

AH COURTYARD IMPROVEMENTS
(VOLLEYBALL COURTS)

AT

ANDREW HILL HIGH SCHOOL

3200 SENTER ROAD
SAN JOSE, CA 95111

FOR
EAST SIDE UNION HIGH SCHOOL DISTRICT

VOLUME 2 - TECHNICAL SPECIFICATIONS

PREPARED BY:
ARTIK ART & ARCHITECTURE
394-A UMBARGER ROAD SAN
JOSE, CA 95111
408-224-9890

SECTION 32 17 23
PAVEMENT MARKING AND ACCESSORIES

1.00 DESCRIPTION

A. Principal work in this Section:

1. Stripes and pavement markings and removal of existing striping, if required.

1.01 QUALITY ASSURANCE

A. Reference standards: Applicable provisions of the following govern the work of this Section as listed below:

1. California Department of Transportation (CDT)
 - a. Maintenance manual.
 - b. Standard Specifications: Sections 56, 82, 84, 85, 90, 91, 94 and 95.
 - c. Traffic manual: Chapters 4, 6, and 7.

B. Specifications, standards, tests and recommended methods cited herein from the following trade, industry and government organizations shall determine quantity and quality of materials and methods unless specifically designated otherwise.

1. The State of California Materials and Research Department.
2. The State of California Traffic Manual, latest edition.
3. The California Maintenance Manual, latest edition.

1.02 SUBMITTALS

A. Submit Product Data under 2.00 Products, certifying that each product complies with specified requirements.

2.00 PRODUCTS

2.01 TRAFFIC PAINT

A. Paint shall be a good quality traffic paint conforming to or exceeding the standards set forth by Section 84 "Traffic Stripes and Pavement Markings". Common brands are Kelly Moore, Crown Products, Desoto and Ennis.

B. Paint shall be thoroughly mixed prior to placing in painting equipment.

3.00 EXECUTION

3.01 TRAFFIC PAINT AND GLASS BEADS

A. Types of traffic paint:

1. White:

- a. Solid 4" line: Edge lines, regular parking stalls, and compact parking stalls.
- b. Broken 4" line having 9' of stripe and 15' of gap: Travel lanes.
- c. Solid 12" line: Stop bars and cross walks.
- d. Pavement markings: Word markings, e.g., STOP, BIKE LANE, and symbolic markings, e.g., TURN ARROWS, HANDICAPPED EMBLEM.
- e. Solid 8" line: Turn lanes.
- f. Solid 2" line: Bike lanes.

2. Yellow:

- a. Solid 4" wide double line: Centerline.
- b. Solid 4" wide lines: Island markings, compact parking stalls and centerline striping.
- c. Broken 4" line having 9' of stripe and 15' of gap: travel lanes.

3. Blue:

- a. Solid 4" line: Accessible parking stalls.
- b. Blue curb: Accessible parking stalls.

4. Red:

- a. Red curb: No Parking.
- b. Solid 6" line: Fire Lane.

B. Rates of application:

1. New surfaces shall have the traffic paint applied in two applications. The first or priming coat shall be in light applications without glass beads to seal the pavement.

PAVEMENT MARKING AND ACCESSORIES

The second heavier coat of paint is the wearing surface and the rates of application are shown on Table 1.

2. Restriping where indicated on the drawings, shall coincide with the original painting and shall be applied in one application at the rates indicated in Table 1 (below).
3. Surfaces to be painted shall be clean and dry prior to painting. Allow ample time between the asphalt pavement seal coat and the initial painting application. Usually the drying time of the seal coat is approximately three to four days, depending upon weather conditions. There shall be a minimum drying time between paint applications of approximately 20 minutes.
4. Place glass beads on all traffic stripes and pavement markings except for the first or priming coat on new asphalt surfaces. Rates of application are shown in Table 1 below. Apply glass beads directly to the wet traffic paint with a method that provides uniform distribution. Do not apply glass beads to paint for parking stripes.
5. TABLE 1-Rates of Application

Solid Strip (4" Wide):	
New surface (1st coat)	12-14 gallons per mile or 1 gallon per 125-150 SF of line.
2nd coat or restriping	16-18 gallons per mile or 1 gallon per 100-110 SF of line.
Glass beads with 2nd coat	Approx. 110 lbs/mile or 6 lbs/gallon of paint.
Pavement Markings:	
New surface (1st coat)	Approx. 1 gallon per 200 SF of area.
2nd coat or restriping	1 gallon per 100 SF of area.
Glass beads with 2nd coat	6 lbs/gallon paint
6. Provide sufficient evidence to the Engineer that the quantity of paint specified has been applied to the job. Such evidence can be invoice tickets made out to the specific job, counting empty paint cans, or a method acceptable to the Architect.
7. Do not apply striping at temperatures below 40°F or if pavement surfaces are wet.
8. The alignment of striping shall be accurately laid out. Lines which do not conform to the alignment indicated, or which have a wavy appearance, shall be removed and replaced by the Contractor at his expense.

3.02 REMOVAL OF STRIPES

- A. Remove existing stripes and pavement markings by sandblasting. Painting out black paint will not be allowed.
- B. After removal of paint, apply fog seal coat of SS-1h emulsified asphalt per Section 94 of the ACDT Standard Specifications to asphalt surfaces affected by the removal operations. The fog seal coat must be given ample time to dry prior to the initial painting application.

END OF SECTION 32 17 23

**SECTION 32 12 16
ASPHALT CONCRETE PAVING**

1.00 GENERAL

1.01 DESCRIPTION

A. Principal work in this Section:

1. Aggregate base material.
2. Prime coating.
3. Paint binder as required herein.
4. Asphalt concrete.
5. Seal coat.

B. Related work in other Sections:

1. Pavement marking and accessories: Section 32 17 23.

1.02 QUALITY ASSURANCE

A. Reference standards: Applicable provisions of the following govern the work of this Section.

1. American Association of State Highway and Transportation Officials (AASHTO), M 288-96 or Latest Version Thereof.
2. California Department of Transportation (CDT).
 - a. Standard Specifications: Sections 26, 37, 39, 92, 93, and 94.
 - b. Standard Test Method No. 399A.

B. All work in this Section shall conform to Sections 26, 37, 92, 93, and 94 of the Standard Specifications (CDT).

1.03 SUBMITTALS

A. Certificates: Submit the following:

1. Two copies of material certificates signed by the material producer and the Contractor, certifying that each material item complies with, or exceeds specified requirements.
2. Certified weight or load slip to the Owner's representative for each load of material used in the construction of the asphalt concrete pavement.

1.04 SITE CONDITIONS

- A. Prime coat, seal coat and paint binder.
 - 1. Apply only when the ambient temperature is above 50°F and when temperature has not been below 30°F for 12 hours immediately prior to application.
 - 2. Do not apply when base or surfaces are wet or contain an excess of moisture.
- B. Construct asphalt concrete surface course only when atmospheric temperature is above 40°F and when base is dry.

2.00 PRODUCTS

2.01 AGGREGATE BASE

- A. Class 2 aggregate base, three quarter inch ($\frac{3}{4}$ " maximum size, as specified in Section 26 of the CDT Standard Specifications.
- B. Mineral aggregate shall be Type B mineral aggregate as specified in Section 39 of the CDT Standard Specifications.
- C. Grading of combined aggregates for new pavement shall be $\frac{1}{2}$ " maximum size, medium grading, except asphaltic concrete for overlaying existing paved surfaces shall be $\frac{3}{8}$ " maximum size.
- D. Liquid asphalt for prime coat: Grade SC-70 in conformance with Section 93 of the CDT Standard Specifications.
- E. Asphaltic emulsion for paint binder and fog seal coat: Emulsified asphalt, Type SS-1h, conforming to Section 94 of the CDT Standard Specifications.

3.00 EXECUTION

3.01 PREPARATION

- A. Subgrade: The upper 12" of subgrade shall be compacted to 95% per Section 31 00 00 of these Specifications.
- B. Crack sealing:
 - 1. Before sealing, cracks shall be cleared of dirt, dust, soil vegetation debris, and other deleterious materials by means of air blowing to a depth of $\frac{1}{4}$ " to $\frac{1}{2}$ ".
 - 2. Cracks $\frac{1}{8}$ " in width and greater in existing AC paving to be overlaid and shall be sealed.
 - 3. Applications of crack sealer shall be in accordance with the manufacturer's recommendations or as directed by the Owner's representative.

3.02 AGGREGATE BASE

- A. Place, spread and compact in conformance with Section 26 of the CDT Standard Specifications.

3.03 ASPHALT CONCRETE PAVING

- A. Proportion, mix, place, spread and compact in conformance with Section 39 of the CDT Standard Specifications.
- B. Before placing asphalt concrete on untreated base, apply liquid asphalt prime coat to base course in conformance with Section 39 of the CalTrans Standard Specifications. Apply prime coat at the rate of 0.25 gallons per square yard.
- C. Before placing asphalt concrete, apply an asphalt emulsion tack coat (paint binder) to vertical surfaces of existing pavement, curbs, gutters, construction joints and existing pavement to be surfaced, in conformance with Section 39 of the CDT Standard Specifications.
- D. Spread and compact asphalt concrete in accordance with Section 39 of CDT Standard Specifications.
- E. Apply seal coat to all finished surfaces of asphalt concrete pavement in accordance with Section 37 of the CDT Standard Specifications.
- F. After seal coat has been applied, allow ample time for drying before traffic is allowed on the pavement or paint striping is applied.

3.04 FIELD QUALITY CONTROL

- A. Aggregate Base: The surface of finished aggregate base shall vary no more than 0.05' above or below the grade indicated.
- B. Asphalt Concrete Paving:
 - 1. The finished asphalt pavement, where not controlled by adjacent structures or features, shall not vary more than 0.05 feet above or below the planned grade, providing it is uniform and free of sharp breaks and does not pond water.
 - 2. The cross section of the finished pavement shall be free of ridges and valleys and shall not vary more than 0.03' above or below the theoretical section at any point on the cross section.
 - 3. The specified thickness of the finished pavement shall be the minimum acceptable.
 - 4. Conforms shall form a smooth, pond free, transition between existing and new pavement.

END OF SECTION 32 12 16