



CITY OF CORONADO

REQUEST FOR BIDS

FOR

MATHEWSON PARK PLAYGROUND RENOVATIONS

Contract No. 21-CO-ES-745

**All bid proposals must be received by the City Clerk at City Hall,
1825 Strand Way, Coronado, California 92118
PRIOR TO 2:00 p.m. October 7, 2020**

**Mathewson Park Playground Renovations
Contract No. 21-CO-ES-745**

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INSTRUCTIONS TO BIDDERS

1. Examination of Site and Contract Documents. The Bidder is required to examine carefully the site of work, proposal forms, plans, specifications, and special provisions for the work contemplated. The submission of a proposal shall be considered conclusive evidence that the Bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality and quantities of work to be performed and materials to be furnished, and as to the requirements of all the above documents.
2. Contract Documents. The Notice Inviting Bids, Instructions to Bidders, Bidder's Proposal (Forms A-1 through A-5), Plans, Standard Specifications, Special Provisions, Standard Drawings, Agreement, and any other documents referenced in the Agreement shall constitute the contract. Said documents are complementary and intended to yield a complete and finished project. Anything shown or required of the Bidder, in any one or more of said documents, shall be as binding as if contained in all of said documents. The Bidder will not be allowed to take advantage of any error, discrepancy or omission in any document, but shall promptly report to the City Engineer in writing any such matter discovered. The City Engineer will then decide what corrective action is needed and his decisions shall be final.
3. Addenda. Any addenda issued during the time of bidding, forming a part of the documents, shall be covered in the proposal and shall be made a part of the contract.
4. Contractor's License. No proposal will be accepted from a Bidder who has not been licensed in accordance with the provisions of Chapter 9, Division III, of Business and Professions Code of the State of California. In addition, Bidders must comply with California Labor Code Section 1771.1(a) written as follows:

"A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded."

5. Proposal Forms and Submittal.
 - a. The proposal shall be submitted on the attached Proposal Forms A-1 through A-5. All blanks on the proposal forms must be filled in.
 - b. If the proposal is made by an individual, it shall be signed and his full name and post office address shall be given. If made by a co-partnership it shall be signed with the co-partnership name by one of the partners, who shall sign his own name and, in addition, the name and addresses of each partner shall be given. If made by a

corporation, it shall be signed by two officers, attested by the corporate seal; the name of the state under the laws of which the corporation was incorporated shall be given; and names, titles, and addresses of all officers of the corporation shall be given.

c. The Bidder's Proposal (Form A-1) shall be completed and signed by an individual clearly authorized to bind the Bidder. All addenda issued shall be acknowledged on the proposal form.

d. The Proposal Form (Form A-2) shall give the unit and total price. In the event the unit price and total amount for any items are not in agreement, the unit price shall govern and the total corrected thereto. In accordance with Section 6707 of the California Labor Code, for construction of a pipeline, sewer, sewage disposal system, boring and jacking pits, or similar trenches or open excavations, which are five feet or deeper, the Bidder shall specify as specific bid items, adequate sheeting, shoring and bracing or equivalent method, for the protection of life or limb, which shall conform to applicable safety orders.

e. The Subcontractor List (Form A-3) shall be prepared in accordance with Section 4104 of the California Public Contract Code describing the portion of work to be performed and providing the name, the location of the place of business, the California contractor license number, and public works contractor registration number issued pursuant to Section 1725.5 of the Labor Code of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent of the prime contractor's total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of 1 percent of the prime contractor's total bid or ten thousand dollars (\$10,000), whichever is greater. The prime contractor shall list only one subcontractor for each portion as is defined by the prime contractor in his or her bid.

f. The Certificate regarding Contractor's License (Form A-4) shall be prepared in acknowledgment of Section 7028.15 of the Business and Professions Code.

g. The Statement of Experience and Financial Condition (Form A-5) shall be completed with supporting documentation and signed by an individual clearly authorized to bind the Bidder.

h. The complete proposal including proposal guarantee and surety insurer supporting documentation shall be enclosed in a sealed envelope, endorsed with the Bidder's company name and address on the upper left corner. The name of the project, hour and date of bid opening (as shown in Notice Inviting Bids), and the words "Sealed Bid" shall be written on the sealed envelope.

i. Proposals not received and stamped "RECEIVED" prior to the hour and the date set forth in the Notice Inviting Bids shall be declared late and returned unopened to the Bidder. The Bidder shall have sole responsibility for timely delivery.

6. Proposal Guarantee. All proposals shall be accompanied by cash, certified check, cashier's check, or bidder's bond duly executed by an approved surety insurer, made payable to the City of Coronado, for an amount equal to at least ten percent of the amount of said proposal. Any surety insurer must be authorized to transact surety insurance in California, and have assets that exceed its liabilities in an amount equal to, or in excess of, the amount of the bond.

If a bidder's bond is submitted with the proposal, the bidder shall also be required to submit the following documentation from the surety insurer:

- a. The original, or a certified copy, of the unrevoked appointment, power of attorney, bylaws, or other instrument entitling or authorizing the person who executed the bond to do so.

Before the award of the Contract, the Contractor may also be required to submit the following documentation regarding the surety insurer:

- b. A copy of the certificate of authority of the insurer issued by the Insurance Commissioner. A certified copy may be requested before award of the contract.
- c. A certificate from the county clerk of the county in which the court or officer is located attesting that the certificate of authority of the insurer has not been surrendered, revoked, canceled, annulled, or suspended or, in the event that it has, that the renewed authority has been granted.
- d. A financial statement of the assets and liabilities of the insurer at the end of the quarter calendar year prior to 30 days next preceding the date of the execution of the bond. The financial statement shall be made by an officer's certificate as defined in Section 173 of the Corporations Code. In the case of a foreign insurer, the financial statement may, instead of an officer's certificate, be verified by the oath of the principal officer or manager residing within the United States.

No proposal shall be considered unless such guarantee and supporting documentation is enclosed therewith guaranteeing that the bidder will enter into the proposed contract if awarded.

7. Withdrawal of Proposals. Any proposal may be withdrawn prior to the hour and date set forth in the Notice Inviting Bids, provided that a request in writing, executed by the Bidder or his duly authorized representative, for the withdrawal of such proposal, is filed with City Clerk. The withdrawal of a proposal shall not prejudice the right of a Bidder to file a new proposal.

8. Rejection of Proposals. Proposals may be rejected if they show any alterations of the forms, additions not called for, conditional or alternative bids uncalled for, incomplete proposals,

erasures, or irregularities of any kind; however, the Coronado City Council reserves the right to reject any and all proposals and to waive irregularities.

9. Disqualification of Bidder.

- a. More than one proposal from an individual, a firm or partnership, a corporation or an association under the same or different names will not be considered. Reasonable ground for believing that any bidder is interested in more than one proposal for the work contemplated will cause the rejection of all proposals in which such bidder is interested.
- b. If there is a reason for believing that collusion exists among the Bidders, none of the participants in such collusion will be considered in awarding of the contract.
- c. Proposals in which the prices are obviously unbalanced may be rejected.
- d. If the experience or financial background of a Bidder is inadequate or past performance has been unsatisfactory, the proposal may be rejected.

10. Return of Proposal Guarantees. Within 10 days after the award of the Contract, the City Clerk will return all the proposal guarantees accompanying the proposals, which are not to be further considered in making the award. All other proposal guarantees will be held until the contract has been finally executed, after which all proposal guarantees, except those forfeited, will be returned to the respective Bidders.

11. Acceptance or Rejection of Proposals. The Coronado City Council reserves the right to accept or reject any or all proposals, or to waive any irregularities or informalities in the proposals or in the proposal process; and to make an award on the base proposal or on the basis of any combination of proposal schedules to alternates listed in the proposal which, in its opinion, serves the best interest of the City of Coronado.

12. Americans with Disabilities Act. The contractor acknowledges its obligations under the Americans with Disabilities Act (ADA) in all regulations and practices pertaining thereto, including, but not limited to discrimination against qualified individuals with disabilities in employment, transportation, public accommodation, telecommunications, and in all activities, programs, and services of the contractor.

13. Minority/Women/Disabled Veteran Businesses. The City of Coronado strongly encourages the use of Minority/Women/Disabled Veteran Business Enterprises. The percentages of participation shall be documented and submitted to the City.

14. Labor Code Compliance.

- a. In accordance with the California Labor Code, Contractor must pay not less than prevailing wage rates as determined by the Director of Industrial Relations for all work done under this Contract pursuant to the all applicable laws and regulations and as noticed in Attachment B, which obligations include, but are not limited to, the following:

- i. This project is subject to compliance monitoring and enforcement by the California Department of Industrial Relations (“DIR”).
- ii. Contractor and all subcontractors listed in the bid proposal must be registered with the DIR pursuant to Labor Code Section 1725.5.
- iii. Contractor must furnish electronic certified payroll records (online) to the Labor Commissioner.

15. Unfair Business Practice Claims. In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the contractor, without further acknowledgment by the parties.

SPECIAL PROVISIONS

The following revisions and additions supplement the Standard Specifications referenced in Subsection 2-5. The paragraphing follows that of the Standard Specifications.

SPECIAL PROVISIONS

PART 1 – GENERAL PROVISIONS

SECTION 1 – TERMS, DEFINITIONS, ABBREVIATIONS UNITS OF MEASURE, AND SYMBOLS

1-2 TERMS AND DEFINITIONS

Agency	The City of Coronado
Board	The City Council of the City of Coronado
Engineer	The representative of the City Engineer who is assigned to inspect conformance of the work in accordance with the plans and specifications.

SECTION 2 – SCOPE AND CONTROL OF THE WORK

2-1 AWARD AND EXECUTION OF CONTRACT

2-1.1 Award of Contract. The proposals will be compared on the basis of the total price of all items. The award of the Contract, if it is awarded, will be to the lowest responsible bidder whose proposal complies with all the requirements prescribed. Such award, if made, will be within sixty (60) days after the opening of the proposals. All proposals will be compared on the basis of the Engineer's Estimate. Contractor shall submit to the City, when requested and prior to the award of the contract, a financial statement and resume of previous work of a similar nature.

2-1.2 Execution of Contract.

a. The Contract shall be signed by the successful bidder in triplicate counterpart and returned, together with the contract bonds and insurance, within ten (10) days from mailing the Contract to Contractor. No contract shall be binding upon the City until same has been completely executed by Contractor and the City.

b. Failure to execute a contract and file acceptable bonds and insurance as provided herein within the time limit above may be just cause for the annulment of the award and the forfeiture of the proposal guarantee.

2-2 ASSIGNMENT

2-2.1 Contractor Indebtedness. Indebtedness incurred for any cause in connection with this work must be paid by Contractor and the City is hereby relieved at all times from any indebtedness or claim other than payments under terms of the Contract and Contractor will

indemnify and hold harmless the City and its officers and employees from any loss, demand, damages, claims or actions arising from or in connection with said indebtedness.

2-4 CONTRACT BONDS

Before execution of the Contract by the Agency, the Bidder shall file with the Agency surety bonds satisfactory to the Board in the amounts and for the purposes noted below. Bonds shall be duly executed by a responsible corporate Surety authorized to issue such bonds in the State of California, which has assets that exceed its liabilities in an amount equal to, or in excess of, the amount of the bond. The Bidder shall pay all bond premiums, costs, and incidentals.

Each bond shall incorporate, by reference, the Contract and be signed by both the Bidder and Surety and the signature of the authorized agent of the Surety shall be notarized.

The Bidder shall provide, and maintain two good and sufficient surety bonds. The Payment Bond (Material and Labor Bond) shall be for not less than one hundred percent (100%) of the Contract Price, to satisfy claims of material suppliers and of mechanics and laborers employed by it on the Work. The bond shall be maintained by Contractor in full force and effect until the Work is accepted by the Agency, and until all claims for materials and labor are paid, and shall otherwise comply with the Civil Code.

The Performance Bond shall be for one hundred percent (100%) of the Contract Price to guarantee faithful performance of all Work, within the time prescribed, in a manner satisfactory to the Agency, and that all materials and workmanship will be free from original or developed defects.

Should any bond become insufficient, Contractor shall renew the bond within ten (10) days after receiving notice from the Agency.

The Bidder shall submit along with the two bonds the following documentation from the surety insurer:

- a. The original, or a certified copy, of the unrevoked appointment, power of attorney, bylaws, or other instrument entitling or authorizing the person who executed the bond to do so.
- b. A copy of the certificate of authority of the insurer issued by the Insurance Commissioner.
- c. (If the Agency so requests) A financial statement of the assets and liabilities of the insurer at the end of the quarter calendar year prior to thirty (30) days next preceding the date of the execution of the bond. The financial statement shall be made by an officer's certificate as defined in Section 173 of the Corporations Code. In the case of a foreign insurer the financial statement may, instead of an officer's certificate, be verified by the oath of the principal officer or manager residing within the United States.

Should any Surety at any time be unsatisfactory to the Board, notice will be given Contractor to that effect. No further payments shall be deemed due or will be made under the Contract until a new Surety shall qualify and be accepted by the Board.

Changes in the Work, or extension of time, made pursuant to the Contract, shall in no way release the Contractor or Surety from its obligations. Notice of such changes or extensions shall be waived by the Surety.

2-5 PLANS AND SPECIFICATIONS

2-5.1 General. Except as otherwise noted or specified, the work shall be done in accordance with the following referenced specifications and drawings, which are on file in the Public Services & Engineering Department.

<u>Document</u>	<u>Date Adopted</u>
Standard Specifications for Public Works Construction, 2018 Edition	May 21, 2019
San Diego Regional Standard (SDRSD) Drawings, 2018 Edition	May 21, 2019
City of Coronado-annotated SDRSD Drawings, 2018 Edition	May 21, 2019

Copies of the City-annotated standard drawings are available from the Public Services & Engineering Department, 1825 Strand Way, Coronado, California 92118.

2-5.3 Submittals.

2-5.3.1 General. When submittals are required by Plans or Specifications, or as directed by the Engineer, they may be shop drawings, product data, samples or documents to ensure that the work is in accordance with the Contract documents. Contractor shall provide the submittals within fifteen (15) calendar days from the date requested in writing by the City. Contractor is responsible for coordinating, scheduling, sequencing and preparing submittals so that work will not be delayed.

Initial submittals requiring approval will be reviewed at no cost to the Contractor. The cost of reviewing resubmittals, for reason of failure to meet Contract requirements, shall be at the expense of Contractor.

Contractor shall furnish five (5) copies (unless otherwise specified herein) of the required submittals to the City Engineer or submit electronically as “pdf” files if authorized by the Engineer. Contractor shall ensure no work has begun until submittals for that item of work have been reviewed and returned with no exceptions taken.

2-5.3.1.1 Submittals Required. The following submittals shall include, but not be limited to:

1. Submittal Schedule
2. Construction Schedule
3. Traffic Control Plan
4. Storm Water Pollution Control Plan
5. Asphalt Concrete Mix Design
6. Slurry Seal Mix Design
7. Asphalt Emulsion Specifications
8. Crack Sealant Product Data
9. Aggregate Base Course
10. Site Concrete
11. Decomposed Granite
12. Pour-In-Place Playground Safety Surfacing
13. Site Furnishings
14. Backflow Prevention
15. Cleanouts
16. Root Control Barrier

2-5.3.3 Shop Drawings. Contractor agrees that Shop Drawing Submittals processed by the Engineer are not Change Orders; that the purpose of Shop Drawing Submittals by the Contractor is to demonstrate to the Engineer that the Contractor understands the design concept, that he demonstrates his understanding by indicating which equipment and material he intends to furnish and install, and by detailing the fabrication and installation methods that he/she intends to use. Contractor further agrees that if deviations, discrepancies or conflicts between Shop Drawing Submittals and the contract documents in the form of design drawings and specifications are discovered either prior to or after Shop Drawing Submittals are processed by the Engineer, the design drawings and specifications shall control and shall be followed. Shop drawings shall include complete fabrication, assembly, and installation drawings for the complete assembly of the system with all components, equipment, and parts, each with an assigned number corresponding to the system manufacturer's parts list. Shop drawings shall also show construction details for each component and piece of equipment. All samples and shop drawings are to be submitted to City within thirty (30) calendar days of the Notice to Proceed. Contractor shall submit shop drawings for the items indicated in the specifications.

2-5.4 Record Drawings. Accurate and legible records shall be kept on a set of contract drawings of all changes of work that occur during construction. Contractor shall record the exact location by dimension, and exact depth, by elevation, of all installed material, etc. All information necessary to maintain and/or service any concealed work shall be noted on these record drawings. Such records shall be kept up to date with all entries checked by the Engineer before the work is buried or covered up. Prior to field acceptance, Contractor shall deliver this information to the Engineer.

2-9 SURVEYING

2-9.1 Permanent Survey Markers. Contractor shall not disturb permanent survey monuments or benchmarks without the consent of the City Engineer, and the Contractor shall bear the expense of replacing or resetting any marker that may be disturbed. Replacement or resetting of any marker shall be done only by a California licensed engineer or land surveyor.

2-9.2 Survey Service. The expense to Contractor for the replacement of construction survey stakes by the City shall be at the rate of \$200 per hour including travel time.

SECTION 3 – CHANGES IN WORK

3-3 EXTRA WORK

3-3.2.3 MARKUP

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

1. Labor20%
2. Materials15%
3. Equipment Rental15%
4. Other Items and Expenditures 15%

To the costs and markups provided for in this subsection, one percent (1%) shall be added as compensation for bonding.

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

SECTION 4 – CONTROL OF MATERIALS

4-1 MATERIALS AND WORKMANSHIP

4-1.2.1 Property Rights in Material. Nothing in the contract shall be construed as vesting in Contractor any right of property in the materials used after they have been attached or affixed to the work or the soil. All such materials shall become the property of the City upon being so attached or affixed.

4-1.4 Test of Materials. The following conditions and materials will be tested by the City in addition to the required manufacturer's or other tests specified: Emulsion-aggregate slurry, bituminous paving materials, and relative compaction. Tests shall be made by and at the expense of the City after a request by Contractor in such number and at such location as deemed necessary by the Engineer to ensure compliance with Specifications; however, the cost of

retesting any portion of the work that has failed the initial tests taken by the City shall be borne by Contractor.

4-1.9 Storage of Materials. Area available within the City of Coronado for storage of materials is limited. Contractor should assume that all materials shall be stored off-site and delivered to the job site as required for construction. If an area within the City is allowed to be used as a storage area, the site shall be kept in a clean condition to the satisfaction of the City and shall conform with Best Management Practices to avoid run-off contamination.

SECTION 5 – UTILITIES

5-2.1 Damage by Contractor. Damage to any existing utility by the Contractor that is discovered within one (1) year after acceptance of the work by the City shall be repaired by Contractor at his expense.

SECTION 6 – PROSECUTION, PROGRESS AND ACCEPTANCE OF WORK

6-1. Construction Schedule. After notification of award of Contract, but no later than ten (10) working days prior to the start of any work, the Contractor shall submit its proposed construction schedule to Project Manager for approval. The schedule shall be in the critical path format developed via project management software such as Primavera or Microsoft Project, and shall identify milestones and sufficient detail to show chronological relationship of all activities of the Work. These include but are not limited to: Notice to Proceed (NTP) which represents the commencement of the Work, estimated start and completion date of various activities, submission of submittals, procurement of materials and scheduling of equipment, Substantial Completion, and Time of Completion (TOC) which represents the final completion of the Work. The construction schedule shall incorporate the requirements of Greenbook section 402-5 and reflect the completion of the Work within the specified Contract time and in conformance with the Contract Documents.

If the Contractor wishes to make a major change in the method of operations after beginning construction, or if the schedule fails to reflect the actual progress, the Contractor shall submit to the Engineer a revised construction schedule in advance of beginning revised operations. **Failure to comply with schedule specifications may delay progress payments.**

6-1.1 Progress Reporting. Contractors shall utilize schedule updates as method to reflect current developments on the project. Schedule updates will be done at least monthly, or as requested by Project Manager. The Contractor will be responsible for preparing percentage of completion per activity, which Project Manager will review and assess against pay application requests. In addition to assigning percentage of completion, the monthly update should specify the actual start date for activities that have started since the last report and completion dates for those activities that have been completed. Should there be logic changes to the as-planned schedule, these changes should be noted in the monthly update as well. If there is a disagreement between the City and Contractor over the status of an activity, the City's determination will prevail.

6-1.2 Ownership of Float. Float or slack is defined as the amount of time between the early start date and the late start date, or the early finish date and the late finish date, of any of the activities of the schedule. Float or slack is not time for the exclusive use or benefit of either the City or the Contractor. Extensions of time for performance will be granted to the extent that equitable time adjustments for the activities or activities affected exceed the total float or slack available.

6.2 Extensions of Time. Should Contractor incur a delay, a written request to the Engineer stating the reason(s) for the delay and the number of working days required shall be submitted within five (5) working days after the delay was incurred. The Engineer shall respond in writing within five (5) working days of the date of receipt of the request. Extension of time, if granted, shall follow the change order process. Time extensions, when granted, will be based upon the effect of the delays to the Work. They will not be granted for noncontrolling delays to minor portions of the Work unless it can be shown that such delays did or will delay the progress of the Work.

6-7 TIME OF COMPLETION

Contractor shall complete the work within 50 working days after the commencement date specified in the Notice to Proceed.

6-9 LIQUIDATED DAMAGES

Failure of Contractor to complete the Work within the time allowed will result in damages being sustained by the Agency. Such damages are, and will continue to be, impracticable and extremely difficult to determine. For each consecutive calendar day in excess of the time specified for completion of the Work, as adjusted in accordance with Subsection 6-6, the Contractor shall pay to the Agency, or have withheld from monies due it, the sum of \$750.00.

Execution of the Contract shall constitute agreement by the City and Contractor that \$750.00 per day is the minimum value of the costs and actual damages caused by the failure of Contractor to complete the Work within the allotted time, that such sum is liquidated damages and shall not be construed as a penalty, and that such sum may be deducted from payments due Contractor if such delay occurs.

6-11 GUARANTEE

All work shall be guaranteed by Contractor for a period of one (1) year from the date of acceptance of the work against defective workmanship and materials furnished by Contractor. Contractor shall promptly replace or repair, in a manner satisfactory to the Engineer, any such defective work after notice to do so from the Engineer, and upon Contractor's failure to make such replacement or repairs promptly, the City may perform this work and the Contractor and his surety shall be liable for the cost thereof.

SECTION 7 – RESPONSIBILITIES OF THE CONTRACTOR

7-2 LABOR

7-2.1 Laws. Pursuant to Sections 1720 et seq. and 1770 et seq. of the California Labor Code, Contractor shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations. Copies of such prevailing rate or per diem wages are on file in the City Engineer's office, which copies shall be made available to any interested party on request at the posted reproduction charge. Contractor shall post a copy of such wage determinations at each job site.

Replace with the following:

7-2.2 Payroll Records. Contractor shall furnish the City certified payroll records for all persons employed by the Contractor and subcontractors in connection with work on the project. Failure to do so will delay payments to the Contractor until such certified payrolls are received by the City. Contractor shall furnish electronic certified payroll records (online) to the Labor Commissioner in addition to submitting records to the City, as applicable.

7-3 INSURANCE

7-3.2 General Liability Insurance. Contractor shall obtain and, during the term of the Agreement, shall maintain a commercial general liability (CGL) insurance policy for bodily injury, personal injury, and property damage in an amount of not less than two million dollars (\$2,000,000) per occurrence and four million dollars (\$4,000,000) aggregate which shall contain the following coverage:

1. Manufacturers' and Contractor's liability.
2. Broad form property damage.
3. Owner's and Contractor's protective liability.
4. Broad form contractual liability.
5. Products and completed operations coverage.
6. Coverage for explosion, collapse, or underground property damage (X, C, U Hazards).

The CGL insurance policy shall be written on an ISO Occurrence Form CG 00 01 12 07, or a substitute form providing equivalent coverage.

Contractor shall likewise obtain and, during the term of the Agreement, shall maintain an automobile liability insurance policy for bodily injury, personal injury and property damage in an amount of not less than one million dollars (\$1,000,000) per occurrence and two million dollars (\$2,000,000) aggregate. Said insurance shall cover liability arising out of any auto (including owned, hired, and non-owned autos). The automobile insurance policy shall be written on an ISO Form Number CA 0001, or a substitute form providing equivalent coverage.

The City of Coronado shall be listed as additionally insured on the required CGL and automobile general liability policies. The Additional Insured Endorsement shall be an ISO Form 20 10 11 85 *or* an ISO Form 20 10 10 01 *and* 20 37 10 01, or their equivalent, including coverage for the City with respect to liability arising out of the completed operations of the Contractor.

Completed operations coverage shall be maintained in effect for the benefit of the City for a period of two (2) years following the completion of the work specified in the Agreement.

The City of Coronado shall accept no endorsement or modification to the CGL limiting the scope of coverage required in this Section.

The policy shall contain a provision stating that Contractor's policy is primary insurance and that insurance (including self-retention) of the City or any named insured will not be called upon to contribute to any loss. The insurance policies must provide that they remain in force for not less than thirty (30) days after a notice is given to the City of the policy's expiration or cancellation. Contractor's insurance will not be accepted if these requirements are not met and evidenced in the submitted documents.

Contractor shall furnish certificates of said insurance and policy endorsements to the Contract Officer prior to commencement of work under the Agreement. Failure on the part of Contractor to procure or maintain in full force the required insurance shall constitute a material breach of contract under which the City may terminate the Agreement with the Contractor.

Contractor shall cause each subcontractor employed by Contractor to purchase and maintain insurance of the type specified above. When requested by City, Contractor shall furnish copies of certificates of insurance and policy endorsements evidencing coverage for each subcontractor. Contractor shall maintain Workers' Compensation insurance and employer's liability insurance to protect City against all claims under applicable state and federal Workers' Compensation laws. Insurance coverage shall not be less than the statutory minimum for Workers' Compensation, and \$1,000,000 for employer's liability. The Contractor shall provide an endorsement that the insurer waives the right of subrogation against the City and its elected officials, officers, employees, agents, representatives and volunteers.

7-5 PERMITS

7-5.1 Licenses. The Contractor shall obtain and pay costs incurred for all licenses necessitated by his operations. Contractor shall obtain a City of Coronado Business License prior to commencing any work on this project.

7.8 WORK SITE MAINTENANCE

7-8.6 Water Pollution Control

7-8.6.1 General. The Contractor shall prepare and submit a Best Management Practices (BMP) plan for construction to the City for review and approval. The plan shall indicate what BMPs will be utilized by the Contractor and where they will be located in order to comply with minimum construction BMP requirements for the City of Coronado as well as all local, state and federal regulations including, but not limited to:

- 1) Water quality requirements as set out in the City of Coronado's Municipal Code Title 61 "Storm Water and Urban Run-off Management and Discharge Control."

- 2) California Regional Water Quality Control Board, San Diego Region, Order R9-2013-0001 and subsequent amendments regarding National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) draining the watersheds within the San Diego Region.
- 3) The most current General Construction Activity Storm Water Permit (GCASP).

The BMP Construction Plan shall be submitted utilizing the City's Sample BMP Site Plan , included in the Drawings for minimum construction BMPs with all required project Submittals and must be approved prior to issuance of a Notice to Proceed unless otherwise approved by the Engineer. This project is considered medium threat project.

The Contractor shall implement, monitor, and revise the BMP Construction Plan as needed to suit changing Project site conditions and/or when properly installed systems are ineffective. Review and approval of the BMP Construction Plan and field inspections completed by the Agency do not relieve Contractor from liabilities arising from non-compliance of storm water pollution regulations.

Compliance with State Water Resources Control Board (SWRCB) requirements is the sole responsibility of Contractor. All fines levied as a result of the Contractor's failure to comply with the requirements of SWRCB, and/or the BMP Construction Plan, shall be the Contractor's responsibility. If there is any fine against the Agency due to non-compliance by the Contractor, Agency shall recover all costs of the fine by deducting monies from payments due to the Contractor.

Time extensions will not be allowed for any suspension of work as a result of the Contractor's non-compliance with the BMP Construction Plan.

7-8.6.3 Storm Water Quality Management Plan (SWQMP). The Contractor shall implement the SWQMP with these Special Provisions. The Notice of Intent will be filed by the City. The Contractor shall implement, monitor, and revise the SWQMP as needed to suit changing Project site conditions and/or when properly installed systems are ineffective.

Implementation of the SWQMP and field inspections completed by the Agency does not relieve Contractor from liabilities arising from non-compliance of storm water pollution regulations.

Compliance with State Water Resources Control Board (SWRCB) requirements is the sole responsibility of Contractor. All fines levied as a result of the Contractor's failure to comply with the requirements of SWRCB and/or the SWQMP shall be the Contractor's responsibility. If there are fines against the Agency due to non-compliance by Contractor, Agency shall recover all costs of the fine by deducting monies from payments due to the Contractor.

Time extensions will not be allowed for any suspension of work as a result of the Contractor's non-compliance with the SWQMP.

7-8.6.5 Payment. Payment for the preparation and implementation of the BMP Construction Plan/SWQMP shall be included in the lump sum bid price for BMP Construction Plan/SWQMP Preparation & Implementation.

7-9. LANDSCAPING EQUIPMENT. The Contractor shall only utilize battery-powered leaf blowers; no gas powered leaf blowers will be used on the project.

7-10 SAFETY

7-10.1.1 Work Area Hazards. Upon completion of each day's work, the Contractor shall be responsible for leaving the work area free of hazards and shall provide all necessary temporary signs, warning devices, and barricades.

7-10.1.2 Removal of Mark-out Paint. Upon substantial completion of all construction work and prior to final completion, the Contractor shall remove all construction and DigAlert mark-out paints from streets, roadways and all other locations in the public right-of-way where markings have been placed during construction. Mark-out paint may be removed using power washing or any other removal method approved by the Engineer. The Contractor shall install temporary BMPs to prevent wash water from entering into the City's storm drain system.

7-10.2.1 Storage of Equipment and Materials in Public Streets. Approval in writing must be obtained from the City Engineer to store equipment or materials within public rights-of-way.

7-10.2.2 Storage of Portable Restrooms. The Contractor shall be permitted to use the public right-of-way during public improvement projects for temporary storage of portable restrooms; however, the containment and location must be as follows:

1. Each portable restroom facility (port-a-potty) must be supplied with a spill tray or other type of secondary containment.
2. Each portable restroom staged on a public street must be relocated every five (5) days or placed within a secured, screened, fenced staging area approved by the Engineer.

7-10.4 Safety.

7-10.4.1.2 Work Site Safety Official. The Contractor shall develop and maintain for the duration of this Contract, a safety program that will effectively incorporate and implement all required safety provisions. The Contractor shall appoint an employee who is qualified and authorized to supervise and enforce compliance with the safety program.

The duty of the City and its consultants is to conduct construction review of the Contractor's performance and shall not include a review or approval of adequacy of the Contractor's safety supervisor, the safety program, or any safety measures taken in, on, or near the construction site.

If death or serious injuries or serious damages are caused, the accident shall be reported immediately by telephone or messenger to the City's inspector or other representative. In

addition, the Contractor must promptly report in writing to the City all accidents whatsoever arising out of, or in connection with, the performance of the work whether on or adjacent to the site, giving full details and statements of witnesses.

7-10.4.1.3 Public Safety During Non-Working Hours. Notwithstanding the Contractor's primary responsibility for safety on the job site when the Contractor is not present, the Engineer, at his option after attempting to contact the Contractor, may direct City forces to perform any functions he may deem necessary to ensure public safety at or in the vicinity of the job site. If such procedure is implemented, the Contractor will bear all expenses incurred by the City.

In all cases, the judgment of the Engineer shall be final in determining whether or not an unsafe situation exists.

7-10.4.2 Safety Orders.

7-10.4.2.1 General. The Contractor shall be solely and completely responsible for conditions on the job site, including safety of all persons (including employees) and property during performance of the work. This requirement shall apply continuously and is not limited to normal working hours. Safety provisions shall conform to U. S. Department of Labor, the California Occupational Safety and Health Act (OSHA), and all other applicable federal, state, county, and city laws, ordinances, codes, the requirements set forth below, and any regulations that may be detailed in other parts of these documents. Where any of these are in conflict, the more stringent requirement shall be followed. The Contractor's failure to thoroughly familiarize himself with the aforementioned safety provisions shall not relieve him from compliance with the obligations and penalties set forth herein.

The Contractor shall develop and maintain for the duration of this Contract, a safety program that will effectively incorporate and implement all required safety provisions.

7-10.5.2 Security and Protection Devices.

7-10.5.3 Steel Plate Covers. Steel plate covers, if required on roadways, shall be recessed by milling into the existing asphalt to set the plate flush with the surface of the existing roadway. The depth and width of the milling shall match the thickness and size of the steel plate to be used. The steel plate shall overlap a minimum of twelve (12) inches on the existing milled asphalt on all sides of the trench. The gap between the edge of the steel plate and the existing adjacent asphalt shall be filled with temporary asphalt.

Steel plates used on PCC roadways or alleys shall be placed over the trench and overlap a minimum of twelve (12) inches on all sides and be anchored securely to prevent movement. Temporary asphalt shall be used to feather the edges of the plate to taper the difference in elevation.

In all cases, temporary asphalt shall be used to eliminate vertical movement to reduce the sound of vehicles traveling over the steel plates.

7-13

LAWS TO BE OBSERVED

7-13.1 Noise Control. Contractor shall adhere to the applicable provisions of Title 41 of the Coronado Municipal Code, Noise Abatement and Control Ordinance; and, in particular, shall observe the construction noise curfew between 7:00 p.m. and 7:00 a.m. of any weekday and at all times on Sundays and holidays (Sections 41.10.040 and 41.10.050) as described below:

41.10.040 Construction Noise Curfew.

A. It shall be unlawful for any person, between the hours of 7:00 p.m. and 7:00 a.m. of any day or on legal holidays and Sundays to erect, construct, demolish, excavate for, alter or repair any building or structure in such a manner as to create a disturbing, excessive or offensive noise unless a noise control permit has been applied for and granted beforehand by the Noise Control Officer. In granting such a permit, the Noise Control Officer should consider whether the construction noise in the vicinity of the proposed work site would be less objectionable at night than during the daytime; whether obstruction and interference with traffic, particularly on streets of major importance, would be less objectionable at night than during the daytime; whether the type of work to be performed emits noises at such a low level as to not cause significant disturbances in the vicinity of the work site; the character and nature of the neighborhood of the proposed work site; whether great economic hardship would occur; if the work is in the general public interest; and he shall prescribe such conditions, working time, types of construction equipment to be used and permissible noise levels as he deems to be required in the public interest.

B. The provisions of Subsection A of this Section shall not apply to emergency work as defined herein, provided that the Noise Control Officer shall be notified in writing of such emergency work no later than forty-eight (48) hours after work commences.

41.10.050 Construction Noise Limits.

Except as provided in Section 41.10.040 B above, it shall be unlawful for any person, including the City of Coronado, to conduct any construction activity so as to cause, at or within the property lines of any property zoned residential, an average sound level greater than seventy-five (75) decibels during a one-hour period any time between the hours of 7:00 a.m. and 7:00 p.m. unless a variance has been applied for and granted by the Noise Control Officer.

SECTION 8 – OMIT

SECTION 9 – MEASUREMENT AND PAYMENT

9-3

PAYMENT

9-3.2 Partial and Final Payment. From each progress estimate, five percent (5%) will be deducted and retained by the City and the remainder, less the amount of all previous payments, will be paid to the Contractor. The five percent (5%) retention shall apply to all work done regarding which there is no dispute.

9.3.3 Standard Pay Application. Contractor shall use AIA form G702 Application and Certificate of Payment and G703 Schedule of Values or similar as approved by the City's Project Manager.

SECTION 10 – DISPUTES

10-1 If a dispute should arise regarding the performance of this Contract, the following procedures shall be used to address any question of fact or interpretation not otherwise settled by agreement between the parties. Such questions, if they become identified as part of a dispute between persons operating under the provision of the Contract, shall be reduced to writing by the complaining party. A copy of such documented dispute shall be forwarded to the other party involved, along with recommended methods of resolution that would be of benefit to both parties. The party receiving the letter shall reply to the letter along with a recommended method of resolution within ten (10) days of receipt of the letter.

10-2 If the dispute is not resolved, the aggrieved party shall send a letter outlining the dispute to the City Engineer to be resolved.

10-3 If the dispute remains unresolved and the parties have exhausted the procedures of this section, the parties may then seek remedies available to them at law or in equity.

10-4 Pursuant to Public Contracts Code section 20104, a claim by the Contractor for a time extension; payment of money or damages arising from work done by or on behalf of the Contractor pursuant to the Contract which is not otherwise expressly provided for or the claimant is not otherwise entitled to; or an amount the payment of which is disputed by the City, shall be dealt with as follows:

A. The claim shall be in writing and include the documents necessary to substantiate the claim. Claims must be filed on or before the date of final payment. Nothing in this subdivision is intended to extend the time limit or supersede notice requirements otherwise provided by the Contract for the filing of claims.

B. Claim of less than fifty thousand dollars (\$50,000):

1. For claims of less than fifty thousand dollars (\$50,000), the City shall respond in writing to any written claim within forty-five (45) days of receipt of the claim, or may request, in writing, within thirty (30) days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims the City may have against the claimant.

2. If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the City and the claimant.

3. The City's written response to the claim, as further documented, shall be submitted to the claimant within fifteen (15) days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.

C. Claim of fifty thousand dollars (\$50,000) or more:

1. For claims of fifty thousand dollars (\$50,000) or more, the City shall respond in sixty (60) days of receipt of the claim, or may request, in writing, within thirty (30) days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims the City may have against the claimant.

2. If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.

3. The City's written response to the claim, as further documented, shall be submitted to the claimant within thirty (30) days after receipt of the further documentation, or within a period of time no greater than that taken by the claimant in producing the additional information or requested documentation, whichever is greater.

D. If the claimant disputes the City's written response, or the City fails to respond within the time prescribed, the claimant may so notify the City, in writing, either within fifteen (15) days of receipt of the local agency's response or within fifteen (15) days of the City's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the City shall schedule a meet and confer conference within thirty (30) days for settlement of the dispute.

E. If following the meet and confer conference the claim or any portion remains in dispute, the claimant may file a claim pursuant to Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time the claimant submits his or her written claim pursuant to Subsection A until the time the claim is denied, including any period of time utilized by the meet and confer conference.

F. A civil action filed to resolve a claim subject to Section 10-4 of this Contract shall be subject to the provisions of PCC Sections 20104.4 and 20104.6.

END OF PART 1

SPECIAL PROVISIONS

PART 2 – CONSTRUCTION MATERIALS

The following Sections supplement and supersede the Standard Specifications. The numbering and paragraphing follows that of the STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2018 Edition.

SECTION 200 – ROCK MATERIALS

200-1.2 Crushed Rock and Rock Dust.

200-1.2.1 General. Shall be free of debris, roots, wood, scrap material, vegetation, soft unsound particles, deleterious or objectionable materials.

SECTION 201 – CONCRETE, MORTAR, AND RELATED MATERIALS

201-1 PORTLAND CEMENT CONCRETE

201-1.1 Requirements.

201-1.1.1 General. Prepackage unmixed concrete shall not be allowed.

201-1.1.2 Concrete Specified by Class. The concrete class and maximum slump for the various types of construction shall be as follows:

<u>Type of Construction</u>	<u>Concrete Class</u>	<u>Maximum Slump (inches)</u>
Concrete Pavement	560-C-3250	4
Curb, Gutter, Sidewalk and Driveways	520-C-2500	4
Cross Gutter	560-C-3250	4

201-1.2 Materials.

201-1.2.1 Cement. Portland Cement. All cement to be used for concrete shall be Type V.

201-2 REINFORCEMENT FOR CONCRETE

201-2.2 Steel Reinforcement.

201-2.2.1 Reinforcing Steel. All reinforcing steel used on this project shall be Grade 60 billet steel conforming to ASTM A-615.

SECTION 203 – BITUMINOUS MATERIALS

203-1 PAVING ASPHALT

203-1.1 General. The asphalt concrete design mix shall be submitted for approval a minimum of two (2) weeks prior to start of construction.

203-1.3 Test Reports and Certification. The Contractor shall furnish asphalt in conformance with Caltrans “Certification Program for Suppliers of Asphalt.” Caltrans maintains the program requirements, procedures, and a list of approved suppliers.

The Contractor shall prevent the formation of carbonized particles caused by overheating asphalt during manufacturing or construction.

203-3 EMULSIFIED ASPHALT

203-3.1 General. Emulsified Asphalt for tack coat to existing asphalt pavement and contact with PCC surfaces shall be SS-1h slow setting anionic emulsion.

203-5 SLURRY SEAL

203-5.1 General. Slurry Seal shall be emulsion aggregate slurry (EAS) conforming to 203-5.4.

203-5.4 Emulsion-Aggregate Slurry (EAS).

203-5.4.1 General. EAS shall be TYPE I-CQS-1h-EAS.

203-6 ASPHALT CONCRETE

203-6.1 General. Materials incorporated in the work shall be manufactured, handled and used in compliance with Section 203-6 of the Standard Specifications for Public Works Construction.

The Contractor shall furnish the Engineer, at least two (2) weeks prior to the start of work, with a list of material sources together with Certificates of Compliance, indicating that materials to be incorporated in the work fulfill the requirements of these specifications. The Certificates of Compliance shall be signed by the material supplier or representative. The Engineer may permit the use of paving materials, aggregate, cement line, anti-strip agents, asphalt, or any combination thereof prior to sampling and testing when accompanied by a Certificate of Compliance.

203-6.2 Materials.

203-6.2.1 Asphalt Binder. The amount of liquid asphalt, by weight, to be added to the aggregate shall be as specified by the Contractor, subject to approval by the City Engineer. The amount specified shall be within the general range of percentages of the total mixed materials.

The actual amount, however, will be determined through a complete asphalt concrete mix design performed on materials intended for use on the project.

The allowable tolerance in percentage of asphalt content from that percentage specified by the engineer shall be ± 0.3 percent.

203-6.2.3 Rock Products for Type III Asphalt Concrete Mixtures. *Add the following:*

Anti-Strip Agents: When aggregate is found to be subject to stripping via prescribed test procedures, dry hydrated lime conforming to the requirements of ASTM C 207, or Type N Portland cement conforming to applicable requirements, or other approved anti-strip agents shall be added. The other approved anti-strip agents are to be added in accordance with the manufacturer's recommendations.

203-6.3 Job Mix Formula (JMF) and Mix Design.

203-6.3.1 General. The Contractor shall furnish the Engineer with a Job Mix Formula (JMF) for the asphalt concrete no later than two (2) weeks prior to actual placement of the material. The JMF shall indicate the percentage passing each specified sieve size and percent asphalt to be used for each asphalt concrete mixture to be incorporated in the work. The job mix formula (gradation), with allowable tolerance for a single test, shall be used for job control. Single test variation tolerance is shown below. In no event shall there be less than two percent (2%) passing the No. 200 sieve.

**JOB MIX FORMULA GRADING TOLERANCE
(FOR SINGLE TEST)**

<u>SIEVE SIZE</u>	<u>PERCENT</u>
No. 4	± 6
No. 30	± 5
No. 200	± 2
Asphalt, percent by weight of mix	± 0.3

The Engineer shall have the right to obtain samples for all materials to be used in the work and to test such samples for the purpose of determining specification compliance. The Engineer reserves the right to obtain said samples at the point of delivery and/or at the point of manufacture. The Engineer shall also have the right to inspect sources of materials to be used in the work to determine acceptability of procedures used by the material supplier.

203-16 AC Pavement Crack Sealant. Subsection 203-16 is hereby added to Section 203 of the Standard Specifications.

203-16.1 General. Crack sealant product materials shall conform to ASTM D6690. Contract shall submit the crack sealant product data in accordance with Section 2-5.3.

SECTION 214 – TRAFFIC STRIPING, CURB AND PAVEMENT MARKINGS, AND PAVEMENT MARKERS

214-4 PAINT FOR STRIPING AND MARKINGS

214-4.1 General.

Traffic striping, pavement markings, and/or curb painting shall be waterborne-based paint unless otherwise noted and shall conform to the provisions in Sections 314 – Traffic Striping, Curb and Pavement Markings, and Pavement Markers of the Standard Specifications and these Special Provisions. Paint material shall be used at its manufactured consistency and shall conform to the requirements of the State of California Department of Transportation specifications PTWB-01R2. Paint shall correspond to SWARCO brand traffic paint, or approved equivalent:

SWARCO 1140/1160 Series

Waterborne acrylic traffic paint (TTP-1952E Type I/TTP-1952E TYPE II)

WHITE – Product Code ZB1140

RED – Product Code ZB1151/1161

BLUE – Product Code ZB1164

YELLOW – Product Code ZB1146

GREEN – Product Code ZB1162

BLACK – Product Code ZB1147

All paints may be obtained from Traffic Safety Materials, LLC, 7722 Clairemont Mesa Blvd., San Diego, CA 92111; (619) 450-8987 or any other supplier.

END OF PART 2

SPECIAL PROVISIONS

PART 3 – CONSTRUCTION METHODS

SECTION 300 – EARTHWORK

300-1 CLEARING AND GRUBBING

300-1.3 Removal and Disposal of Materials.

300-1.3.1 General.

The Contractor shall remove all debris from the project site by the end of each work day. The Contractor shall remove all items indicated on plans and as necessary to complete the work and/or as may be directed by the Engineer, to the satisfaction of the Engineer.

The Contractor shall submit proposed salvage, demolition, and removal procedures for approval before work is started. Procedures shall provide for careful removal and disposition of materials specified for salvaging, coordination with other work in progress, a disconnection schedule of all utility services, and a detailed description of methods and equipment to be used for each operation and of the sequence of operations.

The Contractor is responsible for repairing all irrigation lines, hardscape, and appurtenances damaged or removed as part of the construction.

The Contractor shall be responsible for root removal and disposal. Where severe root removal is required Contractor shall contact City Arborist before removing roots.

The Contractor shall use extreme caution in protecting all existing improvements adjacent to the project including PCC improvements, irrigation facilities and appurtenances, trees, water meters, parkway drains, walkways, brickwork, etc. Contractor shall be responsible for replacing damaged improvements in kind as a result of construction operations.

Clearing and grubbing shall include pruning of existing trees and bushes as indicated on the plans and as directed by the Engineer.

Vehicle and Equipment Storage and Maintenance Area. Payment will be considered as included and made to the contractor at the contract bid price for Mobilization. Payment will include the installation, maintenance, relocation (as deemed necessary by the contractor), and removal and disposal of all materials resulting from the use of the area.

Section 4216/4217 of the Government Code requires a DigAlert identification number be issued at least two (2) working days prior to a “Permit to Excavate” will be valid. For a DigAlert identification number, Contractor shall call the following Underground Service Alert, services and utilities:

DigAlert	811
Coronado Police Department	619-522-7350
AT&T	619-266-4248
California-American Water	619-522-6403
San Diego Gas & Electric	800-411-7343
Spectrum (cable TV, Internet)	858-635-8266

300-1.3.2 Requirements.

Root Pruning: The Contractor shall be responsible for root pruning, removal and disposal of roots as follows:

A. Tree roots shall not be pruned or cut unless their removal is unavoidable or absolutely necessary. The City Arborist shall be notified prior to any operation known or suspected to involve cutting of more than:

1. Two roots, three (3) inches or more in diameter; and/or
2. Four (4) roots between two (2) and three (3) inches in diameter. The City Arborist shall be notified immediately in the event that roots in excess of that described above are cut, torn, ripped, or otherwise injured.

B. The Contractor shall avoid pruning roots within ten (10) feet of the trunk of the tree when possible. Outside of the 10-foot range, the Contractor shall consider an alternative to cutting roots greater than two (2) inches in diameter. If no alternative is available, cleanly cut root back to a sound wood lateral root as approved by the City Arborist.

C. Upon approval by the City Arborist, prior to any excavation, removal of curb, curb and gutter, sidewalk, roadway pavement or other activity that will result in removal of soil and tree roots, the Contractor shall break existing improvements into manageable pieces with a jackhammer or pick and hand load the pieces onto a loader. The loader must remain on undisturbed pavement or off exposed roots. The Contractor shall not remove base rock that has been exploited by established absorbing roots. All tree roots within a designated area will be pruned to a depth of fourteen (14) inches. Pruning shall occur with a Dosko Root Pruner, or equivalent, in accessible areas, and by hand in areas inaccessible to the root pruning machine. All other root pruning shall be done by hand with approved tools.

D. Removal of roots greater than one (1) inch diameter or parts of roots that are injured or diseased should be performed as follows:

1. Preserve the root bark ridge (similar in structure and function to a branch bark ridge). Directional root pruning is the recommended technique and should be used during hand excavation around tree roots. Roots are similar to branches in their response to pruning practices. With directional root pruning, objectionable and severely injured roots are properly cut to a lateral root, if possible, that is growing downward or in a favorable direction.

2. All roots needing to be pruned or removed shall be cut cleanly with sharp hand tools, with oversight by the City Arborist or Project Consulting Arborist. No wound dressings shall be used.

3. Recommended root pruning tools:

- a. Scissor-type lopper.
- b. Scissor-type pruner.
- c. Large and small hand saws.
- d. Wound scribe.
- e. Trowel or small shovel.
- f. Garden fork.
- g. Hand broom.

E. The Contractor shall apply untreated wood chips over the exposed area within one hour of pruning, then wet the chips and base rock and keep moist until AC overlay surface is applied. Remove wood chips prior to construction of asphalt concrete surface.

F. The Contractor shall install root barriers as directed by the City Arborist and in compliance with root control barrier manufacturer's recommendations.

300-1.4 Payment. Payment for clearing and grubbing shall be made at a lump sum bid price and shall include full compensation for saw cutting, demolition and removal and disposal of all items shown on the plans or required to be removed in order to construct the improvements, including tree root pruning and disposal of roots, and no additional compensation will be allowed therefor.

300-4 UNCLASSIFIED FILL

300-4.3 Other Fill Materials. Select fill shall be in-situ soils conforming to Section 300-4 of the Standard Specifications and these Special Provisions.

300-4.9 Measurement and Payment.

No separate payment shall be made for unclassified fill. Payment for unclassified fill shall be included in the contract price for Unclassified Excavation and other related items of work. Fill work shall include over-excavation and re-compaction of existing subgrade soils to achieve subgrade compaction prior to the placement of fill, and filling and grading, stockpiling, loading, and hauling to final location and disposing of surplus material at a legal disposal site and all work included with this Section and Section 300-2.

SECTION 302 – ROADWAY SURFACING

302-1 COLD MILLING OF EXISTING PAVEMENT

302-1.8 Disposal of Millings.

Removal shall consist of planing and cutting the pavement where indicated and removing the loosened material. No aggregate shall remain on the project at the end of each workday. Aggregate material loosened and directly removed shall become the property of the Contractor and shall be disposed of off the site in accordance with Section 300-1.3.

302-1.11 Measurement.

Cold milling will be measured by square foot.

302-1.12 Payment.

The contract unit price per square foot for cold milling shall be considered as full compensation for furnishing all labor, tools, materials and equipment for doing all work necessary to complete the cold milling process, including removal and disposal of grindings and no additional compensation will be allowed therefor.

302-4 SLURRY SEAL SURFACING

302-4.1 General.

302-4.1.1 The slurry seal work consists of furnishing all labor, materials, tools, equipment and incidentals necessary for the complete application of Type I slurry seal.

302-4.1.2 Slurry seal shall consist of a mixture of emulsified asphalt and shall have mineral aggregate and water, properly proportioned, mixed and spread evenly on pavement surfaces, as specified herein and as directed by the Engineer. The cured slurry shall have a uniform appearance, fill all cracks, adhere firmly to the surface, and have a skid-resistant surface. Materials for emulsion aggregate shall conform to Section 203-5.

302-4.1.3 The Contractor shall be fully responsible for locating and obtaining permission to use stockpile sites. Aggregate may be stockpiled on public property sites approved by the City. Where the Contractor may find it advantageous to use private property, he shall make his own arrangements for its use, obtain appropriate permits, and assume full responsibility for its rental, preparation, and maintenance. The Contractor shall clean up public or private property in a manner satisfactory to the City and the property owner. Precautions shall be taken to ensure that stockpiles do not become contaminated with oversized rock, clay, silt, or excessive amounts of moisture; segregation of the aggregate will not be permitted.

302-4.3 Continuous Flow Mixers.

302-4.3.1 General.

Mixing shall be performed by a continuous-flow mixing machine. Mixing shall continue until all particles are uniformly saturated and coated with asphalt. Evidence of solidification of the asphalt, balling or lumping of the aggregates, or the presence of uncoated aggregates, shall be cause for rejection of the mixture. Consistency of the mixed slurry shall be measured using a machined-surface brass cone per ISSA test 106/ASTM C-128. The aggregate shall be at atmospheric temperature and shall not have a moisture content in excess of five percent (5%) of dry weight. The moisture content shall be determined before loading the aggregate on the slurry truck.

302-4.5 Scheduling Public Convenience and Traffic Control.

In addition to the requirements of Part 6, the Contractor shall comply with the following:

The Contractor shall be responsible for furnishing, posting, and removing “Temporary No Parking” signs along all routes.

“Temporary No Parking” signs required for the project shall be posted at least seventy-two (72) hours before the effective date and time. The date and day of week must be marked on each sign. The Contractor is responsible for posting “No Parking” signs on any section of street where such a prohibition is necessary to allow the work to be accomplished. The number of “No Parking” signs required to provide adequate notice shall be determined by the Contractor and approved by the Engineer. Generally, signs shall be no greater than fifty (50) feet apart and be facing oncoming traffic. If weather or other circumstances prevent work to be finished before expiration of the posted parking ban, new signs with revised “No Parking” information shall be posted at least seventy-two (72) hours before any tow-aways are requested by the Police Department. It is the Contractor’s responsibility to contact the Police Department and arrange for tow-aways.

The following entities shall be notified at least seventy-two (72) hours in advance of any street closure or restriction to access by the Contractor. Coordination of established service schedules will be available to the Contractor at the pre-construction meeting.

1. City Engineer
2. Solid Waste Disposal Company (EDCO)
3. Post Office
4. Schools

The Contractor is responsible for noticing residents and businesses on streets adjacent to any project work by use of paper door hangers. Such door hangers shall also give specific information as to the dates and times when parking is prohibited, and shall be posted seven (7) calendar days before the effective date. Information on the door hanger shall include the anticipated dates of the work, the name of the company performing the work, and the name and phone number of a designated company contact for the project. Information to be provided on the door hanger shall be approved by the Engineer prior to distribution.

In addition to the paper door hangers, the Contractor shall make the following special notifications:

For convenience to the Contractor in complying with other provisions of this section, the following telephone numbers are listed:

Emergency	911
Fire Department	522-7374
Police Department	522-7350
Engineering Division	522-7383
Public Services Division	522-7380

If the above telephone numbers are changed, the Contractor is not relieved of responsibility for notifying the various departments.

302-4.8 Spreading and Application.

Prior to the application of slurry to any road segment, the Contractor shall complete all necessary repair work to the road segment in a manner satisfactory to the Engineer and in accordance with these Specifications. Preparatory work shall include tree trimming, weed spray, weed abatement, crack sealing, asphalt repair, hump removal, miscellaneous asphalt patching, removal of raised pavement markers, removal of pavement markings, etc. No preparatory asphalt work shall be done when the atmospheric temperature is below 50 degrees Fahrenheit or during unsuitable weather.

Decorative and tile walkway crossings, if any, shall be protected from slurry seal operations.

Power brooms, power blowers, air compressors, water flushing equipment, and hand brooms shall be suitable for cleaning the surface and cracks of the old surface. Contractor shall furnish a power street sweeper with operator to clean the asphalt pavement the same day the street is sealed. The sweeper shall have a steel gutter broom and a rear plastic broom, and a three (3) yard minimum capacity hopper. If water is used, cracks will be allowed to dry thoroughly before slurry sealing. Manholes, valve boxes, drop inlets, and other service entrances will be protected from the slurry seal by a suitable method. The Engineer shall approve the surface preparation prior to sealing.

Surface oil and grease shall be removed or sealed with emulsified gilsonite or equivalent material approved by the Engineer before the application of slurry seal.

Immediately prior to spreading the slurry, the Contractor shall clean the surface and remove all loose material, silt spots, vegetation or other objectionable matter, and thoroughly sweep from curb face to curb face with a pickup power sweeper. Slurry will not be applied until the surface condition is satisfactory to the Engineer. Power sweepers or other equipment used to clean the surface shall be those normally used for the purpose and shall be approved by the Engineer.

The surface of pavement shall be fogged with water directly preceding the application of the slurry. The slurry mixture shall be of the designed consistency when deposited on the surface and no additional elements shall be added. Total mixing time shall not exceed four (4) minutes. A sufficient amount of slurry shall be carried in all parts of the spreader at all times so that complete coverage is obtained. No rippling, lumping, balling, or unmixed aggregate shall be permitted, nor shall segregation of the emulsion and fine aggregate from the coarse aggregate. If the coarse aggregate settles to the bottom of the mix, the slurry shall be removed from the pavement. No excessive breaking of the emulsion in the spreader box will be allowed, nor shall the condition known as "skinning over/false set" of the slurry be allowed. No streaks such as those caused by oversize aggregate will be left in the finished pavement. No more than twenty-five percent (25%) water can be used in the mixture without the approval of the Engineer (includes water in the emulsion and mixing water). No additional water shall be added after material leaves pug mill. If test results indicate that more than twenty-five percent (25%) water has been added, the following monetary percentages (%) shall be deducted from that day's pay:

<u>Total % of Water</u>	<u>% Deduction</u>
0 - 25.0	0
25.1 - 29.9	10
30.0 - 34.9	25
Over 35.0	100

Care shall be exercised to ensure the maximum rate of application with no excess, and leaving no unsightly appearance. The Contractor shall be responsible for the removal of all excess emulsion spread beyond street limits, on driveways, sidewalks, etc. No excessive build-up causing unsightly appearance shall be permitted on longitudinal or transverse joints. Unless otherwise approved, the overlap at joints will not exceed two inches (2") and shall be feathered; joints between asphalt pavement and concrete pavement and/or concrete gutters shall be completely and neatly sealed without excessive slop-over onto the concrete; and unsightly and objectionable excess shall be immediately removed. At street intersections at the beginning and end of work segments, the slurry shall be neatly spread or trimmed to a straight line defined by the near curb lines of the street adjacent to the work. The beginning and end of a slurry seal area shall be a clean, straight line created by placing fifteen (15) lb. felt paper to create the line. Asphalt alley aprons abutting streets to be slurry sealed shall be slurry sealed to straight cut-off line.

Not less than five (5) days or more than thirty (30) days following placement of slurry seal, the streets will be re-swept to remove the gravel rebound from vehicular traffic. No separate payment will be made for this service.

302-4.9 Field Testing and Sampling.

302-4.9.1.1 Slurry Consistency (Slurry Slump Test). Consistency of the mixed slurry shall be measured using a machined-surface brass cone (per ISSA test 106/ASTM C-128). The cone shall be a hollow .8 mm. minimum metal frustrum, 75 mm. high, with 40 mm. top inside diameter, and 90 mm. inside base diameter. The flow scale shall consist of seven (7) concentric circles in one centimeter increasing radii from the circle formed by the outside larger end of the

slump cone. The material on which the seven (7) concentric rings appear shall be 8-½" x 11" Xerox paper "Simpson # 7 ID 13351 10 M" or equal.

The test will consist of sampling the mixed slurry, then immediately pouring the sample into the top of the cone. Strike the slurry off even with the top of the cone, and then raise the cone immediately. The flow shall be measured at four (4) points ninety degrees (90°) apart and then averaged. The average shall be between 2.0 and 3.0 cm. If the slurry mix is not within these specifications, the water content of the slurry shall immediately be corrected to meet these specifications.

No application of slurry seal shall occur until cleaning, weed removal, crack sealing, and other preliminary pavement repairs have been completed. The surface shall be thoroughly cleaned and swept prior to the application of slurry seal. No slurry shall be applied when the weather forecast indicates a probability of rainfall or when the air or pavement temperature is no higher than sixty degrees (60°) F and falling. Slurry may be applied when both air and pavement temperatures are sixty degrees (60°) F and rising.

302-4.10 Measurement and Payment.

Payment for slurry seal shall be made at the contract unit price per square foot in the Bid Schedule for Emulsion-Aggregate Slurry, and shall be based on the estimated quantities on the bid sheet. Any field measurements made to verify or dispute bid sheet quantities by the Contractor must be made with the Engineer present. The contract Unit Price shall include full compensation for all labor, equipment, and materials necessary to complete the Slurry Seal, Type I application, including street sweeping, posting notices, and all other incidental work. Actual pay quantity measurements shall be done at the end of each working day and agreed upon by both the Contractor and the Engineer's representative.

The following subsections are hereby added to the Standard Specifications:

302-4.12 Applicable Publications

The following publications of the issues listed below, but referred to thereafter by basic designation only, form a part of this Specification and to the extent indicated by the reference thereto.

302-4.12.1 American Association of State Highway and Transportation Officials (AASHTO) Publications:

M140-70	Emulsified Asphalt.
M208-72	Cationic Emulsified Asphalt.

302-4.12.2 American Society for Testing and Materials (ASTM) Publications:

C117-76	Amount of material finer than No. 200 sieve in mineral aggregates by washing.
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C128-73	Specific gravity and absorption of fine aggregate.
C131-76	Resistance to abrasion of small size coarse aggregate.
C136-76	Sieve or screen analysis of fine and coarse aggregate.
D75-71	Sampling aggregates.
D242-70	Mineral filler for bituminous paving mixtures.
D977-73	Emulsified asphalt.
D1856-75	Recovery of asphalt from solution by Abson method.
D2172-75	Quantitative extraction of bitumen from bituminous paving mixtures.
D2397-73	Cationic emulsified asphalt.
D2419-74	Sand equivalent of soils and fine aggregates.
D3666-78	Inspection and testing agencies for bituminous pavement.

302-4.12.3 State of California, Department of Public Works, Division of Highways
Publication:

355A Test method for design of slurry seal.

302-14 Crack Sealing

Existing cracks or holes one-quarter inch ($\frac{1}{4}$ ") or larger shall be cleaned, repaired and filled with liquid asphalt, slurry, hot mix or as directed by the Engineer. Existing cracks smaller than one-quarter inch ($\frac{1}{4}$ ") shall be cleaned of vegetation only. Contractor shall not seal areas with extensive alligator cracking consisting of several broken pieces as determined by the Engineer.

All cracks to be sealed shall be completely clean, dry, and free of all loose material, vegetation, and any other foreign substances which may cause the sealant not to adhere to the crack wall. The pavement surface shall be swept clean of all foreign and loose material for a minimum of six (6) inches on either side of the crack. The loose material shall be removed from the work area prior to applying the crack sealing material.

Cracks shall be cleaned using a hot compressed air lance (HCL) apparatus or as otherwise approved by the Engineer. The Contractor shall clean and dry all cracks with the HCL immediately before sealing. Air exiting the lance shall be heated to a temperature sufficient enough to remove the oxidized surface from the crack walls.

Sealant shall be applied from the bottom of the crack, up to the surface, in a manner which does not result in sealant bridging or entrapping air pockets. The sealant shall be applied to a slightly overfilled condition and then leveled with a squeegee. The over band shall not exceed one and one-half inches ($1 \frac{1}{2}$ ") on either side of the crack. After the sealant has cooled, there may be a slight depression of not more than one-eighth inch ($\frac{1}{8}$ ") below the adjacent pavement.

Cracks not cleaned or properly sealed shall be rejected and all costs incurred for removal and replacement of the rejected areas shall be borne exclusively by the contractor.

302-14.1 Payment. Payment for all work associated with crack sealing including all labor, material, and equipment costs shall be considered included in the lump sum bid for Crack Seal.

303-5 Concrete Curbs, Walks, Gutters, Cross Gutters, Alley Intersections, Access Ramps, and Driveways.

303-5.1 Requirements,

303-5.1.1 General.

The curb ramp work will conform to the requirements of Section 303-5 of the Greenbook as modified herein. The work will consist of the following:

The Contractor shall be solely responsible for means and methods for laying out and verifying all proposed curb ramp and appurtenance grades, including all associated sidewalks, curbs, and gutter plates, in accordance with Caltrans Standard Plans and as indicated in the construction documents. The final grades for all constructed curb ramps and appurtenances shall not exceed maximum grades indicated in the Standard Plans and the construction documents. **There shall be no construction tolerances allowed.** Any curb ramps or appurtenances constructed in excess of maximum grades as indicated in the aforementioned documents shall be removed and replaced at the Contractor's sole expense.

Removal of AC pavement and existing concrete, including curb and gutter or portion of spandrel as occurs, and sidewalk necessary to construct the ramp, shall be made as straight edges and by full-depth saw cutting only. Removal limits shall be agreed to in writing prior to the saw cutting operation for each ramp location. The new curbs ramps shall be constructed within four (4) days of the demolition/removal of the existing ramp.

The curb ramps locations and types are shown on the plans.

303-5.9 Measurement and Payment. *Add the following:*

Payment to construct curb ramps will be made at the contract unit price per each, and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all work involved in providing and constructing the curb ramps, including removal and construction of curb, curb and gutter, cross gutter spandrel, alley apron, AC pavement and sidewalk, removal of existing ramps and sidewalk associated with ramp construction, and construction of curb, gutter and sidewalks in place, as necessary to achieve ADA compliant grades (regardless of replacement limits shown on plans), construction staking of curb ramps, removal and reconstruction of adjacent improvements including, but not limited to, private hardscape improvements and landscaping/irrigation improvements, repainting of new curb to match painting of existing curb, if any, prior to ramp construction, and joining work to tie proposed ramp into the adjacent existing PCC (doweling, epoxy, etc.) as shown on the plans, complete in place as specified in the special provisions and as directed by the Engineer. The payment for curb ramps shall include the detectable warning strip.

SECTION 314 – TRAFFIC STRIPING, CURB AND PAVEMENT MARKINGS AND PAVEMENT MARKERS

314-1.1 Replacement. All stripes, markings and markers shall be replaced in kind, per original layout (or as directed by the City Engineer), by the Contractor. Paints shall be rapid dry and shall be supplied in accordance with Section 210-1.6 of the Standard Specifications. Paint shall be applied in accordance with Section 310-5.6 of the Standard Specifications. Contractor shall apply glass beads per Standard Specifications.

314-1.2 Stop Bar and Legend Stencils. Shall match size and style used by the City of Coronado.

314-2.3 Payment. The contract lump sum price shall be considered as full compensation for furnishing all labor, materials, tools and equipment, and for all work involved in the removal and replacement of painted lines, markings, markers and signage, and no additional compensation will be allowed therefor.

END OF PART 3

SPECIAL PROVISIONS

PART 4 – SPECIAL PROVISIONS

The following sections supplement the Standard Specifications and Standard Special Provisions and supersede any conflicting requirements. The paragraphing follows that of the Standard Specifications for Public Works Construction, 2018 Edition.

SECTION 400 - ALTERNATE ROCK PRODUCTS, ASPHALT CONCRETE, PORTLAND CEMENT CONCRETE AND UNTREATED BASE

400-4 ASPHALT CONCRETE

400-4.1 General. Asphalt Concrete for the various types of construction shall be as follows:

<u>Type of Construction</u>	<u>Material</u>
Digouts	Type III-B3-PG 64-10-R0
Overlay – Finish Course	Type III-C2-PG 64-10-R0
Overlay – Base Course	Type III-B2-PG 64-10-R0

The asphalt concrete to be used will be as follows: Base course – Type III Class B2 PG 64-10-R0, finish course – one-and-one-half inch (1 ½) thick (minimum) Type III Class C2 PG 64-10-R0, conforming to Section 400-4 of the Standard Specifications for Public Works Construction.

Digouts for streets to receive an overlay shall utilize the material called out for “Digouts” and shall pave to the depth shown on the plans to the top of grade. Streets specified to receive a slurry seal shall utilize the material specified for “Digouts”; however, the top one-and-one-half inches (1 ½) inches shall be the material specified for “Overlay – Finish Course.”

END OF PART 4

SPECIAL PROVISIONS

PART 6 – TEMPORARY TRAFFIC CONTROL

SECTION 601 – WORK AREA TRAFFIC CONTROL

601-1.1 General. No street will be closed to traffic unless written authorization has been obtained from the Engineer. In accordance with Section 2-5.3, the Contractor shall submit a detailed traffic control plan for directing traffic around/through the construction site. The Traffic Control Plan shall follow the general guidelines of the latest edition of the *California Manual of Uniform Traffic Control Devices (CA MUTCD)*.

Temporary stop signs shall be placed when work disrupts the view of stop signs and any time when the stop legends or stop bars are removed or covered.

Steel plate covers, if required on roadways, shall be recessed by milling into the existing asphalt to set the plate flush with the surface of the existing roadway. The depth and width of the milling shall match the thickness and size of the steel plate to be used. The steel plate shall overlap a minimum of twelve inches (12") on the existing milled asphalt on all sides of the trench. The gap between the edge of the steel plate and the existing adjacent asphalt shall be filled with temporary asphalt.

Upon completion of each day's work, the Contractor shall leave the work area free of hazards and shall provide all necessary temporary signs, warning devices and barricades. Temporary access is to be provided for all adjacent properties during non-construction hours.

601-3 Payment. The contract lump sum price for Traffic Control shall be considered as full compensation for furnishing all labor, materials, tools and equipment, and for all work involved in the removal and replacement of painted lines, markings, raised pavement markers, and signage and no additional compensation will be allowed therefor. Traffic Control shall also be considered to include all required notifications in accordance with Section 302-4.5 and Part 6.

END OF PART 6

BIDDER'S PROPOSAL

To the Honorable Mayor and Council of the City of Coronado:

In compliance with the NOTICE INVITING BIDS, the undersigned hereby proposes to furnish any and all labor, materials, and equipment for the MATHEWSON PARK PLAYGROUND RENOVATIONS PROJECT and appurtenant work contained in the contract documents. Work is to be done and materials to be furnished in strict conformity with the plans and specifications now on file with the City Engineer at the prices shown on Page A-2 of this proposal.

The undersigned has examined the location of the proposed work, and is familiar with the plans and specifications and the local conditions at the place the work is to be done, and also understands that all labor and materials to be furnished shall be for the bid price, including sales tax upon any materials so furnished. The undersigned has also carefully checked all of the figures given and understands that neither the City of Coronado nor any officer thereof will be responsible for any errors or omissions on the part of the undersigned in submitting this bid.

Receipt is hereby acknowledged of Addenda No.(s)_____.

The undersigned have examined the schedule of prevailing wage rates for the types of work to be done on this project and agree to pay not less than these rates. Furthermore, the undersigned certify that the bidder is registered with the State of California Department of Labor Compliance in accordance with Labor Code Section 1725.5 and that its public works registration number is: _____.

Enclosed please find a bidder's bond or certified check in the sum of _____ (\$_____), which is not less than ten percent (10%) of the bid, made payable to the City of Coronado.

SIGNATURES (Note: If Bidder is a corporation, two signatures by company officers are required):

Name and Address of Company

California Contractor License Number

Signature

Signature

Name (print or type)

Name (print or type)

Date

Date

UNIT PRICE LIST

DATE: _____

To the Honorable Mayor and City Council of the City of Coronado

I/We agree to construct the MATHEWSON PARK PLAYGROUND RENOVATIONS PROJECT for the prices listed below:

NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT
1	General Conditions	1	LS		
2	Demolition	1	LS		
3	Concrete Curb & Gutter	1	LS		
4	Site Pedestrian Concrete Paving	1	LS		
5	AC Repair & Pavement Marking/Painting	1	LS		
6	Site Furnishings including Bike Post	1	LS		
7	Play Equipment Installation	1	LS		
8	Playground Safety Surfacing	1	LS		
9	Landscape & Irrigation	1	LS		
10	BMP Construction Plan & Traffic Control	1	LS		
11	Bonds and Insurance	1	LS		
12	Fee	1	%		
	Total	N/A	N/A	N/A	

TOTAL (in words) _____

Date

Signature of Bidder

SUBCONTRACTOR LIST

MATHEWSON PARK PLAYGROUND RENOVATIONS PROJECT

To the Honorable Mayor and Council of the City of Coronado

As specified in the Standard Specifications, Subsection 2-3, the following is submitted for each subcontractor to be employed on the project:

(As specified in Section 2-3.2 of the Standard Specifications, the contractor shall perform, with its own organization, contract work amounting to at least 50% of the contract price.)

ITEM	NAME	ADDRESS	DIR PW#	CLSB LICENSE #	\$ VALUE OF WORK

As specified in the Standard Specifications, Subsection 7-4 the following is submitted:

I hereby certify that I have read and examined Sections 3700 and 3800 of the State Labor Code. I am aware of and will comply with Section 3700 of the Labor Code, requiring every employer to be insured against liability for Workers' Compensation or to undertake self-insurance before commencing any of the work. I further certify that if I should contract or subcontract with any person, firm, or company to do all or any part of the work for which this bid covers, I shall assure compliance by that contractor or subcontractor with Sections 3700 and 3800 of the State Labor Code. I further certify that all contractors (both primary and subcontractors) are registered with the State of California Department of Industrial Relations in compliance with Labor Code Section 1725.5.

Date

Signature of Bidder

CERTIFICATE REGARDING CONTRACTOR'S LICENSE

1. Bidder is required to possess the following State Contractor's License: A-General Engineering Contractor or B-General Building Contractor.

2. A failure to possess the required license, a failure to truthfully set forth the following information, or a failure to execute this Certificate renders the bid nonresponsive and requires the City to reject the bid (Business and Professions Code Section 7028.15).

3. Bidder declares, under penalty of perjury, that bidder possesses the required Contractor's license, as follows:

a. Bidder's license number _____; and

b. Expires on: _____

Signature: _____

Title: _____

Date: _____

**STATEMENT OF EXPERIENCE AND FINANCIAL CONDITION
IN SUPPORT OF BID ON**

MATHEWSON PARK PLAYGROUND RENOVATIONS PROJECT

The bidder represents that the bidder has a demonstrated trustworthiness and possesses the quality, fitness, and capacity to perform the proposed contract in a manner that is satisfactory to the City. The bidder represents that the bidder’s financial resources, surety and insurance experience, construction experience, completion ability, personnel, current workload, and experience in dealing with private owners and public agencies all suggest that the bidder is capable of performing the proposed contract and has a demonstrated capacity to deal fairly and effectively with and to satisfy a public agency.

In support of these representations, the bidder presents herewith letters of commendation/recommendation, lists of similar public works contracts accomplished during the preceding five years that identify the governmental agency, titles of lawsuits involving bidder during the preceding ten years, and such other documents that the bidder deems necessary to satisfy the bidder's bid obligation. The supporting documents are enclosed herewith.

SIGNATURE OF CONTRACTOR

This document is signed by an individual clearly authorized to bind the contractor.

CONTRACTOR: _____

ADDRESS: _____

PHONE NUMBER: _____

BY: _____
Signature Date

Title

NON-COLLUSION DECLARATION
MATHEWSON PARK PLAYGROUND RENOVATIONS PROJECT
Contract No. 21-CO-ES-745

State of California)
) ss.
County of)

I, _____, the undersigned, declare:
(Name of Bidder's Principal)

I am the _____ of
(Title)

_____, the party making the foregoing bid.
(Name of Bidder)

I further declare that in compliance with Public Contract Code section 7106, the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; the bid is genuine and not collusive or sham; the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; all statements contained in the bid are true; and the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

I hereby represent and warrant that I have full power to execute, and do execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration was executed at _____, California on this _____ day of _____, 20____.

(Signature of Bidder)

Subscribed and sworn to before me on the _____ day of _____, 20____.

(NOTARY SEAL)

(Signature of Notary)

AGREEMENT

between

THE CITY OF CORONADO
as City

and

CONTRACTOR NAME

as Contractor

for construction of the

PROJECT NAME

CONTRACT NO. XX-XX-XX-XXX

CITY OF CORONADO, CALIFORNIA

THIS AGREEMENT is made as of _____, 2020, by and between the City and the Contractor.

The City and the Contractor hereby agree as follows:

ARTICLE 1 – BASIC INFORMATION

- 1.1 City: City of Coronado
1825 Strand Way
Coronado, California 92118
- 1.2 Project Name: Project Name
- 1.3 City's Address for Notices: Ed Walton, City Engineer
City of Coronado
Public Services & Engineering Department
1825 Strand Way
Coronado, California 92118-3005
- 1.4 Contractor: Contractor's Name
- 1.5 Contractor's Address for Notices: Contractor's Name
Street Address
City, State Zip
Attention: Individual's Name
- 1.6 Project Location: Describe, Coronado, California
- 1.7 City's Contract Officer: Clifford M. Maurer, PE, CEM
Public Services & Engineering Department
- 1.8 Civil Engineer: Engineering Company
Street Address
City, State Zip
Phone Number
- 1.9 City Representative: Project Manager's Name & Title
Public Services & Engineering Department
1825 Strand Way
Coronado, California 92118-3005
(619) 522-7383

ARTICLE 2 – WORK

- 2.1 Contractor shall provide all labor, materials, equipment, tools, and services required by and shall perform all Work described in the Contract Documents. Contractor agrees to do additional Work arising from changes ordered by the City pursuant to Section 3 of the Standard Specifications for Public Works Construction “Greenbook,” 2018 Edition.

ARTICLE 3 – CONTRACT DOCUMENTS

- 3.1 The Contract Documents consist of this executed Agreement; the Bid Package, which includes but is not limited to the Notice Inviting Bids, Instructions to Bidders, Request for Bid or Proposal (RFB/RFP), Front End Specifications; Bidder’s Proposal (Forms A-1 through A-5); Plans; Notice of Award; Notice to Proceed; General Conditions; Supplementary General Conditions; Exhibits; Specifications; Standard Specifications for Public Works Construction “Greenbook,” 2018 Edition; the San Diego Regional Standard Drawings for Public Works, 2018 Edition; the Coronado Annotations to the San Diego Regional Standards; **Caltrans Standard Specifications, 2015 Edition [not relevant for all projects]**; all Drawings shown on the List of Drawings; all Bonds and Insurance required; the Addenda as shown below; and Change Orders.

- 3.2 The following addenda are incorporated into the Contract Documents:

No.	Date of Issue:
-----	----------------

_____	_____
_____	_____
_____	_____
_____	_____

- 3.3 The Contract Documents may not be modified orally or in any manner other than in writing in accordance with Section 3 of the Standard Specifications for Public Works Construction “Greenbook,” 2018 Edition. All such modifications shall be incorporated in the Contract Documents.

- 3.4 Precedence of Contract Documents:

- 3.4.1 In the event of a conflict between component parts of the Contract Documents, the document highest in precedence shall control. The precedence shall be:
1. Change Orders and Supplemental Agreements, whichever occurs last;
 2. Agreement;
 3. Special Provisions and Addenda;
 4. General Conditions;
 5. Specifications (Technical Provisions);
 6. Project Plans;
 7. Standard Drawings, Details, and Specifications as referenced in the Plans and Specifications;
 8. Notice of Award, Notice to Proceed, Pre-bid Information, Bidding Requirements, Exhibits, Bonds and Insurance;
 9. Reference Specifications: Greenbook, 2018 Edition, the San Diego Regional Standard Drawings for Public Works, 2018 Edition, the Coronado Annotations to the San Diego Regional Standards and Caltrans Standard Specifications, 2015 Edition [not relevant for all projects];
- 3.5 The Contract Documents comprise the entire Contract between the City and Contractor concerning the Work to be performed for this Project. All prior negotiations or stipulations regarding this matter that preceded or accompanied the executing of these Contract Documents are conclusively deemed to be superseded by these Contract Documents. The Contract Documents are complementary; what is called for in one is binding as if called for by all. To the extent that portions of the Contract Documents are not attached to this Agreement, they shall be deemed incorporated herein by reference.
- 3.6 The interpretation, validity, and enforcement of the Contract Documents and all matters relating to them shall be governed by and construed under the laws

of the State of California. Any suit, claim, or legal proceeding of any kind related to these Contract Documents shall be filed and heard exclusively in a state court in the County of San Diego. Contractor hereby waives the right to remove any action from San Diego County as is otherwise permitted by California Code of Civil Procedure Section 394.

ARTICLE 4 – CONTRACT SUM

4.1 City shall pay to Contractor, for the performance of the Work, the Contract Sum pursuant to General Conditions Article 9, subject to adjustment for unit price items, and as modified pursuant to the terms of the Contract Documents.

4.2 Contract Sum, including the Additives accepted by the City, is established as follows:

Contract Sum \$XX,XXX

4.3 The Contract Sum is: **Spell out amount** _____ Dollars (\$XX,XXX).

ARTICLE 5 – CONTRACT TIME

5.1 Contractor shall commence the Work on the date specified in the Notice to Proceed. The Work shall be fully completed within **Spell out # of days (XX) working days (“Contract Time”)** from the date of commencement specified in the Notice to Proceed, as modified pursuant to the terms of the Contract Documents. Time is of the essence in the performance of all obligations under these Contract Documents, and all timing requirements shall be strictly adhered to unless otherwise modified by the City in writing.

ARTICLE 6 – LIQUIDATED DAMAGES

6.1 If Contractor fails to complete an area’s Work within the Contract Time as described in Article 5, Contractor shall pay to the City, as liquidated damages

and not as a penalty, the sum of **Spell out amount** _____ Dollars (**\$XXX**) for each calendar day after the expiration of the Contract Time per area that the Work remains incomplete. The City and Contractor agree that in the event that the Work is not completed within the Contract Time, the City's damages would be extremely difficult or impracticable to determine and therefore the City and Contractor agree that the amount stated herein is a reasonable estimate of the amount of such damages. The City may deduct any liquidated damages owed to the City, as determined by the City, from any payments otherwise payable to Contractor under this Contract. Nothing contained herein shall limit the City's rights or remedies against Contractor for any default other than failure to complete the Work within the Contract Time. This provision for liquidated damages shall not be applicable nor act as a limitation upon the City if Contractor abandons the Work. In such event, Contractor shall be liable to the City for all losses incurred.

ARTICLE 7 – INDEMNIFICATION

- 7.1 In addition to any other obligations contained herein, Contractor shall defend, indemnify, and save harmless the City and its officers, officials, agents, consultants, employees, and volunteers, and each of them, from and against any and all liability, claims, judgments, demands, causes of action, damages, costs, expenses, property damage, contract disputes, penalties, losses or liability, in law or in equity, of every kind and nature whatsoever, including, but not limited to, injuries or damages to persons or property arising directly or indirectly out of the conduct of the Contractor or its employees, agents, subcontractors, or others in connection with the execution of the Work covered by these Contract Documents, except only for those claims or litigation arising from the established sole willful misconduct or active negligence of the City, its officers, officials, agents, consultants, employees or volunteers. Contractor's indemnification shall include all claims for damages arising out of any infringement of patent rights or copyrights incidental to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents. Contractor's indemnification shall include any and all costs, expenses, attorneys' fees and liability incurred by the City, its officers, officials, agents, consultants or employees in enforcing the provisions of this section, and in defending against such claims, whether the same proceed to judgment or not. Contractor shall reimburse City for any expenditures, including reasonable attorneys' fees, City may make by reason of such matters, and Contractor, at its own expense shall, upon written request by the City, defend, with counsel reasonably acceptable to City, any such suit or action

brought against the City, its officers, officials, agents, employees, or volunteers.

- 7.2 City shall timely notify the Contractor of the receipt of any third-party claim relating to the Contract Documents, and the City shall be entitled to recover its reasonable costs incurred in providing such notification.

ARTICLE 8 – MISCELLANEOUS PROVISIONS

8.1 Successors and Assigns

8.1.1 The City and Contractor respectively bind themselves and their successors, permitted assigns, and legal representatives to the other party and to the successors, permitted assigns, and legal representatives of such other party in respect to covenants, agreements and obligations contained in the Contract Documents. This Agreement and any portion thereof shall not be assigned or transferred, nor shall any of the Contractor's duties be delegated, without the written consent of the City. Any attempt to assign or delegate this Agreement without the written consent of the City shall be void and of no force or effect. A consent by the City to one assignment shall not be deemed to be a consent to any subsequent assignment.

8.2 Survival

8.2.1 The provisions of the Contract Documents that by their nature survive termination or final completion of the Work, including all warranties, indemnities, payment obligations, and the City's right to audit Contractor's books and records, shall remain in full force and effect after final completion or any termination of the Agreement.

8.3 Rights and Remedies

8.3.1 All the City's rights and remedies under the Contract Documents shall be cumulative and in addition to and not in limitation of all other rights and remedies of the City under the Contract Documents or otherwise available at law or in equity.

8.3.2 No term or provision hereof shall be deemed waived and no default or breach excused, unless such waiver or consent shall be in writing and signed by the party claimed to have waived or consented to such

breach. The consent by any party to or waiver of, a breach or default by the other, shall not constitute a consent to, waiver of, or excuse for, any other different or subsequent breach or default.

- 8.3.3 No provision contained in the Contract Documents shall create or give to third parties any claim or right of action against the City, the City Representative, or Contractor.

8.4 Compliance with Law

- 8.4.1 The Contractor shall be responsible for complying with all local, state, and federal laws, whether or not said laws are expressly stated or referred to in the Contract Documents.

8.5 The City's Right to Audit

- 8.5.1 The City and entities and agencies designated by the City shall have access to and the right to audit all of Contractor's books, records, contracts, correspondence, instructions, drawings, receipts, vouchers, purchase orders, and memoranda relating to the Work. Contractor shall preserve all such records for a period of at least three (3) years after final completion and shall provide copies of same at City's request.

8.6 Notices

- 8.6.1 All notices, demands, requests, consents, or other communications that this Agreement contemplates or authorizes, or requires or permits either party to give to the other, shall be in writing and shall be personally delivered or served by certified mailed to the respective party at the addresses set forth in Article 1 of this Agreement. Either party may change its address by notice to the other party as provided herein.
- 8.6.2 Communications shall be deemed to have been given and received on the first to occur of: (1) actual receipt at the offices of the party to whom the communication is to be sent, as designated above; or (2) three working days following the deposit in the United States Mail of certified mail, postage pre-paid, return receipt requested, addressed to the offices of the party to whom the communication is to be sent, as designated above.

SAMPLE

IN WITNESS WHEREOF, the undersigned represent and warrant that they have the right, power, legal capacity, and authority to enter into and execute this document on behalf of the City and the Contractor respectively and do hereby agree to the full performance of the conditions and covenants herein contained, and have caused this document to be executed by setting hereto their names, titles, signatures and date:

CITY:

CONTRACTOR:

(2 signatures required)

Contract/Agreement is approved for content:

Ed Walton, City Engineer
Date

Name:
Date
Title:

Contract/Agreement is approved as to form:

Johanna Canlas, City Attorney
Date

Name:
Date
Title:

Blair King, City Manager
Date

Attest:

Jennifer Ekblad, CMC, City Clerk
Date

California Contractor's License(s):

(Name of License Holder)

(License
Classification
)

(License
Number)

(Expiration Date)

(Attach Notary acknowledgment for all signatures of Contractor.)

ATTACHMENT B

STATE PREVAILING WAGE RATES

State Prevailing Wage Rates: This project is a “public work” in accordance with Labor Code §1720, et seq. It is the sole responsibility of the Contractor to ensure that all workers employed in the execution of the contract are paid the correct prevailing wage rate of wages. Contractor is required to comply with California Labor Code Sections 1771, 1775, 1776, 1777.5, 1813, and 1815, which are incorporated by reference, and the Contractor agrees to comply with all the above-referenced provisions and any other statutes or regulations as may be applicable to the performance of its work on this project. Specifically, the Contractor agrees to:

- a. Pay all workers not less than the general prevailing rate of per diem wages for work of similar character in the locality in which the public work is performed.
- b. Pay all workers not less than the general prevailing rate of per diem wages for holiday and for overtime work that exceeds 8 hours in one day and 40 hours in one week.
- c. Adhere to the compliance measures outlined in Labor Code 1775(b) for any subcontractor that the Contractor chooses to use on this project.
- d. Maintain payroll records as required.
- e. Comply with all apprenticeship requirements pursuant to Labor Code 1777.5.

Not less than the State general prevailing wages, as determined by the Director of the Department of Industrial Relations shall be paid by the Contractor and its subcontractors to all workers employed on the project, as applicable. The statutory provisions for penalties for failure to pay prevailing wages and for failure to comply with state’s wage and hour laws will be enforced.

The City has obtained from the Director of the Department of Industrial Relations said Director’s General Prevailing Wage Determinations for the locality in which the work is to be performed. Said determinations are on file and available for review online at the Department of Industrial Relations’ website located at: <http://www.dir.ca.gov/DLSR/PWD>.

SB 854 Notice: City of Coronado public works projects are subject to compliance monitoring and enforcement by the Department of Industrial Relations (DIR) in accordance with Labor Code Section 1771.4(a)(1). As part of this program, Contractors and Subcontractors on Public Works Projects are required to be registered with DIR in accordance with Labor Code Section 1725.5. Unregistered contractors are not qualified to bid on, be listed in a bid, listed as a Subcontractor, or engage in the performance of any Public Works Contract, all as more particularly described in Labor Code Section 1771.1(a). The City of Coronado has no duty to accept a bid or enter into a contract without proof of the contractor’s current registration pursuant to Labor Code Section 1771.1(b). The prime Contractor shall be required to post the job site with all notices required by regulations per Labor Code Section 1771.4(a)(2), whether or not the City also posts.

Labor Code Compliance: Contractor shall comply with the provisions of the Labor Code requiring the payment of prevailing wages on public works, commencing with Section 1720. In accordance with Labor Code, Section 1775, the Contractor shall forfeit an amount, as determined by the Labor Commissioner, for each worker paid less than the applicable prevailing wage rate for the work or craft in which that worker is employed for any work done under Contract by Contractor or by any

Subcontractor. Contractor agrees to pay the difference between the prevailing wage rate and amount paid to each worker in accordance with Labor Code, Section 1775(a)(2)(E).

Pursuant to Labor Code, Section 1770, the Director of the Department of Industrial Relations has ascertained the general prevailing rate of per diem wages and a general prevailing rate for legal holiday and overtime work for each craft required for execution of the Contract. In accordance with Labor Code, Section 1773.2, copies of the prevailing rate of per diem wages are on file and can be viewed during normal business hours at Coronado City Hall, located at 1825 Strand Way, Coronado, CA 92118. Contractor shall post a copy of the applicable prevailing wage rates at the job site.

Wage rates set forth are the minimum that may be paid by the Contractor. Nothing herein shall be construed as preventing the Contractor from paying more than the minimum rates set. No extra compensation whatsoever will be allowed by the City due to the inability of the Contractor to hire labor at minimum rates, nor for necessity for payment by the Contractor of subsistence, travel time, overtime, or other added compensations, all of which possibilities are elements to be considered and ascertained to the Contractor's own satisfaction in preparing its Bid.

If it becomes necessary to employ crafts other than those listed in the General Prevailing Wage Rate, the Contractor shall obtain a wage rate determination. The rates thus determined shall be applicable as minimum from the time of initial employment. Contractor shall be responsible for paying the applicable rate.

The Contractor and each Subcontractor shall keep and make available accurate payroll records in accordance with Labor Code, Section 1771.4(a)(3) and Section 1776. The record shall contain the names, addresses, social security numbers, work classifications, straight time, and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by the Contractor and/or Subcontractor in connection with the Work. Payroll records shall be certified and shall be on forms provided by the Division of Labor Standards Enforcement, or shall contain the same information as those forms. Upon written request by the City, the Contractor's and Subcontractor's certified payroll records shall be furnished within 10 days. The Contractor's and Subcontractor's certified payroll records shall be available for inspection at the principal office of the Contractor.

Apprentices: The Contractor and each subcontractor shall comply with the requirements of Labor Code Section 1777.5, and any related regulations regarding the employment of registered apprentices. Properly registered apprentices shall be employed in the execution of the Work at the ratios required, but in no case shall the ratio be less than one hour of apprentice work for every five hours of journeyman work. Every apprentice shall be paid the standard wage paid to apprentices under the regulations of the craft or trade at which the apprentice is employed, and shall be employed only at the work of the craft or trade to which the apprentice is registered. The Contractor shall be responsible for compliance with Labor Code Section 1777.5 for all apprenticeable occupations.

CITY OF CORONADO PUBLIC SERVICES AND ENGINEERING DEPARTMENT

MATHEWSON PARK PLAYGROUND RENOVATIONS

ADELLA AVENUE, SEVENTH STREET AND POMONA AVENUE, CORONADO, CA 92118

APPLICABLE CODES, DRAWINGS, & SPECIFICATIONS

2010 AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN (ADAS)

AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)

2019 CALIFORNIA BUILDING CODE, CALIFORNIA CODE OF REGULATION TITLE 24, WHICH ADOPTS THE 2018 IBC, 2018 UMC, 2018 UPC AND THE 2017 NEC

2018 EDITION STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("THE GREENBOOK")

2018 SAN DIEGO REGIONAL STANDARD DRAWINGS

CALIFORNIA HEALTH AND SAFETY CODE SECTION 115725

- AMERICAN SOCIETY FOR TESTING AND MATERIALS, INCLUDING BUT NOT LIMITED TO ASTM F1487: STANDARD CONSUMER SAFETY PERFORMANCE SPECIFICATIONS FOR PLAYGROUND EQUIPMENT FOR PUBLIC USE
- UNITED STATES CONSUMER PRODUCT SAFETY COMMISSION: PUBLIC PLAYGROUND SAFETY HANDBOOK

NOTE: THE MOST CURRENT EDITIONS OF THE PRECEDING DOCUMENTS SHALL BE USED. WHERE ONE OR MORE CODES, DRAWINGS, OR SPECIFICATIONS ARE APPLICABLE, THE MORE RESTRICTIVE SHALL TAKE PRECEDENCE.

SCOPE OF WORK

PLAYGROUND REPLACEMENT AND ACCESSIBLE SITE IMPROVEMENTS. INVOLVES REMOVAL OF EXISTING PLAY STRUCTURE, WOOD PLAY SURFACE AND CONCRETE. INSTALLATION OF NEW PLAY EQUIPMENT, NEW POURED-IN-PLACE RUBBERIZED SURFACING, NEW CONCRETE PAVING AND CURBS, NEW PICNIC TABLE, NEW BENCH, NEW TRASH RECEPTACLES, NEW DRINKING FOUNTAIN, NEW BIKE RACK, CURB MODIFICATION, PEDESTRIAN CURB RAMP AND RELOCATE EXISTING CONCRETE BENCHES.

INSPECTION STAGES

IN ADDITION TO THE INSPECTOR, ARCHITECT/OWNER'S REPRESENTATIVE TO BE PRESENT AT THE FOLLOWING INSPECTION STAGES:

- PRE-CONSTRUCTION MEETING
- ROUGH GRADING AND DRAINAGE
- CONCRETE CURB AND GUTTER
- FINISH GRADING
- FURNITURE PLACEMENT - PROJECT MANAGER ONLY
- PLAY EQUIPMENT FOOTING INSTALLATIONS
- PLAY EQUIPMENT INSTALLATION - PERFORMED BY CPSI (HIRED BY OWNER)
- 90% CONSTRUCTION COMPLETION - PROJECT MANAGER'S PUNCH LIST
- FINAL WALK-THROUGH

EQUIVALENT PRODUCTS

SEE STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION, SECTION 4.4-1.6, "TRADE NAMES OR EQUALS" AND THE FOLLOWING: WHENEVER ANY PARTICULAR MATERIAL, PROCESS, EQUIPMENT, ETC. IS INDICATED BY BRAND NAME OR MANUFACTURER, SUCH WORDING IS USED FOR THE PURPOSE OF FACILITATING ITS DESCRIPTION AND SHALL BE DEEMED TO BE FOLLOWED BY THE WORDS "OR APPROVED EQUAL."

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE INCREASED PROJECT COSTS WHICH ARE PRECIPITATED BY THE CHANGE IN ANY MATERIAL, PROCESS OR EQUIPMENT AT HIS REQUEST AFTER THE AWARD OF THE CONTRACT. THIS SHALL INCLUDE BUT NOT BE LIMITED TO, ADDITIONAL COST INCURRED BY THE CITY FOR REVIEW AND/OR DESIGN OF THE CONTRACT DOCUMENTS TO ACCOMMODATE THE REQUESTED CHANGE. IN THE EVENT THAT THE CONTRACT DOCUMENTS MUST BE ALTERED TO ACCOMMODATE THE CONTRACTOR'S REQUESTED CHANGE IN MATERIAL, PROCESS OR EQUIPMENT, THE CONTRACTOR SHALL HAVE THE OPTION OF PROVIDING THE RESIDENT ENGINEER WITH DETAILED DRAWINGS AND SPECIFICATIONS THAT FULLY DEFINE HOW THE REQUESTED CHANGE CAN BE INCORPORATED IN THE PROJECT OR THE CONTRACTOR MAY, AT THEIR OWN EXPENSE, WORK WITH THE PROJECT CONSULTANTS LISTED IN THE CONTRACT DOCUMENTS TO MAKE THE REQUIRED CHANGES TO THE PLANS AND SPECIFICATIONS. IN EITHER CASE, THE RESIDENT ENGINEER SHALL REVIEW THE PROPOSED PLANS AND SPECIFICATIONS PRIOR TO GRANTING APPROVAL.

NOTES

BEFORE EXCAVATING, VERIFY THE LOCATION OF UNDERGROUND UTILITIES. AT LEAST TWO (2) WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR SHALL REQUEST MARKING OF UNDERGROUND UTILITIES BY CALLING THE BELOW LISTED REGIONAL NOTIFICATION CENTER FOR AN INQUIRY IDENTIFICATION NUMBER:

UNDERGROUND SERVICE ALERT 1-800-422-4133
(GAS, ELECTRIC, TELEPHONE, WATER, SEWER, LIGHTING, AND TV)

- SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A PERMIT TO EXCAVATE WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT AT 811 OR 1-800-422-4133 TWO WORKING DAYS BEFORE YOU DIG.
- IT SHOULD BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL SUBSTRUCTURES, WHETHER SHOW HEREON OR NOT, AND PROTECT THEM FROM DAMAGE. THE EXPENSE OF REPAIR OR REPLACEMENT OF SAID SUBSTRUCTURES SHALL BE BORNE BY THE CONTRACTOR.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO ENFORCE SAFETY MEASURES AND REGULATIONS.
- LOCATION AND ELEVATION OF ALL EXISTING IMPROVEMENTS WITHIN THE AREA OF WORK SHALL BE CONFIRMED BY FIELD MEASUREMENT PRIOR TO CONSTRUCTION OF NEW WORK. CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILITIES.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES TO PROTECT EXISTING IMPROVEMENTS, INCLUDING THE EXISTING CONDITION OF THE STREET, CURB, AND GUTTER. ANY DAMAGE CAUSED BY CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT NOT COST TO THE CITY.
- CONTRACTOR IS RESPONSIBLE FOR POT HOLING PRIOR TO START OF CONSTRUCTION TO VERIFY ALL ELEVATIONS OF UNDERGROUND UTILITIES.
- CONTRACTOR SHALL HIRE A PRIVATE UTILITY LOCATOR FOR MARK-OUT OF ALL PRIVATE UTILITIES LOCATED ON THE PROPERTY WITHIN THE PROJECT LIMITS PRIOR TO EXCAVATION.
- THE CONTRACTOR SHALL PROTECT IMPROVEMENTS ADJACENT TO THE PROPERTY TO PREVENT DAMAGE BY ACTIVITIES ON THE SITE. IF NEEDED, REPAIRS, REMOVALS, AND REPLACEMENTS OF SIDEWALKS, CURBS, GUTTERS OR STREETS SHALL CONFORM TO CITY SPECIAL CONSTRUCTION PROVISIONS AND SAN DIEGO REGIONAL STANDARD DRAWINGS.
- THE SIDEWALK ADJACENT TO THE SITE SHALL REMAIN SAFE, SMOOTH, AND FREE OF ALL TRIP OR TRAVEL HAZARDS DURING CONSTRUCTION. FENCES ACROSS SIDEWALK ARE PROHIBITED.

CONTRACTOR RESPONSIBILITIES

- CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF THE CONSTRUCTION OF THIS PROJECT INCLUDING: SAFETY OF ALL PERSONS AND PROPERTY, AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE OFFSETTING OF ALL SURVEY MONUMENTS AND BENCH MARKS THAT WILL BE REMOVED WITH THE DEMOLITION / CONSTRUCTION OF THE PROJECT. THE OFFSETTING AND REPLACEMENT OF THE MONUMENTS AND BENCHMARKS, INCLUDING THE FILING OF A CORNER RECORD OF SURVEY IF REQUIRED BY THE LAND SURVEYORS ACT, WILL BE PERFORMED BY CITY-PROVIDED SURVEY CREW. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY MONUMENTS OR BENCH MARKS WHICH ARE NOT INITIALLY OFFSET BUT SUBSEQUENTLY REMOVED DURING THE CONSTRUCTION, INCLUDING THE FILING OF A CORNER RECORD OF SURVEY, BY A CALIFORNIA LICENSED LAND SURVEYOR.
- THE CONTRACTOR SHALL COORDINATE WITH SDG&E FOR ANY WORK NEAR THEIR FACILITIES AT LEAST 10 DAYS PRIOR TO EXCAVATION.
- STORM DRAIN INLETS SHALL REMAIN FUNCTIONAL AT ALL TIMES DURING CONSTRUCTION.

CITY OFFICIALS

MAYOR
RICHARD BAILEY

CITY COUNCIL
WHITNEY BENZIAN
MIKE DONOVAN
MARVIN HEINZE
BILL SANDKE

PROJECT DIRECTORY

OWNER
CITY OF CORONADO
1825 STRAND WAY
CORONADO, CA 92118

CITY ENGINEER
ED WALTON, PE
1825 STRAND WAY
CORONADO, CA 92118
OFFICE: 619.522.7385
EWALTON@CORONADO.CA.US

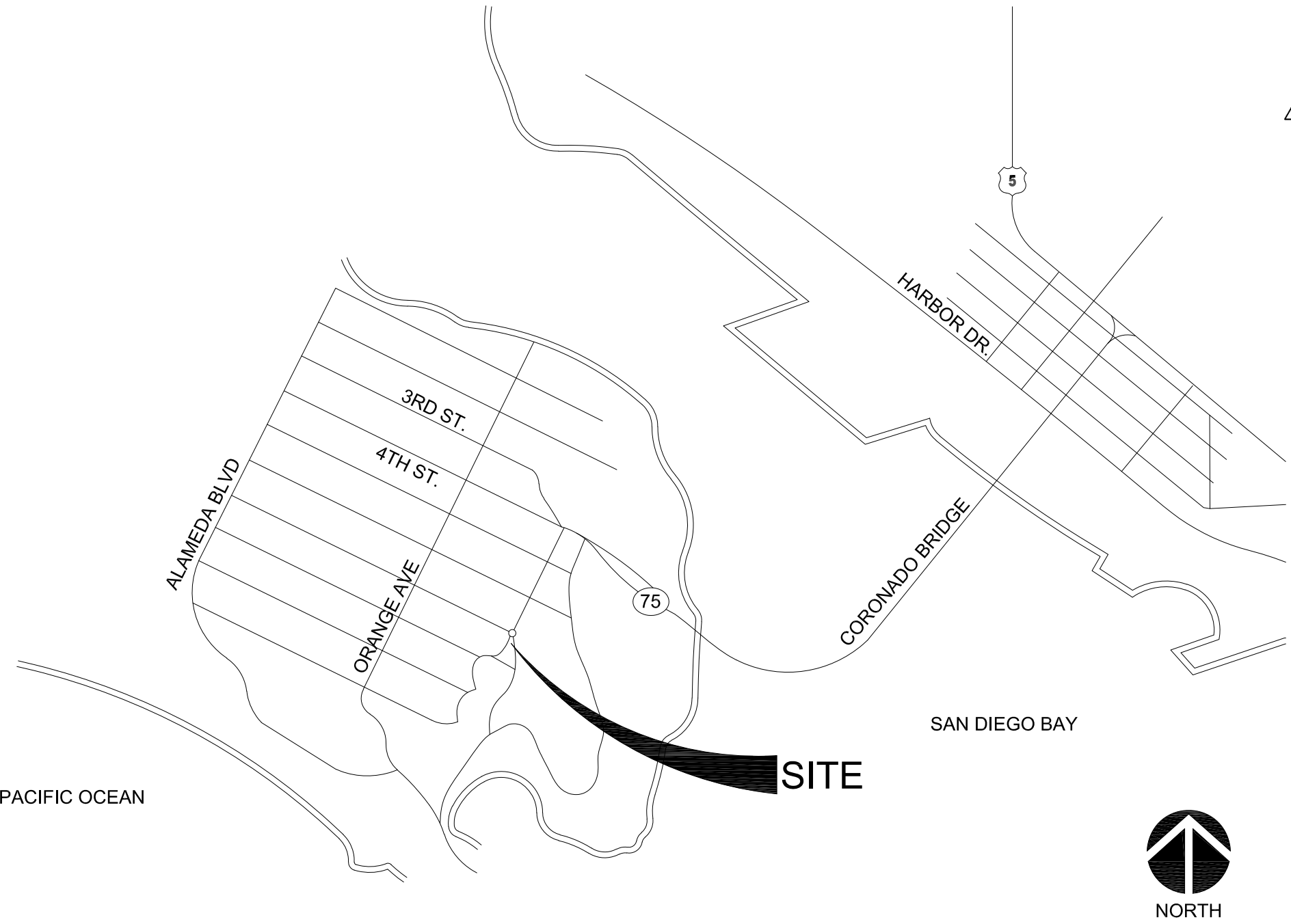
PARKS SUPERVISOR
ART VALDIVA
101 B AVENUE
CORONADO, CA 92118
OFFICE: 619.522.7388
AVALDIVA@CORONADO.CA.US

PROJECT MANAGER & ARCHITECT
RUBY CARR, RA, LEED AP
101 B AVENUE
CORONADO, CA 92118
OFFICE: 619.522.6507
MOBILE: 619.609.8300
RCARR@CORONADO.CA.US

SURVEY
GREGORY HELMER, PLS
PSOMAS
401 B STREET, SUITE 1600
SAN DIEGO, CA 92101
OFFICE: 619.961.2818
MOBILE: 619.949.510.0679
GREGORY.HELMER@PSOMAS.COM

SHEET INDEX

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L303	CONSTRUCTION DETAILS



VICINITY MAP
SCALE: NTS



LOCATION MAP
SCALE: NTS

REVISION	DESCRIPTION	APP'D	DATE	CITY OF CORONADO PUBLIC SERVICES & ENGINEERING DEPARTMENT				REVIEWED BY	INITIALS	DATE	APPROVED BY:	PROJECT TITLE MATHEWSON PARK PLAYGROUND RENOVATIONS	PROJECT LOCATION ADELLA AVENUE, SEVENTH STREET, AND POMONA AVENUE CORONADO, CALIFORNIA 92118	PROJECT NUMBER M-564
								CLIFF MAURER			ED WALTON - CITY ENGINEER			SHEET NAME
A	PLAN CHECK SUBMITTAL		04.13.2020					ROGER MILLER			PLANS PREPARED UNDER THE SUPERVISION OF:			TITLE SHEET
	PLAN CHECK RESUBMITTAL #1		07.13.2020					JACQUELINE LIU			Ruby Carr			
								KIM GODBY			RUBY LYNN CARR - ARCHITECT OF RECORD			
								JAN LASLEY		07.13.2020	DIAL 811 OR 800.422.4133			
								ART VALDIVA			OFFICE - 619.522.6507 MOBILE - 619.609.8300			SHEET NO.
														G001

GENERAL NOTES

- NEITHER THE OWNER, THE OWNER AGENTS, NOR THE ARCHITECT WILL ENFORCE SAFETY MEASURES OF REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS LAWS AND REGULATIONS.
2. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING: SAFETY OF ALL PERSONS AND PROPERTY, AND THAT THE REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER, THE OWNERS AGENTS AND THE ARCHITECT HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ARCHITECT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL SLOPES, STREETS, UTILITIES AND STORM DRAINS ARE BUILT IN ACCORDANCE WITH THESE PLANS. IF THERE IS ANY QUESTION REGARDING THESE PLANS OR FIELD STAKES, THE CONTRACTOR SHALL REQUEST AN INTERPRETATION BEFORE DOING ANY WORK BY CALLING THE PROJECT MANAGER AT (619) 522-6507. CONTRACTOR SHALL ALSO TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY FROM ANY RUNOFF POLLUTION, EROSION AND SILTATION THAT MAY RESULT FROM HIS OPERATIONS BY APPROPRIATE MEANS (GUTTER BUDDIES, TEMPORARY DESILTING BASINS, DIKES, SHORING, ETC.) UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY WHATEVER OWNER, AGENCY OR ASSOCIATION IS TO BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE.
4. CONTRACTOR TO MATCH EXISTING "HISTORICAL SCORE PATTERNS" ON SIDEWALKS AS NEEDED.
5. PROTECT OR REPLACE ALL EXISTING SURVEY MONUMENTS. SURVEY MONUMENTS REQUIRED TO BE REMOVED AS PART OF THIS PROJECT WILL BE OFFSET BY THE CITY LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA PRIOR TO REMOVAL. CONTRACTOR SHALL NOTIFY THE CITY 48 HOURS PRIOR TO THE REMOVAL OF ANY SURVEY MONUMENT, TO ALLOW THE CITY TO OFFSET TO A LOCATION AND RE-ESTABLISH AFTER WORK HAS BEEN COMPLETED.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE PRIVATE IRRIGATION SYSTEMS ALONG THE CONSTRUCTION AREAS. REPAIRS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR SHALL CREATE AND DISTRIBUTE HANDOUTS TO ALL RESIDENCES AND BUSINESS OWNERS ADJACENT TO WORK AREAS. INFORMATION SHALL INCLUDE THE ANTICIPATED DATES OF THE WORK, COMPANY NAME, AND CONTACT PERSON AND PHONE NUMBER AND STATEMENT THAT ANY CONCERNS REGARDING PRIVATE PROPERTY DAMAGE MUST BE BROUGHT TO THE CONTRACTOR'S ATTENTION WITHIN 30 DAYS OF CONSTRUCTION DATE OF WORK.
8. CONTRACTOR SHALL CREATE AND MAINTAIN URBAN RUNOFF STORM WATER POLLUTION BEST MANAGEMENT PRACTICES (BMPs) FOR THE DURATION OF THE PROJECT. IF THERE ARE QUESTIONS REGARDING STORM DRAIN MANAGEMENT, BMP'S OR MAINTENANCE OF THE SITE, PLEASE CONTACT THE STORM DRAIN SUPERVISOR AT (619) 522-7387. CONTRACTOR WILL PERFORM STREET SWEEPING AS NEEDED. CONTRACTOR WILL NOTIFY PUBLIC SERVICES (619) 522-7380 IMMEDIATELY IN THE EVENT OF A STORM RUNOFF EMERGENCY.

SPECIAL NOTES

1. THE FOLLOWING NOTES ARE PROVIDED TO GIVE DIRECTIONS TO THE CONTRACTOR BY THE ENGINEER OF WORK. THE CITY ENGINEER'S SIGNATURE ON THESE PLANS DOES NOT CONSTITUTE APPROVAL OF THESE NOTES AND THE CITY WILL NOT BE RESPONSIBLE FOR THEIR ENFORCEMENT.
2. THE ENGINEER OF WORK SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, NOR SHALL THE ENGINEER BE REQUIRED TO SUPERVISE CONDUCT OF THE WORK IN CONSTRUCTION PROCEDURES AND SAFETY PROCEDURES FOLLOWED BY THE CONTRACTOR OR SUBCONTRACTORS OR THEIR RESPECTIVE EMPLOYEES OR BY ANOTHER PERSON AT THE JOB SITE OTHER THAN THAT OF THE ENGINEER'S EMPLOYEES.
3. THE LOCATION OF ANY UNDERGROUND STRUCTURES AS SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND ARE SHOWN FOR THE BENEFIT OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONARY MEASURES TO PROTECT ALL UNDERGROUND OR OVERHEAD STRUCTURES WHETHER SHOWN OR NOT ON THESE DRAWINGS.
4. THE CONTRACTOR SHALL VERIFY THE LOCATION OF AND PROTECT ALL EXISTING IMPROVEMENTS BEFORE AND DURING CONSTRUCTION. CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO THE PLANS IF REVISIONS ARE NECESSARY.
5. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT TO BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREE TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

SPECIAL NOTES - CONTINUED

- IF ANY EXISTING HARDScape OR LANDSCAPE INDICATED ON THE APPROVED PLANS IS DAMAGED OR REMOVED DURING DEMOLITION OR CONSTRUCTION, IT SHALL BE RESPONSIBILITY OF THE CONTRACTOR TO ASSURE THAT IT SHALL BE REPAIRED OR REPLACED IN KIND AND EQUIVALENT SIZE TO THE SATISFACTION OF THE CITY ENGINEER.
7. ALL PERMIT APPLICATIONS FOR CONSTRUCTION THAT DISTURB MORE THAN (1) ONE ACRE OF SOIL SHALL ALSO INCLUDE BMP'S TO CONTROL AND REDUCE POLLUTANTS TO THE SATISFACTION OF THE CITY ENGINEER. ALL OR PART OF THE FOREMENTIONED NOTES MAY BE REQUIRED TO BE ADDED TO THE GENERAL NOTES SECTION OF PUBLIC IMPROVEMENT AND GRADING PLANS.
8. THE CONTRACTOR SHALL TAKE DUE PRECAUTIONARY MEASURES TO PROTECT. ANY EXISTING UTILITIES OR STRUCTURES LOCATED AT THE WORK SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE PROPERTY OWNERS AND UTILITIES COMPANIES PRIOR TO ANY EXCAVATION FOR VERIFICATIONS AND LOCATION OF UTILITIES AND NOTIFICATION OF COMMENCEMENT OF WORK.
9. ALL OPERATIONS CONDUCTED ON THE PREMISES, INCLUDING THE WARMING UP, REPAIR, ARRIVAL, DEPARTURE, OR RUNNING OF TRUCKS, EARTHMOVING EQUIPMENT, CONSTRUCTION EQUIPMENT, AND ANY OTHER ASSOCIATED EQUIPMENT SHALL BE LIMITED TO THE PERIOD BETWEEN 7:00 AM AND 7:00 PM EACH DAY, MONDAY THROUGH FRIDAY, AND NO GRADING OR EARTHMOVING OPERATIONS SHALL BE CONDUCTED ON THE PREMISES ON SATURDAYS, SUNDAYS OR CITY OF CORONADO HOLIDAYS WITHOUT APPROVAL BY THE CITY ENGINEER. OVERTIME INSPECTIONS SHALL BE AT THE CONTRACTORS EXPENSE.
10. ALL EXISTING IMPROVEMENTS INCLUDING A.C. BERM, A.C. OR P.C.C. PAVING, WHICH ARE BEING JOINED OR MATCHED IN CONNECTION WITH THIS PROJECT SHALL BE JOINED OR MATCHED IN A MANNER SATISFACTORY TO THE CITY ENGINEER INCLUDING NECESSARY SAWCUTTING, REMOVAL, REPLACEMENT AND CAPPING.
11. THE CONTRACTOR SHALL DESIGN, PLACE AND MAINTAIN ALL SAFETY DEVICES INCLUDING SHORING AND BARRICADING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS. THE CONTRACTOR IS REFERRED TO SECTION 7-10 "PUBLIC CONVENIENCE AND SAFETY" OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
12. ANY CONTRACTOR PERFORMING WORK ON THE PROJECT SITE SHALL FAMILIARIZE SELF WITH THE SITE AND SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES RESULTING DIRECTLY OR INDIRECTLY FROM OPERATIONS. THE CONTRACTOR IS REFERRED TO SECTION 7-9 "PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS" OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
13. ACCESS FOR FIRE AND OTHER EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES DURING PROJECT CONSTRUCTION. VEHICULAR AND PEDESTRIAN ACCESS TO PRIVATE PROPERTIES WITHIN THE PROJECT AREA SHALL ALSO BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE APPROVED BY CITY (TYPICAL ALL SHEETS).
14. THE CONTRACTOR SHALL MAINTAIN ADEQUATE DUST CONTROL MEASURES THROUGHOUT THE DURATION OF PROJECT CONSTRUCTION. PROJECT SITE MAINTENANCE SHALL CONFORM TO SECTION 7-8 "WORK SITE MAINTENANCE" OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
15. ALL DISTANCES AND DIMENSIONS SHOWN ON THE PLANS ARE IN A HORIZONTAL PLANE UNLESS OTHERWISE NOTED.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY PAVEMENT STRIPING OR MARKINGS REMOVED OR MADE ILLEGIBLE AS A RESULT OF HIS WORK.
17. APPROVAL OF THESE PLANS AS SHOWN DOES NOT CONSTITUTE APPROVAL OF ANY CONSTRUCTION OUTSIDE THE PROJECT LIMITS OF WORK.
18. LOCATION AND ELEVATION OF IMPROVEMENTS SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF NECESSARY BECAUSE OF DISCREPANCIES.

UNDERGROUND FACILITIES

(UNDERGROUND SERVICES ALERT 1-800-422-4133)

1. PRECISE LOCATION AND ELEVATIONS ARE NOT KNOWN FOR THE EXISTING UNDERGROUND UTILITIES INCLUDING THE SEWER LATERALS. CONTRACTOR SHALL MAKE SUFFICIENT EXPLORATIONS TO LOCATE UTILITIES BEFORE COMMENCING CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF WORK OF ANY POTENTIAL CONFLICTS. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES.
2. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OF STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THESE LOCATIONS ARE APPROXIMATE AND SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR, SO THAT ANY NECESSARY ADJUSTMENT CAN BE MADE IN ALIGNMENT AND/OR GRADE OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURE TO PROTECT ANY UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.
3. CONTRACTOR SHALL NOTIFY THE SAN DIEGO GAS & ELECTRIC COMPANY PRIOR TO STARTING WORK NEAR COMPANY FACILITIES AND SHALL COORDINATE HIS WORK WITH COMPANY REPRESENTATIVES. (800) 411-7343.
4. CONTRACTOR SHALL NOTIFY THE AT&T TELEPHONE COMPANY (DISTRIBUTION) PRIOR TO STARTING WORK NEAR COMPANY FACILITIES AND SHALL COORDINATE HIS WORK WITH COMPANY REPRESENTATIVES. (619) 987-1005 AND/OR (858) 636-5716.
5. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AT 1-800-422-4133
NOT LESS THAN TWO WORKING DAYS PRIOR TO CONDUCTING ANY EXCAVATION WORK ON THIS PROJECT. THIS REQUIREMENT SHALL EXTEND TO EXCAVATION WORK CONDUCTED WITHIN THE PUBLIC PROPERTY. USA WILL PROVIDE THE CONTRACTOR WITH AN INQUIRY IDENTIFICATION NUMBER WHICH WILL SERVE AS PROOF OF THE TIME AND DATE THE CALL WAS MADE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING THIS NUMBER AND PRODUCING IT TO THE CITY OR THEIR REPRESENTATIVE UPON DEMAND.
6. THE CONTRACTOR SHALL MARK OUT THE APPROXIMATE LIMITS OF THE PROPOSED EXCAVATION PRIOR TO CALLING USA IN ORDER TO ASSIST THE EXISTING UTILITY OWNERS IN UNDERSTANDING THE LIMITS OF THE REQUIRED PREMARK SERVICES.
7. CONTACTING USA DOES NOT RELIEVE THE CONTRACTOR OF CONTACTING ALL OWNERS OF NON-PRESSURE CONDUITS (I.E. STORM DRAINS AND GRAVITY SEWERS). OWNERS OF NON-PRESSURE CONDUITS ARE NOT REQUIRED TO BE MEMBERS OF USA; THEREFORE INDIVIDUAL CONTRACTS TO THESE AGENCIES ARE STILL REQUIRED.

UTILITY CONTACT NUMBERS (NOT LISTED ABOVE)

AT&T TELEPHONE COMPANY (LOCAL)	FRED KRUSE	(858) 886-1904
CALIFORNIA AMERICAN WATER	ROBERT BECERRA	(619) 522-6403
CITY OF CORONADO - PUBLIC SERVICES	KIM GODBY	(619) 522-7387
LEVEL 3 COMMUNICATIONS	JAMES DAILEY	(858) 292-2108
TIME WARNER CABLE	RAY HARNS	(858) 635-8266
SDG&E		(800) 411-7343

FRED KRUSE (858) 886-1904
ROBERT BECERRA (619) 522-6403
KIM GODBY (619) 522-7387
JAMES DAILEY (858) 292-2108
RAY HARNS (858) 635-8266
(800) 411-7343

PROJECT CONDITIONS

- PRECISE LIMIT OF WORK, STAGING AREA, AND CONSTRUCTION ACCESS LOCATION WILL BE DETERMINED IN THE FIELD, BY THE CONTRACTOR AND THE CITY'S PROJECT MANAGER, AT THE PRECONSTRUCTION MEETING.
2. DO NOT CLOSE OR OBSTRUCT EXISTING STREETS OR WALKS WITHOUT PERMISSION FROM THE CITY OF CORONADO.
3. ERECT TEMPORARY CONSTRUCTION FENCING, BARRICADES, ENCLOSURES, AND PROTECTION BEFORE STARTING SITE CLEARING AND MAINTAIN FOR THE DURATION OF CONSTRUCTION.
4. CONSTRUCTION ACCESS TO SITE PERMITTED ONLY ACROSS PROTECTED AREA. CONTRACTOR TO PROTECT EXISTING CONCRETE CURBS AND GUTTERS WHEN ACCESSING SITE.
5. INSPECT AND REVIEW THE PROJECT SITE TO DETERMINE EXISTING CONDITIONS WHICH AFFECT CONSTRUCTION OPERATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL SUBSTRUCTURES, WHETHER SHOWN OR NOT, AND PROTECT THEM FROM DAMAGE. CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXPENSE OF REPAIR OR REPLACEMENT OF DAMAGED SUBSTRUCTURES.
6. LOCATION AND ELEVATION OF ALL EXISTING IMPROVEMENTS WITHIN THE AREA SHALL BE CONFIRMED BY FIELD MEASUREMENT PRIOR TO CONSTRUCTION OF NEW WORK.
7. PROTECT EXISTING ELECTRICAL OVERHEAD LINES AND POWER POLES.
8. CONTRACTOR SHALL MARK UNDERGROUND UTILITY LOCATIONS VIA 811 PRIOR TO COMMENCEMENT OF WORK AND SHALL MAINTAIN MARKINGS THROUGH DURATION OF CONSTRUCTION.
9. ONE WEEK PRIOR TO THE START OF WORK, CONTRACTOR SHALL COORDINATE AN ONSITE MEETING WITH PUBLIC SERVICES TO REVIEW AND FLAG ALL IRRIGATION WITHIN THE AREA OF WORK. FLAGGING MUST BE COMPLETED PRIOR TO THE START OF WORK.
10. ALL IRRIGATION TO REMAIN SHALL BE PROTECTED IN PLACE. ANY DAMAGE TO, INCLUDING BUT NOT LIMITED TO, IRRIGATION LINES, HEADS, CONTROLLERS, LATERAL LINES, BACKFLOWS, OR VALVES SHALL BE REPAIRED OR REPLACED PER THE PARKS SUPERVISOR'S SPECIFICATIONS. CONTRACTOR SHALL ENSURE EXISTING IRRIGATION SYSTEM IS FULLY OPERABLE BEFORE AND AFTER CONSTRUCTION.
11. ALL ALTERATIONS TO THE IRRIGATION SYSTEM SHALL BE COORDINATED WITH THE PUBLIC SERVICES PARKS SUPERVISOR TO ENSURE EQUIVALENT COVERAGE IS MAINTAINED.
12. PRIOR TO ANY DISRUPTION TO THE PARK'S WATER SUPPLY EXCEEDING 24 HOURS, CONTRACTOR SHALL CONTACT PUBLIC SERVICES TO COORDINATE. DISRUPTION IN WATER SERVICE SHALL NOT EXCEED 72 HOURS, UNDER ANY CIRCUMSTANCE.
13. SITE ACCESS AND RESTRICTIONS FOR HEAVY EQUIPMENT WILL BE ESTABLISHED DURING PRE-CONSTRUCTION MEETING.
14. ALL WORK OCCURRING WITHIN THE DRIP LINE OF TREES SHALL BE DONE BY HAND UNLESS APPROVED BY THE CITY'S PROJECT MANAGER.
15. MATERIALS, DEBRIS, EQUIPMENT, AND SITE AMENITIES SHALL NOT BE STORED WITHIN TREE DRIPLINES.
16. ANY DIGGING, EXCAVATING, TRENCHING, CHANGING OF GRADE, OR OTHER ACTIONS THAT MAY POTENTIALLY IMPACT AN ESTABLISHED TREE'S ROOTING ENVIRONMENT REQUIRES REVIEW AND AUTHORIZATION BY THE CITY'S PARKS SUPERVISOR. REVIEW REQUESTS REQUIRE A MINIMUM OF 24 HOURS NOTICE.
17. CONTRACTOR SHALL PROTECT LOWER CANOPY OF (E) TREES. CONTACT THE CITY'S PARKS SUPERVISOR IF ANY PRUNING IS NEEDED PRIOR TO WORK IF POTENTIAL FOR DAMAGE EXISTS.
18. TREE PROTECTION AREA FENCING SHALL BE ORANGE SAFETY FENCING, MIN 48" HIGH WITH TOP SECURED TO METAL T-POST WITH 14-GAUGE WIRE WOVEN THROUGH TOP OF FENCING FOR ENTIRE LENGTH. T-POST SHALL BE PLACED SO THAT WIRE AND FENCING ARE TAUT. CHAIN LINK IS ALSO ACCEPTABLE. TREE PROTECTION AREA SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

[illegible]

CITY OF CORONADO

MINIMUM STORM WATER BEST MANAGEMENT PRACTICES (BMPs) FOR CONSTRUCTION.

APPLICABLE TO ALL MEDIUM THREAT AND HIGH THREAT PROJECTS:

1. MINIMUM BMPs ARE TO BE IMPLEMENTED FOR ALL PROJECTS AND ARE SHOWN WITH A "V".
2. SELECT ADDITIONAL BMPs TO BE USED BASED ON THE SPECIFIC PROJECT CONDITIONS BY MARKING WITH AN "X" IN THE SECOND COLUMN.
3. INCLUDE COMPLETED TABLE IN THE PROJECT DRAWINGS.
4. ADD BMP LOCATIONS AND CASQA NO. FROM THE TABLE TO PROJECT DRAWINGS. CONSULT THE CASQA STORMWATER BEST MANAGEMENT PRACTICE HANDBOOK FOR COMPLETE BMP DETAILS AND INFORMATION AT: WWW.CASQA.ORG/RESOURCES/BMP-HANDBOOKS. ONLY 2009 OR LATER VERSIONS OF THE CASQA BMP FACT SHEETS ARE VALID.
5. SELECTED BMP SHALL BE IMPLEMENTED AND REPRESENT THE MINIMUM REQUIREMENTS AND OBLIGATION OF THE PROJECT OWNER AND/OR CONTRACTOR. ADDITIONAL BMPs MAY BE REQUIRED AND SHOULD BE IMPLEMENTED IF THREATED OR ACTUAL DISCHARGE OF SEDIMENT AND/OR POLLUTANTS ARE IDENTIFIED.
6. BMP SELECTION AND TYPE IS SUBJECT TO CITY INSPECTION AND ENFORCEMENT.
7. BMP SITE PLAN BELOW IS A SAMPLE PLAN FOR REFERENCE ONLY. CONTRACTOR SHALL SUBMIT BMP PLAN TO THE CITY OF CORONADO FOR APPROVAL PRIOR TO THE START OF WORK.

Good Housekeeping and Waste Management			
Used to prevent pollutant sources at the project site from being discharged off-site			
BMP Name	Mark with "X" if used	Description	CASQA Reference No.
Material Delivery and Storage	V	Applied to projects with delivery and storage of materials (soil binders, fuel, oils, grease, pesticides, herbicides, fertilizers, plaster, detergents, asphalt, concrete, chemicals, paints, solvents, adhesives, lime, acids, etc.).	WM-1
Material Use	V	Applied to projects where materials are used (soil binders, pesticides, herbicides, fertilizers, detergents, plaster, fuel, oils, grease, asphalt, concrete, chemicals, paints, solvents, adhesives, lime, acids, glues, etc.).	WM-2
Stockpile Management	V	Used for soil and material stockpiles at all project sites.	WM-3
Spill Prevention and Control	V	Applied to project sites where materials are used (soil binders, pesticides, herbicides, fertilizers, detergents, plaster, fuel, oils, grease, asphalt, concrete, chemicals, paints, solvents, adhesives, lime, acids, glues, etc.).	WM-4
Solid Waste Management	V	Suitable for all projects generating solid waste (landscaping, rubble, masonry, plumbing, scrap, packaging materials, domestic waste, etc.).	WM-5
Concrete Waste Management	V	Applied at all construction sites with concrete use.	WM-8
Sanitary Waste Management	V	Installed at all sites with temporary or portable sanitary or septic systems.	WM-9
Liquid Waste Management	V	Applied at all construction sites with non-hazardous, liquids (drilling slurries and fluids, dredging, rinse water, wastewater, etc.).	WM-10

Wind and Tracking Control			
Used to prevent and reduce dust nuisance and tracking sediment off-site by equipment and vehicles			
BMP Name	Mark with "X" if used	Description	CASQA Reference No.
Wind Erosion Control	V	Most erosion BMPs are also suitable to protect against wind erosion. Watering is effective for short-term dust control. Excessive watering can cause erosion and create runoff	WE-1
Stabilized Construction Entrance / Exit	V	Used at construction sites where expose soil is part of the access path for construction vehicles onto public or private street or alley	TC-1

Erosion Control			
All graded or cleared areas with exposed soil and stockpiles left un-disturbed or without actual construction work taking place for more than 14 calendar days shall implement erosion control measures on all exposed soils. Projects shall apply EC-1 and EC-2, and select one or more of BMPs EC-3 through EC-8 and/or EC-14 through EC-16.			
Erosion control BMPs shall be used to the extent practical and to prevent erosion of soil on the project site. Sites that cannot practically implement Erosion Control shall select all appropriate Sediment Control BMPs to provide equivalent control of pollutant discharges.			
BMP Name	Mark with "X" if used	Description	CASQA Reference No.
Scheduling	V	Use project scheduling and management to reduce erosion potential. Minimize activities including demolition and grading during rainy season	EC-1
Preservation of Existing Vegetation		Used on most projects to minimize erosion	EC-2
Hydraulic Mulch		Temporary, stand-alone BMP, suitable for disturbed areas until permanent stabilization is established	EC-3
Hydroseeding		Temporary protection for disturbed areas until permanent stabilization is incorporated that will be re-disturbed	EC-4
Soil Binders		Temporary protection for areas where grading will resume	EC-5
Straw Mulch		Temporary protection for disturbed areas until permanent stabilization is incorporated that will be re-disturbed	EC-6
Geotextile & Mats		Applied to slopes with high erosion potential with low vegetation. Also used for swales, and high traffic areas	EC-7
Wood Mulching		Temporary, stand-alone BMP, suitable for disturbed areas until permanent stabilization is established	EC-8
Earth Dikes and Drainage Swales		Used to divert runoff flows from one area to another	EC-9
Slope Drains		Used to intercept concentrated flows and convey to another point or area	EC-11
Compost Blanket		Used on slopes and disturbed areas until permanent stabilization is established	EC-14
Soil Preparation / Roughening		Used to establish permanent vegetation on disturbed soil. Used with other soil stabilization methods. Roughening is also track walking a slope	EC-15
Non-vegetative Stabilization		Temporary or permanent stabilization of areas prone to erosion using a variety of materials (DG, mulch, geotextile, mats, gravel, soil binders)	EC-16
Sediment Control			
Sediment control is required on all projects until final inspection. Sediment controls may need to be added or increased during rainy weather.			
Select at minimum one perimeter control (SE-1, SE-5, SE-6, SE-8, SE-13 or SE-14).			
Sites that cannot practically implement Erosion Control shall select all appropriate Sediment Control BMPs to provide equivalent control of pollutant discharges.			
BMP Name	Mark with "X" if used	Description	CASQA Reference No.
Silt Fence		Applied for perimeter control and sheet flow discharge, and around inlets	SE-1
Check Dam	V	Used to reduce channel (small) flow velocity, or in swales, or ditches	SE-3
Fiber Rolls	V	Used for perimeter control, slope transitions, along the toe, top or face of the slope to shorten slope length. Suitable for inlet protection.	SE-5
Gravel Bag Berm	V	Used for perimeter control, and along the toe, top or face of the slope to shorten the slope length. Also suitable as inlet protection and temporary stockpiles	SE-6
Street Sweeping and Vacuuming	V	Used on public or private streets/alleys near the entrance/exit to the project site, and prior to final paving. Sweeping applies to sidewalks and curb and gutters at or adjacent to the project site	SE-7
Sandbag Barrier		Used on perimeter control, along the toe, top or face of the slope to shorten slope length. As inlet protection and temporary stockpiles	SE-8
Storm Drain Inlet Protection	V	Used with geotextile under inlet grates, gravel bags, and fiber rolls	SE-9
Compost Sock and Berms		Used for perimeter control, along the toe, top or face of the slope to shorten the slope length. Inlet protection. Temporary stockpiles	SE-13
Biofilter Bags		Used for perimeter control, along the toe, top or face of the slope to shorten the slope length. Inlet protection. Temporary stockpiles	SE-14

Non-Stormwater Management			
Installed or used to prevent pollutants discharges off-site by controlling contact with rain or flowing water at the source.			
BMP Name	Mark with "X" if used	Description	CASQA Reference No.
Water Conservation Practices	V	Applied at all sites and all water sources (metered, trucked, piped, etc.)	NS-1
Dewatering Operations		Applied to non-stormwater discharges, including groundwater, cofferdams, diversions	NS-2
Paving and Grinding Operations		Used for paving, surfacing, resurfacing, saw cutting, and similar activities	NS-3
Clear Water Diversion		Installed to isolate construction activities within or near water (streambank stabilization, abutment, bridge, pier, culvert, etc.)	NS-5
Illegal Connection / Discharge	V	Applicable to any illicit connection or discharge illegal or not, at any time	NS-6
Potable Water / Irrigation	V	Used at project sites with irrigation or irrigation runoff from off-site	NS-7
Vehicle and Equipment Cleaning	V	Used at all project sites with vehicle and equipment cleaning activities	NS-8
Vehicle and Equipment Fueling	V	Applicable to all construction sites with vehicle and equipment fueling activities	NS-9
Vehicle and Equipment Maintenance	V	Applicable to all construction sites with vehicle and equipment fueling activities	NS-10
Pile Driving Operations		Applicable to all construction sites near or adjacent to a water or groundwater sources. May include dewatering activities	NS-11
Concrete Curing	V	Used on all projects with Portland Cement Concrete and concrete curing chemicals exposed to rainfall, runoff, or run-on that may leave the site.	NS-12
Concrete Finishing	V	Used on all projects with Portland Cement Concrete and concrete curing chemicals exposed to rainfall, runoff, or run-on that may leave the site.	NS-13
Material Over Water		Applies to materials and equipment used on barges, boats, docks, and other work platforms over or adjacent to water.	NS-14
Demolition Adjacent to Water		Applied to demolition or removal work of bridges, concrete channels, or any other structure near or adjacent to water.	NS-15

GENERAL STORMWATER REQUIREMENTS

DURING CONSTRUCTION, INCLUDING DEMOLITION ACTIVITIES, THE APPLICANT MUST IMPLEMENT EFFECTIVE EROSION CONTROL, SEDIMENT CONTROL, AND WATER POLLUTION PREVENTION BEST MANAGEMENT PRACTICES (BMPs) IN ACCORDANCE WITH THE CITY OF CORONADO'S MUNICIPAL CODE TITLE 61 "STORMWATER AND URBAN RUN-OFF MANAGEMENT AND DISCHARGE CONTROL" AND THE MUNICIPAL STORM WATER PERMIT (NPDES PERMIT NO. 2007-0001) ISSUED BY THE SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD TO PREVENT THE DISCHARGE OF SEDIMENT AND CONTAMINANTS INTO THE STORM DRAIN SYSTEM AND RECEIVING WATERS.

THE TYPES AND NUMBER OF BMPs IMPLEMENTED ON THE CONSTRUCTION SITE MUST BE APPROPRIATE FOR THE PHASE OF CONSTRUCTION (E.G., GRUBBING, DEMOLITION, CONCRETE WORK) AND EFFECTIVE AT CONTROLLING POLLUTANTS. BMPs MUST BE REPLACED, UPGRADED AND MAINTAINED INCLUDING REPAIRS AS OFTEN AS NEEDED TO MAINTAIN THEIR EFFECTIVENESS.

PROJECT OWNERS AND/OR CONTRACTORS SHALL HAVE ADDITIONAL BMP MATERIALS ON-HAND, AT THE PROJECT SITE TO CONDUCT TIMELY REPAIRS OR ADDITIONS TO MAINTAIN EFFECTIVENESS.

PERIODIC INSPECTION OF BMPs SHALL BE CONDUCTED BY THE PROJECT OWNER AND/OR CONTRACTOR TO VERIFY BMP EFFECTIVENESS. BMPs SHALL BE INSPECTED, REPAIRED, AND/OR AUGMENTED, AS NEEDED, 24 HOURS PRIOR TO A FORECAST RAIN EVENT OF 1/10TH OF AN INCH OR GREATER WITH A 50% PROBABILITY.

CONSTRUCTION SITES AND BMPs ARE SUBJECT TO INSPECTION BY THE CITY OF CORONADO AND ANY IDENTIFIED REPAIRS OR DEFICIENCIES MAY RESULT IN ENFORCEMENT ACTIONS, INCLUDING AND NOT LIMITED TO A: WARNING NOTICE, NOTICE OF VIOLATION, STOP WORK ORDER, AND ADMINISTRATIVE ENFORCEMENT.

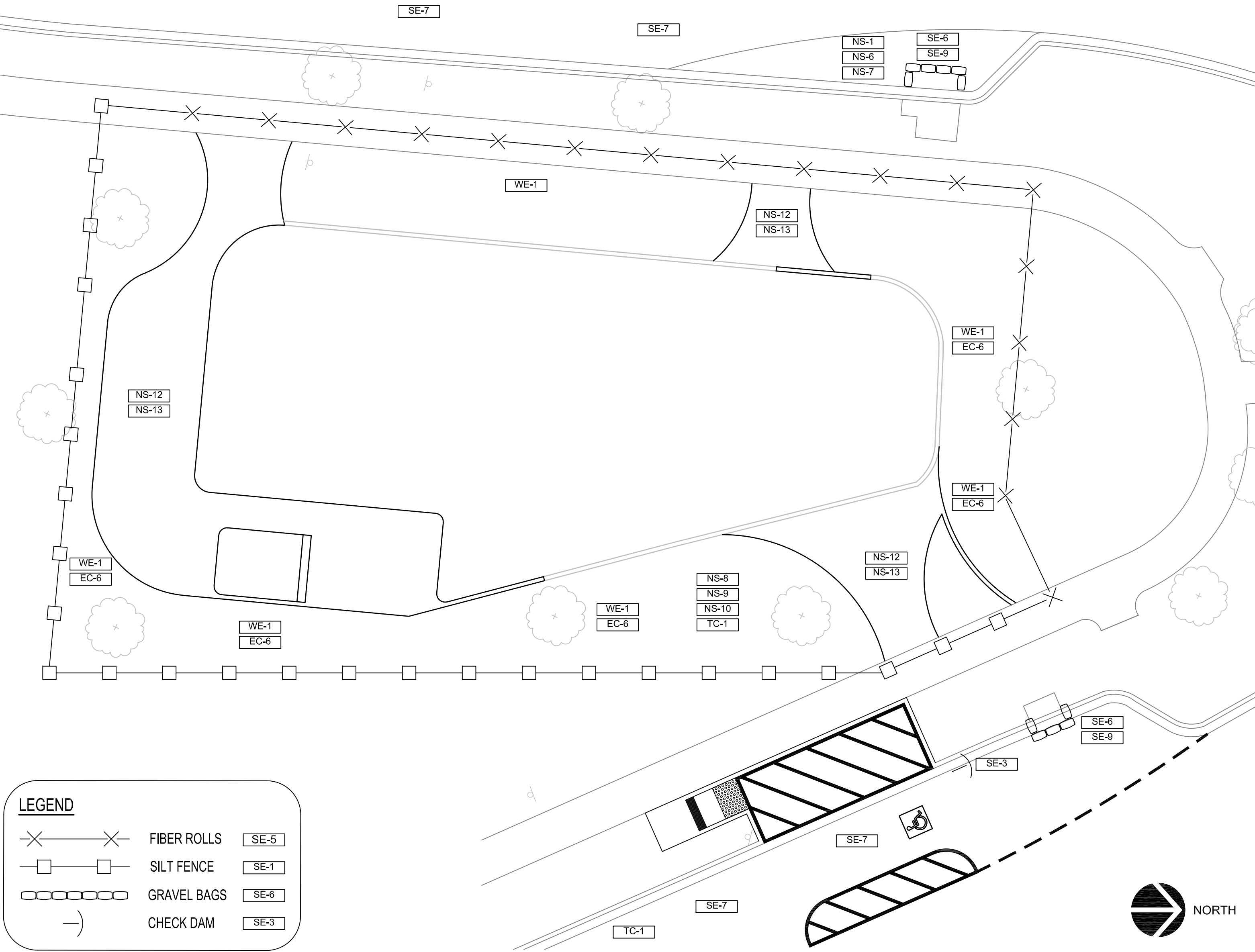
ALL CONTAINERS INCLUDING ROLL-OFF, DUMPSTERS OR OTHER THAT ARE LOCATED ON THE RIGHT OF WAY SHALL IMPLEMENT CONSTRUCTION BMPs TO ELIMINATE CONTROL AND ELIMINATE DISCHARGES OF MATERIALS, WASTES, SEDIMENT, DEBRIS, AND TRASH TO THE RIGHT OF WAY AND STORM DRAIN SYSTEM. ANY NEAR-BY STORM DRAIN INLETS SHALL ALSO BE PROTECTED.

THIS PROJECT HAS BEEN DETERMINED TO BE CLASSIFIED FOR CONSTRUCTION PHASE IMPLEMENTATION OF STORM WATER BMPs AS:

- ☐ HIGH THREAT
☒ MEDIUM THREAT
☐ EXEMPT

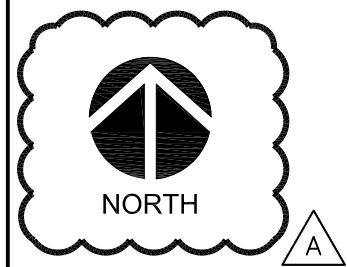
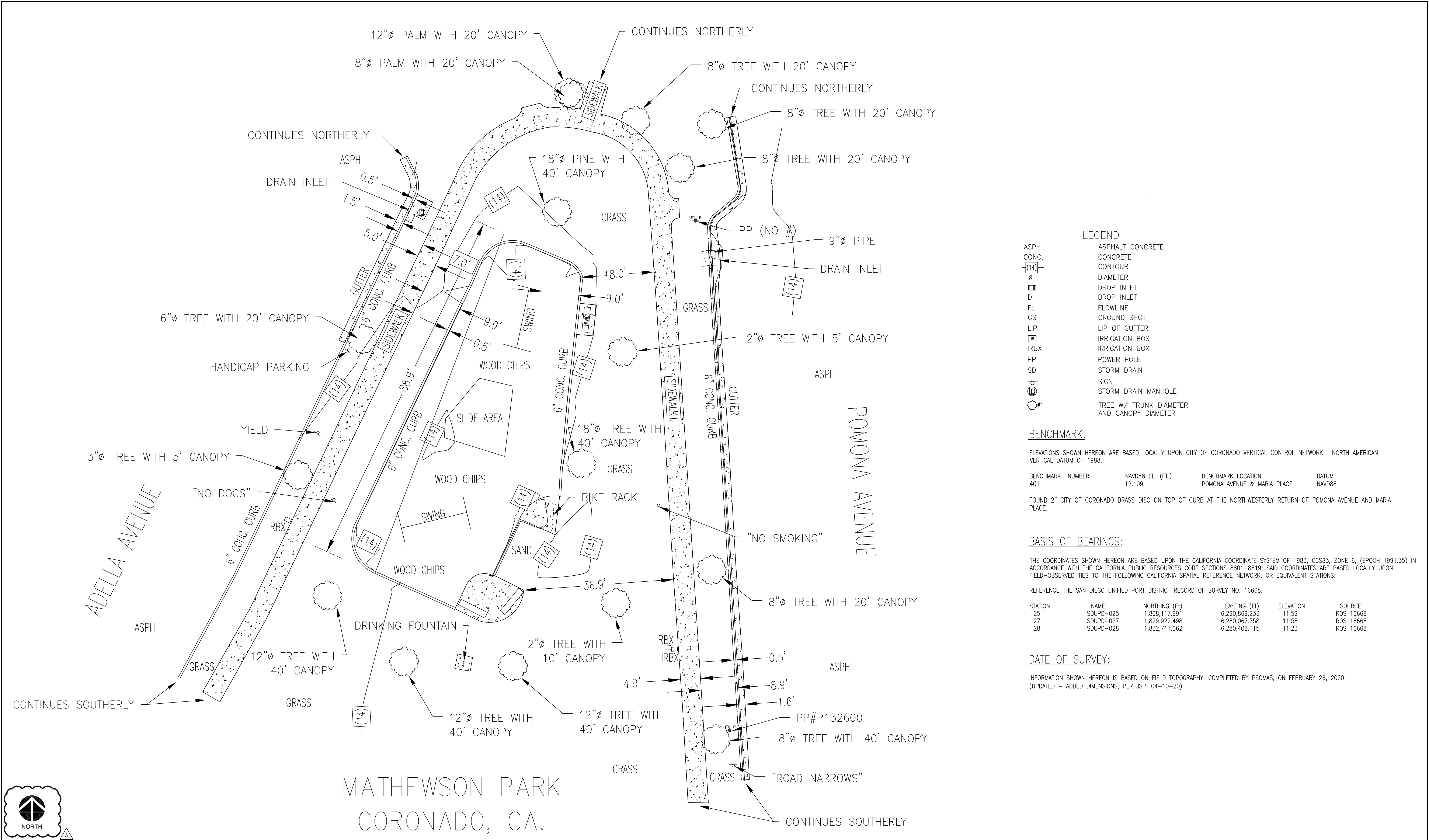
THIS PROJECT HAS BEEN DETERMINED TO BE CLASSIFIED FOR POST-CONSTRUCTION PHASE IMPLEMENTATION OF STORM WATER BMPs AS:

- ☐ PRIORITY DEVELOPMENT PROJECT
☐ STANDARD DEVELOPMENT PROJECT
☒ EXEMPT



SAMPLE BMP SITE PLAN – FOR REFERENCE ONLY

REVISION	DESCRIPTION	APP'D	DATE	CITY OF CORONADO PUBLIC SERVICES & ENGINEERING DEPARTMENT				REVIEWED BY	INITIALS	DATE	APPROVED BY:	<div><div><div>0</div><div>1</div></div><div>SHEET SIZE AND SCALE: IF SHEET SIZE IS LESS THAN 24" X 36" OR THIS BAR MEASURES LESS THAN 1", IT IS A REDUCED PRINT - SCALE ACCORDINGLY</div></div>	PROJECT TITLE	PROJECT NUMBER
	PLAN CHECK SUBMITTAL		04.13.2020					CLIFF MAURER			ED WALTON - CITY ENGINEER	DATE	<div>MATHEWSON PARK PLAYGROUND RENOVATIONS</div> <div>ADELLA AVENUE, SEVENTH STREET, AND POMONA AVENUE CORONADO, CALIFORNIA 92118</div>	M-564
A	PLAN CHECK RESUBMITTAL #1		07.13.2020					ROGER MILLER			PLANS PREPARED UNDER THE SUPERVISION OF:			SHEET NAME
								JACQUELINE LU			<div><div><div><div></div><div>Ruby Lynn Carr</div><div>07.13.2020</div></div><div>DATE</div></div><div>RUBY LYNN CARR - ARCHITECT OF RECORD 101 B AVENUE, CORONADO, CA 92118 OFFICE - 619.522.6507 MOBILE - 619.609.8300</div></div>			BEST MANAGEMENT PRACTICES
								KIM GODOBY						SHEET NO.
								JAN LASLEY		07.13.2020				G003
								ART VALDIVIA						



REVISION	DESCRIPTION	APP'D	DATE
	PLAN CHECK SUBMITTAL		04.13.2020
A	PLAN CHECK RESUBMITTAL #1		07.13.2020

CITY OF CORONADO

PUBLIC SERVICES & ENGINEERING
DEPARTMENT

REVIEWED BY: CLIFF MAURER, ROGER MILLER, JACQUELINE LIU, KIM GODBY, IAN LASLEY, ART VALDIVIA

INITIALS

DATE: 07.13.2020

APPROVED BY: ED WALTON - CITY ENGINEER

DATE

PLANS PREPARED UNDER THE SUPERVISION OF: RUBY LYNN CARR - ARCHITECT OF RECORD

DATE: 07.13.2020

101 B AVENUE, CORONADO, CA 92118

OFFICE - 619.522.6507 MOBILE - 619.609.8300

Licensed Architect

Ruby Lynn Carr

C-36561

06-20-2021

STATE OF CALIFORNIA

0 1

SHEET SIZE AND SCALE: IF SHEET SIZE IS LESS THAN 24" X 36" OR THIS BAR MEASURES LESS THAN 1", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

UNDERGROUND SERVICE ALERT DIAL 811 OR 800.422.4133 AT LEAST TWO WORKING DAYS BEFORE YOU DIG

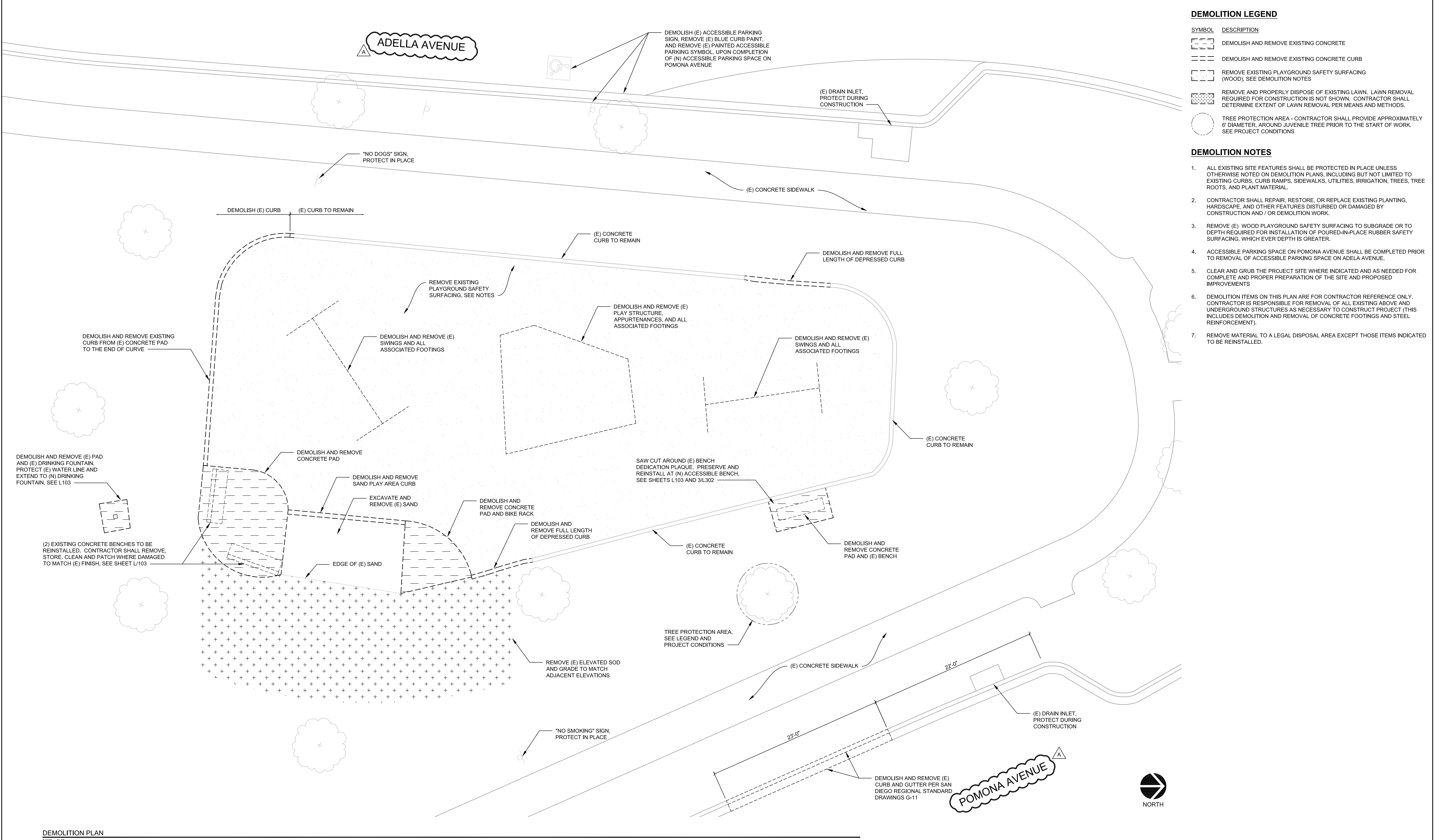
PROJECT TITLE: MATHEWSON PARK PLAYGROUND RENOVATIONS

PROJECT LOCATION: ADELLA AVENUE, SEVENTH STREET, AND POMONA AVENUE CORONADO, CALIFORNIA 92118

PROJECT NUMBER: M-564

SHEET NAME: EXISTING CONDITIONS

SHEET NO. L101



DEMOLITION LEGEND

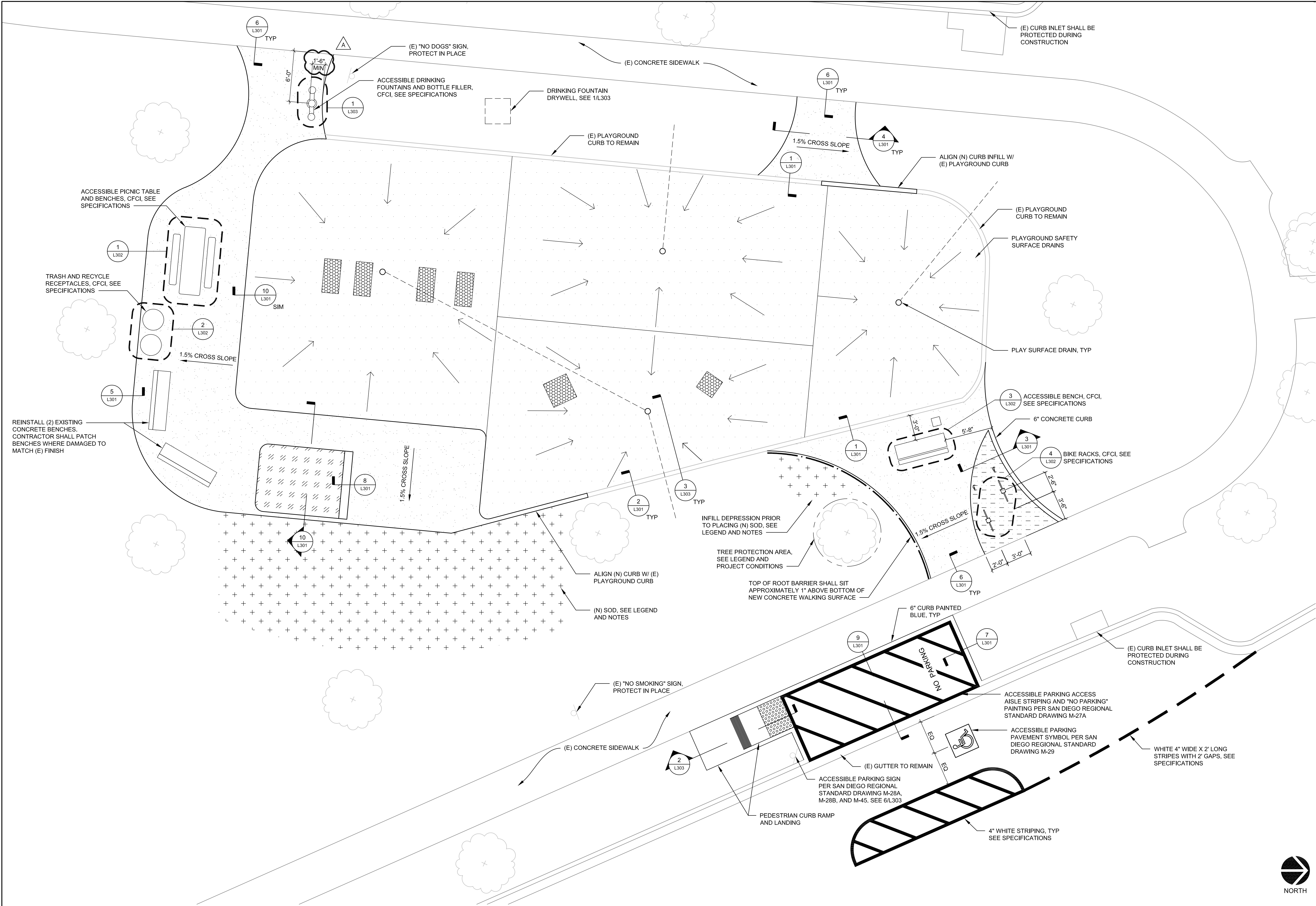
SYMBOL	DESCRIPTION
	DEMOLISH AND REMOVE EXISTING CONCRETE
	DEMOLISH AND REMOVE EXISTING CONCRETE CURB
	REMOVE EXISTING PLAYGROUND SAFETY SURFACING (WOOD). SEE DEMOLITION NOTES
	REMOVE AND PROPERLY DISPOSE OF EXISTING LAWN. LAWN REMOVAL REQUIRED FOR CONSTRUCTION IS NOT SHOWN. CONTRACTOR SHALL DETERMINE EXTENT OF LAWN REMOVAL PER MEANS AND METHODS.
	TREE PROTECTION AREA - CONTRACTOR SHALL PROVIDE APPROXIMATELY 8' DIAMETER, AROUND JUVENILE TREE PRIOR TO THE START OF WORK. SEE PROJECT CONDITIONS

DEMOLITION NOTES

- ALL EXISTING SITE FEATURES SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED ON DEMOLITION PLANS, INCLUDING BUT NOT LIMITED TO EXISTING CURBS, CURB RAMPS, SIDEWALKS, UTILITIES, IRRIGATION, TREES, TREE ROOTS, AND PLANT MATERIAL.
- CONTRACTOR SHALL REPAIR, RESTORE, OR REPLACE EXISTING PLANTING, HARDSCAPE, AND OTHER FEATURES DISTURBED OR DAMAGED BY CONSTRUCTION AND / OR DEMOLITION WORK.
- REMOVE (E) WOOD PLAYGROUND SAFETY SURFACING TO SUBGRADE OR TO DEPTH REQUIRED FOR INSTALLATION OF POURED-IN-PLACE RUBBER SAFETY SURFACING, WHICH EVER DEPTH IS GREATER.
- ACCESSIBLE PARKING SPACE ON POMONA AVENUE SHALL BE COMPLETED PRIOR TO REMOVAL OF ACCESSIBLE PARKING SPACE ON ADELA AVENUE.
- CLEAR AND GRUB THE PROJECT SITE WHERE INDICATED AND AS NEEDED FOR COMPLETE AND PROPER PREPARATION OF THE SITE AND PROPOSED IMPROVEMENTS
- DEMOLITION ITEMS ON THIS PLAN ARE FOR CONTRACTOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL EXISTING ABOVE AND UNDERGROUND STRUCTURES AS NECESSARY TO CONSTRUCT PROJECT (THIS INCLUDES DEMOLITION AND REMOVAL OF CONCRETE FOOTINGS AND STEEL REINFORCEMENT).
- REMOVE MATERIAL TO A LEGAL DISPOSAL AREA EXCEPT THOSE ITEMS INDICATED TO BE REINSTALLED.

DEMOLITION PLAN
3/16" = 1'-0"

REVISION	DESCRIPTION	APP'D	DATE	CITY OF CORONADO PUBLIC SERVICES & ENGINEERING DEPARTMENT				REVIEWED BY	INITIALS	DATE	APPROVED BY:	PROJECT TITLE MATHEWSON PARK PLAYGROUND RENOVATIONS	PROJECT LOCATION ADELA AVENUE, SEVENTH STREET, AND POMONA AVENUE CORONADO, CALIFORNIA 92118	PROJECT NUMBER M-564
A	PLAN CHECK SUBMITTAL		04.13.2020					CLIFF MAURER			ED WALTON - CITY ENGINEER			SHEET NAME DEMOLITION PLAN
	PLAN CHECK RESUBMITTAL #1		07.13.2020					ROGER MILLER						
								JACQUELINE LIU			PLANS PREPARED UNDER THE SUPERVISION OF:			
								KIM GODBY			RUBY LYNN CARR - ARCHITECT OF RECORD			
								IAN LASLEY		07.13.2020	DATE			
								ART VALDIVIA			101 B AVENUE, CORONADO, CA 92118			
											OFFICE - 619.522.6507 MOBILE - 619.609.8300			
														SHEET NO. L102



- LEGEND**
- | SYMBOL | DESCRIPTION |
|-----------|--|
| [Pattern] | PLAYGROUND SAFETY SURFACING, SEE NOTES AND SPECIFICATIONS |
| [Pattern] | WEAR RESISTANT PLAYGROUND SAFETY SURFACING AT SLIDE EXITS AND UNDER SWINGS |
| [Pattern] | CONCRETE WALKING SURFACE, SEE SHEET L104 FOR DIMENSION AND SCORING PATTERN |
| [Pattern] | PLAYGROUND SAND BY KRC ROCK LANDSCAPE AND BUILDING MATERIALS OR EQUAL |
| [Pattern] | NEW SOD TO BE FLUSH WITH ADJACENT (E) SOD. A SMOOTH TRANSITION SHALL BE PROVIDED. |
| [Pattern] | DECOMPOSED GRANITE, SEE SPECIFICATIONS |
| [Line] | ROOT BARRIER, SEE SPECIFICATIONS |
| [Arrow] | CLASS II AGGREGATE, 1% SLOPE TO DRAIN, SEE SPECIFICATIONS |
| [Circle] | TREE PROTECTION AREA - CONTRACTOR SHALL PROVIDE APPROXIMATELY 6' DIAMETER, AROUND JUVENILE TREE PRIOR TO THE START OF WORK. SEE PROJECT CONDITIONS 18/G002 |

- NOTES**
- PER CBC 11B-403.3 THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:20. THE CROSS SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:48. SLOPE AWAY FROM PLAYGROUND SAFETY SURFACING.
 - (E) PLAYGROUND CURB, (N) CURBS, AND CONCRETE WALKING SURFACE SHALL BE FLUSH.
 - (E) SIDEWALK AND CONCRETE WALKING SURFACE SHALL BE FLUSH.
 - REFER TO L104 - LAYOUT PLAN FOR DIMENSIONS.
 - MARK LOCATIONS AND GAIN APPROVAL FROM CITY'S PROJECT MANAGER PRIOR TO INSTALLATION OF PICNIC TABLE AND BENCHES.
 - PLAYGROUND CONTAINMENT CURB SHALL BE PRIMED PER MANUFACTURER'S RECOMMENDATION PRIOR TO INSTALLATION OF PLAYGROUND SAFETY SURFACING.
 - PLAYGROUND SAFETY SURFACING REQUIRES 3 DAYS DRYING TIME. CONTRACTOR SHALL PROVIDE SECURITY FOR THE FIRST 24 HOURS AFTER INSTALL TO PREVENT DAMAGE.
 - SOD AREA AND QUANTITY SHOWN IS CONCEPTUAL. CONTRACTOR TO RESTORE ALL DISTURBED AREAS.
 - MAXIMUM SLOPE OF THE ACCESSIBLE PARKING SURFACE AND ADJACENT ACCESS AISLE, IN ANY DIRECTION, SHALL BE LESS THAN OR EQUAL TO 1:48.
 - ACCESSIBLE PARKING SIGN SHALL BE PERMANENTLY POSTED IMMEDIATELY ADJACENT TO AND VISIBLE FROM ACCESSIBLE PARKING SPACE.

SITE PLAN
3/16" = 1'-0"

REVISION	DESCRIPTION	APP'D	DATE
	PLAN CHECK SUBMITTAL		04.13.2020
A	PLAN CHECK RESUBMITTAL #1		07.13.2020

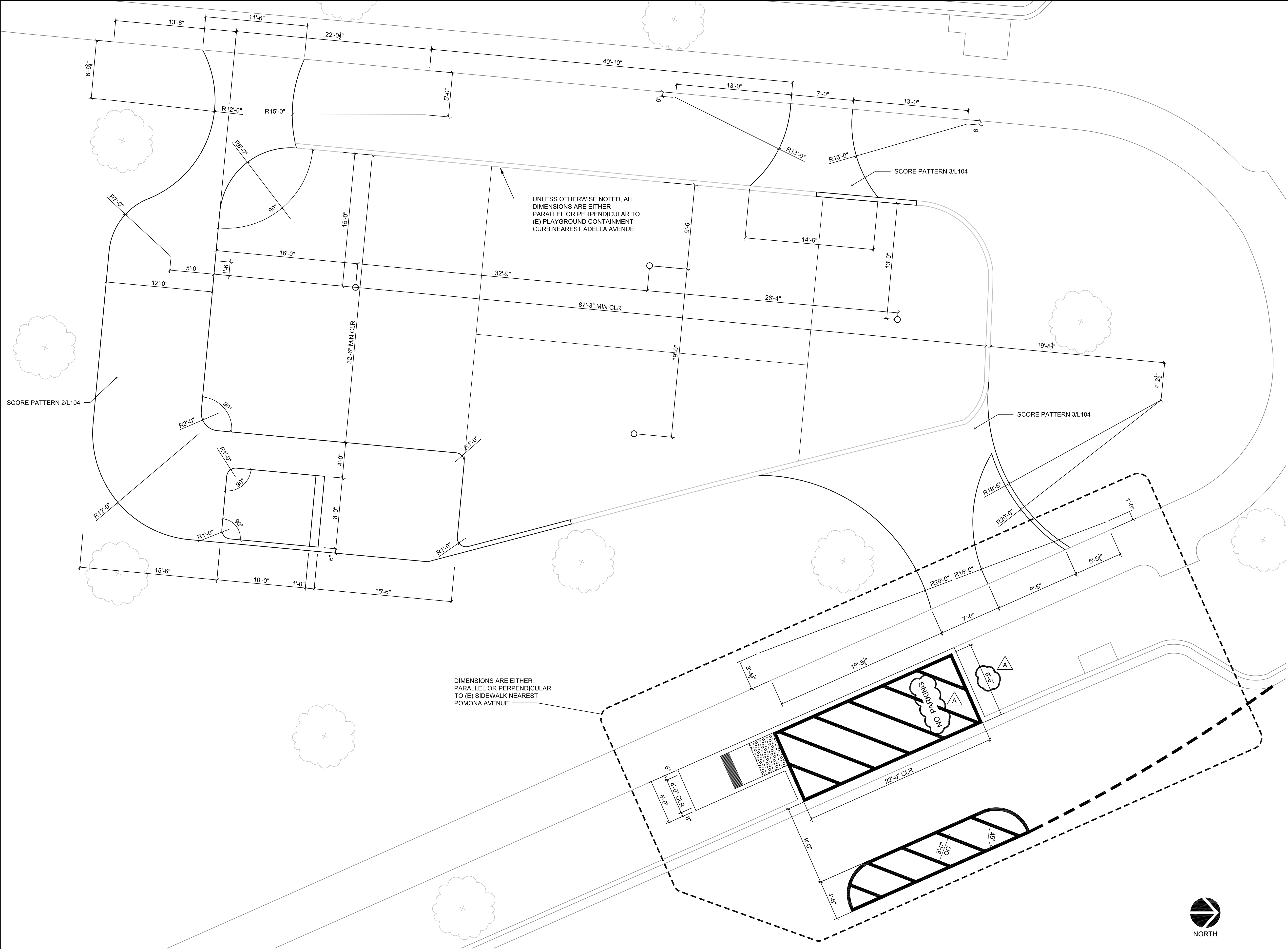
CITY OF CORONADO
PUBLIC SERVICES & ENGINEERING
DEPARTMENT

REVIEWED BY	INITIALS	DATE	APPROVED BY:
CLIFF MAURER			ED WALTON - CITY ENGINEER
ROGER MILLER			
JACQUELINE LU			
KIM GODBY			
IAN LASLEY			
ART VALDIVIA			
			PLANS PREPARED UNDER THE SUPERVISION OF:
			RUBY LYNN CARR - ARCHITECT OF RECORD
			101 B AVENUE, CORONADO, CA 92118
			OFFICE - 619.522.6507 MOBILE - 619.609.8300

0 1
SHEET SIZE AND SCALE:
IF SHEET SIZE IS LESS THAN
24" X 36" OR THIS BAR MEASURES LESS
THAN 1", IT IS A REDUCED PRINT -
SCALE ACCORDINGLY

UNDERGROUND SERVICE ALERT
DIAL 811 OR 800.422.4133
AT LEAST TWO WORKING DAYS
BEFORE YOU DIG

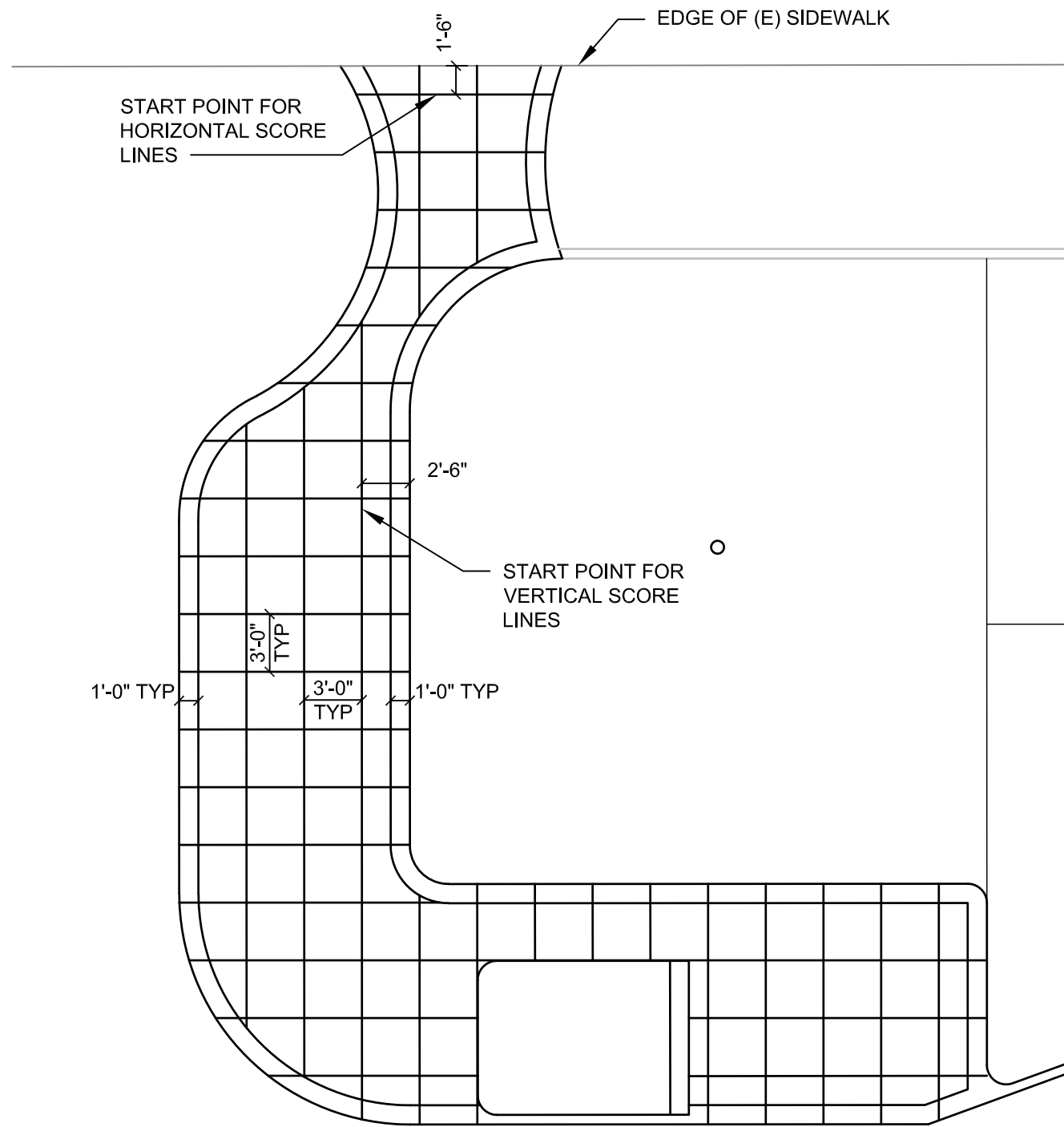
PROJECT TITLE	MATHEWSON PARK PLAYGROUND RENOVATIONS	PROJECT NUMBER	M-564
PROJECT LOCATION	ADELLA AVENUE, SEVENTH STREET, AND POMONA AVENUE CORONADO, CALIFORNIA 92118	SHEET NAME	SITE PLAN
		SHEET NO.	L103



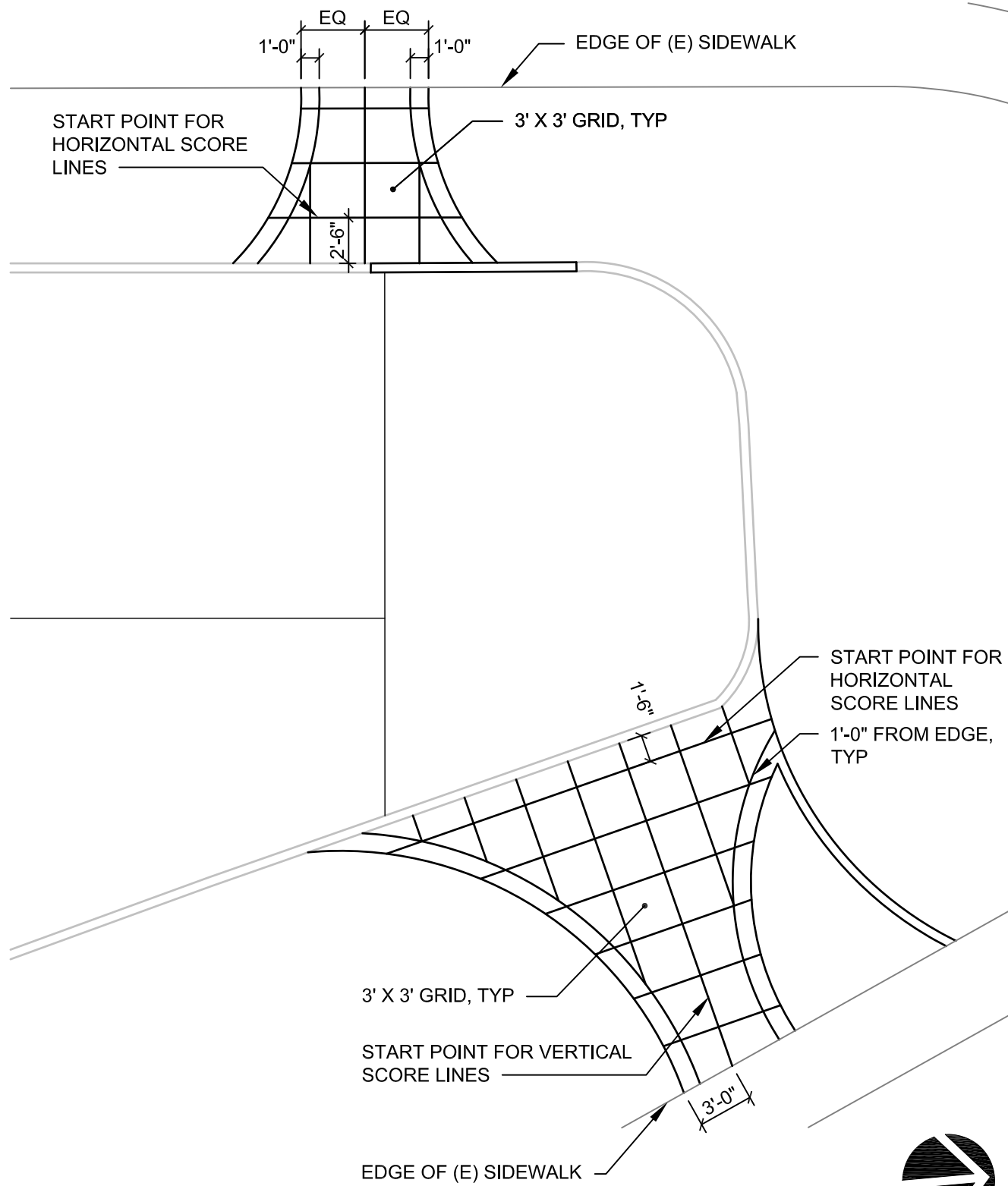
1 LAYOUT PLAN
3/16" = 1'-0"

NOTE

SEE SAN DIEGO REGIONAL STANDARD DRAWING G-09 FOR EXPANSION JOINT, WEAKENED PLANE JOINT, AND GROOVE LOCATIONS.



2 SCORING PATTERN
1/8" = 1'-0"



3 SCORING PATTERN
1/8" = 1'-0"

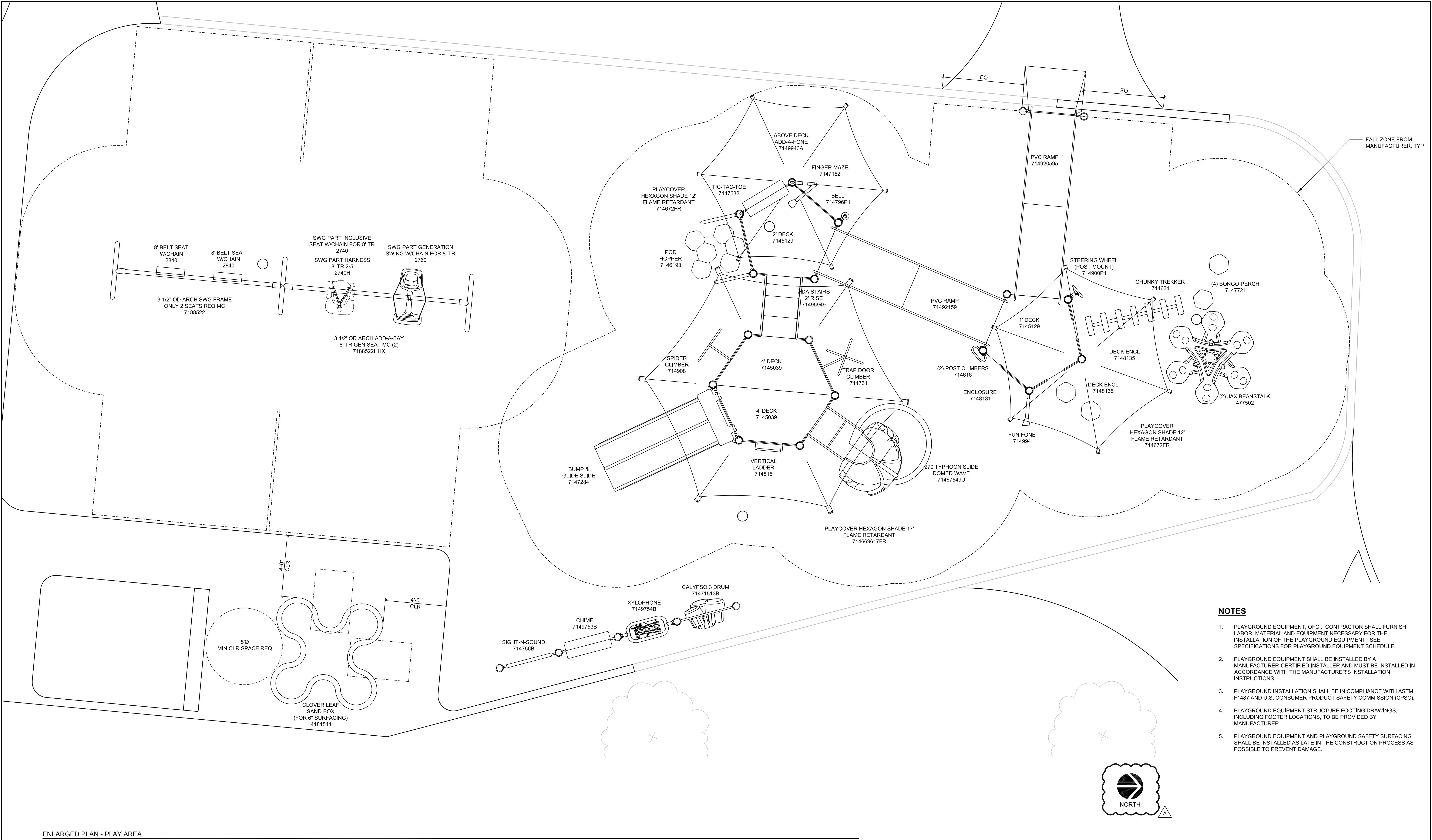
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A	PLAN CHECK SUBMITTAL		04.13.2020
	PLAN CHECK RESUBMITTAL #1		07.13.2020

CITY OF CORONADO
PUBLIC SERVICES & ENGINEERING
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KIM GODBY			
IAN LASLEY			
ART VALDIVIA			
			PLANS PREPARED UNDER THE SUPERVISION OF:
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			101 B AVENUE, CORONADO, CA 92118
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0 1 24" X 36" OR THIS BAR MEASURES LESS THAN 1", IT IS A REDUCED PRINT - SCALE ACCORDINGLY	UNDERGROUND SERVICE ALERT DIAL 811 OR 800.422.4133 AT LEAST TWO WORKING DAYS BEFORE YOU DIG
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PROJECT TITLE MATHEWSON PARK PLAYGROUND RENOVATIONS	PROJECT LOCATION ADELLA AVENUE, SEVENTH STREET, AND POMONA AVENUE CORONADO, CALIFORNIA 92118
PROJECT NUMBER M-564	SHEET NAME LAYOUT PLAN
SHEET NO. L104	



- NOTES**
1. PLAYGROUND EQUIPMENT, OFCI, CONTRACTOR SHALL FURNISH LABOR, MATERIAL AND EQUIPMENT NECESSARY FOR THE INSTALLATION OF THE PLAYGROUND EQUIPMENT. SEE SPECIFICATIONS FOR PLAYGROUND EQUIPMENT SCHEDULE.
 2. PLAYGROUND EQUIPMENT SHALL BE INSTALLED BY A MANUFACTURER-CERTIFIED INSTALLER AND MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 3. PLAYGROUND INSTALLATION SHALL BE IN COMPLIANCE WITH ASTM F1487 AND U.S. CONSUMER PRODUCT SAFETY COMMISSION (CPSC).
 4. PLAYGROUND EQUIPMENT STRUCTURE FOOTING DRAWINGS, INCLUDING FOOTER LOCATIONS, TO BE PROVIDED BY MANUFACTURER.
 5. PLAYGROUND EQUIPMENT AND PLAYGROUND SAFETY SURFACING SHALL BE INSTALLED AS LATE IN THE CONSTRUCTION PROCESS AS POSSIBLE TO PREVENT DAMAGE.

REVISION	DESCRIPTION	APP'D	DATE
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	PLAN CHECK RESUBMITTAL #1		07.13.2020

CITY OF CORONADO

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ROGER MILLER			
JACQUELINE LIU			PLANS PREPARED UNDER THE SUPERVISION OF:
KIM GODBY			<i>Ruby Lynn Carr</i>
JAN LASLEY		07.13.2020	RUBY LYNN CARR - ARCHITECT OF RECORD
ART VALDIVIA			101 B AVENUE, CORONADO, CA 92118
			OFFICE - 619.522.6507 MOBILE - 619.609.8300

LICENSED ARCHITECT

RUBY LYNN CARR

C-36561

06-20-2021

STATE OF CALIFORNIA

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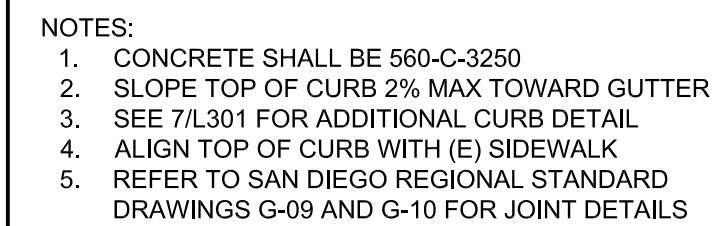
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MATHEWSON PARK PLAYGROUND RENOVATIONS

PROJECT LOCATION
ADELLA AVENUE, SEVENTH STREET, AND POMONA AVENUE
CORONADO, CALIFORNIA 92118

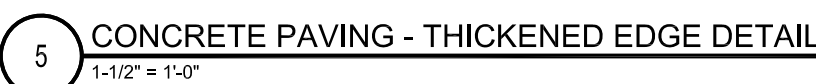
PROJECT NUMBER
M-564

SHEET NAME
**ENLARGED PLAN -
PLAY AREA**

SHEET NO.
L201

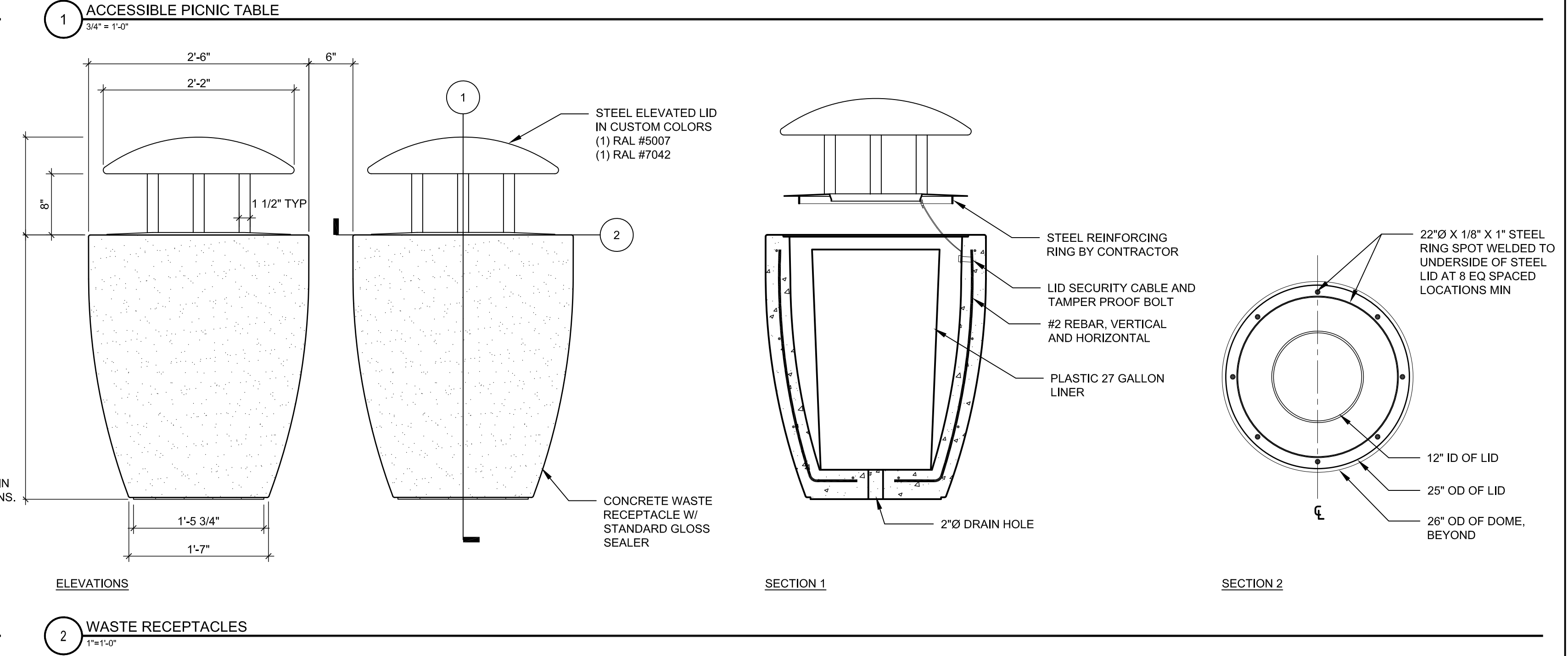
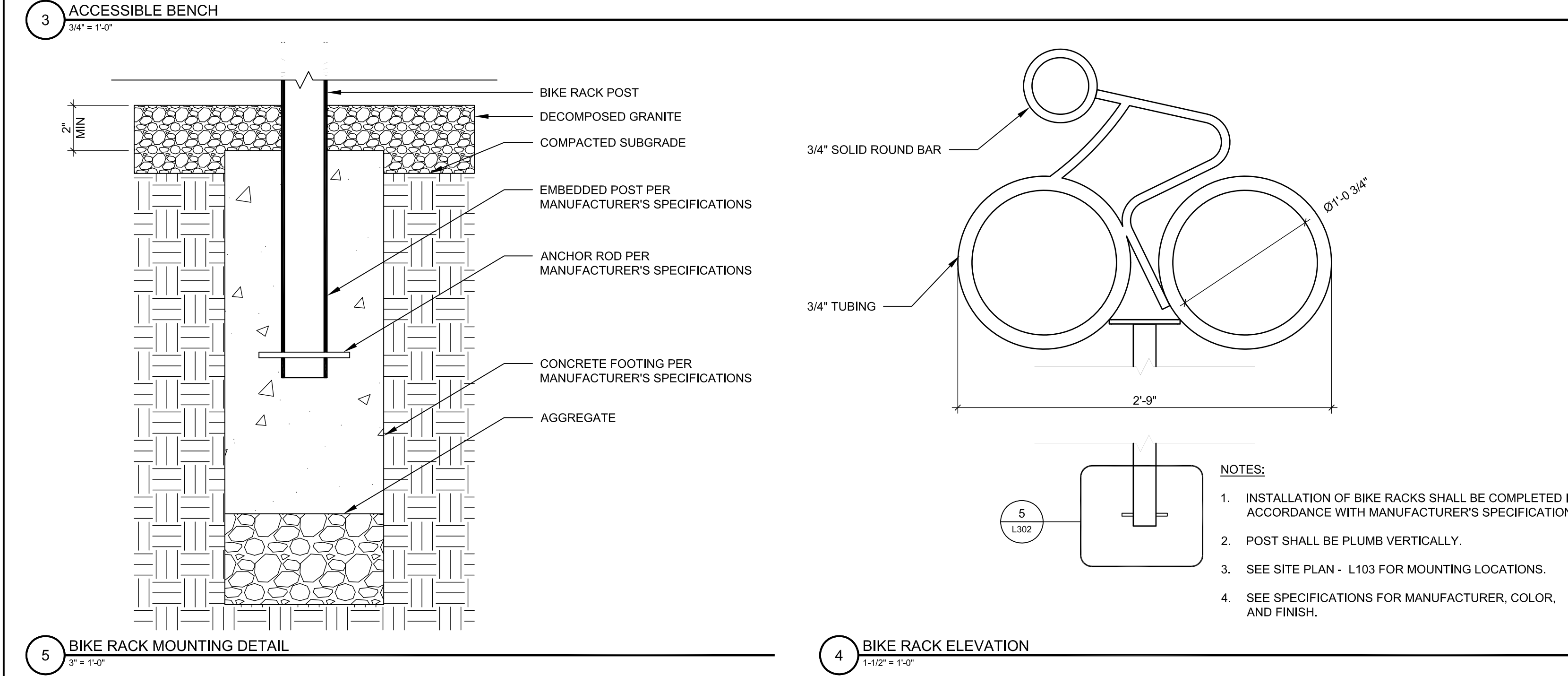
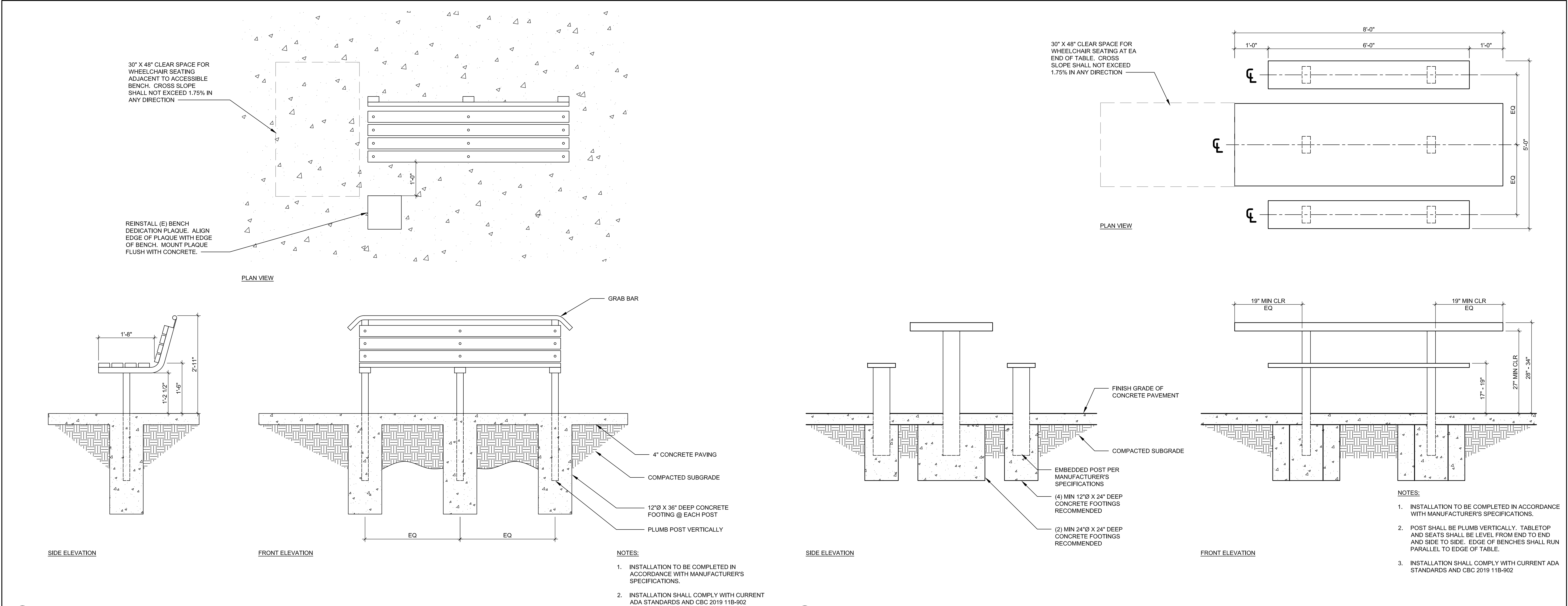





9 STREET CURB, CONCRETE ACCESS AISLE AND GUTTER @ EXISTING SIDEWALK DETAIL
3" = 1'-0"

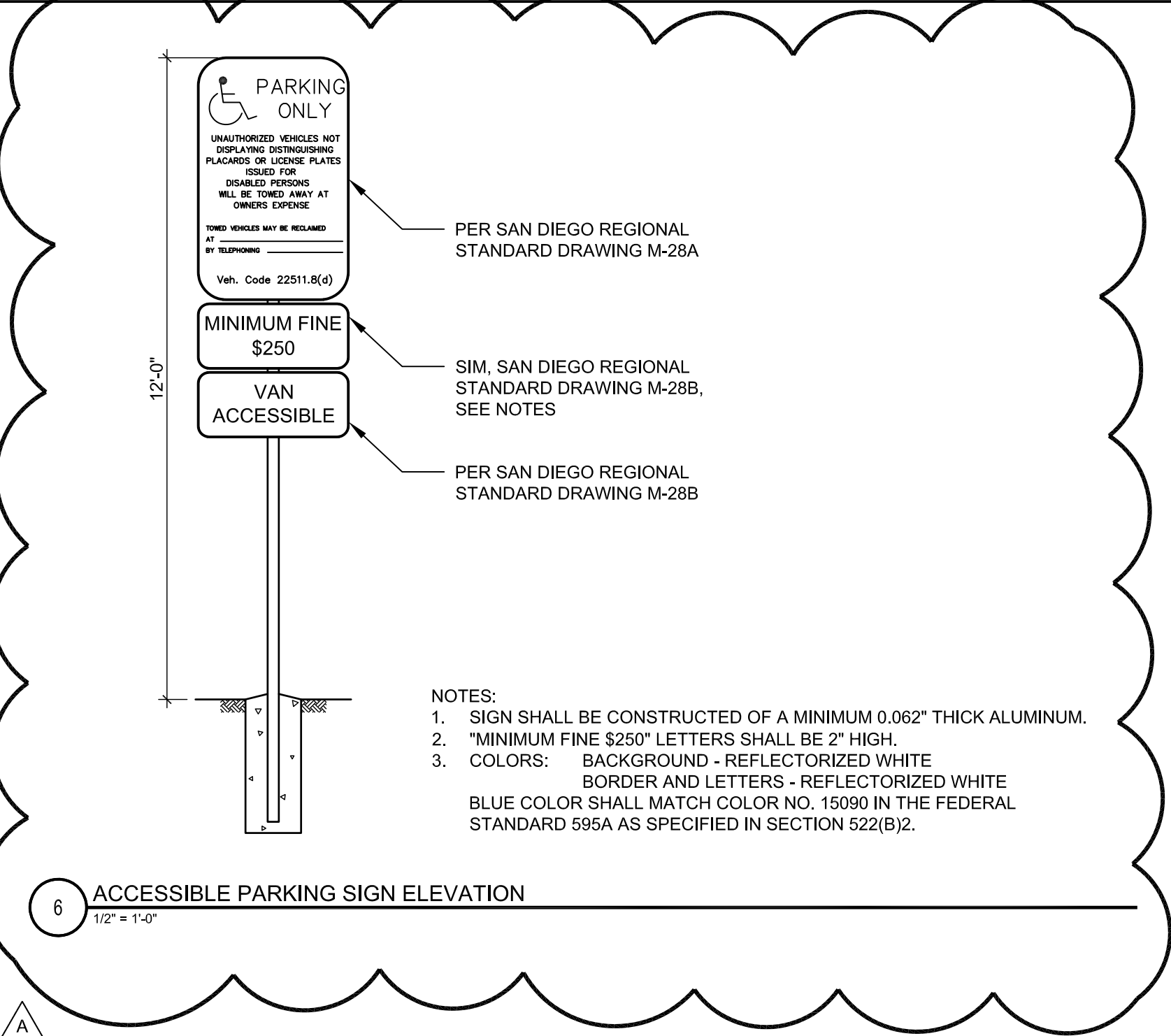


CITY OF CORONADO
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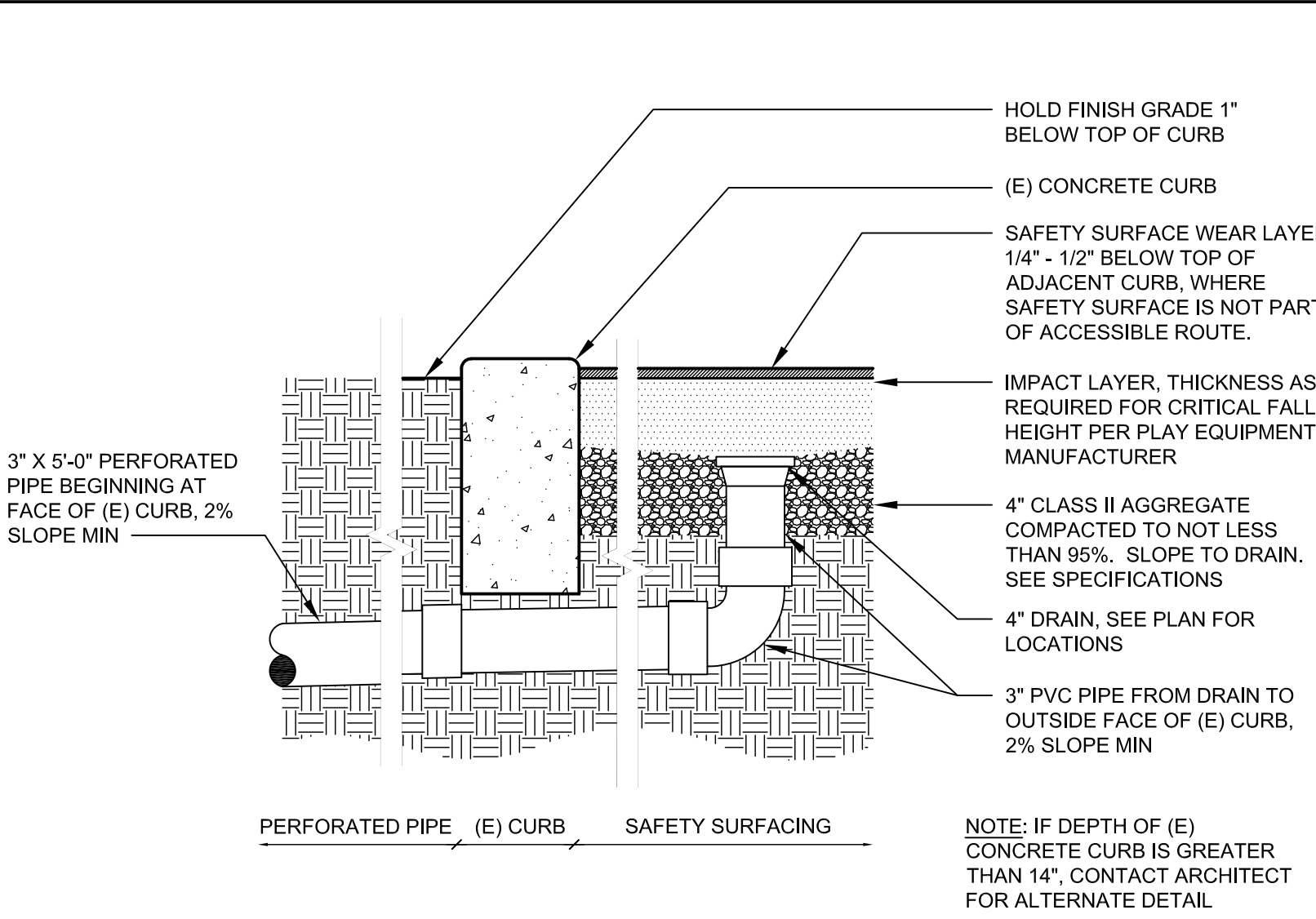
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MATHEWSON PARK PLAYGROUND RENOVATIONS		M-564
		SHEET NAME
		CONSTRUCTION DETAILS
PROJECT LOCATION	ADELLA AVENUE, SEVENTH STREET, AND POMONA AVENUE CORONADO, CALIFORNIA 92118	SHEET NO. L301



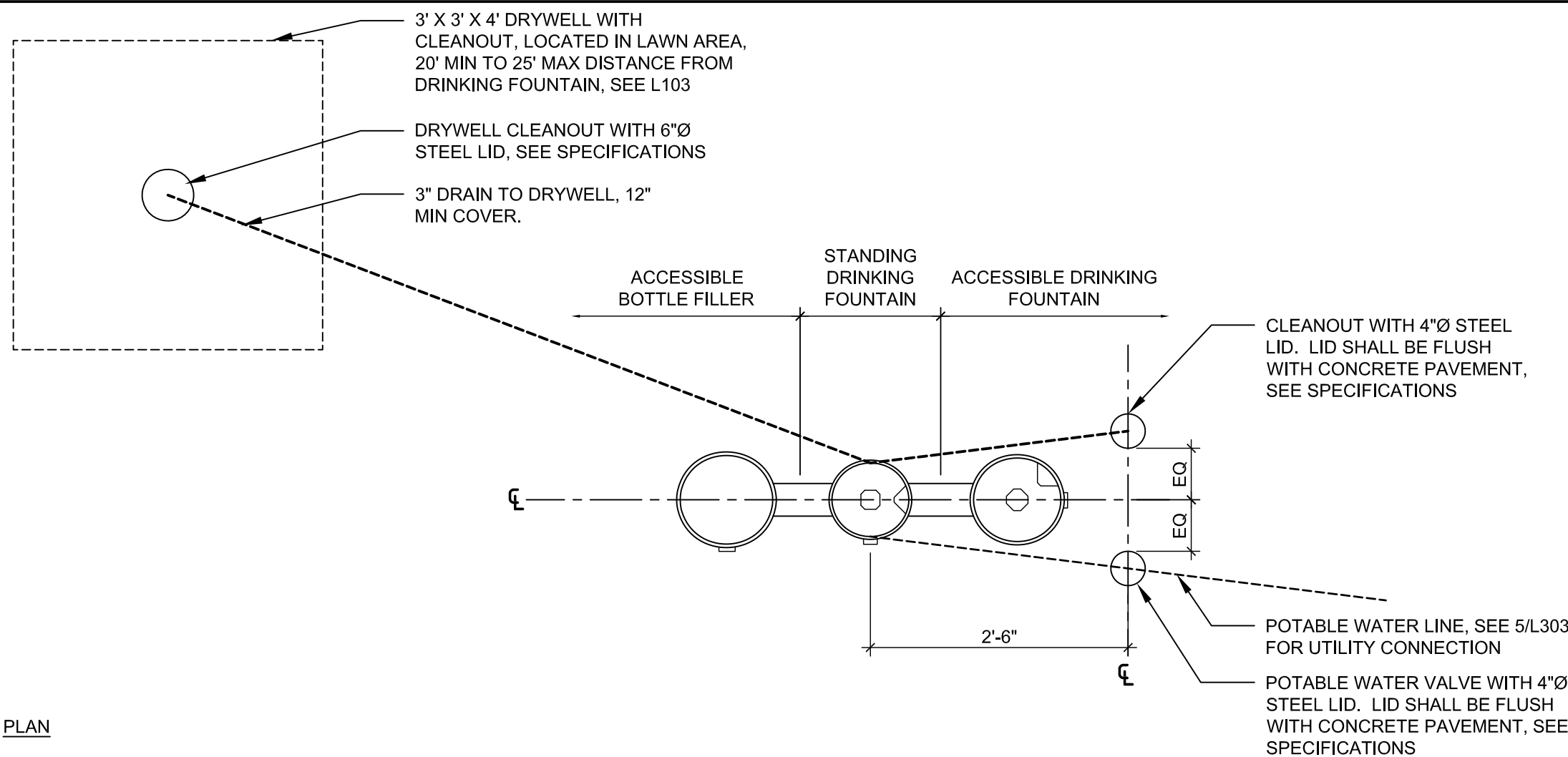
REVISION	DESCRIPTION	APPD	DATE	CITY OF CORONADO			REVIEWED BY	INITIALS	DATE	APPROVED BY:			PROJECT TITLE	PROJECT NUMBER		
	PLAN CHECK SUBMITTAL		04.13.2020	PUBLIC SERVICES & ENGINEERING DEPARTMENT			CLIFF MAURER			ED WALTON - CITY ENGINEER	DATE	24" X 36" OR THIS BAR MEASURES LESS THAN 1". IT IS A REDUCED PRINT - SCALE ACCORDINGLY	MATHEWSON PARK PLAYGROUND RENOVATIONS	M-564		
A	PLAN CHECK RESUBMITTAL #1		07.13.2020				ROGER MILLER			PLANS PREPARED UNDER THE SUPERVISION OF:						
							JACQUELINE LIU				07.13.2020					
							KIM GODBY			RUBY LYNN CARR - ARCHITECT OF RECORD	DATE					
							JAN LASLEY			101 B AVENUE, CORONADO, CA 92118						
							ART VALDIVIA			OFFICE - 619.522.6507 MOBILE - 619.609.8300		UNDERGROUND SERVICE ALERT	ADELLA AVENUE, SEVENTH STREET, AND POMONA AVENUE			
												AT LEAST TWO WORKING DAYS BEFORE YOU DIG	CORONADO, CALIFORNIA 92118			
														SHEET NO. L302		



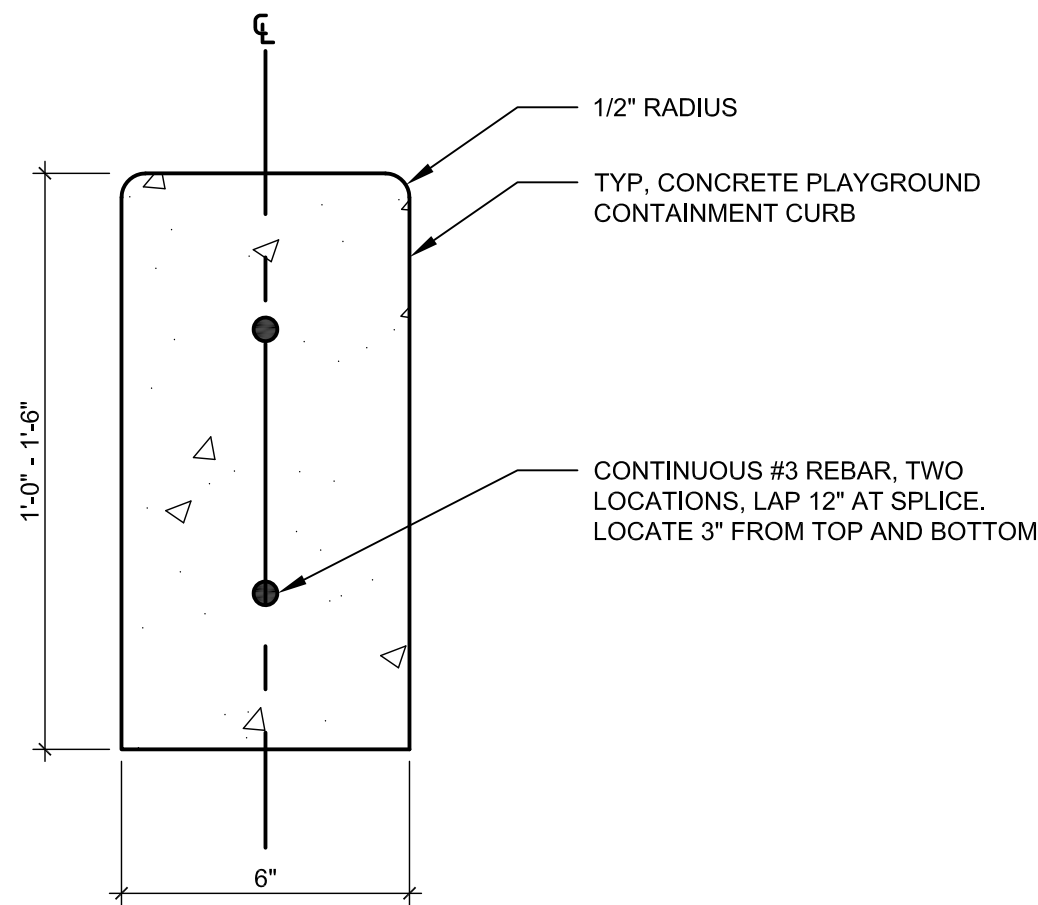
6 ACCESSIBLE PARKING SIGN ELEVATION



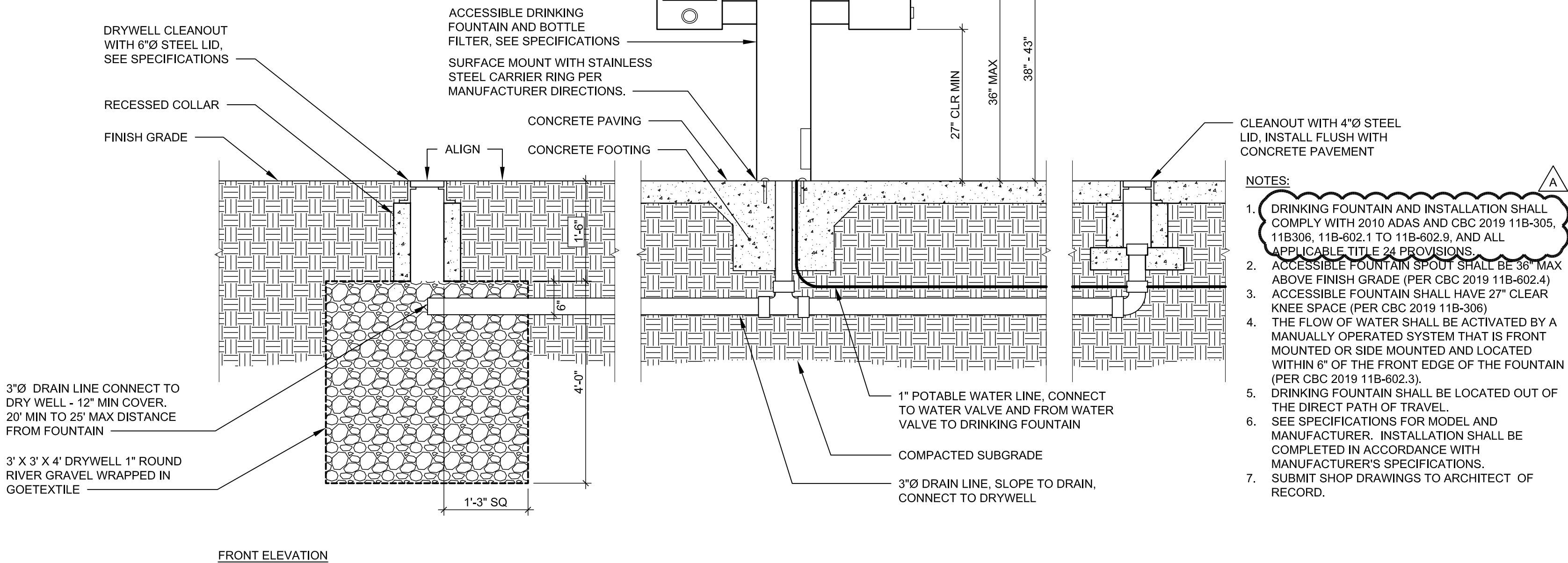
3 SAFETY SURFACING DRAIN DETAIL



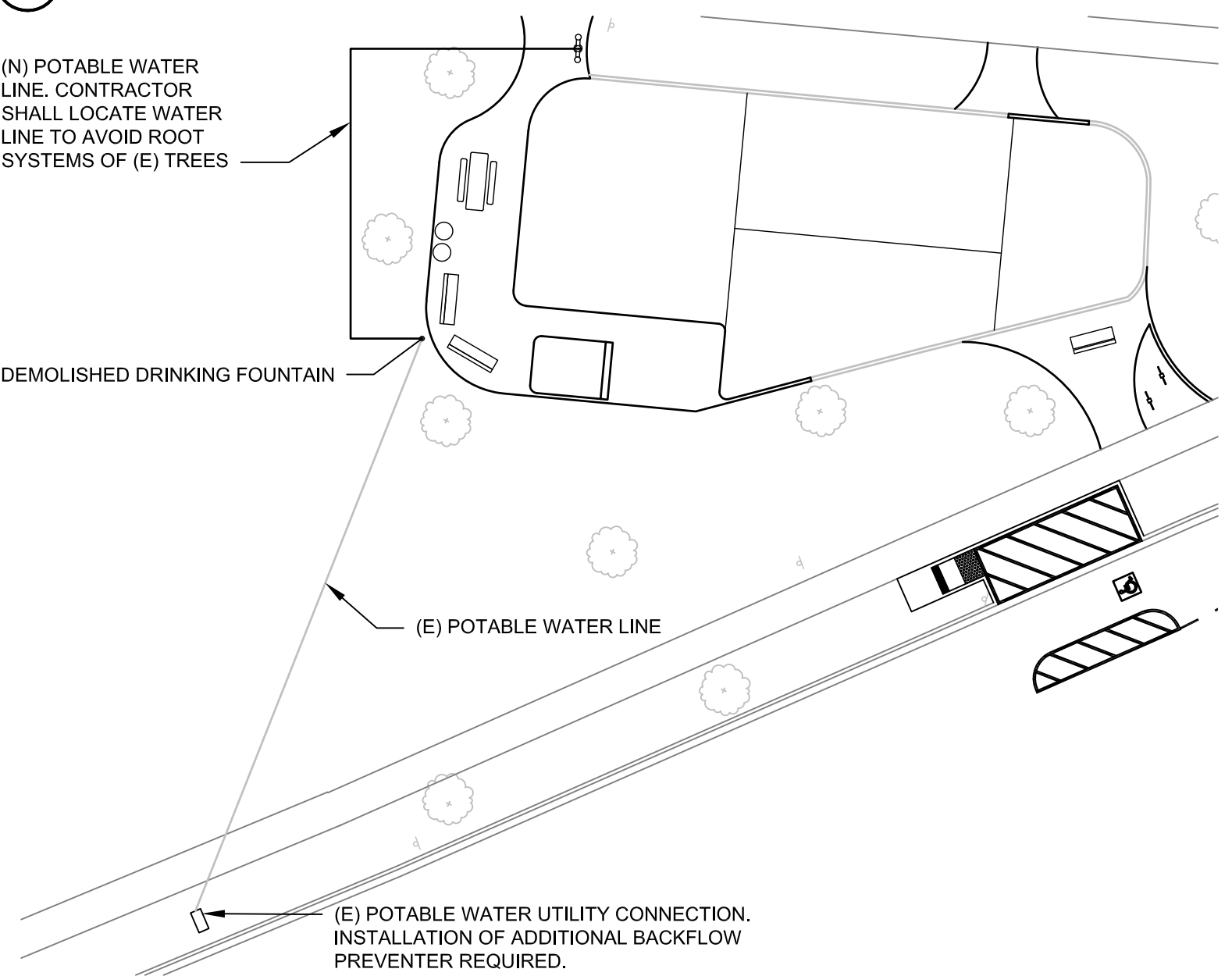
PLAN



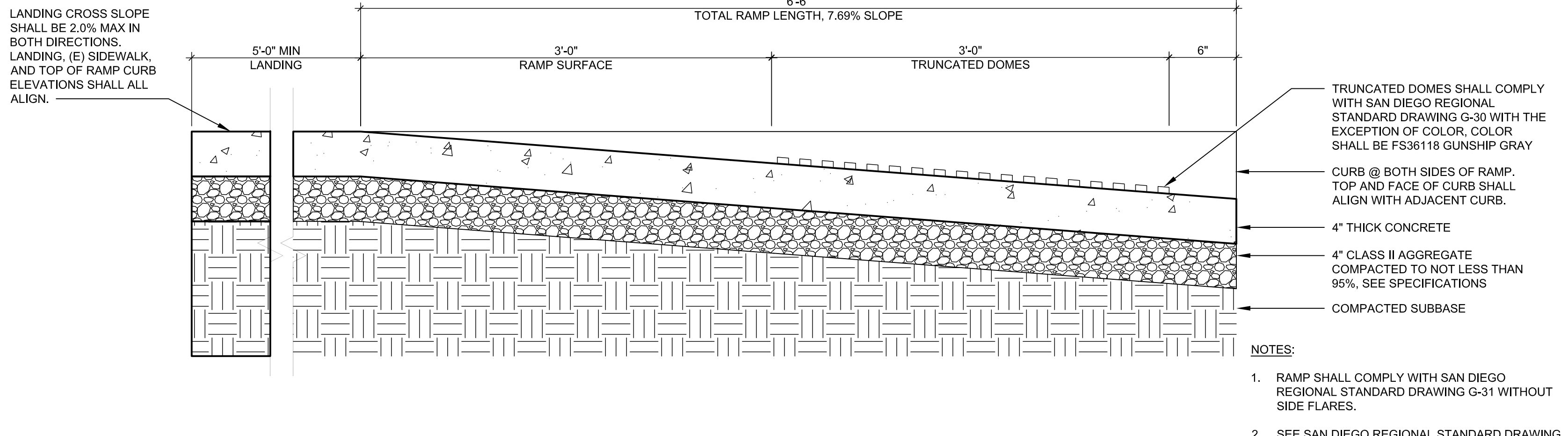
4 PLAYGROUND CURB DETAIL



1 ACCESSIBLE DRINKING FOUNTAIN



5 POTABLE WATER CONNECTION LOCATION



2 PEDESTRIAN RAMP SECTION

REVISION	DESCRIPTION	APP'D	DATE
A	PLAN CHECK SUBMITTAL		04.13.2020
	PLAN CHECK RESUBMITTAL #1		07.13.2020

CITY OF CORONADO
PUBLIC SERVICES & ENGINEERING
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ROGER MILLER			
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JAN LASLEY		07.13.2020	
ART VALDIVIA			
PLANS PREPARED UNDER THE SUPERVISION OF: RUBY LYNN CARR - ARCHITECT OF RECORD 101 B AVENUE, CORONADO, CA 92118 OFFICE - 619.522.6507 MOBILE - 619.609.8300			

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PROJECT TITLE	PROJECT NUMBER
MATHEWSON PARK PLAYGROUND RENOVATIONS	M-564
PROJECT LOCATION	SHEET NAME
ADELLA AVENUE, SEVENTH STREET, AND POMONA AVENUE CORONADO, CALIFORNIA 92118	CONSTRUCTION DETAILS
	SHEET NO.
	L303

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SECTION 01 11 00	SUMMARY OF WORK WITH ATTACHMENT A
SECTION 01 22 00	UNIT PRICES
SECTION 01 25 00	SUBSTITUTIONS WITH ATTACHMENT A
SECTION 01 50 00	TEMPORARY FACILITIES AND CONTROLS
SECTION 01 73 29	CUTTING AND PATCHING
SECTION 01 77 00	CLOSEOUT PROCEDURES

DIVISION 11 – EQUIPMENT

SECTION 11 68 00	PLAY FIELD EQUIPMENT AND STRUCTURES
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DIVISION 22 – PLUMBING

SECTION 22 11 16	BACKFLOW PREVENTION
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DIVISION 32 – EXTERIOR IMPROVEMENTS

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SECTION 32 13 12	SITE CONCRETE
SECTION 32 15 40	DECOMPOSED GRANITE SURFACING
SECTION 32 17 23.13	PAINTED PAVEMENT MARKINGS
SECTION 32 18 16.13	POUR-IN-PLACE PLAYGROUND SAFETY SURFACING
SECTION 32 33 00	SITE FURNISHINGS
SECTION 32 94 13	ROOT CONTROL BARRIER

END OF SECTION 00 01 10

SECTION 01 11 00 – SUMMARY OF WORK

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 RELATED REQUIREMENTS

- A. SECTION 01 50 00 TEMPORARY FACILITIES AND CONTROLS for limitations and procedures governing temporary use of Owner's facilities.

1.3 PROJECT DESCRIPTION

- A. Work included in the Contract consists of the following:
 - 1. Playground equipment replacement and accessible site improvements at Mathewson Park, Coronado, California 92118. Project Drawings have been approved by the City of Coronado. Contractor shall be responsible for securing the required project permits. Project involves removal of existing play structure and foundations, existing wood safety play surface, existing concrete, and site features. Coordination of shipping, delivery and installation of new Owner purchased play equipment, installation of new poured-in-place rubberized surfacing with aggregate base course, new concrete paving and curbs, new picnic table, new bench, new trash receptacles, new drinking fountain, new bike rack, curb modification, pedestrian curb ramp, painting and signage for relocated accessible parking space, and relocation of existing concrete benches. Extent of wood safety play surface removal and resulting aggregate base course requirement shall be field verified.
 - a. Site preparation
 - b. Site paving
 - c. Landscape planting and irrigation system replacement, if damaged
 - d. Site fencing
 - e. Plumbing
 - f. Coordination of work performed by separate contracts by the City
 - g. Additional general information concerning the project as provided on the Drawings

1.4 WORK BY OWNER

- A. General: Cooperate fully with Owner so work may be carried out smoothly, without interfering with or delaying work under this Contract, or other construction contracts on the project site (See 1.7 below) or work by Owner. Coordinate the Work of this Contract with work performed by Owner.

1.5 OWNER-FURNISHED, CONTRACTOR-INSTALLED PRODUCTS

- A. Owner will furnish products indicated. The Work includes coordinating shipping, receiving, unloading, handling, storing, protecting, and installing Owner-furnished products unless otherwise noted.
 - B. Owner-Furnished Products:
 - 1. Miracle playground equipment, SECTION 11 68 00 PLAY FIELD EQUIPMENT AND STRUCTURES and Drawings
- 1.6 CONTRACTOR-FURNISHED, CONTRACTOR-INSTALLED PRODUCTS
- A. Contractor shall furnish products indicated. The Work includes procuring, coordinating shipping, receiving, unloading, handling, storing, and protecting Contractor-furnished products as directed and turning over extra stock to Owner at Project closeout.
 - B. Contractor-Furnished, Contractor Installed Products:
 - 1. Accessible Drinking Fountain, SECTION 32 33 00 SITE FURNISHINGS
 - 2. Trash and Recycle Receptacles, SECTION 32 33 00 SITE FURNISHINGS
 - 3. Accessible Picnic Table and Benches, SECTION 32 33 00 SITE FURNISHINGS
 - 4. Accessible Bench, SECTION 32 33 00 SITE FURNISHINGS
 - 5. Bike Racks, SECTION 32 33 00 SITE FURNISHINGS
 - 6. Playground Safety Surface, SECTION 32 18 16.13 PIP RUBBER SURFACING
- 1.7 ACCESS TO SITE
- A. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
 - B. Use of Site: Confine construction operations to Project site as indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Limits: Confine construction operations to playground, adjacent hardscape, drinking fountain water supply connection at backflow, lawn where indicated on drawings, and accessible parking space.
 - 2. Contractor shall assume full responsibility for protection and safekeeping of materials and equipment stored on the premises.
 - C. Condition of Existing Park: Maintain portions of existing park affected by construction operations throughout the construction period. Repair damage caused by construction operations at no cost to the City. Restore landscape and irrigation to original and fully operational condition.
- 1.8 COORDINATION WITH OCCUPANTS

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

1.9 WORK RESTRICTIONS

- A. On-Site Work Hours: Limit work at the project site to normal business working hours of 7:00 a.m. to 5:00 p.m., Monday through Friday, unless otherwise indicated.
 - 1. Weekend Hours: Not permitted
 - 2. Early Morning Hours: Not permitted
 - 3. Hours for Utility Shutdowns: After 9:00 p.m. and before 7:00 a.m.
 - 4. Hours for Noise and Vibration: After 7:00 a.m. and before 5:00 p.m.
 - 5. Holiday work not permitted.
- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 - 1. Notify City not less than two days (48 hours) in advance of proposed utility interruptions.
 - 2. Obtain City's written permission before proceeding with utility interruptions.
- C. Noise, Vibration, and Odors: Coordinate any operations that may result in high levels of noise and vibration, odors, or other disruption to nearby residents with City.
 - 1. Notify City not less than two days (48 hours) in advance of proposed disruptive operations.
 - 2. Obtain City's written permission before proceeding with disruptive operations.

1.10 UTILITY SHUTDOWN PROCEDURE

- A. All utility shutdowns shall be scheduled with the City in accordance with the following:
 - 1. Minimum two days (48 hours) notice is required for all utility shutdowns. Utility shutdowns shall be performed when acceptable to the City. Emergency shutdowns will be managed by the City's Facilities department on an individual basis.
 - 2. Utility shutdowns request form shall be filled out by the Contractor for each required

shutdown and submitted to the City. Refer to the Utility Shutdown Form Attachment A appended to this section.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 10 00



Project Name

Click or tap here to enter text.

Project Number

Click or tap here to enter text.

Date

Click or tap to enter a date.

Requestor Information

First Name

Click or tap here to enter text.

Last Name

Click or tap here to enter text.

Phone Number

Click or tap here to enter text.

Email Address

Click or tap here to enter text.

Contractor Onsite During Shutdown

First Name

Click or tap here to enter text.

Last Name

Click or tap here to enter text.

Phone Number

Click or tap here to enter text.

Email Address

Click or tap here to enter text.

Work to be Performed: Request to shut down the following utility(ies) and/or equipment:

☐ Air

☐ Chilled Water S/R

☐ Domestic Cold Water

☐ Domestic Hot Water S/R

☐ Electrical Primary

☐ Electrical Secondary

☐ Electrical Emergency

☐ Fire Alarm

☐ Fire Sprinklers

☐ Gas

☐ HVAC

☐ Heating Hot Water S/R

☐ Irrigation

☐ Steam

☐ Sanitary Waste

☐ Steam/Condensate

☐ Other

Click or tap here to specify "other"

Building or Area Name

Click or tap here to enter text.

Building(s) Affected and Impact to Occupants

Click or tap here to enter text.

Date and Time of Shutdown

Day of Week

Choose item.

Start Day and Time

Click or tap here to enter text.

Date and Time Restored

Day of Week

Choose item.

End Day and Time

Click or tap here to enter text.

Reason for Shutdown

Click or tap here to enter text.

MOP Description of Work

Click or tap here to enter text.

Project Manager Signature

Click or tap here to enter text.

Contractor Signature

Click or tap here to enter text.

Facilities Signature

Click or tap here to enter text.

Facilities Technical Services Signature

Click or tap here to enter text.

SECTION 01 22 00 – UNIT PRICES

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 unit prices.
- B. Related Sections:
 - 1. Section 32 11 23 Aggregate Base Course

1.3 DEFINITIONS

- A. Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or allowance quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

- A. Unit Price No. 1: Removal of existing wood playground safety surfacing to subgrade, disposal offsite and replacement with aggregate base.
 - 1. Purpose: To adjust the contract sum in case a quantity different from that indicated is required.
 - 2. Refer to Division 32 SECTION 32 11 23 AGGREGATE BASE COURSE and Drawings.

3. Unit of measurement: cubic yard.
4. Include the following in the unit price:
 - a. Excavation, loading, transport, and disposal of wood playground safety surfacing.
 - b. Aggregate base course, placement and compaction every 4" per SECTION 32 11 23 and Drawings.
 - c. Overhead and profit.
5. Include all other related costs in the contract sum.
6. Method of measurement: Owner will visually inspect level of subgrade after the removal of wood playground safety surfacing and prior to compaction of subgrade and the placement of the aggregate base course.

END OF SECTION 01 22 00

SECTION 01 25 00 - SUBSTITUTION PROCEDURES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Documents:

[2-1.](#) Greenbook 2018, SECTION 3 – CONTROL OF THE WORK, 3-8 Submittals

1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
 - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.4 ACTION SUBMITTALS

- A. Substitution Requests: Submit three (3) copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Substitution Request Form: Use facsimile of form provided appended to the end of this section.
 - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.

- c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
 - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports evidencing compliance with building code in effect for Project.
 - j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
 - k. Cost information, including a proposal of change, if any, in the Contract Sum.
 - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
 - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven (7) days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within fifteen (15) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
 - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.5 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

1.6 PROCEDURES

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than fifteen (15) days prior to time required for preparation and review of related submittals.
 - 1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Substitution request is fully documented and properly submitted.
 - c. Requested substitution will not adversely affect Contractor's construction schedule.
 - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - e. Requested substitution is compatible with other portions of the Work.
 - f. Requested substitution has been coordinated with other portions of the Work.
 - g. Requested substitution provides specified warranty.
 - i. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- B. Substitutions for Convenience: Not allowed.

PART 3 – EXECUTION – NOT USED

END OF SECTION 01 25 00



Project Name	City of Coronado	Contractor	Substitution Request Number
Tap here to enter proj. name	Project Number	Project Number	
	Enter no.	Enter no.	Enter no.
To	Title		Date of Request
Tap here to enter name	Tap here to enter title		Tap to enter a date.
Submitted By	Signature		
Tap here to enter name	Tap here to enter electronic signature		
Firm			
Tap here to enter contractor company name			
Address			
Enter number and street	Enter City, State, Zip		
Email Address	Phone		
Enter email address	Enter phone number		
Substitution Information			
Specification Section Subject	Enter spec section title		
Specification Section Number	Article/Paragraph		
Enter spec section number	Enter spec section paragraph ex. 5.2		
Description	Tap here to enter description.		
Proposed Substitution			
Tap here to enter description			
Manufacturer	Address	Phone	
Enter mfr name	Enter mfr address	Enter phone number	
Describe differences between proposed substitution and specified product.			
Tap here to enter text.			
Reason for not providing specified item			
Tap here to enter text.			

THE UNDERSIGNED CERTIFIES:

<input type="checkbox"/> YES	<input type="checkbox"/> NO	Proposed substitution has been fully investigated and determined to be equal or superior in all respects to the specified product.
<input type="checkbox"/> YES	<input type="checkbox"/> NO	Same warranty will be furnished for proposed substitution as for specified product.
<input type="checkbox"/> YES	<input type="checkbox"/> NO	Same maintenance service and source of replacement parts are available as specified product.
<input type="checkbox"/> YES	<input type="checkbox"/> NO	Proposed substitution will have no adverse effect on other trades.
<input type="checkbox"/> YES	<input type="checkbox"/> NO	Proposed substitution does not affect dimensions and functional clearances.
<input type="checkbox"/> YES	<input type="checkbox"/> NO	No cost to the Owner for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
Supporting Data Attached: <input type="checkbox"/> Drawings <input type="checkbox"/> Product Data <input type="checkbox"/> Samples <input type="checkbox"/> Test Data <input type="checkbox"/> Reports <input type="checkbox"/> Other		
Savings to Owner for accepting substitution:		\$ Tap here to enter amount
Proposed substitution changes Contract Time <input type="checkbox"/> No <input type="checkbox"/> Yes ADD <input type="checkbox"/> Yes DEDUCT		Working Days: # Days

A/E REVIEW and ACTION

<input type="checkbox"/> Substitution Approved - Provide submittal in accordance with spec section 01 25 00 Substitution Procedures
<input type="checkbox"/> Substitution Approved as Noted - Provide submittal in accordance w/spec section 01 25 00 Substitution Procedures
<input type="checkbox"/> Substitution Rejected – Use specified materials
<input type="checkbox"/> Substitution Request Received Too Late – Use specified materials
Signature:
Click or tap here to enter signature.

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.

1. Temporary Utilities
2. Temporary Sanitary Facilities
3. Temporary Moisture Protection
4. Temporary Controls: Barriers, Enclosures, and Fencing
5. Stormwater and Dewatering Controls
6. Temporary Tree and Plant Protection
7. Security Requirements
8. Vehicular Access and Parking
9. Waste Removal Facilities and Services.
10. Project Identification Sign.

- B. Related Requirements:

Section 01 10 00 "Summary" for work restrictions and limitations on utility interruptions.

1.3 TEMPORARY UTILITIES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Architect, occupants of Project, testing agencies, and authorities having jurisdiction.
- B. Contractor to provide and pay for all electrical power and metering, lighting, water, heating, ventilation, and cooling, required for construction purposes.
- C. Contractor shall not draw water from any fire hydrant (except to extinguish a fire) without obtaining permission from the water utility owner.

1.4 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization. Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
 - 1. Toilets: Use of Owner's existing toilet facilities will not be permitted unless permission is granted by the Owner.
- B. Maintain daily in clean and sanitary condition.

1.5 TEMPORARY MOISTURE PROTECTION

- A. Provide procedures and controls for protecting materials and construction from water absorption and damage.
 - 1. Provide delivery, handling, and storage provisions for materials subject to water absorption or water damage.
 - 2. Provide procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and replacing water-damaged Work.
 - 3. Provide plan to describe sequencing of work that requires water, such as sprayed fire-resistant materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.

1.6 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by governing authorities for public rights of way and for public access to existing building. Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1
- C. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.
- D. Prevent dust, fumes, and odors from entering occupied areas.

1.7 FENCING

- A. Provide 6 foot high fence around construction site; equip with green wind screen, vehicular and pedestrian gates with locks.

1.8 EXTERIOR ENCLOSURES

- A. Provide temporary protection to separate work areas from residential occupied areas, to prevent penetration of dust and moisture into residential occupied areas, and to prevent damage to existing materials and equipment.
- B. Enclosure Plans: Prepare and provide to owner for review a complete plan of temporary barricades and barriers, note materials and other information as required (fire ratings). Provide this plan as part of the pre-construction project meeting.

1.9 STORM WATER CONTROL AND DEWATERING

- A. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
- B. Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.

1.10 TEMPORARY TREE AND PLANT PROTECTION

- A. Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.

1.11 SECURITY

- A. Provide security and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.
- B. Coordinate with Owner's security program.

1.12 VEHICULAR ACCESS AND PARKING

- A. Coordinate access and haul routes with governing authorities and Owner.
- B. Provide and maintain access to fire hydrants free of obstructions.
- C. Provide means of removing mud from vehicle wheels before entering streets.
- D. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.

1.13 WASTE REMOVAL

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- B. Provide containers with lids. Remove trash from site periodically. Trash shall not be stored onsite.
- C. Open free fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.14 PROJECT IDENTIFICATION SIGN

- A. If Contractor chooses to erect a project identification sign, then it and its location shall be approved by the Owner prior to placement.

1.15 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to the date of substantial completion.
- B. Clean and repair damage caused by installation or use of temporary work.

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION – NOT USED

END OF SECTION 01 50 00

SECTION 01 73 29 – CUTTING AND PATCHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.

1.3 SUBMITTALS

- A. Cutting and Patching Proposal: Submit a proposal describing procedures at least ten (10) days before the time cutting and patching will be performed, requesting approval to proceed. Include the following information:
 - 1. Extent: Describe cutting and patching, show how they will be performed, and indicate why they cannot be avoided.
 - 2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building's appearance and other significant visual elements.
 - 3. Products: List products to be used and firms or entities that will perform the Work.
 - 4. Dates: Indicate when cutting and patching will be performed.
 - 5. Utility Services and Mechanical/Electrical Systems: List services/systems that cutting and patching procedures will disturb or affect. List services/systems that will be relocated and those that will be temporarily out of service. Indicate how long services/systems will be disrupted.
 - 6. Structural Elements: Where cutting and patching involve adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure.
 - 7. Architect's/Engineer's Approval: Obtain approval of cutting and patching proposal before cutting and patching the following structural elements. Approval does not waive right to later require removal and replacement of unsatisfactory work.
 - a. Structural steel
 - b. Miscellaneous structural metals, including equipment supports, stair systems and similar categories of WORK
 - c. Foundation construction
 - d. Bearing and retaining walls
 - e. Structural decking
 - f. Pressurized piping, vessels and equipment
 - g. Asphalt pavement, concrete or asphalt curb/gutter, and concrete sidewalk

1.4 QUALITY ASSURANCE

- A. Structural Elements: Contractor shall not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
 - 1. Including but not limited to: Structural Steel, Reinforced Concrete, Galvanized Steel.
- B. Operational Elements: Contractor shall not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that result in increased maintenance or decreased operational life or safety.
- C. Miscellaneous Elements: Contractor shall not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity that results in reducing their capacity to perform as intended, or that result in increased maintenance or decreased operational life or safety.
- D. Visual Requirements: Contractor shall not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's/Engineer's opinion, reduce aesthetic qualities. Remove and replace construction judged solely by the Architect/Engineer that has been cut and patched in a visually unsatisfactory manner.

1.5 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces so that evidence of cutting and patching is not visible.
 - 1. If identical materials are unavailable, the Contractor shall provide materials for cutting and patching which will result in an equal or better product than the material being cut and patched, to match the visual and functional performance characteristics of in place materials. Architect's approval is required.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.

1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas.

3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 4. Excavating and Backfilling: Execute by methods which will prevent settlement or damage to other work. Comply with requirements in applicable current edition of the Greenbook sections where required by cutting and patching operations.
 5. Mechanical and Electrical Services: Cut off pipe or conduit to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.

6. Fire Protection: Install and maintain temporary fire protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241: Standard for Safeguarding Construction, Alteration, and Demolition Operations.
 7. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
1. Inspection: Test and inspect patched areas after completion to demonstrate integrity of installation.
 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 3. Sidewalks and Paving: Where sidewalks or paving that are removed extend one finished area into another, patch and repair surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place materials and replace with new materials, if necessary, to achieve uniform color and appearance.
 4. Concrete Slabs: Patch depressions and level existing concrete floor slab to a surface plane tolerance of maximum 1/8 inch in 10 feet. Test with a 10 foot long straight edge.
- D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION 01 73 29

SECTION 01 77 00 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures
 - 2. Final completion procedures
 - 3. Maintenance Materials and Warranties
 - 4. Inspections
 - 5. Final cleaning

1.3 ACTION SUBMITTALS

- A. Submit a written certification that the Contract Documents have been reviewed, the Work has been inspected, and that the Work is complete in accordance with the Contract Documents and is ready for the City's review.
- B. Contractor's List of Incomplete Items (Punchlist): Initial submittal at Substantial Completion.
- C. Certified List of Completed Items: Final submittal at Final Completion.

1.4 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Affidavit of Lien Releases: State of California Forms 8132, 8134, 8136 and 8138.
- C. Certificate of Insurance: For continuing coverage.
- D. Operation and Maintenance Manuals: Materials and Finishes, Equipment and Systems Manuals with associated warranties in electronic pdf format. Include project name, building, project number, and submission date. Assemble complete submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document. For each category, identify names, addresses, telephone and email contact information of the subcontractors and suppliers.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Schedule of Maintenance Material Items: For maintenance material submittal items specified in other Sections.
- B. Spare Parts and Maintenance Products: Furnish 10% attic stock unless otherwise specified in the individual specification sections. Deliver to the project site and place in a location as directed by the City.

1.6 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the reasons why the Work is incomplete.
- B. Submittals Prior to Substantial Completion: Complete the following a minimum of ten (10) days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
 - 1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 2. Submit closeout submittals including project record documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
 - 3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by City Project Manager or Engineer. Label with manufacturer's name and model number where applicable.
 - 5. Submit test/adjust/balance records.
 - 6. Submit sustainable design submittals not previously submitted.
 - 7. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of ten (10) days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
 - 1. Advise Owner of pending insurance changeover requirements.
 - 2. Complete startup and testing of systems and equipment.
 - 3. Perform preventive maintenance on equipment used prior to Substantial Completion.
 - 4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings.

5. Advise City Project Manager of changeover in utilities.
 6. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
 7. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 8. Complete final cleaning requirements, including touchup painting.
 9. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
 10. Complete cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of ten (10) days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect, City Project Manager or Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection no later than seven (7) days when the Work identified in previous inspections as incomplete is completed or corrected.
 2. Results of completed inspection will form the basis of requirements for final completion.
- E. Certificate of Substantial Completion shall be issued once the aforementioned items are complete.

1.7 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining final completion, complete the following:
1. Submit a final Application for Payment.
 2. Certified List of complete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 4. Submit pest-control final inspection report.
 5. Submit final completion photographic documentation.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of ten (10) days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect, City Project Manager or Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or

corrected before certificate will be issued.

1. Reinspection: Request reinspection no later than seven (7) days when the Work identified in previous inspections as incomplete is completed or corrected.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
 1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and anti-pollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average maintenance program. Comply with manufacturer's written instructions.
- C. Pest Control: Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using environmentally safe materials.
- D. Construction Waste Disposal: Provide waste removal facilities and services as required to leave the site in clean and orderly condition

END OF SECTION 01 77 00

SECTION 11 68 00 – PLAY FIELD EQUIPMENT AND STRUCTURES

PART 1 – GENERAL

1.1 DESCRIPTION

- A. Furnish labor, material and equipment necessary for the installation of the playground equipment, structure or modular unit as shown on the drawings and specified herein. Installation shall be performed by a contractor possessing a current State of California C-61/D34 – Pre Fabricated Equipment License.
- B. The City of Coronado will be responsible for purchasing the identified play equipment and structures. The City will purchase the play equipment and structures, which have a six-week lead time, in advance and the Contractor shall be responsible for coordinating shipping, delivery to the project site, unloading, assembly and installation.
- C. Work shall include but not be limited to the following: excavation, layout, and the installation of playground equipment, structure or modular unit in accordance with the manufacturer's installation instructions, including all appurtenances and accessories as required for a full and complete installation.
- D. Related work specified elsewhere:
 - 1. Playground Safety Surfacing – Section 32 18 16.13

1.2 QUALITY ASSURANCE

- A. All products shall bear the certification seal of the International Play Equipment Manufacturers Association (IPEMA). All designs shall meet or exceed the Americans with Disabilities Act (ADA) "Final Accessibility Guidelines for Play Areas" regulations as published on October 18, 2000. All manufacturers must be ISO 9001 certified.

1.3 REFERENCES AND STANDARDS

- A. ASTM: American Society for Testing and Materials
- B. CPSC: Consumer Product Safety Commission
- C. IPEMA: International Playground Equipment Manufacturers Association
- D. ADA: Americans with Disabilities Act
- E. ISO: International Organization for Standardization
- F. CPSI: Certified Playground Safety Inspector

1.4 PRODUCTS

- A. The layout shown in the plan view is based upon equipment and measurements from Miracle Recreation Equipment Company. Miracle Playground Sales can be contacted at (800) 264-7225 or eddie.lozada@miracleplayground.com

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store products in manufacturer's unopened packing bearing the brand name and manufacturer's identification until ready for installation.
- B. Handle materials to avoid damage.

1.6 WARRANTY

A. The manufacturer shall warrant material and workmanship against defects, from the date of manufacturer's invoice, for the period of time as follows:

1. **LIMITED ONE HUNDRED (100) YEAR WARRANTY** against structural failure due to weather corrosion or defects in materials and workmanship on aluminum deck post, steel deck post, clamping / fastening (Versalok®), and associated fastening hardware.
2. **LIMITED FIFTEEN (15) YEAR WARRANTY** against structural failure due to weather corrosion or defects in materials and workmanship on steel support legs and Mira-Therm™ II components on MEGA TOWER®, TOTS' CHOICE®, KIDS' CHOICE®, CENTER STAGE®, Nexus®, and Boulder Ridge®, Rock Wall; on playsystem steel components including railings, rungs, and rigid climbers, and Rocklite®.
3. **LIMITED ONE (1) YEAR WARRANTY** against structural failure caused by defective materials or defective workmanship on TODDLERS' CHOICE® main support materials and decks.
4. **LIMITED ONE (1) YEAR WARRANTY** structural failure caused by defective materials or defective workmanship on Slashproof Seats and 360 degree Bucket Tot Seats for Swings.
5. **LIMITED ONE (1) YEAR WARRANTY** against structural failure due to defects in materials and workmanship for all products and components that are not specifically listed above, including, without limitation, all moving parts such as swing hangers, swivels, chains, whirls, trolleys and flexible climbers.
6. Repaired or replacement part(s) are only warranted for the balance of the original limited warranty.

These limited warranties do not include fading of colors, damage due to excessive wear and tear, vandalism, or negligence. These warranties are valid only if products are installed according to manufacturer's installation instructions.

B. The Contractor shall guarantee installation workmanship for a period of one year from the date of Substantial Completion of the Project. The Contractor shall be responsible for coordinating manufacturer material warranty items with the manufacturer/distributor and for the installation of replacement material(s) at no additional cost to Owner.

C. Provide copy of Contractor's installation warranty on company letterhead to Owner.

PART 2 – MATERIALS

2.1 EQUIPMENT

A. See drawings for type, style, configuration, size and height of playground equipment, structure or modular unit to be received and installed.

2.2 COLOR SCHEME

A. Miracle Recreation Equipment Company: Earth Tone

1. Beige
2. Sand
3. Forest Green
4. Green

2.3 SPECIFICATIONS / COMPONENTS:

- A. Designs and specifications are based upon equipment from Miracle Recreation Equipment Company.
- B. Component List:

Qty	Model No.	Description
1	7188522	3-1/2" OD ARCH SWG FRAME ONLY 2 SEATS REQ MC
1	7188522HHX	3-1/2" OD ARCH ADD-A-BAY 8' TR GN SEAT MC
2	2840	SWG PART SLASH PROOF SEAT W/CHAIN (8' TR)
1	2740	SWG PART THERAPEUTIC SWG SEAT W/CHAIN (8' TR)
1	2740H	SWG PART HARNESS (8' TR)
1	2760	SWG PART GENERATION SWG SEAT W/CHAIN
1	787002	WELCOME SIGN AGES 2-12, FREESTANDING
1	7149753B	CHIME PANEL (BELOW DECK)
1	714756B	SIGHT-N-SOUND INTERACTIVE PANEL (BELOW DECK)
1	7149754B	XYLOPHONE PANEL (BELOW DECK)
1	71471513B	CLYPSO 3 DRUM PANEL (BELOW DECK)
7	714555	5" OD X 76" POST FOR FENCING & PANELS
1	714920595	12' RAMP GRND TO DECK 1:12, W/OUT PST, OPN HR
2	7145129	PENTAGON DECK (ATTACHES TO 5 POSTS)
4	7145491	5" OD X 88" POST F/MAZE PANELS
1	71492159	12' RAMP DECK TO DECK 1:12, OPEN HNDRL
3	7147721	BONGO PERCH (STATIONARY)
1	7147721	BONGO PERCH (STATIONARY)
2	7148135	DECK ENCL FOR OVERHEAD CLIMBERS (ONLY)
1	714900P1	STEERING WHEEL (POST MOUNT)
2	714616	POST CLIMBER
1	7148131	DECK ENCLOSURE W/ONE SIDED OPENING
4	714551	5" OD X 106" POST (2'-6' DECKS OR LESS)
1	7146193	POD HOPPER (3' DECK)
1	7147152	FINGER MAZE PANEL
1	714796P1	BELL (POST MOUNT)
1	71495949	ADA STAIRS BETWEEN DECKS W/2' RISE 4' SPAN
1	714731	TRAP DOOR CLIMBER (3' AND 5' DECK)
1	714908	SPIDER CLIMBER (3', 5', OR 6'-6" DECK)
1	714815	VERTICAL LADDER CLIMBER (5' DECK)
1	714669617FR	PLAYCOVER HEXAGON SHADE 17', FLAME RETARDANT
2	714672FR	PLAYCOVER UMBRELLA 12', FLAME RETARDANT
2	7145503	5" OD X 206" POST FOR 3' DECK W/TOPPER
2	7145039	½ HEX FULL DECK (ATTACHES TO 4 POSTS)
6	7145505	5" OD X 219" POST FOR 5' DECK W/TOPPER
1	714994	FUN FONE PAIR (2 FONES)
1	7149943A	ADD-A-FONE ABOVE DECK
1	714631	CHUNKY TREKKER CLIMBER (FREESTANDING)
1	477502	JAX BEANSTALK-TWO
1	71467549U	5'-2" TYPH SLIDE 270 DEG DOMED WAVE (4' DECK)
1	7147284	BUMP & GLIDE SLIDE, ONE PIECE (4' DECK)
1	714920E	ADA RMP EXTENSION INCLINED (LARGE)
1	4181541	CLOVER LEAF SAND BOX (FOR 6" SURFACING)
1	7147632	TIC-TAC-TOE PANEL

PART 3 – EXECUTION

3.1 PREPARATION

- A. Prior to installation, Contractor shall layout the entire outdoor playground area and stake location of all

elements, including playground equipment, use zones, perimeter concrete curbs, and concrete paths. Use zones shall not overlap hard surfaces and shall meet criteria of ASTM F 1292 and 1487. The Owner's Representative reserves the right to adjust the equipment locations and other elements to meet field conditions and use safety zone requirements.

3.2 INSTALLATION

- A. Explicit, printed installation instructions, written in English, shall be provided by the manufacturer, which shall include detailed, scaled plan views, elevations, and footing drawings and details when applicable, as well as sequential assembly instructions to assure proper installation of the playground equipment, structure or modular unit.
- B. Equipment must be installed by a manufacturer-certified installer and must be installed in accordance with the manufacturer's installation instructions. Installation crew leader must be Certified Playground Safety Inspector (CPSI) certified. Equipment shall be inspected after installation by a CPSI, hired by Owner and not employed by the installer. The equipment and installation must be signed off by said CPSI prior to Substantial Completion.
- C. If conflicts arise with fall zones that prevent the layout and installation from occurring as intended, including the perimeter concrete curb and paths, the Contractor shall make the proper field adjustments to the layout to ensure there is adequate room. Layout to be approved by Owner's Representative.
- D. After field adjustment, if there are still conflicts and it is evident the structure will not adequately fit in the space, the contractor shall notify the Owner's Representative immediately.

3.3 PLAY AREA SECURITY

- A. The Contractor shall provide the means to keep the public from using any play equipment until safety surfaces have been installed, the area cleaned and cleared, and all installation reviewed and approved by an independent CPSI.

3.4 SAFETY AUDIT

- A. The playground safety audit/certificate of compliance shall be performed by a third-party (CPSI) selected by the Owner and in compliance with U.S. Consumer Product Safety Commission (CPSC) publication #325, 2010 edition. The playground will then be accepted if the installation is found to be in compliance. If the installation is not in compliance, the contractor shall make the necessary repairs at no extra cost to the Owner, according to the report and the playground manufacturer's recommendations. The Owner will have the playground re-inspected, at the expense of the Contractor, until the installation is brought into compliance and certified by a CPSI.
- B. All field-testing of safety surfacing attenuation shall also be included in the safety audit.
- C. Refer to Section 32 18 16.13, Playground Safety Surfacing for safety surface performance requirements.

3.5 CLOSE OUT

- A. Contractor shall provide the Owner with one copy of complete manufacturer's installation instructions and maintenance kit if provided. Most manufacturers send at least two sets of installation manuals with each order. Additional sets of installation instructions should be purchased from the manufacturer if originals are lost or damaged. It is the Contractor's responsibility to secure the installation instruction from the installer.

3.6 CLEANING AND PROTECTION

- A. The site shall be kept clean and free of tools, trash, debris and installation materials on a daily basis. Material may be stored on site during installation with appropriate protective measures and approval by the Owner's representative.
- B. Clean play equipment in accordance with manufacturer's recommendations.
- C. Protect installed products until completion of project.
- D. Touch-up, repair or replace damaged products and finishes in accordance with manufacturer's instructions before Substantial Completion.

END OF SECTION 11 68 00

Kids' Choice® - Mira-Therm II

Decks

Deck Posts not included in these assemblies.

714-501-9

Triangle Deck

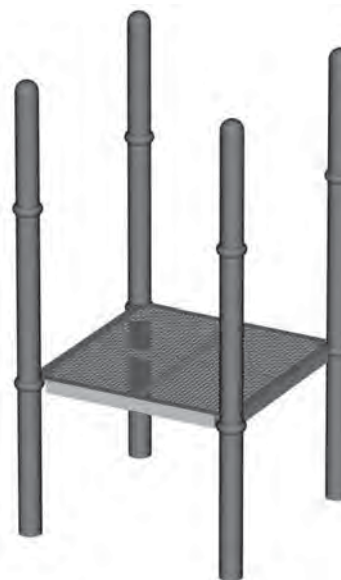
Model # 714-501-9 requires three (3) Posts.



714-502-9

Square Deck

Model # 714-502-9 requires four (4) Posts.



714-503-9

Half Hex Deck (Full)

Model # 714-503-9 requires four (4) Posts.



714-504-9

Half Hex Deck

Model # 714-504-9 requires five (5) Posts.

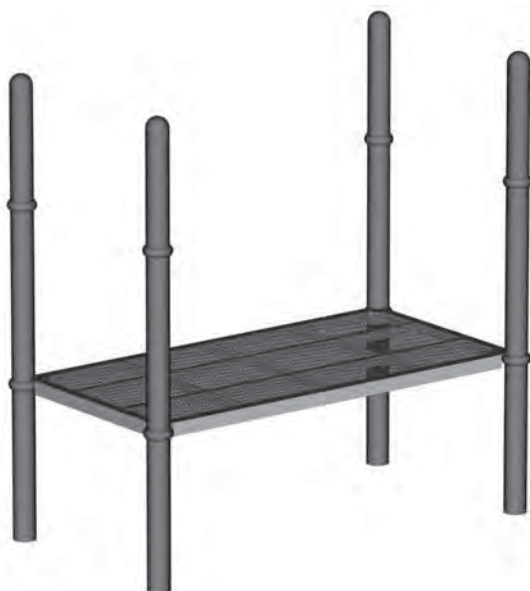


Kids' Choice® - Mira-Therm II Decks

714-508-9

Rectangle Deck (Full)

Model # 714-508-9 requires four (4) Posts.


714-509-9

Rectangle Deck (Half Open)

Model # 714-509-9 requires five (5) Posts.


714-510-9

Rectangle Deck (Open)

Model # 714-510-9 requires six (6) Posts.


Decks

714-501-9, 714-502-9, 714-503-9, 714-504-9, 714-508-9, 714-509-9, 714-510-9, 714-512-9, 714-517-9

Kids' Choice® - Mira-Therm II Decks

714-512-9

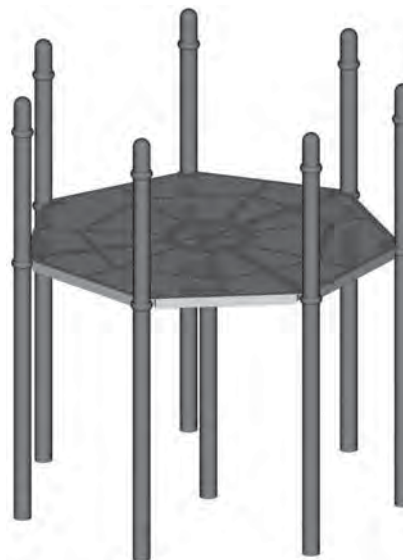
Pentagon Deck

Model # 714-512-9 requires five (5) Posts.


714-517-9

Heptagon Deck

Model # 714-517-9 requires seven (7) Posts and one (1) middle support post.



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Decks

714-501-9, 714-502-9, 714-503-9, 714-504-9, 714-508-9, 714-509-9, 714-510-9, 714-512-9, 714-517-9

Kids' Choice® - Mira-Therm II

Decks

Decks

714-501-9, 714-502-9, 714-503-9, 714-504-9, 714-509-9, 714-510-9, 714-512-9, 714-517-9

<u>MODEL #</u>	<u>PRODUCT</u>	<u>POSTS REQ'D</u>	<u>DECK SURFACE</u>	<u>CONCRETE</u>
714-501-9	Triangle Deck	3	7 sq. ft.	See Post specs
714-502-9	Square Deck	4	16 sq. ft.	"
714-503-9	Half Hex Deck (Full)	4	21 sq. ft.	"
714-504-9	Half Hex Deck (Open)	5	21 sq. ft.	"
714-508-9	Rectangle Deck (Full)	4	32 sq. ft.	"
714-509-9	Rectangle Deck (Half Open)	5	32 sq. ft.	"
714-510-9	Rectangle Deck (Open)	6	32 sq. ft.	"
714-512-9	Pentagon Deck	5	26.5 sq. ft.	"
714-517-9	Heptagon Deck	7	55 sq. ft.	"

DESCRIPTION

Mira-Therm II deck models include an equilateral triangle deck, a square deck, two half hexagon decks, three rectangular decks, a pentagon deck, and a heptagon deck. Decks are designed for maximum flexibility in height of deck surface, from 0" to 6'-6" (in 6" increments), though 3', 5', and 6'-6" are considered standard deck heights.

Decks are designed on a 48" center-to-center spacing on 5" deck posts, at equal or varied heights. All deck-to-post connections are made with a deck support clamp. All deck connections are made beneath deck with no exposed fasteners on deck perimeter. Decks with 8' wide open side are designed to attach to another deck with 8' wide open side at same deck height.

MATERIALS

Decks: All decks shall be constructed with folded 11 ga. steel sheet forming 3" tall sides. Decking sheets shall be perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center. The decking shall have 7 ga. by 2" flat steel braces and corner braces of 7 ga. steel. The entire assembly shall be solid welded prior to PVC coating.

Fasteners: Deck assemblies shall contain Versalok Fasteners and Fastener Style A hardware.

Finishes: All deck surfaces shall be coated in Mira-Therm. Clamps shall have a Mira-Cote finish.

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.



Kids' Choice®

Steel Posts (5" O.D., 11 ga. Round Tube) & Aluminum Posts

Steel Posts - 5" O.D., 11ga.

<u>MODEL</u>	<u>DESCRIPTION</u>	<u>USES</u>	<u>PART NUMBER</u>
714-545-3	144" Deck Post (Cheer Roof)	3' Deck	997292*
714-545-5	168" Deck Post (Cheer Roof)	5' Deck	997294*
714-545-6	186" Deck Post (Cheer Roof)	6'-6" Deck	908813*
714-545-8	204" Deck Post (Cheer Roof)	8' Deck	997297*
714-545-10	228" Deck Post (Cheer Roof)	10" Deck	908812*
714-549-1	88" Maze Post	Sensory Panel	925341*
714-549-3	112" Deck Post	3' Decks	995228*
714-549-4	124" Deck Post	4' Decks	995229*
714-550-3	206" Deck Post (PlayCover)	3' Deck & less	997215*
714-550-5	219" Deck Post (PlayCover)	3'-6" to 5' Decks	997218*
714-550-6	243" Deck Post (PlayCover)	5'-6" to 6'-6" Decks	997203*
714-550-8	258" Deck Post (PlayCover)	7' to 8' Decks	997315*
714-551	106" Deck Post	2'-6" Decks & less	713551*
714-552	136" Deck Post	3' to 5' Decks	713552*
714-552L	136" Deck Post w/CPSIA Label	3' to 5' Decks	996061*
714-553	160" Deck Post	5'-6" to 6'-6" Decks	713553*
714-554	178" Deck Post	7' to 8' Decks	713554*
714-556	196" Deck Post	10' Deck	985244*
714-571	106" Post (Roof)	Ground Level	713561*
714-571L	106" Post (Roof) w/CPSIA Label	Ground Level	996352*

Note: An () by a part number indicate: Color Code Required.*

Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes" for specifications of underlined items.

5" O.D., 11 ga. Steel Posts & Aluminum Posts

714-545-3, 714-545-5, 714-545-6, 714-545-8, 714-545-10, 714-549-1, 714-549-3, 714-549-32, 714-549-4, 714-549-42, 714-550-3, 714-550-5, 714-550-6, 714-550-8, 714-551, 714-551-2, 714-552, 714-552-2, 714-552-2L, 714-553, 714-553-2, 714-554, 714-554-2, 714-556, 714-571, 714-571-2, 714-571L, 714-572, 714-572-2, 714-573, 714-573-2, 714-574, 714-574-2, 714-575, 714-576, 714-576-8, 714-576-10

Kids' Choice®

Steel Posts (5" O.D., 11 ga. Round Tube) & Aluminum Posts**Steel Posts - 5" O.D., 11ga. cont.**

<u>MODEL</u>	<u>DESCRIPTION</u>	<u>USES</u>	<u>PART NUMBER</u>
714-572	144" Deck Post (Roof)	3' Decks & less	713572*
714-573	168" Deck Post (Roof)	3'-6" to 5' Decks	713573*
714-574	186" Deck Post (Roof)	5'-6" to 6'-6" Decks	713574*
714-575	196" Deck Post (Uses 2 for Flippo Roof)	6'-6" Deck	985260*
714-576	204" Deck Post (Roof)	8' Deck	713818*
714-576-8	228" Deck Post (Topper)	8' Deck	994097*
714-576-10	252" Deck Post (Topper)	10' Deck	994407*

Aluminum Posts - 5" O.D.

<u>MODEL</u>	<u>DESCRIPTION</u>	<u>USES</u>	<u>PART NUMBER</u>
714-549-32	112" Deck Post	3' Decks	995230*
714-549-42	124" Deck Post	4' Decks	995231*
714-551-2	106" Deck Post	2'-6" Decks & less	713593*
714-552-2	136" Deck Post	5' Decks	713594*
714-552-2L	136" Deck Post w/CPSIA Label	5' Decks	996065*
714-553-2	160" Deck Post	5'-6" to 6'-6" Decks	713595*
714-554-2	178" Deck Post	7' to 8' Decks	713599*
714-571-2	106" Post (Roof)	Ground Level	713588*
714-572-2	144" Deck Post (Roof)	3' Decks & less	713589*
714-573-2	168" Deck Post (Roof)	3'-6" to 5' Decks	713590*
714-574-2	186" Deck Post (Roof)	5'-6" to 6'-6" Decks	713591*

Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes" for specifications of underlined items.

714-545-3, 714-545-5, 714-545-6, 714-545-8, 714-545-10, 714-549-3, 714-549-4, 714-549-42, 714-550-3, 714-550-5, 714-550-6, 714-550-8, 714-551, 714-551-2, 714-552, 714-552L, 714-552-2, 714-552-2L, 714-553, 714-553-2, 714-554, 714-554-2, 714-556, 714-571, 714-571-2, 714-571L, 714-572, 714-572-2, 714-573, 714-573-2, 714-574, 714-574-2, 714-575, 714-576, 714-576-8, 714-576-10

Kids' Choice®

Steel Posts (5" O.D., 11 ga. Round Tube) & Aluminum Posts

CONCRETE

0.13 cubic yards required per post

0.26 cubic yards per post for model's 714-550-3, 714-550-5, 714-550-6 and 714-550-8.

DESCRIPTION

Posts are used for support of deck systems and freestanding components.

MATERIALS

Steel Post

Assembly:

Steel posts shall be constructed of 5" tube, 11 ga. Posts not designed for roof assemblies shall have 5" round end caps pressed in at the factory.

Aluminum Post

Assembly:

Aluminum posts shall be constructed of 5" aluminum tube. Posts not designed for roof assemblies shall have 5" round end caps pressed in at the factory.

Fasteners:

Components shall be field assembled to Posts by means of Versalok Fasteners, Fastener Style A hardware and/or Fastener Style B hardware.

Finishes:

Post assemblies and clamps shall be finished in Mira-Cote.

5" O.D., 11 ga. Steel Posts & Aluminum Posts

Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes" for specifications of underlined items.

714-545-3, 714-545-5, 714-545-6, 714-545-8, 714-545-10, 714-549-1, 714-549-3, 714-549-4, 714-549-42, 714-550-3, 714-550-5, 714-550-6, 714-550-8, 714-551, 714-551-2, 714-552, 714-552L, 714-552-2, 714-552-2L, 714-553, 714-553-2, 714-554, 714-554-2, 714-556, 714-571, 714-571-2, 714-571L, 714-572, 714-572-2, 714-573, 714-573-2, 714-574, 714-574-2, 714-575, 714-576, 714-576-8, 714-576-10



Product Specifications

May 3, 2005

Rev. E

Kids' Choice®

Fence Posts, 4' & 8' Fence Sections, Archway for Fence

714-555, 714-555-2* & 714-555-3* and 714-577-4 714-577-8 & 714-578

Fence Post, Steel, 5" OD x 76"

4' Fence Section, Straight

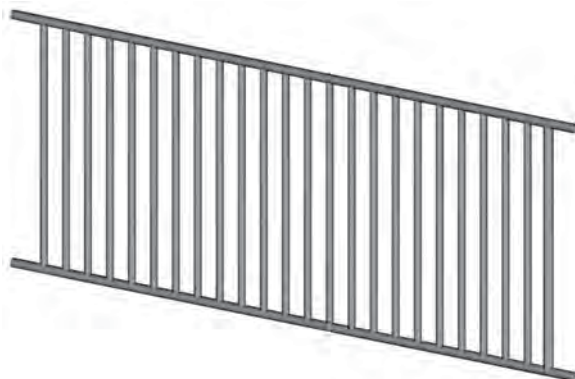
* Model # 714-555-2 Fence Post, Aluminum, 5" OD x 76" and
Model # 714-555-3 Fence Post, Steel, 5" OD x 76" not shown.
Appearances are identical but material specifications differ.



714-555, 714-555-2* & 714-555-3* and 714-577-4 714-577-8 & 714-578

8' Fence Section, Straight

Archway for Fence, 5" OD



Fence System

714-555, 714-555-2, 714-555-3, 714-577-4, 714-577-8, 714-578

Kids' Choice®

Fence Posts, 4' & 8' Fence Sections, Archway for Fence

<u>MODEL #</u>	<u>PRODUCT</u>	<u>CONCRETE REQ'D</u>
714-555	5" OD x 76" Fence Post, Steel	0.13 cu. yds.
714-555-2	5" OD x 76" Fence Post, Aluminum	0.13 cu. yds.
714-555-3	5" OD x 76" Fence Post, Steel	0.13 cu. yds.
714-577-4	4' Fence Section	N/A
714-577-8	8' Fence Section	N/A
714-578	Archway for Fence	0.26 cu. yds.

DESCRIPTION

These models comprise a fence system with virtually limitless configuration possibilities. This fence system is not playground equipment, therefore protective surfacing to 6' from perimeter is not required. However, this does not permit exclusion of protective surfacing when required by playground equipment which intersects fence area, e.g. if a fence were to connect to a deck system, required protective surfacing of deck components would "overrule" fence's lack of a requirement for surfacing.

MATERIALS

- Fence Sections:** The fence sections shall consist of a welded assembly handrail system with a top and bottom rail constructed of 1" pipe, and infill consisting of uprights constructed of 1" tube. The fence section shall measure 36-5/16" high and 4' or 8' long.
- Archway:** The archway shall be a single piece, "U"-shaped component constructed of 5" tube, measuring 4' from leg center to leg center and 132" from leg end to inside apex height.
- Steel Posts:** Model # 714-555 shall be constructed of 5" tube, 11 ga. with a 5" round end cap pressed into its top end. Model # 714-555-3 shall be constructed of 5" tube with a 5" round end cap pressed into its top end.
- Aluminum Posts:** Model # 714-555-2 shall be constructed of 5" aluminum tube with a 5" round end cap pressed into its top end.
- Fasteners:** The assembly shall contain Versalok Fasteners and Fastener Style A hardware.
- Finishes:** The fence sections, posts, archway, and clamps shall have a Mira-Cote finish.

Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes" for specifications of underlined items.



Product Specifications

Kids' Choice®
Post Climber



Post Climber

<u>MODEL #</u>	<u>PRODUCT</u>	<u>GRD SPACE</u>	<u>PROT AREA</u>	<u>CONCRETE</u>
714-616	Post Climber	1' 2-1/2" x 10-1/2"	13'-8 1/2" x 13'-4 1/2"	NA

DESCRIPTION

Post Climbers are designed to attach to existing deck or freestanding 5" Posts. Climbers are versatile and can be reoriented for varying play experiences.

MATERIALS

- Post Climber: Post climber shall be constructed of 1" pipe, Gator Grip. Climber shall measure 14-1/2" in length and 6-7/8" in width.
- Fasteners: Each assembly shall contain Versalok Fasteners and Fastener Style A hardware.
- Finishes: The climber shall have a Mira-Cote finish.



Product Specifications

Kids' Choice®
Pod Hopper

Pod Hopper

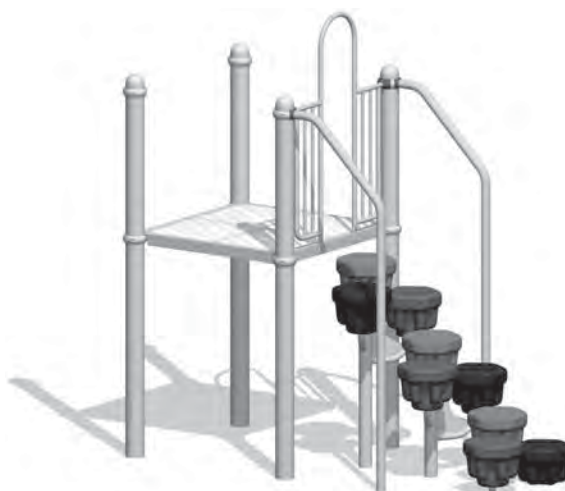
714-619-3

Pod Hopper for 3' Deck



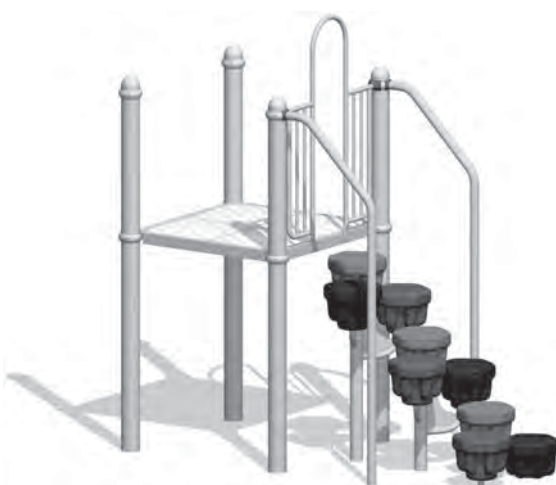
714-619-4

Pod Hopper for 4' Deck



714-619-5

Pod Hopper for 5' Deck



714-619-6

Pod Hopper for 6'-6" Deck



714-619-3, 714-619-4, 714-619-5, 714-619-6

Kids' Choice® Pod Hopper

<u>MODEL #</u>	<u>PRODUCT</u>	<u>GRND. SPC.</u>	<u>PROT. AREA</u>	<u>CONCRETE</u>
714-619-3	Pod Hopper for 3' Deck	4'-2 1/4" x 3'-11 1/4"	16'-8 1/4" x 16'-5 1/4"	0.17 cu yds
714-619-4	Pod Hopper for 4' Deck	4'-2 1/4" x 5'-6 1/4"	16'-8 1/4" x 18'-1 1/4"	0.22 cu yds
714-619-5	Pod Hopper for 5' Deck	4'-2 1/4" x 5'-6 1/4"	16'-8 1/4" x 18'-1 1/4"	0.22 cu yds
714-619-6	Pod Hopper for 6'-6" Deck	4'-2 1/4" x 7'-3 1/4"	16'-8 1/2" x 19'-10 1/4"	0.26 cu yds

DESCRIPTION

These models each comprise a post assembly with 3 attached hex-shaped pods ascending to 3', 4', 5' or 6'-6" deck systems, with an arch entry enclosure and formed hand supports on both sides.

MATERIALS

Post Assemblies: Each post assembly shall comprise a center tube of 3-1/2" tube, supporting arm bracket of 7 ga. galvanized steel sheet, pod supporting arms of 1-1/4" pipe, pod mounting plate of 11 ga. galvanized steel sheet, pod support tube of 1-1/4" pipe, support tube brace plate of 11 ga. galvanized steel sheet, and base plate of 7 ga. galvanized steel sheet. All post assemblies shall measure 22 13/16" in length center to center and 6-5/8" in width center to center. Model # 714-619-3 post assemblies shall measure 60-5/16" and 44-5/16" in height. Model # 714-619-4 post assemblies shall measure 72-5/16", 60-5/16" and 44-5/16" in height. Model # 714-619-5 post assemblies shall measure 84-5/16", 66-5/16" and 48-5/16" in height. Model # 714-619-6 post assemblies shall measure 102-5/16", 84-5/16", 66-5/16" and 48-5/16" in height. Post assemblies shall be solid welded.

Stepping Pods: Each pod shall be constructed of Rockite containing a textured, hex-shaped top surface measuring approximately 16" diameter. Pod shall measure 12" in height.

Arch Entry Enclosure: The arch enclosure assembly shall consist of top supports, a bottom support, and an arched upright constructed of 1" pipe, formed, mashed and punched, and vertical rung infill constructed of 1" tube, all solid welded.

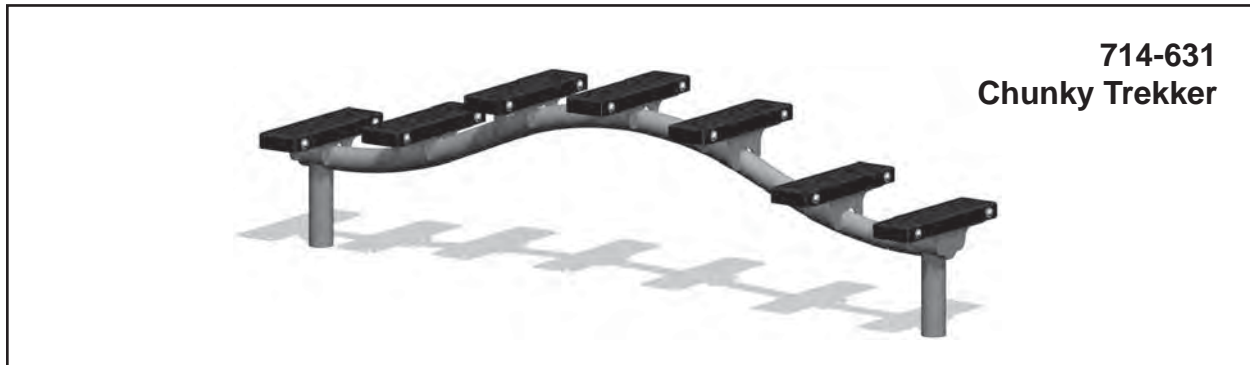
Hand Supports: Hand supports shall be constructed of 2" pipe.

Fasteners: The assembly shall contain Versalok Fasteners and Fastener Style A hardware.

Finishes: The Rockite pods and stumps shall have color molded in. The post assemblies, hand supports, enclosure and clamps shall be finished in Mira-Cote.

Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes" for specifications of underlined items.

Kids' Choice®
Chunky Trekker



714-631
Chunky Trekker

<u>MODEL</u>	<u>PRODUCT</u>	<u>GRND SPACE</u>	<u>PROT. AREA</u>	<u>CONCRETE</u>
714-631	Chunky Trekker	6'-4 1/4" x 1'-3"	19' x 14'	0.09 cu. yds.

DESCRIPTION

The Chunky Trekker is a simple yet versatile climbing component that can be used Deck-to-Deck, ground-to-Deck, freestanding, ground-to-Nexus or Nexus-to-Nexus.

MATERIALS

Chunky Trekker: The Chunky Trekker shall comprise a rail constructed of 2-3/8" tube, two 5" x 2-3/8" sleeves constructed of 2" pipe, and foot step brackets constructed of 7 ga sheet, all solid welded. Rail shall measure 75-1/2" in length. Brackets shall be graduated in height from 3-1/2", 4-1/8", 4-1/2" and 4-3/4". All brackets shall be 12-7/8" in length.

Legs: Legs shall have one swaged end, measure 54-3/16" in length and be constructed of 2" pipe.

Foot Step Covers: Foot step covers shall be constructed of 11 ga. sheet perforated with a staggered pattern of .375" diameter holes at 5/8" apart center to center. Steps shall be 15" in length.

Fasteners: Each assembly shall contain Versalok Fasteners and Fastener Style A hardware.

Finishes: The Chunky Trekker weldment and legs shall have a Mira-Cote finish. Foot step covers shall have a Mira-Therm finish.

Chunky Trekker

714-631

Kids' Choice®

Playcover® Hexagon Shades, 17' or 26'

714-669-617

& 714-669-617FR

Playcover Hexagon Shade, 17'



714-669-626

& 714-669-626FR

Playcover Hexagon Shade, 26'



MODEL #

PRODUCT

714-669-617	Playcover Hexagon Shade, 17'
714-669-617FR	Playcover Hexagon Shade, 17', Fire Retardant Shade
714-669-626	Playcover Hexagon Shade, 26'
714-669-626FR	Playcover Hexagon Shade, 26', Fire Retardant Shade

Playcover Hexagon Shades

714-669-617, 714-669-617FR, 714-669-626, 714-669-626FR

Kids' Choice®

Playcover® Hexagon Shades, 17' or 26'

DESCRIPTION

Playcover Shades will attach to Kids' Choice decks to provide shade to play structures. All structures are designed to meet the requirements of ASCE 7-05 (IBC 2006, IBC 2009, CBC2010) and ASCE 7-10 (IBC 2012). Shades will have a live load of 5 PSF, snow load of 10 PSF, design wind speed of 90 MPH (3-sec gust), exposure C (from ASCE 7-05), and a design wind speed of 115 MPH, risk category II (from ASCE 7-10).

MATERIALS

Frame: All tube shall conform to ASTM A500. Steel plate shall conform to ASTM A572, $F_y = 50$ KSI. All fabrication and erection of structural steel shall conform with the current edition of AISC "Specification for the Design, Fabrication and Erection of Structural Steel for Buildings". All fabrication and erection of the light gauge pipes shall conform to AISI cold-formed steel specifications. Steel welds shall conform to AWS D.1: Electrodes, Class E70XX, Low Hydrogen. Frames have primer and 3 mils of powder coat electrostatically applied. Structural Steel Columns are made of 88.9 mm (3.5") O.D. pre-galvanized tubing for PB and are made of 127 mm (5") O.D. pre-galvanized tubing for KB. Structural Steel Rafters are made of 88.9 mm (3.5") O.D. pre-galvanized tubing.

Shades: Fabric shade cloth has been specifically developed to produce a very strong and stable outdoor fabric for use in tension structures and shade awnings. This range offers the ultimate combination of maximum sun protection plus the strength and durability to ensure maintenance-free, long life performance. Mildew and Rot resistant. Heat and hail resistant. Maintains color in all weather conditions. High Density Polyethylene (HDPE), UV stabilized with a monofilament and lockstitch sewing construction producing a fabric that will not tear or fray if cut. Available in Standard and Fire Retardant Fabric. 6 Colors in Standard Fabric and 7 Colors in Fire Retardant Fabric. Provides shade factors up to 94% and blocks up to 95% of dangerous UV solar radiation for Standard Fabric. Provides shade factors up to 86% and blocks up to 84% of dangerous UV solar radiation for Fire Retardant Fabric. Temperature reduction of up to 30 degrees. It is recommended to remove Shade fabric prior to snowfall. Structural framing may remain in place during winter months.

Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes" for specifications of underlined items.

Kids' Choice®
Playcover®Umbrella, 12'



DESCRIPTION

Playcover Shades will attach to Kids' Choice decks to provide shade to play structures. All structures are designed to meet the requirements of ASCE 7-05 (IBC 2006, IBC 2009, CBC2010) and ASCE 7-10 (IBC 2012). Shades will have a live load of 5 PSF, snow load of 10 PSF, design wind speed of 90 MPH (3-sec gust), exposure C (from ASCE 7-05), and a design wind speed of 115 MPH, risk category II (from ASCE 7-10).

MATERIALS

Frame: All tube shall conform to ASTM A500. Steel plate shall conform to ASTM A572, Fy = 50 KSI. All fabrication and erection of structural steel shall conform with the current edition of AISC "Specification for the Design, Fabrication and Erection of Structural Steel for Buildings". All fabrication and erection of the light gauge pipes shall conform to AISI cold-formed steel specifications. Steel welds shall conform to AWS D.1: Electrodes, Class E70XX, Low Hydrogen. Frames have primer and 3 mils of powder coat electrostatically applied. Structural Steel Columns are made of 88.9 mm (3.5") O.D. pre-galvanized tubing for PB and are made of 127 mm (5") O.D. pre-galvanized tubing for KB. Structural Steel Rafters are made of 88.9 mm (3.5") O.D. pre-galvanized tubing.

Shades: Fabric shade cloth has been specifically developed to produce a very strong and stable outdoor fabric for use in tension structures and shade awnings. This range offers the ultimate combination of maximum sun protection plus the strength and durability to ensure maintenance-free, long life performance. Mildew and Rot resistant. Heat and hail resistant. Maintains color in all weather conditions. High Density Polyethylene (HDPE), UV stabilized with a monofilament and lockstitch sewing construction producing a fabric that will not tear or fray if cut. Available in Standard and Fire Retardant Fabric. 6 Colors in Standard Fabric and 7 Colors in Fire Retardant Fabric. Provides shade factors up to 94% and blocks up to 95% of dangerous UV solar radiation for Standard Fabric. Provides shade factors up to 86% and blocks up to 84% of dangerous UV solar radiation for Fire Retardant Fabric. Temperature reduction of up to 30 degrees. It is recommended to remove Shade fabric prior to snowfall. Structural framing may remain in place during winter months.

Playcover Umbrella, 12'

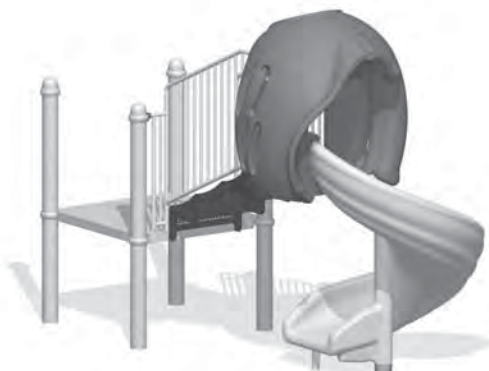
714-672, 714-672FR

Kids' Choice® - Mira-Therm II

Typhoon Slides w/Domed Wave Hood - 270° from 3', 4' and 5' Decks

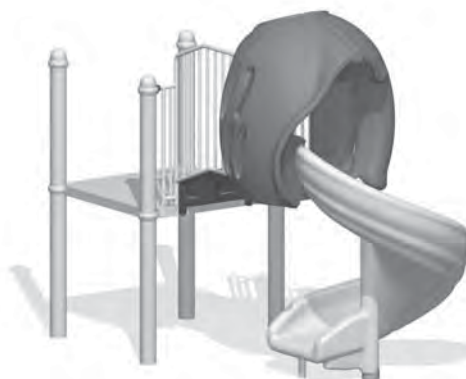
714-675-39U

**Typhoon Slide w/Domed Wave Hood
from 3' Deck, 275°**



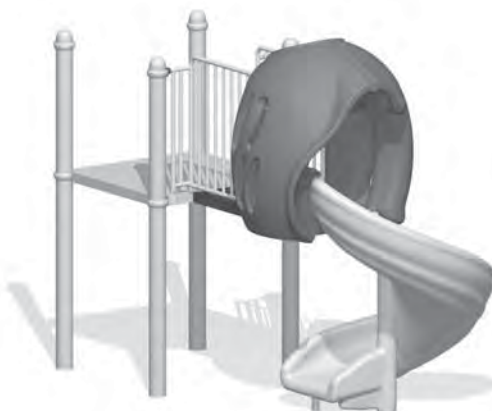
714-675-49U

**Typhoon Slide w/Domed Wave Hood
from 4' Deck 275°**



714-675-59U

**Typhoon Slide w/Domed Wave Hood
from 5' Deck, 275°**



Typhoon Slides w/Domed Wave Hood - 270°

714-675-39U, 714-675-49U, 714-675-59U

Kids' Choice® - Mira-Therm II

Typhoon Slides w/Domed Wave Hood- 270°

<u>MODEL #</u>	<u>PRODUCT</u>	<u>OVERALL HT.</u>	<u>GRND. SPC.</u>	<u>PROT. AREA</u>	<u>CONCRETE</u>
714-675-39U	Typhoon Slide from 3' Deck	approx. 9'-2"	8'-9" x 5'-10"	23'-5" x 18'-5"	0.35 cu. yds.
714-675-49U	Typhoon Slide from 4' Deck	approx. 9'-2"	7'-6" x 5'-10"	22'-4" x 18'-5"	0.35 cu. yds.
714-675-59U	Typhoon Slide from 5' Deck	approx. 9'	7'-6" x 5'-10"	22'-4" x 18'-5"	0.35 cu. yds.

DESCRIPTION

The Typhoon spiral slides are 270° one-piece open bedway slides, with 5' or 5'-2" platform, domed wave hood and step or ramp assembly, designed for attachment to 3', 4' and 5' decks.

MATERIALS

Slide Assembly:	The slide bedway shall be constructed of 1/4" to 5/16" wall <u>Rockite</u> . The slide bedway shall be 30" wide with a 15" high side wall. The center post shall be constructed of 4-1/2" tube.
Step Assembly:	The step assembly shall be constructed of 11 ga. steel sheet folded and perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center, solid <u>welded</u> to stringers of 11 ga. black steel.
Handrail Assembly:	The handrail assembly shall consist of a top and bottom rail and newel post formed, constructed of 1" pipe with infill of 3/4" x 1" oval tube. The step enclosure assembly shall be solid <u>welded</u> . <u>Plastic pipe plugs</u> shall close open ends.
Deck Enclosures:	The deck enclosures shall consist of a vertical rail, and top and bottom rail, formed, constructed of 1" pipe with an upright of 3/4" x 1" oval tube, and 3/8" aluminum inserts in the rail ends for attachment to the step enclosures. The deck enclosure assemblies shall be solid <u>welded</u> .
Slide Hood:	The hood shall be <u>Rockite</u> with molded-in view grooves for viewing children.
Back-up Plate:	The back-up plates used to connect the step assembly and the barrel shall be constructed of 1/4" x 1" x 4-1/2" flat steel.
Front Leg:	The front leg shall be constructed of 2" pipe and shall be attached to the slide using a channel constructed of 7 ga. sheet.
Fasteners:	The assembly shall contain <u>Versalok Fasteners</u> and <u>Fastener Style A</u> hardware.
Finishes:	The <u>Rockite</u> slide and platform canopy shall have color molded in. The step shall be finished in <u>Mira-Therm</u> . The handrail assemblies, deck enclosures, front leg, and clamps shall have a <u>Mira-Cote</u> finish. The back-up plate shall have a zinc plate finish.

Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes" for specifications of underlined items.

Typhoon Slides w/Domed Wave Hood - 270°

714-675-39U, 714-675-49U, 714-675-59U



Kids' Choice®

Side-by-Side Slide, Bump & Glide Slides and Bunny Hill Slide

714-700

Slide 5' Side-by-Side w/Canopy 3' Deck



714-728-4

Slide Bump & Glide One Piece 4' Deck



714-728-5

**Slide Bump & Glide One PC
4'-6", 5', 5'-6" DK**



714-736

Slide Bunny Hill w/Canopy 3' Deck



Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes" for specifications of underlined items.

Side-by-Side, Bump & Glide and Bunny Hill Slide

714-700, 714-728-4, 714-728-5, 714-736

Kids' Choice®

Side-by-Side Slide, Bump & Glide Slides and Bunny Hill Slide

<u>MODEL</u>	<u>PRODUCT</u>	<u>GRND SPACE</u>	<u>PROT. AREA</u>	<u>CONCRETE</u>
714-700	Slide 5' Side-by-Side w/Canopy 3' Deck	4'-1" x 5'-8"	16' x 18'-1"	.05 cu. yds.
714-728-4	Slide Bump & Glide One Piece 4' Deck	4'-1" x 8'-11"	16'-1" x 22'-5"	.10 cu. yds.
714-728-5	Slide Bump & Glide One PC 4'-6", 5', 5'-6" DK	4'-1" x 10'-1"	16'-1" x 24'-6"	.10 cu. yds.
714-736	Slide Bunny Hill w/Canopy 3' Deck	4'-1" x 7'-5"	16'-3" x 19'-10"	.05 cu. yds.

DESCRIPTION

Model 714-700 is a dual bedway Groove slide for 3' Deck; Model 714-728-4 and 714-728-5 are double bedway slides for a 4' deck and 5' deck respectively, with one bedway Mogul, the other Groove; Model 714-736 is a single wide-bedway Groove slide for a 3' deck. Each slide features a Rockite canopy.

MATERIALS

Side-by-Side Slide: The slide shall be constructed of Rockite with threaded fasteners incorporated for assembly. The dimensions shall be: each bedway width, 17"; outside overall, 42"; rail width, 3"; top of bedway to top of rail, 4-1/2"; bedway thickness, 3"; and bedway length, 5'-5".

Bump & Glide Slides: The slide shall be constructed of Rockite with threaded fasteners incorporated for assembly. The dimensions shall be: bedway width, 16-1/4"; outside overall, 40"; inside rail width, 1-1/4"; outside rail widths, 1-1/2"; top of bedway to top of rail, 7-1/2" - 8-1/2"; bedway thickness, 4-1/2" - 5-1/2"; and bedway length, approximately 8' (for 714-728-4) and 10' (for 714-728-5).

Bunny Hill Slide: The slide shall be constructed of Rockite with threaded fasteners incorporated for assembly. The dimensions shall be: bedway width, 31-1/4"; outside overall, 40"; rail width, 3-5/8"; top of bedway to top of rail, 6-1/2"; and bedway thickness, 4-1/2".

"T" Leg: The front "T" leg, and middle leg for Model 714-728-4 and 714-728-5, shall comprise an upright and a top. The upright shall be constructed of 2" pipe with a 1-1/4" x 3-1/4" channel top constructed of 11 ga. sheet, welded to the upright in a "T" configuration.

Canopy: The canopy shall be constructed of Rockite with threaded fasteners incorporated for assembly. The canopy shall have an inside width of 39" and an outside width of 44" and shall be slanted at 37 degrees. It shall be field-attached to the posts via clamps and a 41-1/2" rung of 1" pipe.

Fasteners: Each assembly shall contain Versalok Fasteners and Fastener Style A hardware.

Finishes: The Rockite slide and canopy shall have color molded in. The legs, rung, and clamps shall have a Mira-Cote finish.

Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes" for specifications of underlined items.

Kids' Choice®

Imagination Panels & Activity Panels - Below Deck

Models included:

<u>MODEL</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
714-602-6B	Steel Panel, Crawl Through	2
714-617-B	Space Ship Panel	2
714-713-1B	Television Panel	2
714-713-2B	Puppet Stage Panel	2
714-713-3B	Window Panel	2
714-713-4B	Computer Panel	2
714-713-5B	Door Panel	3
714-713-5RB	Door Panel, Reversed	3
714-713-6B	Bank Teller Panel	3
714-713-7B	General Store Panel	3
714-713-8B	Ticket Panel	3
714-714-1B	Park Ranger Panel	3
714-714-2B	Fire Truck Panel	3
714-714-3B	Police Panel	3
714-714-4B	Train Panel	3
714-714-5B	Taxi Panel	3
714-714-6B	Pilot Panel with Window	3
714-714-7B	Pilot Panel	3
714-714-8B	Race Car Panel	3
714-715-1B	Alphabet Panel	3
714-715-2B	Finger Maze Panel	3
714-715-4B	Calculator Panel	3
714-715-3B	3' Jump Panel	4
714-715-5B	5' Jump Panel	4
714-715-6B	Bus Stop Panel	4
714-715-7B	Rest Stop Panel	4
714-715-10B	Sign Language Panel	4

Note: Deck systems are NOT included in these assemblies. Please refer to Construction Drawings for the model particular to your system.

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

Imagination & Activity Panels (Below Deck)

714-602-6B, 714-617-B, 714-713-1B, 714-713-2B, 714-713-3B, 714-713-4B, 714-713-5B, 714-713-5RB, 714-713-6B, 714-713-7B, 714-713-8B, 714-714-1B, 714-714-2B, 714-714-3B, 714-714-4B, 714-714-5B, 714-714-6B, 714-714-7B, 714-714-8B, 714-715-1B, 714-715-2B, 714-715-4B, 714-715-6B, 714-715-7B, 714-715-10B, 714-715-11B, 714-715-12B, 714-715-13B, 714-715-15B, 714-715-20B, 714-761-2B, 714-761-3B, 714-761-4B

Kids' Choice®

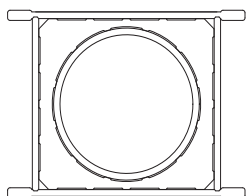
Imagination Panels & Activity Panels - Below Deck

Models included in this installation guide (continued):

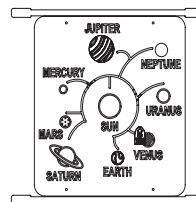
<u>MODEL</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
714-715-11B	Spanish Panel	4
714-715-12B	Braille Panel	4
714-715-13B	Calypso 3-Drum Panel	4
714-715-15B	Chinese Panel	4
714-715-20B	Activity Panel Frame	4
714-761-2B	Piston Panel	4
714-761-3B	Gear Panel	4
714-761-4B	Sliding Tile Panel	4
714-895-1B	Barn Wall Panel	4
714-895-2B	Barn Door Panel	4
714-895-3B	Barn Window Panel	4

Note: Deck systems are NOT included in these assemblies. Please refer to Construction Drawings for the model particular to your system.

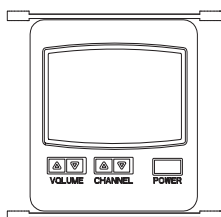
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Steel Panel, Crawl Through



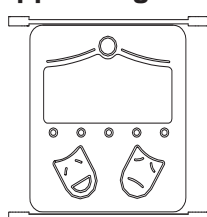
714-617-B:
Space Ship Panel



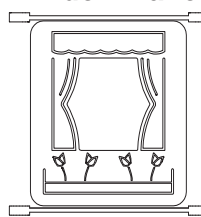
714-713-1B:
Television Panel



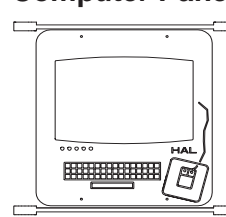
714-713-2B:
Puppet Stage Panel



714-713-3B:
Window Panel



714-713-4B:
Computer Panel

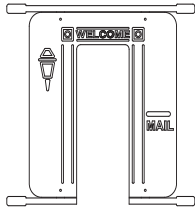


Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

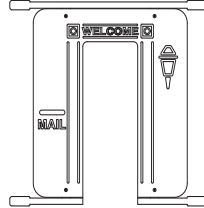
Kids' Choice®

Imagination Panels & Activity Panels - Below Deck

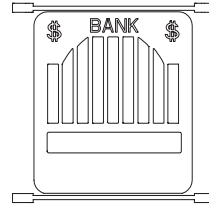
714-713-5B:
Door Panel



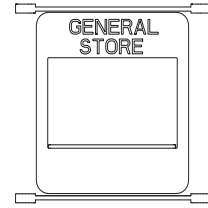
714-713-5RB:
Door Panel, Reversed



714-713-6B:
Bank Teller Panel



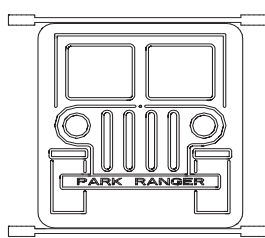
714-713-7B:
General Store Panel



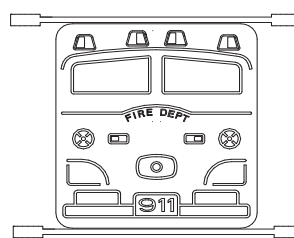
714-713-8B:
Ticket Panel



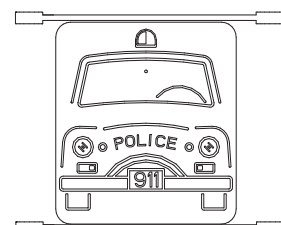
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Park Ranger Panel



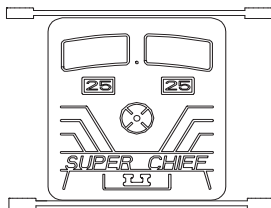
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Fire Truck Panel



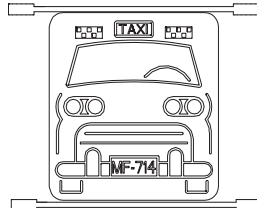
714-714-3B:
Police Panel



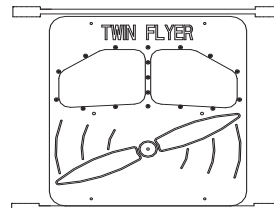
714-714-4B:
Train Panel



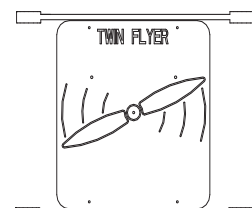
714-714-5B:
Taxi Panel



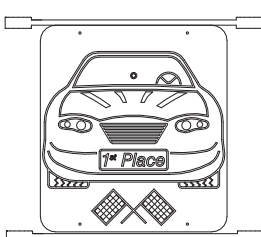
714-714-6B:
Pilot Panel w/
Window



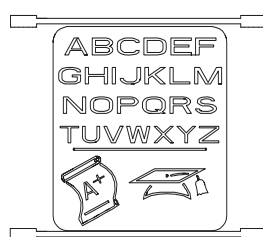
714-714-7B:
Pilot Panel



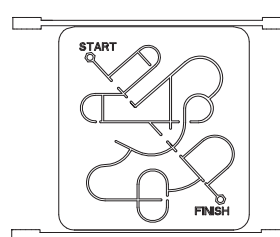
714-714-8B:
Race Car Panel



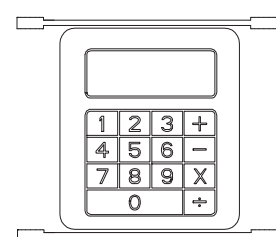
714-715-1B:
Alphabet Panel



714-715-2B:
Finger Maze Panel



714-715-4B:
Calculator Panel



Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

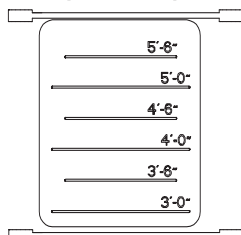
Imagination & Activity Panels (Below Deck)

714-602-6B, 714-617-B, 714-713-1B, 714-713-2B, 714-713-3B, 714-713-4B, 714-713-5B, 71 714-713-5RB, 714-713-6B, 714-713-7B, 714-713-8B, 714-714-1B, 714-714-2B, 714-714-3B, 714-714-4B, 714-714-5B, 714-714-6B, 714-714-7B, 714-714-8B, 714-715-1B, 714-715-2B, 714-715-4B, 714-715-6B, 714-715-7B, 714-715-8B, 714-715-9B, 714-715-10B, 714-715-11B, 714-715-12B, 714-715-13B, 714-715-14B, 714-715-15B, 714-715-16B, 714-715-17B, 714-715-18B, 714-715-19B, 714-715-20B, 714-761-2B, 714-761-3B, 714-761-4B

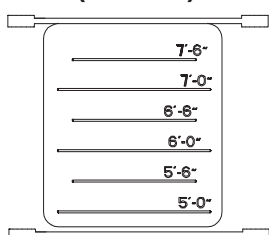
Kids' Choice®

Imagination Panels & Activity Panels - Below Deck

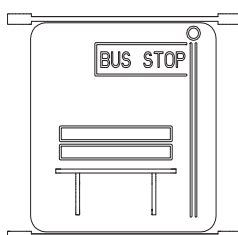
714-715-3B:
Jump Panel
(3' Deck)



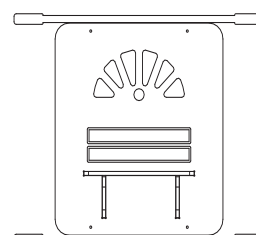
714-715-5B:
Jump Panel
(5' Deck)



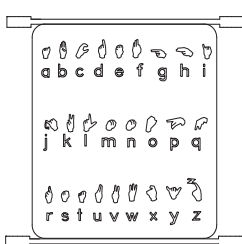
714-715-6B:
Bus Stop Panel



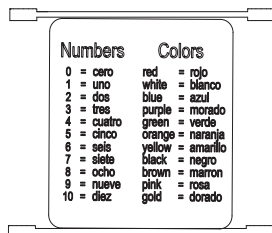
714-715-7B:
Rest Stop Panel



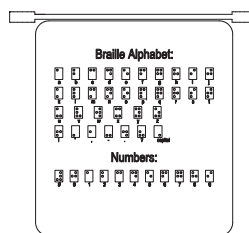
714-715-10B:
Sign Language
Panel



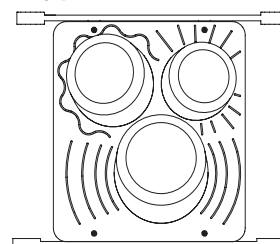
714-715-11B:
Spanish Panel



714-715-12B:
Braille Panel



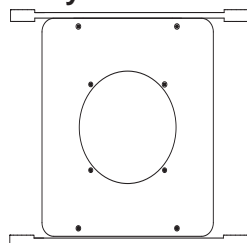
714-715-13B:
Calypso 3-Drum Panel



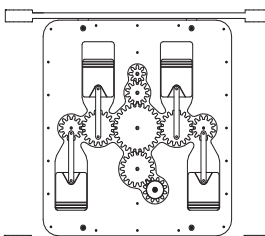
714-715-15B:
Chinese Panel



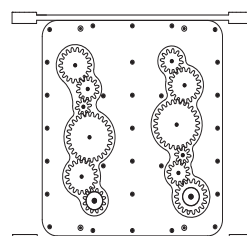
714-715-20B:
Activity Panel Frame



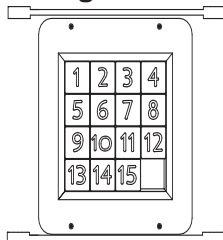
714-761-2B:
Piston Panel



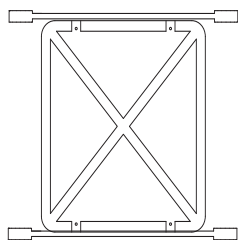
714-761-3B:
Gear Panel



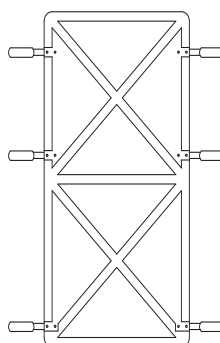
714-761-4B:
Sliding Tile Panel



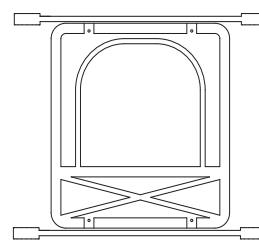
714-895-1B:
Barn Wall Panel



714-895-2B:
Barn Door Panel



714-895-3B:
Barn Window Panel



Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

Kids' Choice®

Imagination Panels & Activity Panels - Below Deck

DESCRIPTION

These representational activity panels, designed to enhance imagination and creative play, may be freestanding, clustered or below deck.

- Vehicle-themed panels feature steering wheel assemblies.
- The Piston Panel, Gear Panel, Hypnotize Insert, Funhouse Insert, Very Buried Insert, A-maze-ing Insert and Four-the-Win Insert, contain dynamic, user-driven parts sealed behind a transparent, tamper-resistant cover.
- The Sliding Tile Panel and Slide & Solve Insert, contains 15 routed, moveable tiles with one empty space challenging users to shift the tiles into proper sequence.
- The Calypso 3-Drum Panel and Magical Music Insert allows musical expression, that may be struck with the hands to create different sounds.

MATERIALS

Panels:	The panels shall be constructed of <u>Mira-Lene</u> with all corners rounded. Panels shall measure 36-1/2" x 40" and shall contain routed designs in several themes. The panel shall be supported between posts by top and bottom rungs of <u>1" pipe</u> , each with two tabs of 11 ga. <u>A-60 Galvannealed</u> sheet, solid <u>welded</u> .
Steel Panel, Crawl Through Model 714-620-6B only	The steel crawl through panel shall comprise rungs and a ring of <u>1" pipe</u> , <u>Gator Grip</u> , and a 7 ga. sheet, laser cut panel measuring 33-5/8" x 36".
Pilot Panel w/ Window: Model 714-714-6B only	In addition to the above materials and specifications, Model 714-714-6B shall feature a clear polycarbonate window mechanically fastened to the panel.
Barn Door Panel: Model 714-895-2B only	In addition to the above materials and specifications, Model 714-895-2B shall be supported between posts by top, middle and bottom rungs of <u>1" pipe</u> , each with two (2) tabs of 11 ga. <u>A-60 Galvannealed</u> sheet, solid <u>welded</u> . Panel shall measure 36-1/2" x 71-1/2".
Gear Panel and Piston Panel: Model 714-761-3B, 714-761-2B only	In addition to the above materials and specifications, Model 714-761-3B shall contain a clear polycarbonate cover mechanically fastened over two side-by-side sets of 1/4" thick gears, to be constructed of high-density polyethylene, which shall turn on nylon bushings, except for black nylon handles and drive gears which shall turn on bronze bushings. Its opposite side shall contain side-by-side routed finger mazes. Model 714-761-2B shall contain a cover, gears, and knob as described herein, and connecting rod and piston shapes of 1/4" thick high-density polyethylene as well. Its opposite side shall contain routed designs.
Sliding Tile Panel: Model 714-761-4B only	In addition to material and specifications detailed in "panels" paragraph above, Model 714-761-4B shall contain 15 moveable, tongue-and-groove tiles with routed numerals constructed of 1/4" thick high-density polyethylene.

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

Imagination & Activity Panels (Below Deck)

714-602-6B, 714-617-B, 714-713-1B, 714-713-2B, 714-713-3B, 714-713-4B, 714-713-5B, 71 714-713-5RB, 714-713-6B, 714-713-7B, 714-713-8B, 714-714-1B, 714-714-2B, 714-714-3B, 714-714-4B, 714-714-5B, 714-714-6B, 714-714-7B, 714-714-8B, 714-715-1B, 714-715-2B, 714-715-4B, 714-715-6B, 714-715-7B, 714-715-10B, 714-715-11B, 714-715-12B, 714-715-13B, 714-715-15B, 714-715-20B, 714-761-2B, 714-761-3B, 714-761-4B

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Imagination Panels & Activity Panels - Below Deck

MATERIALS *(continued)*

Calypso 3-Drum Panel: In addition to material and specifications detailed in "panels" paragraph above, Model 714-715-13B shall contain 3 rotational molded drums of low density polyethylene resin. Each drum is attached to the panel through a cover plate constructed of 11 ga. galvanized steel sheet with a Mira-Cote finish.

Rung Bracket: The rung brackets shall be constructed of 1" pipe with bolting tabs of 11 ga. A-60 Galvanized sheet, all solid welded.

Steering Wheel: The steering wheel on vehicle-themed panels shall be constructed of a high density polyethylene produced from high performance, U.V. stabilized rotational molding grade resins with a comprehensive additive package. These resins are tested in accordance with ASTM testing procedures D-1505, D-1248, D-1693 (b), D-638, D-790 and D-746. Resin's properties shall exhibit a balance of toughness, rigidity, environmental stress crack resistance and excellent low temperature impact performance. Wall thickness shall be 1/8". The steering wheel hub cover shall be constructed of injection molded polypropylene which shall contain U.V. light stabilizers. Model 714-714-6B and Model 714-714-7B contain two side-by-side steering wheels.

Star Brackets: Themed for Space Ship Panel, star brackets shall be constructed of 11 ga. HRPO steel and powder coat painted.

Fasteners: Each assembly shall contain Versalok Fasteners and Fastener Style A hardware.

Finishes: The steering wheel and two-color panels shall have molded-in color. The rungs, clamps, and steel panel shall have a Mira-Cote finish.

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

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Imagination Panels & Activity Panels

Models included:

<u>MODEL</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
714-617	Space Ship Panel	2
714-714-1	Park Ranger Panel	2
714-714-2	Fire Truck Panel	2
714-714-3	Police Panel	2
714-714-4	Train Panel	2
714-714-5	Taxi Panel	2
714-714-6	Pilot Panel with Window	2
714-714-7	Pilot Panel	2
714-714-8	Race Car Panel	2
714-715-1	Alphabet Panel	2
714-715-2	Finger Maze Panel	2
714-715-3	Jump Panel (3' Deck)	2
714-715-4	Calculator Panel	2
714-715-5	Jump Panel (5' Deck)	2
714-715-10	Sign Language Panel	2
714-715-11	Spanish Panel	2
714-715-12	Braille Panel	3
714-715-13	Calypso 3-Drum Panel	3
714-715-15	Chinese Panel	3
714-715-20	Activity Panel Frame	3
714-732	Welcome Panel (5-12)	3
714-732-1	Welcome Panel (2-5)	3
714-732-2	Welcome Panel (2-12)	3
714-761-2	Piston Panel	3
714-761-3	Gear Panel	3
714-761-4	Sliding Tile Panel	3
714-895-1	Barn Wall Panel	3
714-895-3	Barn Window Panel	3

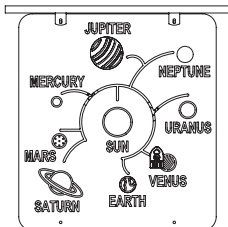
Note: Deck systems are NOT included in these assemblies. Please refer to Construction Drawings for the model particular to your system.

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

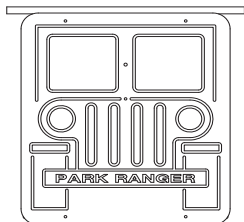
Kids' Choice®

Imagination Panels & Activity Panels

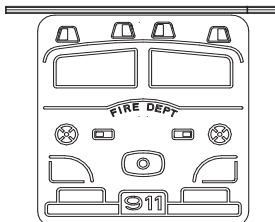
714-617:
Space Ship Panel



714-714-1:
Park Ranger Panel



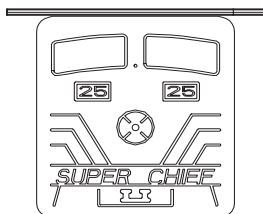
714-714-2:
Fire Truck Panel



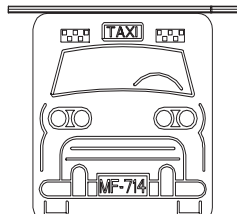
714-714-3:
Police Panel



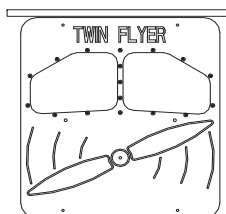
714-714-4:
Train Panel



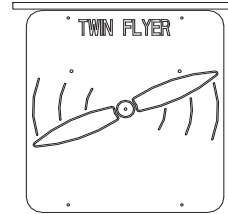
714-714-5:
Taxi Panel



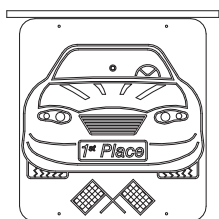
714-714-6:
Pilot Panel w/ Window



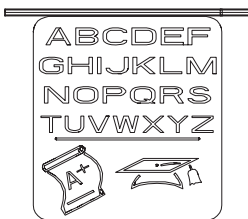
714-714-7:
Pilot Panel



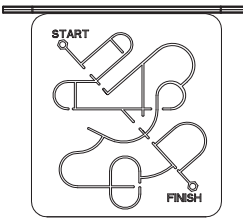
714-714-8:
Race Car Panel



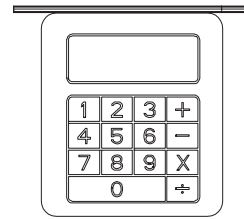
714-715-1:
Alphabet Panel



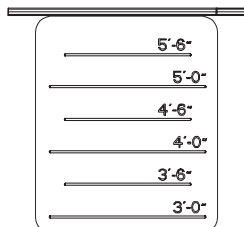
714-715-2:
Finger Maze Panel



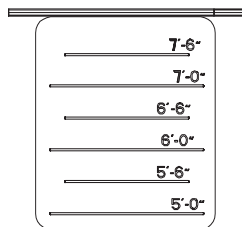
714-715-4:
Calculator Panel



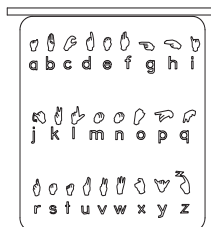
714-715-3:
Jump Panel (3' Deck)



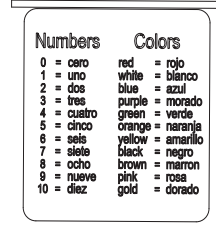
714-715-5:
Jump Panel (5' Deck)



714-715-10:
Sign Language Panel



714-715-11:
Spanish Panel



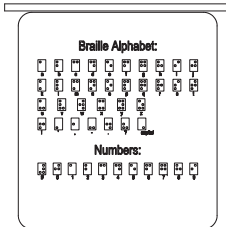
Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

714-617, 714-714-1, 714-714-2, 714-714-3, 714-714-4, 714-714-5, 714-714-6, 714-714-7, 714-714-8, 714-715-1, 714-715-2, 714-715-3, 714-715-4, 714-715-5, 714-715-10, 714-715-11, 714-715-12, 714-715-13, 714-715-15, 714-715-20, 714-732, 714-732-1, 714-732-2, 714-761-2, 714-761-3, 714-761-4, 714-895-1, 714-895-3

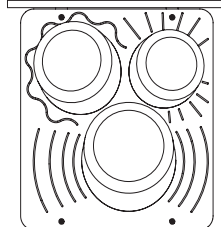
Kids' Choice®

Imagination Panels & Activity Panels

**714-715-12:
Braille Panel**



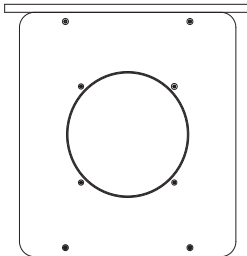
**714-715-13:
Calypso 3-Drum Panel**



**714-715-15:
Chinese Panel**



**714-715-20:
Activity Panel Frame**



**714-732-1:
Welcome Panel (2-5)**



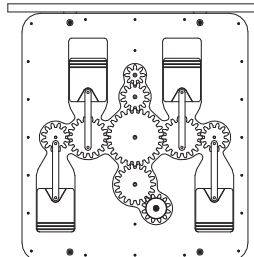
**714-732-2:
Welcome Panel (2-12)**



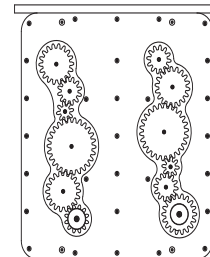
**714-732:
Welcome Panel (5-12)**



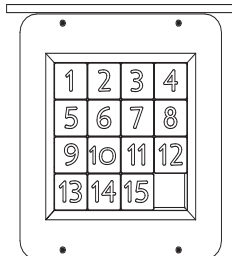
**714-761-2:
Piston Panel**



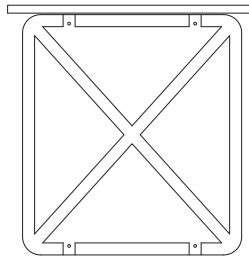
**714-761-3:
Gear Panel**



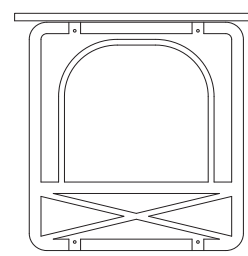
**714-761-4:
Sliding Tile Panel**



**714-895-1:
Barn Wall Panel**



**714-895-3:
Barn Window Panel**



Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

Imagination Panels & Activity Panels

714-617, 714-714-1, 714-714-2, 714-714-3, 714-714-4, 714-714-5, 714-714-6, 714-714-7, 714-714-8, 714-715-1, 714-715-2, 714-715-3, 714-715-4, 714-715-5, 714-715-10, 714-715-11, 714-715-12, 714-715-13, 714-715-15, 714-715-20, 714-732, 714-732-1, 714-732-2, 714-761-2, 714-761-3, 714-761-4, 714-895-1, 714-895-3

Kids' Choice®
Imagination Panels & Activity Panels

DESCRIPTION

These deck-mounting representational activity panels are designed to enhance imagination and creative play.

- Welcome panels are decorative and display the intended user age range.
- Vehicle-themed panels feature steering wheel assemblies.
- The Piston Panel, Gear Panel, Hypnotize Insert, Funyhouse Insert, Very Buried Insert, A-maze-ing Insert and Four-the-Win Insert, contain dynamic, user-driven parts sealed behind a transparent, tamper-resistant cover.
- The Sliding Tile Panel and Slide & Solve Insert, contains 15 routed, moveable tiles with one empty space challenging users to shift the tiles into proper sequence.
- The Calypso 3-Drum Panel and Magical Music Insert allows musical expression, that may be struck with the hands to create different sounds.

MATERIALS

Panels: The panels shall be constructed of Mira-Lene with all corners rounded. Panels shall measure 36-1/2" x 40".

Pilot Panel w/ Window: In addition to the above materials and specifications, Model 714-714-6 shall feature a clear polycarbonate window mechanically fastened to the panel.
Model 714-714-6 only

Gear Panel and Piston Panel: In addition to the above materials and specifications, Model 714-761-3 shall contain a clear polycarbonate cover mechanically fastened over two side-by-side sets of 1/4" thick gears, to be constructed of high-density polyethylene, which shall turn on nylon bushings, except for black nylon handles and drive gears which shall turn on bronze bushings. Its opposite side shall contain side-by-side routed finger mazes. Model 714-761-2 shall contain a cover, gears, and knob as described herein, and connecting rod and piston shapes of 1/4" thick high-density polyethylene as well. Its opposite side shall contain routed designs.
Model 714-761-3, 714-761-2 only

Sliding Tile Panel: In addition to material and specifications detailed in "panels" paragraph above, Model 714-761-4 shall contain 15 moveable, tongue-and-groove tiles with routed numerals constructed of 1/4" thick high-density polyethylene.
Model 714-761-4 only

Calypso 3-Drum Panel: In addition to material and specifications detailed in "panels" paragraph above, Model 714-715-13 shall contain 3 rotational molded drums of low density polyethylene resin. Each drum is attached to the panel through a cover plate constructed of 11 ga. galvanized steel sheet with a Mira-Cote finish.
Model 714-715-13 only

Rung Bracket: The rung brackets shall be constructed of 1" pipe with bolting tabs of 11 ga. A-60 Galvannealed sheet, all solid welded.

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

714-617, 714-714-1, 714-714-2, 714-714-3, 714-714-4, 714-714-5, 714-714-6, 714-714-7, 714-714-8, 714-715-1, 714-715-2, 714-715-3, 714-715-4, 714-715-5, 714-715-10, 714-715-11, 714-715-12, 714-715-13, 714-715-15, 714-715-20, 714-732, 714-732-1, 714-732-2, 714-761-2, 714-761-3, 714-761-4, 714-895-1, 714-895-3

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Imagination Panels & Activity Panels

MATERIALS (continued)

Steering Wheel:

The steering wheel on vehicle-themed panels shall be constructed of a high density polyethylene produced from high performance U.V. stabilized rotational molding grade resins with a comprehensive additive package. These resins are tested in accordance with ASTM testing procedures D-1505, D-1248, D-1693 (b), D-638, D-790 and D-746. Resin's properties shall exhibit a balance of toughness, rigidity, environmental stress crack resistance and excellent low temperature impact performance. Wall thickness shall be 1/8". The steering wheel hub cover shall be constructed of injection molded polypropylene which shall contain U.V. light stabilizers. Models 714-714-6 and 714-714-7 Pilot Panels shall each contain two side-by-side steering wheels for cooperative play.

Star Brackets:

Themed for Space Ship Panel, star brackets will be constructed of 11 ga. HRPO steel and powder coat painted.

Fasteners:

Each assembly shall contain Versalok Fasteners and Fastener Style A hardware.

Finishes:

The panels and steering wheels shall have molded-in color. Each panel assembly shall have a two-color scheme. The rung brackets and clamps shall have a Mira-Cote finish.

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

Imagination Panels & Activity Panels

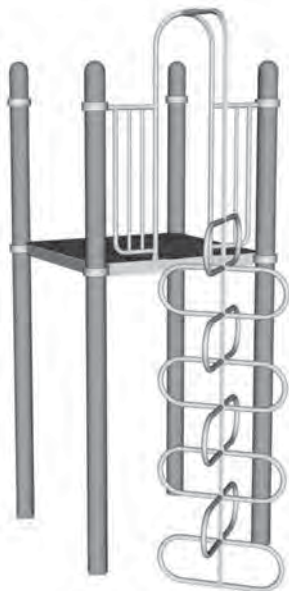
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Kids' Choice®

Vertical Climbers Trap Door Climber, Climbing Pole, Spider Climber, Spiral Climber, Wiggly Worm Climber & Bumper Ladder

714-731* & 714-731-6
Trap Door Climber for 6'-6" Deck

* Model # 714-731 Trap Door Climber for 3' or 5' Deck not shown.

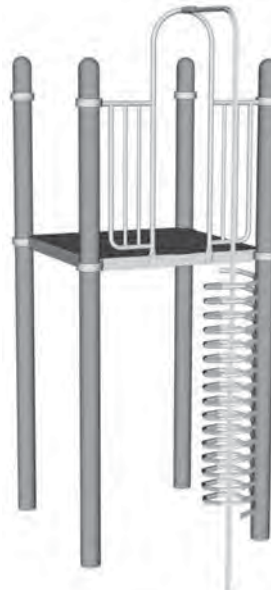

714-808 & 714-808-8*
Climbing Pole for 3', 5' or 6'-6" Deck

* Model # 714-808-8 Climbing Pole for 8' Deck not shown.


714-908
Spider Climber for 3', 5' or 6'-6" Deck

714-969 & 714-969-5
Spiral Climber for 6'-6" Deck

* Model # 714-969-5 Spiral Climber for 3' or 5' Deck not shown.

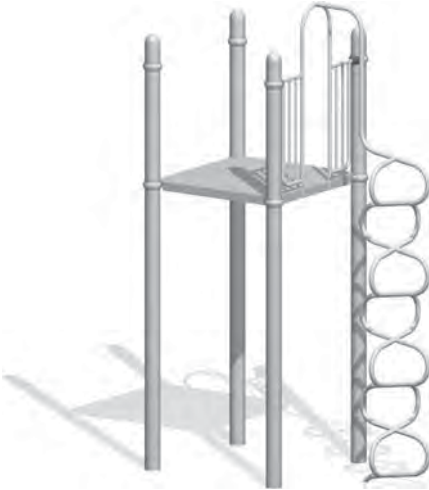


Kids' Choice® Vertical Climbers

714-974-6* & 714-974-8

Wiggly Worm Climber for 8' Deck

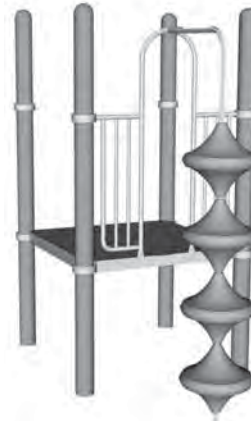
*Model # 714-974-6 Wiggly Worm Climber for 5' & 6'-6" Deck not shown.



714-976-3 & 714-976-5*

Bumper Ladder for 3' Deck

* Model # 714-976-5 Bumper Ladder for 5' Deck and Model # 714-976-6 Bumper Ladder for 6'-6" Deck not shown.



Vertical Climbers

714-731, 714-731-6, 714-808, 714-808-8, 714-908, 714-969, 714-969-5, 714-974-6, 714-974-8, 714-976-3, 714-976-5, 714-976-6

Kids' Choice® Vertical Climbers

<u>MODEL #</u>	<u>PRODUCT</u>	<u>GRND SPC</u>	<u>PROT. AREA</u>	<u>CONCRETE</u>
714-731	Trap Door Climber, 3' or 5' Deck	3'-0" x 3'-0"	9'-0" x 15'-0"	0.05 cu. yds.
714-731-6	Trap Door Climber, 6'-6" Deck	3'-0" x 3'-0"	9'-0" x 15'-0"	0.05 cu. yds.
714-808	Climbing Pole, 3', 5' or 6'-6" Deck	3'-0" x 3'-0"	9'-0" x 15'-0"	0.05 cu. yds.
714-808-8	Climbing Pole, 8' Deck	3'-0" x 3'-0"	9'-0" x 15'-0"	0.05 cu. yds.
714-908	Spider Climber, 3', 5' or 6'-6" Deck	3'-0" x 3'-0"	9'-0" x 15'-0"	0.05 cu. yds.
714-969	Spiral Climber, 6'-6" Deck	3'-0" x 3'-0"	9'-0" x 15'-0"	0.05 cu. yds.
714-969-5	Spiral Climber, 5' Deck	3'-0" x 3'-0"	9'-0" x 15'-0"	0.05 cu. yds.
714-974-6	Wiggly Worm Climber, 5' or 6'-6" Deck	3'-0" x 3'-9"	9'-0" x 15'-9"	0.05 cu. yds.
714-974-8	Wiggly Worm Climber, 8' Deck	3'-0" x 3'-9"	9'-0" x 15'-9"	0.05 cu. yds.
714-976-3	Bumper Ladder, 3' Deck	3'-0" x 3'-0"	9'-0" x 15'-0"	0.05 cu. yds.
714-976-5	Bumper Ladder, 5' Deck	3'-0" x 3'-0"	9'-0" x 15'-0"	0.05 cu. yds.
714-976-6	Bumper Ladder, 6'-6" Deck	3'-0" x 3'-0"	9'-0" x 15'-0"	0.05 cu. yds.

DESCRIPTION

These challenging vertical climbers are used for access to and egress from deck systems of various heights. The assemblies contain arched enclosures for field assembly to decks.

MATERIALS

Trap Door Climber: The pole shall be die-formed 1-1/4" pipe. The pole extension and "U" shaped rungs shall be die-formed 1" pipe. The assembly shall be solid welded.

Climbing Pole: The climbing pole shall be constructed of 1" pipe, 12 ga.

Spider Climber: The pole and "U" shaped rungs shall be die-formed 1" pipe. The spider climber shall be a welded assembly.

Spiral Climber: The spiral climber and extension tube shall be entirely constructed of 1" pipe, formed, drilled and all solid welded construction with plastic pipe plugs inserted in open ends.

Wiggly Worm Climber: The assembly shall comprise loops solid welded to frames, all of 1-1/4" pipe, 10 ga.

Bumper Ladder: The "top" shaped bumper shall be constructed of Rockite supported internally by a pole constructed of 1" pipe, 10 ga. Each bumper shall measure 18" high x 19" wide.

Arch Enclosure: The enclosure assembly shall consist of top supports, an extension tube, and an arched upright, which shall be constructed of 1" pipe, drilled, formed, and mashed, and vertical rungs which shall be constructed of 1" tube. The enclosure assembly shall be solid welded.

Fasteners: The assembly shall contain Versalok Fasteners and Fastener Style A hardware.

Finishes: The climber assemblies, arch enclosure, and clamps shall have a Mira-Cote finish. The Rockite bumpers used on Bumper Ladders shall have color molded in.

Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes" for specifications of the underlined items.



MIRACLE
RECREATION EQUIPMENT COMPANY

Product Specifications

Jan. 21, 2002 Rev. B

Kids' Choice®

Cylinder Panels

714-763-1 and **714-763-2**

Critter Puzzle Panel



714-763-3 and **714-763-4**

Tic-Tac-Toe Panel



714-763-5

714-763-1 and **714-763-2**

3-Letter Word Speller Panel



714-763-3 and **714-763-4**

Dinosaur Panel



714-763-5

Cylinder Panels

714-763-1, 714-763-2, 714-763-3, 714-763-4, 714-763-5

Kids' Choice®
Cylinder Panels

714-763-1 and 714-763-2

714-763-3 and 714-763-4

714-763-5

Planet Panel



714-763-1, 714-763-2, 714-763-3, 714-763-4, 714-763-5



MIRACLE
RECREATION EQUIPMENT COMPANY

Kids' Choice®

Cylinder Panels

Jan. 21, 2002 Rev. B

<u>MODEL #</u>	<u>PRODUCT</u>	<u>CONCRETE</u>
714-763-1	Critter Puzzle Panel	See Post specifications
714-763-2	Tic-Tac-Toe Panel	"
714-763-3	3-Letter Word Speller Panel	"
714-763-4	Dinosaur Panel	"
714-763-5	Planet Panel	"

DESCRIPTION

These deck-mounting Cylinder Panels are panel assemblies which contain nine cylinders in rows and columns of three. The cylinders spin independently of one another, and each contains two molded-in graphic images on opposite sides.

MATERIALS

Panel:	The panel shall be constructed of <u>Rockite</u> with all corners rounded, and shall have cylinder assemblies factory-installed using tamper-proof hardware.
Cylinders:	Each cylinder shall be constructed of <u>Rockite</u> with molded-in graphics on two "sides." Cylinder axels shall be constructed of <u>1" pipe</u> .
Enclosures:	Each enclosure shall consist of a vertical upright and horizontal stubs of <u>1" pipe</u> solid <u>welded</u> , drilled and formed.
Versalok Fasteners:	All <u>Versalok Fasteners</u> for deck and component attachment shall be <u>aluminum alloy</u> .
Fasteners:	All hardware shall be <u>Fastener Style A</u> .
Finishes:	The <u>Rockite</u> panel and cylinders shall have color molded in. The enclosures shall have a <u>Mira-Cote</u> finish.

Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes" for specifications of underlined items.

Cylinder Panels

714-763-1, 714-763-2, 714-763-3, 714-763-4, 714-763-5



MIRACLE
RECREATION EQUIPMENT COMPANY

Product Specifications

December 16, 2008

Rev. C

Kids' Choice®

Bongo Perch, Big Timber® Bongo Stump Perch, Bongo Bridges and Big Timber® Bongo Stump Bridges

Ground-to-Deck, Between Decks or Freestanding; spans of 8', 10' & 12'

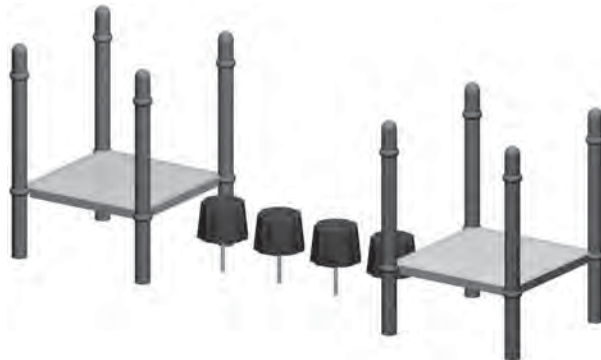
714-625-1

Big Timber Bongo Stump Perch



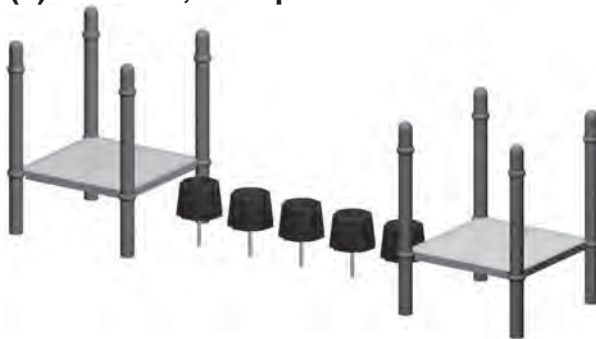
714-625-8

Big Timber Bongo Stump Bridge, (4) Perches; 8' Span



714-625-10

Big Timber Bongo Stump Bridge, (5) Perches; 10' Span



714-625-12

Big Timber Bongo Stump Bridge, (6) Perches; 12' Span



Bongo Perch & Bongo Bridges

714-625-1, 714-625-8, 714-625-10, 714-625-12, 714-772-1, 714-772-8, 714-772-10, 714-772-12



MIRACLE
RECREATION EQUIPMENT COMPANY

Kids' Choice®

Deck-mount models for 2'-0" Decks or lower, not included.

Bongo Perch, Big Timber® Bongo Stump Perch, Bongo Bridges and Big Timber® Bongo Stump Bridges

Ground-to-Deck, Between Decks or Freestanding; spans of 8', 10' & 12'

714-772-1

Bongo Perch



714-772-8

**Bongo Bridge, (4) Perches;
8' Span**



714-772-10

**Bongo Bridge, (5) Perches;
10' Span**



714-772-12

**Bongo Bridge, (6) Perches;
12' Span**





Kids' Choice®

Bongo Perch, Big Timber® Bongo Stump Perch, Bongo Bridges and Big Timber® Bongo Stump Bridges

Ground-to-Deck, Between Decks or Freestanding; spans of 8', 10' & 12'

MODEL #	PRODUCT	GRND SPC.	CONCRETE	PROT. AREA
714-625-1	Big Timber Bongo Stump Perch	1'-4" x 1'-4"	0.05 cu. yds.	14'-6" diameter
714-625-8	Big Timber Bongo Stump Bridge, (4) Perches; 8' Span	1'-4" x 6'-6"	0.20 cu. yds.	14' x 20'
714-625-10	Big Timber Bongo Stump Bridge, (5) Perches; 10' Span	1'-4" x 8'-6"	0.25 cu. yds.	14' x 22'
714-625-12	Big Timber Bongo Stump Bridge, (6) Perches; 12' Span	1'-4" x 12'-6"	0.30 cu. yds.	14' x 22'
714-772-1	Bongo Perch	1'-4" x 1'-4"	0.05 cu. yds.	14'-6" diameter
714-772-8	Bongo Bridge, (4) Perches; 8' Span	1'-4" x 6'-6"	0.20 cu. yds.	14' x 20'
714-772-10	Bongo Bridge, (5) Perches; 10' Span	1'-4" x 8'-6"	0.25 cu. yds.	14' x 22'
714-772-12	Bongo Bridge, (6) Perches; 12' Span	1'-4" x 12'-6"	0.30 cu. yds.	14' x 22'

DESCRIPTION:

The Bongo Bridges are designed to enter/exit 2' or lower deck systems, either as a bridge between decks, a ground-to-deck "stair," or as a freestanding assembly with no decks. When installed as a bridge, Bongo Perches may be installed at ascending/descending heights or all level, but should follow a straight course between decks. Freestanding Bongo Perches may ascend & descend and may follow any course so long as Bongo Perches are set 7" to 9" edge-to-edge. Bongo Perches may also be clustered and installed flush with each other to create a table, seats, small climber, etc. Regardless of layout and design, top surfaces may be set no greater than 24" from Finished Grade.

Note: If designing as bridge between 2'-0" decks intended for 2 to 5 year old users, deck enclosures Model # 714-813-5 must be installed on each deck, which are sold separately.

MATERIALS:

Bongo Perch Pod & Post Assemblies:	Each Bongo Perch comprises a pod or stump and post assembly. Pods shall be constructed of <u>Rockite</u> and shall comprise a hex-shaped top surface measuring approximately 16" diameter. Stumps shall be constructed of <u>Rockite</u> and shall comprise a log-shaped top surface measuring approximately 17" diameter. Pods and stumps shall measure 12" high without posts. Posts shall be constructed of <u>1-1/2" pipe</u> with a 5-7/8" diameter mounting plate of 11 ga. <u>G-90 galvanized</u> solid <u>welded</u> to the posts. Post length shall be 38-5/16" before field assembly to pod or stump. Overall assembled length shall be 42".
Fasteners:	All fasteners shall be <u>Fastener Style A</u> .
Finishes:	The <u>Rockite</u> pod and stump steps shall have color molded in. The posts shall be finished in <u>Mira-cote</u> .

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

Bongo Perch & Bongo Bridges

714-625-1, 714-625-8, 714-625-10, 714-625-12, 714-772-1, 714-772-8, 714-772-10, 714-772-12



MIRACLE
RECREATION EQUIPMENT COMPANY

Product Specifications

July 18, 2006

Rev. A

Kids' Choice®
Bell, Post Mount

714-796-P1

Bell, Post Mount



Bell, Post Mount

714-796-P1



MIRACLE
RECREATION EQUIPMENT COMPANY

Kids' Choice®
Bell, Post Mount

Bell, Post Mount

<u>MODEL #</u>	<u>PRODUCT</u>	<u>PROT. AREA</u>	<u>GRND. SPACE</u>	<u>CONCRETE</u>
714-796-P1	Bell, Post Mount	None	1' x 1'	None

DESCRIPTION:

This post mount Bell is designed to add noisy, imaginative play to any pre-existing deck post.

Bell Assembly: The Bell Assembly shall consist of a Bell, a Bell Support, a 6-link Chain, an eyebolt, and Fastener Style A hardware. The Bell shall be constructed of A-60 Galvannealed. The Bell Support shall be constructed of 1" Pipe, Gator Grip. The Bell Chain shall be constructed of 4/0 straight link coil chain.

Finishes: The Bell shall have a Mira-Cote finish.

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

714-796-P1



MIRACLE
RECREATION EQUIPMENT COMPANY

Product Specifications

April 14, 2005

Rev. C

Kids' Choice® - Mira-Therm II

ADA **Stairs Between Decks** - 1', 2', 2'-6" & 1'-6" Rise

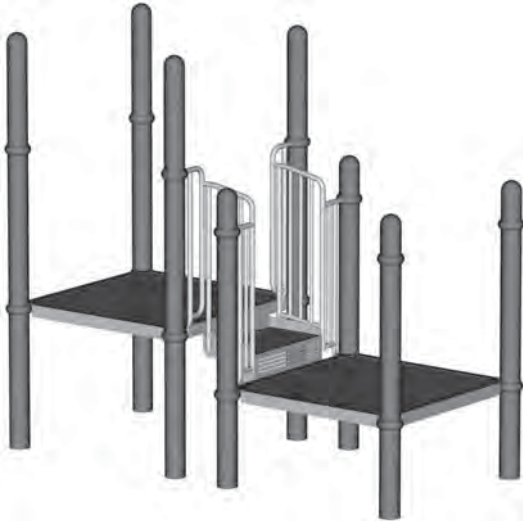
714-810-9 & 714-959-9

714-959-59 & 714-959-49

714-959-459

5 additional
stair models

**Stair (ADA) - 1' Rise Between Decks
with Spoked Handrails, 1'-4" Span**



**Stair (ADA) - 2' Rise Between Decks
with Spoked Handrails, 4'-6" Span**



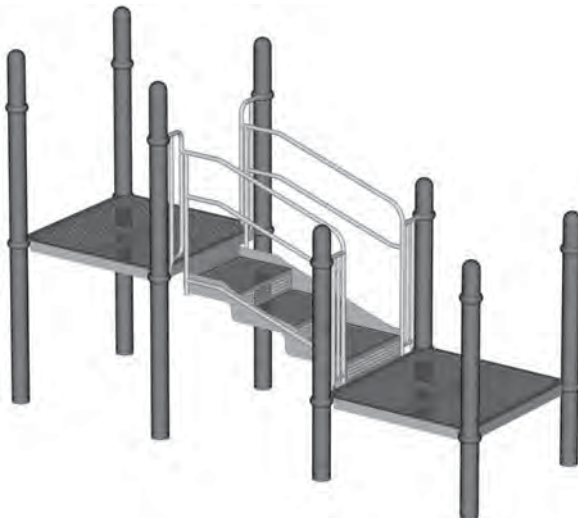
714-810-9 & 714-959-9

714-959-59 & 714-959-49

714-959-459

5 additional
stair models

**Stair (ADA) - 2' Rise Between Decks
with Open Handrails, 4'-6" Span**



**Stair (ADA) - 2' Rise Between Decks
with Spoked Handrails, 4'-0" Span**



ADA Stairs Between Decks

714-810-9, 714-959-9, 714-959-59, 714-959-49, 714-959-459, 714-960-9, 714-993-9,
714-993-59, 714-993-49, 714-993-459

Kids' Choice® - Mira-Therm II
ADA **Stairs Between Decks**

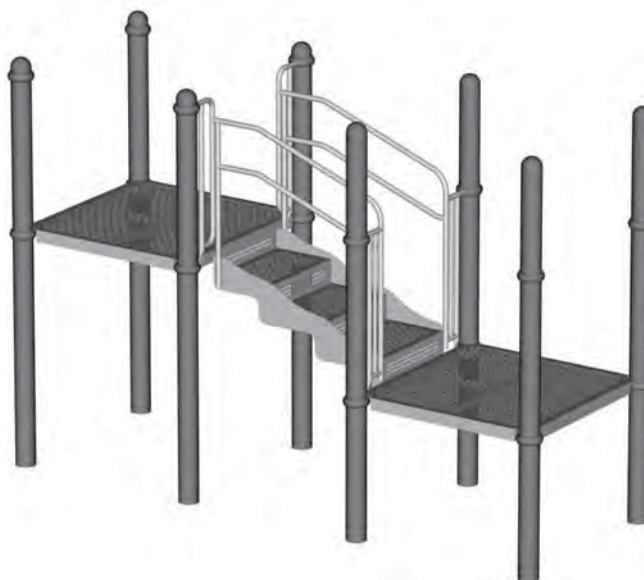
714-810-9 & 714-959-9

714-959-59 & 714-959-49

714-959-459

5 additional
stair models

**Stair (ADA) - 2' Rise Between Decks
with Open Handrails, 4'-0" Span**



5 additional
stair models

714-960-9

714-993-9 & 714-993-59

714-993-49 & 714-993-459

**Stair (ADA) - 2'-6" Rise Between Decks
with Spoked Handrails, 6'-0" Span**





Kids' Choice® - Mira-Therm II
ADA **Stairs Between Decks**

April 14, 2005

Rev. C

5 additional
stair models

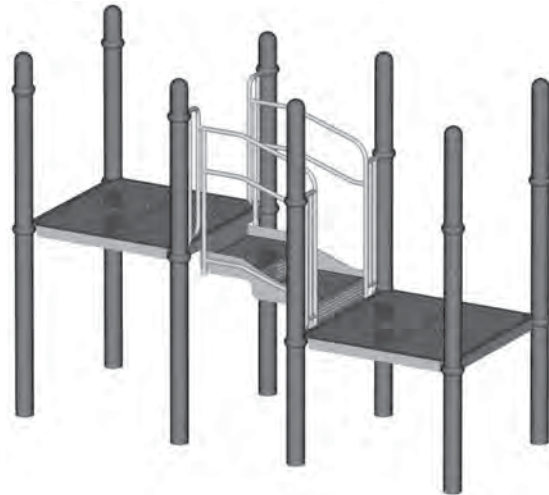
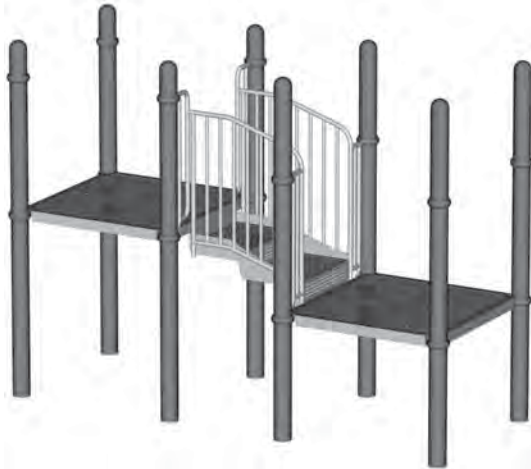
714-960-9

714-993-9 & 714-993-59

714-993-49 & 714-993-459

Stair (ADA) - 1'-6" Rise Between Decks with Spoked Handrails, 3'-0" Span

Stair (ADA) - 1'-6" Rise Between Decks with Open Handrails, 3'-0" Span



5 additional
stair models

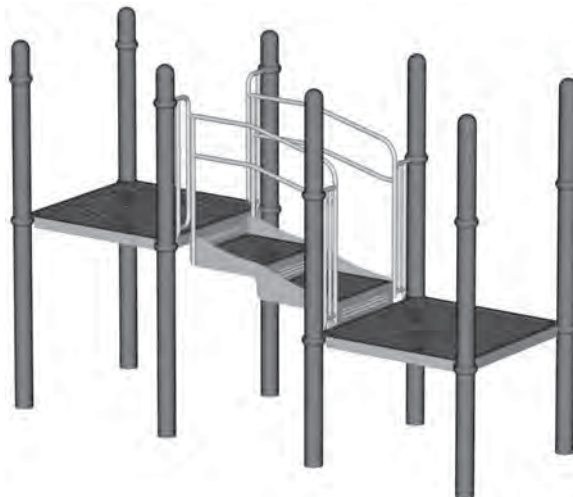
714-960-9

714-993-9 & 714-993-59

714-993-49 & 714-993-459

Stair (ADA) - 1'-6" Rise Between Decks with Spoked Handrails, 4'-0" Span

Stair (ADA) - 1'-6" Rise Between Decks with Open Handrails, 4'-0" Span



ADA Stairs Between Decks

714-810-9, 714-959-9, 714-959-59, 714-959-49, 714-959-459, 714-960-9, 714-993-9, 714-993-59, 714-993-49, 714-993-459

Kids' Choice® - Mira-Therm II ADA Stairs Between Decks

MODEL #	PRODUCT
714-810-9	ADA Stair Between Decks, 1' Rise, Spoked Handrails, 1'-4" Span
714-959-9	ADA Stairs Between Decks, 2' Rise, Spoked Handrails, 4'-6" Span
714-959-59	ADA Stairs Between Decks, 2' Rise, Open Handrails, 4'-6" Span
714-959-49	ADA Stairs Between Decks, 2' Rise, Spoked Handrails, 4'-0" Span
714-959-459	ADA Stairs Between Decks, 2' Rise, Open Handrail, 4'-0" Span
714-960-9	ADA Stairs Between Decks, 2'-6" Rise, Spoked Handrails, 6'-0" Span
714-993-9	ADA Stairs Between Decks, 1'-6" Rise, Spoked Handrails, 3'-0" Span
714-993-59	ADA Stairs Between Decks, 1'-6" Rise, Open Handrails, 3'-0" Span
714-993-49	ADA Stairs Between Decks, 1'-6" Rise, Spoked Handrails, 4'-0" Span
714-993-459	ADA Stairs Between Decks, 1'-6" Rise, Open Handrails, 4'-0" Span

DESCRIPTION

These ADA-compliant stairs connect decks of differing heights and include handrails.

MATERIALS

Steps:	The wide step assemblies, approximately 26-3/8" before PVC-dip coating, shall be constructed of steel stringers solid <u>welded</u> to formed treads of 11 ga. steel sheet that are perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center. The braces shall be constructed of 11 ga. black.
Spoked Handrails:	Spoked handrail enclosures shall consist of a top and bottom rail and newel post, all of <u>1" pipe</u> , and uprights of <u>3/4" x 1" oval tube</u> , all solid <u>welded</u> . The top rails shall contain 3/8" aluminum inserts. <u>Plastic pipe plugs</u> shall close open ends.
Open Handrails:	Open handrail enclosures shall consist of a top and bottom rail and newel post, all of <u>1" pipe</u> , solid <u>welded</u> . The top rails shall contain 3/8" aluminum inserts. <u>Plastic pipe plugs</u> shall close open ends.
Top Stair Enclosure:	The top stair enclosure shall consist of enclosure rails and an upright, both of <u>1" pipe</u> , drilled and solid <u>welded</u> . The upright shall be mashed on one end.
Bottom Deck Enclosure:	The bottom deck enclosure shall consist of enclosure rails and an upright of <u>1" pipe</u> , drilled, and a spoke of <u>3/4" x 1" oval tube</u> , all solid <u>welded</u> . The upright shall be mashed on one end. <u>Plastic pipe plugs</u> shall close open ends.
Fasteners:	The assembly shall contain <u>Versalok Fasteners</u> and <u>Fastener Style A</u> hardware.
Finishes:	The stairs shall be finished in <u>Mira-Therm</u> . The handrails, enclosures, and clamps shall have a <u>Mira-Cote</u> finish.

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

Kids' Choice® Deck Enclosures

714-813-1

One-Sided Deck Enclosure

Model mounts vertically on Deck system on Post opposite Post to which Horseshoe Climber (Model # 714-776-5) is mounted.



714-813-5

Deck Enclosure

Model mounts vertically on Deck systems at either or both ends of Overhead Climber component



714-813-5R1

Nature Deck Enclosure

Model mounts vertically on Deck systems at either or both ends of Overhead Climber component



<u>MODEL #</u>	<u>PRODUCT</u>	<u>CONCRETE</u>	<u>GROUND SPACE</u>
714-813-1	One-Sided Deck Enclosure	N/A	N/A
714-813-5	Deck Enclosure	N/A	N/A
714-813-5R1	Nature Deck Enclosure	N/A	N/A

DESCRIPTION

The standard deck enclosures are basic accessories for overhead climber systems, typically installed at either end on a deck system or between deck posts, respectively. The one sided deck enclosure is mounted on deck system for use only with Horseshoe Climber, Model # 714-767, which may be mounted to any corner post of a 4' deck.

Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes" for definitions of the underlined items.

Kids' Choice®

Deck Enclosures

MATERIALS

Deck Enclosure
(Standard):

The deck enclosure shall consist of two pieces, each comprising enclosure rails and uprights. The enclosure rails shall be constructed of 1" pipe, drilled, with plastic pipe plugs inserted in open end (at post) and mashed at deck end. The uprights shall be constructed of 3/4" x 1" oval tube. The entire assembly shall be solid welded.

Deck Enclosure
(One-Sided):

The one-sided deck enclosure shall comprise enclosure rails and uprights. The enclosure rails shall be constructed of 1" pipe, drilled and mashed at deck end. The uprights shall be constructed of 3/4" x 1" oval tube. The entire assembly shall be solid welded.

Deck Enclosure
(Nature Deck):

The nature deck enclosure shall comprise rails constructed of 1" pipe drilled and mashed at deck end and fully welded. Brackets of 11 ga. galvanized sheet steel are stitch welded to the 1" pipe frame. Boards of 1" x 5.5" recycled plastic and wood composite are fastened to the frame with Fastener Style A hardware.

Fasteners:

All Versalok Fasteners for deck and component attachment shall be aluminum alloy. All hardware shall be Fastener Style A.

Finishes:

The deck enclosures and Versalok Fasteners shall have a Mira-Cote finish.



PRODUCT SPECIFICATIONS

Model 714-815: Vertical Ladder for 5' Deck

Model 714-815-3: Vertical Ladder for 3' Deck

Model 714-815-6: Look-Out Ladder for 6'-6" Deck

Model 714-815-8: Look-Out Ladder for 8' Deck

Dec. 19, 2002 Rev. E



714-815-3



714-815



714-815-6



714-815-8

PRODUCT SPECIFICATIONS

Model 714-815:	Vertical Ladder for 5' Deck
Model 714-815-3:	Vertical Ladder for 3' Deck
Model 714-815-6:	Look-Out Ladder for 6'-6" Deck
Model 714-815-8:	Look-Out Ladder for 8' Deck
Dec. 19, 2002 Rev. E	

DESCRIPTION:

The vertical ladder is used as an entry to or an exit from a 3', 5', 6'-6" or 8' high deck.

Model	Ground Space	Deck Ht.
714-815	3'-4" x 2"	5' deck
714-815-3	3'-4" x 2"	3' deck
714-815-6	3'-4" x 2"	6'-6" deck
714-815-8	3'-4" x 2"	8' deck

Concrete for footing: .10 cubic yards required.

MATERIALS:

Ladder: The ladder consists of siderails with inserts and rungs, all constructed of 1" pipe, and all solid welded.

Enclosure Assembly: The enclosure assembly consists of top supports, a bottom support, and an arched upright, which are constructed of 1" pipe, drilled, formed, and mashed, and vertical rungs which are constructed of 1" tube. The enclosure assembly is solid welded.

Fasteners: All hardware is fastener style A.

Versalok Fasteners: All Versalok Fasteners for deck and component attachment are aluminum alloy.

Finishes: The ladder assemblies, enclosure assembly, and clamps have a Mira-Cote finish.

(CONSULT THE GLOSSARY OF TECHNICAL DATA FOR MATERIALS,
PROCESSES AND FINISHES OF THE UNDERLINED ITEMS.)



MIRACLE
RECREATION EQUIPMENT COMPANY

Product Specifications

February 21, 2005

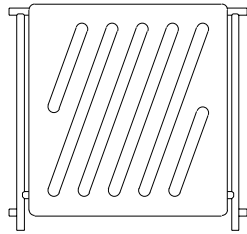
Rev. E

Kids' Choice®

Activity Panels - Below Deck or Freestanding

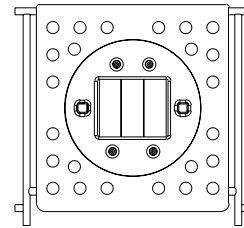
714-716B

714-716B: View Groove Panel



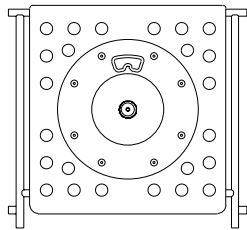
714-756B

714-756B: Sight-N-Sound Panel



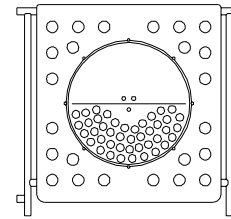
714-758B

714-758B: Vision Adventure Panel



714-760B

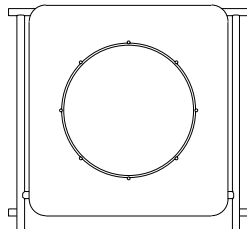
714-760B: Magic Ball Popper Panel



10 additional
panel models

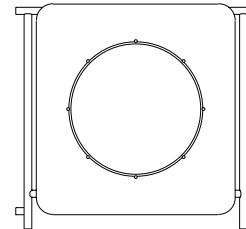
714-875B

714-875B: Bubble Panel



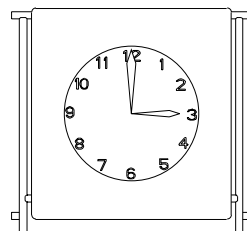
714-876B

714-876B: Crawl Thru Panel



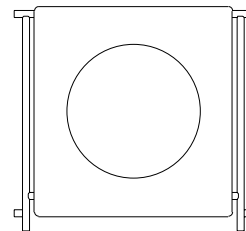
714-904B

714-904B: Clock Panel



714-980-4B

714-980-4B: Convex Mirror Panel

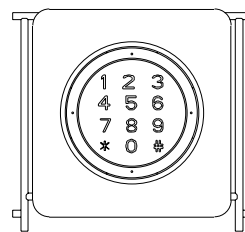
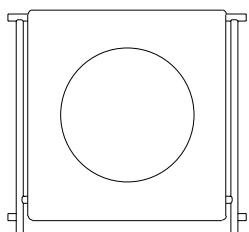
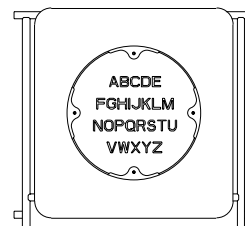
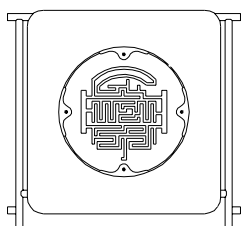
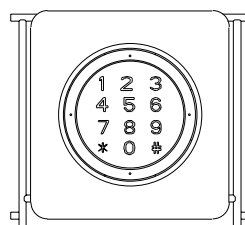
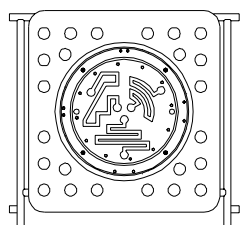


10 additional
panel models

Activity Panels, Below Deck

714-716B, 714-756B, 714-758B, 714-760B, 714-875B, 714-876B, 714-904B, 714-980-4B, 714-980-5B, 714-982-2B, 714-982-3B, 714-982-4B, 714-983-1B, 714-983-2B

Kids' Choice®

Activity Panels - Below Deck or Freestanding**714-980-5B****714-982-2B****714-982-3B****714-982-4B**10 additional
panel models**714-980-5B: Flat Mirror Panel****714-982-2B: Number Finger Maze Panel****714-982-3B: Finger Maze Panel****714-982-4B: Letter Finger Maze Panel****714-983-1B****714-983-2B**12 additional
panel models**714-983-1B: Marble Race Panel****714-983-2B: Motor Skill Panel**

714-716B, 714-756B, 714-758B, 714-760B, 714-875B, 714-876B, 714-904B, 714-980-4B, 714-980-5B, 714-982-2B, 714-982-3B, 714-982-4B, 714-983-1B, 714-983-2B



MIRACLE
RECREATION EQUIPMENT COMPANY

Kids' Choice®

Activity Panels - Below Deck or Freestanding

<u>MODEL #</u>	<u>PRODUCT</u>	<u>MODEL #</u>	<u>PRODUCT</u>
714-716B	View Groove Panel	714-756B	Sight-N-Sound Panel
714-758B	Vision Adventure Panel	714-760B	Magic Ball Popper Panel
714-875B	Bubble Panel	714-876B	Crawl Thru Panel
714-904B	Clock Panel	714-980-4B	Convex Mirror Panel
714-980-5B	Flat Mirror Panel	714-982-2B	Number Finger Maze Panel
714-982-3B	Finger Maze Panel	714-982-4B	Letter Finger Maze Panel
714-983-1B	Marble Race Panel	714-983-2B	Motor Skill Panel

DESCRIPTION

These Kids' Choice developmental activity panels are designed to attach to Kids' Choice Deck systems below the deck or as freestanding play modules. All panels are assembled at the factory.

The View Groove Panel, Model # 714-716B, features slanted slots that create a vented enclosure, allowing children to view through the panel. The Sight-N-Sound Panel, Model # 714-756B, contains three displays of mobile materials offering visual and auditory interactivity. The Vision Adventure Panel, Model # 714-758B, features a large disc imprinted with images that may be manually rotated into line of sight; the rear of panel contains a passive relative-motion display. The Magic Ball Popper Panel, Model # 714-760B, contains a clear bubble on one side and on the other a clear sheet and steering wheel which turns an internal paddle and a quantity of multi-colored balls. The Bubble Panel, Model # 714-875B, features a clear, convex "bubble" window. The Crawl Thru Panel, Model # 714-876B, contains a large round opening through which children can crawl or climb. The Clock Panel, Model # 714-904B, features a clock face with moveable hands. The Convex Mirror Panel, Model # 714-980-4B, and Flat Mirror Panel, Model # 714-980-5B, each contain a mirror providing normal or distorted reflections for visual amusement. The Number Finger Maze, Model # 714-982-2B and Letter Finger Maze Panel, Model # 714-982-4B, contain recessed grooves for tactile interpretation of the alphabet and numerals. The Finger Maze Panel, Model # 714-982-3B, Marble Race Panel, Model # 714-983-1B, and Motor Skill Panel, Model # 714-983-2B, feature games and puzzles designed to develop eye-hand coordination and perceptions of spatial relationships.

MATERIALS

Panels:	The panels shall be constructed of <u>Rockite</u> with all corners rounded. Covers are <u>Rockite</u> and shall be attached at the factory using tamper-proof hardware.
Enclosure:	The enclosures shall consist of uprights and support bars constructed of <u>1" pipe</u> , solid <u>welded</u> .
View Groove Panel:	The View Groove Panel shall have six 2" view slots evenly spaced at 5-1/4" with a slant of 20 degrees from vertical.
Sight-N-Sound and Vision Adventure Panels:	Both panels shall measure 36" x 38" x 6". The cylinders of the Sight-N-Sound Panel shall be constructed of clear polycarbonate and shall contain colorful, non-toxic elements.

Continued next page

Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes" for specifications of underlined items.

Activity Panels, Below Deck

714-716B, 714-756B, 714-758B, 714-760B, 714-875B, 714-876B, 714-904B, 714-980-4B, 714-980-5B, 714-982-2B, 714-982-3B, 714-982-4B, 714-983-1B, 714-983-2B

Kids' Choice®

Activity Panels - Below Deck or FreestandingMATERIALS (continued)

- Bubble Panel:** The bubble shall be vacuum-formed from clear polycarbonate sheet. The hemispherical bubble shall measure 24" diameter. The bubble shall be attached to the panel using tamper-proof screws and flat washers.
- Magic Ball Popper Panel:** The Magic Ball Popper Panel shall measure 36" x 38" x 15" with all corners rounded. One side shall contain a clear bubble as described above. The other side shall contain a window of clear polycarbonate sheet. Both shall be fastened to the panel at the factory using tamper-proof screws and flat washers. The window shall hold a steering wheel constructed of H.D.P.E. Black with mounting bracket of hot rolled steel strip, which shall drive a shaft of zinc coated cold finished steel round to be mounted to the bubble, facilitating turns of a paddle device of polyethylene inside the assembly. The paddle shall contain two (2) 4" holes allowing for stirring, spinning, balancing and passage of 3" diameter polyurethane balls of several colors.
- Clock Panel:** The Clock Panel shall contain a clock face and clear cover constructed of clear polycarbonate sheet. The clock face shall be silk-screened with a white face and black numbers.
- Panels with Mirrors-Convex/Flat:** The panels shall measure 36" x 38" x 2-1/2". The 24" diameter mirrors shall be vacuum-formed from mirror polycarbonate sheet and shall be attached at the factory using tamper-proof hardware.
- Finger Maze Panels-Number/Mazes/Alphabet:** The panels shall measure 36" x 38" x 2-1/2". The 24" diameter mazes shall be constructed of Mira-Lam with the corresponding design factory-routed and shall be attached at the factory using tamper-proof hardware.
- Marble Race and Motor Skill Panels:** The panels shall measure 36" x 38" x 6". The Marble Race and Motor Skill Panels shall be constructed of Mira-Lam, measure 24" in diameter, and shall be assembled at the factory using tamper-proof hardware.
- Fasteners:** Each panel assembly shall contain Versalok Fasteners and Fastener Style A hardware.
- Finishes:** The panels shall have molded-in color. The enclosures and clamps shall have a Mira-Cote finish.

Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes" for specifications of the underlined items.

Kids' Choice®

Steering Wheel, Post Mount



714-900-P1

Steering Wheel, Post Mount

<u>MODEL</u>	<u>PRODUCT</u>	<u>PROT. AREA</u>	<u>GRND. SPACE</u>	<u>CONCRETE</u>
714-900-P1	Steering Wheel, Post Mount	NA	2' x 1'	NA

DESCRIPTION:

This Steering Wheel, Post Mount, is designed to provide driving simulation on any pre-existing deck post.

MATERIALS:

Steering Wheel:

The steering wheel shall be constructed of a high density blow molded polyethylene produced from high performance, U.V. stabilized resins with a comprehensive additive package. These resins shall be tested in accordance with ASTM testing procedures D-1505, D-1248, D-1693(b), D-638, D-790, and D-746. Resin's properties shall exhibit a balance of toughness, rigidity, environmental stress crack resistance, and excellent low temperature impact performance. Wall thickness shall be 1/8". The steering wheel hub cover shall be constructed of injection molded polypropylene which shall contain U.V. light stabilizers.

Steering Column:

The steering column shall be constructed of 2" pipe.

Fasteners:

The assembly shall contain Fastener Style A hardware.

Finishes:

The steering column shall have a Mira-Cote finish.

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

Steering Wheel, Post Mount

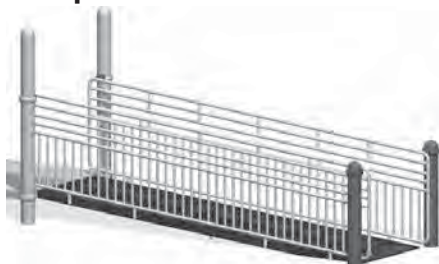
714-900-P1

Kids' Choice® - Mira-Therm II

12' (1:12) Ground-to-Deck Ramps- Spoked and Open Handrails

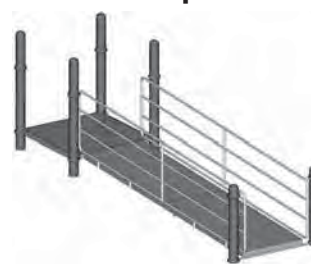
714-920-95

**12' Ground-to-Deck Ramp
w/Spoked Handrails**



714-920-595

**12' Ground-to-Deck Ramp
w/Open Handrails**



<u>MODEL</u>	<u>PRODUCT</u>	<u>GROUND SPC.</u>	<u>CONCRETE</u>
714-920-95	12' Ground-to-Deck Ramp - Spoked Handrails & Steel End Posts	12'-0" x 4'-0"	0.35 cu. yds.
714-920-595	12' Ground-to-Deck Ramp - Open Handrails & Steel End Posts	12'-0" x 4'-0"	0.35 cu. yds.

DESCRIPTION

These 12' long inclined ramp assemblies from ground level to a 1' high deck system feature steel end posts and spoked and open handrails. Same specifications for Tots' Choice Expansion models 714-920-95, 714-920-595.

MATERIALS

Ramps:

The 3' x 6' ramp sections shall be constructed with folded 11 ga. steel sheet forming 3" tall sides. Decking sheets shall be perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center. The decking shall have 7 ga. by 2" flat steel braces and corner braces of 7 ga. steel. The entire assembly shall be solid welded prior to PVC coating.

Spoked Handrails: Each handrail assembly shall consist of a top and bottom rail, uprights, and leg extension stubs. The top and bottom rails shall be constructed of 1" pipe. The uprights and stubs shall be constructed of 1" tube. The entire assembly shall be solid welded. Plastic pipe plugs shall be inserted in ends of stubs.

Open Handrails: Each handrail assembly shall consist of a top, bottom, and middle rail constructed of 1" pipe. The leg extension stubs shall be 1" tube with plastic pipe plugs inserted in open ends. The middle rail shall be welded to the top rail. The entire assembly shall be solid welded.

Stub Assembly: The handrail stubs shall be constructed of 1" pipe with 3/8" aluminum inserts.

Ramp Support: The ramp support shall consist of a 41" rung of 1" pipe and a bolting plate constructed of 7 ga. G-90 galvanized sheet.

Ramp Legs: Ramp legs shall measure 59" and shall be constructed of die-formed 1-1/2" tube.

Fasteners: The assembly shall contain Versalok Fasteners and Fastener Style A hardware.

Finishes: The handrails, posts, stubs, legs, and clamps shall have a Mira-Cote finish. The ramps shall have a Mira-Therm finish.

Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes" for specifications of underlined items.

12' (1:12) Ground-to-Deck Ramps

714-920-95, 714-920-595



Product Specifications

January 12, 2006 Rev. B

Kids' Choice® - Mira-Therm II
ADA Ramp Extension

714-920E

714-920A

ADA Ramp Extension



714-920E

714-920A

ADA Ramp Extension Plate



ADA Ramp Extension

714-920E, 714-920A

Kids' Choice® - Mira-Therm II ADA Ramp Extension

<u>MODEL #</u>	<u>PRODUCT</u>	<u>GROUND SPACE</u>	<u>CONCRETE</u>
714-920E	ADA Ramp Extension	3' x 4'	0.05 cu. yds.
714-920A	ADA Ramp Extension Plate	1' x 3'	N/A

DESCRIPTION

The ADA Ramp Extension is designed to provide a smooth transition from ramp to finished grade on any ground-to-deck ADA ramp assembly.

MATERIALS

Ramp Extension: The ramp extension shall be constructed of 11 ga. sheet perforated with a staggered pattern of 3/8" round holes with tapered edges. The extension shall be 47-15/16" wide at its low end, 46-5/8" wide at its ramp end, and 36" wide at its apex of 3-1/8". The ramp extension shall contain a brace made of 1/4" flat with tabs of 1/4" x 2" flat for field attachment of leg. The entire assembly shall be solid welded.

Ramp Extension

Plate: The ramp extension plate shall be constructed of 7 ga. sheet. The extension plate shall be 12" wide by 35-3/4" long. The entire assembly shall be solid welded. The extension plate shall be PVC coated.

Leg: The leg shall comprise an upright of 2" pipe solid welded to a support channel of 11 ga. A-60 Galvannealed in a "T" configuration.

Fasteners: All fasteners shall be Fastener Style A.

Finishes: The ramp extension shall be finished in Mira-Therm. The leg shall have a Mira-Cote finish.

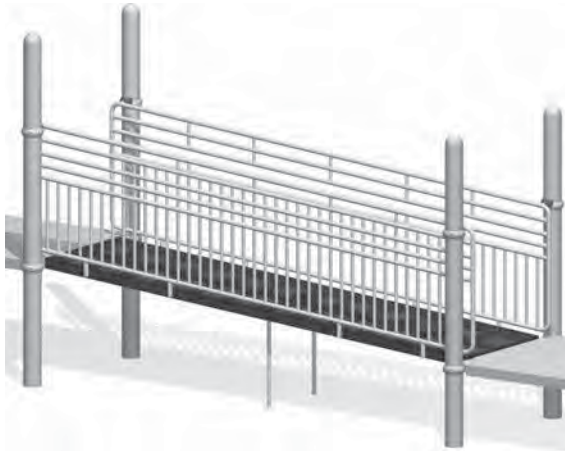
Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

Kids' Choice®

Ramp Deck-To-Deck 12', 1:12 MT II

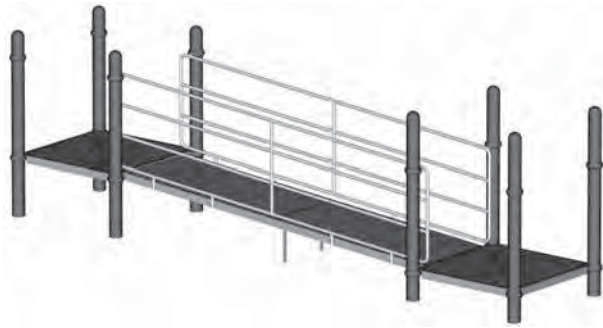
714-921-9

**Ramp Deck-To-Deck 12',
1:12 MT II**



714-921-59

**Ramp Deck-To-Deck 12',
1:12 OPN HNDRL MT II**



<u>MODEL</u>	<u>PRODUCT</u>	<u>GROUND SPACE</u>	<u>CONCRETE</u>
714-921-9	Ramp Deck-To-Deck 12', 1:12 MT II	4'-0" x 12'-0"	0.10 cu. yds.
714-921-59	Ramp Deck-To-Deck 12', 1:12 OPN HNDRL MT II	4'-0" x 12'-0"	0.10 cu. yds.

DESCRIPTION

The Ramp Deck-To-Deck 12', 1:12 MT II are horizontal walkways between adjacent deck systems with a 1' rise and 12' run. Spoked or open handrails enclose the ramps on both sides.

MATERIALS

- Ramp Sections:** Ramp sections shall be constructed of 11 ga. steel sheet perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center, with edges fold to form 3" tall walls; braces of 1/4" x 1-1/2" flat; all solid welded.
- Spoked Handrails:** Top and bottom rails and ramp mounting stubs shall be constructed of 1" pipe. Infill spokes shall be 3/4" x 1" oval tube. The entire assembly shall be solid welded. Plastic pipe plugs shall be inserted in open ends of stubs.
- Open Handrails:** Top, middle and bottom rails and ramp mounting stubs shall be constructed of 1" pipe. The entire assembly shall be solid welded. Plastic pipe plugs shall be inserted in open ends of stubs.
- Clamp Ramp Stubs:** Clamp ramp stubs for mounting handrails with plastic spacers to bar sockets, clamps and posts shall be constructed of 1" pipe containing 3/8" aluminum inserts.

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

Ramp Deck-To-Deck 12', 1:12 MT II

714-921-9, 714-921-59

Kids' Choice®

Ramp Deck-To-Deck 12', 1:12 MT II

MATERIALS cont.

- Ramp Legs: Support legs shall be constructed of 1-1/2" tube, mashed and punched.
- Fasteners: The assembly shall contain Versalok Fasteners and Fastener Style A hardware.
- Finishes: Ramps shall be finished in Mira-Therm II. Handrails, clamps and legs shall have a Mira-Cote finish.

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.



MIRACLE
RECREATION EQUIPMENT COMPANY

Product Specifications

December 10, 2003

Rev. A

Kids' Choice®

Chime Panel - Below Deck

714-975-3B

Chime Panel, Below Deck



Chime Panel (Below Deck)

714-975-3B

Kids' Choice®
Chime Panel

<u>MODEL #</u>	<u>PRODUCT</u>	<u>CONCRETE</u>
714-975-3B	Chime Panel, Below Deck	See Post or Deck system specifications

DESCRIPTION

The Chime Panel contains a manually-activated tonal scale, bringing an acoustic experience to the playsystem.

Safety Note: If installing Panel beneath Deck, vertical clearance space between Panel Assembly and lowest point of Deck must be either (A) between 1" and 3", or (B) a minimum of 10".

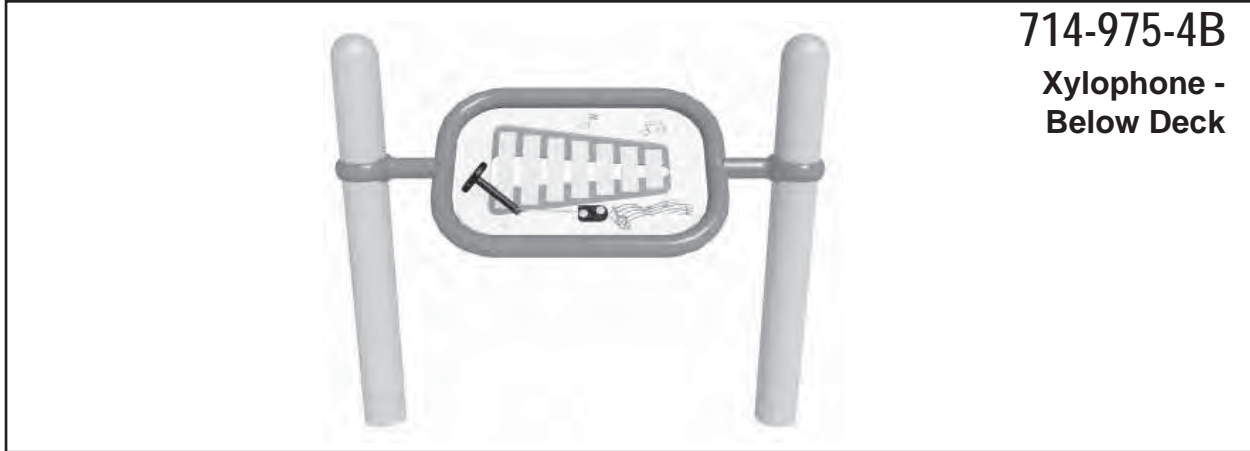
MATERIALS

Panel Assembly:	The panel shall be constructed of <u>Rockite</u> with all corners rounded, measuring 37-15/16" tall by 36" wide with a peaked top. The panel insert shall contain eight chime tubes of 1-7/16" O.D. 6063-T6 aluminum suspended on a 1/4" 304 stainless steel rod between 48" diameter by 3/4" thick sheets of high-density polyethylene (routed with the tonal value each chime represents) with rectangular openings for access to the chimes. Spacers, fillers and covers shall be constructed of laminated sheet HDPE, and the striker shall be 3/4" thick by 16-1/2" HDPE. Users activate the chimes by pushing them against the striker with their hands.
Enclosures:	Each enclosure shall consist of a vertical upright and horizontal stubs of <u>1" pipe</u> solid <u>welded</u> , drilled and formed. <u>Plastic pipe plugs</u> shall close open ends.
Fasteners:	The assembly shall contain <u>Versalok Fasteners</u> and <u>Fastener Style A</u> hardware.
Finishes:	The <u>Rockite</u> panel and HDPE inserts shall have color molded in. The enclosures and clamps shall have a <u>Mira-Cote</u> finish.

Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes" for specifications of underlined items.

Kids' Choice®

Xylophone - Below Deck



714-975-4B

**Xylophone -
Below Deck**

Xylophone - Below Deck

<u>MODEL</u>	<u>PRODUCT</u>	<u>PROT. AREA</u>	<u>GRND. SPC.</u>
714-975-4B	Xylophone - Below Deck	N/A	4'-6" x 1'-4"
DESCRIPTION			
The Xylophone is a below-deck creative play component. Attached beater allows children to strike graduated aluminum keys, creating musical sounds. The Xylophone easily installs between existing deck posts and is situated at a comfortable 45° angle, 24" above surfacing, so children of all abilities may play.			
MATERIALS			
Xylophone Frame:	Frame shall consist of two loop halves constructed of <u>2" pipe</u> , solid <u>welded</u> to each other to create a single loop. Each loop half shall measure 32-5/8" in length and 13-15/16" in height. Two 4-3/8" stubs shall be solid <u>welded</u> to short sides of Loop and shall be constructed of <u>2" pipe</u> .		
Xylophone Panel Assy:	Panel assembly shall consist of the xylophone panel and graduated xylophone bars. Panel shall be constructed of 3/4" sheet HDPE, 2 color. Bars shall be constructed of aluminum, 2" in width and 1/4" thick, and be attached to the panel 3/4" apart from edge to edge. The seven bars shall graduate in length; 10", 9-3/16", 8-3/8", 7-9/16", 6-3/4", 5-15/16" and 5-1/8".		
Beater:	Beater shall comprise a beater head and beater handle assembly. Fully assembled beater shall measure 15-3/4" in length. Beater shall be constructed of 3/4" sheet HDPE, black and measure 4-15/16" in diameter. Beater handle assembly shall comprise a handle and tether assembly. Handle shall be 5-7/8" in length and be constructed of UHMW plastic. Tether assembly shall include a 1/8" cable swage stud of SS Type 303, a tether cable of 316 grade SS rope, 7 x 19, and two (2) swage eyes of 303 SS.		
Mallet Cable Cover:	Cable cover shall be constructed of 3/4" sheet HDPE, black.		
Fasteners:	The assembly shall contain <u>Versalok Fasteners</u> and <u>Fastener Style A</u> hardware.		
Finishes:	The Xylophone frame shall be finished in <u>Mira-Cote</u> .		

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

714-975-4B



Product Specifications

May 3, 2005

Rev. G

Kids' Choice®
Ground Level **Fun Fones™**

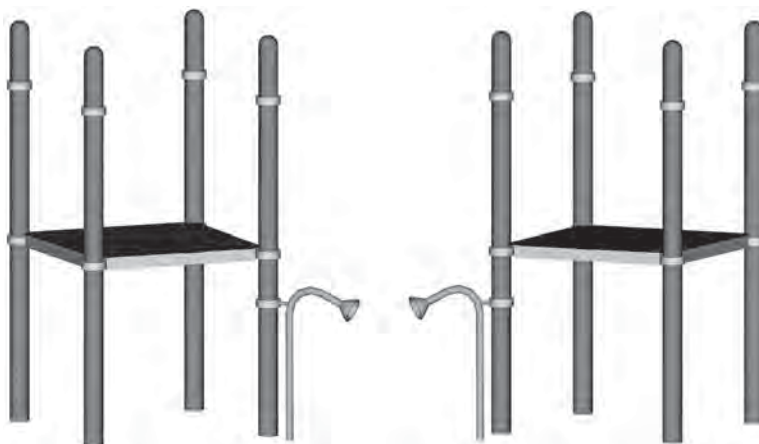
714-994

714-994-1, 714-994-12* & 714-994-13*

714-994-3

Fun Fones, Ground Level

Two Fun Fone Assemblies (Ground Level)
Two Clamps
One 50' Pipe
Fasteners



714-994

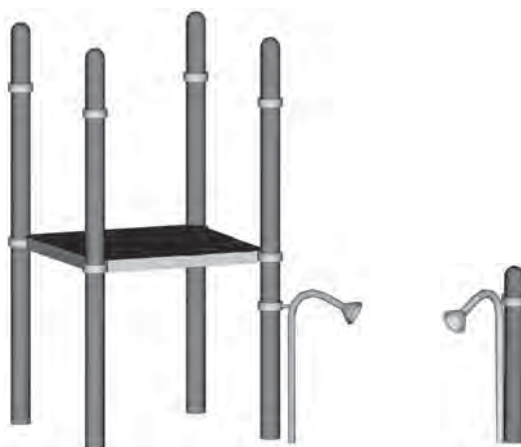
714-994-1, 714-994-12* & 714-994-13*

714-994-3

Fun Fones, Ground Level to Freestanding Steel Post

* Model # 714-994-12 Fun Fones, Ground Level to Freestanding Aluminum Post & Model # 714-994-13 Fun Fones, Ground Level to Freestanding Steel Post not shown. Appearances are identical but material specifications differ.

Two Fun Fone Assemblies (Ground Level)
One 76" Steel Post
Two Clamps
One 50' Pipe
Fasteners



Fun Fones - Ground Level

714-994, 714-994-1, 714-994-12, 714-994-13, 714-994-3

Kids' Choice®
Ground Level **Fun Fones™**

714-994

714-994-1, 714-994-12* & 714-994-13*

714-994-3

Add-A-Fone, Ground Level

One Fun Fone Assembly (Ground Level)
One Clamp
One Tee Coupling
One 50' Pipe
Fasteners





Kids' Choice®
Ground Level **Fun Fones™**

<u>MODEL #</u>	<u>PRODUCT</u>	<u>CONCRETE</u>
714-994	Fun Fones, Ground Level	0.50 cu. yds.
714-994-1	Fun Fones, Ground Level to Freestanding Steel Post	0.50 cu. yds.
714-994-12	Fun Fones, Ground Level to Freestanding Aluminum Post	0.50 cu. yds.
714-994-13	Fun Fones, Ground Level to Freestanding Steel Post	0.50 cu. yds.
714-994-3	Add-A-Fone, Ground Level	0.25 cu. yds.

DESCRIPTION

Fun Fones feature two mouth pieces connected by tubing so that users may speak into one piece and be heard at the other piece, mounted up to 50' away. These models are designed for attachment to deck posts or freestanding posts. The Add-A-Fone model permits additional Fun Fones to be interconnected (up to four per line maximum recommended).

MATERIALS

Fun Fone Assembly:	The Fun Fone assembly shall contain a mouth piece, formed tube, mounting stub, and anchor leg, all solid <u>welded</u> . The tube assembly shall be <u>2" pipe</u> . The funnel-shaped mouth piece shall be 16 ga. galvanized steel. The stub and anchor leg shall be <u>1" pipe</u> .
Tubing:	The 2" I.D. tubing shall be 50' long and constructed of polyethylene.
Post:	The steel post for Model # 714-994-1 shall be constructed of <u>5" tube, 11 ga</u> . The aluminum post for Model # 714-994-12 shall be constructed of <u>5" aluminum tube</u> . The steel post for Model # 714-994-13 shall be constructed of <u>5" tube</u> . Each shall have a <u>5" round end cap</u> mechanically to its top end. The post shall measure 76" long.
Pipe Connectors:	The pipe connectors shall be constructed of rubber and shall contain hose clamps at each end.
Fasteners:	The assembly shall contain <u>Versalok Fasteners</u> and <u>Fastener Style A</u> hardware.
Finishes:	The Fun Fone assembly, post, and clamps shall have a <u>Mira-Cote</u> finish.

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.



Product Specifications

May 3, 2005

Rev. C

Kids' Choice®
Above Deck **Fun Fones™**

714-994-A

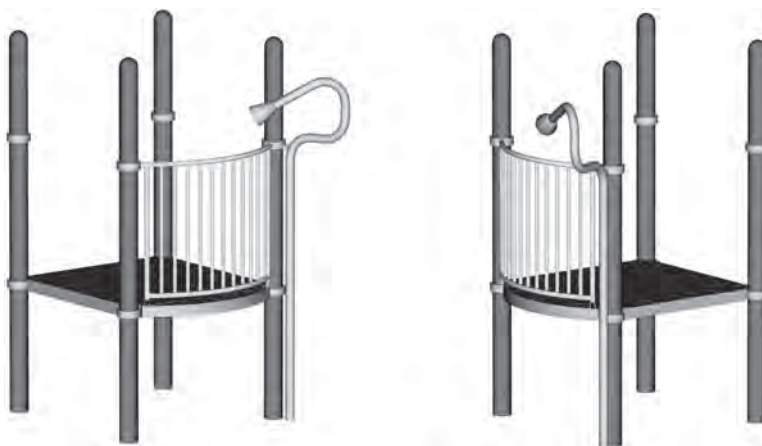
714-994-1A & 714-994-1A3*

714-994-B

714-994-3A

Fun Fones, Above Deck to Above Deck

Two Fun Fone Assemblies (Above Deck)
One 50' Pipe
Fasteners



714-994-A

714-994-1A & 714-994-1A3*

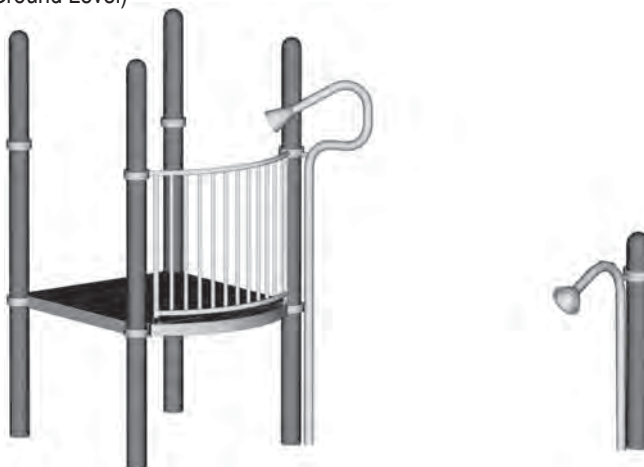
714-994-B

714-994-3A

Fun Fones, Above Deck to Freestanding Steel Post

* Model # 714-994-1A3 Fun fones, Above Deck to Freestanding Steel Post not shown.
Appearance is identical but material specifications differ.

One Fun Fone Assembly (Above Deck)
One Fun Fone Assembly (Ground Level)
One 76" Post
Two Clamps
One 50' Pipe
Fasteners



Fun Fones - Above Deck

714-994-A, 714-994-1A, 714-994-1A3, 714-994-B, 714-994-3A

Kids' Choice®
Above Deck **Fun Fones™**

714-994-A

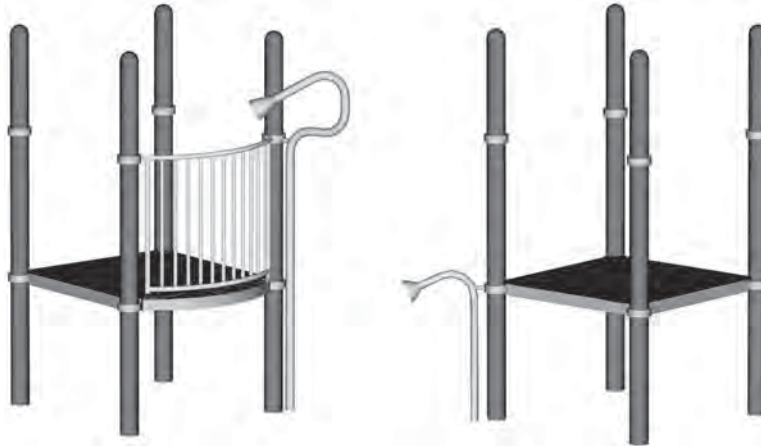
714-994-1A & 714-994-1A3*

714-994-B

714-994-3A

Fun Fones, Above Deck to Deck Post (Ground Level)

One Fun Fone Assembly (Above Deck)
One Fun Fone Assembly (Ground Level)
Two Clamps
One 50' Pipe
Fasteners



714-994-A

714-994-1A & 714-994-1A3*

714-994-B

714-994-3A

Add-A-Fone, Above Deck

One Fun Fone Assembly (Above Deck)
One Clamp
One Tee Coupling
One 50' Pipe
Fasteners





Kids' Choice®
Above Deck **Fun Fones™**

<u>MODEL #</u>	<u>PRODUCT</u>	<u>CONCRETE</u>
714-994-A	Fun Fones, Above Deck to Above Deck	0.50 cu. yds.
714-994-1A	Fun Fones, Above Deck to Freestanding Steel Post	0.50 cu. yds.
714-994-1A3	Fun Fones, Above Deck to Freestanding Steel Post	0.50 cu. yds.
714-994-B	Fun Fones, Above Deck to Deck Post (Ground Level)	0.50 cu. yds.
714-994-3A	Add-A-Fone, Above Deck	0.25 cu. yds.

DESCRIPTION

Fun Fones feature two mouth pieces connected by tubing so that users may speak into one piece and be heard at the other piece, mounted up to 50' away. These models are designed for attachment to deck systems mounted above a Kids Perch, Lookout Tower, or Command Post component, sold and assembled separately. The Add-A-Fone model permits additional Fun Fones to be interconnected (up to four per line maximum recommended).

MATERIALS

Fun Fone/ Support Assembly:	The support assembly shall contain a mouth piece, formed tube, and mounting stub, all solid <u>welded</u> . The tube assembly shall be <u>2" pipe</u> . The funnel-shaped mouth piece shall be 16 ga. <u>galvanized steel</u> . The stub shall be <u>1" pipe</u> .
Anchor Assembly:	The anchor assembly shall be formed <u>2" pipe</u> with one end swedged and solid <u>welded</u> to a leg support of <u>1" pipe</u> .
Tubing:	The 2" I.D. tubing shall be 50' long and constructed of polyethylene.
Post:	The steel post for Model # 714-994-1A shall be constructed of <u>5" tube, 11 ga.</u> The steel post for Model # 714-994-1A3 shall be constructed of <u>5" tube</u> . The post shall have a <u>5" round end cap</u> pressed into its top end, and shall measure 76" long before the end cap.
Pipe Connectors:	The pipe connectors shall be constructed of rubber and shall contain hose clamps at each end.
Fasteners:	The assembly shall contain <u>Versalok Fasteners</u> and <u>Fastener Style A</u> hardware.
Finishes:	The Fun Fone/support assembly, anchor assembly, post, and clamps shall have a <u>Mira-Cote</u> finish.

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.



MATERIAL SPECIFICATIONS

2740H - The harness is comprised of stainless steel swivel hooks that are sewn to 1" black nylon webbing straps with black thread. A male and female black acetal plastic buckle is used to attach the upper and lower portions of the harness. The swivel hooks attach to 316 stainless steel anchor points secured with stainless steel ratcheting channels and steel fasteners.



Swing Seats

284, 2840 and 2841
Slashproof Seat



299 and 2990
360° Tot Seat



Note: Chains NOT shown.

2840TT and 2841TT
Slashproof Seat w/Tensile Tough Chain



2990TT
360° Tot Seat w/Tensile Tough Chain



Note: Chains NOT shown.

2740 and 2741
Inclusive Swing Seat



2760
Generation Swing Seat



Note: Chains NOT shown.

Swing Seats

DESCRIPTION:

The Slashproof Seat is a flexible flat single strap seat with end attachment points and has an exterior surface of EPDM rubber. The 360 Degree Slashproof Tot Seat is a flexible seat fabricated into a configuration of a wide strap through the bottom, a wide strap running completely around at the top, and two (2) interconnecting straps at the front and the rear of the seat for complete enclosure of the small user. The exterior surface is EPDM rubber. The Inclusive Swing Seats are Rockite seats molded to form a chair. Models with chain each have two chains to suspend the swing from a swing frame header. The Generation Swings are Rockite seats molded to form a double sided swing, one side a tot swing design and the other for an adult. Models with chain each have two chains to suspend the swing from a swing frame header.

MATERIALS:

- Slashproof Seat:** The Slashproof Seat is constructed of a 4" wide inner steel insert of type 301 stainless spring steel, 0.020" thick. The slashproof seat is 26" long (excluding mounting triangles) x 5" wide x 5/8" thick at the front and rear leading cushion edges. The rubber molded to the steel core is 70 durometer EPDM. At each end a 16 ga. galvanized steel clip 3" wide is attached by three stainless steel rivets through the clip and seat subassembly. A 3/8" diameter galvanized steel mounting triangle is encompassed by the steel clip at each end of the seat.
- 360 Degree Tot Seat:** The 360 Degree Tot Seat is constructed of a one piece die cut 0.020" thick, martinsitic spring steel insert with 70 durometer EPDM rubber, 1/4" thick, molded to the insert. The main seat strap is 5" wide, the back strap is 4" wide, and the front strap is 2" wide. The two (2) places where the straps are interconnected and form the suspension points for the seat are held by a clip and grommet system. The clip is 4" wide 16 ga. galvanized steel. There are two grommets per clip, each of which is 3/4" O.D. by 14 ga. wall galvanized steel tubing, flared to securely attach the clip to the seat. The two (2) mounting triangles are secured to the seat by clips and are made from 3/8" steel round stock, formed and galvanized.
- Tensile Tough Chain Assembly:** The balance chains shall consist of galvanized steel 4/0 straight link coil chain with 11-1/4" long over molded sections made of moldable PVC. Distance between molded sections shall be 2-1/2".
- Inclusive Swing Seat:** The Inclusive Swing Seat shall be constructed of Rockite. Attached to the seat is a reinforced polyurethane rubber bumper. The sliding latch mechanism is constructed from 6061 machined aluminum.
- Generation Swing Seat:** The Generation Swing shall be constructed of Rockite.
- Chain:** Each chain assembly is 4/0 straight link coil chain.
- "D" Shackle:** The "D" Shackle for all models except the Inclusive Swing Seat and Generation Swing Seat are sand cast of ductile iron grade 60-40-18.
- Finishes:** All rubber surfaces are EPDM. The Rockite Inclusive Swing Seat have molded-in color. All exposed metal surfaces are bright zinc plated. The clevises are zinc plated.

Therapeutic Sand Boxes

For installation with No Surfacing and 6" Surfacing.

418-154

**Clover Leaf Therapeutic Sand Box
(24-1/2" Legs, for No Surfacing)**


418-154-1

**Clover Leaf Therapeutic Sand Box
(36-1/2" Legs, for 6" Surfacing)**



Therapeutic Sand Boxes

<u>MODEL #</u>	<u>PRODUCT</u>	<u>PROT. AREA</u>	<u>GRND. SPC.</u>	<u>CONCRETE</u>
418-154	Clover Leaf Therapeutic Sand Box (No Surfacing)	N/A	7'-0" x 7'-0"	0.35 cu. yds.
418-154-1	Clover Leaf Therapeutic Sand Box (6" Surfacing)	N/A	7'-0" x 7'-0"	0.35 cu. yds.

DESCRIPTION

These elevated sand boxes are designed to provide sand play opportunity for children standing or in wheelchairs. Containers will hold 5-1/2" to 6" of sand.

MATERIALS

Sand Box:	The sand box shall be constructed of 1/4" to 5/16" <u>fiberglass</u> . Overall dimensions shall be 7'-0" x 7'-0" at the widest point and 3'-5" x 3'-5" at the narrowest point. The sand box shall have a 4" depth with a 4" wide lip around its perimeter. Molded in protrusions for the legs shall be 7-5/8" diameter.
Legs:	Legs shall be constructed of <u>8" tube</u> measuring 24-1/2" (for Model # 418-154) and 36-1/2" (for Model # 418-154-1). Rings of 11 ga. <u>A-60 Galvannealed</u> steel sheet shall be <u>welded</u> on each end of the legs with three bolt holes in each.
Fasteners:	All fastening hardware shall be <u>Fastener Style A</u> .
Finishes:	The sand box shall have a heavy duty, high gloss <u>Gelcoat</u> finish. The legs shall be finished in <u>Mira-Cote</u> .

Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes" for specifications of underlined items.

418-154, 418-154-1



Phyzics™ JAX® Beanstalk - Two



477-502
JAX Beanstalk - Two

<u>MODEL</u>	<u>PRODUCT</u>	<u>GROUND SPACE</u>	<u>PROTECTIVE AREA</u>	<u>CONCRETE</u>
477-502	JAX Beanstalk - Two	6' x 6'	19' x 19'	0.20 cu. yds.

DESCRIPTION

JAX Beanstalk - Two features two (2) "jacks" shaped, rotomolded pieces attached to a post, creating a challenging climber.

MATERIALS

JAX Body: JAX body shall be a rotomolded piece measuring 63" in greatest width and 18" in greatest height. One solid piece, JAX shall feature a triangular body that flows into 3 spheres, each 18" in diameter.

Post: Post shall be constructed of 5" tube and shall measure 168" in height. Post shall have a 5" round end cap pressed into its top end.

Support Assy: Support assembly shall consist of a support plate, support straps, support strap braces, and cam lock spacers. Triangular shaped support plate shall be constructed of 7 ga. sheet and shall measure 20-13/16". Straps shall measure 8-3/4" in length and shall be constructed of 1/4" x 1" flat. Support strap braces shall be constructed of 1/4" x 1" flat and shall measure 3" in height. Spacer shall be 1/2" in diameter and 5/16" tall, constructed of AISI 1020 CR steel, zinc plated. Entire assembly shall be solid welded.

Cam Lock Assy: Cam lock assembly with center hole shall comprise cam lock plates and cover plate. Cam lock plate shall be constructed of 11 ga. A-60 sheet and shall have a 4-13/16" by 9/16" serrated cut-out for locking purposes. Cover plate shall be constructed of 11 ga. A-60 sheet. Cover plate shall have a 5" ID and 8" OD, with two interior 5/8" notches. Entire assembly shall be welded and shall measure 2-1/2" in height with an 8" diameter.

Fasteners: All fastening hardware shall be Fastener Style A.

Finishes: Post, support assembly and cam lock assembly shall be finished in Mira-Cote. JAX body shall be finished in Rockite.

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

JAX Beanstalk - Two

477-502

Tots' Choice®

Arch Swing Frames -

1 Bay, 2 Bay, 3 Bay, 4 Bay, Therapeutic Seat Bays & Extensions and 1 Bay Extension

718-852-2

**Arch Swing Frame -
1 Bay (for 2 Seats)**



718-852-4

**Arch Swing Frame -
2 Bay (for 4 Seats)**



718-852-6

**Arch Swing Frame -
3 Bay (for 6 Seats)**



718-852-8

**Arch Swing Frame -
4 Bay (for 8 Seats)**



718-852-1H

**Arch Swing Frame - Therapeutic Swing
Seat or Generation Swing**



718-852-2HH

**Arch Swing Frame - Therapeutic
Swing Seat or Generation Swing -
1 Bay (for 2 Seats)**



718-852-1HX

**Arch Swing Extension - Therapeutic
Swing Seat or Generation Swing**



Arch Swing Frames

718-852-2, 718-852-4, 718-852-6, 718-852-8, 718-852-1H, 718-852-2HH,
718-852-1HX, 718-852-2HHX, 718-852-2X

Tots' Choice®

Arch Swing Frames -**1 Bay, 2 Bay, 3 Bay, 4 Bay, Therapeutic Seat Bays & Extensions and 1 Bay Extension****718-852-2HHX****Arch Swing Extension - Therapeutic Swing Seat or Generation Swing - 1 Bay (for 2 Seats)****718-852-2X****Arch Swing Extension - 1 Bay (for 2 Seats)**

<u>MODEL</u>	<u>PRODUCT</u>	<u>GROUND SPACE</u>
718-852-2	Arch Swing Frame - 1 Bay (for 2 Seats)	12' x 4'
718-852-4	Arch Swing Frame - 2 Bay (for 4 Seats)	24' x 4'
718-852-6	Arch Swing Frame - 3 Bay (for 6 Seats)	35' x 4'
718-852-8	Arch Swing Frame - 4 Bay (for 8 Seats)	47' x 4'
718-852-1H	Arch Swing Frame - Therapeutic Swing Seat or Generation Swing	8' x 4'
718-852-2HH	Arch Swing Frame - Therapeutic Swing Seat or Generation Swing - 1 Bay (for 2 Seats)	12' x 4'
718-852-1HX	Arch Swing Extension - Therapeutic Swing Seat or Generation Swing	8' x 4'
718-852-2HHX	Arch Swing Extension - Therapeutic Swing Seat or Generation Swing - 1 Bay (for 2 Seats)	12' x 4'
718-852-2X	Arch Swing Extension - 1 Bay (for 2 Seats)	12' x 4'

<u>MODEL</u>	<u>PROTECTIVE AREA</u>	<u>CONCRETE</u>
718-852-2	24' X 32'	0.4 cu. yds.
718-852-4	36' X 32'	0.6 cu. yds.
718-852-6	46' X 32'	0.8 cu. yds.
718-852-8	57' X 32'	1.0 cu. yds.
718-852-1H	21' X 32'	0.2 cu. yds.
718-852-2HH	26' X 32'	0.4 cu. yds.
718-852-1HX	21' X 32'	0.2 cu. yds.
718-852-2HHX	26' X 32'	0.2 cu. yds.
718-852-2X	24' X 32'	0.4 cu. yds.

Tots' Choice®

Arch Swing Frames -

1 Bay, 2 Bay, 3 Bay, 4 Bay, Therapeutic Seat Bays & Extensions and 1 Bay Extension

DESCRIPTION

All models consist of arch assemblies, header and clevises which assemble to form a swing frame. The swing frames are available in 1, 2, 3, or 4 bay models providing for 1, 2, 4, 6, or 8 swing configurations. Swings must be ordered separately. Therapeutic Swing Seat (Model 2720) or Generation Swing (Model 2760) must be ordered separately.

MATERIALS

Arch Assemblies:

Arch assemblies consist of the arch which serves as the legs for the swing frame, and the arch stub which supports the header. Arches are constructed of 3-1/2" tube and measure 118" from leg end to the plane at the height of the underside of the arch apex. Stubs measure approximately 5-3/4" with two (2) 5/8" holes drilled (one on top side and one on bottom side of stub) 1-1/2" from flush end.

Header Assembly:

The header shall be constructed of 3" pipe (3-1/2" O.D.), a 5 ga. 1010 hot rolled, Flo-Coat galvanized pipe manufactured from steel, cold formed and high frequency induction welded continuously. It conforms to ASTM A-135 and ASTM A-500 and is tested in accordance with ASTM E-8. It has triple coat corrosion protection of a hot-dipped uniform zinc galvanized coating followed by a chromate conversion coating with a third coat of a clear high performance organic polymer coating. The interior has an 81% minimum zinc rich primer applied, capable of providing excellent rust protection and fabrication characteristics. All coatings shall be applied inside and out after welding. The corrosion protection provided by the coatings exceeds the test results of galvanized schedule 40 pipe in salt spray tests conducted in accordance with ASTM B-117. The headers for Model 718-852-2, 718-852-4, 718-852-6, 718-852-8, 718-852-2X measure 10'-6" long. The headers for Model 718-852-1H and 718-852-1HX measure 7'-2" long. The headers for Model 718-852-2HH and 718-852-2HHX shall measure 11'-11" long. The headers shall have 1-1/4" O.D. steel bushing housings welded to them with 9/16" oil-impregnated bushings installed after painting. The clevises shall be cast of ductile iron grade 60-40-18 and shall be zinc plated.

Fasteners:

All fastener hardware is fastener style A.

Finishes:

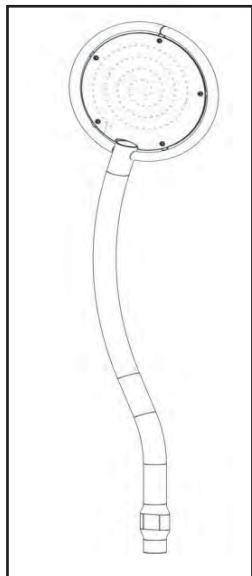
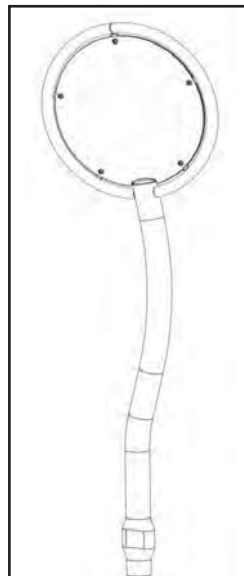
The arch assemblies, header assemblies, and hangers are finished in Mira-cote. The clevises are zinc plated.

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

Arch Swing Frames

718-852-2, 718-852-4, 718-852-6, 718-852-8, 718-852-1H, 718-852-2HH, 718-852-1HX, 718-852-2HHX, 718-852-2X

Welcome Sign - English, CSA, Spanish and SGL/DBL Sided Post In-Ground and Surface Mount

Single Sided Post

Double Sided Post


Welcome Sign

<u>MODEL</u>	<u>PRODUCT</u>	<u>GRND. SPC.</u>	<u>PROT. AREA</u>	<u>CONCRETE</u>
787-001	MREC Welcome Sign 2-5YR	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-001BD	MREC Welcome Sign 2-5YR	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-002	MREC Welcome Sign 2-12YR	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-002BD	MREC Welcome Sign 2-12YR	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-003	MREC Welcome Sign 5-12YR	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-003BD	MREC Welcome Sign 5-12YR	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-011	MREC Welcome Sign French/Eng 18MO-5YR	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-011BD	MREC Welcome Sign French/Eng 18MO-5YR	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-012	MREC Welcome Sign French/Eng 18MO-12YR	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-012BD	MREC Welcome Sign French/Eng 18MO-12YR	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-013	MREC Welcome Sign French/Eng 5-12YR	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-013BD	MREC Welcome Sign French/Eng 5-12YR	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-021	MREC Welcome Sign Spanish 2-5YR	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-021BD	MREC Welcome Sign Spanish 2-5YR	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-022	MREC Welcome Sign Spanish 2-12YR	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-022BD	MREC Welcome Sign Spanish 2-12YR	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-023	MREC Welcome Sign Spanish 5-12YR	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-023BD	MREC Welcome Sign Spanish 5-12YR	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-091	MREC Custom Sign SGL Sided	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-091BD	MREC Custom Sign SGL Sided	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-092	MREC Custom Sign DBL Sided	1'-6" x 2'-6"	N/A	0.10 cu. yds.
787-092BD	MREC Custom Sign DBL Sided	1'-6" x 2'-6"	N/A	0.10 cu. yds.

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

787-001, 787-001BD, 787-002, 787-002BD, 787-003, 787-003BD, 787-011, 787-011BD, 787-012, 787-012BD, 787-013, 787-013BD, 787-021, 787-021BD, 787-022, 787-022BD, 787-023, 787-023BD, 787-091, 787-091BD, 787-092, 787-092BD

Welcome Sign - English, CSA, Spanish and SGL/DBL Sided Post In-Ground and Surface Mount

DESCRIPTION

The Welcome Sign displays the age range of intended users in English, French Canadian/English (CSA) and Spanish with single or doubled sided posts.

MATERIALS

Sign Post: Sign posts, each, shall be constructed of 3.5" tube, 1-5/8" tube and plate of 12ga. A-60 Galvannealed sheet and solid welded.

Sign: The sign panel shall be a fiberglass embedment sign with an approximate graphics area of 23" and approx. 0.09" thick. This sign will have a tensile strength of 12,000 psi, a compressive strength of 20,000 psi, a flexural strength of 18,000 psi, an impact strength of 6 ft.lbs/inch notch, a barcol hardness of 50 and a modulus of elasticity of 2,000,000 psi. The sign shall have an excellent resistance to mild acids, a fair resistance to alkalis and an excellent resistance to solvents.

The assembly shall contain Fastener Style A hardware.

Fasteners:

Sign posts shall have a Mira-Cote finish.

Finishes:

Consult Miracle's "Glossary of Technical Data for Materials, Processes & Finishes" for specifications of underlined items.

SECTION 22 11 16 – BACKFLOW PREVENTION

PART 1 – GENERAL

1.1 DESCRIPTION

- A. This section includes water-distribution backflow prevention product and installation specifications for the drinking fountain's supply line.

1.2 SUBMITTALS

- A. Submittals shall comply with Greenbook 2018, SECTION 3, 3-8 SUBMITTALS and include the following:
 - 1. Manufacturer's product data.
 - 2. Manufacturer's maintenance manual.
 - 3. Manufacturer's warranty.

1.3 DELIVERY, STORAGE, AND HANDLING

- A. Packing and Shipping
 - 1. Deliver backflow prevention devices in a clean and undamaged condition.
- B. Storage and Protection
 - 1. Keep interior of backflow prevention devices free from water, dirt, and other foreign matter. The port openings shall be covered with plastic, cardboard, or wood while in transit and during storage in the field. These covers shall remain in place until the backflow assembly is ready to be installed.
 - 2. Backflow assemblies shall not be stored in contact with bare ground.
 - 3. Backflow assemblies shall not be stacked. Do not stack other products on backflow prevention devices.

1.4 PROJECT CONDITIONS

- A. As part of this project, there shall not be any interruption of existing water-disruption service other than to Mathewson Park.
- B. Prior to any disruptions to Mathewson Park's water supply exceeding 24 hours, contractor shall contact Public Services to coordinate; Utility Shutdown Form Section 01 11 00 Summary of Work shall be submitted. Disruption in water service to the park shall not exceed 72 hours, under any circumstances.

PART 2 – MATERIALS

2.1 REDUCTION OF LEAD IN DRINKING WATER ACT COMPLIANCE

- A. The Contractor shall comply with the requirements and standards of the Reduction of Lead in Drinking Water Act.
- B. Any pipe, fitting or fixture (e.g. corp stops, curb valves, gate valves less than 2 inches in diameter, backflow prevention devices, water meters, hose bibs, etc.), solder and flux installed or requiring replacement as of January 4, 2014 must be "lead free". The Contractor shall be responsible to comply with the State, local laws, ordinances, codes, rules, and regulations governing the Reduction of Lead in Drinking Water Act that may have additional limitations or requirements."
- C. The definition of 'lead free' is as follows:
 - 1. Not containing more than 0.2 percent lead when used with respect to solder and flux; and
 - 2. Not more than a weighted average of 0.25 percent lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures

2.2 BACKFLOW PREVENTER

- A. Series: 825Y
- B. Installation: per manufacturers specifications
- C. Manufacturer: FEBCO, a WATTS Brand; (800) 767-1234; www.febcoonline.com or approved equal

PART 3 – EXECUTION

3.1 INSTALLATION

- A. Backflow Prevention Assemblies
 - 1. Install backflow prevention assemblies in accordance with the manufacturer's written installation instructions.
 - 2. Install backflow prevention assemblies so that assemblies are easily accessible for testing, maintenance, and repair.
 - 3. Install backflow prevention assemblies horizontally, with 18-inches minimum clearance between finished grade and lowest point on bottom of backflow prevention assembly.

3.2 FIELD TESTING

- A. Hydrostatic Test: Hydrostatically test backflow prevention assembly with piping in which backflow prevention assembly is installed.

- B. Functional Test - Perform functional test of backflow prevention assemblies after backflow prevention assemblies are installed and hydrostatic testing is completed.
 - C. Perform functional tests in the presence of the following:
 - 1. City's Representative
 - D. Functional tests performed when City's Representative is not present shall be repeated at no additional cost to the City.
 - E. Functional test shall be performed by certified backflow prevention device tester.
 - F. Perform functional test on each backflow prevention assembly. Verify proper operation of backflow prevention assemblies.
 - G. Functional Test Report: Backflow prevention device tester shall submit copies of backflow prevention device functional tests.
 - H. Failed Test: Repeat failed tests at no additional cost to the City.
 - I. Defects - If any defects are detected during testing, correct defects by adjustment, repair, modification, or replacement. Backflow prevention devices shall only be repaired by a certified backflow prevention device technician.
 - J. Re-test backflow prevention assemblies following correction of defects. Backflow prevention devices shall only be retested by a certified backflow prevention device tester. Re-test backflow prevention assemblies at no additional cost to the City.
- 3.3 CLEANING AND PROTECTION
- A. Clean grease, oil, or any other foreign substance from exterior surfaces of backflow prevention assemblies.
 - B. Thoroughly clean all areas where work has occurred. Remove excess material, debris, and rubbish from site.

END OF SECTION 22 11 16

SECTION 22 13 19 – CLEANOUTS

PART 1 – GENERAL

1.1 DESCRIPTION

- A. This section includes cleanout product and installation specification for the drinking fountain supply line, drain line, and drywell.

1.2 SUBMITTALS

- A. Manufacturer's product data.

1.3 DELIVERY, STORAGE, AND HANDLING

- A. Packing and Shipping
 - 1. Deliver cleanouts in a clean and undamaged condition.

1.4 PROJECT CONDITIONS

- A. As part of this project, there shall not be any interruption of existing water-disruption service other than to Mathewson Park.
- B. Prior to any disruptions to Mathewson Park's water supply exceeding 24 hours, contractor shall contact Public Services to coordinate; utility shutdown form in Section 01 11 00 Summary of Work shall be submitted. Disruption in water service to the park shall not exceed 72 hours, under any circumstances.

PART 2 – MATERIALS

2.1 CLEANOUTS

- A. Model: Z1400 Extra Heavy-Duty Adjustable Floor Cleanout
- B. Top: Stainless Steel Extra Heavy-Duty Top
- C. Screws: Vandal-Proof
- D. Size: Per Drawings
- E. Installation: per manufacturers specifications
- F. Manufacturer: Zurn Industries, LLC; (855) 663-9876; www.zurn.com, or approved equal

PART 3 – EXECUTION

3.1 INSTALLATION

- A. For floor cleanouts located in concrete, install cleanout deck plates with top flush with finished concrete. Installation shall comply with ADA requirements.

- B. For floor cleanouts located in lawn, install cleanout deck plates with top flush with finished grade.

3.2 CLEANING AND PROTECTION

- A. Thoroughly clean all areas where work has occurred. Remove excess material, debris, and rubbish from site.

END OF SECTION 22 13 19

SECTION 32 11 23 – AGGREGATE BASE COURSE

PART 1 – GENERAL

1.1 DESCRIPTION

- A. This section describes an aggregate base course which shall be well graded, durable aggregate uniformly moistened and mechanically stabilized by compaction. Extent of wood safety play surface removal and resulting aggregate base course requirement shall be field verified.

1.2 RELATED DOCUMENTS

- A. Greenbook 2018, Section 301 – Subgrade Preparation, Treated Materials, and Placement of Base Materials

1.3 DEFINITIONS

Interpret these terms, used throughout, as follows:

- A. Aggregate
A composite mixture of hard, durable mineral materials that have been mechanically processed.
- B. Gravel
Naturally occurring rounded particles of rock that will be retained on a No. 10 sieve.
- C. Crushed Stone
Crushed angular particles of rock retained on a No. 10 sieve.
- D. Select Crushed Material
Crushed and screened aggregate with particles predominately larger than 1 1/2 inches.

1.4 QUALITY ASSURANCE

- A. If required, sampling and testing are the responsibility of the Contractor. When deemed necessary, the sampling will be observed by the City's representative.
- B. Percentage of compaction specified shall be the minimum acceptable. The percentage represents the ratio of the dry density of the compacted material to the maximum dry density of the material as determined by the procedure set forth in ASTM D1557.
- C. The Architect may request excavation below subgrade (EBS) in areas of placed base. Restore the surface in EBS areas to the plane grade and section or as the Architect directs.

1.5 SUBMITTALS

- A. Submit material certificates signed by the material producer and the Contractor, certified that each material item complies with, or exceeds the specified requirements.

- B. In lieu of testing, the Architect may accept certified test results indicating that the aggregate meets specification requirements. Certified test results shall be less than 6 months old.

PART 2 – MATERIALS

2.1 AGGREGATE

- A. Aggregates shall consist of clean, sound, durable particles of crushed stone, crushed gravel, or crushed slag and shall be free from coatings of clay, silt, vegetable matter, and other objectionable materials and shall contain no clay balls.

2.2 AGGREGATE REQUIREMENTS

- A. Furnish aggregates substantially free of deleterious materials.
- B. The City may prohibit the use of crushed stone from limestone/dolomite deposits that have thinly bedded strata or strata of shale nature. The City may also prohibit the use of aggregate from deposits or sources known to product unacceptable materials.

2.3 AGGREGATE CLASSIFICATION

The stone for the base must be crushed to compact to 95% standard Proctor Compaction (as per ASTM test). The stones should be a homogeneous mixture of the following size stones:

Sieve Size	% passing by weight
1"	90 – 100
5/8"	50 – 80
1/4"	30 – 50
#4	15 – 35
#8	10 – 30
#30	3 – 5
#200	0 – 3

2.4 EQUIPMENT

Use specialize pneumatic or vibratory compaction equipment or a combination of both types of machines. Do not use tamping rollers.

PART 3 – EXECUTION

3.1 PREPARING THE FOUNDATION

Prepare the subgrade in accordance with Greenbook 2018, Section 301, or resurface the previously place base layer, before placing base. Do not place base on foundations that are soft, spongy. Water and rework or recompact dry foundations as necessary to ensure proper compaction, or as the engineer directs.

Add or subtract subsurface material as necessary to bring surface to appropriate depth to meet the required overall depth of the rubberized and gravel material. Subsurface shall be

installed in a true, even plane, unless otherwise indicated on the Drawings.

3.2 STOCKPILING

Build and maintain stockpiles using methods that minimize segregation and prevent contamination. If the contract specifies location, place stockpiles where specified. Clear and prepare stockpile area to facilitate the recovery of the maximum amount of stockpiled material.

3.3 CONSTRUCTING BASE

- A. Placement and compaction of material by flooding, ponding or getting will not be permitted.
- B. The crushed aggregate base material shall be placed on the moistened subgrade in layers of uniform thickness with a mechanical spreader.
- C. The maximum depth of a compacted layer shall be 4" (100 mm). If the total depth of the compacted material is more than 4" (100 mm), it shall be constructed in two or more layers. In multi-layer construction, the courses shall be placed and compacted in layers of approximately equal depth.
- D. The previously constructed layer should be cleaned of loose and foreign material prior to placing the next layer. The surface of the compacted material shall be kept moist until covered with the next layer.
- E. Placed aggregate in a way that minimized hauling on the subgrade. Do not use vehicles or operations that damage the subgrade or in-place base. Deposit material in a way that minimized segregation.
- F. Aggregate base shall be constructed per Drawings. Shape and compact the base surface to within 0.04 feet of the plan elevation slope aggregate 2% to drains.
- G. Surface tolerance shall not exceed 3/8" over 10 feet.
- H. Ensure there is adequate moisture in the aggregate during placing, shaping, can compacting to prevent segregation and achieve adequate compaction.
- I. Protect and maintain the base until installation of rubberized playground surface.

3.4 STANDARD COMPACTION

Compact the base until there is no appreciable displacement, either laterally or longitudinally, under the compaction equipment to 95% compaction. Compact each layer before placing a subsequent layer. If the material is too dry to readily attain the required compaction, add water as necessary to achieve compaction.

3.5 TESTING

Aggregate base course shall be acceptable for density on a lot basis. A lot will consist of one day's production where it is not expected to exceed 2,400 square feet. Acceptance testing may use the nuclear method ASTM D 6938.

3.6 CONTROLLING DUST

Apply water on the Architect-approved dust control materials to control dust during construction and maintenance of the base and shoulders.

3.7 DISPOSAL

- A. Lawfully dispose of all unsuitable and excess or surplus material off-site at no cost to the Owner.

END OF SECTION 32 11 23

SECTION 32 13 12 – SITE CONCRETE

PART 1 – GENERAL

1.1 DESCRIPTION

- A. This work includes furnishing and installing poured-in-place concrete sidewalks from existing sidewalks to the playground containment curb and hardscape along the south of the playground. Concrete color and finish shall match existing concrete sidewalks. Refer to Section 01 73 29 Cutting and Patching for related requirements.

1.2 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Manufacturer of ready-mixed concrete products that complies with ASTM C 94C 94M requirements for production facilities and equipment.
- B. ACI Publications: Comply with ACI 301, "Specification for Structural Concrete," unless modified by requirements in the Contract Documents.

1.3 SUBMITTALS

- A. Provide 4 copies of the following:
 - 1. Product Data: For each type of product indicated.
 - 2. Design Mixtures: For concrete pavement mixture.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Supply ready mixed concrete throughout. Batch mix, and transport in accordance with ASTM C-94, "Specification for Ready Mixed Concrete."
- B. Mix and deliver concrete in quantities that will permit immediate use only.
- C. Indiscriminate addition of water for any reason will be cause for rejection of load.

PART 2 – MATERIALS

2.1 CONCRETE

- A. Cementitious Material: Use one of the following cementitious materials, of the same type, brand, and source throughout the project.
 - 1. Portland Cement: ASTM C 150, type II Supplement with the following:
 - a. Fly Ash: ASTM C 618, Class C or F.
 - b. Ground granulated blast furnace slag: ASTM C 989, grade 100 or 120.

2. Normal weight aggregates: ASTM C 33, coarse aggregate, uniformly graded. Provide aggregates from a single source.
3. Water, ASTM C 94/C 94M.
4. Air entraining admixture: ASTM C 260.
5. Chemical admixtures: ASTM C 494/C 494M, of type suitable for application, certified by manufacturer to be compatible with other admixtures and to contain not more than 0.1 percent water soluble chloride ions by mass of cementitious material.

2.2 CURING MATERIALS

- A. Water, ASTM C 94/C 94M.
- B. Moisture retaining cover: ASTM C 171, polyethylene film or white burlap polyethylene sheet.
- C. Water: Potable.
- D. Evaporation retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.

2.3 RELATED MATERIALS

- A. Expansion and isolation joint filler strips: ASTM D 1752 cork or self-expanding cork.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive poured-in-place concrete and proof roll with plate compactor to identify any soft spots and areas of excessive yielding.

3.2 EDGE FORMS AND SCREED CONSTRUCTION

- A. Set, brace and secure edge forms, bulkheads, and intermediate screed guides for pavement to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.
- B. Clean forms after each use and coat with form release agent to ensure separation from concrete without damage.

3.3 JOINTS

- A. General: Form construction, isolation, and contraction joints and tool edgings true to line with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline unless otherwise noted.

- B. Construction joints: Set construction joints at side and end termination of pavement and at locations where pavement operations are stopped for more than one half hour unless pavement terminates at isolation joints.
- C. Isolation joints: Form isolation joints of preformed joint filler strips abutting concrete curbs, catch basins, inlets, structures, other fixed objects and where indicated.
- D. Contraction joints: Form weakened plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one fourth of the concrete thickness to match jointing of existing adjacent concrete pavement.
- E. Edging: Tool edges of pavement, and joints in concrete after initial floating with an edging tool to a 1/8" radius. Repeat tooling of edges after applying surface finishes. Eliminate tool marks on concrete surfaces.
- F. Score Pattern: Tool score pattern in concrete after initial floating with an edging tool to a 1/8" radius. Repeat tooling of score pattern after applying surface finishes. Eliminate tool marks on concrete surfaces. Score pattern shall be 1/4" wide, 5/8" deep with 1/8" radius along each side of the score.

3.4 CONCRETE PLACEMENT

- A. Moisten sub-base to provide a uniform dampened condition at time of concrete placement.
- B. Comply with ACI 301 requirements for measuring, mixing, transporting, and placing concrete.
- C. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.
- D. Screed pavement surfaces with a straightedge and strike off.
- E. Commence initial floating using bull floats or darbies to impart an open textured and uniform surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces before beginning finish operation or spreading surface treatments.

3.5 FLOAT FINISHING

- A. General: Do not add water to concrete surfaces during finishing operations.
- B. Float Finish: Begin the second floating operation when bleed-water sheen has disappeared and concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats, or by hand floating if area is small or inaccessible to power units. Finish surface to true planes. Cut down high spots and fill in low spots. Refloat surface immediately to uniform granular texture.
- C. Medium to fine textured broom finish: Draw a soft bristle broom across float finished concrete surface perpendicular to line of traffic to provide a uniform fine line texture.

3.6 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot

temperatures.

- B. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching .2lb/sq. ft. before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- C. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- D. Curing methods: Cure concrete by moisture curing, moisture-retaining cover, curing compound, or a combination of these methods

3.7 PAVEMENT TOLERANCES

- A. Comply with tolerances of ACI 117 and as follows:
 - 1. Elevation: 1/4 inch
 - 2. Thickness: Plus 3/8 inch, minus 1/4 inch
 - 3. Surface: Gap below 10-foot-long, unleveled straightedge not to exceed 1/4 inch
 - 4. Joint spacing: 3 inches
 - 5. Contraction joint depth: Plus 1/4 inch, no minus
 - 6. Joint width: Plus 1/8 inch, no minus

3.8 REPAIRS AND PROTECTION

- A. Remove and replace concrete pavement that is broken, damaged, or defective or that does not comply with requirements in this section.
- B. Protect concrete from damage. Exclude traffic from pavement for at least 14 days after placement.
- C. Maintain concrete pavement free of stains, discoloration, dirt, and other foreign material. Sweep concrete pavement not more than two days before date of scheduled for substantial completion inspection.
- D. Thoroughly clean all areas where work has occurred. Remove excess material, debris, and rubbish from site.

END OF SECTION 32 13 12

SECTION 32 15 40 – DECOMPOSE GRANITE SURFACING

PART 1 – GENERAL

1.1 DESCRIPTION

- A. Provide stabilized decomposed granite surfacing as indicated on the drawings and as specified herein.

1.2 QUALITY ASSURANCE

- A. Decomposed granite can permanently stain concrete and other masonry surfaces. Protect adjacent pavement, curbs, etc. from contact with decomposed granite. Remove any spillover immediately.
- B. Single Source Responsibility: Obtain decomposed granite surfacing from single manufacturer.

1.3 SUBMITTALS

- A. Product Data: Manufacturer's literature completely describing all components of the decomposed granite surfacing system, including:
 - 1. Preparation instructions and recommendations.
 - 2. Installation methods and application procedures.
- B. Sample for Verification:
 - 1. Submit sample of type and color of decomposed granite surfacing material.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Bagged Materials: Accept delivery of materials only in unopened and undamaged containers bearing the brand name and manufacturer's identification.
- B. Protect decomposed granite surface surfacing materials from contamination until ready for installation.

1.5 PROJECT CONDITIONS

- A. Surfaces to receive decomposed granite surfacing shall be free of oil or any other foreign matter, which may impair the proper installation of the surfacing system.
- B. Do not install decomposed granite surface surfacing when subbase course is muddy or saturated with standing water.
- C. Perform work in dry weather when subgrade is sufficiently stable to be properly compacted.

PART 2 – MATERIALS

2.1 FILTER FABRIC

- A. Non-woven, 3.5 ounces.

2.2 ROCK SURFACE

- A. Material shall be Trade name “Desert Gold,” stabilized decomposed granite, available from KRC Rock Landscape & Building Materials, (760) 744-1036, www.krcrock.com or approved equal.
- B. The crushed aggregate screening shall be free from clay lumps, vegetable matter, and deleterious material.

2.3 WATER

- A. Clean and potable, free from contaminants that would be deleterious to the decomposed granite surfacing.

PART 3 – EXECUTION

3.1 PREPARATION

- A. General Grading: Excavate, fill and fine grade the decomposed granite area. All low areas shall be filled to prevent water from standing.
- B. Prepare subgrade in accordance with The “Greenbook” Standard Specifications for Public Works Construction, Section 301-1 Subgrade Preparation.
- C. Prior to placing the decomposed granite, complete all earthwork, borders, and adjacent improvements.

3.2 INSTALLATION

- A. Over approved compacted subgrade, install filter fabric, and apply decomposed granite material loosely and evenly to required depths. Screed the loosely graded material to the required grade so that after compaction, the compacted material will meet required thickness and finish grade.
- B. Roll and compact with 1 – 3 ton roller or vibratory plate compactor to 90 percent relative compaction.
- C. Remove excess material and dress the shoulders of the deposited granite area. Fill low shoulders and fine grade as required and acceptable by the Owner’s Representative.

3.3 CLEANING AND PROTECTION

- A. Remove any decomposed granite from adjacent surfaces immediately upon discovery and correct any stain damage.

- B. Thoroughly clean all areas where work has occurred. Remove from site excess material, debris and rubbish.
- C. Take all precautions necessary to protect completed work until Substantial Completion of project.

END OF SECTION 32 15 40

SECTION 32 17 23.13 – PAINTED PAVEMENT MARKINGS

Based on Greenbook 2018 SECTION 214 -Traffic Striping, Curb and Pavement Markings, and Pavement Markers

PART 1 – GENERAL

1.1 DESCRIPTION

- A. Contractor shall comply with Greenbook 2018, Section 214 unless otherwise specified herein.
- B. The following material specifications set forth the requirements for glass beads, paint, thermoplastic material, and reflective and non-reflective pavement markers for use in traffic striping (striping) and curb and pavement markings (markings).
- C. Manufacturer's warranties, guaranties, and instruction sheets for materials used in the Work shall be submitted to the Architect in accordance with Greenbook 2018, 3-8.4.
- D. State Specifications referred to in these specifications are available from the Caltrans Division of Engineering Services, Materials Engineering and Testing Services, Office of Roadway Materials Testing, Chemical Testing Branch (Caltrans Transportation Laboratory).

1.2 SUBMITTALS

- A. The Contractor shall submit to the Architect certified copies of the manufacturer's test reports and MSDS in accordance with Greenbook 2018, 2-5.3 and 7-10.4.3. Test reports shall indicate the name of the manufacturer, type of material, date of manufacture, quantity, State Specification number, manufacturer's lot or batch number, and results of the required tests. Test reports shall be signed by an authorized representative of the manufacturer.
- B. In lieu of test reports the Contractor may provide the Architect with a Certificate of Compliance in accordance with Greenbook 2018, 3-8.4 and 4-5. The certificate shall certify that the paint or thermoplastic material conforms to the Specifications and that the paint was manufactured to the same formulation and process that has passed Caltrans testing.

1.3 DELIVERY, STORAGE, AND HANDLING

- A. Packing and Shipping
 - 1. Paint shall be accompanied by batch certificate.
 - 2. Deliver glass beads in containers suitable for handling and strong enough to prevent loss during shipment accompanied by batch certificate.
- B. Storage and Protection
 - 1. Pavement markers shall be stored indoors and shall be protected from any source of moisture both during shipment to, and at, the Work site. Pavement markers shall be stored at a temperature high enough to preclude moisture condensation. At the time of placement, both the pavement markers and their packaging shall be dry.

PART 2 – MATERIALS

2.1 GLASS BEADS

- A. Glass beads shall conform to State Specification 8010-004 (Type II).

2.2 PAINT FOR STRIPING AND MARKING

- A. Traffic striping, pavement markings, and/or curb painting shall be waterborne-based paint unless otherwise noted and shall conform to the provisions in Greenbook 2018, Section 314 – Traffic Striping, Curb and Pavement Markings, and Pavement Markers of the Standard Specifications and these Special Provisions. Paint material shall be used at its manufactured consistency and shall conform to the requirements of the State of California Department of Transportation specifications PTWB-01R2. Paint shall correspond to SWARCO brand traffic paint, or approved equivalent:

- 1. SWARCO 1140/1160 Series
Waterbased acrylic traffic paint (TTP-1952E TYPE I / TTP-1952E TYPE II)
 - a. WHITE – Product Code ZB1140
 - b. RED – Product Code ZB1151/1161
 - c. BLUE – Product Code ZB1164
 - d. YELLOW – Product Code ZB1146
 - e. GREEN – Product Code ZB1162
 - f. BLACK – Product Code ZB1147

All paints may be obtained from Traffic Safety Materials, LLC, 7722 Clairemont Mesa Blvd., San Diego, CA 92111; (619) 450-8987 or approved equal.

PART 3 – EXECUTION

- 3.1 EXECUTION: Shall comply with Greenbook 2018, Section 314 – Traffic Striping, Curb and Pavement markings, and Pavement Markers
- 3.2 CLEANING AND PROTECTION: Thoroughly clean all areas where work has occurred. Remove excess material, debris, and rubbish from site.

END OF SECTION 32 17 23.13

SECTION 32 18 16.13 – POUR-IN-PLACE PLAYGROUND SAFETY SURFACING

PART 1 – GENERAL

1.1 DESCRIPTION

- A. Furnish labor, material, and equipment necessary to install the pour-in-place, resilient playground safety surfacing system as shown on the drawings and specified herein.
 - 1. This work includes furnishing and installing a dual-density, resilient, seamless, pour-in-place, playground safety surfacing. Work shall include, but not be limited to the following: layout; excavation backfill; furnishing and installing base material; furnishing and installing pour-in-place, resilient playground safety surfacing system and all other incidental work to provide a complete resilient surfacing system.
 - 2. The surface shall consist of a base layer of 100% post-consumer recycled SBR rubber and polyurethane binder and a wear course or top layer of EPDM rubber and polyurethane binder. Contractor shall be responsible for all labor, materials, tools, and equipment to perform all work and services for the installation of the surface.
 - 3. Surfaces shall comply with ADA and CPSD guidelines as well as ASTM Standards. Manufacturer is to be certified by IPEMA, a third-party testing organization for playground surfaces and equipment.

1.2 RELATED DOCUMENTS

- A. Greenbook 2018, Section 301 – Subgrade Preparation, Treated Materials, and Placement of Base Materials
- B. Section 32 11 23 Aggregate Base Course

1.3 QUALITY ASSURANCE

- A. U.S. Consumer Product Safety Commission (CPSC) Public Playground Safety Handbook, Current Edition.
- B. ASTM F1292-18: Standard Specification for Impact Attenuation of Surfacing Materials Within the Use Zone Playground Equipment. Surfacing within playground equipment use zones shall meet or exceed the performance requirements of ASTM F 1292-18. The surface must yield both a peak deceleration of no more than 200 gMax and a Head Injury Criteria (HIC) value of no more than 1,000 for a head-first fall from the highest accessible portion of play equipment being installed as shown on drawings.

Manufactured Safety Surface: For surfaces manufactured for the purpose of playground safety surface, the impact attenuation performance shall be documented by a certificate of compliance provided by third party at contractor's expense.

 - 1. IPEMA Certification to ASTM F1292-18 (Section 4.2): "In the Interest of playground safety, the International Play Equipment Manufacturers Association (IPEMA) provides a third-party certification service whereby a designated independent laboratory, TÜV SÜD America Inc., (TÜV), validates a surfacing manufacturer's certification of conformance to ASTM F1292-18 Performance Criterion.

- C. Accessibility: Children's outdoor play areas shall be in compliance with the Uniform Federal Accessibility Standards (UFAS) FED-STD-795 and the Architectural and Engineer Instructions (9AEI) Design Criteria.
- D. The requirements of the Americans with Disabilities act. Accessibility guidelines (ADAAG) 28 CFR Part 36 that provide equal or greater accessibility than the requirements of the UFAS must also be met in children's outdoor play areas.
- E. Poured in place surfaces intended to serve as accessible paths of travel for persons with disabilities shall be firm, stable and slip resistant, and shall meet the requirements of ASTM F 1951-14 and ASTM F1292-18.
- F. ASTM F1951-14: Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment. All playground surfacing products must pass testing to ensure wheelchair access under and around playground equipment as required by the American Disabilities Act.
- G. ASTM E303-93(2018): Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester
- H. ASTM D2859-16: Standard Test Method for Flammability of Finished Textile Floor Covering Materials or ASTM E1008 – Fire Test. Product shall exhibit a minimum result of a Class A Rating
- I. ASTM D412-16: Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers-Tension. Tensile Strength must be equal to or greater than 25 Psi.
- J. ASTM D624-00: Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
- K. ASTM D2240-15e1: Standard Test Method for Rubber Property - Durometer Hardness
- L. ADAAG – Americans with Disabilities Act, 1990, Title II
- M. Manufacturer's Qualifications:
 - 1. Continuously engaged in manufacturing of pour-in-place playground safety surfacing of similar type to that specified.
 - 2. Furnished a minimum of 10,000 square feet of pour-in-place playground safety surfacing of similar type to that specified within the past 6 months.
- N. Installer's Qualification:
 - 1. Successful experience in installation of pour-in-place playground safety surfacing of similar type to that specified, with a minimum of 10 projects completed within last 24 months.
 - 2. Employ persons trained for installation of pour-in-place playground safety surfacing of similar type to that specified.
 - 3. Approved and trained by the manufacturer of the playground surfacing system.
 - 4. Certification by manufacturer that installer is an approved applicator of the playground

surfacing equipment.

1.4 SUBMITTALS

A. Provide 4 copies of the following:

1. Product Data: Submit manufacturer's name and address, specific trade names, catalog and model numbers, illustrations and descriptive material, product literature, specification data, and installation instructions.
2. Samples: Submit manufacturer's samples of pour-in-place playground safety surfacing showing texture, color, and thickness.
3. Manufacturer's details showing depths of wear course and sub-base materials, anchoring system and edge details.
4. IPEMA Certification: Submit IPEMA Certificate of Compliance to ASTM F1292-18. Test results to substantiate that the product meets or exceeds all ASTM & ADA requirements for each standard listed in Section 1.3 Quality Assurance. Test must be performed and certified by an independent laboratory on material samples identical in design, materials, components, and thickness and manufactured as the installed playground surface.
5. A signed statement by an authorized official certifying that the surfacing system meets the requirements of ASTM F1292-18, section 15 for a head-first fall from the highest accessible portion of the specified playground equipment.
6. Statement signed by the Manufacturer of the synthetic safety surfacing attesting that all materials under this section shall be installed by the Manufacturer or its Certified Installers.
7. Maintenance and Cleaning Instructions: Submit manufacturer's maintenance and cleaning instructions.
8. Plan of equipment layout indicating location and footings. Pour-in-place playground safety surfacing at high traffic areas, including under swings and at slide exits, shall be installed to accommodate excessive wear.
9. Upon request, a listing of at least five installations where products similar to these proposed for use have been installed and have been in service for a minimum period of three years. The list shall include owner or purchaser, address of installation, date of installation, contact person, and phone number.
10. Warranty: Submit manufacturer's warranty.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Delivery

1. Deliver materials to site in manufacturer's original, unopened, undamaged containers and packaging, with labels intact, clearly identifying product name and manufacturer.

B. Storage

1. Store materials in a dry area at a minimum temperature of 40 degrees F and a maximum temperature of 90 degrees F.

C. Handling

1. Protect materials during handling and installation to prevent damage or contamination.

1.6 PROJECT CONDITIONS

A. Environmental Requirements

1. Material Temperature: Ensure material temperature is a minimum of 40 degrees F at time of installation.
2. Air Temperature: Ensure air temperature is a minimum of 40 degrees F for a minimum of 24 hours before, during, and a minimum of 72 hours after installation.
3. Precipitation: Ensure no prospect of precipitation during and a minimum of 72 hours after installation.

1.7 LIMITATIONS

- A. The following chemicals may cause damage to the pour-in-place playground safety surfacing and should be avoided: disinfectants, concentrated chlorine bleach, gasoline, diesel fuel, hydraulic and lubricating oils, acids and organic solvents.
- B. Dissolved minerals and other chemicals such as hydrochlorides from water play areas, pool surrounds and similar applications may cause surface discoloration.
- C. An amber shading of the upper wear/cap course may be noticeable when using standard binding agent.
- D. Areas in excess of 1000 square feet or composed of adjacent colors may contain a cold joint or seam due to the nature of the installation process. Large areas or adjacent colors require the material to be installed on separate days.

1.8 WARRANTY

- A. A seven (7) year warranty from the date of completion of installation shall be provided against defects in materials and workmanship.
- B. Surfacing shall maintain required impact attenuation characteristics for a period of no less than seven (7) years.

PART 2 – MATERIALS

2.1 POUR-INPLACE PLAYGROUND SAFETY SURFACING

A. Manufacturer:

1. No Fault Safety Surface, (909) 381-1014, www.nofault.com

2. Tot Turf by Robertson Industries, Inc. (Supreme), 800.858.0519, www.totturf.com
 3. GT Impax, a PlayCore Company (800) 235-2440, www.gtimpax.com
 4. Or approved Equal
- B. Description: Dual-density, resilient, seamless, pour-in-place, playground safety surfacing.
- C. Compliance: Meet or exceed CPSC guidelines for impact attenuation.
- D. Material: SBR rubber shreds and EPDM rubber granules mixed with binding agent.
- E. Binding Agent: 100 percent solids, aromatic, MDI polyurethane.
- F. Lower Base/Impact Course: Mixture of black SBR rubber shreds and binding agent.
1. Binder to Rubber Ratio: Approximately 15 pounds of binder to 100 pounds of rubber.
 2. Thickness: Sufficient to meet impact attenuation requirements as determined by designated fall height of playground equipment
 3. Foam or standard rubber granules are not permitted in cushion layer
 4. Binder shall be between 8-12 percent of the total weight of the material and shall provide 100 percent coating of the particles
 5. Cushion layer shall be compatible with the wear course and meet the requirements of impact attenuation
- G. Upper Wear/Cap Course: Mixture of colored and/or black EPDM rubber granules and binding agent.
1. Binder to Rubber Ratio: Approximately 20.5 pounds of binder to 100 pounds of rubber
 2. Thickness: 0.5 inch, nominal minimum
- H. Total Thickness: From 1.5 inches to 5 inches as determined by designated fall height of playground equipment
- I. Colors: Standard color combinations include red, green, blue, beige, grey, eggshell, brown, cocoa brown. Custom color combinations, custom solid colors and custom graphics are optional. Standard color combinations were chosen based on popularity, UV stability, and cost. Color will be a single uniform color throughout. Contractor to provide actual color samples to City for final approval.
- J. Test Results:
1. ASTM F1292-09, gMax < 200, HIC < 1000
 2. ASTM F1951-14, Pass
 3. ASTM E303-93 (2018), Wet BPN average of both directions between 40 and 60

4. ASTM D2859-16, Pass
5. ASTM D412-16, Average tensile strength > 60 psi, average elongation > 30%
6. ASTM D624-00, Average lbs/force at rupture > 16, average thickness > .5", average tear strength > 28 lbs/force/inch
7. ASTM D2240-15e1, Average change between 4% and 5%

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive pour-in-place playground safety surfacing. Ensure all applicable site work, including subsurface preparation, fencing, playground equipment installation and all other relevant work, has been completed. Notify owner if areas are not acceptable. Do not begin installation until unacceptable conditions have been corrected.

3.2 PREPARATION

- A. Remove and properly dispose of existing Fibar material, geofabric, and subsurface to extent necessary for the installation of compacted aggregate subbase, base impact layer and upper wear course.
- B. Prepare subsurface in accordance with manufacturer's instructions to ensure proper support and drainage for pour-in-place playground safety surfacing. Finished elevations of adjacent areas/borders/edging shall be as indicated on the Drawings. Subsurface shall be installed in a true, even plane and sloped to drain unless otherwise indicated on the Drawings.
- C. Add or subtract subsurface material as necessary to bring surface to appropriate depth to meet the required overall depth of the rubberized and gravel material. Subsurface shall be installed in a true, even plane, unless otherwise indicated on the Drawings
- D. Finished elevations of adjacent areas/borders/edging shall be as indicated on the Drawings
- E. Aggregate subsurface to be installed by Contractor:
 1. Aggregate subsurface shall be as specified in Section 1.2.
- F. Immediate surroundings of the site shall be reasonably free of dust conditions to prevent damage to the final surface.

3.3 INSTALLATION

- A. Install pour-in-place playground safety surfacing in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Ensure prepared subsurface is dry, clean, and free of any foreign or loose material.
- C. Where concrete and pour-in-place rubber surface are in direct contact, concrete shall be primed per manufacturers specifications prior to installation.

- D. SBR cushion layer shall be installed in one continuous pour on the same day. When a second pour is required, fully coat the edge of the previous work with polyurethane binder to ensure 100 percent bond with new work. Apply adhesive in small quantities so that new SBR mixture can be placed before the adhesive dries.
- E. Total depth of the safety surface system throughout the playground equipment use zone shall be as required to meet the applicable critical fall height requirements.
- F. The binder shall be not less than 20 percent of total weight of rubber used in the wear surface and shall provide 100 percent coating of the particles.
- G. The EPDM or TPV and binder mixture will then be poured-in-place by means of screeding and hand trowelled to maintain a seamless application.
- H. Aggregate sub base shall be compacted every 4".
- I. Color to be a 33.3%/33.3%/33.3% mix of standard green, brown and black.

3.4 PROTECTION

- A. Contractor shall not allow foot traffic on pour-in-place playground safety surfacing until a minimum of 80 percent cure is obtained. (Estimated time to obtain 80 percent cure will range from 6 to 72 hours depending on temperature and humidity.)
- B. Contractor shall protect completed pour-in-place playground safety surfacing from damage during installation and cure time. Contractor shall be responsible for securing the pour-in-place safety surfacing for a minimum of 72 hours. If damage occurs during the first 72 hours, all damage shall be repaired at Contractor's expense.
- C. Contractor shall protect completed pour-in-place playground safety surfacing from damage from subsequent construction activity.

3.5 REPAIRS

- A. Furnish full size repair kits for each wear course color installed, packaged with protective covering for storage and identified with labels describing contents.

3.6 MAINTENANCE AND CLEANING

- A. Thoroughly clean all areas where work has occurred. Remove excess material, debris, and rubbish from site.
- B. Contractor shall thoroughly clean pour-in-place playground safety surfacing in accordance with manufacturer's instructions.

END OF SECTION 31 18 16.13

SECTION 32 33 00 – SITE FURNISHINGS

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Site Furnishings of the following types:
 - 1. Picnic table.
 - 2. Bench.
 - 3. Waste receptacles.
 - 4. Drinking fountains.
 - 5. Bike racks.

1.2 SUBMITTALS

- A. Submittals shall comply with Greenbook 2018, SECTION 3, 3-8 SUBMITTALS
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Detail drawings
 - 2. Preparation instructions and recommendations.
 - 3. Storage and handling requirements and recommendations.
 - 4. Installation methods.
- C. Shop Drawing: Indicate materials, dimensions, tolerances, welding, fasteners, hardware, mounting, finish, and accessories. Include manufacturer's installation instructions.

1.3 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum five years experience in producing site furnishings of the type specified.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store products in manufacturer's unopened packing bearing the brand name and manufacturer's identification until ready for installation.
- B. Handle materials to avoid damage.

1.5 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimal results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.6 WARRANTY

- A. Manufacturer's Warranty: Provide manufacturer's standard warranty against defects in materials and workmanship. For an item to be approved as equal, its warranty or warranties

must meet or exceed the warranty or warranties of original product listed.

PART 2 – PRODUCTS

2.1 PICNIC TABLE

- A. Model: End Accessible Multi-Pedestal Picnic Table – APT Series – 3x4” Recycled Plastic Top & Seat Timbers
- B. Installation / Mount: Embedded Post, per manufacturer's instructions
- C. Steel Frame Finish / Color: Powder Coated, Tan (T)
- D. Timber Material / Color: Recycled Plastic, Brown (PW)
- E. Manufacturer: Pilot Rock, RJ Thomas MFG. Co., Inc., (800) 762-5002, www.pilotrock.com or approved equal

2.2 BENCH

- A. Model: Stationary Accessible Bench – B110 Series
- B. Installation / Mount: Embedded Post, per manufacturer's instructions
- C. Steel Frame Finish / Color: Powder Coated, Tan (T)
- D. Timber Material / Color: Recycled Plastic, Brown (PW)
- E. Manufacturer: Pilot Rock, RJ Thomas MFG. Co., Inc., (800) 762-5002, www.pilotrock.com or approved equal

2.3 WASTE RECEPTACLES

- A. Receptacle Model: QR-CE3036W-HOV25, 30” Diameter x 36” Hight, Precast Concrete Cascade Series
- B. Receptacle Color: Natural
- C. Receptacle Finish: Craftsman Etch
- D. Receptacle Sealer: Standard Gloss
- E. Lid Model: Hover25/CST, 25” Outer Diameter x 12” Inner Diameter x 26” Outer Diameter Dome, Steel Funnel Lid w/Security Cable and Bolt
- F. Lid Colors: (1) Custom Color RAL #7042, (1) Custom Color RAL #5007 with QC White Stenciled Recycle Logo
- G. Manufacturer: QCP, Quick Crete Products Corp., (951) 737-6240, www.quickcrete.com or approved equal

2.4 DRINKING FOUNTAIN

- A. Model: 2440 SMSS with Bottle Filler
- B. Color: Textured Emerald
- C. Manufacturer: Most Dependable Fountains, Inc., (901) 867-0039, www.mostdependable.com or approved equal

2.5 BIKE RACK

- A. Model: ADM-2, Advocate Mini, 2 Bike Capacity
- B. Installation / Mount: Embedded Post, per manufacturer's instructions
- C. Material: Steel Tubing
- D. Finish / Color: Powder Coated, Forest Green
- E. Manufacturer: Madrax, (800) 448-7931, www.madrax.com, or approved equal

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 INSTALLATION

- A. Install site furnishings in accordance with manufacturer's installation instructions and in proper relationship with adjacent construction. Adjust until satisfactory results are achieved.
- B. Site furnishing layout requires Architect's approval prior to installation.
- C. Install site furnishings level, plum, square, accurately aligned, correctly located per drawings, and without warp. Use hardware and fasteners acceptable to manufacturer.

3.3 CLEANING AND PROTECTION

- A. Clean in accordance with manufacturer's recommendations.
- B. Protect installed products until completion of project.
- C. Touch-up, repair or replace damaged products and finishes in accordance with manufacturer's instructions before Substantial Completion.

END OF SECTION 12 93 00

SECTION 32 94 13 – TREE ROOT BARRIER

PART 1 – GENERAL

1.1 DESCRIPTION

- A. Furnish and install tree root barrier along entire length of new concrete walking surface where adjacent to juvenile tree, per drawings.
- B. Tree root barrier is a plastic mechanical barrier in modular panels used to redirect and guide tree roots down and away from hardscape surfaces.

1.2 QUALITY ASSURANCE

- A. Manufacturer's qualifications: Minimum twenty-five (25) years experience in tree and plant protection.

1.3 SUBMITTALS

- A. Product data: Manufacture's standard literature defining materials for use on the Project.
 - 1. Preparation instructions and recommendations.
 - 2. Installation methods and application procedures.
- B. Samples:
 - 1. Tree root barrier: One full length panel.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Packing and Shipping
 - 1. Provide materials in original, unopened containers with manufacturer's labels intact and legible.
- B. Acceptance at Site
 - 1. Damaged materials, as determined by visual inspection, shall not be accepted.
 - 2. Reject materials shall be removed from project site immediately.
- C. Storage and Protection
 - 1. Store materials in dry area in manufacturer's protective packaging, in original containers with labels and instructions intact.

PART 2 – MATERIALS

2.1 TREE ROOT BARRIER

- A. Interlocking, 12" high x 24" wide panels, injection molded copolymer polypropylene of 0.080" thickness. Deeprout, (415) 781-9700, www.deeprout.com , model UB12-2 or approved equal.

PART 3 – EXECUTION

3.1 PREPARATION

- A. Placement of new concrete walking surface shall be completed prior to installation of tree root barrier.

3.2 INSTALLATION

- A. For installation along linear applications of hardscapes:
 - 1. Assemble the appropriate number of root barrier panels using the zipper joining mechanism.
 - 2. Trench immediately adjacent to hardscape to the appropriate depth for installation of the specified root barrier so that top of barrier is 1" above bottom of new concrete walking surface.
 - 3. Place root barrier in trench, vertical ribs facing toward planting area and tree roots.
 - 4. Backfill adjacent planting soil against root barrier to promote clean fit to hardscape. Fill to finish grade.

3.3 CLEANING AND PROTECTION

- A. Thoroughly clean all areas where work has occurred. Remove excess material, debris, and rubbish from site.

END OF SECTION 32 94 13