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COUNTY OF
IMPERIAL

DEPARTMENT OF
PUBLIC WORKS

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COUNTY OF IMPERIAL PUBLIC WORKS
Bombay Beach Townsite Roadway Improvement Project
County Project No. 6810

ADDENDUM NO. 2

July 06, 2022

This *ADDENDUM* is hereby made part of the Contract Documents and specifications to the same extent as if originally included therein, and shall be signed by the Bidder and included with the proposal.

1. **Question:** “specify if the pavement markings are thermoplastic or a 2-coat paint application and the type of reflective beads required”

Response: Two (2) paint applications shall be applied to the pavement surface, followed by a glass reflective media application. See attached Caltrans 2018 Standard Specification Section 84.

2. **Question:** “there are 31 tie-cards for survey monuments. Can you clarify how many need to be preserved?”

Response: Each tie-card indicates locations of monuments, corner accessories and/or benchmarks. Some are within the limits of work, some are outside the limits of work. The contractor shall be responsible for any *survey monuments*, corner *accessories and/or benchmarks* within the limits of work. In accordance with the professional Land Surveyors’ Act (Chapter 15 of the California Business and Professions Code), such objects within the limits of work that may be disturbed or destroyed by construction shall be referenced by a person authorized to practice Land Surveying and corner record (or record of survey) showing said references shall be filed with the county surveyor prior to construction. Any *monument, corner accessory, or benchmark* that is disturbed or destroyed by construction shall be replaced with appropriate *monumentation* by a person authorized to practice Land surveying and a corner record (or record of Survey) shall be filed prior to project completion. Form MPR-01 and Form MPR-02 are required for all Imperial County Projects. See attached tie cards, Form MPR-01 and Form MPR-02.



John A. Gay, P.E.,
Director of Public Works

Acknowledgement of Addendum No. 2

The general contractor is responsible for advising any and all subcontractors of this change. Each bidder must acknowledge receipt of this addendum in the noted space below and where indicated on the Bidder's Proposal Section of the Special Provisions. This Addendum must be attached to the proposal.

License No: _____

Print or Type Company Name: _____

Print or Type Authorized Name: _____

Authorized Signature of Contractor: _____

Date Signed: _____

84 MARKINGS

84-1 GENERAL

84-1.01 GENERAL

Section 84-1 includes general specifications for applying and constructing markings.

Markings must comply with the CA MUTCD.

84-1.02 MATERIALS

Not Used

84-1.03 CONSTRUCTION

Not Used

84-1.04 PAYMENT

Not Used

84-2 TRAFFIC STRIPES AND PAVEMENT MARKINGS

84-2.01 GENERAL

84-2.01A Summary

Section 84-2 includes specifications for applying traffic stripes and pavement markings.

84-2.01B Definitions

pavement marking: Transverse marking such as (1) a limit line, (2) a stop line, or (3) a word, symbol, shoulder, parking stall, or railroad-grade-crossing marking.

traffic stripe: Longitudinal centerline or lane line used for separating traffic lanes in the same direction of travel or in the opposing direction of travel or a longitudinal edge line marking the edge of the traveled way or the edge of a lane at a gore area separating traffic at an exit or entrance ramp. A traffic stripe is shown as a traffic line.

84-2.01C Submittals

For each lot or batch of thermoplastic, paint, and glass beads, submit:

1. Certificate of compliance, including the product name, lot or batch number, and manufacture date
2. METS notification letter stating that the material is authorized for use, except for thermoplastic
3. SDS
4. Material data sheet for thermoplastic primer

For each lot or batch of thermoplastic, submit a manufacturer's certificate of compliance with test results for the tests specified in section 84-2.01D. The date of test must be within 1 year of use.

For glass beads used in drop-on applications and in thermoplastic formulations, submit a certificate of compliance and test results for each lot of beads specifying the EPA test methods used and tracing the lot to the specific test sample. The testing for lead and arsenic content must be performed by an independent testing laboratory.

Submit retroreflectivity readings for traffic stripes and pavement markings at locations with deficient retroreflectivity determined by the Engineer.

84-2.01D Quality Assurance

Before starting permanent application of two-component painted traffic stripes or markings, apply a test stripe of the paint on roofing felt or other suitable material in the presence of the Engineer. The test section must be at least 50 feet in length.

Test each lot of glass beads for arsenic and lead under EPA Test Method 3052 and 6010B or 6010C.

The Engineer will perform a nighttime, drive-through, visual inspection of the retroreflectivity of the traffic stripes and pavement markings and notify you of any locations with deficient retroreflectivity. Measure the retroreflectivity of the deficient areas using a retroreflectometer under ASTM E1710 and the sampling protocol specified in ASTM D7585.

Each lot or batch of thermoplastic must be tested under California Test 423 for:

1. Brookfield Thermosel viscosity
2. Hardness
3. Yellowness index, white only
4. Daytime luminance factor
5. Yellow color, yellow only
6. Glass bead content
7. Binder content

During the installation of thermoplastic traffic stripes or markings at the job site, apply a test stripe of the thermoplastic on suitable material in the presence of the Engineer. The test stripe must be at least 1 foot in length. The test stripe will be tested for yellow color, daytime luminance factor, and yellowness index requirements.

84-2.02 MATERIALS

84-2.02A General

Traffic stripes and pavement markings must be retroreflective. Within 30 days of applying traffic stripes and pavement markings, the retroreflectivity of the stripes and markings must be a minimum of 250 $\text{mcd}\cdot\text{m}^{-2}\cdot\text{lx}^{-1}$ for white and 125 $\text{mcd}\cdot\text{m}^{-2}\cdot\text{lx}^{-1}$ for yellow when measured under ASTM E1710.

84-2.02B Thermoplastic

Thermoplastic must comply with State Specification PTH-02SPRAY, PTH-02HYDRO, or PTH-02ALKYD.

For recessed thermoplastic stripes and pavement markings, mark packages of thermoplastic with the words *For Recessed Application*.

84-2.02C Paint

The paint for traffic stripes and pavement markings must comply with the specifications for the paint type and color shown in following table:

Paint Specifications

Paint type	Color	Specification
Waterborne traffic line	White, yellow, and black	State Specification PTWB-01R2
Acetone-based	White, yellow, and black	State Specification PT-150VOC(A)
Waterborne traffic line for the international symbol of accessibility and other curb markings	Blue, red, and green	Federal Specification TT-P-1952E

The color of painted traffic stripes and pavement markings must comply with ASTM D6628.

84-2.02D Glass Beads

Glass beads applied to paint must comply with State Specification 8010-004.

Glass beads applied to molten thermoplastic material must be Type 2 beads complying with AASHTO M 247. The glass beads must have a coating that promotes adhesion of the beads to thermoplastic.

At least 75 percent of the beads by count must be true spheres that are colorless and do not exhibit dark spots, air inclusions, or surface scratches when viewed under 20X magnification.

Each lot of glass beads used in pavement markings must contain less than 200 ppm each of arsenic and lead when tested under EPA Test Methods 3052 and 6010B or 6010C.

84-2.02E Thermoplastic Traffic Stripes and Pavement Markings with Enhanced Wet-Night Visibility

A thermoplastic traffic stripe or pavement marking with enhanced wet-night visibility consists of a single uniform layer of thermoplastic and 2 layers of glass beads.

The 1st layer of glass beads must be on the Authorized Material List for high-performance glass beads. The color of the glass beads must match the color of the stripe or marking to which they are being applied.

The 2nd layer of glass beads must comply with AASHTO M 247, Type 2.

The glass beads used in both layers must be surface treated for use with thermoplastic under the bead manufacturer's instructions.

Within 14 days of applying a thermoplastic traffic stripe or pavement marking with enhanced wet-night visibility, the retroreflectivity must be a minimum of $700 \text{ mcd}\cdot\text{m}^{-2}\cdot\text{lx}^{-1}$ for white stripes and markings and $500 \text{ mcd}\cdot\text{m}^{-2}\cdot\text{lx}^{-1}$ for yellow stripes and markings when measured under ASTM E1710.

84-2.02F Two-Component Painted Traffic Stripes and Pavement Markings

A two-component painted traffic stripe or pavement marking consists of 1 coat of paint and 2 applications of retroreflective glass beads of 2 gradations.

The large-gradation glass beads must be on the Authorized Material List for two-component traffic striping paints and large-gradation retroreflective glass beads.

The small-gradation glass beads must comply with AASHTO M 247, Type 1.

The glass beads must have an adhesion-promoting and water-repellant coating complying with the paint manufacturer's instructions.

You may use alternative types of glass beads recommended by the paint manufacturer if authorized.

The daytime and nighttime color of the painted traffic stripes and pavement markings must comply with ASTM D6628.

84-2.02G Recessed Two-Component Painted Traffic Stripes and Pavement Markings

Reserved

84-2.02H Traffic Stripe and Pavement Marking Tape

Reserved

84-2.02I–84-2.02M Reserved

84-2.03 CONSTRUCTION

84-2.03A General

Establish the alignment for traffic stripes and the layouts for pavement markings with a device or method that will not conflict with other traffic control devices.

Protect existing retroreflective pavement markers during work activities.

Remove existing pavement markers that are coated or damaged by work activities and replace each with an equivalent marker on the Authorized Material List for signing and delineation materials.

A completed traffic stripe must:

1. Have clean, well-defined edges without running or deformation
2. Be uniform
3. Be straight on a tangent alignment and on a true arc on a curved alignment

The width of a completed traffic stripe must not deviate from the width shown by more than 1/4 inch on a tangent alignment and 1/2 inch on a curved alignment.

The length of the gaps and individual stripes that form a broken traffic stripe must not deviate by more than 2 inches from the lengths shown. The gaps and stripes must be uniform throughout the entire length of each section of broken traffic stripe so that a normal striping machine can repeat the pattern and superimpose successive coats on the applied traffic stripe.

A completed pavement marking must have well-defined edges without running or deformation.

A completed thermoplastic traffic stripe or thermoplastic pavement marking must be free from runs, bubbles, craters, drag marks, stretch marks, and debris.

Protect newly placed traffic stripes and pavement markings from traffic and other deleterious activities until the paint is thoroughly dry or the thermoplastic is hard enough to bear traffic.

84-2.03B Surface Preparation

Use mechanical wire brushing to remove dirt, contaminants, and loose material from the pavement surface that is to receive the traffic stripe or pavement marking.

Use abrasive blast cleaning to remove laitance and curing compound from the surface of new concrete pavement that is to receive the traffic stripe or pavement marking.

84-2.03C Application of Stripes and Markings

84-2.03C(1) General

Apply thermoplastic for a pavement marking with a stencil or a preformed marking.

Apply paint for a pavement marking by hand with a stencil and spray equipment.

You may use permanent tape for a traffic stripe or a pavement marking instead of paint or thermoplastic. The permanent tape must be on the Authorized Material List for signing and delineation materials. Apply the tape under the manufacturer's instructions.

Immediately remove drips, overspray, improper markings, paint, and thermoplastic tracked by traffic with an authorized method.

Apply a traffic stripe or a pavement marking only to a dry surface during a period of favorable weather when the pavement surface is above 50 degrees F.

The glass beads must be embedded in the coat of paint or thermoplastic to a depth of 1/2 their diameters.

Verify the rate of application of the glass beads by stabbing the glass bead tank with a calibrated rod.

Where a new broken traffic stripe joins an existing broken traffic stripe, allow enough overlap distance between the new and existing striping patterns to ensure continuity at the beginning and end of the transition.

84-2.03C(2) Thermoplastic Traffic Stripes and Pavement Markings

84-2.03C(2)(a) General

Do not thin the primer. Apply the primer under the manufacturer's instructions:

1. To all roadway surfaces except for asphaltic surfaces less than 6 months old
2. At a minimum rate of 1 gallon per 300 square feet
3. To allow time for the thermoplastic primer to dry and become tacky prior to application of the thermoplastic

Use preheaters with mixers having a 360-degree rotation to preheat the thermoplastic material.

Apply the thermoplastic in a single uniform layer by spray or extrusion methods.

Completely coat and fill voids in the pavement surface with the thermoplastic.

84-2.03C(2)(b) Extruded Thermoplastic Traffic Stripes and Pavement Markings

Apply extruded thermoplastic at a temperature from 400 to 425 degrees F unless a different temperature is recommended by the manufacturer.

Apply extruded thermoplastic for a traffic stripe at a rate of at least 0.36 lb of thermoplastic per foot of 6-inch-wide solid stripe. The applied thermoplastic traffic stripe must be at least 0.060 inch thick.

An applied thermoplastic pavement marking must be from 0.100 to 0.150 inch thick.

Apply glass beads to the surface of the molten thermoplastic at a rate of at least 8 lb of beads per 100 sq ft.

84-2.03C(2)(c) Sprayable Thermoplastic Traffic Stripes and Pavement Markings

Apply sprayable thermoplastic under State Specification PTH-02SPRAY at a temperature from 350 to 400 degrees F.

Apply sprayable thermoplastic at a rate of at least 0.24 lb of thermoplastic per foot of 6-inch-wide solid stripe.

The applied sprayable thermoplastic material must be at least 0.040 inch thick.

84-2.03C(2)(d) Recessed Thermoplastic Traffic Stripes and Pavement Markings

Construct recesses for double traffic stripes in a single pass.

Keep the recesses dry and free from debris. Apply primer to the recesses.

After constructing the recesses, apply the thermoplastic traffic stripes and pavement markings before the end of the same work shift.

84-2.03C(2)(e) Thermoplastic Traffic Stripes and Pavement Markings with Enhanced Wet-Night Visibility

Use a ribbon-extrusion or screed-type applicator to apply thermoplastic traffic stripes with enhanced wet-night visibility. Operate the striping machine at a speed of 8 mph or slower during the application of the stripe and glass beads.

Apply the stripe at a rate of at least 0.57 lb of thermoplastic per foot of 6-inch-wide solid stripe. The applied thermoplastic traffic stripe must be at least 0.090 inch thick.

Apply thermoplastic pavement marking at a rate of at least 1.06 lb of thermoplastic per square foot of marking. The applied thermoplastic pavement marking must be at least 0.100 inch thick.

Apply thermoplastic traffic stripe and both types of glass beads in a single pass. First apply the thermoplastic, followed immediately by consecutive applications of high-performance glass beads and then AASHTO M 247, Type 2, glass beads. Use a separate applicator gun for each type of glass bead.

You may apply glass beads by hand on pavement markings.

Uniformly distribute glass beads on traffic stripes and pavement markings. Apply high-performance glass beads at a rate of at least 6 lb of glass beads per 100 sq ft of stripe or marking. Apply AASHTO M 247, Type 2, glass beads at a rate of at least 8 lb of glass beads per 100 sq ft of stripe or marking. The combined weight of the 2 types of glass beads must be greater than 14 lb of glass beads per 100 sq ft of stripe or marking.

84-2.03C(3) Painted Traffic Stripes and Pavement Markings**84-2.03C(3)(a) General**

Do not thin paint for traffic stripes and pavement markings. Mix the paint by mechanical means until it is homogeneous. Thoroughly agitate the paint during its application.

Use mechanical means to paint traffic stripes and pavement markings and to apply glass beads for traffic stripes.

The striping machine must be capable of superimposing successive coats of paint on the 1st coat and on existing stripes at a speed of at least 5 mph.

The striping machine must:

1. Have rubber tires
2. Be maneuverable enough to produce straight lines and normal curves in true arcs
3. Be capable of applying traffic paint and glass beads at the specified rates
4. Be equipped with:
 - 4.1. Pointer or sighting device at least 5 feet long extending from the front of the machine
 - 4.2. Pointer or sighting device extending from the side of the machine to determine the distance from the centerline for painting shoulder stripes
 - 4.3. Positive acting cutoff device to prevent depositing paint in gaps of broken stripes
 - 4.4. Shields or an adjustable air curtain for line control

- 4.5. Pressure regulators and gauges that are in full view of the operator for a pneumatically operated machine
- 4.6. Paint strainer in the paint supply line
- 4.7. Paint storage tank with a mechanical agitator that operates continuously during painting activities
- 4.8. Glass bead dispenser located behind the paint applicator nozzle that is controlled simultaneously with the paint applicator nozzle
- 4.9. Calibrated rods for measuring the volumes of paint and glass beads in the paint and glass bead tanks

Air-atomized spray equipment must:

1. Be equipped with oil and water extractors and pressure regulators
2. Have adequate air volume and compressor recovery capacity
3. Have properly sized orifices and needle assemblies for the spray gun tip

Where the configuration or location of a traffic stripe is such that the use of a striping machine is not practicable, you may apply the traffic paint and glass beads by other methods and equipment if authorized. The Engineer determines if the striping machine is not practicable for a particular use.

For an existing surface, apply traffic stripes and pavement markings in 1 coat.

For a new surface, except for the black stripe between the 2 yellow stripes of a double traffic stripe, apply traffic stripes and pavement markings in 2 coats. The 1st coat of paint must be dry before applying the 2nd coat.

Paint a 1-coat, 3-inch-wide black stripe between the two 6-inch-wide yellow stripes of a double traffic stripe.

If the two 6-inch-wide yellow stripes are applied in 2 coats, apply the black stripe concurrently with the 2nd coat of the yellow stripes.

Apply each coat of paint for any traffic stripe in 1 pass of the striping machine, including the glass beads, regardless of the number, width, and pattern of the individual stripes. Do not paint traffic stripes and pavement markings if:

1. Freshly painted surfaces could become damaged by rain, fog, or condensation
2. Atmospheric temperature could drop below 40 degrees F for acetone-based paint and 50 degrees F for waterborne paint during the drying period

On 2-lane highways:

1. If the 1st coat of the centerline stripe is applied in the same direction as increasing post miles, use the right-hand spray gun of the 3 spray guns used to apply the double yellow stripe to apply a single yellow stripe.
2. If the 1st coat of the centerline stripe is applied in the same direction as decreasing post miles, use the left-hand spray gun of the 3 spray guns used to apply the double yellow stripe to apply a single yellow stripe.
3. Apply the 2nd coat of centerline striping in the opposite direction of the 1st coat.

Apply 1-coat paint at an approximate rate of 107 sq ft/gal.

Apply 2-coat paint at the approximate rate shown in the following table:

Paint type	Coverage (sq ft/gal)	
	1st coat	2nd coat
Waterborne paint	215	215
Acetone-based paint	360	150

Apply glass beads at an approximate rate of 5 lb of beads per gallon of paint.

The Engineer determines the exact application rate of the paint and glass beads.

Verify the application rate of paint by stabbing the paint tank with a calibrated rod. If the striping machine has paint gauges, the Engineer may measure the volume of paint using the gauges instead of stabbing the paint tank with a calibrated rod.

84-2.03C(3)(b) Two-Component Painted Traffic Stripes and Pavement Markings

Do not apply paint for two-component painted traffic stripes and pavement markings until authorized.

Apply the paint only to clean, completely dry surfaces when the pavement surface temperature is above 39 degrees F and the ambient temperature is above 36 degrees F.

Comply with the paint manufacturer's instructions for the temperature of the paint during its application.

The striping machine must not travel faster than 10 mph when applying the paint and glass beads.

Apply the paint and glass beads in 1 pass in the following order:

1. Paint
2. Large-gradation glass beads
3. Small-gradation glass beads

Apply the glass beads with 2 separate applicator guns.

Uniformly distribute the glass beads on traffic stripes and pavement markings.

You may apply the glass beads by hand methods on pavement markings.

Apply the large-gradation glass beads at a minimum rate of 11.7 lb of beads per gallon of paint.

Apply the small-gradation glass beads at a minimum rate of 8.3 lb of beads per gallon of paint.

84-2.03C(3)(c) Recessed Two-Component Painted Traffic Stripes and Pavement Markings
Reserved

84-2.03C(4) Reserved
Reserved

84-2.03C(5)–84-2.03C(10) Reserved

84-2.04 PAYMENT

The payment quantity for a traffic stripe is the length measured along the line of the traffic stripe without deductions for gaps in the broken traffic stripe.

The payment quantity for a pavement marking is the area covered.

A double extruded thermoplastic traffic stripe consisting of two 6-inch-wide yellow stripes is measured as 2 traffic stripes.

A double sprayable thermoplastic traffic stripe consisting of two 6-inch-wide yellow stripes is measured as 1 traffic stripe.

A double traffic stripe consisting of two 6-inch-wide yellow stripes separated by a 3-inch-wide black stripe is measured as a single traffic stripe.

84-3 CONTRAST TREATMENT

84-3.01–84-3.10 RESERVED

84-4–84-7 RESERVED

84-8 RUMBLE STRIPS

84-8.01 GENERAL

84-8.01A Summary

Section 84-8 includes specifications for constructing rumble strips.

84-8.01B Definitions

rumble strip: Band of raised material or indentations formed or grooved in the traveled way on the centerline or shoulders that is used to alert or warn drivers.

84-8.01C Submittals

Reserved

84-8.01D Quality Assurance

Reserved

84-8.02 MATERIALS

Not Used

84-8.03 CONSTRUCTION**84-8.03A General**

Select the method and equipment for constructing ground-in indentations.

Do not construct rumble strips:

1. On structures, approach slabs, or concrete weigh-in-motion slabs
2. At intersections
3. Bordering two-way left turn lanes, driveways, or other high-volume turning areas
4. Within 6 inches of any concrete pavement joint

Modify rumble strip spacing to avoid locating a groove on a concrete pavement joint.

Construct rumble strips within 2 inches of the alignment shown. Rumble strip equipment must be equipped with a sighting device that enables the operator to maintain the rumble strip alignment.

Indentations must comply with the dimensions shown and not vary more than:

1. 10 percent in length
2. 0.06 inch in depth
3. 10 percent in width
4. 1 inch in center-to-center spacing between rumble strips

Grind or remove and replace noncompliant rumble strip indentations at locations determined by the Engineer. Ground surface areas must be neat and uniform in appearance.

Grinding equipment must be equipped with a vacuum attachment to remove residue from the roadbed.

The noise level created by the combined grinding activities must not exceed 86 dBA when measured at a distance of 50 feet at right angles to the direction of travel.

Break rumble strips before and after intersections, driveways, railroad crossings, freeway gore areas, and freeway ramps. Place breaks and break distances as shown. You may adjust breaks and the break distances as needed at low-volume driveways or other locations if authorized.

84-8.03B Rumble Strips in Concrete Pavement

Construct rumble strips by grinding indentations in concrete pavement.

Concrete pavement must be hardened before grinding the indentations. Do not construct indentations until (1) 10 days after concrete placement and (2) the concrete has developed a modulus of rupture of 550 psi when tested under California Test 523.

Remove grinding residue under section 13-4.03E(7).

84-8.03C Rumble Strips in Asphalt Concrete Pavement

Construct rumble strips in the top layer of HMA and asphalt concrete surfacing by the ground-in method.

Dispose of the removed material.

On ground areas, apply a fog seal coat under section 37-4.02.

84-8.04 PAYMENT

The payment quantity for any type of rumble strip is the length measured by the station along the length of the rumble strip without deductions for gaps between indentations.

84-9 EXISTING MARKINGS**84-9.01 GENERAL**

Section 84-9 includes specifications for removing existing markings.

Work performed on existing markings must comply with section 15.

84-9.02 MATERIALS

Not Used

84-9.03 CONSTRUCTION**84-9.03A General**

Reserved

84-9.03B Remove Traffic Stripes and Pavement Markings

Remove traffic stripes before making any change to the traffic pattern.

Completely remove traffic stripes and pavement markings, including any paint in the gaps, by methods that do not remove pavement to a depth of more than 1/8 inch.

Submit your proposed method for removing traffic stripes and pavement markings at least 7 days before starting the removal work. Allow 2 business days for the review.

Remove pavement marking such that the old message cannot be identified. Make any area removed by grinding rectangular. Water must not puddle in the ground areas. Fog seal ground areas on asphalt concrete pavement.

Sweep up or vacuum any residue before it can (1) be blown by traffic or wind, (2) migrate across lanes or shoulders, or (3) enter a drainage facility.

84-9.03C Remove Traffic Stripes and Pavement Markings Containing Lead

Reserved

84-9.03D Remove Contrast Treatment

If contrast treatment is shown to be removed, remove it by a method that does not damage the pavement.

Sweep up or vacuum any residue before it can (1) be blown by traffic or wind, (2) migrate across lanes or shoulders, or (3) enter a drainage facility.

84-9.03E–84-9.03J Reserved**84-9.04 PAYMENT**

The payment quantity for remove traffic stripe is the measured length multiplied by:

1. 1.34 for a single 8-inch-wide traffic stripe
2. 2 for a double traffic stripe
3. 3 for a triple traffic stripe

The payment quantity for remove traffic stripe does not include the gaps in broken traffic stripes. Payment for removal of paint evident in a gap is included in the payment for remove traffic stripe of the type involved.

If no bid item is shown on the Bid Item List for remove pavement marking, remove pavement marking is paid for as remove traffic stripe of the types shown in the Bid Item List and the payment quantity for 1 square foot of pavement marking is 3 linear feet.

84-10-84-15 RESERVED

85 RESERVED



County of Imperial
 Department of Public Works
 155 S 11th Street
 El Centro, CA 92243
 (442) 265-1818

Monument Preservation Report

PRE-CONSTRUCTION

FORM
MPR-01
 April 2021

County of Imperial Permit Number/Project Name _____

PRIOR TO PERMIT ISSUANCE, THE PERMITTEE SHALL RETAIN THE SERVICE OF A PROFESSIONAL LAND SURVEYOR (OR CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING) WHO WILL BE RESPONSIBLE FOR MONUMENT PRESERVATION AND WHO SHALL PROVIDE A CORNER RECORD (OR RECORD OF SURVEY) TO THE COUNTY SURVEYOR AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS' ACT, IF APPLICABLE. THE PERMITTEE IS RESPONSIBLE FOR THE COST OF RESTORING, OR REPLACING ALL SURVEY MONUMENTS THAT ARE DISTURBED, OR DESTROYED BY CONSTRUCTION.

(REFERENCE SECTION 8771 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE)

***** **THIS FORM TO BE COMPLETED BY A PERSON AUTHORIZED TO PRACTICE LAND SURVEYING** *****

THE TYPE OF CONSTRUCTION PROPOSED WILL NOT AFFECT ANY SURVEY MONUMENTS.
 (This box is checked for projects that are proposing no demolition, trenching, excavation, surfacing, etc.)

NAME	P.L.S./R.C.E.	SIGNATURE	DATE	(SEAL)
------	---------------	-----------	------	--------

THE TYPE OF CONSTRUCTION MAY AFFECT SURVEY MONUMENTS.
 (This box is checked for projects that are proposing demolition, trenching, excavation, surfacing, etc.)

I HAVE INSPECTED THE SITE(S) AND: (check all that apply) DATE OF INSPECTION: _____

- MONUMENT(S) AND/OR CORNER ACCESSORY(IES) WERE FOUND WITHIN THE LIMITS OF WORK WHICH I DETERMINED MAY BE DISTURBED OR DESTROYED. **(A corner record or record of survey is required.)** The found monument(s) and/or corner accessory(ies) were referenced and pre-construction corner record(s) (or record(s) of survey) showing the references has been filed with the County Surveyor for the project site(s). The filed corner record(s) (or record(s) of survey) is attached hereto. Also attached, (if not documented on the corner record(s) (or record(s) of survey)) is a sketch/diagram showing locations of monuments that were searched for and not found. I have placed "S.N.F." on the sketch/diagram for each monument and/or corner accessory that was not found. Photos may also be included.
- NO MONUMENT(S) AND/OR CORNER ACCESSORY(IES) WERE FOUND WITHIN THE LIMITS OF WORK. **(No corner record or record of survey is required.)** Attached is a sketch/diagram showing the limits of work and its relationship to the locations of any monument and/or corner accessory searched for and not found. I have placed "S.N.F." on the sketch/diagram for each monument and/or corner accessory not found. Photos may also be included.
- MONUMENT(S) AND/OR CORNER ACCESSORY(IES) WERE FOUND OUTSIDE THE LIMITS OF WORK WHICH I DETERMINED WILL REMAIN PROTECTED IN PLACE. **(No corner record or record of survey is required.)** Attached is a sketch/diagram of the work limits and its relationship to the found monuments. Photos may also be included.
- MONUMENT(S) AND/OR CORNER ACCESSORY(IES) WERE FOUND WITHIN THE LIMITS OF WORK WHICH I DETERMINED MAY BE DISTURBED OR DESTROYED, HOWEVER AN EXISTING CORNER RECORD (OR RECORD OF SURVEY) WHICH SHOWS SUFFICIENT REFERENCES HAS ALREADY BEEN FILED AND THERE IS NO DISCREPANCY ON THE FILED CORNER RECORD (OR RECORD OF SURVEY).

SOURCE(S) OF SURVEY DATA CONSULTED: (Final Maps, Parcel Maps, Records of Survey, private field notes, etc.)

FILED CORNER RECORD# _____ OR FILED RECORD OF SURVEY# _____

NAME	P.L.S./R.C.E.	SIGNATURE	DATE	(SEAL)
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County of Imperial
 Department of Public Works
 155 S 11th Street
 El Centro, CA 92243
 (442) 265-1818

Monument Preservation Report POST-CONSTRUCTION

FORM
MPR-02
 April 2021

County of Imperial Permit Number/Project Name _____

PRIOR TO ISSUING A NOTICE OF COMPLETION FOR PERMITTED CONSTRUCTION, THE PERMITTEE SHALL RETAIN THE SERVICE OF A PROFESSIONAL LAND SURVEYOR (OR CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING) WHO WILL BE RESPONSIBLE FOR MONUMENT RESTORATION AND WHO SHALL PROVIDE A CORNER RECORD (OR RECORD OF SURVEY) TO THE COUNTY SURVEYOR AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS' ACT, IF APPLICABLE. THE PERMITTEE IS RESPONSIBLE FOR THE COST OF RESTORING, OR REPLACING ALL SURVEY MONUMENTS THAT ARE DISTURBED, OR DESTROYED BY CONSTRUCTION.

(REFERENCE SECTION 8771 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE)

******* THIS FORM TO BE COMPLETED BY A PERSON AUTHORIZED TO PRACTICE LAND SURVEYING *******

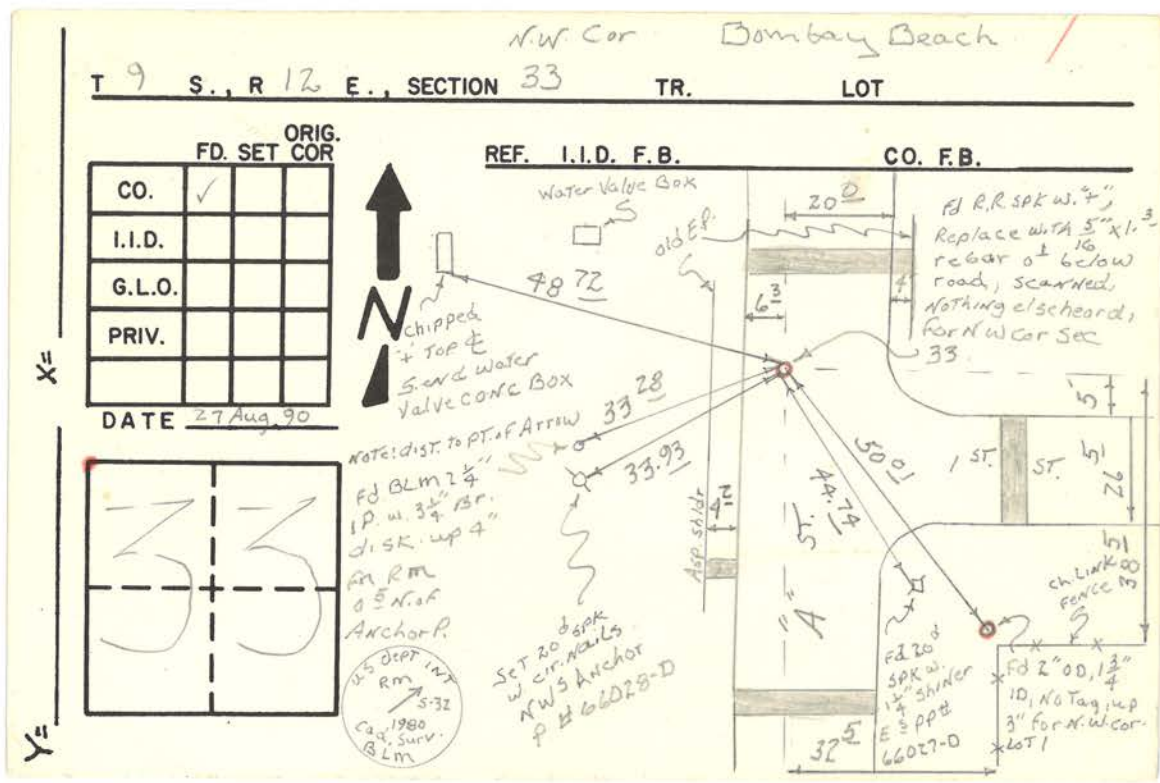
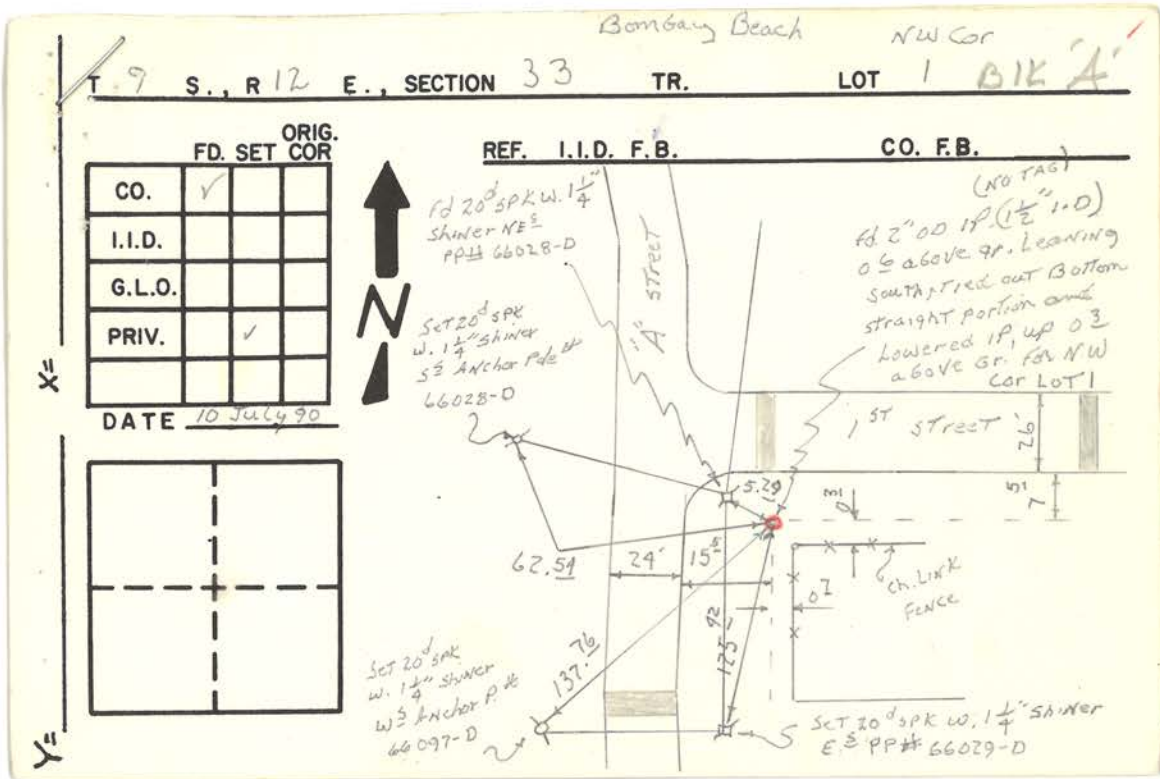
MONUMENTS AND/OR CORNER ACCESSORY(IES) WERE PROTECTED IN PLACE AND THE PERMITTED CONSTRUCTION DID NOT DISTURB OR DESTROY ANY SURVEY MONUMENTS AND/OR CORNER ACCESSORY(IES).

 NAME P.L.S./R.C.E. SIGNATURE DATE (SEAL)

MONUMENT(S) AND/OR CORNER ACCESSORY(IES) WERE DISTURBED AND/OR DESTROYED DURING THE PERMITTED CONSTRUCTION. A new monument(s) was set in the surface of the new construction or a witness monument(s) was set to perpetuate the original location of the disturbed or destroyed monument(s) and a post-construction corner record or a record of survey was filed in the office of the County Surveyor. (New corner accessory(ies) may also be required.)

FILED CORNER RECORD# _____ OR FILED RECORD OF SURVEY# _____

 NAME P.L.S./R.C.E. SIGNATURE DATE (SEAL)



Bombay Beach

T 9 S., R 12 E., SECTION 33 TR.

N.W. Cor. Lot 8 BIK A

I.I.D. F.B. NO.

PAGE

DATE ESTABLISHED

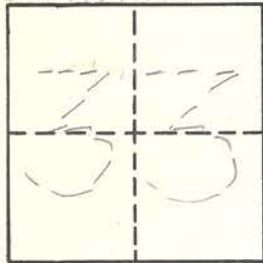
F.B. NO.

PAGE

DATE

2 Sept. 71

TIES GOOD
JULY 79 A.T.



978 7/68

1st Street Gravel

fd 2" I.P. for
N.W. COR. LOT 8

1 Tie only
NOT FD
Fence in area
CL 10 July 90

Chipped 4" & N.E.
Cone Water Meter
Box

Chipped 4" Cone
Base for support
of Building

B ST.
GRAVEL

Building

T 9 S., R 12 E., SECTION 33 TR.

Bombay Beach

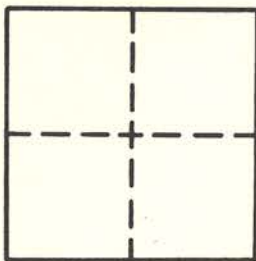
N.E. COR LOT 14 OND
N.W. COR
LOT 15 BIK A

REF. I.I.D. F.B.

CO. F.B.

	FD. SET	ORIG. COR.
CO.	✓	
I.I.D.		
G.L.O.		
PRIV.		✓

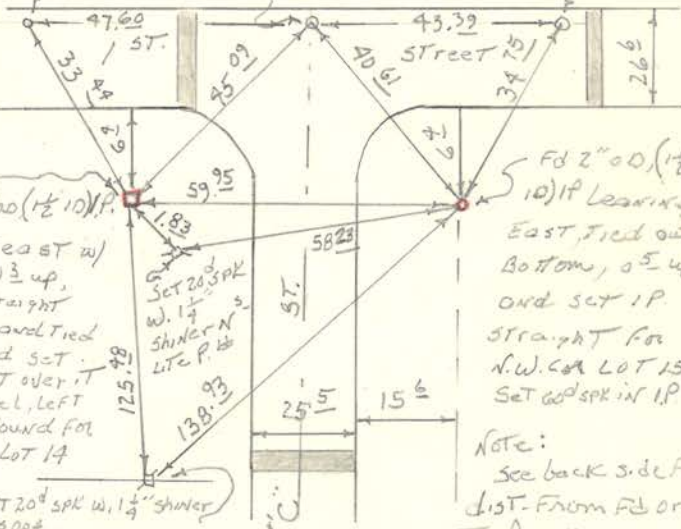
DATE 10 July 90



fd 2" 00 (1/2 10) I.P.
bent east w/
H.T. 03 up,
fd straight
portion and tied
out. and set
2x2 H.T. over it
ST level, left
IP as found for
NE Cor Lot 14

Set 20" SPK w. 1 1/4" shiner
w/ 3 PP# 660 G3-D

Set 60" SPK with 2 1/4" shiner
2' south of NE P.

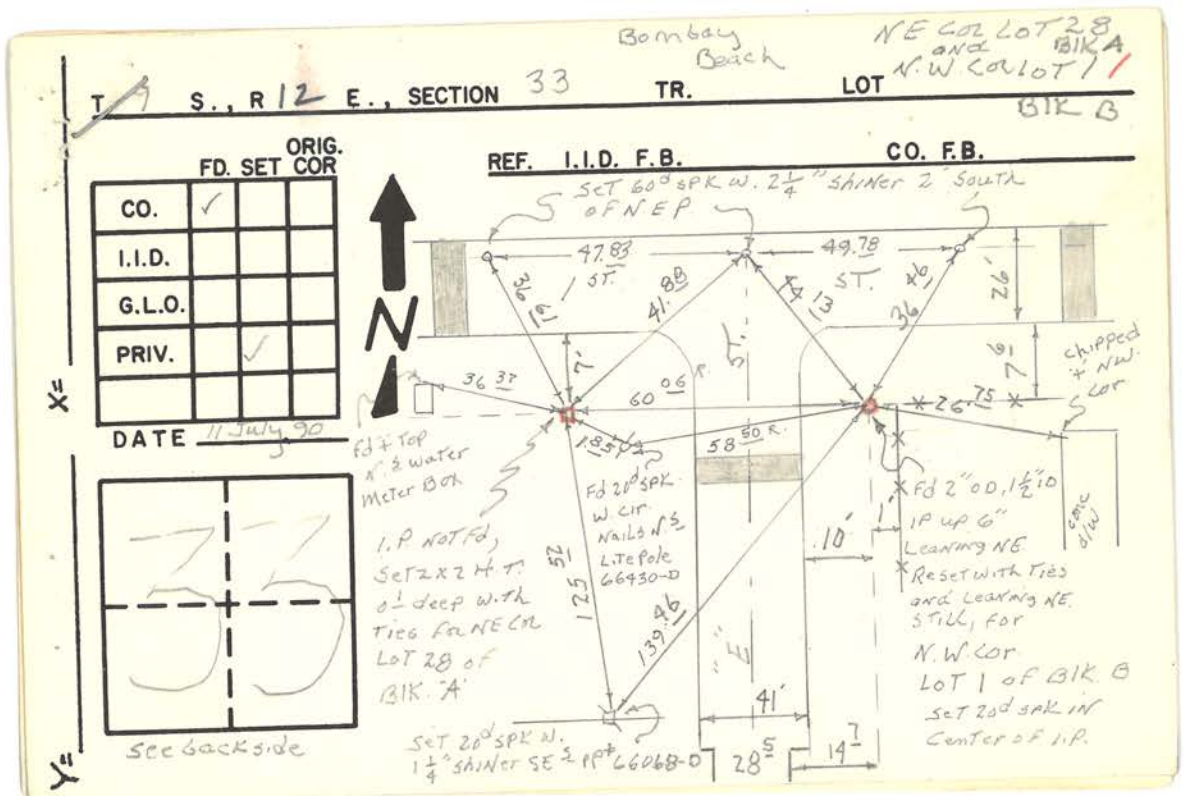
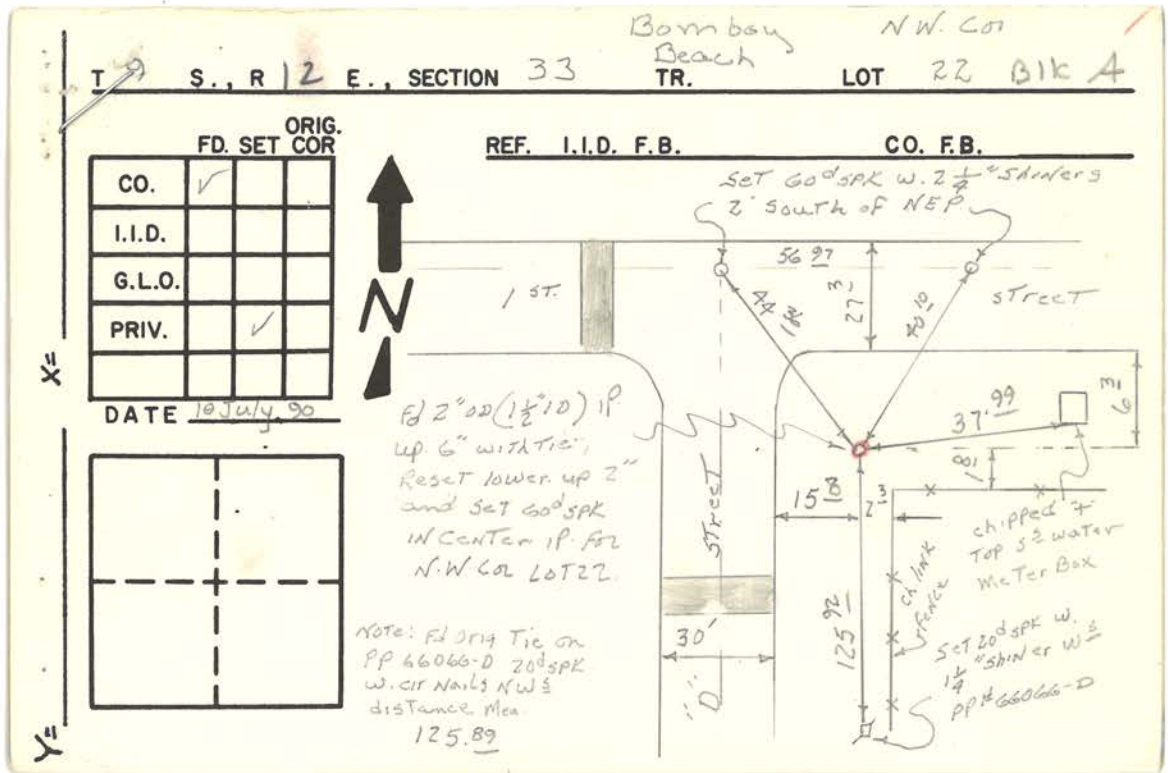


fd 2" 00 (1/2 10) I.P. leaving
East, tied out
Bottom, 05 up
and set I.P.
straight for
N.W. Cor Lot 15
Set 60" SPK in I.P.

Note:
See back side for
dist. from fd orig
tie points

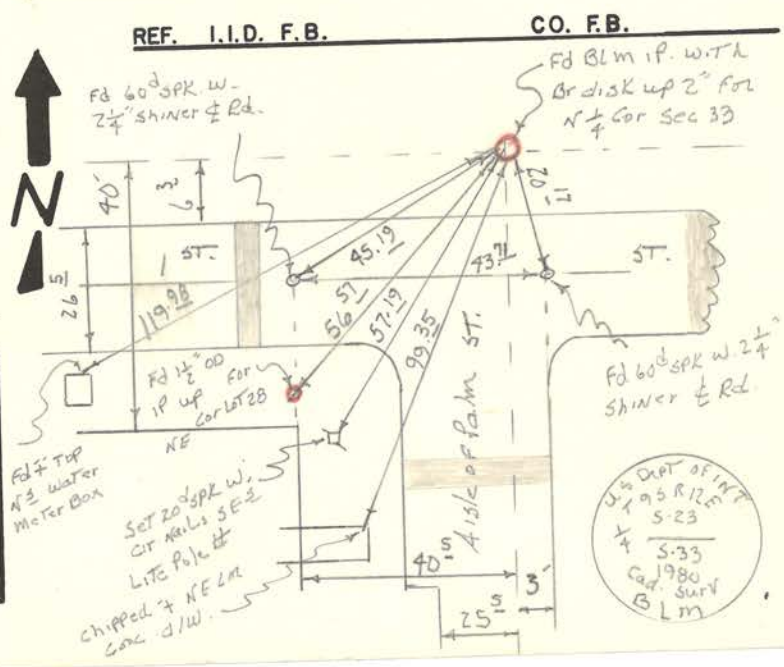
X=

Y=

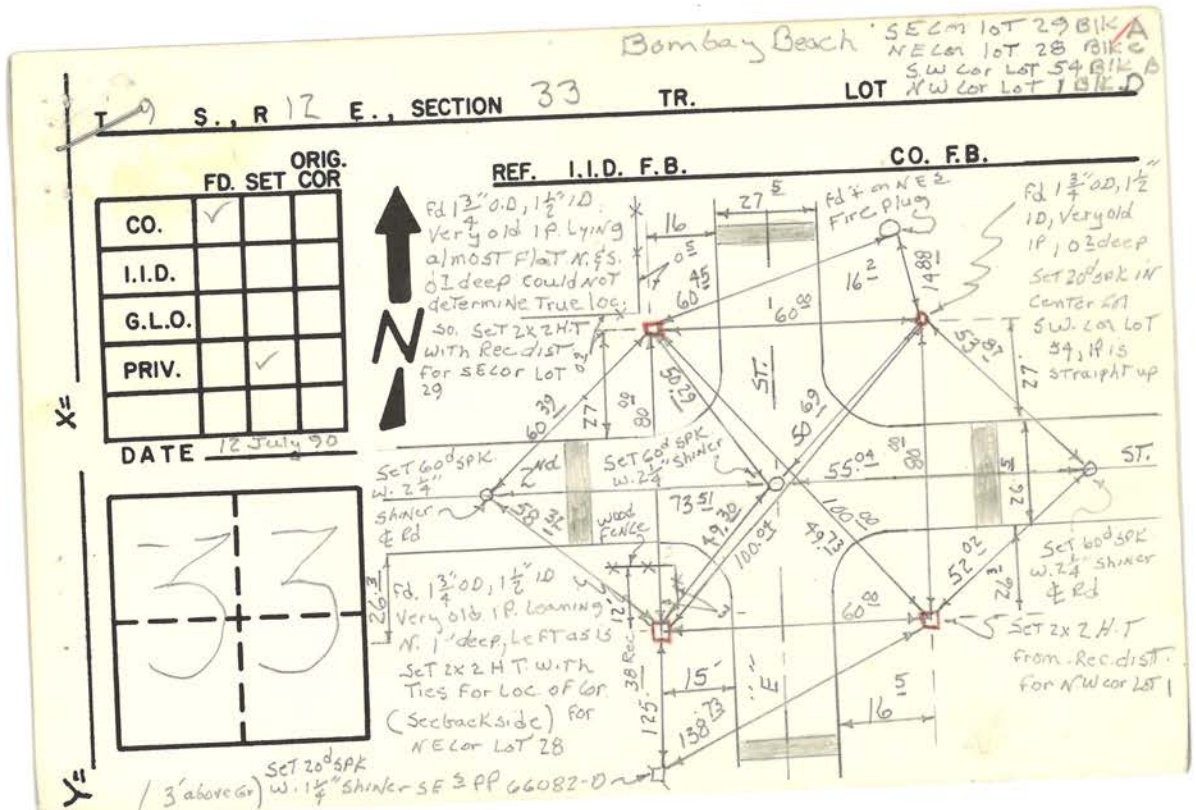
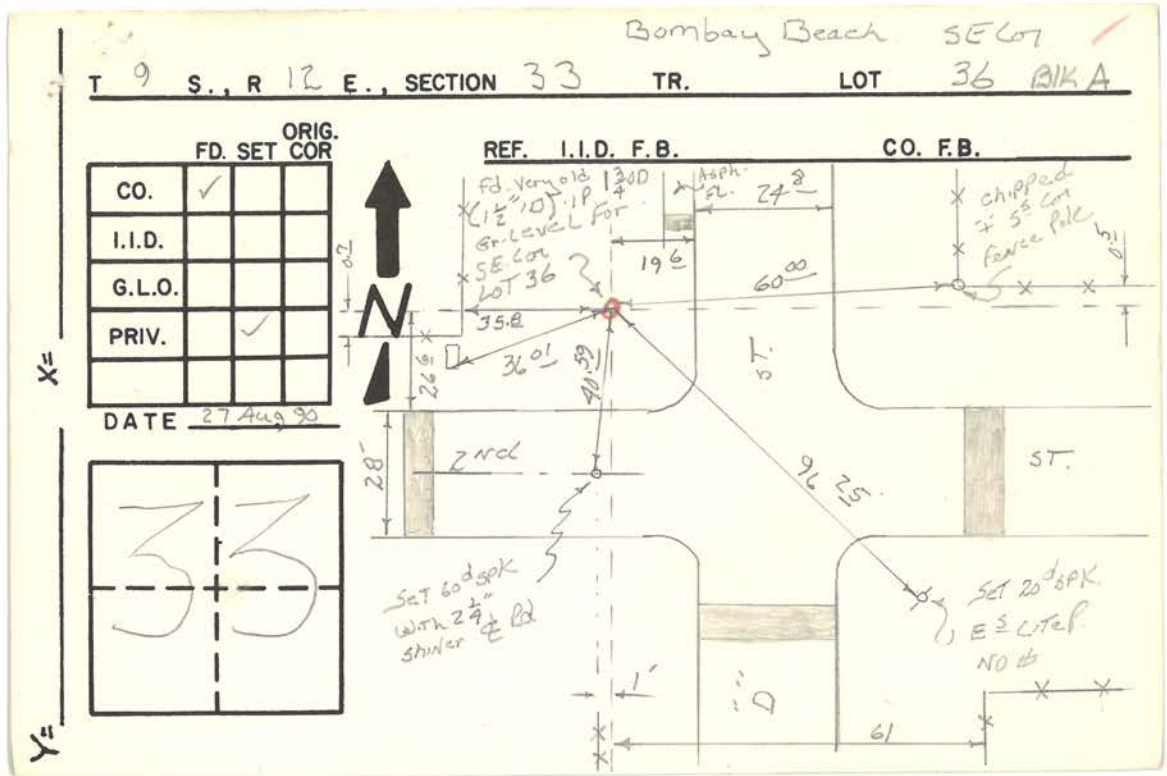


T 9 S., R 12 E., SECTION 33 TR. LOT

		ORIG.	
		FD. SET COR	
CO.	✓		
I.I.D.			
G.L.O.			
PRIV.			
B.M.		✓	
DATE		11 July 90	



U.S. DEPT. OF INT.
T 9 S. R 12 E.
S. 33
Cad. 1980
SURV
B.L.M.

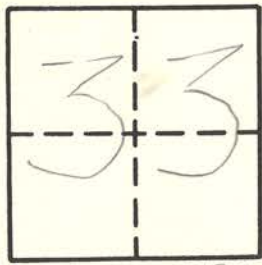


Armbay Beach NE Cor 1
 LOT 27 BIK D

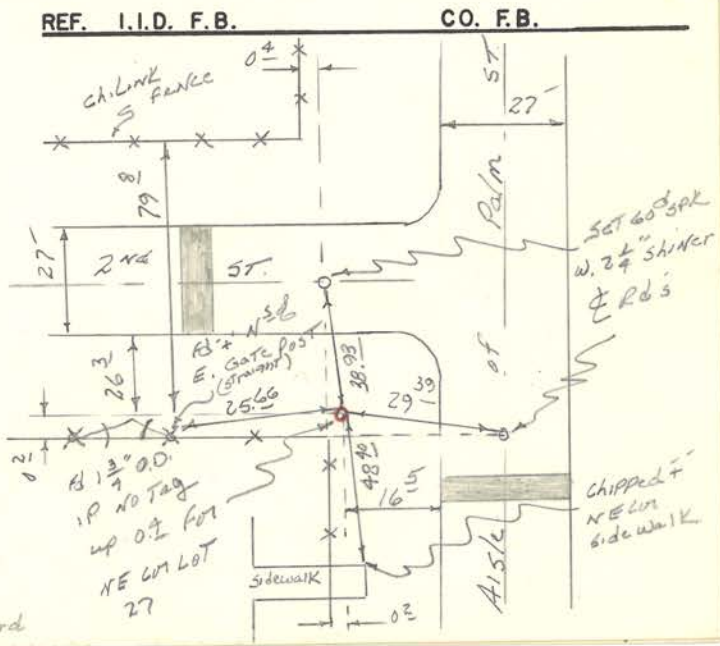
9 S., R 12 E., SECTION 33 TR.

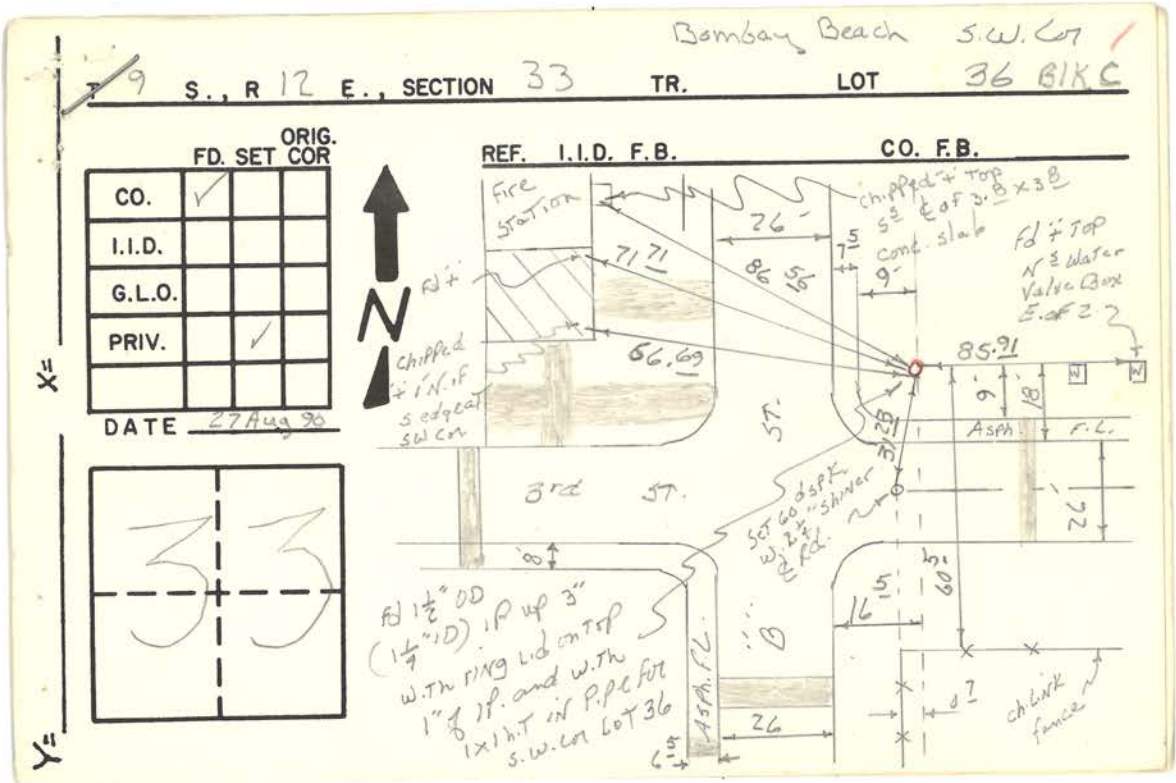
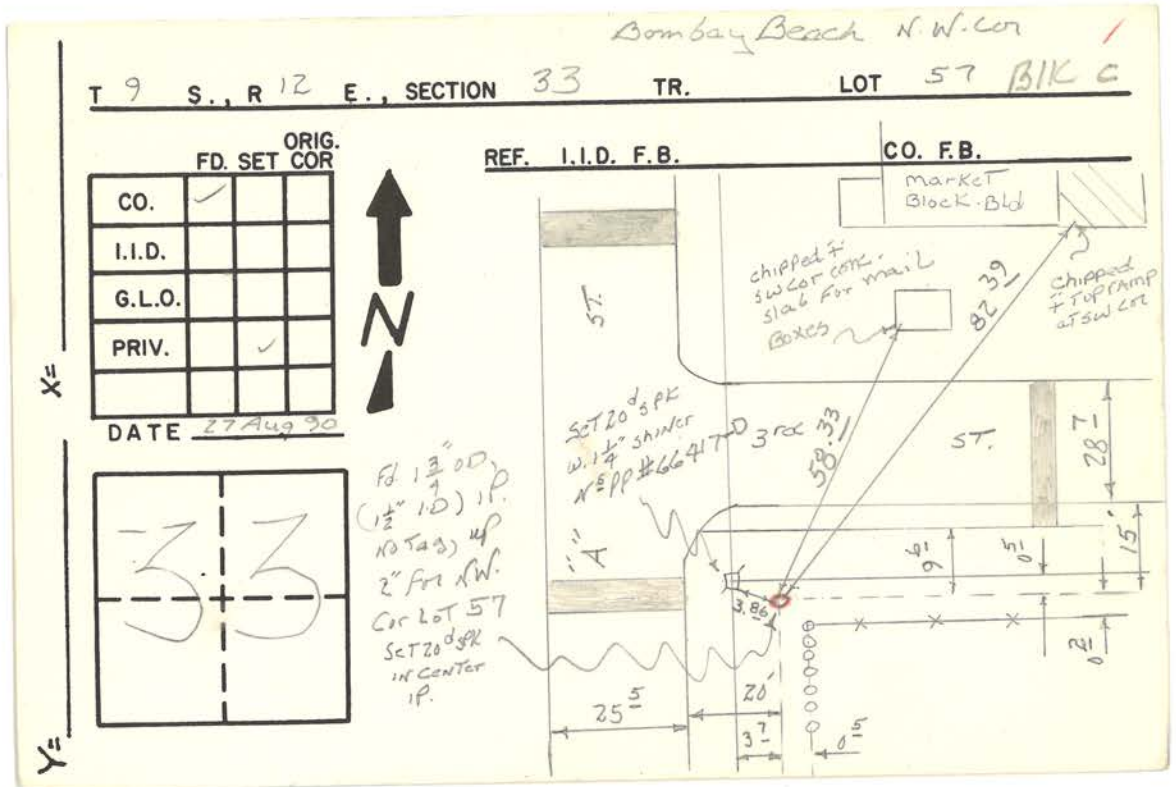
		ORIG. FD. SET COR	
CO.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I.I.D.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G.L.O.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PRIV.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DATE 27 Aug 90



NOTE: 85.67 mea from Water Valve Box Sica/B Card



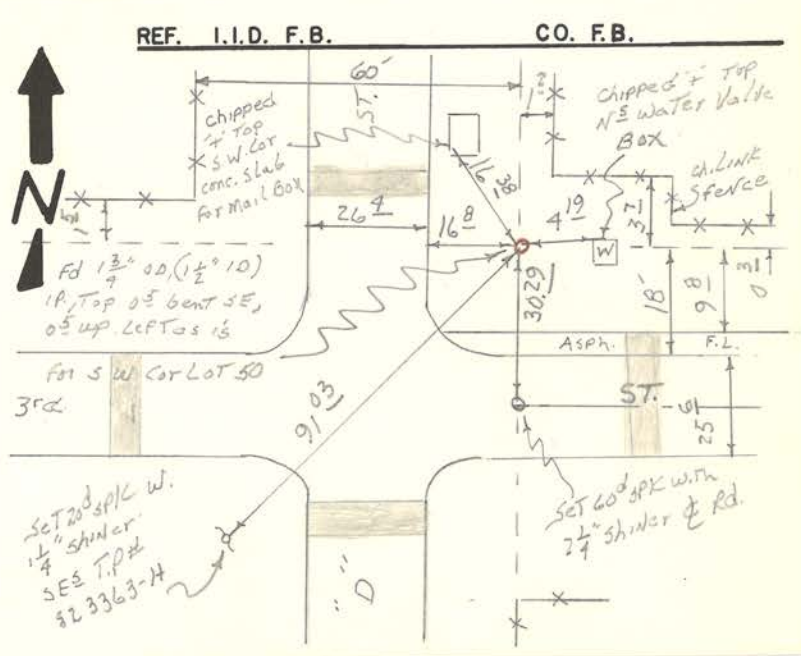


Bombay Beach SW Cor

T 9 S., R 12 E., SECTION 33 TR. LOT 50 B1K C

ORIG. FD. SET COR	
CO.	✓
I.I.D.	
G.L.O.	
PRIV.	✓

DATE 28 Aug 90



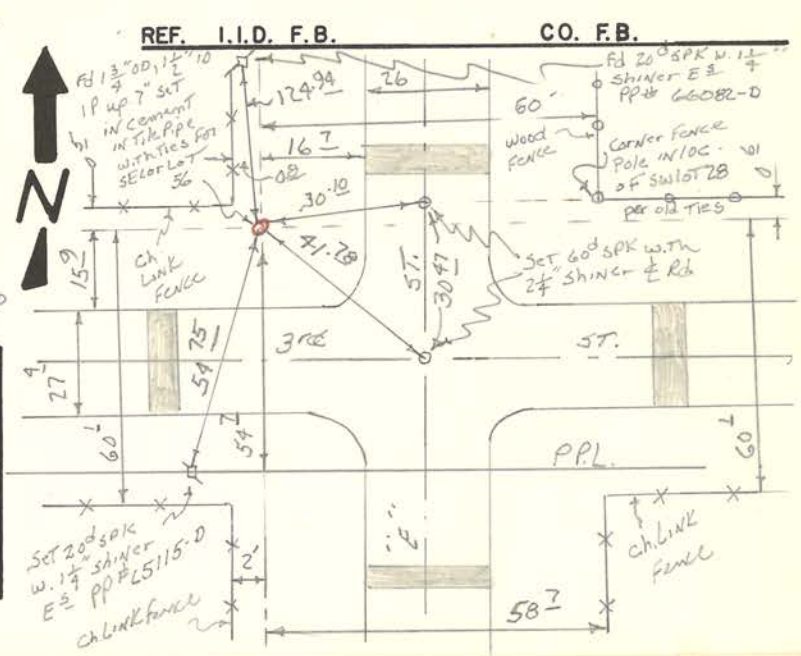
X=
Y=

Bombay Beach SE Cor

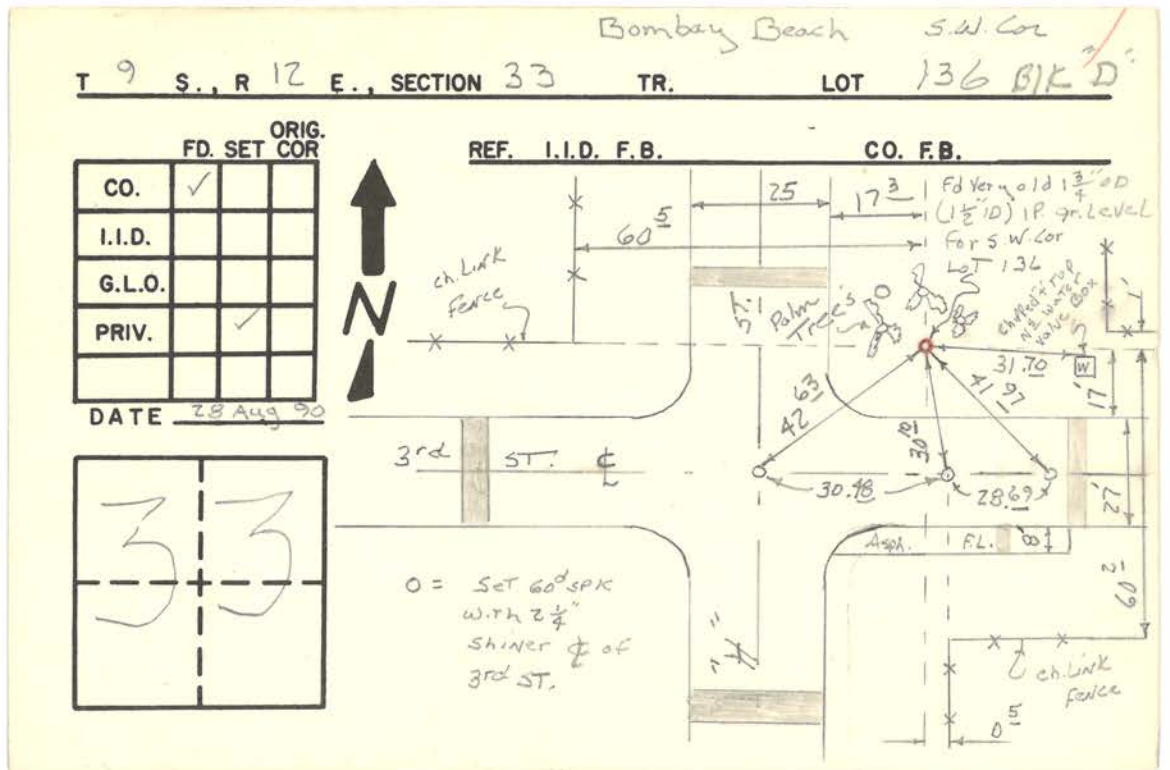
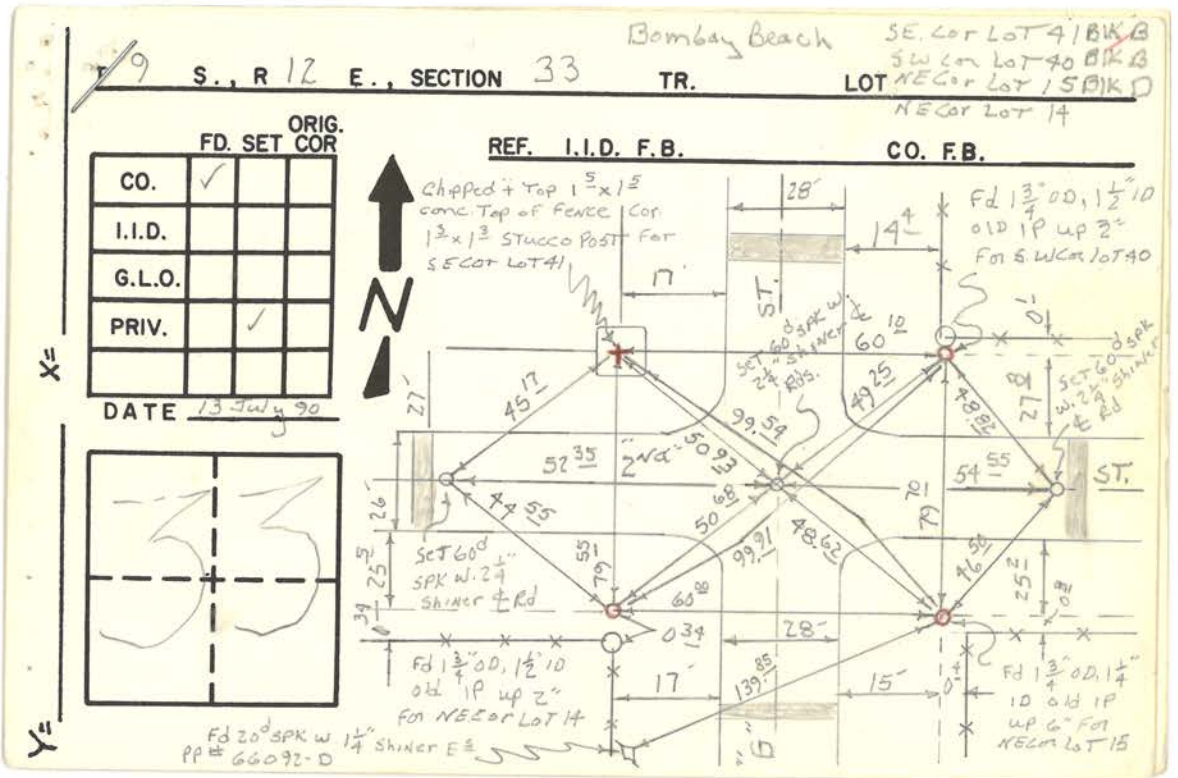
T 9 S., R 12 E., SECTION 33 TR. LOT 56 B1K C

ORIG. FD. SET COR	
CO.	✓
I.I.D.	
G.L.O.	
PRIV.	✓

DATE 28 Aug 90



X=
Y=

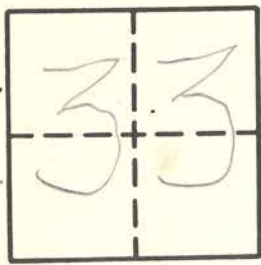


Bombay Beach N.W. Cor Lot 1 of BIK E

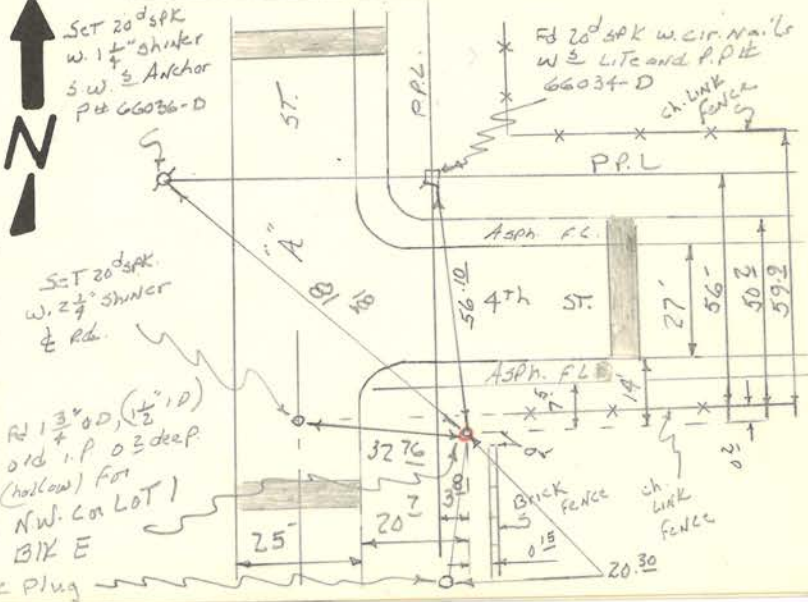
T 9 S., R 12 E., SECTION 33 TR. LOT

FD. SET COR		ORIG. COR
CO.	✓	
I.I.D.		
G.L.O.		
PRIV.	✓	

DATE 11 SEPT 90



REF. I.I.D. F.B. CO. F.B.



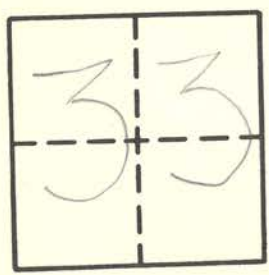
FD 7 W 3 Fire Plug

S.W. Cor Lot 45 N BIK D

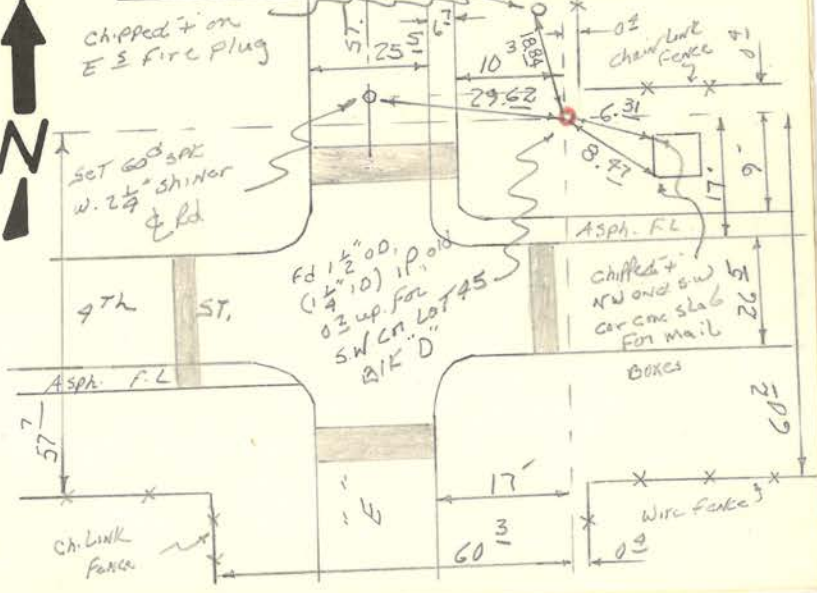
T 9 S., R 12 E., SECTION 33 TR. LOT

FD. SET COR		ORIG. COR
CO.	✓	
I.I.D.		
G.L.O.		
PRIV.	✓	

DATE 11 SEPT 90



REF. I.I.D. F.B. CO. F.B.



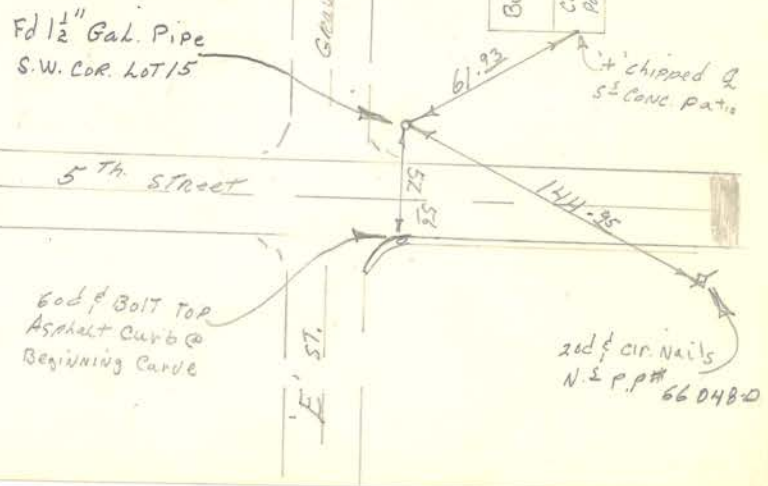
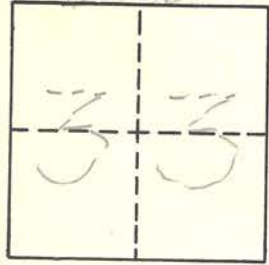
T 9 S., R 12 E., SECTION 33 TR. LOT Bombay Beach BIK F
 S.W. COR. LOT 15

I.I.D. F.B. NO. PAGE DATE ESTABLISHED

F.B. NO. PAGE DATE 3 Sept 71

TIES GOOD
 JULY 1971

TIES gone
 scanned NOT Found
 C.L. 14 Nov 90



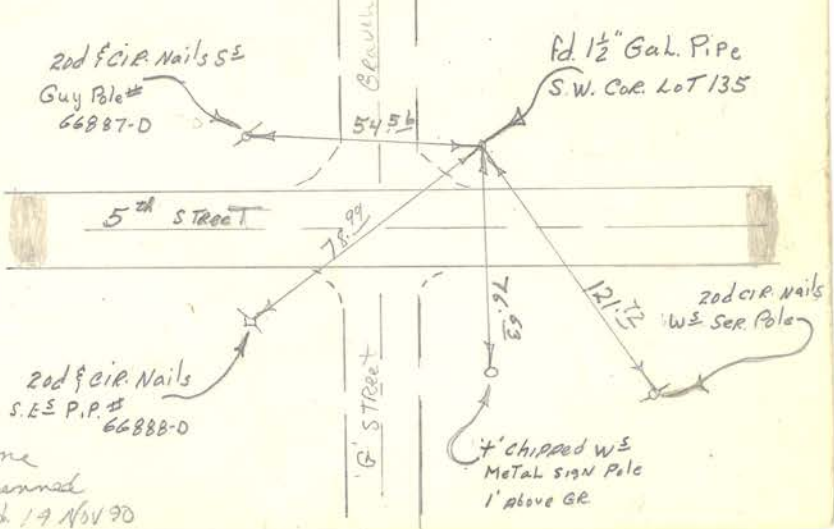
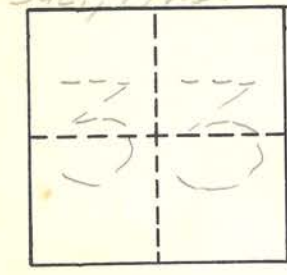
978 7/68

T 9 S., R 12 E., SECTION 33 TR. LOT Bombay Beach S.W. COR.
 LOT 135

I.I.D. F.B. NO. PAGE DATE ESTABLISHED

F.B. NO. PAGE DATE 3 Sept 71

TIES GOOD
 JULY 1971



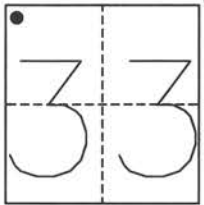
978 7/68

TIES gone
 C.L. scanned
 not fd 19 Nov 90

CORNER RECORD

Agency Index 1344

Document Number _____

City of BOMBAY BEACH County of IMPERIAL, CaliforniaBrief Legal Description LOT 1 OF BLOCK A PER OM 5-39, SECTION 33, T9S, R12E**CORNER TYPE****COORDINATES (Optional)**

Government Corner Control
 Meander Property
 Rancho Other

Date of Survey 06-25-2019

N. _____ E. _____

Elevation _____

Units Metric U.S. Survey Foot

Horizontal Datum _____

Zone _____ Epoch Date _____

Vertical Datum _____

 Complies with Public Resources Code §§ 8801-8819 Complies with Public Resources Code §§ 8890-8902

PLS Act Ref.: 8765(d) 8771 8773 Other:

Corner/Monument: Left as found Established Rebuilt Pre-Construction

Found and tagged Reestablished Referenced Post-Construction

Narrative of corner identified and monument as found, set, reset, replaced, or removed:

 See sheet #2 for description(s):

1. SET NE CORNER OF LOT 2, BLOCK "A" PER OM 5-39 BY PRORATION BETWEEN FOUND MONUMENTS FOR NW CORNER LOT 1 AND NW COR LOT 15 OF SAID BLOCK "A".

2. SET SW CORNER OF LOT 1, BLOCK "A" PER OM 5-39 PER RECORD DISTANCE BETWEEN FOUND MONUMENTS FOR NW COR LOT 1, BLOCK "A" AND NW CORNER LOT 57, BLOCK "C" OF OM 5-39.

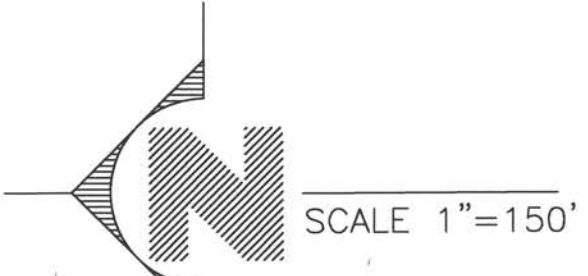
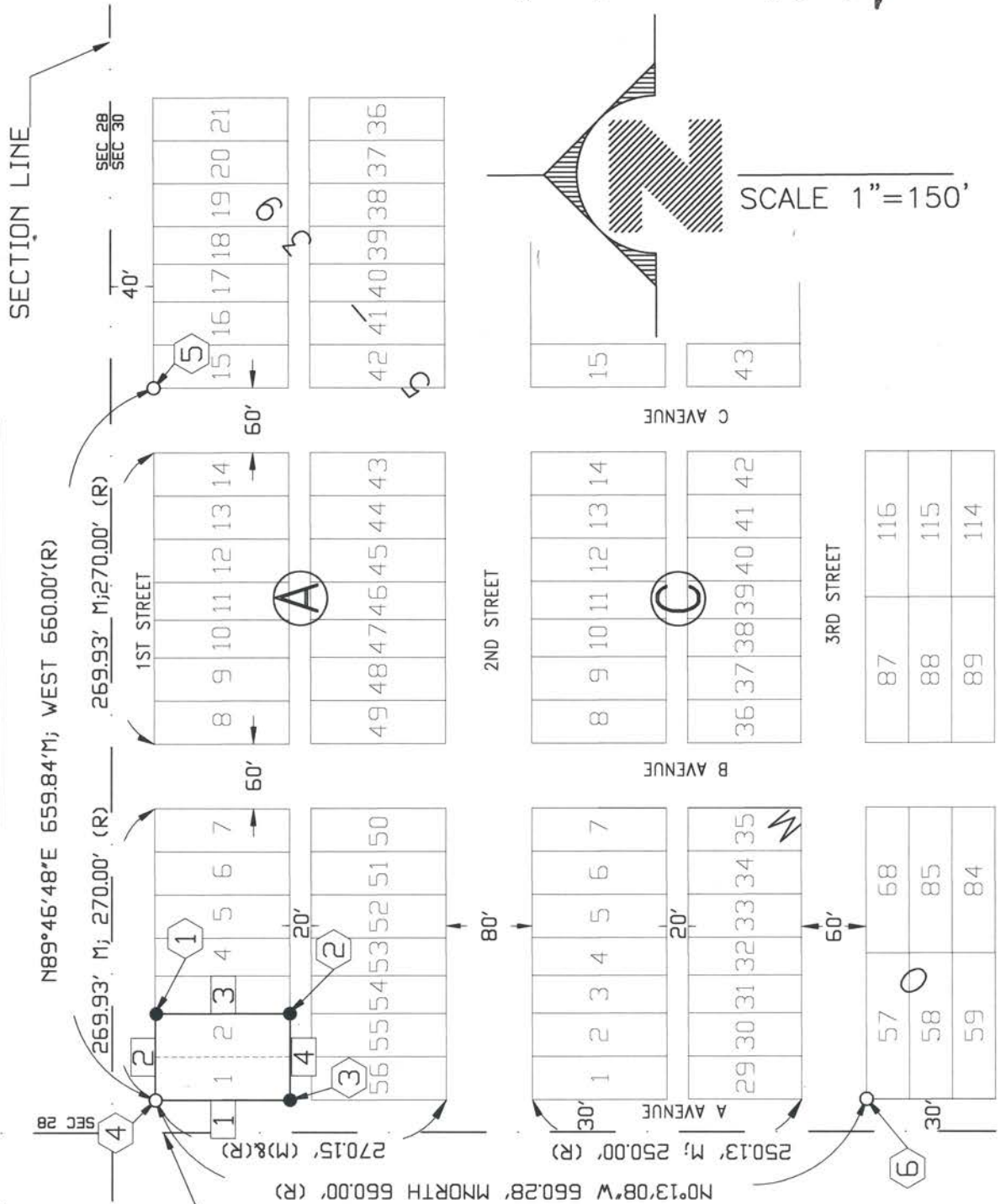
3. SET SE COR LOT 2, BLOCK "A" PER OM 5-39 WITH RECORD DISTANCE FROM THE NE CORNER OF SAID LOT 2 PER OM 5-39 AND PARALLEL TO THE WEST LINE OF LOT 1, BLOCK "A" OF OM5-39.

SURVEYOR'S STATEMENT

This Corner Record was prepared by me or under my direction in conformance with

the Professional Land Surveyors' Act on 07-18-2019Signed MAURICIO LAM P.L.S. or R.C.E. No. 8440**COUNTY SURVEYOR'S STATMENT**This Corner Record was received 19 JULY 2019and examined and filed 6 SEPT 2019Signed _____ P.L.S. or R.C.E. No. 8759Title COUNTY SURVEYOR**County Surveyor's Comment**

LINE DATA TABLE		
LINE	MEASURED	RECORD
1	N 00°13'08" W 125.00'	NORTH 125.00'
2	N 89°46'48" E 79.98'	WEST 80.00'
3	N 00°13'08" W 125.00'	NORTH 125.00'
4	N 89°46'48" E 79.98'	WEST 80.00'



LEGEND	
①	SET 1-1/2" DIA. IP WITH "PLS 8440" TAG SET BY PRORATION FROM THE NW COR. OF LOT 1 FOR THE NE COR. OF LOT 2, BLOCK "A".
②	SET 1-1/2" DIA. IP WITH "PLS 8440" TAG SET BY REC. DIST. FROM THE NE COR. OF LOT 2 FOR THE SE COR. OF LOT 2, BLOCK "A".
③	SET 1-1/2" DIA. IP WITH "PLS 8440" TAG SET BY REC. DIST. FROM THE NW COR. OF LOT 1 FOR THE NE COR. OF LOT 1, BLOCK "A".
④	FD 2" DIA. IRON PIPE W/NO TAG 1 DEEP FOR THE NW COR. OF LOT 1, BLOCK "A" PER IMP. COUNTY SURVEY TIES.
⑤	FD 2" DIA. IRON PIPE W/NO TAG 1-1/2' DEEP FOR THE NW COR. OF LOT 15, BLOCK "A" PER IMP. COUNTY SURVEY TIES.
⑥	FD 2" DIA. IRON PIPE W/NO TAG AND 20 D NAIL ON CENTER, 1' DEEP FOR THE NW COR. OF LOT 57, BLOCK "C" PER IMPERIAL COUNTY SURVEY TIES.