

MISSOURI DEPARTMENT OF TRANSPORTATION

CENTRAL DISTRICT
 PO BOX 718
 1511 MISSOURI BLVD.
 JEFFERSON CITY, MO 65102

REQUEST FOR QUOTE
BIDDING GUIDELINES
AND DOCUMENTATION
QUOTE MAY BE FAXED
OR EMAILED

TODAY'S DATE: JULY 12, 2016	QUOTE DUE BY (DATE AND TIME): JULY 14, 2016 10:00 AM CT	F.O.B. REQUIREMENTS: FOB DESTINATION
TO BE DELIVERED/COMPLETED: ASAP – AS INDICATED BELOW	QUOTE #: CD-17-002Q THIS QUOTATION # SHOULD BE REFERENCED ON ALL MAILING LABELS, ENVELOPES, AND ANY OTHER CORRESPONDENCE.	BUYER: SHELDON REDEL PHONE NUMBER: 573-751-7708 FAX NUMBER: 573-526-6796 EMAIL: SHELDON.REDEL@MODOT.MO.GOV
<u>District Mailing Address:</u> Missouri Department of Transportation Central District General Services 1511 Missouri Blvd Jefferson City, MO 65102		<u>Delivery Locations:</u> HWY 5 AND BLAND LEBANON MO Contact: Kevin Eggemeyer 573-291-6336

It is the vendor's responsibility to read and comply with all conditions, specifications, and instructions outlined in this document. This document and any subsequent attachments shall supersede all confirmation forms, receipts, or any other paperwork needed to secure materials, equipment, or services.

ITEM	UM	QTY	DESCRIPTION	TOTAL PRICE	Delivery Time
1	EA	1	Removal and installation of traffic signal pole. See attached specifications.	\$	

VENDOR NOTES:

All responses to this Request for Quote MUST be submitted with this form and all pages MUST be returned to the Buyer listed above.

Location

Lebanon, MO. At the intersection of Highway 5 and Bland Street.

Project Scope

Remove existing damaged signal pole, mast arm and concrete base to 12" below the existing grade. Following removal, the contractor is responsible for disposal of the damaged signal pole, mast arm and concrete base.

Install a new MoDOT Standard A10 concrete base. (Contractor shall supply the concrete base materials)

Install a MoDOT furnished post with a 40' ft. arm and three (3) MoDOT furnished signal heads.

Install 3" inch conduit to the nearest pull box (approximately 15 feet) and pull new MoDOT furnished signal wire from the new heads to the controller cabinet and terminate it.

See attached drawings.

Unique Site Conditions

The awarded contractor shall be responsible for traffic control as per the MUTCD, per MoDOT EPG "Traffic Control for Field Operations"

Work may be done during non-peak traffic hours.

All work must be in accordance with the current Missouri Standard Specifications for Highway Construction, and its latest supplements.

The contractor shall be responsible for all locates and underground utilities. It is the sole responsibility of the contractor to do preliminary inspection of the work site.

Inspection

All work will be inspected during construction. A final inspection will be made to determine compliance of standard specifications.

Prevailing Wage

The awarded contractor shall be required to comply with the prevailing wages as fixed by the Missouri Department of Labor and Industrial Relations. General Wage Order #60 for Laclede County is in effect. If awarded the contract, the Contractor shall be responsible for submitting notarized weekly payroll affidavit documentation included with the project request for payment. The successful contractor must provide a lien waiver from all material suppliers.

Contacts

If you have any questions regarding the Signal Replacement, please call:
Kevin Eggemeyer at (573) 291-6336.

All other questions concerning this bid, you may contact Sheldon Redel at (573) 751-7708.

Invoicing and Payment Requirements

The contractor shall submit an itemized invoice on Company Letterhead.

The contractor shall be paid in accordance with the firm, fixed prices stated on the pricing page of this document. Other than the payment specified on the pricing page, no additional charges, including fuel surcharges shall be made to the contractor for any reason.

Payment will only be made after the work is completed and inspected.

Additional REQUIREMENTS

All awarded bidders **MUST**:

1. MoDOT is precluded from contracting with a vendor or its affiliate who makes sales at retail of tangible personal property or for the purpose of storage, use or consumption in this state but fails to collect and properly pay the tax as provided in RSMo 144, their number is (573) 751-9268.
2. Be in good standing with the Secretary of State's office prior to issuance of 'Notice to Proceed.' Their phone number is (573) 751-4936.
3. Pursuant to 285.530 RSMo, the bidder must affirm its enrollment and participation in a federal work authorization program with respect to the employees proposed to work in connection with the services requested herein by

Submitting a completed, notarized copy of AFFIDAVIT OF WORK AUTHORIZATION, and

Proving documentation affirming the bidder's enrollment and participation in a federal work authorization program (see below) with respect to the employees proposed to work in connection with the services request herein.

E-verify is an example of a federal work authorization program. Acceptable enrollment and participation documentation consists of completed copy of the E-Verify Memorandum of Understanding (MOU). For vendors that are not already enrolled and participating in a federal work authorization program. E-Verify is available at http://www.dhs.gov/xprevprot/programs/gc_1185221678150.shtm

If it cannot be determined that a vendor is compliant with the above, it shall be the vendors responsibility to provide the documentation within a reasonable amount of time in relation to the needs within the bid.

Insurance

Contractor must carry the Liability Insurance as listed in the Missouri Standard Specifications For Highway Construction, 2011 Edition, including all supplement. Proof of insurance will be required prior to final award.

Pricing/Award

Award will be made to the lowest total price to complete the project based on the listed specifications.

Quote(s) may be faxed or emailed.

VENDOR INFORMATION & PREFERENCE CERTIFICATION FORM

Vendor Information

All bidders must furnish **ALL** applicable information requested below

Vendor Name/Mailing Address: Email Address:	Vendor Contact Information (including area codes): Phone #: Cellular #: Fax #:
Printed Name of Responsible Officer or Employee:	Signature:
For Corporations - State in which incorporated:	For Others - State of domicile:

If the address listed in the Vendor Name/Mailing Address block above is not located in the State of Missouri, list the address of Missouri offices or places of business:

*If additional space is required, please attach an additional sheet and identify it as **Addresses of Missouri Offices or Places of Business**.*

M/WBE INFORMATION: List all certified Minority or Women Business Enterprises (**M/WBE**) utilized in the fulfillment of this bid. Include percentages for subcontractors and identify the M/WBE certifying agency:

<u>M/WBE Name</u>	<u>Percentage of Contract</u>	<u>M/WBE Certifying Agency</u>
_____	_____	_____
_____	_____	_____

*If additional space is required, please attach an additional sheet and identify it as **M/WBE Information***

Preference Certification

All bidders must furnish **ALL** applicable information requested below

GOODS/PRODUCTS MANUFACTURED OR PRODUCED IN USA: If any or all of the goods or products offered in the attached bid which the bidder proposes to supply to the MHTC are **not** manufactured or produced in the "United States", or imported in accordance with a qualifying treaty, law, agreement, or regulation, list below, by item or item number, the country other than the United States where each good or product is manufactured or produced.

Item (or item number)	Location Where Item is Manufactured or Produced

*If additional space is required, please attach an additional sheet and identify it as **Location Products are Manufactured or Produced**.*

MISSOURI SERVICE-DISABLED VETERAN BUSINESS: Please complete the following if applicable. Additional information may be requested if preference is applicable. See below definitions for qualification criteria:

Service-Disabled Veteran is defined as any individual who is disabled as certified by the appropriate federal agency responsible for the administration of veterans' affairs.

Service-Disabled Veteran Business is defined as a business concern:

- Not less than fifty-one (51) percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than fifty-one (51) percent of the stock of which is owned by one or more service-disabled veterans; and
- The management and daily business operations of which are controlled by one or more service-disabled veterans.

Veteran Information

Business Information

Service-Disabled Veteran's Name (Please Print)

Service-Disabled Veteran Business Name

Service-Disabled Veteran's Signature

Missouri Address of Service Disabled Veteran Business

Missouri Highways and Transportation Commission
Standard Bid/Proposal Provisions, General Terms and Conditions and Special Terms and Conditions

STANDARD SOLICITATION PROVISIONS

- a. The solicitation for the procurement of the supplies referenced therein, to which these "Standard Bid Provisions, General Terms and Conditions and Special Terms and Conditions" are attached, is being issued under, and governed by, the provisions of Title 7 – Missouri Department of Transportation, Division 10 – Missouri Highways and Transportation Commission, Chapter 11 – Procurement of Supplies, of the Code of State Regulations. The Missouri Highways and Transportation Commission (**MHTC**), acting by and through its operating arm, the Missouri Department of Transportation (**MoDOT**), draws the Bidder's attention to said 7 CSR 10-11 for all the provisions governing solicitation and receipt of bids/quotes and the award of the contract pursuant to this solicitation.
- b. All bids/quotes must be signed with the firm name and by a responsible officer or employee. Obligations assumed by such signature must be fulfilled.

GENERAL TERMS AND CONDITIONS

Definitions

Capitalized terms as well as other terms used but not defined herein shall have the meaning assigned to them in section 7 CSR 10-11.010 Definition of Terms.

Nondiscrimination

- a. The Contractor shall comply with all state and federal statutes applicable to the Contractor relating to nondiscrimination, including, but not limited to, Chapter 213, RSMo; Title VI and Title VII of Civil Rights Act of 1964 as amended (42 U.S.C. Sections 2000d and 2000e, *et seq.*); and with any provision of the "Americans with Disabilities Act" (42 U.S.C. Section 12101, *et seq.*).
- b. **Sanctions for Noncompliance:** In the event of the Contractor's noncompliance with the nondiscrimination provisions of this contract, MHTC shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
 - i. withholding of payments to the Contractor under the contract until the Contractor complies, and/or,
 - ii. cancellation, termination or suspension of the contract, in whole or in part.

Contract/Purchase Order

- a. By submitting a bid/quote, the Bidder agrees to furnish any and all equipment, supplies and/or services specified in the solicitation documents, at the prices quoted, pursuant to all requirements and specifications contained therein.
- b. A binding contract shall consist of: (1) the solicitation documents, amendments thereto, and/or Best and Final Offer (BAFO) request(s) with any changes/additions, (2) the Contractor's bid response, and (3) the MHTC's acceptance of the bid by post-award contract or purchase order.
- c. A notice of award does not constitute an authorization for shipment of equipment or supplies or a directive to proceed with services. Before providing equipment, supplies and/or services, the Contractor must receive a properly authorized notice to proceed and/or purchase order.

Applicable Laws and Regulations

- a. The contract shall be construed according to the laws of the State of Missouri. The Contractor shall comply with all local, state, and federal laws and regulations related to the performance of the contract. The exclusive venue for any legal proceeding relating to or arising, out of the contract shall be in the Circuit Court of Cole County, Missouri.
- b. The Contractor must be registered and maintain good standing with the Secretary of State of the State of Missouri, Missouri Department of Revenue, and other regulatory agencies, as may be required by law or regulations. Prior to the issuance of a purchase order and/or notice to proceed, the Contractor may be required to submit to MHTC a copy of their current Authority Certificate from the Secretary of State of the State of Missouri and/or a copy of their Certificate of No Tax Due from the Missouri Department of Revenue.
- c. Prior to the issuance of a purchase order and/or notice to proceed, all **out-of-state** Contractors **providing services** within the state of Missouri must submit to MHTC a copy of their current Transient Employer Certificate from the Missouri Department of Revenue, in addition to a copy of their current Authority Certificate from the Secretary of State of the State of Missouri.

Executive Order:

The Contractor shall comply with all the provisions of Executive Order 07-13, issued by the Honorable Matt Blunt, Governor of Missouri, on the sixth (6th) day of March, 2007. This Executive Order, which promulgates the State of Missouri's position to not tolerate persons who contract with the state engaging in or supporting illegal activities of employing individuals who are not eligible to work in the United States, is incorporated herein by reference and made a part of this Agreement.

- 1) "By signing this Agreement, the Contractor hereby certifies that any employee of the Contractor assigned to perform services under the contract is eligible and authorized to work in the United States in compliance with federal law."
- 2) In the event the Contractor fails to comply with the provisions of the Executive Order 07-13, or in the event the Commission has reasonable cause to believe that the contractor has knowingly employed individuals who are not eligible to work in the United States in violation of federal law, the Commission reserves the right to impose such contract sanctions as it may determine to be appropriate, including but not limited to contract cancellation, termination or suspension in whole or in part or both.
- 3) The Contractor shall include the provisions of this paragraph in every subcontract. The Contractor shall take such action with respect to any subcontract as the Commission may direct as a means of enforcing such provisions, including sanctions for noncompliance.

Preferences

- a. In the evaluation of bids/quotes, preferences shall be applied in accordance with 7 CSR 10-11.020(7). Contractors should apply the same preferences in selecting subcontractors. The attached document entitled "**VENDOR INFORMATION AND PREFERENCE CERTIFICATION FORM**" must be completed and returned with the solicitation documents.
- b. Bidders are encouraged to obtain minority business enterprise (MBE) and women business enterprise (WBE) participation in this work through the use of subcontractors, suppliers, joint ventures, or other arrangements that afford meaningful participation for M/WBES. Bidders are encouraged to obtain 10% MBE and 5% WBE participation.

Missouri Highways and Transportation Commission
Standard Bid/Proposal Provisions, General Terms and Conditions and Special Terms and Conditions

Cancellation of Contract

The MHTC may cancel the Contract at any time for a material breach of contractual obligations or for convenience by providing Contractor with written notice of cancellation. Should the MHTC exercise its right to cancel the contract for such reasons, cancellation will become effective upon the date specified in the notice of cancellation sent to the Contractor.

Bankruptcy or Insolvency

Upon filing for any bankruptcy or insolvency proceeding by or against the Contractor, whether voluntarily, or upon the appointment of a receiver, trustee, or assignee, for the benefit of creditors, the Commission reserves the right and sole discretion to either cancel the Agreement or affirm the Agreement and hold the Contractor responsible for damages.

Warranty

The Contractor expressly warrants that all equipment, supplies, and/or services provided shall: (1) conform to each and every specification, drawing, sample or other description which was furnished to or adopted by the MHTC, (2) be fit and sufficient for the purpose expressed in the solicitation documents, (3) be merchantable, (4) be of good materials and workmanship, and (5) be free from defect.

Status of Independent Contractor

The Contractor represents itself to be an independent Contractor offering such services to the general public and shall not represent itself or its employees to be an employee of the MHTC. Therefore, the Contractor shall assume all legal and financial responsibility for taxes, FICA, employee fringe benefits, workers' compensation, employee insurance, minimum wage requirements, overtime, etc., and agrees to indemnify, save and hold the MHTC, its officers, agents and employees harmless from and against any and all losses (including attorney fees) and damage of any kind related to such matters.

Non-Waiver

If one of the parties agrees to waive its right to enforce any term of this Contract, that party does not waive its right to enforce such term at any other time or to enforce any or all other terms of this Contract.

Indemnification

The Contractor shall defend, indemnify and hold harmless MHTC, including its members and department employees, from any claim or liability whether based on a claim for damages to real or personal property or to a person for any matter relating to or arising out of the Contractor's performance of its obligations under the contract awarded pursuant to this solicitation.

SPECIAL TERMS AND CONDITIONS

Tax Exempt Status:

MHTC is exempt from paying Missouri Sales Tax, Missouri Use Tax and Federal Excise Tax. However, the Contractor may themselves be responsible for the payment of taxes on materials they purchase to fulfill the contract. A Project Tax Exemption Certificate will be furnished to the successful Bidder upon request if applicable.

Insurance

The Contractor shall maintain or cause to be maintained at Contractor's own expense commercial general liability, automobile liability, worker's compensation insurance against negligent acts, errors or omissions of the Contractor, or its subcontractors and anyone directly or indirectly employed by any of them. Any insurance policy required as specified in this Section shall be written by a company that is licensed and authorized to issue such insurance in the state of Missouri and shall provide insurance coverage for not less than the following limits of liability:

- 1) General Liability: Not less than \$500,000 for any one person in a single accident or occurrence, and not less than \$3,000,000 for all claims arising out of a single occurrence;
- 2) Automobile Liability: Not less than \$500,000 for any one person in a single accident or occurrence, and not less than \$3,000,000 for all claims arising out of a single occurrence;
- 3) Missouri State Workmen's Compensation policy or equivalent in accordance with state law.

Upon request from the Commission, the Contractor shall provide the Commission with certificates of insurance evidencing the required coverage and that such insurance is in effect.

Subcontracting

- a. It is specifically understood that no portion of the material or any interest in the contract, shall be subcontracted, transferred, assigned or otherwise disposed of, except with the written consent of MHTC. Request for permission to subcontract or otherwise dispose of any part of the work shall be in writing to MHTC and accompanied by documentation showing that the organization which will perform the work is particularly experienced and equipped for such work.
- b. Consent to subcontract or otherwise dispose of any portion of the work shall not be construed to relieve the Contractor of any responsibility for the production and delivery of the contracted work and the completion of the work within the specified time.
- c. All payments for work performed by a subcontractor shall be made to the Contractor to whom the contract was awarded and the purchase order issued.

Prohibition Of Employment Of Unauthorized Aliens:

- a. Non-employment of Unauthorized Aliens: Pursuant to Section 285.530, RSMo., no business entity or employer shall knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the State of Missouri. As a condition for the award of any contract or grant in excess of five thousand dollars by the State or by any political subdivision of the State to a business entity, or for any business entity receiving a state-administered or subsidized tax credit, tax abatement, or loan from the state, the business entity shall:

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- 1) By sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services. E-Verify is an example of a federal work authorization program. The business entity must affirm its enrollment and participation in the E-Verify federal work authorization program with respect to the employees proposed to work in connection with the services requested herein by providing acceptable enrollment and participation documentation consisting of **completed** copy of the E-Verify Memorandum of Understanding (MOU). For business entities that are not already enrolled and participating in a federal work authorization program, E-Verify is available at http://www.dhs.gov/files/programs/qc_1185221678150.shtm
 - 2) By sworn affidavit, affirm that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services. A copy of the affidavit referenced herein is provided within this document, attached as Exhibit
- b. Proof of Lawful Presence For Sole Proprietorships and Partnerships: If the business entity is a sole proprietorship or partnership, pursuant to Section 208.009, RSMo., each sole proprietor and each general partner shall provide affirmative proof of lawful presence in the United States. Such sole proprietorship or partnership is eligible for temporary public benefits upon submission by each sole proprietor and general partner of a sworn affidavit of his/her lawful presence on the United States until such lawful presence is affirmatively determined, or as otherwise provided by Section 208.009, RSMo. A copy of the affidavit reference herein is provided within this document, attached as Exhibit.

Construction Safety Program

Missouri law, 292.675 RSMo, requires the awarded Contractor and its subcontractor(s) to provide a ten-hour occupational safety and health administration (OSHA) construction safety program (or a similar program approved by the Missouri Department of Labor and Industrial Relations as a qualified substitute) for their on-site employees (laborers, workmen, drivers, equipment operators, and craftsmen) who have not previously completed such a program and are directly engaged in actual construction of the improvement (or working at a nearby or adjacent facility used for construction of the improvement). The Contractor and its subcontractor(s) shall require all such employees to complete this ten-hour program, pursuant to 292.675 RSMo, unless they hold documentation on their prior completion of said program. Penalties for non-compliance include Contractor forfeiture to the Commission in the amount of \$2,500, plus \$100 per contractor and subcontractor employee for each calendar day such employee is employed beyond the elapsed time period for required program completion under 292.675 RSMo.

Prevailing Wage

- a. The work to be performed under this solicitation is governed by the provisions of Chapter 290 RSMo, as amended, related to prevailing wages to be paid on public works.
- b. If the bid/quote is accepted, the vendor will be required to comply with the prevailing wages as fixed by the Missouri Department of Labor and Industrial Relations, in effect as of the date of the issuance of the solicitation, for each affected craft and type of workmen in the following county(ies): **Laclede**. The **General Wage Order # 60** is attached to the bid documents.
- c. Pursuant to the requirements of the Chapter 290 RSMo., not less than the prevailing hourly rate of wages, as set out in the wage order attached to and made part of the specification for work under the contract, must be paid to all workers performing work under the contract.
- d. The Contractor shall provide all information, reports and other documentation as required by MHTC to ensure compliance with Chapter 290 RSMo., as amended, relating to prevailing wages to be paid on public works.
- e. The Contractor shall forfeit a penalty to the contracting public body of \$100 per day (or portion of a day) for each worker that is paid less than the prevailing rate for any work done under the contract by the contractor or by any subcontractor.

Permits, Licenses and Safety Issues

The contract price shall include any necessary permits and licenses required by law incidental to the work. Local ordinances requiring building permits are not applicable to state agencies.

Delivery – Additional Requirements

- a. The Contractor shall furnish the Missouri Department of Transportation with a planned delivery schedule at least 16 hours before starting delivery.
 - 1) Notification should be during the normal workday preceding the day on which the Contractor desires to initiate delivery.
 - 2) It will be necessary for a representative of the Missouri Department of Transportation to be present when the material is delivered.
 - 3) No material will be accepted that has been dumped in the absence of the department's aggregate materials checker.
- b. Unless otherwise specified in the proposal, deliveries will be a minimum of **500 Tons Per Day**. No deliveries will be made during the period from **30 minutes before sundown to sunrise**. No deliveries will be made on **Saturdays, Sundays and holidays** unless specifically authorized by the engineer.
- c. The following days shall be construed as **official holidays** under the terms of the contract:

January 1	New Year's Day
Third Monday in January	Martin Luther King, Jr.'s Birthday
February 12	Lincoln's Birthday
Third Monday in February	Washington's Birthday
May 8	Truman's Birthday
Last Monday in May	Memorial Day
July 4	Independence Day
First Monday in September	Labor Day
Second Monday in October	Columbus Day
November 11	Veteran's Day
Fourth Thursday in November	Thanksgiving Day
December 25	Christmas Day

- d. When any of the above **holidays falls** on a **Sunday**, the holiday will be observed on the following **Monday**; when any of the above **holidays falls** on a **Saturday**, the **holiday** will be observed on the immediately preceding **Friday**.

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- e. Contractor will not be required to provide dozers, loaders, motor graders, or other equipment for shaping of stockpiles, constructing ramps or runways, or leveling of the top of a completed lift, unless otherwise noted herein.

Temporary Suspension of Work

- a. The **District Engineer** shall have authority to suspend work wholly or in part for such period or periods as may be deemed necessary when weather or other conditions are such that in the opinion of the engineer, the work may be done at a later time with advantage to MoDOT or for failure on the part of the Contractor to comply with any of the provisions of the Contract.
- b. If MoDOT suspends the work for its own advantages and not because of the Contractor's failure to comply with the Contract, the Contractor will be allowed an equal number of calendar days after the completion date for the completion of the work. MoDOT may at its discretion give the Contractor an extension of time for completing the work where the Contractor incurs delays for causes beyond his control.
- c. Normal rainfall is not considered a cause qualifying for an extension of time. Claim for extension of time for all causes must be submitted by the Contractor in writing within **30 Days** after the claimed cause for the delay has ceased to exist.

Personal Protective Equipment

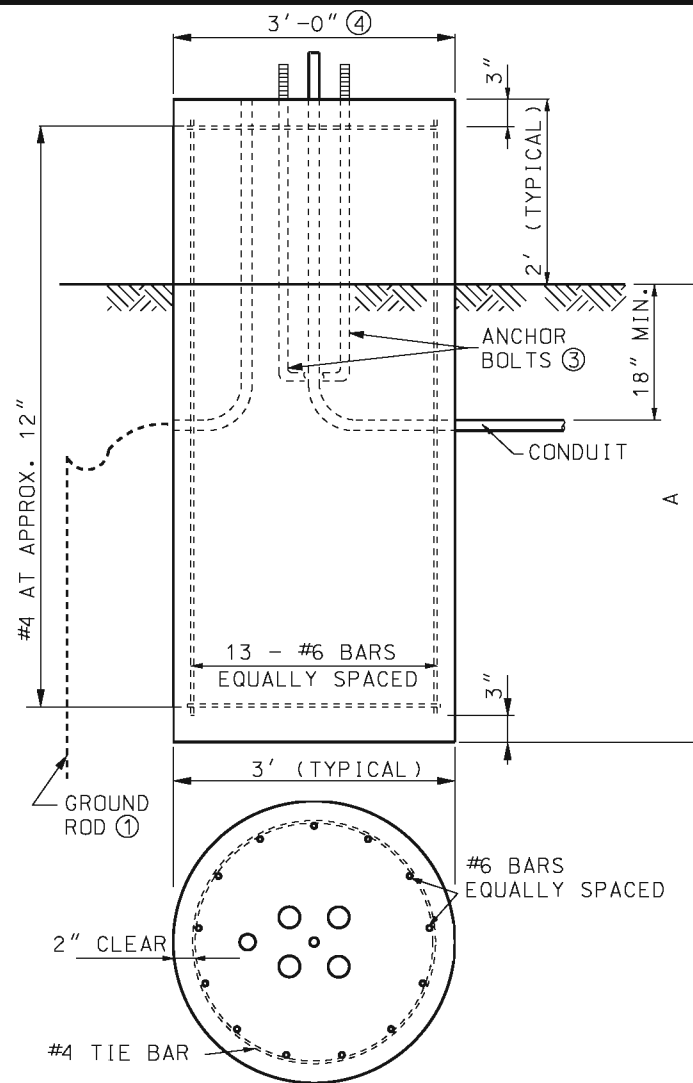
- a. All contractor and subcontractor employees utilized in the performance of work resulting from this request must adhere to OSHA standards and at a minimum shall utilize appropriate head, eye and foot protection in the performance of work.
- b. All workers within highway right of way shall wear approved ANSI/ISEA 107 Performance Class 2 or 3 safety apparel and more specifically as follows:
 - 1) **Daytime Flagger.** During daytime activities, flaggers shall wear a high visibility hard hat, safety glasses, a Performance Class 3 top OR a Performance Class 2 top, and safety footwear. Hard hats other than high visibility orange or green shall be covered with a high visibility covering.
 - 2) **Daytime Worker.** During daytime activities, workers shall wear a hard hat, safety glasses, a Performance Class 3 top OR a Performance Class 2 top, and safety footwear.
 - 3) **Nighttime Flagger.** During nighttime activities, flaggers shall wear a high visibility/reflective hard hat, safety glasses, a Performance Class 3 top AND Class E bottoms, OR Performance Class 2 top AND Class E bottoms, and safety footwear. Hard hats shall be reflective or covered with a high visibility covering.
 - 4) **Nighttime Worker.** During nighttime activities, workers shall wear a hard hat, safety glasses, a Performance Class 3 top OR Performance Class 2 top AND Class E bottoms, and safety footwear.



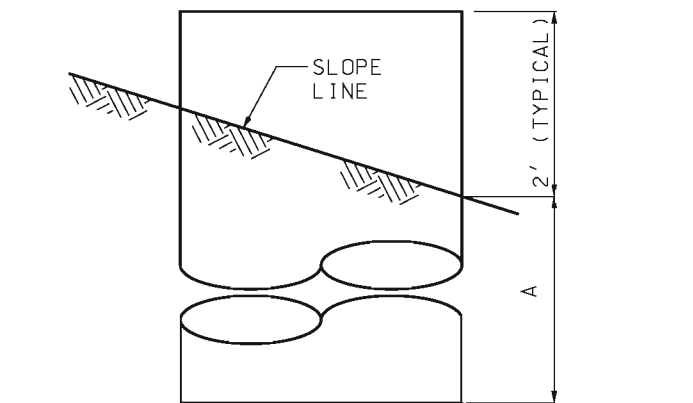
R	R	RA
Y	Y	YA
G	G	FYA

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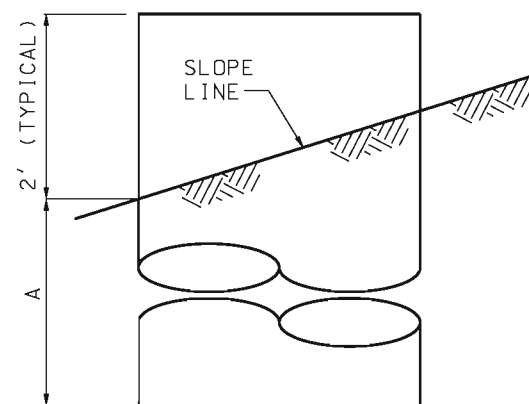




TYPE A (FLAT GROUND)



TYPE A (FILL)
(FOR ADDITIONAL DETAILS SEE TYPE A FLAT GROUND)

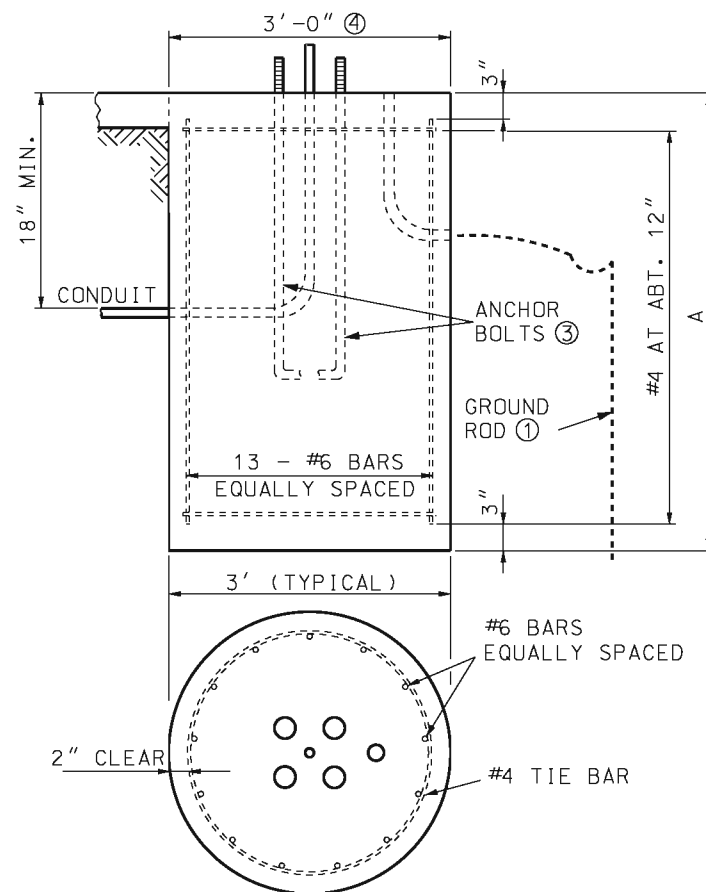


TYPE A (CUT)
(FOR ADDITIONAL DETAILS SEE TYPE A FLAT GROUND)

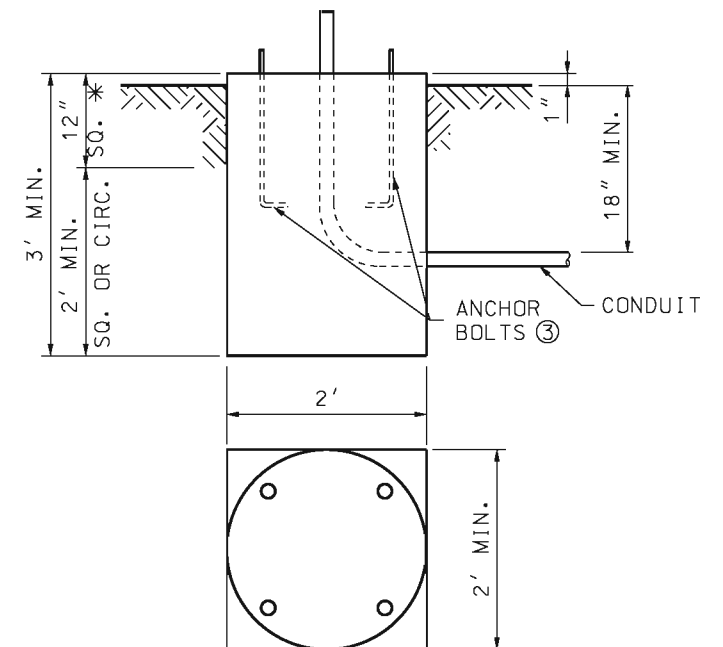
POST BASES

STEEL AND CONCRETE REQUIREMENTS FOR POST BASES ⁽³⁾				
BASES		#6 STEEL BAR		CONC.
TYPE	A ⁽⁷⁾	LENGTH	WEIGHT LBS.	C.Y.
A-9	9'-0"	10'-6"	270	2.88
A-9.5	9'-6"	11'-0"	280	3.01
A-10	10'-0"	11'-6"	300	3.14
A-10.5	10'-6"	12'-0"	310	3.27
A-11	11'-0"	12'-6"	320	3.40
A-12	12'-0"	13'-6"	350	3.67
F-9	9'-0"	8'-6"	230	2.36
F-9.5	9'-6"	9'-0"	240	2.49
F-10	10'-0"	9'-0"	240	2.62
F-10.5	10'-6"	10'-0"	260	2.75
F-11	11'-0"	10'-6"	270	2.88
F-12	12'-0"	11'-6"	300	3.14
C*				0.44

* SURFACE OF BASE TO BE CONSTRUCTED SQUARE FOR A DEPTH OF 12".



TYPE F



* SURFACE OF BASE TO BE CONSTRUCTED SQUARE FOR A DEPTH OF 12".

TYPE C

- APPLICABLE ONLY WHERE CONTROLLER IS MOUNTED TO A SIGNAL POLE.
- BASE PLATE SHALL STAY WITHIN THE TOP OF THE POST BASE DIAMETER.
- ANCHOR BOLT DIMENSIONS ARE SHOWN ON THE MANUFACTURER'S APPROVED DRAWINGS.
- MAXIMUM BOLT CIRCLE DIAMETER IS 26". BASE PLATE SHALL STAY WITHIN THE TOP OF THE POST BASE DIAMETER.
- ARM LENGTH DETERMINED BY LENGTH OF LONGEST ARM FOR TYPE B & BL SIGNAL POSTS.
- BASE TYPE A OR F DETERMINED BY LOCATION OF POST BASE.
- SOIL DEPTH, NO ROCK.
- INCLUDE #4 TIE BAR.
- WHEN CONCRETE BASE IS LOCATED WITHIN 8" CONCRETE DIVISIONAL ISLAND, EMBEDMENT LENGTH MAY BE REDUCED BY 1/2 DIAMETER OF THE DRILLED SHAFT.

POST BASES		
POST TYPE	ARM LENGTH (FEET) ⁽⁵⁾	BASE TYPE ⁽⁶⁾
C OR CL	15 - 25	A-9 OR F-9
C OR CL	30 - 35	A-9.5 OR F-9.5
C OR CL	40 - 55	A-10.5 OR F-10.5
B OR BL	15 - 25	A-10 OR F-10
B OR BL	30 - 35	A-11 OR F-11
B OR BL	40 - 55	A-12 OR F-12

BASE EMBEDMENT IN SOLID ROCK	
SOLID ROCK ENCOUNTER POINT	REQUIRED EMBEDMENT FOR BASE TYPE
AT SURFACE	A-10 F-10
AT ONE-FOURTH NORMAL DEPTH	4'-9"
AT ONE-HALF NORMAL DEPTH	4'-0"
AT THREE-FOURTHS NORMAL DEPTH	3'-3"
AT THREE-FOURTHS NORMAL DEPTH	1'-3"

- REQUIRED EMBEDMENT DEPTHS CAN BE INTERPOLATED BETWEEN ENCOUNTER POINTS FOR OTHER SOLID ROCK ENCOUNTER DEPTHS.
- NORMAL LENGTHS FOR ANCHOR BOLTS AND REINFORCING STEEL WILL BE REQUIRED.
- CORE DRILL HOLES FOR ANCHOR BOLTS AND REINFORCING STEEL IN SOLID ROCK SHALL BE PROVIDED. CORE DRILL HOLES SHALL BE TWICE THE DIAMETER OF THE ANCHOR BOLT AND REINFORCING STEEL DIAMETER AND TO WITHIN 3 INCHES OF THE NORMAL BASE DEPTH.
- IF SOIL, SHALE, GRAVEL, FRACTURED ROCK, OR VOIDS ARE ENCOUNTERED DURING CORE DRILLING, THE ROCK SHALL BE REMOVED TO THE POINT OF ENCOUNTER.
- ANCHOR BOLTS AND REINFORCING STEEL SHALL BE GROUTED IN THE CORE DRILL HOLES WITH NON-SHRINK GROUT HAVING A MINIMUM STRENGTH OF 9,000 POUNDS IN 24 HOURS.
- STRAIGHT ANCHOR BOLTS OF THE LENGTH SHOWN IN THE ANCHOR BOLT TABLE UNDER THE COLUMN "BOLT LENGTH" ARE ADEQUATE FOR USE IN GROUTED CORE DRILLED HOLES.

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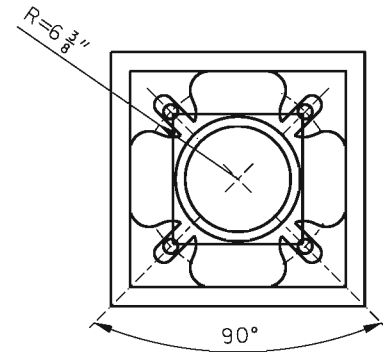
105 WEST CAPITOL
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TRAFFIC SIGNALS
POST BASES

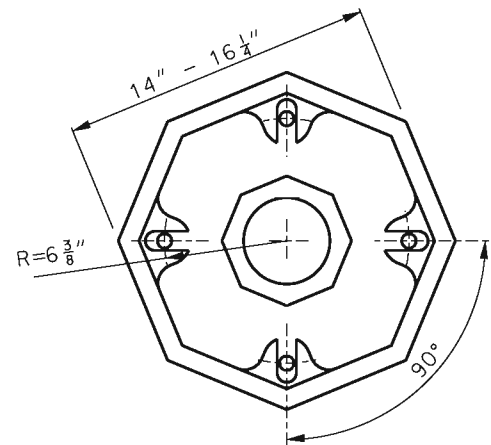
DATE EFFECTIVE: 02/01/2008
DATE PREPARED: 7/19/2012

902.30P

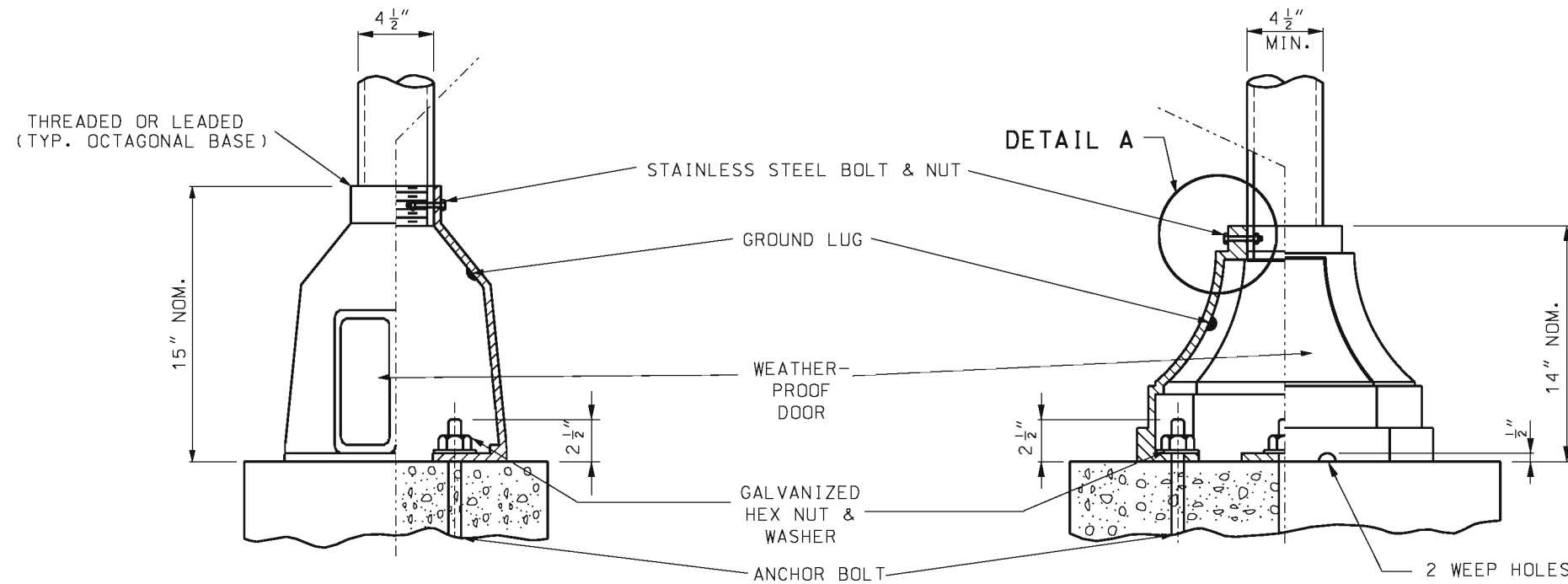
SHEET NO.
1 OF 2



BOLT CIRCLE



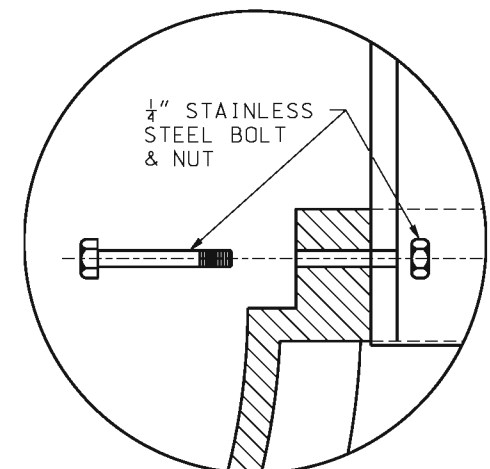
BOLT CIRCLE



SQUARE

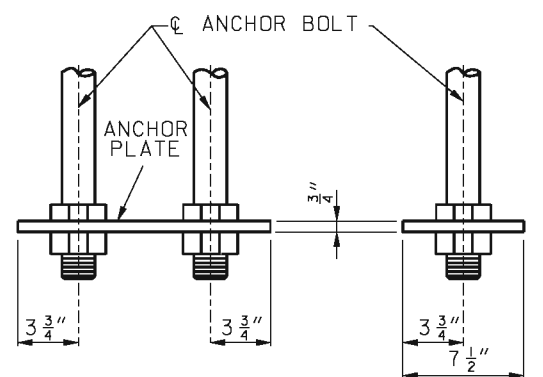
OCTAGONAL

CAST BASE



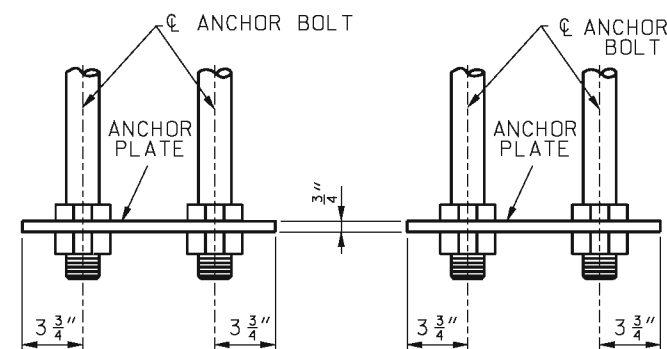
DETAIL A

BOLT LENGTH INCHES	VERT. HT. A INCHES	THREAD LEN. B INCHES	DIA. C INCHES
19	17	1.50	0.625
57	51	7.00	1.250
79	73	7.50	1.500
94	88	8.00	1.750
121	115	8.50	2.000
120	114	9.00	2.250
146	140	9.50	2.500



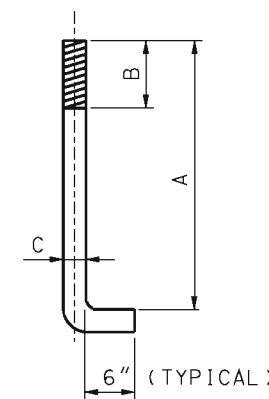
SIDE VIEW

END VIEW



SIDE VIEW


END VIEW



ANCHOR BOLT

NOTE:
ALL ANCHOR BOLTS SHALL BE FULLY GALVANIZED.

OPTIONAL STEEL PLATE FOR ANCHOR BOLTS

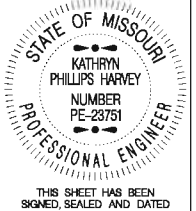


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TRAFFIC SIGNALS

POST BASES

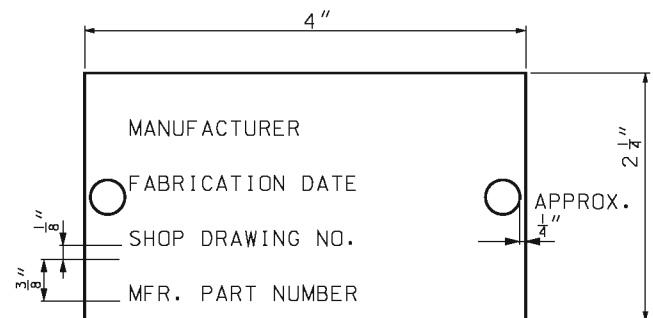
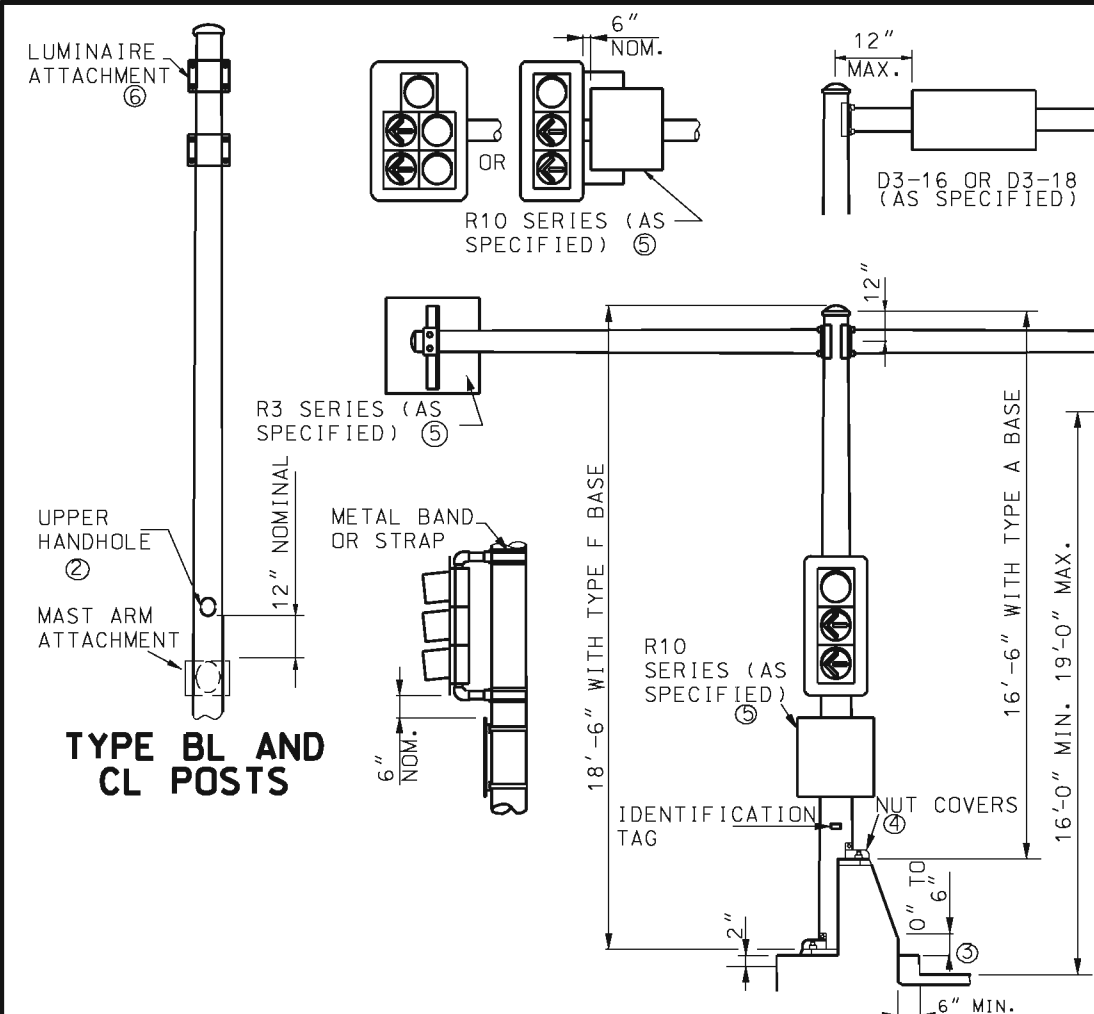


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SHEET NO.
2 OF 2

DATE EFFECTIVE: 02/01/2008

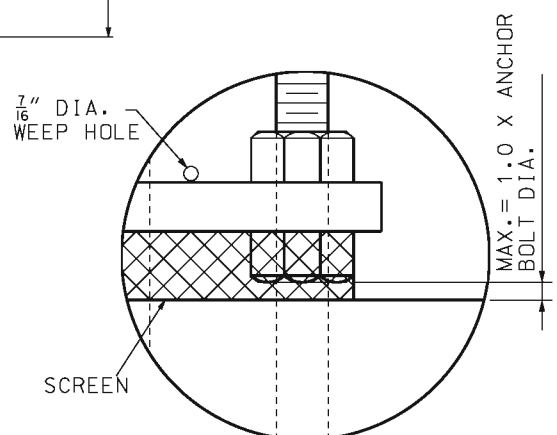
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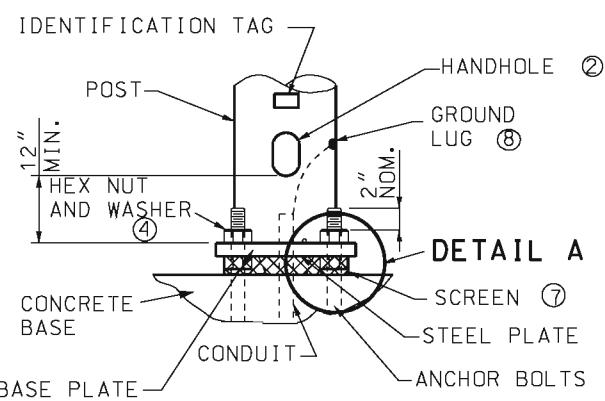
IDENTIFICATION TAG

ID TAG NOTE:

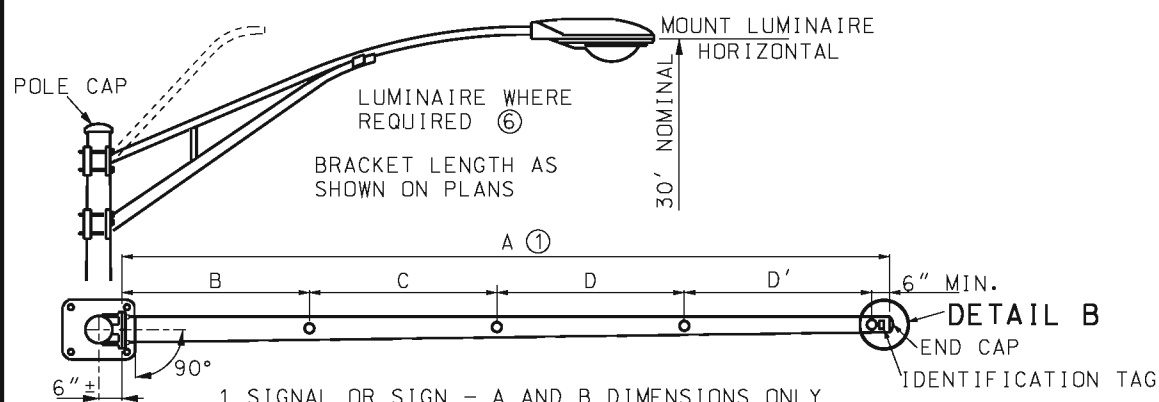
TAG SHALL BE ALUMINUM OR STAINLESS STEEL AND ATTACHED TO POLE OR MAST ARM USING TWO RIVETS OR STAINLESS STEEL DRIVE SCREWS. ID TAG HOLES SHALL BE DRILLED PRIOR TO GALVANIZING.



DETAIL A

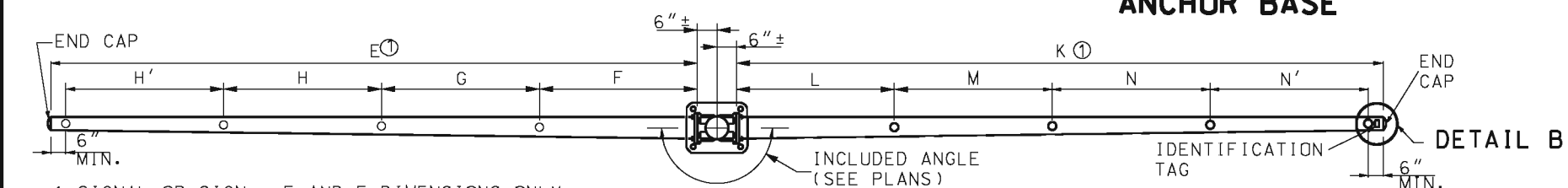


STEEL PLATE AND ANCHOR BASE



- 1 SIGNAL OR SIGN - A AND B DIMENSIONS ONLY
 - 2 SIGNALS OR SIGNS - A, B, AND C DIMENSIONS ONLY
 - 3 SIGNALS OR SIGNS - A, B, C AND D DIMENSIONS ONLY
 - 4 SIGNALS OR SIGNS - A, B, C, D AND D' DIMENSIONS
- SEE TRAFFIC SIGNAL PLANS FOR DIMENSIONS.

TYPE C AND TYPE CL (WITH LUMINAIRE)



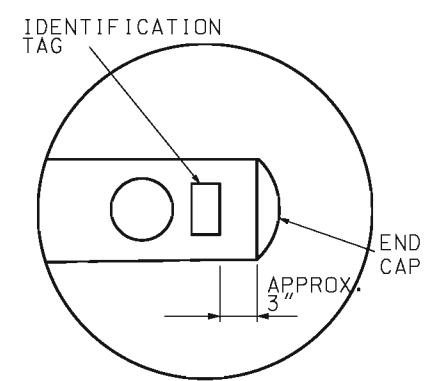
- 1 SIGNAL OR SIGN - E AND F DIMENSIONS ONLY
- 2 SIGNALS OR SIGNS - E, F, AND G DIMENSIONS ONLY
- 3 SIGNALS OR SIGNS - E, F, G, AND H DIMENSIONS ONLY
- 4 SIGNALS OR SIGNS - E, F, G, H AND H' DIMENSIONS

TYPE B AND TYPE BL (WITH LUMINAIRE)

- 1 SIGNAL OR SIGN - K AND L DIMENSIONS ONLY
 - 2 SIGNALS OR SIGNS - K, L, AND M DIMENSIONS ONLY
 - 3 SIGNALS OR SIGNS - K, L, M, AND N DIMENSIONS ONLY
 - 4 SIGNALS OR SIGNS - K, L, M, N AND N' DIMENSIONS
- SEE TRAFFIC SIGNAL PLANS FOR DIMENSIONS

- ① ARM LENGTHS SHALL NOT EXCEED 55 FEET.
- ② HANDHOLES SHALL BE APPROXIMATELY 4" x 6 1/2". HANDHOLE FRAME SHALL BE REINFORCED SO THAT THE POLE STRENGTH IS NOT REDUCED.
- ③ 0" TO 6" VARIATION IN BASE HEIGHT IS FOR OBTAINING 16'-0" CLEARANCE. 0.13 C.Y. CONCRETE AND 3 LBS. REINFORCING STEEL PER 6".
- ④ POSTS SHALL BE FURNISHED WITH INDIVIDUAL NUT COVERS.
- ⑤ NO SIGN IN EXCESS OF 15.0 SQUARE FEET SHALL BE INSTALLED ON POSTS OR MAST ARMS. SIGNS EXCEEDING 8.0 SQUARE FEET SHALL BE LOCATED SO THAT THE EDGE OF THE SIGN IS NO MORE THAN 12" FROM THE CENTERLINE OF THE POST. D3 SERIES SIGNS, AS WELL AS SIGNS INSTALLED ON THE POST, SHALL BE MOUNTED WITH A STRAP TYPE SIGN SUPPORT. R10 SERIES SIGNS INSTALLED ON THE MAST ARM SHALL BE MOUNTED WITH A SIGN BRACKET ASSEMBLY.

- ⑥ SEE DRAWING 901.00 FOR TYPICAL BRACKET ARM MOUNTING FOR TYPE BL AND TYPE CL POSTS.
- ⑦ A GALVANIZED SCREEN SHALL BE USED BETWEEN THE POST BASE PLATE AND CONCRETE BASE. SCREENS SHALL BE PRESS-FORMED OF 3 OR 4 MESH, 21 GAGE OR HEAVIER, STAINLESS STEEL OR HOT-DIPPED GALVANIZED WIRE SCREEN OR APPROVED EQUIVALENT, THAT WILL PROVIDE A FRICTION-TIGHT FIT WHEN INSTALLED.
- ⑧ POST SHALL BE GROUNDED FROM GROUND LUG IN POST WITH # 6 AWG BARE COPPER WIRE TO CONDUIT SYSTEM. GROUND LUG SHALL BE 90° OR 180° FROM THE HANDHOLE.



DETAIL B

GENERAL NOTES:

ARMS SHALL BE RAKED UP 0.25" PER FOOT MINIMUM. ARMS SHALL BE PROVIDED WITH A PERMANENT MARKING INDICATING PROPER ORIENTATION FOR INSTALLATION.

SIGNS AND SIGNALS SHALL BE VERTICAL. SIGNAL HEADS ON MAST ARMS SHALL BE TILTED FORWARD FROM THE TOP 3 TO 7 DEGREES FROM VERTICAL.

IF A SIGN EXCEEDS 42" IN LENGTH, TWO STRAP SUPPORTS ARE REQUIRED; AND IF A SIGN EXCEEDS 96" IN LENGTH, THREE STRAP SUPPORTS ARE REQUIRED.

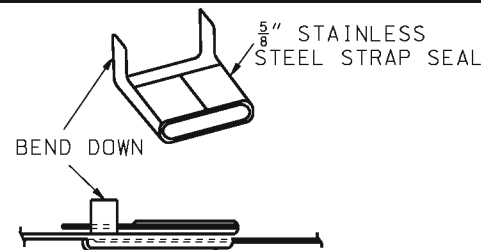
TO DETERMINE LEFT OR RIGHT ON TYPE B OR C SIGNAL POST, VIEWING POSITION SHALL BE FROM THE CENTER OF THE INTERSECTION BEING CONTROLLED AND FACING THE SIGNAL INVOLVED.

TRAFFIC SIGNALS MOUNTED ON MAST ARMS SHALL BE FURNISHED WITH MOUNTING BRACKETS UTILIZING CABLES.

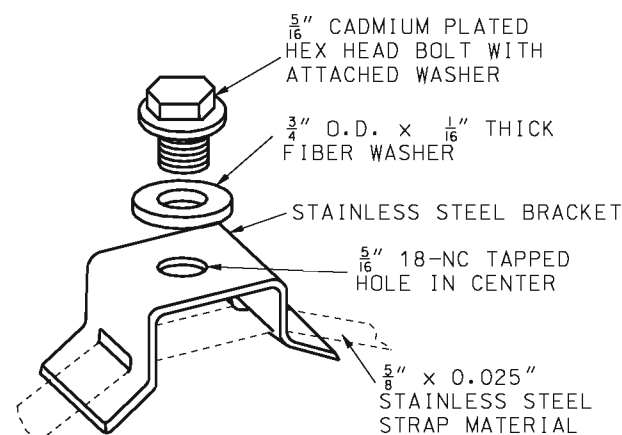
SEE STANDARD 902.30 FOR FOUNDATION AND ANCHOR BOLT DETAILS.

<p>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION</p> <p>105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)</p>	
<p>STATE OF MISSOURI KATHRYN PHILLIPS HARVEY NUMBER PE-23751 PROFESSIONAL ENGINEER</p> <p>THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.</p>	<p>TRAFFIC SIGNALS</p> <p>TUBULAR STEEL POSTS</p>
<p>DATE EFFECTIVE: 02/01/2008</p> <p>DATE PREPARED: 8/26/2009</p>	<p>902.400</p> <p>SHEET NO. 1 OF 3</p>

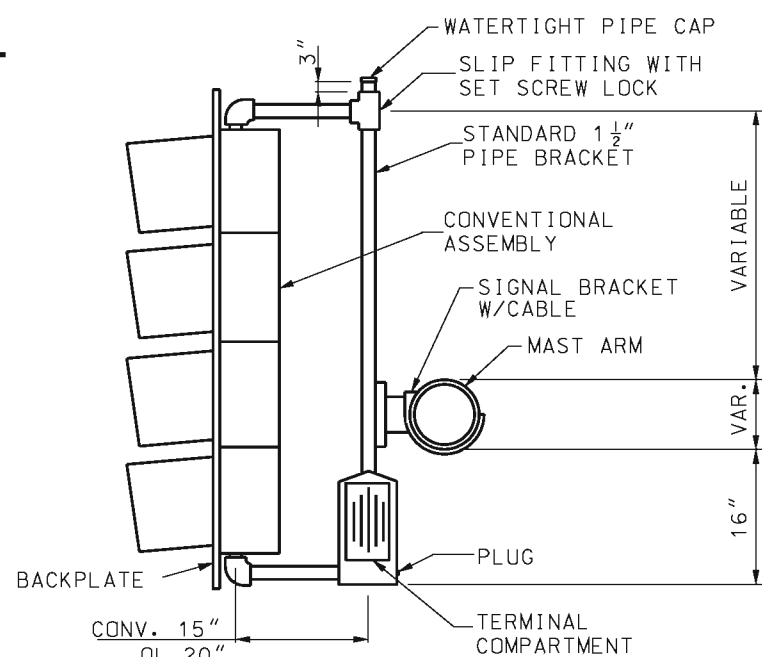
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



VIEW SHOWING
ENDS OF STRAP
CLAMPED IN SEAL

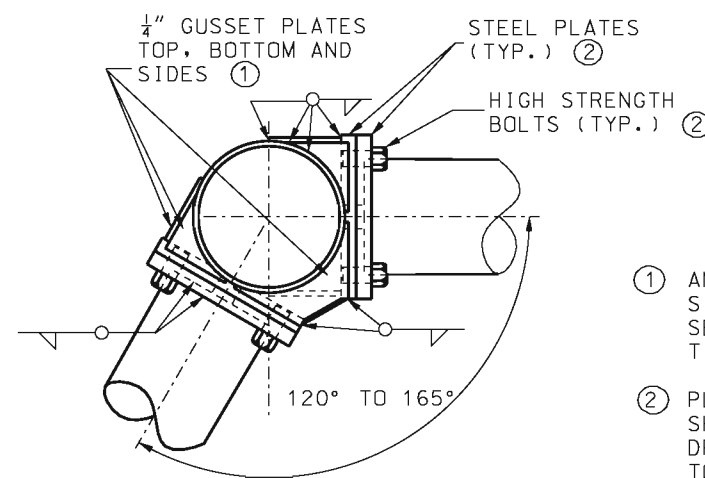
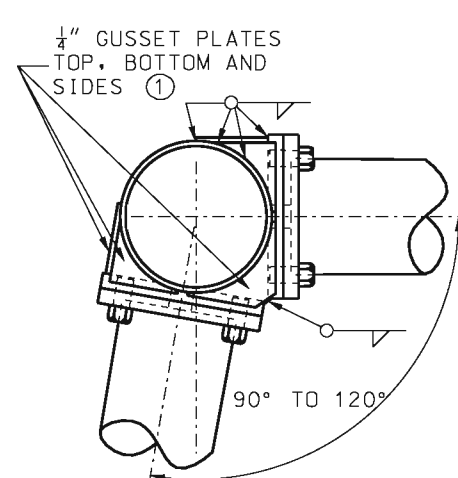
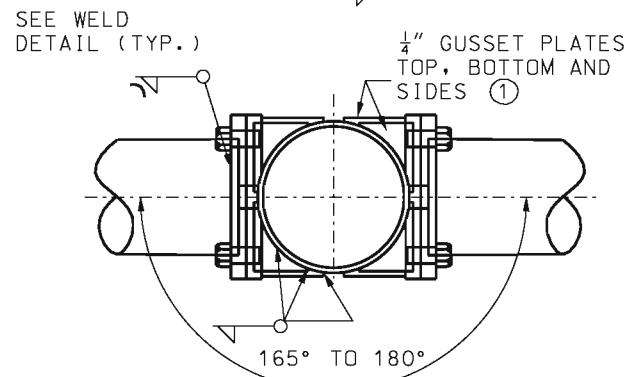
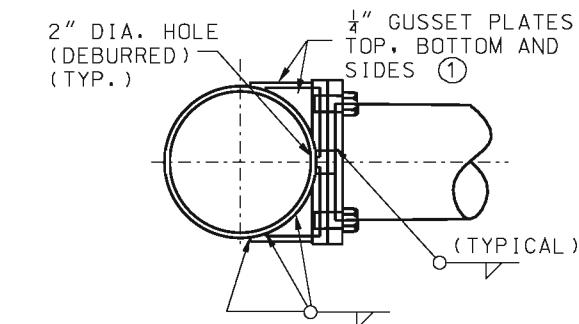


STRAP TYPE
SIGN SUPPORT

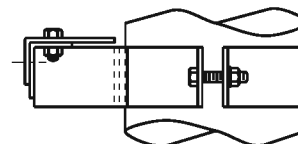


MAST ARM MOUNTED
SIGNAL HEAD

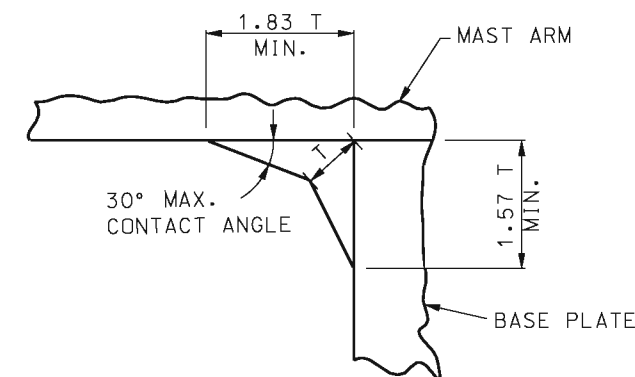
(SEE STANDARD 902.00)



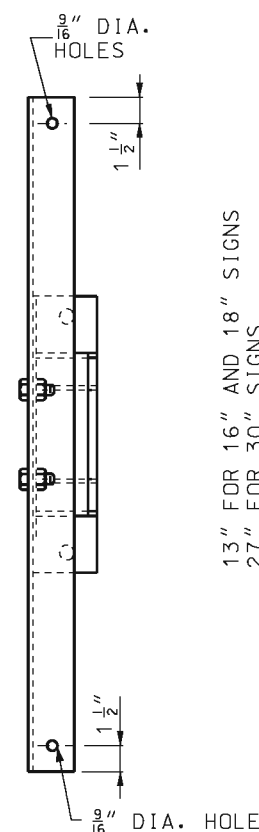
ARM ATTACHMENTS



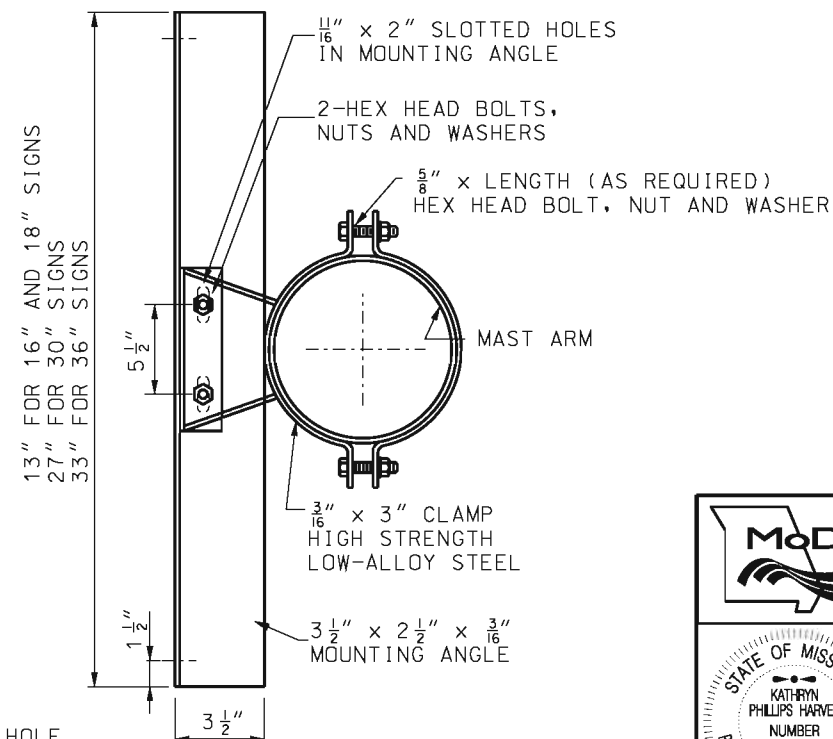
TOP VIEW



WELD DETAIL





FRONT VIEW

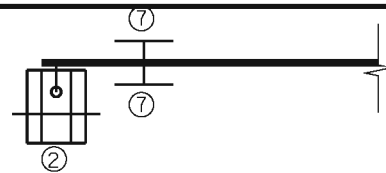


SIDE VIEW

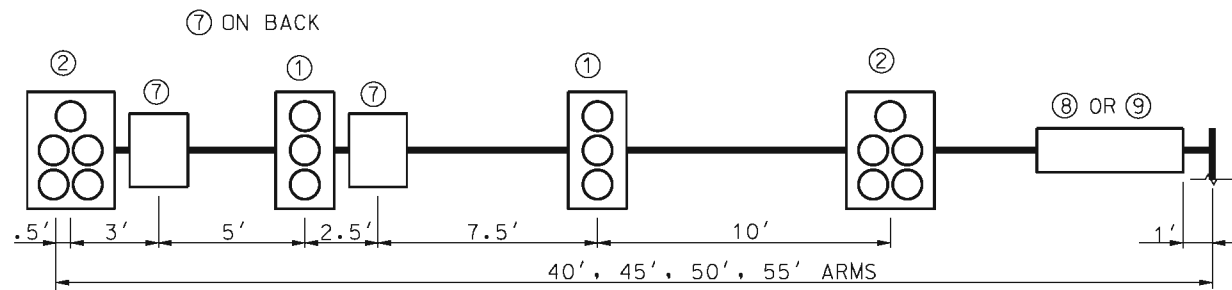
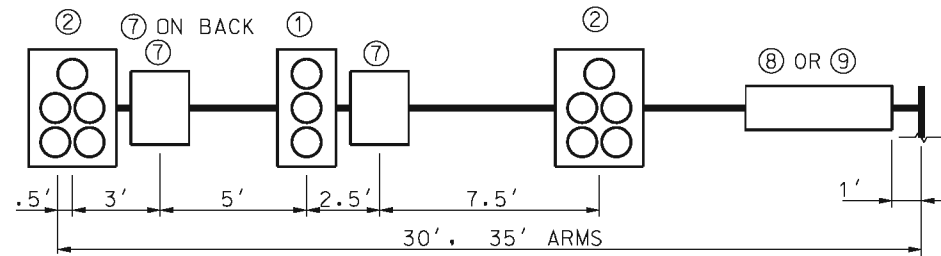
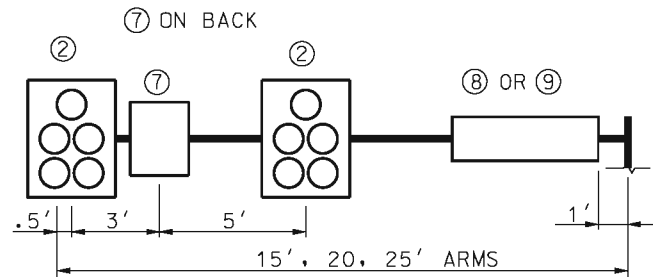
SIGN BRACKET ASSEMBLY

ALTERNATE DESIGN MAY BE PROVIDED
AS APPROVED BY ENGINEER

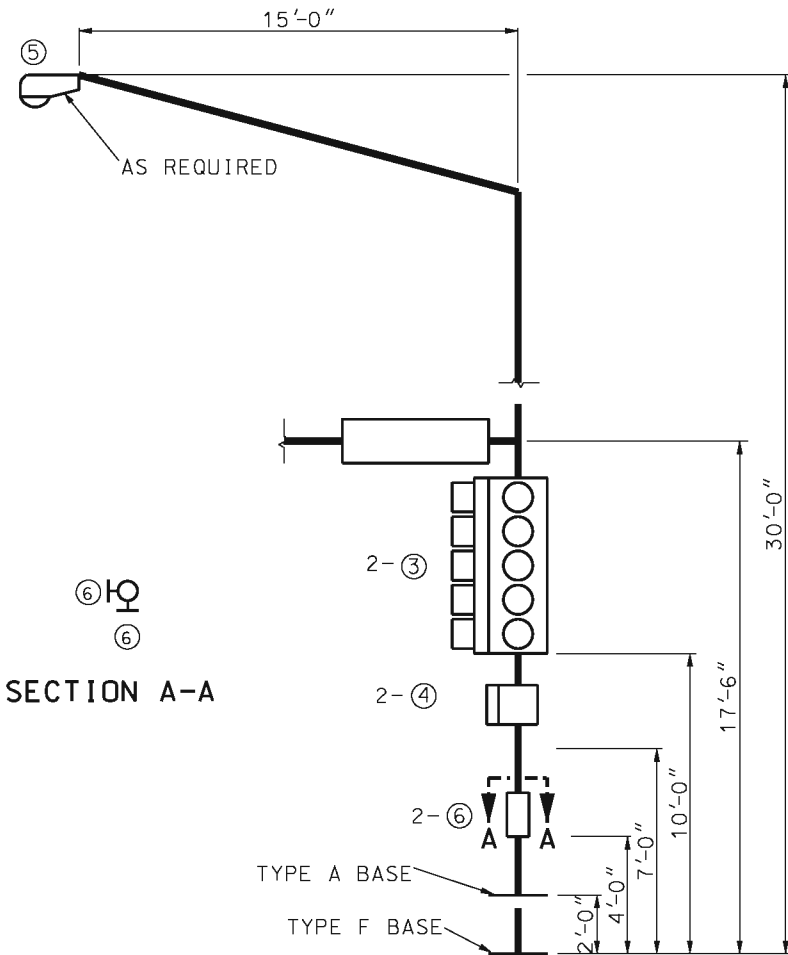
 MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)		
 THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.	TRAFFIC SIGNALS TUBULAR STEEL POSTS	
	DATE EFFECTIVE: 02/01/2008 DATE PREPARED: 1/17/2013	902.400



TYPICAL TOP VIEW

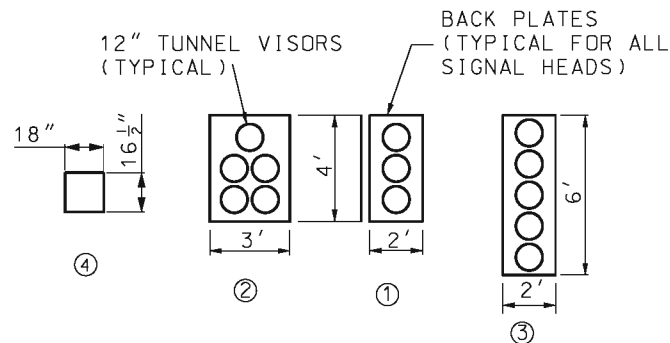


MAST ARM LOADING



SECTION A-A

TYPICAL POST LOADING



MINIMUM DESIGN LOADING FOR POST AND MAST ARM ATTACHMENTS

ITEM NO.	DESCRIPTION	WEIGHT (LBS.)*	PROJ. AREA (SQ.FT.)	SURFACE AREA (SQ.FT.)
①	3-SECTION OL HEAD	95.0	8.0	32.5
②	5-SECTION OL HEAD	173.0	12.0	47.5
③	VERT. 5-SECT. OL HEAD	100.0	12.0	50.5
④	1-SECTION PED HEAD	15.0	2.0	XX.X
⑤	150 WATT LUMINAIRE	30.0	1.0	3.5
⑥	9" X 12" SIGN	2.0	0.8	N/A
⑦	30" X 36" SIGN	13.0	7.5	N/A
⑧	120" X 18" SIGN	25.0	15.0	N/A
⑨	96" X 16" SIGN	18.0	10.7	N/A
	96" X 18" SIGN	20.0	12.0	N/A

OL- OPTICALLY LIMITED
* MOUNTING HARDWARE INCLUDED

STRUCTURAL DESIGN REQUIREMENTS:

STRUCTURAL SUPPORTS SHALL BE DESIGNED AND FABRICATED TO WITHSTAND THEIR OWN LOADING AND THE ATTACHMENT LOADING SHOWN ON THIS DRAWING OR ON THE PLANS, WHICHEVER IS GREATER. STRUCTURAL MEMBERS INCLUDE POSTS, MAST ARMS AND LUMINAIRE BRACKET ARMS, AS REQUIRED.

DESIGN OF STRUCTURAL SUPPORTS SHALL BE BASED ON AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS, 1994 OR LATEST REVISION, WITH THESE EXCEPTIONS:

MINIMUM DESIGN WIND SPEED OF 90 MPH AT 30 FEET ABOVE GROUND.


GROUP LOADING: LOADS	PERCENT OF ALLOWABLE STRESS (ALL MATERIALS)
GROUP I - DL	100
GROUP II - DL + W	133
GROUP III - DL + ICE + 0.5(W**)	133

* NO LOAD REDUCTION FACTORS SHALL BE APPLIED IN CONJUNCTION WITH THESE INCREASED ALLOWABLE STRESSES.
** W TO BE COMPUTED ON THE BASIS OF THE WIND PRESSURE FORMULA, 25 PSF (1197 Pa) MINIMUM FOR W FOR GROUP III.

FOR TYPE B AND BL POSTS, ICE AND DEAD LOADING SHALL BE BASED ON THE COMBINED EFFECT OF DESIGN LOADING ON EACH ARM. WIND LOADING IS APPLIED AS DESCRIBED IN SECTION 1.2.5(5)(b) OF THE STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS, 1994 REVISION.

GENERAL NOTES:

ATTACHMENT LOCATIONS ARE FOR STRUCTURAL DESIGN PURPOSES ONLY. ACTUAL LOCATIONS ARE SHOWN ON THE PLANS.



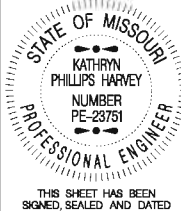
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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TRAFFIC SIGNALS

TUBULAR STEEL POSTS

DESIGN LOADING REQUIREMENTS



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DATE PREPARED: 8/26/2009

902.400

SHEET NO.

3 OF 3