: Mobilization shall be a separate activity in the CPM schedule, and is expected to not exceed 1% of the Contract Price. If requested by the Construction Manager, the Design-Builder shall provide detailed backup documentation, at a level of detail to the satisfaction of the Construction Manager, to substantiate the Design-Builder's mobilization dollar amount.
 - 10) Allowances: The Design-Builder shall include separate cost-loaded activities in the schedule for any allowance.
 - 11) Change Orders: Upon District approval of a Change Order, the Contactor shall add separate cost loaded activities for each Change Order. Change Order activities shall have the activity identification prefix of "CO" plus the Change Order number. Change Order activities must also comply Attachment A, "Activity Codes Dictionary".
- B. Work restrictions: Include any work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.

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1. Work by District: Include a separate activity for each portion of the Work performed by District, including Owner Furnished Design-Builder Installed (OFDI) and Owner Furnished Owner Installed (OFIO) items.
 2. District-Furnished Products: Include a separate activity for each product. Delivery dates indicated stipulate the earliest possible delivery date.
 3. Work Restrictions: Show the effect of the following items on the schedule:
 - a. Coordination with any existing construction.
 - b. Limitations of continued occupancies.
 - c. Partial occupancy before Substantial Completion.
 - d. Use of premises and any site-specific restrictions.
- C. Baseline Schedule: Submittal, Review and Acceptance. Within the timeline specified below (Schedule Table 1), the Design-Builder shall submit the Baseline Schedule submittal to the Construction Manager for review and acceptance.

Schedule Table 1

Description	Calendar Days for Individual Item	Cumulative Calendar Days
Contract Time Start Date, per Notice to Proceed	0	0
Design-Builder submits complete Baseline Schedule submittal to Construction Manager for review (cost loading included)	30	30
Construction Manager submits review comments (and possible acceptance) to Design-Builder (Meeting may be required, at Construction Manager's discretion)	10	40

1. The deduction for Design-Builder's delayed submission of the complete Baseline Schedule submittal is \$250 per day; this deduction also applies to re-submittals. Refer to paragraph 1.4 herein regarding Submittal items.
2. Upon submittal by the Design-Builder, the Construction Manager will review the Baseline Schedule and provide comments within the timeframe shown in Schedule Table 1. The Construction Manager has the ability to question any aspect of the Baseline Schedule submittal. If the Construction Manager raises questions or identifies schedule deficiencies or noncompliance with the Contract Documents, a revision and re-submittal is required. The Design-Builder shall make appropriate adjustments or corrections and shall deliver to the Construction Manager the Baseline Schedule re-submittal within 7 days of receipt of the Construction Manager's comments. The Design-Builder shall indicate in writing, the adjustments or corrections made by the Design-Builder, including individual responses to every comment made by the Construction Manager on the previous submittal. The Construction Manager will review and return written comments on the re-submitted Baseline Schedule within 7 days of receipt of the Design-Builder's re-submittal.

The above process shall be repeated until the Construction Manager provides written notification to the Design-Builder that the Baseline Schedule has been accepted.

- a. If the Construction Manager conditionally accepts the Baseline Schedule submittal, the Design-Builder has seven (7) days to provide another Baseline Schedule submittal that addresses the conditional notes, to the satisfaction of the Construction Manager. Upon receipt, the Construction Manager has five (5) days to review. If the Design-Builder fails to submit a Baseline Schedule submittal that addresses the conditional notes to the Construction Manager's satisfaction, then the Baseline Schedule status shall be revised from "Accepted as Noted" to "Revise and Re-submit".
 - b. If the Baseline is not accepted after the first ninety (90) days, payments to the Design-Builder shall cease until the Baseline is accepted. The Construction Manager may also stop the Work, per General Conditions section 2.2., if the Baseline Schedule has not been accepted after the first ninety (90) days, and delays here shall be deemed inexcusable.
3. Upon acceptance of the Baseline Schedule, all activities and their relationships shown on the Baseline Schedule may not be changed, added, or deleted without the consent of the Construction Manager. The Design-Builder may not alter activity identification numbers, or rename activities without the Construction Manager's written consent. The Design-Builder must request written approval from the Construction Manager to remove activities from the CPM Schedule network, and must retain the removed activities within the electronic project schedule files that are submitted to the Construction Manager. The Design-Builder may appropriately code the approved removed activities to filter the same out of the reports.
 4. The initial accepted baseline schedule is a schedule that shall reflect no progress on schedule activities. For monthly schedule updates, the baseline schedule shall serve as the primary baseline, and the previous month's update schedule shall serve as the secondary baseline. If a Revised Schedule or Recovery Schedule is submitted by the Design-Builder and accepted by the Construction Manager, then the Revised Schedule or the Recovery Schedule shall serve as the primary baseline.
 5. Failure to include any work item required for performance of this Contract shall not excuse Design-Builder from completing all work within applicable completion dates, regardless of Construction Manager's acceptance of the schedule.

PART 3 - EXECUTION

3.1 DESIGN-BUILDER'S CONSTRUCTION SCHEDULE, MONTHLY SCHEDULE UPDATES

- A. Design-Builder's Construction Schedule Updating: At monthly intervals, the Design-Builder shall update the schedule to accurately reflect actual progress, and forecast the remainder of the work. Upon receipt of the Monthly Schedule Update submittal, the Construction Manager is to accept, accept with notes or direct the Design-Builder to revise and re-submit. On the last workday of each month or other day determined by Construction Manager, submit a draft

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schedule update for review. The Data Date shall be the 1st day of the month. For example, if the monthly update is to capture all work accomplished in April the Data Date shall be May 1st. The Draft Monthly Schedule Update shall consist of the following:

1. A hardcopy print out of the Detailed Gantt Chart as depicted in Section 1.4.C.1, distributed to the Construction Manager. Sheets for this item are to be no larger than 11" x 17".
 2. A markup of the hardcopy print out regarding percent completes, actual start dates and actual finish dates to indicate work accomplished during the month. Also indicate the expected finish dates or remaining duration for activities that have started but have not yet completed; remaining duration shall be the Design-Builder's best estimate of the time required to complete activities.
- B. Monthly Schedule Review Meeting: Within three (3) days of the Draft Monthly Schedule Update submittal, the Design-Builder shall meet with Construction Manager to finalize the Monthly Schedule Update, as well as discuss required corrections and proposed revisions to the schedule.
1. After the meeting, the Design-Builder shall make any needed adjustments to the schedule as directed by the Construction Manager, make final entries in the schedule software, recalculate the schedule, and submit the Monthly Schedule Update submittal. The Monthly Schedule Update submittal, including Progress Payment submittal items, is due no later than three (3) days following the Monthly Schedule Review Meeting.
- C. Progress Payments:
1. The amount payable to date for an activity shall equal the activity's percent complete multiplied by the activity's budgeted cost, prior to the retention calculation.
 2. The Construction Manager shall provide an Application for Progress Payment form for the Design-Builder to submit with each Monthly Schedule Update.
 3. Attention is directed to General Conditions Article 7.
- D. Monthly Schedule Update
1. Requirements: Unless specifically authorized by the Construction Manager, the Monthly Schedule Update shall not be used to delete activities, add activities, make title changes, make activity coding changes, make Budgeted Cost changes, or to make logic changes.
 2. Distribution: Distribute copies of schedule update to Construction Manager. Also submit reports/charts described in Section 1.4.C, as well as electronic backup file of schedule. The Design-Builder must submit the Monthly Schedule Update package to the Construction Manager before the District will process an Application for Progress Payment each month.
 3. Other activities in Schedule: The only activities to be added to the Monthly Schedule Updates are the following:
 - a. Approved Change Orders.
 - b. Approved Contemporaneous Period Analyses activities.
 - c. Approved Weather Dates (one Activity per approved Weather Date).

- 1) The original duration for the weather allowance activity shall be reduced each month by the number of approved weather days, only up to the number of weather days per month per the Weather Table. For example, if there are 5 approved weather days in May, the original duration shall still only be reduced by 1.
- d. Procurement Cycle re-submittals (i.e., Specification re-submittal after rejection, Specification re-submittal review)
4. Review: The Construction Manager, upon review, is to accept, accept with comments, or reject the Monthly Schedule Update submittal. Upon receipt, the Construction Manager has ten (10) days in which to review the Monthly Schedule Update package.
 - a. Completeness of Submittal: The Construction Manager may withhold up to 5% of the pre-retention progress payment if the Construction Manager has determined that the Design-Builder has failed to meet the Monthly Schedule Update submittal requirements.
 - b. Acceptance of the Monthly Schedule Update submittal by the Construction Manager shall be a condition precedent to the processing of the subsequent Progress Payment.
5. Monthly Schedule Update upon Substantial Completion
 - a. Upon Substantial Completion, the Design-Builder shall prepare and submit to the Construction Manager a Monthly Schedule Update that shows all actual start and actual finish dates through Substantial Completion.
 - b. The Construction Manager shall estimate the cost of such a Monthly Schedule Update and add this item to the final Punchlist. Upon the Construction Manager's acceptance of this Monthly Schedule Update, the Construction Manager shall release payment of this estimated cost.

3.2 DESIGN-BUILDER'S CONSTRUCTION SCHEDULE, SCHEDULE CORRECTION

- A. Each month, the Design-Builder shall address corrections to the schedule that were identified by the Construction Manager during the review of the last Monthly Schedule Update. These corrections generally include, but are not limited to, correction of inaccurate or missing actual dates, correction of logic for activities being driven by the data date, incorrect percent complete, and out of sequence progress. The Construction Manager reserves the right to require the Design-Builder adjust, add to, or clarify any portion of the schedule that may be considered insufficient to monitor the work. No additional compensation shall be provided for such adjustments, additions, or clarifications.
- B. If the Monthly Schedule Update submittal is rejected, the Design-Builder must individually respond to every correction and review comment received from the Construction Manager in the re-submittal of the Monthly Schedule Update package.
- C. If the submittal is conditionally accepted with noted exceptions, the Design-Builder shall respond to every correction and review comment via the schedule narrative of the next Monthly Schedule Update submittal. Failure of the Design-Builder to specifically respond to each of the

Construction Manager's previous review comments may result in rejection of the following submittal.

3.3 DESIGN-BUILDER'S CONSTRUCTION SCHEDULE, LOOK AHEAD SCHEDULES

- A. Look Ahead Schedule: The Design-Builder shall prepare and submit a report indicating activities performed in the one week prior and three weeks following the day of week as determined by the Construction Manager. Due to the Construction Manager in electronic format no later than 24 hours before the start of each weekly progress meeting, the Look Ahead Schedule shall include the following:
1. Columns on left hand side of report, indicating the following:
 - a. Activity number, corresponding to the same field in the CPM schedule.
 - 1) Potential or approved change orders shall be included as activities with temporary activity identification numbers until such time that change orders are approved and incorporated into the CPM schedule.
 - b. Activity description.
 - c. Responsibility.
 2. Dates on the right hand section of report, with marks noting the specific dates that activity was performed / will be performed for each of the look ahead activities.
 3. Generated in a CPM schedule software application or Microsoft Excel.
 4. Details shall include material and equipment deliveries, non-work days such as holidays, and approved weather days.
 5. Other information or formatting, at the discretion of the Construction Manager.
- B. Look Ahead Schedule Corrections: Upon request from the Construction Manager, the Design-Builder shall submit a revised look ahead schedule if there are significant corrections to the look ahead schedule noted during the weekly progress meeting. The revised look ahead schedule is due no later than two (2) workdays after the request has been made by the Construction Manager.

3.4 DESIGN-BUILDER'S DAILY REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events relating to this Contract:
1. List of subcontractors at Project site.
 2. List of separate contractors at Project site.
 3. Count of personnel and Hours worked at Project site by trade.
 4. Visitor(s) to the Project site.
 5. Major Equipment at Project site.
 6. Material deliveries.
 7. Work activities performed at Project site, including CPM schedule activity identification numbers.

8. High and low temperatures and general weather conditions, including any precipitation totals.
 9. Site Conditions.
 10. Request for weather day; include CPM schedule activity identification number(s) and activity description(s) affected.
 11. Action(s) taken to prepare for anticipated upcoming weather event.
 12. Accidents and near-accidents.
 13. Meetings and significant decisions.
 14. Issues incurred or addressed.
 15. Unusual events.
 16. Stoppages, delays, shortages, and losses.
 17. Meter readings and similar recordings.
 18. Emergency procedures.
 19. Orders and requests of authorities having jurisdiction.
 20. Change Orders received and implemented.
 21. Services connected and disconnected.
 22. Equipment or system tests and startups.
 23. Partial completions and occupancies.
 24. Substantial Completions authorized.
- B. Daily Reports shall be submitted to the Construction Manager by way of electronic mail or by way of compact disc, as determined by the Construction Manager.
- C. Starting with the first day of construction activity or any activity on site, a separate and distinct Daily Report shall be completed for each day. Daily Reports for the previous week are due no later than Monday of the following week. For example, the Daily Reports for Monday April 1st through Friday April 5th are due to the Construction Manager no later than Monday April 8th.
1. The timely completion and submittal of comprehensive Daily Reports are essential for any Contemporaneous Period Analyses.

3.5 DESIGN-BUILDER'S CONSTRUCTION SCHEDULE, RECOVERY SCHEDULE

- A. In the event that the progress of the Work or the sequencing of the activities of the Work differs from that indicated in the Baseline Schedule or previous Monthly Update Schedules, the Construction Manager may direct the Design-Builder to submit a Recovery Schedule. The Design-Builder is required to prepare and submit a Recovery Schedule if the current monthly schedule update depicts negative float exceeding minimum thresholds set forth herein, or as otherwise deemed appropriate by the Construction Manager.
1. The Design-Builder is required to prepare and submit a Recovery Schedule if the current monthly schedule update, during the first third (1/3) of the Contract Time, depicts negative float in excess of thirty (30) days.
 2. The Design-Builder is required to prepare and submit a Recovery Schedule if the current monthly schedule update, during the second third (1/3) of the Contract Time, depicts negative float in excess of twenty (20) days.

3. The Design-Builder is required to prepare and submit a Recovery Schedule if the current monthly schedule update, during the final third (1/3) of the Contract Time, depicts negative float in excess of ten (10) days.
 4. Within fifteen (15) days of the Construction Manager's direction, the Design-Builder shall prepare and submit a Recovery Schedule to the Construction Manager demonstrating the Design-Builder's plan to recover lost time, achieve all contractual milestones, and complete the work within the Contract Time. The Construction Manager will review the Recovery Schedule and provide documented comments within ten (10) days. Appropriate recovery actions include, but are not limited to, assignments of additional labor or equipment, shift or overtime work, expediting of submittals or deliveries, overlapping of activities, or sequencing changes to increase activity concurrence. The accompanying narrative shall describe the cause of the problems and the actions planned by the Design-Builder to recover the schedule.
- B. If the delay necessitating the Recovery Schedule is caused by the Design-Builder, all costs for recovery shall be borne by the Design-Builder.
- 3.6 DESIGN-BUILDER'S CONSTRUCTION SCHEDULE, CONTEMPORANEOUS PERIOD ANALYSIS
- A. In order to resolve issues affecting the completion date in a timely and efficient manner, the District and Design-Builder shall participate in periodic contemporaneous analyses of delays by applying the Contemporaneous Period Analysis (CPA) method.
 - B. The CPA shall coincide with Monthly Schedule Review meetings.
 - C. Assessment of possible impacts shall be performed on the most recent accepted Monthly Schedule Update, further progressed to the date of impact.
 - D. While entitlement may not be agreed upon during the CPA, the acceptance of the Monthly Schedule Update is essential as the update becomes the Baseline Schedule for the upcoming period, as well as the schedule that is to be updated for the next Monthly Schedule Update.
 - E. Submission of valid Monthly Schedule Updates and the completion of the CPA are conditions precedent to the review and approval of any request for an extension of Contract Time or Contractual Milestone. Failure to complete monthly updates and to participate in CPA will defer consideration of any time extensions by the District until the work is completed and the District analyzes as-built progress. Further, the District shall assess damages, if any, regardless of the status of any requests for time extensions pending, until any such requests are resolved.
 - F. Change Orders requesting Contract Time or Contractual Milestone extensions shall be accompanied by two versions of the most recently approved update of the schedule, further progressed to the date the Design-Builder first became aware of the work contemplated by the delay. The first schedule version reflects the status of the Project prior to the imposition of the Change Order work. This file is then copied and the sequence of reasonably known activities representing the delay are inserted into the copy and the schedule is recalculated, as of the same date and identical to the first schedule except for these Change Order activities. The net change in the end date between the second copy and the first copy will reflect and substantiate the request for

extension of time related to the Change Order, upon review and acceptance by the Construction Manager.

3.7 DESIGN-BUILDER’S CONSTRUCTION SCHEDULE, GENERAL

- A. Procedures: Also comply with procedures contained in The Associated General Contractors of America’s “Construction Planning & Scheduling Manual”.
- B. Timely submissions of the schedules described in this Specification are of significant importance, and lack of or late receipt diminishes their value to the Project.

ATTACHMENT A – ACTIVITY CODES DICTIONARY

CODE	VALUE	TITLE	
SITE	SITE		
	EBSES	E. B. Scripps Elementary	
	MMHS	Mira Mesa High	
	MHS	Morse High	
	NES	Nye Elementary	
	PES	Penn Elementary	
	SHS	Serra High	
	TES	Tierrasanta Elementary	
	ZES	Zamorano Elementary	
PHAS	PROJECT PHASE		
	KMSM	Key Milestones and Summaries	
	DES	Design	
	PRECON	Pre Construction	
	GCS	General Conditions	
	ALLW	Allowances	
	MOB	Mobilization	
	CON1	Construction Phase 1	
	CON2	Construction Phase 2	
	TEST	Testing	
	CMPL	Completion and Closeout	
	Note: Include any Work Phases / Sequences called out in Contract Documents		
	PCKG	WORK PACKAGE	
		KMSM	Major Milestones and Summaries
SPFD		Submittal / Procure / Fabricate / Deliver	
ONSW		On-Site Work	
OFSW		Off-Site Work	
BLDG		Building Work	
OTHR		Other	
ALLW		Allowances	

PROGRESS DOCUMENTATION

SPECIFICATIONS**NO.**

CODE	VALUE	TITLE
AREA	BUILDING / SITE AREA	
	KMSM	Key Milestones and Summaries
	SUB	Submittals
	PF	Procurement & Fabrication
	DEL	Delivery
	A1	Administration Building
	CL1	Classroom Building
	LC1	Lunch Court
	DRV	Driveway
	PL1	Parking Lot
	PA2	Play Area
	FLD	Field
	RTW1	Retaining Wall
	FG1	Fence / Gate
	OSW	Other Site Work

Note: Include actual building numbers; include other site areas as needed or determined by Construction Manager

LOC1 LOCATION LEVEL 1

UGU	Underground Utilities
USU	Under-slab Utilities
FND	Foundation
STR	Structure
1FL	1st Floor
2FL	2nd Floor
3FL	3rd Floor
RF	Roof
ELE1	Elevator
EXT	Exterior
STR1	Stairs
HRD	Hardscaping
LND	Landscape

Note: Create additional codes as needed or determined by the Construction Manager.

LOC2 LOCATION LEVEL 2

ADM1	Administration Room
LIB1	Library Room
CR1	Classroom
MDF	MDF Room
SRR	Staff Restroom
BRR	Boys Restroom
GRR	Girls Restroom
ELV1	Elevator

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SPECIFICATIONS**NO.**

CODE	VALUE	TITLE
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Note: Create additional codes as needed or determined by the Construction Manager in order to identify rooms with room number.

RESP RESPONSIBILITY

DIST San Diego Unified School District

DB Design-Builder

Note: May substitute generic trade with subcontractor name; Add other code values as needed or determined by the Construction Manager

UNIF UNIFORMAT II LEVEL 3

A1010	Standard Foundations
A1020	Special Foundations
A1030	Slab On Grade
A2010	Basement Excavation
A2020	Basement Walls
B1010	Superstructure - Floor Construction
B1020	Superstructure - Roof Construction
B2010	Exterior Walls
B2020	Exterior Windows
B2030	Exterior Doors
B3010	Roof Coverings
B3020	Roof Openings
C1010	Interior Construction - Partitions
C1020	Interior Doors
C1030	Interior Construction - Fittings
C2010	Stair Construction
C2020	Stair Finishes
C3010	Wall Finishes
C3020	Floor Finishes
C3030	Ceiling Finishes
D1010	Elevators & Lifts
D1020	Escalators & Moving Walks
D1090	Other Conveying Systems
D2010	Plumbing Fixtures
D2020	Domestic Water Distribution
D2030	Sanitary Waste
D2040	Rain Water Drainage
D2090	Other Plumbing Systems
D3010	HVAC - Energy Supply
D3020	Heat Generating Systems
D3030	Cooling Generating Systems
D3040	HVAC - Distribution Systems
D3050	Terminal & Package Units
D3060	Controls & Instrumentation

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SPECIFICATIONS**NO.**

CODE	VALUE	TITLE
	D3070	Systems Testing & Balancing
	D3090	Other HVAC Systems & Equipment
	D4010	Fire Protection – Sprinklers
	D4020	Fire Protection – Standpipes
	D4030	Fire Protection Specialties
	D4090	Other Fire Protection Systems
	D5010	Electrical Service & Distribution
	D5020	Lighting and Branch Wiring
	D5030	Electrical - Communications & Security
	D5090	Other Electrical Systems
	D8020	Technology Electrical Infrastructure
	D8021	Structured Cabling
	D8022	Low Voltage - Main Distribution Frames
	D8023	Wireless LAN Systems
	D8024	Multimedia Technology Systems
	D8041	Intrusion Detection and Access Control
	D8042	Video Surveillance and Control Systems
	D8060	Local Sound Systems
	D8061	VoIP Systems
	D8062	Campus-Wide Emergency Communications
	D8063	Clock and Bell Systems
	D8064	Video Communications / CATV Systems
	E1010	Commercial Equipment
	E1020	Institutional Equipment
	E1030	Vehicular Equipment
	E2010	Fixed Furnishings
	E2020	Moveable Furnishings
	F1010	Special Structures
	F1020	Integrated Construction
	F1030	Special Construction
	F1040	Special Facilities
	F1050	Special Controls and Instrumentation
	F2010	Building Elements Demolition
	F2020	Hazardous Components Abatement
	G1010	Site Clearing
	G1020	Site Demolition and Relocation
	G1030	Earthwork
	G1040	Hazardous Earth Remediation
	G2010	Roads
	G2020	Parking Lots
	G2030	Pedestrian Paving
	G2040	Site Development
	G2050	Landscaping
	G3010	Water Supply
	G3020	Sanitary Sewer

PROGRESS DOCUMENTATION**013203 – 21**

SPECIFICATIONS**NO.**

CODE	VALUE	TITLE
	G3030	Storm Sewer
	G3040	Heating Distribution
	G3050	Cooling System
	G3060	Fuel Distribution
	G3090	Other Site Mechanical Utilities
	G4010	Electrical Distribution
	G4020	Site Lighting
	G4030	Site Communications and Security
	G4090	Other Site Electrical Utilities
	G9010	Service Tunnels
	G9090	Other Site Systems
	Z1010	Administration
	Z1020	Quality Requirements
	Z1030	Temporary Facilities
	Z1040	Project Closeout
	Z1050	Permit, Insurance and Bonds
	Z9999	Allowances

END OF SECTION 013203