EXISTING CONCRETE PAVEMENT

6" DIA. (TYP.)

STEEL BASE PLATE

4-1/2" DIA. BOLT HOLES CENTERLINE

3-3/4" DIA. BOLT HOLES EQUALLY SPACED (TYP.)

PLAN

(SEcurity CHAIN AND ANCHOR BOLTS ARE NOT SHOWN - SEE NOTE C)

CORE EXISTING CONCRETE PAVEMENT AND CONSTRUCT CONCRETE FOUNDATION WHERE NECESSARY (SEE NOTE C11)

RETURN TO SCALE

SECTION A

(ANCHOR BOLTS NOT SHOWN)

BICYCLE RACK

CLEARANCE ENVELOPE FOR BICYCLE RACK PARKING ZONE

(SEE NOTE D)

MIN. 36" TO OBSTRUCTIONS

MIN. 60" TO FIRE HYDRANTS

(SEE NOTE D)

BICYCLE RACK CENTERED WITHIN BICYCLE RACK PARKING ZONE (TYP)

BICYCLE RACK PARKING ZONE FREE OF ANY VAULTS AND UTILITY BOXES ACCESS COVERS, CATCH BASINS OR, SIMILAR STRUCTURES. BICYCLE RACK PARKING ZONE SHALL HAVE A MINIMUM VERTICAL HEADROOM CLEARANCE OF 84 INCHES.

BICYCLE RACK PARKING ZONE BOUNDARY.

BICYCLE RACK PARKING ZONE LENGTH

6'-0"

PARKING ZONE WIDTH

4'-0"

NOTE:

FOR PARALLEL BICYCLE RACKS EITHER STAND-ALONE OR IN A SINGLE-ROW, THE BICYCLE RACKS SHALL BE SETBACK A MINIMUM OF 3'-0" MEASURED FROM THE BACK OF THE STREET CURB TO THE CENTERLINE OF THE BICYCLE RACKS AND THE BICYCLE RACK PARKING ZONE WIDTH SHALL BE 3'-0" (SEE SHEET 2).

6" DIA. (TYP.)

2" DIA. NPS STANDARD WEIGHT STEEL PIPE (TYP.)

2'-0"

TYP. EACH SIDE

1/4"

TYP. CHAIN TO BASE PLATE EACH END

3" X 1/4" THICK STEEL CROSS BAR

(SEE NOTE 12)

UNCOATED 3/8" THICK SECURITY CHAIN 2 3/8" PIPE OD

2'-1/2"

3'-0"

90°

TYP. CHAIN TO BASE PLATE EACH END

BOLTS

CORE EXISTING CONCRETE PAVEMENT AND CONSTRUCT CONCRETE FOUNDATION WHERE NECESSARY (SEE NOTE C11)

6'-0"

PARKING ZONE LENGTH

4'-0"

CLEARANCE ENVELOPE FOR BICYCLE RACK PARKING ZONE

(SEE NOTE D)

BICYCLE RACK CENTERED WITHIN BICYCLE RACK PARKING ZONE (TYP)

BICYCLE RACK PARKING ZONE FREE OF ANY VAULTS AND UTILITY BOXES ACCESS COVERS, CATCH BASINS OR, SIMILAR STRUCTURES. BICYCLE RACK PARKING ZONE SHALL HAVE A MINIMUM VERTICAL HEADROOM CLEARANCE OF 84 INCHES.

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NOTE:

FOR PARALLEL BICYCLE RACKS EITHER STAND-ALONE OR IN A SINGLE-ROW, THE BICYCLE RACKS SHALL BE SETBACK A MINIMUM OF 3'-0" MEASURED FROM THE BACK OF THE STREET CURB TO THE CENTERLINE OF THE BICYCLE RACKS AND THE BICYCLE RACK PARKING ZONE WIDTH SHALL BE 3'-0" (SEE SHEET 2).

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3'-0"

90°

TYP. CHAIN TO BASE PLATE EACH END

BOLTS

CORE EXISTING CONCRETE PAVEMENT AND CONSTRUCT CONCRETE FOUNDATION WHERE NECESSARY (SEE NOTE C11)
BICYCLE RACK PARKING ZONE LAYOUTS

ON-STREET PARKING PERMITTED

- 5FT MIN UNOBSTRUCTED PEDESTRIAN ACCESS ROUTE (PAR)
- TYPICAL BICYCLE RACK PARKING ZONE BOUNDARY
- STAND-ALONE PARALLEL BICYCLE RACK
- STAND-ALONE PERPENDICULAR BICYCLE RACK
- PARKING METER POLE
- 5FT MIN UNOBSTRUCTED PEDESTRIAN ACCESS ROUTE (PAR)
- SEE NOTE D.5.h (TYP)

ON-STREET PARKING NOT PERMITTED

- 5FT MIN UNOBSTRUCTED PEDESTRIAN ACCESS ROUTE
- TYPICAL SINGLE-ROW PERPENDICULAR BICYCLE RACKS
- DOUBLE-STACKED PARALLEL BICYCLE RACKS
- PARKING METER POLE
- SEE NOTE D.5.h (TYP)

NOTE:
BICYCLE RACK PARKING ZONE LAYOUTS SHALL BE ARRANGED TO ENSURE THAT THE REQUIRED CLEAR PATH PER NOTE D.5.d IS PROVIDED.

LEGEND
- 36"X72" BICYCLE PARKING ZONE PARKING
- 48"X72" BICYCLE PARKING ZONE

STANDARD PLAN NO. S - 671-2
VAULT INDEX NUMBER B-4785
SHEET 2 OF 4 SHEETS

NOT TO SCALE
BUREAU OF ENGINEERING
OFFICIAL RECORD

BUREAU OF ENGINEERING

1. COVENANT AND MAINTENANCE AGREEMENT: ALL BICYCLE RACKS INSTALLED UNDER WORK PERMIT SHALL BE MAINTAINED BY THE PERMITTEE. THE PERMITTEE SHALL COMPLETE THE COVENANT & AGREEMENT (C&A) FORM, AVAILABLE FROM THE DEPARTMENT OF TRANSPORTATION DEVELOPMENT REVIEW DIVISION, EXECUTE IT WITH THE CITY AND RECORD IT WITH THE LOS ANGELES COUNTY REGISTRAR-RECORDER. SUBMIT A COPY OF RECORDED C&A TO THE CITY ENGINEER BEFORE A WORK PERMIT CAN BE ISSUED.

C. GENERAL

1. UNLESS OTHERWISE SPECIFIED OR APPROVED BY THE CITY ENGINEER, THE BICYCLE RACK SHALL BE AN INVERTED-U DESIGN.
2. BICYCLE RACKS SHALL ALLOW FOR THE USE OF A CABLE AND "U" TYPE LOCKS, AND SHALL SUPPORT THE BICYCLE FRAME (NOT THE WHEEL) AT TWO POINTS, A MINIMUM OF 12 INCH APART.
3. PIPE: ASTM A53 GRADE B STANDARD WEIGHT STEEL PIPE; 2 INCH DIA. CONSTRUCTED OF 90 DEGREE BENDS WITH AN INSIDE RADIUS BEND OF 4-13/16 INCHES. SECURITY CHAIN SHALL BE ASTM A413, GRADE 30 PROOF COIL CHAIN, SIZE 3/8 INCH.
4. BASE PLATE: ASTM A36 3/8 INCH THICK PLATE WITH THREE 3/4 INCH DIA. HOLES AT 120 DEGREES SPACING.
5. BOLT: TAMPER-PROOF DRIVE TYPE PIN ANCHOR BOLT WITH A ROUND HEAD MADE OF ZINC PLATED AISI 1038 HEAT TREATED CARBON STEEL, 1/2 INCH DIA BY 3 INCHES LONG. THE ANCHOR BOLT, SHALL BE MANUFACTURED BY POWERS FASTENERS (WWW.POWERS.COM), ALLIED FASTENER AND TOOL (WWW.ALLIEDFASTENER.COM), OR AN APPROVED EQUIVALENT. NO ANCHOR BOLT SHALL CONTAIN ANY SHARP EDGES.
6. ALL METAL COMPONENTS INCLUDING ALL BOLT HOLES SHALL HAVE MINIMUM 4 MIL THICK BLACK COLORED, LONG WEARING, MILDEW AND ULTRAVIOLET RAY RESISTANT ELECTROSTATIC POLYESTER COATING MADE OF TRIGLYCIDYL (TGIC) APPLIED IN THE FACTORY PRIOR TO DELIVERY. ALTERNATE COATING SHALL BE CITY APPROVED THERMOPLASTIC (8-10 MIL THICK).
7. BEFORE COATING APPLICATION, THE BICYCLE RACK SHALL BE SANDBLASTED AND EPOXY PRIMED.
8. ALL FINISH COATINGS SHALL BE MAINTAINED BY THE PERMITTEE. ANY DAMAGED SURFACE AREA INCLUDING THOSE RESULTED FROM THE INSTALLER'S OPERATION SHALL BE REPAIRED TO THE CITY ENGINEER'S SATISFACTION WITH APPROVED MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. ALL WASTE SHALL BE HANDLED AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE EPA AND/OR CALIFORNIA STATE REQUIREMENTS.
9. ALL VENT HOLES USED DURING FABRICATION MUST BE PLUGGED AND COATED.
10. ALL BOLT HOLES IN THE CONCRETE PAVEMENT OR THE CONCRETE FOUNDATION SHALL BE PREDRILLED HOLES, 1/2 INCH DIA. BY 2 3/4 INCHES DEEP. PRIOR TO INSTALLATION, ALL BOLT HOLES SHALL BE CLEANED OF DUST OR DELETERIOUS MATERIAL. ALL ANCHOR BOLTS SHALL BE Driven VERTICALLY THROUGH THE SUPPORT PLATE INTO THE BOLT HOLES UNTIL THE HEAD IS FIRMLY SEATED AGAINST THE SUPPORT PLATE. NO PROTRUDING OR NON-FLUSH ANCHOR BOLTS SHALL BE USED.
11. FOR CONCRETE PAVEMENT THAT IS LESS THAN 3 INCHES THICK, CONSTRUCT CONCRETE FOUNDATION IN ACCORDANCE WITH THE SPECIFIED DETAILS. BIKE RACKS SHALL BE INSTALLED PARALLEL WITH THE PREVAILING SIDEWALK GRADE. THE SIDEWALK GRADE SHALL BE MEASURED AND THE BIKE RACK'S LEGS SHALL BE ADJUSTED TO MATCH THE SIDEWALK GRADE BEFORE WELDING THEM TO THE BASE PLATE. FOR CONCRETE PAVEMENT WITH MINOR UNEVENNESS, USE HOT DIPPED GALVANIZED STEEL OR STAINLESS STEEL WASHERS TO LEVEL THE BIKE RACK AND THE BASE PLATES BEFORE DRIVING THE ANCHOR BOLTS. FILL ALL OPENINGS AND HOLES WITH NON-SHRINK GROUT AFTER ERECTION OF THE BICYCLE RACK.
12. FOR PARALLEL BICYCLE RACK(S), INSTALLED BY THE LOS ANGELES DEPARTMENT OF TRANSPORTATION (LADOT), ARRANGED IN EITHER A SINGLE ROW OR AS A SINGLE STAND-ALONE RACK, LADOT WILL MAKE THE FINAL DETERMINATION OF WHETHER OR NOT A CROSSBAR IS NEEDED FOR THE BICYCLE RACKS. FOR ALL OTHER RACK LAYOUTS, REGARDLESS OF WHO INSTALLS THEM, A BICYCLE RACK CROSSBAR SHALL BE PROVIDED.

D. BICYCLE RACK CLEARANCES:

1. FOR SINGLE PARALLEL BICYCLE RACKS AND SINGLE-ROW PARALLEL BICYCLE RACKS, EACH BICYCLE RACK SHALL HAVE A PARKING ZONE OF 36 INCH WIDE BY 72 INCH LONG. FOR ALL OTHER BICYCLE RACK ARRANGEMENTS, EACH BICYCLE RACK SHALL HAVE A PARKING ZONE OF 48 INCH WIDE BY 72 INCH LONG.
2. BICYCLE RACKS SHALL BE INSTALLED WITHIN THE SIDEWALK AMENITY ZONE ADJACENT AND CLOSEST TO THE STREET CURB OUTSIDE BUS BOARDING ZONES AT LOCATIONS APPROVED BY THE CITY ENGINEER AND THE CITY OF LOS ANGELES DEPARTMENT OF TRANSPORTATION.
D. BICYCLE RACKS CLEARANCES: (CONTINUED)

3. A MINIMUM FIVE FEET WIDE UNOBSSTRUCTED PEDESTRIAN ACCESS ROUTE (PAR) SHALL BE PROVIDED.

4. NO BICYCLE PARKING ZONE SHALL PROTRUDE FROM PRIVATE PROPERTY INTO THE SIDEWALK PUBLIC RIGHT-OF-WAY. AMENITY ZONE AND PEDESTRIAN ZONE ARE DEFINED IN THE COMPLETE STREET DESIGN GUIDE.

5. UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER AND THE CITY OF LOS ANGELES DEPARTMENT OF TRANSPORTATION (WWW.LADOT.LACITY.ORG), BICYCLE RACKS INSTALLATIONS SHALL CONFORM WITH THE FOLLOWING CLEARANCES AND ALL APPLICABLE AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. UNLESS OTHERWISE NOTED, THE FOLLOWING BICYCLE RACKS PARKING ZONE CLEARANCE ENVELOPES ARE MEASURED FROM THE BOUNDARY OF THE BICYCLE RACK PARKING ZONE:

<table>
<thead>
<tr>
<th>BICYCLE RACK PARKING ZONES</th>
<th>MIN. SIDEWALK BORDER (FEET)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIZE</td>
<td>LAYOUT</td>
</tr>
<tr>
<td>36&quot; X 72&quot;</td>
<td>PARALLEL: SINGLE ROW OR/STAND-ALONE</td>
</tr>
<tr>
<td>48&quot; X 72&quot;</td>
<td>PERPENDICULAR: SINGLE ROW OR/STAND-ALONE</td>
</tr>
<tr>
<td></td>
<td>PARALLEL: DOUBLE-STACKED</td>
</tr>
</tbody>
</table>

* SIDEWALK BORDER IS MEASURED FROM THE CURB FACE TO THE PROPERTY LINE.
** WHERE STREET PARKING RESTRICTION IS LIFTED, PERMITTEE SHALL RELOCATE BICYCLE RACK AT THE DIRECTION OF THE CITY.