



**Central Texas Air Information
and Research Advisory
Committee Meeting**

**October 25, 2016
10:00 AM**

Agenda



Central Texas Air Information and Research Advisory Committee

Central Texas Council of Governments Building
2180 North Main Street, Belton, TX 76513
October 25, 2016, 10:00 AM

Agenda

- I. Welcome and Introductions
- II. Public Comments
- III. Action Item: Approval of Minutes from July 28, 2016 Meeting
- IV. CTAIR Advisory Committee Update
- V. Action Item: Approval of Public Health and Citizen Representative of Advisory Committee
- VI. TCEQ Presentations
 - a. Kasey Savanich: *How to Determine if Your Area Meets the Ozone NAAQS*
 - b. Chris Owen: Ozone Monitoring Discussion, Q and A
- VII. Ozone Update
- VIII. Discussion and Possible Action Item Regarding the following:
 - a. Technical Studies
 - b. Education and Outreach Programs—Bike Racks
- IX. Member Comments
- X. Set Next Meeting Date and Agenda Items
- XI. Adjourn

Agenda Item III
Approval of Minutes from July 28, 2016
Meeting



**CENTRAL TEXAS AIR INFORMATION AND RESEARCH
ADVISORY COMMITTEE**

Thursday, July 28, 2016
10:00 AM

Central Texas Council of Governments (CTCOG)
2180 North Main Street
Belton, TX 76513

Voting Members Present

Andrea Gardner—City of Copperas Cove
Marsha Hardy—San Saba County
Bob Harrell—Coryell County
Kenny Henderson—City of Temple
Robert Kennedy—Fort Hood

Joseph Molis—City of Harker Heights
William Petersen—Panda Temple Power
Angellia Points—City of Belton
Chris Whittaker—Milam County

Others Present

Mary Ann Cook – TCEQ
Melanie Rousseau – TCEQ
Ian McCaffrey – TCEQ

Cheryl Maxwell - CTCOG
Jason Deckman - CTCOG
John Weber – KTMPO
Jennifer Lawyer - CTCOG

I. WELCOME AND INTRODUCTIONS:

The meeting was called to order at 10:06 am. Attendees introduced themselves.

II. PUBLIC COMMENTS:

There was no public comment.

III. OVERVIEW OF AIR QUALITY/OZONE IN THE CTCOG REGION:

Jennifer gave a brief overview of ozone, how it is formed, the difference between ground-level ozone, and the ozone found in the atmosphere. She related that the National Ambient Air Quality Standard (NAAQS) has set the limit for ozone at 70 ppb,

and that the CTCOG region had two monitoring stations—one at Skylark Airfield in Killeen and one at West Temple Park.

The region's Design Value for 2013-2015 is 69. The State will use this number in October 2016 to recommend the region be preliminarily designated as "in attainment." The designation will not be finalized by the EPA until October 2017. It is expected that the monitoring data for 2014-2016 will be included in the EPA's review.

If the region ever has a design value over 70, the region would be considered non-attainment, and measures would be required to bring the region into attainment status. For example, the region may have to undertake these types of programs: inspection/maintenance for vehicles, use of alternative fuels, and transportation projects would have to demonstrate that they will not affect air quality.

IV. OVERVIEW OF RIDER 7 PROGRAM AND AIR QUALITY ADVISORY COMMITTEE:

Jennifer gave a brief summary explaining the Rider 7 Program and the purpose of the Air Quality Advisory Committee.

The Rider 7 Program (formerly Rider 8) distributed grant funds to several areas within the state that were designated as near-nonattainment for ozone levels. The grant funds will be used to carry out studies and activities to help ensure that the CTCOG region does not fall into the nonattainment category.

The purpose of the CTAIR Advisory Committee is to foster community participation in local ozone reduction efforts, review technical work, serve as a source of information and ideas, and offer suggestions, advice, etc. on how to go about utilizing the grant funds in order that the program and its projects benefit our area environment, economy, and community.

V. ACTION ITEM: RATIFY VOTING MEMBERS APPOINTED BY CTCOG CITIES AND COUNTIES, FORT HOOD, AND HILL COUNTRY TRANSIT DISTRICT:

Bob Harrell made a motion to ratify the voting members of the advisory committee as appointed by CTCOG cities, counties, Fort Hood, and Hill Country Transit District. Joseph Molis seconded the motion. The motion passed unanimously.

These voting members are: Bob Harrell—Coryell County, Chris Whittaker—Milam County, Marsha Hardy—San Saba County, Angellia Points—City of Belton, Joseph Molis—City of Harker Heights, David Olson—City of Killeen, Kenny Henderson—City of Temple, Robert Kennedy—Fort Hood, and Robert Ator—Public Transit.

VI. ACTION ITEM: REVIEW AND ADOPT BYLAWS:

Bob Harrell made a motion to approve the CTAIR Advisory Committee Bylaws. Kenny Henderson seconded the motion. The motion passed unanimously.

VII. ACTION ITEM: NOMINATION AND APPROVAL OF OTHER VOTING MEMBERS AND EX-OFFICIO MEMBERS:

Jennifer stated that the remaining vacancies needed to be selected and approved by majority vote of the Advisory Committee. These vacancies included representatives from the following: Private Industry/Business, Public Health, Economic Development/Chamber of Commerce, Public School District, Major Power Generating Company, Public Environmental Organization, and a Citizen Representative.

William Petersen from Panda Temple Power stated that he was willing to serve on the Advisory Committee.

Bob Harrell made a motion to approve William Petersen as the representative of a Major Power Generating Company. Marsha Hardy seconded the motion. The motion passed unanimously.

Other suggestions/nominations included: Luminant of Milam County, public health directors (Cathy Brem from Bell County), larger school districts, local colleges, Kara

Escajeda from Nolanville as a Citizen Representative, voting members' staff or colleagues as possible ex-officio members, a representative for agriculture such as Zoe Rascoe from Blackland.

Jennifer announced that the TCEQ has agreed to act as an ex-officio member. Melanie Rousseau stated the TCEQ would appoint someone as soon as they received clearance from the Rider 7 Grant Coordinator.

Ian McCaffrey suggested the Advisory Committee consider someone from the TCEQ regional office out of Waco such as Polly Porter with the Small Business Local Government Assistance Program or Jason Neumann the Air Section Manager.

VIII. ACTION ITEM: NOMINATION AND APPROVAL OF OFFICERS:

Bob Harrell made a motion to nominate Joseph Molis as Chair. Robert Kennedy seconded the motion. The motion passed unanimously.

Bob Harrell made a motion to nominate Andrea Gardner as First Vice Chair. Marsha Hardy seconded the motion. The motion passed unanimously.

Bob Harrell made a motion to nominate Chris Whittaker as Second Vice Chair. Kenny Henderson seconded the motion. The motion passed unanimously.

IX. DISCUSSION AND POSSIBLE ACTION REGARDING TECHNICAL STUDIES AND EDUCATION/OUTREACH:

Jennifer announced that CTCOG contracted with Ramboll-Environ to do the technical studies required by the TCEQ and provided the committee with a brief summary of each one.

Jennifer introduced the educational and outreach programs and a proposed budget the staff for the Advisory Committee to consider. She mentioned staff would be developing a survey to gauge the public's knowledge of ground level ozone before and after outreach.

The TCEQ announced that the Ozone Advance Program has a quarterly call where all members can call in and share ideas.

The Advisory Committee decided to concentrate on funding bike racks and travelling trunks as the two main outreach components.

John Weber stated that there is an interactive map on the KTMO website that shows bike racks, sidewalks, trails, etc., and individuals can mark places where they would like to see a bike rack placed.

Jennifer announced that Ramboll-Environ developed letters regarding current air quality programs/projects that are to be sent to local power plants, cities, counties, airports, and school districts. She asked the Advisory Committee's assistance in getting the local officials to respond.

Jennifer announced CTAIR was developing a mascot to help with the educational programs.

X. MEMBER COMMENTS:

There were no comments. The Advisory Committee decided to meet quarterly with the next meeting being the third or fourth week in October. Staff would send out a Doodle Poll to set the date.

XI. ADJOURNMENT:

The meeting was adjourned.

Joseph Molis, CTAIR Chair

Cheryl Maxwell, CTCOG Planning Director

Agenda Item IV

CTAIR Advisory Committee Update

CTAIR ADVISORY COMMITTEE

Voting Representatives

BELL COUNTY

No Response

CORYELL COUNTY

Bob Harrell

Emergency Management Coordinator

620 East Main Street

Gatesville, TX 76528

(254)-865-5911 ext. 2322

coryellcountyemc@coryellcounty.org

HAMILTON COUNTY

Vacant

(Could not find a volunteer to server as representative)

LAMPASAS COUNTY

No Response

MILAM COUNTY

Chris Whittaker—2nd Vice Chair

City Manager

505 West Cameron Avenue

Rockdale, TX 76567

(512)-446-2511

Fax: (512)-446-6258

cwhittaker@rockdalecityhall.com

MILLS COUNTY

No response

CITY OF COPPERAS COVE

Andrea Gardner—Vice Chair

City Manager

914 S. Main Street

Suite D

Copperas Cove, TX 76522

(254)-547-4221

citymger@copperascovetx.gov

CITY OF BELTON

Angellia Points

Director of Internal Services/City Engineer

PO Box 120

Belton, TX 76513

(254)-933-5823

(254)-933-5811 Fax

apoints@beltontexas.gov

Erin Smith

Planning Director

PO Box 120

333 Water Street

Belton, TX 76513

(254)-933-5816

(254)-933-5822 Fax

esmith@beltontexas.gov

BELTON ALTERNATE

CITY OF COPPERAS COVE

Andrea Gardner—Vice Chair

City Manager

914 S. Main Street

Suite D

Copperas Cove, TX 76522

(254)-547-4221

citymger@copperascovetx.gov

CITY OF GATESVILLE

No Response

CITY OF HARKER HEIGHTS

Joseph Molis--Chair

Director of Planning and Development

305 Miller's Crossing

Harker Heights, TX 76548

(254)-953-5636

Fax: (254)-953-5666

jmolis@ci.harker-heights.tx.us

CITY OF KILLEEN

David A. Olson

Director of Transportation

(254)-616-3180

Fax: (254)-616-3182

Cell: (254)-285-4678

dolson@killeentexas.gov

CITY OF TEMPLE

Kenny Henderson

Transportation Director

3210 East Avenue H, Bldg. A

Temple, TX 76501

(254)-298-5803 office

(254)-718-4818 cell

khenderson@templetx.gov

FORT HOOD

Robert Kennedy

Air Quality Program Manager

Director of Public Works

4622 Engineer Drive

Fort Hood, TX 76544

(254)-287-8714

Robert.l.kennedy112.civ@mail.mil

PUBLIC TRANSIT

Robert Ator

Director of Urban Operations for HCTD

4515 W. US 190

Belton, TX 76513

(254)-933-3700

Fax: (254)-933-3724

rator@takethehop.com

PRIVATE INDUSTRY/BUSINESS

Vacant

PUBLIC HEALTH

Cathy Brem

Bell County Public Health District

Preparedness Coordinator

201 North 8th Street

Temple, TX 76513

(254)-773-4457

cbrem@bellcountyhealth.org

CITIZEN REPRESENTATIVE

Kara Escajeda

City Manager

101 North 5th Street

Nolanville, TX 76559

(254)-698-6335 office

(254)-317-5004 cell

Kara.escajeda@ci.nolanville.tx.us

ECONOMIC DEVELOPMENT/CHAMBER OF COMMERCE

Vacant

PUBLIC SCHOOL DISTRICT

Vacant

MAJOR POWER GENERATING COMPANY

William Petersen

Compliance Manager

Panda Temple Power

2892 Panda Drive

Temple, TX 76502

(254)-598-3705 office

(254)-644-8614 cell

wpetersen@pandatempletx.com

PUBLIC ENVIRONMENTAL ORGANIZATION

Vacant

EX-OFFICIO MEMBERS

Non-Voting

KTMPO

Vacant

TXDOT

Vacant

TCEQ

Vacant

OTHER

Vacant

**Agenda Item VII
Ozone Update**

**Agenda Item VIII
Discussion:
Technical Studies**

**Discussion and Possible Action Item:
Education and Outreach Programs: Bike
Racks**



CTAIR Advisory Committee
October 25, 2016

Agenda Item VII
Agenda Item VIII

This section contains the following items:

- 1. State Designation Recommendations for the 2015 Ozone NAAQS**
- 2. Technical Studies Summary**
- 3. Bike Rack Overview**
- 4. Bike Dock Specs**
- 5. Inverted U Specs**
- 6. Bicycle Rack Program Summary**



GOVERNOR GREG ABBOTT

September 30, 2016

Ms. Janet G. McCabe
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20760

Mr. Ron Curry
Regional Administrator
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Re: State Designation Recommendations for the 2015 Ozone National Ambient Air Quality Standards (NAAQS)

Dear Ms. McCabe and Mr. Curry:

The State of Texas and the Texas Commission on Environmental Quality (TCEQ) — along with a nationwide coalition of other states, energy companies and interest groups — filed a petition for review of the U.S. Environmental Protection Agency's (EPA) ozone rule. *See Murray Energy Corp. et al. v. EPA*, D.C. Cir. Dkt. No. 15-1385 (consolidated with 15-1392, 15-1490, 15-1491 & 15-1494). The ozone rule should be vacated because it is unlawful as both a constitutional and statutory matter. However, because the ozone rule has not yet been stayed or vacated, I am enclosing the 2015 ozone NAAQS designation recommendations, with supporting information from Dr. Bryan W. Shaw, Chairman of TCEQ, on behalf of the State of Texas.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink that reads "Greg Abbott".

Greg Abbott
Governor

GA:rvk

Attachments

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



RESOLUTION CONCERNING THE 2015 EIGHT-HOUR OZONE NATIONAL AMBIENT AIR QUALITY STANDARDS DESIGNATIONS

Docket No. 2016-0399-SIP
Project No. 2016-009-SIP-NR

WHEREAS, the Texas Commission on Environmental Quality (Commission) met on August 3, 2016 to discuss and consider designation recommendations for the 2015 eight-hour ozone National Ambient Air Quality Standards (NAAQS) for submittal to the governor for his consideration and transmittal to the United States Environmental Protection Agency (EPA); and

WHEREAS, the Commission finds that the EPA revised the eight-hour standard for ozone on October 1, 2015, setting both the primary and secondary standards at 0.070 parts per million, or 70 parts per billion (ppb); and

WHEREAS, the Commission acknowledges that the Federal Clean Air Act (FCAA), § 107(d), requires the EPA, after the promulgation of a new or revised NAAQS, to designate areas as attainment, nonattainment, or unclassifiable; and

WHEREAS, the Commission acknowledges that the FCAA, § 107(d), also establishes a process for each governor to provide recommendations to the EPA regarding appropriate designations for the 2015 ozone NAAQS for their state, including appropriate geographic boundaries; and

WHEREAS, the Commission acknowledges that the EPA has specified a deadline for the submittal of recommended designations for the 2015 ozone NAAQS of October 1, 2016; and

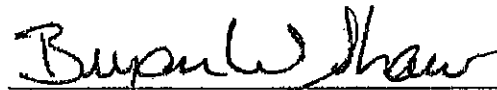
WHEREAS, the Commission acknowledges that the EPA recommends that states identify areas not in compliance with the revised NAAQS using the most recent three years of air quality data, preferably data from calendar years 2013 through 2015, stored in the EPA Air Quality System (AQS) from Federal Reference Method and Federal Equivalent Method monitors that are sited and operated in accordance with 40 Code of Federal Regulations (CFR) Part 58; and

WHEREAS, the Commission finds that based on complete and certified AQS monitoring data from 2013 through 2015, all monitors in Texas with data eligible for comparison to the revised 2015 eight-hour ozone NAAQS were reviewed, and there are areas of the state that should be recommended for designation as nonattainment, in addition to areas that should be recommended for designation as attainment or unclassifiable/attainment, as noted in the attached Exhibit A; and

WHEREAS, the Commission finds that at the time that the EPA makes final designations, AQS monitoring data from 2016 may also be available for the EPA's consideration and that nonattainment area designation recommendations based on 2013 through 2015 monitoring data may be revised to attainment for any counties monitoring attainment based on 2016 data; and

THEREFORE, BE IT RESOLVED, that the Commission hereby requests the governor of Texas to submit a recommendation for the 2015 eight-hour ozone NAAQS to the EPA for consideration consisting of nonattainment designations for all counties in Texas with regulatory ozone monitors measuring over the 2015 ozone NAAQS of 70 ppb as well as areas currently designated as nonattainment for the 2008 ozone standard, attainment designations for all counties in Texas that have regulatory ozone monitors with complete data meeting the 2015 ozone NAAQS that are not currently located in an area designated nonattainment for the 2008 ozone NAAQS, and unclassifiable/attainment designations for all other counties in the state, as detailed in Exhibit A, by the EPA's requested deadline of October 1, 2016.

TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY


Bryan W. Shaw, Ph.D., P.E., Chairman

August 11, 2016
Date Signed

ATTACHMENT A

**STATE OF TEXAS
2015 EIGHT-HOUR OZONE NAAQS DESIGNATION RECOMMENDATION**

The following table identifies Texas counties and the designations that the State of Texas is recommending for the 2015 eight-hour ozone NAAQS.

Recommended Designation	Counties
Nonattainment	Bexar Brazoria Chambers Collin Dallas Denton El Paso (<i>with the exception of tribal lands, i.e. Ysleta Del Sur Reservation or Trust Lands</i>) Ellis Fort Bend Galveston Harris Hood Johnson Kaufman Liberty Montgomery Parker Rockwall Tarrant Waller Wise
Attainment	Bell Brewster Cameron Gregg Harrison Hidalgo Hunt Jefferson McLennan Navarro Nueces Orange Randall Smith Travis Victoria Webb
Unclassifiable/Attainment	Remaining 216 counties in the state

ATTACHMENT B

**CERTIFIED 2013 THROUGH 2015 EIGHT-HOUR OZONE DESIGN VALUES
FOR REGULATORY MONITORS IN THE STATE OF TEXAS**

The Texas Commission on Environmental Quality has calculated the eight-hour ozone design values for Texas counties with regulatory monitors, as presented in the table below, in support of the State's designation recommendation for the 2015 Ozone National Ambient Air Quality Standards (NAAQS). The design values were calculated with certified 2013 through 2015 monitoring data.

Design Values by County for the 2015 Eight-Hour Ozone NAAQS

County	Certified 2013 through 2015 Design Value (parts per billion)
Denton	83
Brazoria	80
Tarrant	80
Harris	79
Bexar	78
Collin	76
Dallas	75
Parker	75
Galveston	73
Hood	73
Johnson	73
Montgomery	73
El Paso	71
Rockwall	70
Bell	69
Ellis	68
Gregg	68
Jefferson	68
Travis	68
Kaufman	67

ATTACHMENT B

County	Certified 2013 through 2015 Design Value (parts per billion)
McLennan	67
Smith	67
Harrison	66
Navarro	66
Orange	66
Randall	66
Nueces	65
Brewster	64
Hunt	64
Victoria	64
Cameron	59
Webb	59
Hidalgo	56

Note: The regulatory CASTNET monitor in Polk County does not have a valid 2013 through 2015 design value as the monitor does not meet data completeness requirements. Incomplete data shows a 2015 design value of 64 parts per billion.

Source: The EPA Air Quality System database (<https://www.epa.gov/aqs>)

**CTAIR Technical Studies
Ramboll-Environ**

Task 1: Control Strategy Evaluation

Ozone formation in the Killeen-Temple-Fort Hood (KTF) area is limited by the amount of available NO_x (NO_x emission reductions will have a larger effect on ozone than VOC reductions). Based on the KTF area 2012 NO_x emission inventory, Environ will identify NO_x emission control measures accounting for the amount of NO_x available for reduction in each emissions source category (power plants, motor vehicles, etc.). The report will provide for each potential control measure a detailed description, the amount of potential NO_x emission reduction, and the cost effectiveness of the measure.

Draft: October 30, 2016

Final: November 30, 2016

Task 2: Emission Inventory Improvement

Environ identified several emission sources as uncertain and/or requiring further evaluation. The most important of these are of biogenic NO_x emissions from all counties within the KTF area and anthropogenic emissions from Fort Hood. The emission inventory task will focus on reducing uncertainty in the inventories of these two sources.

Draft: May 20, 2017

Final: June 20, 2017

Task 3: Photochemical Modeling

During the development of the KTF area conceptual model for ozone, Environ ran the CAMx model for June 1-30, 2012 using emissions, meteorological, and other input data developed by the TCEQ. The modeled ozone was evaluated against the measured ozone and it was found to have a general tendency to overestimate ozone but underestimate ozone during periods when observed ozone exceeds 70 ppb. In order for the June 2012 model to be a reliable planning tool, CAMx model performance in simulating observed ozone at Killeen must be improved.

The Weather Research and Forecast (WRF) meteorological model is used by the TCEQ to develop weather data inputs for the CAMx ozone model. WRF performance at the Killeen monitor will be evaluated by comparing observed and modeled winds and temperatures. The model's simulation of clouds and precipitation over the KTF area will also be evaluated to assess the WRF model's simulation of incoming sunlight that is critical for ozone formation.

The KTF region is strongly influenced by transported ozone, so it is important to accurately predict ozone formed outside of the region. A regional CAMx model performance evaluation

will be performed that examines representative monitors in Texas regions that were shown to significantly contribute to ozone in the KTF region.

Once the CAMx ozone model performance is improved, the model will be used for air quality planning studies

Draft: March 15, 2017

Final: April 15, 2017

Task 4: High Ozone Day Analysis

Environ will analyze all days during the 2015-2017 ozone seasons for which the daily maximum 8-hour ozone exceeds 70 ppb at Killeen Skylark and Temple Georgia. For each day, regional background ozone levels, relevant weather factors, and the influence of local and regional emissions sources will be determined. The design value trends will be compared with those of the Waco and Austin Area ozone monitors to determine whether the KTF monitor trends are consistent with regional trends.

Draft: November 15, 2017

Final: December 15, 2017

Bike Rack Overview

The Association of Pedestrian and Bicycle Professionals (APBP) bike rack criteria:

- Supports bike upright without putting stress on wheels—rack should provide two points of contact with frame
- Accommodates a variety of bicycles and attachments
- Allows locking of frame and at least one wheel with U-lock
- Provides security—not easy to cut or bend
- Intuitive—people know what it is and how to use it

Other considerations:

- Each bicycle parking space must be accessible without moving another bike
- Weather cover is a plus

Effective Bike Parking = Proximity to the Destination + Ease of Use

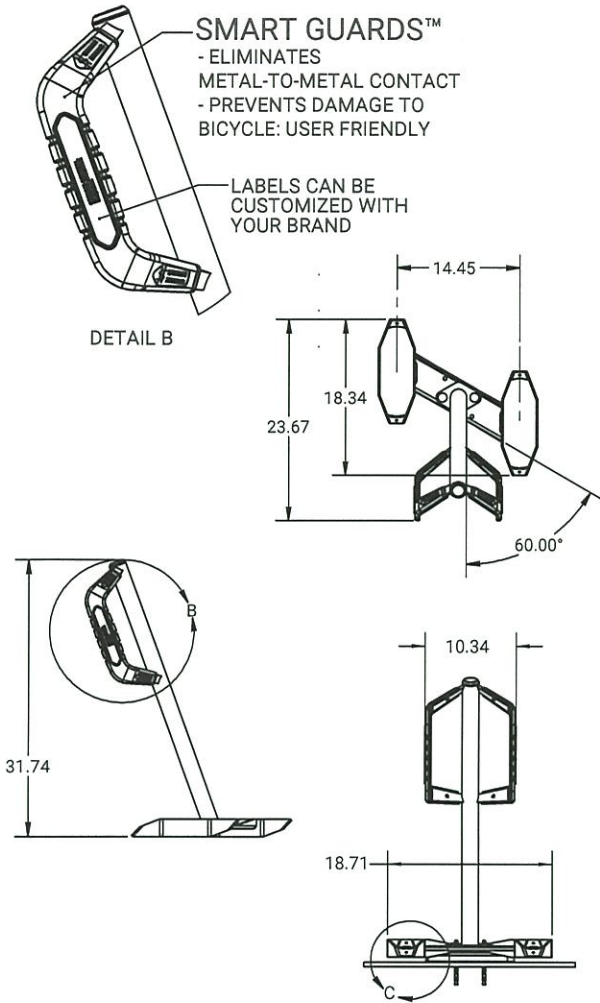
Bike Dock

- Also called Varsity Racks or Lighting Racks
- Bike docks allow for the front or back tire to be contained in a wheel trough while the frame and tire can be locked to the locking loop with a U-lock.
- Can be customized with logo
- Can accommodate two bikes
- 5 bike docks make up one bike corral*which could replace one standard sized parking spot. Will hold 10 bikes

Inverted U

- Also called Hoop Racks, A-Racks, Hoop Runner Racks
- Is intended for bikes to be parked parallel to the rack
- Square tubing is recommended as it resists cutting more so than round tubing
- Must consider tubing size or it can be too large to accommodate a U-lock
- Bikes can tip over if not locked properly
- A bike corral can accommodate 8 bikes

*Bike corrals are ideal in high density areas with small sidewalks and heavy pedestrian traffic. Several individual racks make up a corral. Corrals are often used to replace a vehicle parking space.



MATERIALS & FEATURES

- 2 bicycles secured - long term or short term parking solution*
- Black injection molded urethane Smart Guards™
- Steel locking loops
- Wheel pockets
- PC/ABS injection molded cap
- Smart and Safe bicycle parking video QR tag

FINISH OPTIONS

- DuraPlas™ black
- Hot dipped galvanized

MOUNTING OPTIONS

- Surface mount - Concrete (Anchors Sold Separately)
- Surface mount - Asphalt/Pavers (Anchors Sold Separately)
- In-ground mount - Stinger (Stinger Sold Separately)

SMART GUARD™ OPTIONS

- Ground Control (Standard)
- Custom

SPACE USE RECOMMENDATIONS

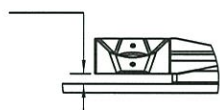
- Front of rack to wall setback to center base plate
- Minimum 18" perpendicular to center base plate
- Minimum 16" diagonal 30°
- Racks parallel to a side wall
- Minimum 24" from center base plate
- Distance between racks
- Minimum 32" center to center
- Recommended 38 1/2" perpendicular OR 44 1/2" diagonal

Street setbacks

- Parallel to street minimum: 45" from curb
- Perpendicular to street minimum: 38" from curb where vehicle parking is present. 18" where vehicle parking is not permitted.

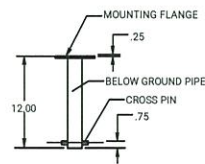
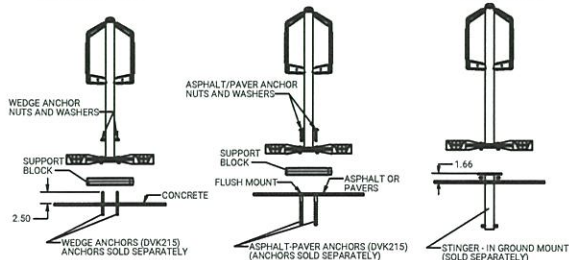
ELEVATED DECK

- EASY REMOVAL OF DEBRIS.
- ELIMINATES CONTACT BETWEEN THE DOCK AND THE GROUND
- PREVENTS ELECTROLYSIS
- REDUCES CORROSION
- EXTENDS THE LIFE OF THE DOCK



MOUNTING CONFIGURATIONS

SURFACE MOUNT CONCRETE **SURFACE MOUNT ASPHALT** **IN-GROUND MOUNT STINGER**

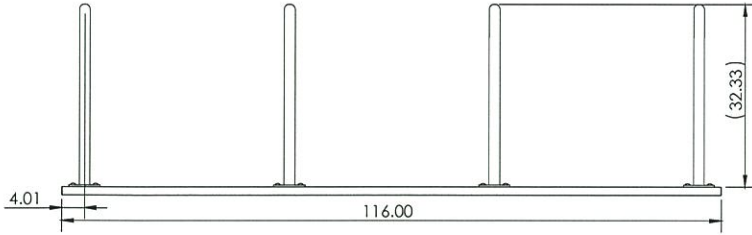


In Ground Mount - Stinger (SOLD SEPARATELY)

For FREE layout or planning assistance, please contact our planning team @ 800-630-7225.

*Please contact us for additional information on the DV215 as a long term parking solution.





MATERIALS

Racks: HSS 1.9 " steel tubing

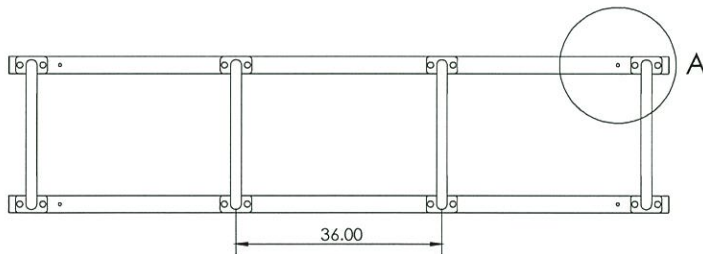
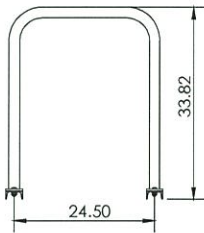
FINISH

Galvanized

Galvanized to ASTM A123 / A123M - 12

Black Powder Coat

Final Coat- Polyester based Powder Coating – this offers a hard shell finish to the product to protect the metal substrate from oxidizing. Our finishes withstand harsh conditions with a strong polyester UV-stable coating with superior salt spray protection.



MOUNTING

Free Standing Mount

Rail mounted racks are free standing units and do not require anchoring to a base material. Holes are provided in the rails if anchoring is requested.

MINIMAL SPACE USE

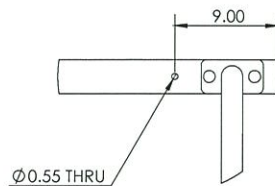
For racks set parallel to a wall:

Minimum: 36"

From end of the rail to turf

Minimum: 12"

*These are our suggested minimal clearances



DETAIL A
SCALE 1 : 8



CAUTION
HAZARDOUS AREA
AUTHORIZED
PERSONNEL ONLY



Bicycle Rack Program Summary

FY 2017 Budget: \$45,000

Price for Bike Dock: \$225.00 + \$16.00 anchor = \$241.00

Price for Customized Bike Dock: \$225.00 + \$16.00 anchor + \$16.00 Imprint = \$257.00

Price for Inverted U Hoop Runner (4 racks): \$840.00 + \$40.00 anchor = \$880.00

Assume a single Inverted U rack: \$210.00 + \$10.00 + \$220.00

No customization

(Prices do not account for price breaks for buying multiples)

A \$45,000 budget would buy one of the following options:

187 bike docks (holds two bikes apiece) for a total of 374 bikes

175 customized bike docks (hold two bikes apiece) for a total of 350 bikes

51 inverted U hoop runners (holds eight bikes) for a total of 408 bikes

204 single inverted U rack (holds two bikes apiece) for a total of 408 bikes

As of Thursday, October 20, 2016 we have requests for approximately 107 bike racks. More requests are expected by the Friday, October 21, 2016 deadline.

We received a sample of the bike dock and will have one available at the meeting so you can see how it works in person. This is a nice bike rack and does have the advantage of being able to be customized, meeting the Association of Pedestrian and Bicycle Professionals, preventing bikes from tipping over, and being unique—they will get noticed.