



**Department of
Transportation**
transportation.ohio.gov

Mike DeWine, Governor
Jon Husted, Lt. Governor
Patrick D. O'Donnell, Director

March 19, 2025

Complete General Construction Company
1221 East Fifth Avenue
Columbus, Ohio 43219

Attention: Mr. Jeff Pennington

Re: Project 250077 Ross
Ross-S.R. 159-00.41
PID#113013
Type: Major Reconstruction

Dear Mr. Pennington:

Please note the preconstruction meeting for the above-mentioned project has been scheduled for Thursday, March 27, 2025, at 10:00 a.m. at the District 9 Headquarters at 650 Eastern Avenue, Chillicothe, Ohio 45601. This Precon will be held in the Great Seal Conference Room on the first floor.

The purpose of this meeting is to discuss the major reconstruction project referenced above. We will also discuss the Department's initiative of instituting informal partnering on this project. The CML for your project should be submitted before Precon. Please submit your CML to this email address ODOT_CML@dot.ohio.gov and cc RoseAnne Barnett.

Please email the Bar Chart Schedule to this District ahead of this Meeting.

Should you have any questions or need additional information, please contact this office.

Respectfully,

Michael L. Dombrowski
District 9 Deputy Director

By: Paul W. Maravy, by RAB

Paul W. Maravy, P.E.
District 9 Construction Engineer

MLD/PWM/rab

Cc:	Barnes	Cottrell	Immell	Young
	Barnitz	Dombrowski	Maravy	Zickafoose
	Beck	Elliott	McClellan	OSHP
	Beery	Francis	Pridemore	Bednarczyk
	Bell	Grooms	Schaaf	McColeman
	Bruning	Henshaw	Sherron	Latta
	Cockrell	Hurst	Thompson	Pickerrell
	Carroll	Prosch	Feeney	Boggs

Ohio Department of Transportation - Prebid Questions

Project No. 250077

Sale Date - 2/13/2025

ROS-113013 - SR 159-00.41

Question Submitted: 2/12/2025 2:00:13 PM

The proposal does not have an item for testing compaction. Will ODOT be performing this work?

Yes, except for the Item 870 - PMRW INSPECTION AND COMPACTION TESTING.

Question Submitted: 2/12/2025 10:20:50 AM

In regards to a previous prebid question answer about the non-epoxy silane, can you please provide a product that the engineer has in mind. After speaking to a sealing manufacturer, they are not aware of a silane that is tinted and was not sure of the 2 coat process. Can you please provide more details on this?

Question Submitted: 2/12/2025 7:28:08 AM

Will the department please add a pay for snow plowable raised markers as they will be needed for maintaining traffic.

Additional pay items for work zone raised markers will not be added.

Question Submitted: 2/12/2025 6:56:38 AM

Will the department add a pay item for the Temporary traffic signals.

The Temporary Traffic Signal work is included in Item 614, Maintaining Traffic and new pay items will not be added.

Question Submitted: 2/12/2025 6:47:13 AM

Will the department please add a pay item for the Worksite traffic Supervisor.

As per sheet 32, this work is included in Item 614, Maintaining Traffic and new pay items will not be added.

Question Submitted: 2/11/2025 12:58:13 PM

Addendum 5 did not correct Ref# 14- Embankment for the benching quantity. Plan sheet 28 was corrected, but quantity was not carried to general summary for payment.

The Department will make the correction by Addendum.

Question Submitted: 2/11/2025 7:27:50 AM

The pay item for CONCRETE, MISC; CONCRETE, CLASS RRCM is 8sy. The quantity for the driveways was 180sy. Please verify the area to be paved with RRCM.

There are two pay items with RRCM, one of them recently added by Addendum. Item 511 - CONCRETE, MISC.: CONCRETE, CLASS RRCM (8 SY) is included on sheet 27 for use in repairing abandoned utility manholes. Item 452 - 8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC MS, AS PER PLAN (180 SY) was set up on sheet 29 for potential use in driveway apron construction. Both of these pay items are included in the project.

Question Submitted: 2/10/2025 2:13:41 PM

FOR REF 154 CAN THE LUMEC RFM-160W48LED-3K-G2-R3M-UNV-DMG-API-NRC-BAC-BKBE BID AS AN EQUAL

<https://www.signify.com/api/assets/v1/file/Signify/content/b785af556e7c49dabc8fa87f0146fa52/Lumec-RoadFocus-LED-Cobra-Head---Medium--RFM--Spec-Sheet.pdf>

The Lumec RF Series is not approved for use, however the Lumec RP Series is on the approved list if the bidder would like to use that series. During the construction phase the specific luminaire would need evaluated to ensure proper illumination values are met to show the selected fixture with correct IES class/performance package/accessories/etc. is chosen to properly meet illuminance values.

Question Submitted: 2/10/2025 8:04:32 AM

Can the revised earthwork calculations be provided?

Revised calculations are not available at this time.

Ohio Department of Transportation - Prebid Questions

Question Submitted: 2/10/2025 7:48:59 AM

Page 163 and 164/592 from manhole D-16 to D-22 show the 36" pipe being removed. Will the department allow the contractor to fill and abandon this pipe in place where it does not conflict with the installation of the new 36" conduit.

The Department will make changes by Addendum to allow abandoning this pipe and fill it in place.

Question Submitted: 2/8/2025 12:45:31 PM

After reviewing quantities it appear that the subgrade compaction quantity is understated. There is no subgrade compaction calculated/included for Stewart Road, River Trace, Nourse Entrance and Roundabout area. Sheet 136 does not have any quantities for these areas. Please correct quantity to include these areas.

The Department will make the correction by Addendum. Subgrade compaction quantity on sheet 136 changes from 117.25 to 3,515.46 and the total quantity of subgrade compaction changes from 38,705 to 42,102.

Question Submitted: 2/7/2025 12:40:09 PM

The areas of the cross sections that contain special benching do not appear to have correct end areas/volumes. Sheets 219-220 and 234 - 240 appear to not include any excavation for benching and embankment appears to only include fill above existing ground. Can these areas be recalculated and quantities adjusted?

The excavation and embankment quantities for special benching will be added in the next addendum.

Question Submitted: 2/7/2025 12:07:45 PM

We have been unable to find a bench meeting the exact dimensions and design as shown on sheet 508. Can you provide manufacture used in design?

The bench used for the basis of design was the Cardinal Curved Bench by Graber Manufacturing. The Department will revise the plan note to include this bench or an approved equal.

Question Submitted: 2/7/2025 11:08:31 AM

can Signify Serenade be used as an approved equal to the Holophane Utility Washington Series <https://www.signify.com/en-us/products/outdoor-luminaires/urban/posttop/serenade-dsx-led-post-top-s55>

The Department and Local public agencies coordinated closely on the style and performance chosen during design and prefer the specified luminaire style and this proposed luminaire does not match close enough to be an approved equal.

Question Submitted: 2/7/2025 9:27:32 AM

The answer to prebid question on 2/6/2025 state the contractor may perform a lane closure any day and at any time provided the length and duration is approved by the ENGINEER. What is the minimum and maximum length and duration the ENGINEER will approve? This will affect the productions of work that can be performed and would possibly cause different assumptions between bidding contractors.

The Department must balance the needs of both the traveling public and the desire to get the high quality work done as efficient as possible. It is not possible to cite the minimum and maximum duration of lane closures or restrictions due the many different circumstances possible. The Department will consider lane closures and/restrictions that are reasonable for the situation. For example, it is not reasonable to close a ramp for several hours during peak traffic volumes when other times are available. On the other hand, reducing two lanes down to one lane for several hours or more to accomplish work or move MOT during low traffic volumes is reasonable.

Question Submitted: 2/6/2025 7:39:47 PM

There are multiple locations that proposed storm crosses side streets or SR159 in areas that are only getting resurfaced. It does not appear there are pavement quantities to repair these areas. Please provide additional quantities of aggregate base, asphalt base, intermediate and surface asphalt to patch trenches.

The Department will add by Addendum early next week additional notes and quantities to the plans addressing this question.

Question Submitted: 2/6/2025 4:03:02 PM

Typical sections shown base underdrain installed at 18" per specification and plans. The area of Marietta Road Extension that has a planned excavation of subgrade of 18" and replacement with granular material type c with geotextile fabric, shows underdrain below this area without a depth listed. What depth does underdrain need installed in this area?

The undercut for the Marietta Rd Extension will be revised to 12" and the underdrain clarified to be 18". The qty's for the undercut already assume this 12". This will be clarified by Addendum.

Ohio Department of Transportation - Prebid Questions

Question Submitted: 2/6/2025 3:56:58 PM

Typical Section for Bridge Street Sta. 724+84.63-729+30.00 on plan sheet 15 shows that there is excavation of subgrade in this area, bubble #5. There is no quantity for this work in the subsummary/general summary. Is there a planned undercut of subgrade in this area?

Pay items will be revised by Addendum to include this area.

Question Submitted: 2/6/2025 3:43:20 PM

General Note on sheet 29 requires some overhead signs to have a black finish to match the traffic signal cabinets. Does this only apply to signs mounted on the traffic signals? There is not an as per plan note? Will the sign hanger assembly be required to be black?

This plan note "OVERHEAD SIGNS, AS PER PLAN" will be deleted by Addendum.

Question Submitted: 2/6/2025 9:49:06 AM

The ramps at US35 and SR159 will need closed multiple times for temporary striping, PCB and other work. To allow for an accurate bid, and uniform playing field for all bidder please provide allowable day/times for ramp closures. Closure periods affect the productions of work that can be performed and would possibly cause different assumptions between bidding contractors.

Except for the restrictions cited in the "PLACEMENT OF PAVEMENT" plan note on sheet 33, it is not the intent for all work to be limited to night operations. Short duration temporary ramp closures or restrictions on the project using LEOS or temporary traffic control may occur on any day and at any time provided the length and duration of the lane or ramp closure and/or restriction is approved by the ENGINEER.

Question Submitted: 2/6/2025 9:49:04 AM

Additional lane closures will be required on SR159 for various work including MOT setup, striping, paving. To allow for an accurate bid, and uniform playing field for all bidder please provide allowable day/times for additional lane closures. Closure periods affect the productions of work that can be performed and would possibly cause different assumptions between bidding contractors.

Except for the restrictions cited in the "PLACEMENT OF PAVEMENT" plan note on sheet 33, it is not the intent for all work to be limited to night operations. Short duration temporary closures or restrictions on the project using LEOS or temporary traffic control may occur on any day and at any time provided the length and duration of the lane closure and/or restriction is approved by the ENGINEER.

Question Submitted: 2/6/2025 7:36:20 AM

Can Ref #332 8" Downspout be Fiberglass Plastic or does it have to be steel?

The 8" downspouts are to be galvanized steel as per Sheet 519.

Question Submitted: 2/5/2025 5:12:36 PM

Please add bid items for Work Zone Markings, Class III 642 for the surface course prior to the installation of permanent pavement markings as it will be needed to maintain traffic throughout the surface course paving operation.

Bid items for this work will be added by Addendum.

Ohio Department of Transportation - Prebid Questions

Question Submitted:

2/4/2025 1:00:35 PM

Is the contractor allowed to leave a milled surface on SR-159 and if so how long is it allowed to be milled before needing surface course placed?

The following note will be added by Addendum. PLACEMENT OF PAVEMENT ON THE MAINLINE OF SR159 BETWEEN STA 729+30 AND 755+48.50 COMPLETE THE MILL AND FILL OPERATIONS IN ONE LANE BEFORE MILLING THE ADJACENT LANE TO ENSURE THE NEW SURFACE COURSE IS BUTTING UP TO EITHER PROPOSED OR EXISTING ASPHALT TO ELIMINATE UNCONFINED LONGITUDINAL JOINTS, UNLESS AN ALTERNATE SEQUENCE IS APPROVED BY THE ENGINEER. ALL MILLED SURFACES SHALL BE BACKFILLED WITH SURFACE COURSE DURING THE SAME WORK PERIOD AND CANNOT BEGIN UNTIL 2026. SUFFICIENT QUANTITIES ARE INCLUDED IN "ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC" TO PAVE THE NEW FULL DEPTH SEGMENTS BETWEEN STA 729+30 AND 755+48.50 WITH INTERMEDIATE ASPHALT TO THE SURFACE UNTIL THE FINISH COURSE IS PLACED BY THE MILL AND FILL OPERATIONS. THE FINISH COURSE SHALL SPAN THE JOINT CREATED BY THE ADDED FULL DEPTH PAVEMENT ON THE RIGHT AND LEFT SIDE OF THE ROAD. THE MILL AND FILL OPERATIONS FOR THIS SEGMENT SHALL BE COMPLETE DURING NIGHT SHIFTS (SUN-THUR 8P-6A AND FRI-SAT 10P-8A) AND WITHIN CONSECUTIVE DAYS OF OPERATION WITHIN ONE WEEK OF WORK UNTIL ALL PAVEMENT IS PLACED AND FULL PATTERN PAVEMENT MARKINGS ARE INSTALLED. IN ALL OTHER MILL AND FILL OPERATIONS, TRAFFIC MAY BE PLACED ON A MILLED/PLANED SURFACE BUT SHALL NOT EXCEED 5 DAYS BEFORE SURFACE COURSE IS PLACED, PROVIDED SUFFICIENT TRAFFIC CONTROL AND WORK ZONE PAVEMENT MARKINGS ARE APPLIED PRIOR TO OPENING TO TRAFFIC, OR AS APPROVED BY THE ENGINEER. THE DEPARTMENT'S PREFERENCE IS TO APPLY THE SURFACE COURSE AT THE END OF CONSTRUCTION IN ORDER TO COVER ALL PAVEMENT MARKINGS FOR THE VARIOUS MOT PHASES.

Question Submitted:

2/4/2025 9:49:57 AM

What are the allowable hours for lanes closures on SR159 and Ramp Closures for US35/SR159 Ramps?

The Permitted Lane Closure Schedule (PLCS) only applies to US35 mainline and not the ramps or SR159. The PLCS restrictions for lane closures on US35 will apply to the scupper work on the US35 bridges. For the remaining work on the project, the Maintenance of Traffic Plan notes and plan sheets detail the traffic lanes that are to be maintained and lane closure plans for SR159 and the US35/SR159 ramps. Any other closures not considered by the MOT plan would need coordinated through and approved by the Engineer during construction phase.

Question Submitted:

2/3/2025 3:21:48 PM

Item #36 - Crushed Aggregate Slope Protection - 6". The proposal and general summary in plans state 6". Sheet 350 shows this as being installed at 12" depth. Which depth will be required? Can drawings/description be adjusted to match correct depth?

The crushed aggregate slope protection (6") included under Erosion Control on sheet 116 covers the aggregate shown on typical section sheet 14 between the shared use path and type D barrier under the bridge. The 12" crushed aggregate slope protection (shown on sheets 350 and 518) that is replacing the existing concrete slope protection under the bridge is quantified on sheet 519 and carried to general summary sheet 121 with the ROS-35-1972 Structure Repair items.

Question Submitted:

2/3/2025 9:44:54 AM

Are the luminaires on the signal supports being powered by the traffic signal cabinet or are they on the lighting circuit? If they are being powered by the signal cabinet, why does it show the lighting conduit entering the signal foundations? If they are being powered by the signal cabinet then should the fixtures be 120V? The ones on the lighting circuit are 240V.

The lighting attached to the traffic signal poles was designed to be powered by the lighting circuit. The plans will be updated to remove the lighting items from the traffic signal wiring diagrams to avoid confusion.

Question Submitted:

2/3/2025 9:17:42 AM

Plan note for Item 512 (page 353/592) calls for a non-epoxy urethane sealant per Item 512. Please clarify which product is required: non-epoxy sealer from QPL 705.23B or a urethane sealer from QPL 705.23A.

Item 512 – Sealing of Concrete Surfaces (Non-Epoxy), As Per Plan should consist of "two coats of non-epoxy silane sealant per Item 512". This item should conform to QPL 705.23B. The change will be reflected in Addendum.

Question Submitted:

2/3/2025 8:37:42 AM

The lighting sub-summary has 3" Rigid Conduit and 1-1/2" Duct Cable. Is the intention of the plans to have the duct cable installed within the 3" rigid conduit or was it intent to have distribution cable (only) installed within the 3" rigid conduit? It will be extremely difficult to pull the duct cable into rigid conduit.

ITEM 625 1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES will be revised to ITEM 625 NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE and the quantity revised to reflect the change by Addendum.

*** DISCLAIMER - Prebid questions and answers provided are for informational purposes only and are not part of the Bid Documents. If a question warrants a clarification, the Department will issue an addendum addressing the request.

Ohio Department of Transportation - Prebid Questions

Question Submitted: 2/2/2025 9:14:30 PM

It appears they existing Type D Wall on outside of SR159 Northbound and Southbound is being replaced. There is not a quantity of concrete barrier removal for these locations.

The Department will add by Addendum 315 linear feet of concrete barrier removed to R10 on sheet 123. This will change pay item 0004 (202E3070) from 152 FT to 467 FT.

Question Submitted: 2/2/2025 6:33:43 PM

The note on sheet 30 Maintaining Traffic - Lanes open during holidays or special events, states that all existing lanes shall be open during holidays or special events, the phasing and schedule will not allow for existing lanes to be opened back up during these holidays. Please remove this note

This MOT plan note will be removed by Addendum.

Question Submitted: 1/31/2025 6:54:13 PM

We would like to submit King Luminaires, K147 Series as an approved equal to the Holophane. This is a new product offering to match the specified product, see attached submittals. Will the K147 series be an approved equal?

The King K147 series seems to match the Holophane Utility Washington series in aesthetic style, however it is not clear whether the lighting level would match the specified luminaire as there are three different types of usages of this luminaire in the plans (Bridge, Shared Use Path, and Pocket Park). With regard to the aesthetics, provided the features match the specified product, the King appears to be an equal and as long as the luminaire could be shown to be equal to the Holophane through detailed lighting analysis during the construction phase product/shop drawing submittal, then it could be approved by the Engineer at that time.

Question Submitted: 1/30/2025 1:41:36 PM

With respect to revised plan sheet 29 (addendum 2) concerning Driveway Construction. While we respect ODOT's ingenuity and looking ahead with regard to the optimum concrete mix for quick strength driveway aprons, please just go back to a standard fast set mix in which all the concrete producers can easily handle. The notes contain mix designs, lab testing, beams, maturity curves, trial mixes, etc. This seems extreme and costly for 180 SY @ 8" = 40 CY of concrete.

The Department is phasing out Fast Set mix and desires to use the Rapid Repair Concrete Mix (RRCM). The existing plan note for ITEM 452 - 8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC MS, AS PER PLAN does not require a new mix design. An already developed mix per CMS 255.02 is acceptable. An existing approved RRCM JMF is available at local concrete producers.

Question Submitted: 1/29/2025 12:19:55 PM

The plans call for reference 141 (Light Pole, Misc. (Pocket Parks, 15' Mtg Ht), to exactly match the light poles be used on the bridge and SUP. Can the manufacturer and part numbers be provided?

The approved shop drawings for the pole manufacturer are included in the "Special Provisions - Signal and Light Supports" that was provided with Addendum #1. The files for both Special Provisions (Signal and Light Supports and Item 452 Training) are provided at a download link on the first page of the Addendum #1.

Question Submitted: 1/29/2025 12:16:41 PM

Can the location of the pre-purchase stored electric materials be given? Light poles, Transformer Bases, Bracket Arms ,Etc.

As per the "Special Provisions - Signals and Light Supports", the pre-purchased items will be delivered by the Vendor to Chillicothe, Ohio for the contractor to unload at their designated location. Please refer to the Special Provision provided with Addendum #1. It was included as a file for download from the FTP site.

Question Submitted: 1/29/2025 8:25:24 AM

While trying to open the zip file that contains the cad files for the project, we are getting a message that says the archive is corrupt. Can you look into this please. Thank you.

With Addendum #2 being published soon, the Department is uploading 1/29/2025 a new CADDFiles.zip file to the Reference Folder for bidders to access.

Ohio Department of Transportation - Prebid Questions

Question Submitted: 1/28/2025 3:54:20 PM

The pavement removal appears to be included in the excavation end area/quantities. Can the excavation quantity be adjusted to exclude the pavement removal?

The pavement removal is included in the excavation end area quantities. We will calculate the pavement removal quantities and remove that amount from the Item 203 totals for each alignment as summarized on sheet 28 and the General Summary. This correction will be addressed by Addendum.

Question Submitted: 1/27/2025 8:14:49 AM

The question the department answered on the slip form paving requirement you have ending station at 720.30. Please verify this station as it is in the middle of the project.

Thank you for the correction. The station range that ODOT specification 451.04 requires the use of slip-form paving machines for mainline pavement includes the mainline from approximately Sta 710+65 to Sta 729+30.

Question Submitted: 1/24/2025 10:45:46 AM

Ref #155-157 – Would the Spring City Post Top fixture be an approved equal to the fixtures called out in the plans? SPRING CITY POST TOP AUGUSTA LUMINAIRE - 120-277V - TYPE II / III / V DISTRIBUTION - 3000K COLOR TEMP – 40W / 60W / 100W - CLEAR TEMPERED GLASS - BLACKSPRING CITY PART #ALMAGS-M6-LE040/LE060/LE100-EVX-2F2-30-CR2/CR3/CR5-GPLO-FPA-CU

The Department and Local public agencies coordinated closely on the style and performance chosen during design and prefer the specified luminaire style and this proposed luminaire does not match close enough to be an approved equal.

Question Submitted: 1/24/2025 8:48:40 AM

Due to the requirement of the concrete pavement having to be slip-formed will ODOT please consider changing the 50% self-performed work to 30%?

The percentage will be reduced to 40%.

Question Submitted: 1/23/2025 10:26:26 AM

Ref #158 – Would the Current EWAS Underpass fixture be an approved equal to the fixtures called out in the plans? CURRENT LIGHTING EWAS LED UNDERPASS FIXTURE - 120-277V - 4,900 LUMENS - 36 WATTS - ASYMMETRIC NARROW DISTRIBUTION - 3000K – NO PE/DIMMING - FLUSH MOUNT - BLACK - FUSING - ENHANCED SURGE PROTECTION - ODOT LABELINGGE PART #EWAS-01-3-B2-AN-7-30-N-1-FM-BLCK-FR-004

The GE EWAS product family is an approved product for underpass lighting, however, a cursory analysis indicates that the product number would be more like GE #EWAS-01-3-B4-AF-7-30-N-1-FM-BLCK to match the performance of the Holophane specified luminaire. The Department would accept this GE EWAS product line, however, documentation would be required prior to luminaire purchase during construction to demonstrate equivalent illuminance and performance to the specified products.

Question Submitted: 1/22/2025 4:31:22 PM

For Bid Ref 175, plan page 421/592 shows what appears to be (2) TC-12.31 Overhead Sign Supports. However, these are carried over to the Signing Subsummary and the General Summary on page 372/592 and 119/592 respectively as TC-15.116, Des 1 Overhead Sign Support. Please verify the correct structures to be supplied.

The correction will be made in the forthcoming Addendum.

Question Submitted: 1/22/2025 3:57:56 PM

For Bid Ref 155, 156 & 157 will King Luminaire's K137 Yarmouth Series Luminaire be considered an approved equal to the specified Holophane Luminaires. The K137R-P4NG series is Dark Sky compliant with a U rating of 0.

The Department and Local public agencies coordinated closely on the style and performance chosen during design and prefer the specified luminaire style and this proposed luminaire does not match close enough to be an approved equal.

Question Submitted: 1/17/2025 3:57:07 PM

Can you please clarify if the 8" and 9" 452 concrete pavement has to be slip-formed or can they be hand formed and poured?

All concrete placement shall conform to the CMS section 450 and any other pertinent sections. ODOT specification 451.04 requires the use of slip-form paving machines for mainline pavement, which includes the mainline from approximately Sta 710+65 to Sta 720+30. Small sections, short sections, or irregular pavement areas, may be constructed with fixed form methods, as determined by the Engineer.

Ohio Department of Transportation - Prebid Questions

Question Submitted:

1/17/2025 1:36:49 PM

Page 134/592 the quantities that are in the column for 9"pavement seem to be for 4"concrete walk shown on page 280. Please verify.

Yes, this column should be for 4" concrete walk. This will be corrected by Addendum.

Question Submitted:

1/17/2025 12:37:22 PM

Page 134/592 the column for 9" non-reinforced pavement has a quantity of 1618.62 and561.59 sy. These appear to be square feet and not the square yards. Please verify.

Yes, the quantity should be square feet. Also, this column should be 4" concrete walk. This will be corrected by Addendum.



Ohio Department of Transportation
Official Bid Tabulation
Jack Marchbanks, Ph.D., Director

Project No. 250077
PID 113013
ROS-SR 159-00.41
Federal
Type: MAJOR RECONSTRUCTION
Letting Date: 2/13/2025
Completion Date: 7/2/2027

Contract Awarded To: COMPLETE GENERAL CONSTRUCTION COMPANY
Award Amount: \$19,286,683.78
Engineer's Estimate: \$19,110,000.00

Bidder 1

COMPLETE GENERAL CONSTRUCTION COMPANY
1221 EAST FIFTH AVE
Franklin
COLUMBUS, OH 43219
Bid \$19,286,683.78

Bidder 2

SUNESIS CONSTRUCTION CO
2610 CRESCENTVILLE RD
Butler
WEST CHESTER, OH 45069
Bid \$20,048,215.12

Bidder 3

SHELLY & SANDS INC
1515 HARMON AVE
Franklin
COLUMBUS, OH 43223
Bid \$22,122,033.62

Ref #1	202E23000	PAVEMENT REMOVED, (40697 SY)	
	Awd	\$17.00	\$691,849.00
	2	\$14.22	\$578,711.34
	3	\$20.00	\$813,940.00
Ref #2	202E30000	WALK REMOVED, (2950 SF)	
	Awd	\$3.00	\$8,850.00
	2	\$3.27	\$9,646.50
	3	\$3.00	\$8,850.00
Ref #3	202E30600	CONCRETE MEDIAN REMOVED, (28 SY)	
	Awd	\$45.00	\$1,260.00
	2	\$75.62	\$2,117.36
	3	\$60.00	\$1,680.00
Ref #4	202E30700	CONCRETE BARRIER REMOVED, (467 FT)	
	Awd	\$57.00	\$26,619.00
	2	\$71.16	\$33,231.72
	3	\$150.00	\$70,050.00
Ref #5	202E32000	CURB REMOVED, (3546 FT)	
	Awd	\$8.00	\$28,368.00
	2	\$7.18	\$25,460.28
	3	\$6.00	\$21,276.00
Ref #6	202E32500	CURB AND GUTTER REMOVED, (1784 FT)	
	Awd	\$11.00	\$19,624.00
	2	\$8.31	\$14,825.04
	3	\$6.00	\$10,704.00
Ref #7	202E32700	GUTTER REMOVED, (20 SY)	
	Awd	\$31.00	\$620.00
	2	\$126.89	\$2,537.80
	3	\$60.00	\$1,200.00
Ref #8	202E38000	GUARDRAIL REMOVED, (3863 FT)	
	Awd	\$2.00	\$7,726.00
	2	\$2.50	\$9,657.50
	3	\$2.50	\$9,657.50
Ref #9	202E47800	IMPACT ATTENUATOR REMOVED, (2 EACH)	
	Awd	\$185.00	\$370.00
	2	\$750.00	\$1,500.00
	3	\$750.00	\$1,500.00
Ref #10	202E53100	MAILBOX REMOVED, (1 EACH)	
	Awd	\$365.00	\$365.00
	2	\$152.75	\$152.75
	3	\$75.00	\$75.00
Ref #11	202E75000	FENCE REMOVED, (240 FT)	
	Awd	\$3.90	\$936.00
	2	\$5.00	\$1,200.00
	3	\$5.00	\$1,200.00
Ref #12	202E98100	REMOVAL MISC.: BENCH REMOVED, (16 EACH)	
	Awd	\$200.00	\$3,200.00
	2	\$104.48	\$1,671.68
	3	\$135.00	\$2,160.00

Ref #13	203E10000	EXCAVATION, (18977 CY)	
	Awd	\$25.00	\$474,425.00
	2	\$28.69	\$544,450.13
	3	\$33.00	\$626,241.00
Ref #14	203E20000	EMBANKMENT, (20052 CY)	
	Awd	\$8.00	\$160,416.00
	2	\$17.44	\$349,706.88
	3	\$21.00	\$421,092.00
Ref #15	204E10000	SUBGRADE COMPACTION, (42102 SY)	
	Awd	\$3.25	\$136,831.50
	2	\$4.22	\$177,670.44
	3	\$7.50	\$315,765.00
Ref #16	204E13000	EXCAVATION OF SUBGRADE, (1824 CY)	
	Awd	\$32.00	\$58,368.00
	2	\$35.28	\$64,350.72
	3	\$30.00	\$54,720.00
Ref #17	204E30020	GRANULAR MATERIAL, TYPE C, (1824 CY)	
	Awd	\$50.00	\$91,200.00
	2	\$98.85	\$180,302.40
	3	\$74.00	\$134,976.00
Ref #18	204E45000	PROOF ROLLING, (18 HOUR)	
	Awd	\$360.00	\$6,480.00
	2	\$297.06	\$5,347.08
	3	\$275.00	\$4,950.00
Ref #19	204E50000	GEOTEXTILE FABRIC, (4329 SY)	
	Awd	\$2.00	\$8,658.00
	2	\$1.47	\$6,363.63
	3	\$1.00	\$4,329.00
Ref #20	209E10001	DITCH CLEANOUT, AS PER PLAN, (170 FT)	
	Awd	\$14.00	\$2,380.00
	2	\$10.91	\$1,854.70
	3	\$16.00	\$2,720.00
Ref #21	512E10051	SEALING OF CONCRETE SURFACES (NON-EPOXY), AS PER P, (125 SY)	
	Awd	\$35.00	\$4,375.00
	2	\$99.88	\$12,485.00
	3	\$35.00	\$4,375.00
Ref #22	606E15050	GUARDRAIL, TYPE MGS, (1700 FT)	
	Awd	\$18.60	\$31,620.00
	2	\$21.00	\$35,700.00
	3	\$21.00	\$35,700.00
Ref #23	606E25550	ANCHOR ASSEMBLY, MGS TYPE A, (2 EACH)	
	Awd	\$1,560.00	\$3,120.00
	2	\$1,700.00	\$3,400.00
	3	\$1,700.00	\$3,400.00
Ref #24	606E26150	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016), (5 EACH)	
	Awd	\$2,640.00	\$13,200.00
	2	\$2,600.00	\$13,000.00
	3	\$2,600.00	\$13,000.00

Ref #25	606E26500	ANCHOR ASSEMBLY, TYPE T, (4 EACH)		
	Awd	\$1,380.00	\$5,520.00	
	2	\$1,200.00	\$4,800.00	
	3	\$1,200.00	\$4,800.00	
Ref #26	606E35002	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1, (2 EACH)		
	Awd	\$2,570.00	\$5,140.00	
	2	\$2,550.00	\$5,100.00	
	3	\$2,550.00	\$5,100.00	
Ref #27	606E60028	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL) (40 MPH,, (2 EACH)		
	Awd	\$27,850.00	\$55,700.00	
	2	\$33,795.53	\$67,591.06	
	3	\$30,000.00	\$60,000.00	
Ref #28	607E98000	FENCE, MISC.: 4-RAIL STEEL BOARD FENCING, (861 FT)		
	Awd	\$69.00	\$59,409.00	
	2	\$75.00	\$64,575.00	
	3	\$75.00	\$64,575.00	
Ref #29	608E10000	4" CONCRETE WALK, (49727 SF)		
	Awd	\$7.00	\$348,089.00	
	2	\$7.86	\$390,854.22	
	3	\$9.50	\$472,406.50	
Ref #30	608E52000	CURB RAMP, (11383 SF)		
	Awd	\$15.00	\$170,745.00	
	2	\$21.31	\$242,571.73	
	3	\$42.00	\$478,086.00	
Ref #31	608E53020	DETECTABLE WARNING, (1320 SF)		
	Awd	\$30.00	\$39,600.00	
	2	\$22.17	\$29,264.40	
	3	\$50.00	\$66,000.00	
Ref #32	622E10061	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLA, (115 FT)		
	Awd	\$420.00	\$48,300.00	
	2	\$274.43	\$31,559.45	
	3	\$575.00	\$66,125.00	
Ref #33	622E10161	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLA, (200 FT)		
	Awd	\$185.00	\$37,000.00	
	2	\$212.22	\$42,444.00	
	3	\$425.00	\$85,000.00	
Ref #34	622E24841	CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN, (2 EACH)		
	Awd	\$11,265.00	\$22,530.00	
	2	\$10,829.68	\$21,659.36	
	3	\$4,500.00	\$9,000.00	
Ref #35	622E25051	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE , (6 EACH)		
	Awd	\$4,215.00	\$25,290.00	
	2	\$5,159.64	\$30,957.84	
	3	\$5,500.00	\$33,000.00	
Ref #403	202E58001	MANHOLE REMOVED, AS PER PLAN, (4 EACH)		
	Awd	\$1,100.00	\$4,400.00	
	2	\$711.42	\$2,845.68	
	3	\$1,300.00	\$5,200.00	

Ref #404	202E58701	MANHOLE ABANDONED, AS PER PLAN, (4 EACH)		
	Awd		\$730.00	\$2,920.00
	2		\$902.11	\$3,608.44
	3		\$1,100.00	\$4,400.00
Ref #405	202E62001	JUNCTION BOX REMOVED, AS PER PLAN, (4 EACH)		
	Awd		\$520.00	\$2,080.00
	2		\$275.00	\$1,100.00
	3		\$1,000.00	\$4,000.00
Ref #406	511E71300	CONCRETE, MISC.: CONCRETE, CLASS RRCM, (8 SY)		
	Awd		\$500.00	\$4,000.00
	2		\$234.46	\$1,875.68
	3		\$575.00	\$4,600.00
Ref #407	613E41300	LOW STRENGTH MORTAR BACKFILL (TYPE 2), (8 CY)		
	Awd		\$245.00	\$1,960.00
	2		\$279.10	\$2,232.80
	3		\$305.00	\$2,440.00

Section 1 - ROADWAY - Totals

Awd	\$2,613,543.50
2	\$3,018,382.61
3	\$3,928,293.00

Ref #36	601E20000	CRUSHED AGGREGATE SLOPE PROTECTION (6"), (845 SY)		
	Awd		\$19.00	\$16,055.00
	2		\$30.35	\$25,645.75
	3		\$35.00	\$29,575.00
Ref #37	601E21050	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT, (37 SY)		
	Awd		\$150.00	\$5,550.00
	2		\$265.12	\$9,809.44
	3		\$170.00	\$6,290.00
Ref #38	601E32200	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER, (6 CY)		
	Awd		\$290.00	\$1,740.00
	2		\$376.48	\$2,258.88
	3		\$330.00	\$1,980.00
Ref #39	601E37500	PAVED GUTTER, TYPE 1-2, (53 FT)		
	Awd		\$105.00	\$5,565.00
	2		\$100.00	\$5,300.00
	3		\$135.00	\$7,155.00
Ref #40	659E00100	SOIL ANALYSIS TEST, (2 EACH)		
	Awd		\$150.00	\$300.00
	2		\$54.67	\$109.34
	3		\$125.00	\$250.00
Ref #41	659E00300	TOPSOIL, (3639 CY)		
	Awd		\$30.00	\$109,170.00
	2		\$65.00	\$236,535.00
	3		\$55.00	\$200,145.00
Ref #42	659E10000	SEEDING AND MULCHING, (32749 SY)		
	Awd		\$0.70	\$22,924.30
	2		\$3.69	\$120,843.81
	3		\$0.85	\$27,836.65

Ref #43	659E14000	REPAIR SEEDING AND MULCHING, (1639 SY)	
	Awd	\$0.70	\$1,147.30
	2	\$2.00	\$3,278.00
	3	\$0.80	\$1,311.20
Ref #44	659E15000	INTER-SEEDING, (1639 SY)	
	Awd	\$0.70	\$1,147.30
	2	\$2.00	\$3,278.00
	3	\$0.80	\$1,311.20
Ref #45	659E20000	COMMERCIAL FERTILIZER, (4.42 TON)	
	Awd	\$1,250.00	\$5,525.00
	2	\$1,400.00	\$6,188.00
	3	\$900.00	\$3,978.00
Ref #46	659E31000	LIME, (6.77 ACRE)	
	Awd	\$150.00	\$1,015.50
	2	\$450.00	\$3,046.50
	3	\$156.00	\$1,056.12
Ref #47	659E35000	WATER, (177 MGAL)	
	Awd	\$1.00	\$177.00
	2	\$1.39	\$246.03
	3	\$1.00	\$177.00
Ref #48	659E40000	MOWING, (53 MSF)	
	Awd	\$10.00	\$530.00
	2	\$15.00	\$795.00
	3	\$11.00	\$583.00
Ref #49	832E15000	STORM WATER POLLUTION PREVENTION PLAN, (LUMP SUM)	
	Awd	\$5,000.00	\$5,000.00
	2	\$3,985.00	\$3,985.00
	3	\$8,000.00	\$8,000.00
Ref #50	832E15002	STORM WATER POLLUTION PREVENTION INSPECTIONS, (LUMP SUM)	
	Awd	\$35,000.00	\$35,000.00
	2	\$35,280.00	\$35,280.00
	3	\$55,000.00	\$55,000.00
Ref #51	832E15010	STORM WATER POLLUTION PREVENTION INSPECTION SOFTWA, (LUMP SUM)	
	Awd	\$21,000.00	\$21,000.00
	2	\$21,056.86	\$21,056.86
	3	\$22,500.00	\$22,500.00
Ref #52	832E30000	EROSION CONTROL, (180000 EACH)	
	Awd	\$1.00	\$180,000.00
	2	\$1.00	\$180,000.00
	3	\$1.00	\$180,000.00

Section 2 - EROSION CONTROL - Totals

Awd	\$411,846.40
2	\$657,655.61
3	\$547,148.17

Ref #53	202E20010	HEADWALL REMOVED, (6 EACH)	
	Awd	\$430.00	\$2,580.00
	2	\$407.10	\$2,442.60
	3	\$300.00	\$1,800.00

Ref #54	202E35100	PIPE REMOVED, 24" DIAMETER AND UNDER, (1227 FT)	
	Awd	\$55.00	\$67,485.00
	2	\$22.23	\$27,276.21
	3	\$27.00	\$33,129.00
Ref #55	202E35200	PIPE REMOVED, OVER 24" DIAMETER, (924 FT)	
	Awd	\$110.00	\$101,640.00
	2	\$30.68	\$28,348.32
	3	\$25.00	\$23,100.00
Ref #56	202E58000	MANHOLE REMOVED, (9 EACH)	
	Awd	\$950.00	\$8,550.00
	2	\$810.45	\$7,294.05
	3	\$450.00	\$4,050.00
Ref #57	202E58100	CATCH BASIN REMOVED, (28 EACH)	
	Awd	\$490.00	\$13,720.00
	2	\$553.63	\$15,501.64
	3	\$300.00	\$8,400.00
Ref #58	202E70110	SPECIAL - PIPE CLEANOUT, 24" AND UNDER, (100 FT)	
	Awd	\$92.00	\$9,200.00
	2	\$150.00	\$15,000.00
	3	\$17.50	\$1,750.00
Ref #59	202E70120	SPECIAL - PIPE CLEANOUT, 27" TO 48", (100 FT)	
	Awd	\$138.00	\$13,800.00
	2	\$175.00	\$17,500.00
	3	\$21.00	\$2,100.00
Ref #60	202E98100	REMOVAL MISC.: INSPECTION WELL, (1 EACH)	
	Awd	\$925.00	\$925.00
	2	\$163.57	\$163.57
	3	\$400.00	\$400.00
Ref #61	202E98200	REMOVAL MISC.: CONDUIT, (35 FT)	
	Awd	\$56.00	\$1,960.00
	2	\$40.79	\$1,427.65
	3	\$25.00	\$875.00
Ref #62	203E20001	EMBANKMENT, AS PER PLAN, (50 CY)	
	Awd	\$16.00	\$800.00
	2	\$88.34	\$4,417.00
	3	\$65.00	\$3,250.00
Ref #63	602E20000	CONCRETE MASONRY, (3.4 CY)	
	Awd	\$1,905.00	\$6,477.00
	2	\$4,749.87	\$16,149.56
	3	\$3,200.00	\$10,880.00
Ref #64	605E13300	6" UNCLASSIFIED PIPE UNDERDRAINS, (964 FT)	
	Awd	\$18.00	\$17,352.00
	2	\$19.41	\$18,711.24
	3	\$23.00	\$22,172.00
Ref #65	605E14000	6" BASE PIPE UNDERDRAINS, (16601 FT)	
	Awd	\$14.00	\$232,414.00
	2	\$19.93	\$330,857.93
	3	\$15.50	\$257,315.50

Ref #66	611E00510	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS, (1232 FT)		
	Awd		\$25.00	\$30,800.00
	2		\$62.11	\$76,519.52
	3		\$35.00	\$43,120.00
Ref #67	611E01500	6" CONDUIT, TYPE F, (50 FT)		
	Awd		\$45.00	\$2,250.00
	2		\$30.22	\$1,511.00
	3		\$22.00	\$1,100.00
Ref #68	611E02400	8" CONDUIT, TYPE D, (30 FT)		
	Awd		\$59.00	\$1,770.00
	2		\$43.48	\$1,304.40
	3		\$45.00	\$1,350.00
Ref #69	611E04400	12" CONDUIT, TYPE B, (2372 FT)		
	Awd		\$110.00	\$260,920.00
	2		\$115.03	\$272,851.16
	3		\$125.00	\$296,500.00
Ref #70	611E04600	12" CONDUIT, TYPE C, (45 FT)		
	Awd		\$110.00	\$4,950.00
	2		\$91.14	\$4,101.30
	3		\$110.00	\$4,950.00
Ref #71	611E05900	15" CONDUIT, TYPE B, (401 FT)		
	Awd		\$130.00	\$52,130.00
	2		\$127.52	\$51,135.52
	3		\$120.00	\$48,120.00
Ref #72	611E06100	15" CONDUIT, TYPE C, (47 FT)		
	Awd		\$121.00	\$5,687.00
	2		\$104.70	\$4,920.90
	3		\$112.00	\$5,264.00
Ref #73	611E07400	18" CONDUIT, TYPE B, (224 FT)		
	Awd		\$152.00	\$34,048.00
	2		\$135.19	\$30,282.56
	3		\$135.00	\$30,240.00
Ref #74	611E07600	18" CONDUIT, TYPE C, (35 FT)		
	Awd		\$156.00	\$5,460.00
	2		\$116.70	\$4,084.50
	3		\$123.00	\$4,305.00
Ref #75	611E08900	21" CONDUIT, TYPE B, (45 FT)		
	Awd		\$254.00	\$11,430.00
	2		\$189.37	\$8,521.65
	3		\$235.00	\$10,575.00
Ref #76	611E10400	24" CONDUIT, TYPE B, (702 FT)		
	Awd		\$160.00	\$112,320.00
	2		\$165.90	\$116,461.80
	3		\$170.00	\$119,340.00
Ref #77	611E10600	24" CONDUIT, TYPE C, (309 FT)		
	Awd		\$182.00	\$56,238.00
	2		\$141.85	\$43,831.65
	3		\$140.00	\$43,260.00

Ref #78	611E11900	27" CONDUIT, TYPE B, (696 FT)		
	Awd		\$250.00	\$174,000.00
	2		\$272.13	\$189,402.48
	3		\$270.00	\$187,920.00
Ref #79	611E13600	30" CONDUIT, TYPE C, (39 FT)		
	Awd		\$203.00	\$7,917.00
	2		\$192.70	\$7,515.30
	3		\$190.00	\$7,410.00
Ref #80	611E16400	36" CONDUIT, TYPE B, (349 FT)		
	Awd		\$365.00	\$127,385.00
	2		\$410.74	\$143,348.26
	3		\$335.00	\$116,915.00
Ref #81	611E16600	36" CONDUIT, TYPE C, (801 FT)		
	Awd		\$235.00	\$188,235.00
	2		\$277.14	\$221,989.14
	3		\$210.00	\$168,210.00
Ref #82	611E97400	CONDUIT, MISC.: TYPE B FOR DRAINAGE DISCHAGE CONTI, (35 FT)		
	Awd		\$250.00	\$8,750.00
	2		\$73.16	\$2,560.60
	3		\$70.00	\$2,450.00
Ref #83	611E97400	CONDUIT, MISC.: TYPE C FOR DRAINAGE DISCHAGE CONTI, (35 FT)		
	Awd		\$215.00	\$7,525.00
	2		\$73.16	\$2,560.60
	3		\$65.00	\$2,275.00
Ref #84	611E97400	CONDUIT, MISC.: TYPE E FOR DRAINAGE DISCHAGE CONTI, (35 FT)		
	Awd		\$215.00	\$7,525.00
	2		\$73.16	\$2,560.60
	3		\$65.00	\$2,275.00
Ref #85	611E97400	CONDUIT, MISC.: TYPE F FOR DRAINAGE DISCHAGE CONTI, (35 FT)		
	Awd		\$215.00	\$7,525.00
	2		\$93.08	\$3,257.80
	3		\$65.00	\$2,275.00
Ref #86	611E98150	CATCH BASIN, NO. 3, (20 EACH)		
	Awd		\$5,500.00	\$110,000.00
	2		\$4,969.34	\$99,386.80
	3		\$6,000.00	\$120,000.00
Ref #87	611E98180	CATCH BASIN, NO. 3A, (30 EACH)		
	Awd		\$4,425.00	\$132,750.00
	2		\$3,964.75	\$118,942.50
	3		\$5,200.00	\$156,000.00
Ref #88	611E98370	CATCH BASIN, NO. 6, (5 EACH)		
	Awd		\$4,350.00	\$21,750.00
	2		\$3,641.44	\$18,207.20
	3		\$5,600.00	\$28,000.00
Ref #89	611E98470	CATCH BASIN, NO. 2-2B, (1 EACH)		
	Awd		\$3,470.00	\$3,470.00
	2		\$2,190.73	\$2,190.73
	3		\$2,900.00	\$2,900.00

Ref #90	611E98510	CATCH BASIN, NO. 2-3, (1 EACH)	
	Awd	\$4,530.00	\$4,530.00
	2	\$3,865.97	\$3,865.97
	3	\$4,500.00	\$4,500.00
Ref #91	611E98820	INLET, NO. 3D, (1 EACH)	
	Awd	\$5,780.00	\$5,780.00
	2	\$15,659.05	\$15,659.05
	3	\$13,500.00	\$13,500.00
Ref #92	611E99154	INLET RECONSTRUCTED TO GRADE, (1 EACH)	
	Awd	\$2,125.00	\$2,125.00
	2	\$2,796.86	\$2,796.86
	3	\$3,300.00	\$3,300.00
Ref #93	611E99574	MANHOLE, NO. 3, (24 EACH)	
	Awd	\$6,000.00	\$144,000.00
	2	\$5,921.41	\$142,113.84
	3	\$5,800.00	\$139,200.00
Ref #94	611E99586	MANHOLE, NO. 3 WITH 108" BASE I.D. AND 12" WEIR, (2 EACH)	
	Awd	\$18,000.00	\$36,000.00
	2	\$16,289.12	\$32,578.24
	3	\$29,000.00	\$58,000.00
Ref #95	611E99654	MANHOLE ADJUSTED TO GRADE, (6 EACH)	
	Awd	\$1,250.00	\$7,500.00
	2	\$736.74	\$4,420.44
	3	\$650.00	\$3,900.00
Ref #96	611E99710	PRECAST REINFORCED CONCRETE OUTLET, (11 EACH)	
	Awd	\$525.00	\$5,775.00
	2	\$459.44	\$5,053.84
	3	\$500.00	\$5,500.00
Ref #97	611E99720	INSPECTION WELL, (2 EACH)	
	Awd	\$2,000.00	\$4,000.00
	2	\$1,858.86	\$3,717.72
	3	\$700.00	\$1,400.00
Ref #98	895E10020	MANUFACTURED WATER QUALITY STRUCTURE, TYPE 2, (2 EACH)	
	Awd	\$26,000.00	\$52,000.00
	2	\$34,481.08	\$68,962.16
	3	\$43,000.00	\$86,000.00
Ref #416	202E70000	SPECIAL - FILL AND PLUG EXISTING CONDUIT, 36", (135 FT)	
	Awd	\$90.00	\$12,150.00
	2	\$577.58	\$77,973.30
	3	\$85.00	\$11,475.00
Section 3 - DRAINAGE - Totals			
	Awd		\$2,125,598.00
	2		\$2,269,679.16
	3		\$2,100,750.50
Ref #99	254E01000	PAVEMENT PLANING, ASPHALT CONCRETE, 1-1/2", (30915 SY)	
	Awd	\$7.50	\$231,862.50
	2	\$8.16	\$252,266.40
	3	\$7.50	\$231,862.50

Ref #100	301E56000	ASPHALT CONCRETE BASE, PG64-22, (449), (2749 CY)	
	Awd	\$215.00	\$591,035.00
	2	\$219.07	\$602,223.43
	3	\$215.00	\$591,035.00
Ref #101	304E20000	AGGREGATE BASE, (7806 CY)	
	Awd	\$85.00	\$663,510.00
	2	\$126.96	\$991,049.76
	3	\$89.50	\$698,637.00
Ref #102	407E10000	TACK COAT, (100 GAL)	
	Awd	\$3.50	\$350.00
	2	\$3.50	\$350.00
	3	\$3.50	\$350.00
Ref #103	407E13900	TACK COAT, 702.13, (50 GAL)	
	Awd	\$3.50	\$175.00
	2	\$3.50	\$175.00
	3	\$3.50	\$175.00
Ref #104	407E20000	NON-TRACKING TACK COAT, (7953 GAL)	
	Awd	\$3.50	\$27,835.50
	2	\$3.50	\$27,835.50
	3	\$3.50	\$27,835.50
Ref #105	441E50000	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG, (564 CY)	
	Awd	\$280.00	\$157,920.00
	2	\$280.00	\$157,920.00
	3	\$280.00	\$157,920.00
Ref #106	441E50200	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), (326 CY)	
	Awd	\$275.00	\$89,650.00
	2	\$275.00	\$89,650.00
	3	\$275.00	\$89,650.00
Ref #107	441E70500	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (D), (48 CY)	
	Awd	\$685.00	\$32,880.00
	2	\$685.00	\$32,880.00
	3	\$685.00	\$32,880.00
Ref #108	441E70600	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (67 CY)	
	Awd	\$600.00	\$40,200.00
	2	\$600.00	\$40,200.00
	3	\$600.00	\$40,200.00
Ref #109	442E10000	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (, (1113 CY)	
	Awd	\$300.00	\$333,900.00
	2	\$300.00	\$333,900.00
	3	\$300.00	\$333,900.00
Ref #110	442E10001	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (, (167 CY)	
	Awd	\$305.00	\$50,935.00
	2	\$305.00	\$50,935.00
	3	\$305.00	\$50,935.00
Ref #111	442E10100	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE (, (317 CY)	
	Awd	\$275.00	\$87,175.00
	2	\$275.00	\$87,175.00
	3	\$275.00	\$87,175.00

Ref #112	452E12010	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, (1109 SY)	
	Awd	\$115.00	\$127,535.00
	2	\$107.18	\$118,862.62
	3	\$145.00	\$160,805.00
Ref #113	452E12020	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P W, (5625 SY)	
	Awd	\$107.00	\$601,875.00
	2	\$107.49	\$604,631.25
	3	\$120.00	\$675,000.00
Ref #114	452E13020	9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P W, (18401 SY)	
	Awd	\$98.00	\$1,803,298.00
	2	\$109.47	\$2,014,357.47
	3	\$130.00	\$2,392,130.00
Ref #115	452E12051	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC MS, , (180 SY)	
	Awd	\$155.00	\$27,900.00
	2	\$212.00	\$38,160.00
	3	\$175.00	\$31,500.00
Ref #116	609E12000	COMBINATION CURB AND GUTTER, TYPE 2, (10162 FT)	
	Awd	\$34.00	\$345,508.00
	2	\$30.12	\$306,079.44
	3	\$48.50	\$492,857.00
Ref #117	609E26000	CURB, TYPE 6, (4277 FT)	
	Awd	\$47.00	\$201,019.00
	2	\$25.19	\$107,737.63
	3	\$48.00	\$205,296.00
Ref #118	609E26001	CURB, TYPE 6, AS PER PLAN, (39 FT)	
	Awd	\$80.00	\$3,120.00
	2	\$70.89	\$2,764.71
	3	\$80.00	\$3,120.00
Ref #119	609E28000	CURB, TYPE 7, (43 FT)	
	Awd	\$75.00	\$3,225.00
	2	\$79.52	\$3,419.36
	3	\$70.00	\$3,010.00
Ref #120	609E31000	COMBINATION CURB AND GUTTER, TYPE 9, (358 FT)	
	Awd	\$52.00	\$18,616.00
	2	\$33.27	\$11,910.66
	3	\$82.00	\$29,356.00
Ref #121	609E71000	CONCRETE MEDIAN, (2411 SF)	
	Awd	\$13.25	\$31,945.75
	2	\$21.86	\$52,704.46
	3	\$25.00	\$60,275.00
Ref #122	609E71001	CONCRETE MEDIAN, AS PER PLAN, (272 SF)	
	Awd	\$14.50	\$3,944.00
	2	\$21.09	\$5,736.48
	3	\$21.00	\$5,712.00
Ref #408	633E72001	TRAINING, AS PER PLAN- ITEM 452 TRAINING, (LUMP SUM)	
	Awd	\$10,000.00	\$10,000.00
	2	\$17,010.14	\$17,010.14
	3	\$12,000.00	\$12,000.00

Section 4 - PAVEMENT - Totals

Awd	\$5,485,413.75
2	\$5,949,934.31
3	\$6,413,616.00

Ref #123 AA1 452E11010 7" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P (, (601 SY)

Awd	\$75.00	\$45,075.00
2	\$104.85	\$63,014.85
3	\$94.00	\$56,494.00

Section 5 - PAVEMENT ALTERNATES - Totals

Awd	\$45,075.00
2	\$63,014.85
3	\$56,494.00

Ref #125 638E00090 3" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, BOL, (74 FT)

Awd	\$685.00	\$50,690.00
2	\$465.66	\$34,458.84
3	\$370.00	\$27,380.00

Ref #126 638E00700 6" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, MEC, (6 FT)

Awd	\$715.00	\$4,290.00
2	\$705.44	\$4,232.64
3	\$535.00	\$3,210.00

Ref #127 638E01300 8" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, MEC, (4 FT)

Awd	\$1,410.00	\$5,640.00
2	\$997.07	\$3,988.28
3	\$1,000.00	\$4,000.00

Ref #128 638E07701 4" GATE VALVE AND VALVE BOX, AS PER PLAN, (2 EACH)

Awd	\$1,270.00	\$2,540.00
2	\$2,290.77	\$4,581.54
3	\$1,895.00	\$3,790.00

Ref #129 638E10201 6" FIRE HYDRANT, AS PER PLAN, (1 EACH)

Awd	\$7,685.00	\$7,685.00
2	\$8,618.96	\$8,618.96
3	\$6,500.00	\$6,500.00

Ref #130 638E10481 FIRE HYDRANT REMOVED, AS PER PLAN, (1 EACH)

Awd	\$3,700.00	\$3,700.00
2	\$896.11	\$896.11
3	\$1,050.00	\$1,050.00

Ref #131 638E10801 VALVE BOX ADJUSTED TO GRADE, AS PER PLAN, (9 EACH)

Awd	\$370.00	\$3,330.00
2	\$163.56	\$1,472.04
3	\$950.00	\$8,550.00

Ref #132 638E11101 METER AND CHAMBER REMOVED AND RESET, AS PER PLAN, (6 EACH)

Awd	\$1,075.00	\$6,450.00
2	\$2,927.35	\$17,564.10
3	\$1,850.00	\$11,100.00

Section 6 - WATER WORK - Totals

Awd	\$84,325.00
2	\$75,812.51
3	\$65,580.00

Ref #133	202E58000	MANHOLE REMOVED (SANITARY), (2 EACH)	
	Awd	\$950.00	\$1,900.00
	2	\$808.58	\$1,617.16
	3	\$900.00	\$1,800.00
Ref #134	611E00400	4" CONDUIT, TYPE E (SANITARY), (20 FT)	
	Awd	\$310.00	\$6,200.00
	2	\$187.41	\$3,748.20
	3	\$235.00	\$4,700.00
Ref #135	611E01800	8" CONDUIT, TYPE B (SANITARY), (10 FT)	
	Awd	\$360.00	\$3,600.00
	2	\$175.61	\$1,756.10
	3	\$275.00	\$2,750.00
Ref #136	611E99574	MANHOLE, NO. 3 (SANITARY), (1 EACH)	
	Awd	\$6,400.00	\$6,400.00
	2	\$6,195.60	\$6,195.60
	3	\$5,500.00	\$5,500.00

Section 7 - SANITARY SEWER - Totals

Awd	\$18,100.00
2	\$13,317.06
3	\$14,750.00

Ref #137	625E00450	CONNECTION, FUSED PULL APART, (203 EACH)	
	Awd	\$140.00	\$28,420.00
	2	\$110.00	\$22,330.00
	3	\$139.00	\$28,217.00
Ref #138	625E00470	CONNECTION, UNFUSED BOLTED, (1 EACH)	
	Awd	\$130.00	\$130.00
	2	\$110.00	\$110.00
	3	\$127.00	\$127.00
Ref #139	625E00480	CONNECTION, UNFUSED PERMANENT, (168 EACH)	
	Awd	\$130.00	\$21,840.00
	2	\$110.00	\$18,480.00
	3	\$111.00	\$18,648.00
Ref #140	625E02501	TRANSFORMER BASE, TYPE AT-A, AS PER PLAN, (61 EACH)	
	Awd	\$50.00	\$3,050.00
	2	\$150.00	\$9,150.00
	3	\$110.00	\$6,710.00
Ref #141	625E10500	LIGHT POLE, MISC.: (POCKET PARKS, 15' MTG HT), AS , (8 EACH)	
	Awd	\$5,000.00	\$40,000.00
	2	\$5,600.00	\$44,800.00
	3	\$5,706.00	\$45,648.00

Ref #142	625E10503	LIGHT POLE (INSTALLATION ONLY), AS PER PLAN, (99 EACH)	
	Awd	\$500.00	\$49,500.00
	2	\$950.00	\$94,050.00
	3	\$464.00	\$45,936.00
Ref #143	625E13500	LIGHT TOWER, MISC.: INSTALLATION ONLY, AS PER PLAN, (1 EACH)	
	Awd	\$5,000.00	\$5,000.00
	2	\$7,000.00	\$7,000.00
	3	\$15,000.00	\$15,000.00
Ref #144	625E14000	LIGHT POLE FOUNDATION, 24" X 6' DEEP, (75 EACH)	
	Awd	\$2,400.00	\$180,000.00
	2	\$1,750.00	\$131,250.00
	3	\$1,992.00	\$149,400.00
Ref #145	625E15200	LIGHT TOWER FOUNDATION, 36" X 25' DEEP, (1 EACH)	
	Awd	\$18,000.00	\$18,000.00
	2	\$11,000.00	\$11,000.00
	3	\$14,240.00	\$14,240.00
Ref #146	625E17901	BRACKET ARM, AS PER PLAN, 4', (22 EACH)	
	Awd	\$30.00	\$660.00
	2	\$125.00	\$2,750.00
	3	\$110.00	\$2,420.00
Ref #147	625E17961	BRACKET ARM, 8', AS PER PLAN, (28 EACH)	
	Awd	\$30.00	\$840.00
	2	\$175.00	\$4,900.00
	3	\$110.00	\$3,080.00
Ref #148	625E18101	BRACKET ARM, 12', AS PER PLAN, (37 EACH)	
	Awd	\$300.00	\$11,100.00
	2	\$175.00	\$6,475.00
	3	\$110.00	\$4,070.00
Ref #149	625E23400	NO. 10 AWG POLE AND BRACKET CABLE, (4847 FT)	
	Awd	\$3.00	\$14,541.00
	2	\$2.00	\$9,694.00
	3	\$2.85	\$13,813.95
Ref #150	625E23200	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE, (52530 FT)	
	Awd	\$3.25	\$170,722.50
	2	\$3.70	\$194,361.00
	3	\$2.70	\$141,831.00
Ref #151	625E25400	CONDUIT, 2", 725.04, (566 FT)	
	Awd	\$35.00	\$19,810.00
	2	\$18.00	\$10,188.00
	3	\$23.00	\$13,018.00
Ref #152	625E25500	CONDUIT, 3", 725.04, (11297 FT)	
	Awd	\$23.75	\$268,303.75
	2	\$24.00	\$271,128.00
	3	\$33.00	\$372,801.00
Ref #153	625E25902	CONDUIT, JACKED OR DRILLED, 725.04, (3"), (3322 FT)	
	Awd	\$55.00	\$182,710.00
	2	\$46.00	\$152,812.00
	3	\$42.50	\$141,185.00

Ref #154	625E26253	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER, (87 EACH)		
	Awd	\$375.00	\$32,625.00	
	2	\$450.00	\$39,150.00	
	3	\$501.00	\$43,587.00	
Ref #155	625E27403	LUMINAIRE, POST TOP, SOLID STATE (LED), AS PER PLA, (32 EACH)		
	Awd	\$1,500.00	\$48,000.00	
	2	\$1,500.00	\$48,000.00	
	3	\$1,557.00	\$49,824.00	
Ref #156	625E27403	LUMINAIRE, POST TOP, SOLID STATE (LED), AS PER PLA, (8 EACH)		
	Awd	\$1,500.00	\$12,000.00	
	2	\$1,450.00	\$11,600.00	
	3	\$1,509.00	\$12,072.00	
Ref #157	625E27403	LUMINAIRE, POST TOP, SOLID STATE (LED), AS PER PLA, (6 EACH)		
	Awd	\$1,500.00	\$9,000.00	
	2	\$1,475.00	\$8,850.00	
	3	\$1,600.00	\$9,600.00	
Ref #158	625E27503	LUMINAIRE, UNDERPASS, SOLID STATE (LED), AS PER PL, (14 EACH)		
	Awd	\$600.00	\$8,400.00	
	2	\$575.00	\$8,050.00	
	3	\$677.00	\$9,478.00	
Ref #159	625E29002	TRENCH, 24" DEEP, (11167 FT)		
	Awd	\$10.00	\$111,670.00	
	2	\$9.00	\$100,503.00	
	3	\$7.50	\$83,752.50	
Ref #160	625E29900	JUNCTION BOX, (30 EACH)		
	Awd	\$1,600.00	\$48,000.00	
	2	\$700.00	\$21,000.00	
	3	\$822.00	\$24,660.00	
Ref #161	625E30700	PULL BOX, 725.08, 18", (134 EACH)		
	Awd	\$850.00	\$113,900.00	
	2	\$900.00	\$120,600.00	
	3	\$1,120.00	\$150,080.00	
Ref #162	625E30706	PULL BOX, 725.08, 24", (5 EACH)		
	Awd	\$1,400.00	\$7,000.00	
	2	\$1,150.00	\$5,750.00	
	3	\$1,168.00	\$5,840.00	
Ref #163	625E34001	POWER SERVICE, AS PER PLAN, (3 EACH)		
	Awd	\$9,000.00	\$27,000.00	
	2	\$9,300.00	\$27,900.00	
	3	\$14,500.00	\$43,500.00	
Ref #164	625E75506	LUMINAIRE REMOVED, (18 EACH)		
	Awd	\$100.00	\$1,800.00	
	2	\$40.00	\$720.00	
	3	\$220.00	\$3,960.00	

Section 8 - LIGHTING - Totals

Awd	\$1,434,022.25
2	\$1,382,601.00
3	\$1,452,498.45

Ref #165	621E00100	RPM, 2-WAY, (611 EACH)		
	Awd	\$39.00	\$23,829.00	
	2	\$37.00	\$22,607.00	
	3	\$37.00	\$22,607.00	
Ref #166	621E54000	RAISED PAVEMENT MARKER REMOVED, (600 EACH)		
	Awd	\$16.00	\$9,600.00	
	2	\$6.91	\$4,146.00	
	3	\$15.00	\$9,000.00	
Ref #167	630E02100	GROUND MOUNTED SUPPORT, NO. 2 POST, (898.5 FT)		
	Awd	\$12.00	\$10,782.00	
	2	\$15.00	\$13,477.50	
	3	\$15.00	\$13,477.50	
Ref #168	630E03100	GROUND MOUNTED SUPPORT, NO. 3 POST, (1066.3 FT)		
	Awd	\$15.00	\$15,994.50	
	2	\$16.00	\$17,060.80	
	3	\$16.00	\$17,060.80	
Ref #169	630E04100	GROUND MOUNTED SUPPORT, NO. 4 POST, (287 FT)		
	Awd	\$16.50	\$4,735.50	
	2	\$20.00	\$5,740.00	
	3	\$20.00	\$5,740.00	
Ref #170	630E06400	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7, (31 FT)		
	Awd	\$35.00	\$1,085.00	
	2	\$18.00	\$558.00	
	3	\$18.00	\$558.00	
Ref #171	630E07000	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18, (114 FT)		
	Awd	\$50.00	\$5,700.00	
	2	\$32.00	\$3,648.00	
	3	\$32.00	\$3,648.00	
Ref #172	630E07600	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12, (149 FT)		
	Awd	\$42.00	\$6,258.00	
	2	\$22.50	\$3,352.50	
	3	\$22.50	\$3,352.50	
Ref #173	630E08600	SIGN POST REFLECTOR, (4 EACH)		
	Awd	\$45.00	\$180.00	
	2	\$48.00	\$192.00	
	3	\$48.00	\$192.00	
Ref #174	630E09000	BREAKAWAY STRUCTURAL BEAM CONNECTION, (19 EACH)		
	Awd	\$695.00	\$13,205.00	
	2	\$550.00	\$10,450.00	
	3	\$550.00	\$10,450.00	
Ref #175	630E72420	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2, (1 EACH)		
	Awd	\$76,550.00	\$76,550.00	
	2	\$75,000.00	\$75,000.00	
	3	\$75,000.00	\$75,000.00	
Ref #176	630E80100	SIGN, FLAT SHEET, (1432 SF)		
	Awd	\$16.00	\$22,912.00	
	2	\$19.50	\$27,924.00	
	3	\$19.50	\$27,924.00	

Ref #177	630E80200	SIGN, GROUND MOUNTED EXTRUSHEET, (478 SF)		
	Awd		\$22.50	\$10,755.00
	2		\$23.50	\$11,233.00
	3		\$23.50	\$11,233.00
Ref #178	630E80224	SIGN, OVERHEAD EXTRUSHEET, (630 SF)		
	Awd		\$23.00	\$14,490.00
	2		\$23.50	\$14,805.00
	3		\$23.50	\$14,805.00
Ref #179	630E84500	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION, (19 EACH)		
	Awd		\$875.00	\$16,625.00
	2		\$1,750.00	\$33,250.00
	3		\$1,750.00	\$33,250.00
Ref #180	630E84510	RIGID OVERHEAD SIGN SUPPORT FOUNDATION, (4 EACH)		
	Awd		\$5,150.00	\$20,600.00
	2		\$10,500.00	\$42,000.00
	3		\$10,500.00	\$42,000.00
Ref #181	630E84900	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, (161 EACH)		
	Awd		\$10.00	\$1,610.00
	2		\$20.00	\$3,220.00
	3		\$20.00	\$3,220.00
Ref #182	630E85100	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION, (8 EACH)		
	Awd		\$65.00	\$520.00
	2		\$106.00	\$848.00
	3		\$106.00	\$848.00
Ref #183	630E85400	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL, (14 EACH)		
	Awd		\$185.00	\$2,590.00
	2		\$200.00	\$2,800.00
	3		\$200.00	\$2,800.00
Ref #184	630E86002	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, (142 EACH)		
	Awd		\$20.00	\$2,840.00
	2		\$20.00	\$2,840.00
	3		\$20.00	\$2,840.00
Ref #185	630E86102	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT , (19 EACH)		
	Awd		\$285.00	\$5,415.00
	2		\$400.00	\$7,600.00
	3		\$400.00	\$7,600.00
Ref #186	630E86310	REMOVAL OF STRUCTURE MOUNTED SIGN AND DISPOSAL, (10 EACH)		
	Awd		\$395.00	\$3,950.00
	2		\$400.00	\$4,000.00
	3		\$400.00	\$4,000.00
Ref #187	630E87400	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, (21 EACH)		
	Awd		\$220.00	\$4,620.00
	2		\$320.00	\$6,720.00
	3		\$320.00	\$6,720.00
Ref #188	630E87500	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL, (10 EACH)		
	Awd		\$35.00	\$350.00
	2		\$20.00	\$200.00
	3		\$20.00	\$200.00

Ref #189	630E89702	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, (8 EACH)	
	Awd	\$1,250.00	\$10,000.00
	2	\$1,250.00	\$10,000.00
	3	\$1,250.00	\$10,000.00
Ref #190	642E00200	LANE LINE, 4", TYPE 1, (0.25 MILE)	
	Awd	\$3,400.00	\$850.00
	2	\$3,400.00	\$850.00
	3	\$3,400.00	\$850.00
Ref #191	644E00104	EDGE LINE, 6", (2.63 MILE)	
	Awd	\$8,100.00	\$21,303.00
	2	\$8,100.00	\$21,303.00
	3	\$8,100.00	\$21,303.00
Ref #192	644E00204	LANE LINE, 6", (1.59 MILE)	
	Awd	\$3,400.00	\$5,406.00
	2	\$3,400.00	\$5,406.00
	3	\$3,400.00	\$5,406.00
Ref #193	644E00300	CENTER LINE, (1.04 MILE)	
	Awd	\$5,700.00	\$5,928.00
	2	\$5,700.00	\$5,928.00
	3	\$5,700.00	\$5,928.00
Ref #194	644E00404	CHANNELIZING LINE, 12", (4657 FT)	
	Awd	\$2.80	\$13,039.60
	2	\$2.80	\$13,039.60
	3	\$2.80	\$13,039.60
Ref #195	644E00500	STOP LINE, (920 FT)	
	Awd	\$7.00	\$6,440.00
	2	\$7.00	\$6,440.00
	3	\$7.00	\$6,440.00
Ref #196	644E00620	CROSSWALK LINE, 12", (288 FT)	
	Awd	\$5.00	\$1,440.00
	2	\$5.00	\$1,440.00
	3	\$5.00	\$1,440.00
Ref #197	644E00630	CROSSWALK LINE, 24", (1712 FT)	
	Awd	\$6.50	\$11,128.00
	2	\$6.50	\$11,128.00
	3	\$6.50	\$11,128.00
Ref #198	644E00700	TRANSVERSE/DIAGONAL LINE, (935 FT)	
	Awd	\$8.00	\$7,480.00
	2	\$8.00	\$7,480.00
	3	\$8.00	\$7,480.00
Ref #199	644E00720	CHEVRON MARKING, (23 FT)	
	Awd	\$8.00	\$184.00
	2	\$8.00	\$184.00
	3	\$8.00	\$184.00
Ref #200	644E01300	LANE ARROW, (85 EACH)	
	Awd	\$110.00	\$9,350.00
	2	\$110.00	\$9,350.00
	3	\$110.00	\$9,350.00

Ref #201	644E01510	DOTTED LINE, 6", (465 FT)	
	Awd	\$1.00	\$465.00
	2	\$1.00	\$465.00
	3	\$1.00	\$465.00
Ref #202	644E20800	YIELD LINE, (69 FT)	
	Awd	\$3.00	\$207.00
	2	\$3.00	\$207.00
	3	\$3.00	\$207.00
Ref #203	646E10010	EDGE LINE, 6", (1.8 MILE)	
	Awd	\$4,500.00	\$8,100.00
	2	\$4,500.00	\$8,100.00
	3	\$4,500.00	\$8,100.00
Ref #204	646E10110	LANE LINE, 6", (1.61 MILE)	
	Awd	\$1,900.00	\$3,059.00
	2	\$1,900.00	\$3,059.00
	3	\$1,900.00	\$3,059.00
Ref #205	646E10200	CENTER LINE, (1.24 MILE)	
	Awd	\$3,900.00	\$4,836.00
	2	\$3,900.00	\$4,836.00
	3	\$3,900.00	\$4,836.00
Ref #206	646E10310	CHANNELIZING LINE, 12", (4462 FT)	
	Awd	\$1.65	\$7,362.30
	2	\$1.65	\$7,362.30
	3	\$1.65	\$7,362.30
Ref #207	646E10400	STOP LINE, (346 FT)	
	Awd	\$12.00	\$4,152.00
	2	\$12.00	\$4,152.00
	3	\$12.00	\$4,152.00
Ref #208	646E10520	CROSSWALK LINE, 24", (1136 FT)	
	Awd	\$13.00	\$14,768.00
	2	\$13.00	\$14,768.00
	3	\$13.00	\$14,768.00
Ref #209	646E10600	TRANSVERSE/DIAGONAL LINE, (1023 FT)	
	Awd	\$9.00	\$9,207.00
	2	\$9.00	\$9,207.00
	3	\$9.00	\$9,207.00
Ref #210	646E10620	CHEVRON MARKING, (61 FT)	
	Awd	\$9.00	\$549.00
	2	\$9.00	\$549.00
	3	\$9.00	\$549.00
Ref #211	646E20300	LANE ARROW, (76 EACH)	
	Awd	\$155.00	\$11,780.00
	2	\$155.00	\$11,780.00
	3	\$155.00	\$11,780.00
Ref #212	646E20320	WRONG WAY ARROW, (65 EACH)	
	Awd	\$125.00	\$8,125.00
	2	\$125.00	\$8,125.00
	3	\$125.00	\$8,125.00

Ref #213	646E20504	DOTTED LINE, 6", (153 FT)		
	Awd	\$5.00	\$765.00	
	2	\$5.00	\$765.00	
	3	\$5.00	\$765.00	
Ref #400	630E72320	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 6, (2 EACH)		
	Awd	\$27,650.00	\$55,300.00	
	2	\$20,750.00	\$41,500.00	
	3	\$20,750.00	\$41,500.00	
Ref #401	630E84010	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUN, (1 EACH)		
	Awd	\$17,300.00	\$17,300.00	
	2	\$4,200.00	\$4,200.00	
	3	\$7,000.00	\$7,000.00	

Section 9 - TRAFFIC CONTROL - Totals

Awd	\$513,719.90
2	\$525,295.70
3	\$532,949.70

Ref #214	625E25400	CONDUIT, 2", 725.04, (1462 FT)		
	Awd	\$20.00	\$29,240.00	
	2	\$18.00	\$26,316.00	
	3	\$18.00	\$26,316.00	
Ref #215	625E25500	CONDUIT, 3", 725.04, (1002 FT)		
	Awd	\$32.00	\$32,064.00	
	2	\$24.00	\$24,048.00	
	3	\$24.00	\$24,048.00	
Ref #216	625E25600	CONDUIT, 4", 725.04, (117 FT)		
	Awd	\$45.00	\$5,265.00	
	2	\$45.00	\$5,265.00	
	3	\$45.00	\$5,265.00	
Ref #217	625E25902	CONDUIT, JACKED OR DRILLED, 725.04, 2", (229 FT)		
	Awd	\$44.00	\$10,076.00	
	2	\$34.00	\$7,786.00	
	3	\$34.00	\$7,786.00	
Ref #218	625E25902	CONDUIT, JACKED OR DRILLED, 725.04, 3", (2192 FT)		
	Awd	\$57.00	\$124,944.00	
	2	\$46.00	\$100,832.00	
	3	\$46.00	\$100,832.00	
Ref #219	625E29000	TRENCH, (2561 FT)		
	Awd	\$16.00	\$40,976.00	
	2	\$9.00	\$23,049.00	
	3	\$9.00	\$23,049.00	
Ref #220	625E30500	PULL BOX, 725.06, SIZE 1.5, (14 EACH)		
	Awd	\$700.00	\$9,800.00	
	2	\$750.00	\$10,500.00	
	3	\$750.00	\$10,500.00	
Ref #221	625E30706	PULL BOX, 725.08, 24", (30 EACH)		
	Awd	\$1,400.00	\$42,000.00	
	2	\$1,150.00	\$34,500.00	
	3	\$1,150.00	\$34,500.00	

Ref #222	625E32000	GROUND ROD, (66 EACH)		
	Awd	\$250.00	\$16,500.00	
	2	\$330.00	\$21,780.00	
	3	\$330.00	\$21,780.00	
Ref #223	630E79100	SIGN HANGER ASSEMBLY, MAST ARM, (26 EACH)		
	Awd	\$360.00	\$9,360.00	
	2	\$600.00	\$15,600.00	
	3	\$600.00	\$15,600.00	
Ref #224	630E80100	SIGN, FLAT SHEET, (388 SF)		
	Awd	\$16.00	\$6,208.00	
	2	\$30.00	\$11,640.00	
	3	\$30.00	\$11,640.00	
Ref #225	632E05007	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS,, (60 EACH)		
	Awd	\$1,050.00	\$63,000.00	
	2	\$1,250.00	\$75,000.00	
	3	\$1,250.00	\$75,000.00	
Ref #226	632E05087	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS,, (12 EACH)		
	Awd	\$1,800.00	\$21,600.00	
	2	\$1,900.00	\$22,800.00	
	3	\$1,900.00	\$22,800.00	
Ref #227	632E20731	PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, , (54 EACH)		
	Awd	\$650.00	\$35,100.00	
	2	\$775.00	\$41,850.00	
	3	\$775.00	\$41,850.00	
Ref #228	632E25000	COVERING OF VEHICULAR SIGNAL HEAD, (72 EACH)		
	Awd	\$40.00	\$2,880.00	
	2	\$40.00	\$2,880.00	
	3	\$40.00	\$2,880.00	
Ref #229	632E25010	COVERING OF PEDESTRIAN SIGNAL HEAD, (54 EACH)		
	Awd	\$30.00	\$1,620.00	
	2	\$30.00	\$1,620.00	
	3	\$30.00	\$1,620.00	
Ref #230	632E26000	PEDESTRIAN PUSHBUTTON, (54 EACH)		
	Awd	\$315.00	\$17,010.00	
	2	\$250.00	\$13,500.00	
	3	\$250.00	\$13,500.00	
Ref #231	632E40300	SIGNAL CABLE, 3 CONDUCTOR, NO. 14 AWG, (6039 FT)		
	Awd	\$2.50	\$15,097.50	
	2	\$2.20	\$13,285.80	
	3	\$2.20	\$13,285.80	
Ref #232	632E40500	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG, (14261 FT)		
	Awd	\$3.00	\$42,783.00	
	2	\$2.80	\$39,930.80	
	3	\$2.80	\$39,930.80	
Ref #233	632E40700	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG, (2698 FT)		
	Awd	\$3.40	\$9,173.20	
	2	\$2.90	\$7,824.20	
	3	\$2.90	\$7,824.20	

Ref #234	632E64010	SIGNAL SUPPORT FOUNDATION, (27 EACH)	
	Awd	\$11,750.00	\$317,250.00
	2	\$6,900.00	\$186,300.00
	3	\$6,900.00	\$186,300.00
Ref #235	632E64020	PEDESTAL FOUNDATION, (32 EACH)	
	Awd	\$1,750.00	\$56,000.00
	2	\$1,200.00	\$38,400.00
	3	\$1,200.00	\$38,400.00
Ref #236	632E64950	TEST HOLE PERFORMED, (7 EACH)	
	Awd	\$4,000.00	\$28,000.00
	2	\$190.00	\$1,330.00
	3	\$190.00	\$1,330.00
Ref #237	632E65200	LOOP DETECTOR LEAD-IN CABLE, (8985 FT)	
	Awd	\$2.00	\$17,970.00
	2	\$2.00	\$17,970.00
	3	\$2.00	\$17,970.00
Ref #238	632E68200	POWER CABLE, 2 CONDUCTOR, NO. 6 AWG, (1979 FT)	
	Awd	\$5.00	\$9,895.00
	2	\$5.30	\$10,488.70
	3	\$5.30	\$10,488.70
Ref #239	632E70001	POWER SERVICE, AS PER PLAN, (7 EACH)	
	Awd	\$3,000.00	\$21,000.00
	2	\$1,225.00	\$8,575.00
	3	\$1,225.00	\$8,575.00
Ref #240	632E70400	CONDUIT RISER, 2" DIAMETER, (8 EACH)	
	Awd	\$1,200.00	\$9,600.00
	2	\$600.00	\$4,800.00
	3	\$600.00	\$4,800.00
Ref #241	632E72101	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 2, AS PER PL, (1 EACH)	
	Awd	\$3,000.00	\$3,000.00
	2	\$1,200.00	\$1,200.00
	3	\$1,200.00	\$1,200.00
Ref #242	632E79101	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN , (4 EACH)	
	Awd	\$3,000.00	\$12,000.00
	2	\$1,200.00	\$4,800.00
	3	\$1,200.00	\$4,800.00
Ref #243	632E79111	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN , (6 EACH)	
	Awd	\$3,000.00	\$18,000.00
	2	\$1,600.00	\$9,600.00
	3	\$1,600.00	\$9,600.00
Ref #244	632E79131	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN , (6 EACH)	
	Awd	\$3,500.00	\$21,000.00
	2	\$1,650.00	\$9,900.00
	3	\$1,650.00	\$9,900.00
Ref #245	632E79141	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN , (8 EACH)	
	Awd	\$3,500.00	\$28,000.00
	2	\$1,650.00	\$13,200.00
	3	\$1,650.00	\$13,200.00

Ref #246	632E79151	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN , (2 EACH)	
	Awd	\$3,500.00	\$7,000.00
	2	\$1,925.00	\$3,850.00
	3	\$1,925.00	\$3,850.00
Ref #247	632E89901	PEDESTAL, 8', TRANSFORMER BASE, AS PER PLAN, (32 EACH)	
	Awd	\$500.00	\$16,000.00
	2	\$175.00	\$5,600.00
	3	\$175.00	\$5,600.00
Ref #248	632E90100	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, (7 EACH)	
	Awd	\$7,500.00	\$52,500.00
	2	\$1,700.00	\$11,900.00
	3	\$1,700.00	\$11,900.00
Ref #249	632E90400	SIGNALIZATION, MISC.: CELLULAR MODEM, (7 EACH)	
	Awd	\$8,200.00	\$57,400.00
	2	\$8,100.00	\$56,700.00
	3	\$8,100.00	\$56,700.00
Ref #250	632E90400	SIGNALIZATION, MISC.: QUEUE WARNING DETECTION SYST, (1 EACH)	
	Awd	\$66,000.00	\$66,000.00
	2	\$79,500.00	\$79,500.00
	3	\$49,500.00	\$49,500.00
Ref #251	633E65511	CABINET, TYPE TS-2, AS PER PLAN, (7 EACH)	
	Awd	\$19,000.00	\$133,000.00
	2	\$17,750.00	\$124,250.00
	3	\$17,750.00	\$124,250.00
Ref #252	633E67100	CABINET FOUNDATION, (7 EACH)	
	Awd	\$5,500.00	\$38,500.00
	2	\$3,100.00	\$21,700.00
	3	\$3,100.00	\$21,700.00
Ref #253	633E67200	CONTROLLER WORK PAD, (7 EACH)	
	Awd	\$3,000.00	\$21,000.00
	2	\$500.00	\$3,500.00
	3	\$500.00	\$3,500.00
Ref #254	633E75000	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, (7 EACH)	
	Awd	\$6,000.00	\$42,000.00
	2	\$6,500.00	\$45,500.00
	3	\$6,500.00	\$45,500.00
Ref #255	809E69001	ADVANCE RADAR DETECTION, AS PER PLAN, (15 EACH)	
	Awd	\$9,000.00	\$135,000.00
	2	\$9,850.00	\$147,750.00
	3	\$9,850.00	\$147,750.00
Ref #256	809E69101	STOP LINE RADAR DETECTION, AS PER PLAN, (25 EACH)	
	Awd	\$8,750.00	\$218,750.00
	2	\$9,550.00	\$238,750.00
	3	\$9,580.00	\$239,500.00
Ref #257	809E69123	ATC CONTROLLER, AS PER PLAN, (7 EACH)	
	Awd	\$5,000.00	\$35,000.00
	2	\$5,600.00	\$39,200.00
	3	\$5,600.00	\$39,200.00

Ref #258	809E69201	EMERGENCY VEHICLE PREEMPTION, AS PER PLAN, (7 EACH)	
	Awd	\$1,000.00	\$7,000.00
	2	\$800.00	\$5,600.00
	3	\$800.00	\$5,600.00
Ref #259	809E69211	PREEMPT RECEIVING UNIT, AS PER PLAN, (27 EACH)	
	Awd	\$1,200.00	\$32,400.00
	2	\$1,250.00	\$33,750.00
	3	\$1,250.00	\$33,750.00
Ref #260	809E69211	PREEMPT RECEIVING UNIT, AS PER PLAN, (GPS), (7 EACH)	
	Awd	\$5,000.00	\$35,000.00
	2	\$4,700.00	\$32,900.00
	3	\$4,700.00	\$32,900.00
Ref #261	809E69221	PREEMPT DETECTOR CABLE, AS PER PLAN, (7119 FT)	
	Awd	\$3.75	\$26,696.25
	2	\$3.50	\$24,916.50
	3	\$3.50	\$24,916.50
Ref #262	809E69231	PREEMPT PHASE SELECTOR, AS PER PLAN, (7 EACH)	
	Awd	\$5,000.00	\$35,000.00
	2	\$5,000.00	\$35,000.00
	3	\$5,000.00	\$35,000.00
Ref #263	809E69241	PREEMPT CONFIRMATION LIGHT, AS PER PLAN, (27 EACH)	
	Awd	\$500.00	\$13,500.00
	2	\$565.00	\$15,255.00
	3	\$565.00	\$15,255.00

Section 10 - TRAFFIC SIGNALS - Totals

Awd	\$2,048,157.95
2	\$1,732,192.00
3	\$1,702,942.00

Ref #264	203E10001	EXCAVATION, AS PER PLAN, (50 CY)	
	Awd	\$65.00	\$3,250.00
	2	\$45.87	\$2,293.50
	3	\$100.00	\$5,000.00
Ref #265	203E20001	EMBANKMENT, AS PER PLAN, (100 CY)	
	Awd	\$45.00	\$4,500.00
	2	\$42.13	\$4,213.00
	3	\$75.00	\$7,500.00
Ref #266	601E30000	DUMPED ROCK FILL, MISC.: LARGE RIVER ROCK, (30 TON)	
	Awd	\$350.00	\$10,500.00
	2	\$231.16	\$6,934.80
	3	\$300.00	\$9,000.00
Ref #267	661E00501	MULCH, AS PER PLAN, (11 CY)	
	Awd	\$155.00	\$1,705.00
	2	\$81.95	\$901.45
	3	\$82.00	\$902.00
Ref #268	661E20021	DECIDUOUS SHRUB, 18" HEIGHT, AS PER PLAN; SPIRAEA , (28 EACH)	
	Awd	\$175.00	\$4,900.00
	2	\$115.33	\$3,229.24
	3	\$115.50	\$3,234.00

Ref #269	661E20071	DECIDUOUS SHRUB, 30" HEIGHT, AS PER PLAN; VIBURNUM, (7 EACH)		
	Awd	\$200.00	\$1,400.00	
	2	\$153.77	\$1,076.39	
	3	\$154.00	\$1,078.00	
Ref #270	661E30061	EVERGREEN SHRUB, 2' HEIGHT, AS PER PLAN; THUJA OCC, (14 EACH)		
	Awd	\$175.00	\$2,450.00	
	2	\$115.33	\$1,614.62	
	3	\$115.50	\$1,617.00	
Ref #271	661E40100	DECIDUOUS TREE, 2-1/2" CALIPER; ZELKOVA SERRATA "J, (12 EACH)		
	Awd	\$1,000.00	\$12,000.00	
	2	\$964.66	\$11,575.92	
	3	\$965.00	\$11,580.00	
Ref #272	690E98000	SPECIAL - POCKET PARK WITH BENCH, (4 EACH)		
	Awd	\$6,775.00	\$27,100.00	
	2	\$6,530.58	\$26,122.32	
	3	\$5,000.00	\$20,000.00	
Ref #273	690E98000	SPECIAL - POCKET PARK WITHOUT BENCH, (3 EACH)		
	Awd	\$4,400.00	\$13,200.00	
	2	\$1,605.16	\$4,815.48	
	3	\$3,000.00	\$9,000.00	
Section 11 - LANDSCAPING - Totals				
	Awd		\$81,005.00	
	2		\$62,776.72	
	3		\$68,911.00	
Ref #274	203E10000	EXCAVATION FOR MAINTAINING TRAFFIC, (100 CY)		
	Awd	\$39.00	\$3,900.00	
	2	\$72.11	\$7,211.00	
	3	\$140.00	\$14,000.00	
Ref #275	203E20000	EMBANKMENT FOR MAINTAINING TRAFFIC, (200 CY)		
	Awd	\$26.00	\$5,200.00	
	2	\$110.89	\$22,178.00	
	3	\$110.00	\$22,000.00	
Ref #276	614E11110	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSIST, (200 HOUR)		
	Awd	\$125.00	\$25,000.00	
	2	\$70.00	\$14,000.00	
	3	\$87.00	\$17,400.00	
Ref #277	614E12380	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UN, (9 EACH)		
	Awd	\$2,520.00	\$22,680.00	
	2	\$2,200.00	\$19,800.00	
	3	\$2,200.00	\$19,800.00	
Ref #278	614E12420	DETOUR SIGNING, (LUMP SUM)		
	Awd	\$30,000.00	\$30,000.00	
	2	\$16,672.35	\$16,672.35	
	3	\$8,000.00	\$8,000.00	
Ref #279	614E12500	REPLACEMENT SIGN, (10 EACH)		
	Awd	\$150.00	\$1,500.00	
	2	\$200.00	\$2,000.00	
	3	\$150.00	\$1,500.00	

Ref #280	614E12600	REPLACEMENT DRUM, (40 EACH)		
	Awd	\$80.00	\$3,200.00	
	2	\$45.00	\$1,800.00	
	3	\$80.00	\$3,200.00	
Ref #281	614E13000	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC, (250 CY)		
	Awd	\$500.00	\$125,000.00	
	2	\$350.00	\$87,500.00	
	3	\$350.00	\$87,500.00	
Ref #282	614E13310	BARRIER REFLECTOR, TYPE 1, ONE-WAY, (109 EACH)		
	Awd	\$25.00	\$2,725.00	
	2	\$12.00	\$1,308.00	
	3	\$12.00	\$1,308.00	
Ref #283	614E13318	BARRIER REFLECTOR, TYPE 5, ONE-WAY, (28 EACH)		
	Awd	\$45.00	\$1,260.00	
	2	\$12.00	\$336.00	
	3	\$18.00	\$504.00	
Ref #284	614E13350	OBJECT MARKER, ONE WAY, (137 EACH)		
	Awd	\$28.00	\$3,836.00	
	2	\$18.00	\$2,466.00	
	3	\$17.00	\$2,329.00	
Ref #285	614E18601	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN, (80 SNMT)		
	Awd	\$1,500.00	\$120,000.00	
	2	\$900.00	\$72,000.00	
	3	\$1,500.00	\$120,000.00	
Ref #286	614E20056	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT, (6.56 MILE)		
	Awd	\$2,025.00	\$13,284.00	
	2	\$1,300.00	\$8,528.00	
	3	\$2,025.00	\$13,284.00	
Ref #287	614E21050	WORK ZONE CENTER LINE, CLASS I, 807 PAINT, (3.86 MILE)		
	Awd	\$1,950.00	\$7,527.00	
	2	\$3,300.00	\$12,738.00	
	3	\$1,950.00	\$7,527.00	
Ref #288	614E22056	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, (10.84 MILE)		
	Awd	\$4,775.00	\$51,761.00	
	2	\$2,400.00	\$26,016.00	
	3	\$7,445.00	\$80,703.80	
Ref #289	614E23110	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAI, (12261 FT)		
	Awd	\$2.00	\$24,522.00	
	2	\$3.00	\$36,783.00	
	3	\$2.00	\$24,522.00	
Ref #290	614E24102	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT, (3333 FT)		
	Awd	\$1.75	\$5,832.75	
	2	\$2.00	\$6,666.00	
	3	\$1.75	\$5,832.75	
Ref #291	614E25200	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 P, (448 FT)		
	Awd	\$12.00	\$5,376.00	
	2	\$10.00	\$4,480.00	
	3	\$12.00	\$5,376.00	

Ref #292	614E26200	WORK ZONE STOP LINE, CLASS I, 642 PAINT, (1896 FT)		
	Awd	\$6.25	\$11,850.00	
	2	\$8.00	\$15,168.00	
	3	\$6.25	\$11,850.00	
Ref #293	614E30200	WORK ZONE ARROW, CLASS I, 642 PAINT, (218 EACH)		
	Awd	\$165.00	\$35,970.00	
	2	\$100.00	\$21,800.00	
	3	\$165.00	\$35,970.00	
Ref #294	614E40050	BUSINESS ENTRANCE SIGN, (20 EACH)		
	Awd	\$100.00	\$2,000.00	
	2	\$200.00	\$4,000.00	
	3	\$100.00	\$2,000.00	
Ref #295	615E25000	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, (2265 SY)		
	Awd	\$85.00	\$192,525.00	
	2	\$97.66	\$221,199.90	
	3	\$87.00	\$197,055.00	
Ref #296	616E10000	WATER, (50 MGAL)		
	Awd	\$95.00	\$4,750.00	
	2	\$4.07	\$203.50	
	3	\$130.00	\$6,500.00	
Ref #297	622E41100	PORTABLE BARRIER, UNANCHORED, (2869 FT)		
	Awd	\$21.00	\$60,249.00	
	2	\$28.00	\$80,332.00	
	3	\$25.00	\$71,725.00	
Ref #409	614E20550	WORK ZONE LANE LINE, CLASS III, 4", 642 PAINT, (4.2 MILE)		
	Awd	\$775.00	\$3,255.00	
	2	\$775.00	\$3,255.00	
	3	\$775.00	\$3,255.00	
Ref #410	614E21550	WORK ZONE CENTER LINE, CLASS III, 642 PAINT, (3.1 MILE)		
	Awd	\$1,450.00	\$4,495.00	
	2	\$990.00	\$3,069.00	
	3	\$1,450.00	\$4,495.00	
Ref #411	614E22350	WORK ZONE EDGE LINE, CLASS III, 4", 642 PAINT, (6.2 MILE)		
	Awd	\$875.00	\$5,425.00	
	2	\$880.00	\$5,456.00	
	3	\$875.00	\$5,425.00	
Ref #412	614E23680	WORK ZONE CHANNELIZING LINE, CLASS III, 8", 642 PA, (10444 FT)		
	Awd	\$0.50	\$5,222.00	
	2	\$0.55	\$5,744.20	
	3	\$0.50	\$5,222.00	
Ref #413	614E24610	WORK ZONE DOTTED LINE, CLASS III, 4", 642 PAINT, (1053 FT)		
	Awd	\$1.50	\$1,579.50	
	2	\$0.40	\$421.20	
	3	\$1.50	\$1,579.50	
Ref #414	614E26610	WORK ZONE STOP LINE, CLASS III, 642 PAINT, (1219 FT)		
	Awd	\$4.50	\$5,485.50	
	2	\$6.00	\$7,314.00	
	3	\$4.50	\$5,485.50	

Ref #415	614E30650	WORK ZONE ARROW, CLASS III, 642 PAINT, (50 EACH)	
	Awd	\$125.00	\$6,250.00
	2	\$75.00	\$3,750.00
	3	\$125.00	\$6,250.00

Section 12 - MAINTENANCE OF TRAFFIC - Totals

Awd	\$791,659.75
2	\$714,195.15
3	\$791,598.55

Ref #298	503E11100	COFFERDAMS AND EXCAVATION BRACING, (LUMP SUM)	
	Awd	\$500.00	\$500.00
	2	\$118,107.26	\$118,107.26
	3	\$6,500.00	\$6,500.00

Ref #299	518E21201	POROUS BACKFILL WITH GEOTEXTILE FABRIC, AS PER PLA, (212 CY)	
	Awd	\$137.00	\$29,044.00
	2	\$167.46	\$35,501.52
	3	\$265.00	\$56,180.00

Ref #300	870E10001	PREFABRICATED MODULAR RETAINING WALL, AS PER PLAN, (2070 SF)	
	Awd	\$115.00	\$238,050.00
	2	\$114.29	\$236,580.30
	3	\$110.00	\$227,700.00

Ref #301	870E11000	WALL EXCAVATION, (350 CY)	
	Awd	\$52.00	\$18,200.00
	2	\$60.37	\$21,129.50
	3	\$70.00	\$24,500.00

Ref #302	870E12000	6" DRAINAGE PIPE, PERFORATED, (269 FT)	
	Awd	\$11.00	\$2,959.00
	2	\$3.90	\$1,049.10
	3	\$6.00	\$1,614.00

Ref #303	870E12100	6" DRAINAGE PIPE, NON-PERFORATED, (100 FT)	
	Awd	\$16.00	\$1,600.00
	2	\$22.15	\$2,215.00
	3	\$25.00	\$2,500.00

Ref #304	870E14000	ON-SITE ASSISTANCE, (2 DAY)	
	Awd	\$500.00	\$1,000.00
	2	\$1.69	\$3.38
	3	\$1,000.00	\$2,000.00

Ref #305	870E15000	PMRW INSPECTION AND COMPACTION TESTING, (LUMP SUM)	
	Awd	\$6,000.00	\$6,000.00
	2	\$2,907.00	\$2,907.00
	3	\$5,000.00	\$5,000.00

Section 13 - RETAINING WALLS (1) - Totals

Awd	\$297,353.00
2	\$417,493.06
3	\$325,994.00

Ref #306	503E21100	UNCLASSIFIED EXCAVATION, (783 CY)		
	Awd	\$60.00	\$46,980.00	
	2	\$61.76	\$48,358.08	
	3	\$35.00	\$27,405.00	
Ref #307	509E10000	EPOXY COATED STEEL REINFORCEMENT, (63731 LB)		
	Awd	\$1.88	\$119,814.28	
	2	\$1.98	\$126,187.38	
	3	\$2.20	\$140,208.20	
Ref #308	511E46012	CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL , (120 CY)		
	Awd	\$875.00	\$105,000.00	
	2	\$2,161.28	\$259,353.60	
	3	\$2,550.00	\$306,000.00	
Ref #309	511E46512	CLASS QC1 CONCRETE WITH QC/QA, FOOTING, (171 CY)		
	Awd	\$475.00	\$81,225.00	
	2	\$770.18	\$131,700.78	
	3	\$500.00	\$85,500.00	
Ref #310	512E10051	SEALING OF CONCRETE SURFACES (NON-EPOXY), AS PER P, (431 SY)		
	Awd	\$35.00	\$15,085.00	
	2	\$70.00	\$30,170.00	
	3	\$35.00	\$15,085.00	
Ref #311	512E33000	TYPE 2 WATERPROOFING, (28 SY)		
	Awd	\$28.00	\$784.00	
	2	\$75.00	\$2,100.00	
	3	\$48.00	\$1,344.00	
Ref #312	516E13601	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN, (64 SF)		
	Awd	\$28.00	\$1,792.00	
	2	\$28.30	\$1,811.20	
	3	\$8.00	\$512.00	
Ref #313	517E75121	RAILING (CONCRETE PARAPET WITH TWIN STEEL TUBE RAI, (342 FT)		
	Awd	\$335.00	\$114,570.00	
	2	\$385.33	\$131,782.86	
	3	\$412.00	\$140,904.00	
Ref #314	518E20000	PREFABRICATED GEOCOMPOSITE DRAIN, (190 SY)		
	Awd	\$18.00	\$3,420.00	
	2	\$28.43	\$5,401.70	
	3	\$30.00	\$5,700.00	
Ref #315	518E21200	POROUS BACKFILL WITH GEOTEXTILE FABRIC, (27 CY)		
	Awd	\$160.00	\$4,320.00	
	2	\$155.46	\$4,197.42	
	3	\$230.00	\$6,210.00	
Ref #316	518E40000	6" PERFORATED CORRUGATED PLASTIC PIPE, (359 FT)		
	Awd	\$8.00	\$2,872.00	
	2	\$3.86	\$1,385.74	
	3	\$8.00	\$2,872.00	
Ref #317	518E40010	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDI, (18 FT)		
	Awd	\$25.00	\$450.00	
	2	\$55.99	\$1,007.82	
	3	\$30.00	\$540.00	

Ref #318	518E40011	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDI, (24 FT)		
	Awd		\$25.00	\$600.00
	2		\$42.88	\$1,029.12
	3		\$25.00	\$600.00
Ref #319	530E13000	SPECIAL - FORM LINER, (3186 SF)		
	Awd		\$20.00	\$63,720.00
	2		\$21.47	\$68,403.42
	3		\$18.00	\$57,348.00
Ref #320	690E98400	SPECIAL - MISC: PROTECTION OF UTILITIES, (LUMP SUM)		
	Awd		\$3,000.00	\$3,000.00
	2		\$7,389.55	\$7,389.55
	3		\$10,000.00	\$10,000.00

Section 14 - RETAINING WALLS (2 & 3) - Totals

Awd	\$563,632.28
2	\$820,278.67
3	\$800,228.20

Ref #321	202E11501	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, (11 EACH)		
	Awd		\$3,100.00	\$34,100.00
	2		\$752.94	\$8,282.34
	3		\$2,000.00	\$22,000.00
Ref #322	510E09951	DOWEL HOLES WITH CEMENT GROUT, AS PER PLAN, (2290 EACH)		
	Awd		\$16.00	\$36,640.00
	2		\$21.94	\$50,242.60
	3		\$32.00	\$73,280.00
Ref #323	511E51512	CLASS QC2 CONCRETE WITH QC/QA, SIDEWALK, (609 CY)		
	Awd		\$375.00	\$228,375.00
	2		\$607.28	\$369,833.52
	3		\$400.00	\$243,600.00
Ref #324	512E10050	SEALING OF CONCRETE SURFACES (NON-EPOXY), (2533 SY)		
	Awd		\$12.00	\$30,396.00
	2		\$27.00	\$68,391.00
	3		\$12.00	\$30,396.00
Ref #325	514E27710	FIELD PAINTING, MISC.: OVERCOAT PAINTING OF EXISTI, (3381 FT)		
	Awd		\$85.00	\$287,385.00
	2		\$28.00	\$94,668.00
	3		\$28.00	\$94,668.00
Ref #326	516E01301	ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, A, (311 FT)		
	Awd		\$200.00	\$62,200.00
	2		\$230.41	\$71,657.51
	3		\$100.00	\$31,100.00
Ref #327	516E12201	STRUCTURAL STEEL EXPANSION JOINT, AS PER PLAN, (51 FT)		
	Awd		\$2,000.00	\$102,000.00
	2		\$1,877.41	\$95,747.91
	3		\$1,098.55	\$56,026.05
Ref #328	518E12301	SCUPPERS, INCLUDING SUPPORTS, AS PER PLAN, (15 EACH)		
	Awd		\$3,850.00	\$57,750.00
	2		\$4,909.83	\$73,647.45
	3		\$3,800.00	\$57,000.00

Section 15 - STRUCTURE REPAIR (ROS-159-0042) - Totals

Awd	\$838,846.00
2	\$832,470.33
3	\$608,070.05

Ref #329	202E32800	CONCRETE SLOPE PROTECTION REMOVED, (1289 SY)	
	Awd	\$24.00	\$30,936.00
	2	\$20.10	\$25,908.90
	3	\$15.00	\$19,335.00
Ref #330	518E12500	SCUPPER, MISC.: PLUG EXISTING SCUPPER, (22 EACH)	
	Awd	\$2,100.00	\$46,200.00
	2	\$1,003.44	\$22,075.68
	3	\$1,200.00	\$26,400.00
Ref #331	518E12500	SCUPPER, MISC.: SCUPPER REPLACEMENT, (2 EACH)	
	Awd	\$3,200.00	\$6,400.00
	2	\$6,081.81	\$12,163.62
	3	\$3,700.00	\$7,400.00
Ref #332	518E51101	8" PIPE DOWNSPOUT, INCLUDING SPECIALS, AS PER PLAN, (40 FT)	
	Awd	\$500.00	\$20,000.00
	2	\$1,093.94	\$43,757.60
	3	\$425.00	\$17,000.00
Ref #333	601E20000	CRUSHED AGGREGATE SLOPE PROTECTION, (930 SY)	
	Awd	\$45.00	\$41,850.00
	2	\$59.65	\$55,474.50
	3	\$45.00	\$41,850.00

Section 16 - STRUCTURE REPAIR (ROS-35-1972) - Totals

Awd	\$145,386.00
2	\$159,380.30
3	\$111,985.00

Ref #334	100E51200	DEPARTMENT'S SHARE OF THE DISPUTE RESOLUTION ADVIS, (30000 EACH)	
	Awd	\$1.00	\$30,000.00
	2	\$1.00	\$30,000.00
	3	\$1.00	\$30,000.00
Ref #335	103E05000	PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYM, (LUMP SUM)	
	Awd	\$93,000.00	\$93,000.00
	2	\$88,767.15	\$88,767.15
	3	\$125,000.00	\$125,000.00
Ref #336	108E10000	CPM PROGRESS SCHEDULE, (LUMP SUM)	
	Awd	\$10,000.00	\$10,000.00
	2	\$16,060.00	\$16,060.00
	3	\$75,000.00	\$75,000.00
Ref #337	614E11000	MAINTAINING TRAFFIC, (LUMP SUM)	
	Awd	\$450,000.00	\$450,000.00
	2	\$234,379.01	\$234,379.01
	3	\$930,000.00	\$930,000.00

Ref #338	619E16010	FIELD OFFICE, TYPE B, (28 MNTH)	
	Awd	\$2,000.00	\$56,000.00
	2	\$1,179.64	\$33,029.92
	3	\$3,650.00	\$102,200.00
Ref #339	623E10000	CONSTRUCTION LAYOUT STAKES AND SURVEYING, (LUMP SUM)	
	Awd	\$200,000.00	\$200,000.00
	2	\$200,000.00	\$200,000.00
	3	\$338,025.00	\$338,025.00
Ref #340	624E10000	MOBILIZATION, (LUMP SUM)	
	Awd	\$950,000.00	\$950,000.00
	2	\$751,500.00	\$751,500.00
	3	\$1,000,000.00	\$1,000,000.00

Section 17 - INCIDENTALS - Totals

Awd	\$1,789,000.00
2	\$1,353,736.08
3	\$2,600,225.00

AWP Report



List of Subs for Project 250077

Sub Nbr	Sub Name	Total Sub d	Parent Sub Nbr	Sub Appr	Work Start	Work Stop	Prog Type
00000001	Follow the River Designs, LLC	\$252,556.40					DBE
00000002	Mid Atlantic Maintenance, Inc.	\$386,105.75					DBE
00000003	Twin Rivers Construction Company	\$67,487.79					DBE
00000004	Armstrong Steel Erectors, Inc.	\$84,240.95					DBE
00000005	Flatrock LLC	\$125,642.13					DBE
00000006	JN Graham Trucking, LLC	\$240,500.01					DBE
00000007	Key Cable & Supply Co., Inc.	\$699,873.32					DBE
00000008	LAKE ERIE CONSTRUCTION COMPANY	\$593,150.14					
00000009	SHELLY & SANDS INC	\$1,953,817.70					
00000010	SPARTAN CONSTRUCTION CO INC	\$24,358.03					
00000011	Soil Testing & Engineering, Ltd.	\$0.00					DBE-RN
00000012	A & A SAFETY INC	\$179,752.90					
00000013	DRESDEN LANDSCAPING LTD	\$36,849.75					

Reference # Listing for Project 250077

Let Date: 2/13/2025

PID # 113013

Federal MAJOR RECONSTRUCTION

ROS - SR 159-00.41

Prime: COMPLETE GENERAL CONSTRUCTION COMPANY

1221 EAST FIFTH AVE

COLUMBUS, OH 43219

Ref #	Bid Amt:	Item Code:	Work Type Required:	Prime Can Do This Work?
1	\$691,849.00	202E23000 PAVEMENT REMOVED	0 (No WT Req)	Yes
2	\$8,850.00	202E30000 WALK REMOVED	0 (No WT Req)	Yes
3	\$1,260.00	202E30600 CONCRETE MEDIAN REMOVED	0 (No WT Req)	Yes
4	\$26,619.00	202E30700 CONCRETE BARRIER REMOVED	0 (No WT Req)	Yes
5	\$28,368.00	202E32000 CURB REMOVED	0 (No WT Req)	Yes
6	\$19,624.00	202E32500 CURB AND GUTTER REMOVED	0 (No WT Req)	Yes
7	\$620.00	202E32700 GUTTER REMOVED	0 (No WT Req)	Yes
8	\$7,726.00	202E38000 GUARDRAIL REMOVED	0 (No WT Req)	Yes
9	\$370.00	202E47800 IMPACT ATTENUATOR REMOVED	0 (No WT Req)	Yes
10	\$365.00	202E53100 MAILBOX REMOVED	0 (No WT Req)	Yes
11	\$936.00	202E75000 FENCE REMOVED	0 (No WT Req)	Yes
12	\$3,200.00	202E98100 REMOVAL MISC.: BENCH REMOVED	0 (No WT Req)	Yes
13	\$474,425.00	203E10000 EXCAVATION	4 Roadway Excavation & Embankment C	Yes
14	\$160,416.00	203E20000 EMBANKMENT	4 Roadway Excavation & Embankment C	Yes
15	\$136,831.50	204E10000 SUBGRADE COMPACTION	4 Roadway Excavation & Embankment C	Yes
16	\$58,368.00	204E13000 EXCAVATION OF SUBGRADE	6 Incidental Grading	Yes
17	\$91,200.00	204E30020 GRANULAR MATERIAL, TYPE C	6 Incidental Grading	Yes
18	\$6,480.00	204E45000 PROOF ROLLING	0 (No WT Req)	Yes
19	\$8,658.00	204E50000 GEOTEXTILE FABRIC	6 Incidental Grading	Yes
20	\$2,380.00	209E10001 DITCH CLEANOUT, AS PER PLAN	6 Incidental Grading	Yes
21	\$4,375.00	512E10051 SEALING OF CONCRETE SURFACES (N	57 Sealing of Concrete Surfaces with Epox	Yes
22	\$31,620.00	606E15050 GUARDRAIL, TYPE MGS	36 Guardrail / Attenuators	Yes
23	\$3,120.00	606E25550 ANCHOR ASSEMBLY, MGS TYPE A	36 Guardrail / Attenuators	Yes
24	\$13,200.00	606E26150 ANCHOR ASSEMBLY, MGS TYPE E (MA	36 Guardrail / Attenuators	Yes
25	\$5,520.00	606E26500 ANCHOR ASSEMBLY, TYPE T	36 Guardrail / Attenuators	Yes
26	\$5,140.00	606E35002 MGS BRIDGE TERMINAL ASSEMBLY, TY	36 Guardrail / Attenuators	Yes
27	\$55,700.00	608E60028 IMPACT ATTENUATOR, TYPE 2 (BIDIRE	36 Guardrail / Attenuators	Yes
28	\$59,409.00	607E98000 FENCE, MISC.: 4-RAIL STEEL BOARD FE	37 Fence	» No
29	\$348,089.00	608E10000 4" CONCRETE WALK	38 Misc. Concrete	Yes
30	\$170,745.00	608E52000 CURB RAMP	38 Misc. Concrete	Yes
31	\$39,600.00	608E53020 DETECTABLE WARNING	38 Misc. Concrete	Yes
32	\$48,300.00	622E10061 CONCRETE BARRIER, SINGLE SLOPE, T	38 Misc. Concrete	Yes
33	\$37,000.00	622E10161 CONCRETE BARRIER, SINGLE SLOPE, T	38 Misc. Concrete	Yes
34	\$22,530.00	622E24841 CONCRETE BARRIER END SECTION, TY	38 Misc. Concrete	Yes
35	\$25,290.00	622E25051 CONCRETE BARRIER, END ANCHORAG	38 Misc. Concrete	Yes
36	\$16,055.00	601E20000 CRUSHED AGGREGATE SLOPE PROTE	35 Drainage (Culverts, Misc.)	Yes
37	\$5,550.00	601E21050 TIED CONCRETE BLOCK MAT WITH TYP	35 Drainage (Culverts, Misc.)	Yes
38	\$1,740.00	601E32200 ROCK CHANNEL PROTECTION, TYPE C	35 Drainage (Culverts, Misc.)	Yes
39	\$5,565.00	601E37500 PAVED GUTTER, TYPE 1-2	38 Misc. Concrete	Yes
40	\$300.00	659E00100 SOIL ANALYSIS TEST	0 (No WT Req)	Yes
41	\$109,170.00	659E00300 TOPSOIL	46 Landscaping	Yes
42	\$22,924.30	659E10000 SEEDING AND MULCHING	46 Landscaping	Yes
43	\$1,147.30	659E14000 REPAIR SEEDING AND MULCHING	46 Landscaping	Yes
44	\$1,147.30	659E15000 INTER-SEEDING	46 Landscaping	Yes
45	\$5,525.00	659E20000 COMMERCIAL FERTILIZER	46 Landscaping	Yes
46	\$1,015.50	659E31000 LIME	46 Landscaping	Yes
47	\$177.00	659E35000 WATER	46 Landscaping	Yes
48	\$530.00	659E40000 MOWING	46 Landscaping	Yes
49	\$5,000.00	832E15000 STORM WATER POLLUTION PREVENTI	0 (No WT Req)	Yes
50	\$35,000.00	832E15002 STORM WATER POLLUTION PREVENTI	0 (No WT Req)	Yes
51	\$21,000.00	832E15010 STORM WATER POLLUTION PREVENTI	0 (No WT Req)	Yes

Reference # Listing for Project 250077

52	\$180,000.00	832E30000	EROSION CONTROL	8	Temporary Soil Erosion & Sediment Co	Yes
53	\$2,580.00	202E20010	HEADWALL REMOVED	0	(No WT Req)	Yes
54	\$67,485.00	202E35100	PIPE REMOVED, 24" DIAMETER AND UN	0	(No WT Req)	Yes
55	\$101,640.00	202E35200	PIPE REMOVED, OVER 24" DIAMETER	0	(No WT Req)	Yes
56	\$8,550.00	202E58000	MANHOLE REMOVED	0	(No WT Req)	Yes
57	\$13,720.00	202E58100	CATCH BASIN REMOVED	0	(No WT Req)	Yes
58	\$9,200.00	202E70110	SPECIAL - PIPE CLEANOUT, 24" AND UN	0	(No WT Req)	Yes
59	\$13,800.00	202E70120	SPECIAL - PIPE CLEANOUT, 27" TO 48"	0	(No WT Req)	Yes
60	\$925.00	202E98100	REMOVAL MISC.: INSPECTION WELL	0	(No WT Req)	Yes
61	\$1,960.00	202E98200	REMOVAL MISC.: CONDUIT	0	(No WT Req)	Yes
62	\$800.00	203E20001	EMBANKMENT, AS PER PLAN	6	Incidental Grading	Yes
63	\$6,477.00	602E20000	CONCRETE MASONRY	35	Drainage (Culverts, Misc.)	Yes
64	\$17,352.00	605E13300	6" UNCLASSIFIED PIPE UNDERDRAINS	35	Drainage (Culverts, Misc.)	Yes
65	\$232,414.00	605E14000	6" BASE PIPE UNDERDRAINS	35	Drainage (Culverts, Misc.)	Yes
66	\$30,800.00	611E00510	6" CONDUIT, TYPE F FOR UNDERDRAIN	35	Drainage (Culverts, Misc.)	Yes
67	\$2,250.00	611E01500	6" CONDUIT, TYPE F	35	Drainage (Culverts, Misc.)	Yes
68	\$1,770.00	611E02400	8" CONDUIT, TYPE D	35	Drainage (Culverts, Misc.)	Yes
69	\$260,920.00	611E04400	12" CONDUIT, TYPE B	35	Drainage (Culverts, Misc.)	Yes
70	\$4,950.00	611E04600	12" CONDUIT, TYPE C	35	Drainage (Culverts, Misc.)	Yes
71	\$52,130.00	611E05900	15" CONDUIT, TYPE B	35	Drainage (Culverts, Misc.)	Yes
72	\$5,687.00	611E06100	15" CONDUIT, TYPE C	35	Drainage (Culverts, Misc.)	Yes
73	\$34,048.00	611E07400	18" CONDUIT, TYPE B	35	Drainage (Culverts, Misc.)	Yes
74	\$5,460.00	611E07600	18" CONDUIT, TYPE C	35	Drainage (Culverts, Misc.)	Yes
75	\$11,430.00	611E08900	21" CONDUIT, TYPE B	35	Drainage (Culverts, Misc.)	Yes
76	\$112,320.00	611E10400	24" CONDUIT, TYPE B	35	Drainage (Culverts, Misc.)	Yes
77	\$56,238.00	611E10600	24" CONDUIT, TYPE C	35	Drainage (Culverts, Misc.)	Yes
78	\$174,000.00	611E11900	27" CONDUIT, TYPE B	35	Drainage (Culverts, Misc.)	Yes
79	\$7,917.00	611E13600	30" CONDUIT, TYPE C	35	Drainage (Culverts, Misc.)	Yes
80	\$127,385.00	611E16400	36" CONDUIT, TYPE B	35	Drainage (Culverts, Misc.)	Yes
81	\$188,235.00	611E16600	36" CONDUIT, TYPE C	35	Drainage (Culverts, Misc.)	Yes
82	\$8,750.00	611E97400	CONDUIT, MISC.: TYPE B FOR DRAINAG	35	Drainage (Culverts, Misc.)	Yes
83	\$7,525.00	611E97400	CONDUIT, MISC.: TYPE C FOR DRAINAG	35	Drainage (Culverts, Misc.)	Yes
84	\$7,525.00	611E97400	CONDUIT, MISC.: TYPE E FOR DRAINAG	35	Drainage (Culverts, Misc.)	Yes
85	\$7,525.00	611E97400	CONDUIT, MISC.: TYPE F FOR DRAINAG	35	Drainage (Culverts, Misc.)	Yes
86	\$110,000.00	611E98150	CATCH BASIN, NO. 3	35	Drainage (Culverts, Misc.)	Yes
87	\$132,750.00	611E98180	CATCH BASIN, NO. 3A	35	Drainage (Culverts, Misc.)	Yes
88	\$21,750.00	611E98370	CATCH BASIN, NO. 6	35	Drainage (Culverts, Misc.)	Yes
89	\$3,470.00	611E98470	CATCH BASIN, NO. 2-2B	35	Drainage (Culverts, Misc.)	Yes
90	\$4,530.00	611E98510	CATCH BASIN, NO. 2-3	35	Drainage (Culverts, Misc.)	Yes
91	\$5,780.00	611E98820	INLET, NO. 3D	35	Drainage (Culverts, Misc.)	Yes
92	\$2,125.00	611E99154	INLET RECONSTRUCTED TO GRADE	35	Drainage (Culverts, Misc.)	Yes
93	\$144,000.00	611E99574	MANHOLE, NO. 3	35	Drainage (Culverts, Misc.)	Yes
94	\$36,000.00	611E99586	MANHOLE, NO. 3 WITH 108" BASE I.D. A	35	Drainage (Culverts, Misc.)	Yes
95	\$7,500.00	611E99654	MANHOLE ADJUSTED TO GRADE	35	Drainage (Culverts, Misc.)	Yes
96	\$5,775.00	611E99710	PRECAST REINFORCED CONCRETE OU	35	Drainage (Culverts, Misc.)	Yes
97	\$4,000.00	611E99720	INSPECTION WELL	35	Drainage (Culverts, Misc.)	Yes
98	\$52,000.00	895E10020	MANUFACTURED WATER QUALITY STR	35	Drainage (Culverts, Misc.)	Yes
99	\$231,862.50	254E01000	PAVEMENT PLANING, ASPHALT CONCR	13	Pavement Planing, Milling, Scarification	Yes
100	\$591,035.00	301E56000	ASPHALT CONCRETE BASE, PG64-22, (4	10	Flexible Paving	Yes
101	\$663,510.00	304E20000	AGGREGATE BASE	9	Aggregate Bases	Yes
102	\$350.00	407E10000	TACK COAT	10	Flexible Paving	Yes
103	\$175.00	407E13900	TACK COAT, 702.13	10	Flexible Paving	Yes
104	\$27,835.50	407E20000	NON-TRACKING TACK COAT	10	Flexible Paving	Yes
105	\$157,920.00	441E50000	ASPHALT CONCRETE SURFACE COURS	10	Flexible Paving	Yes
106	\$89,650.00	441E50200	ASPHALT CONCRETE INTERMEDIATE C	10	Flexible Paving	Yes
107	\$32,880.00	441E70500	ASPHALT CONCRETE SURFACE COURS	10	Flexible Paving	Yes
108	\$40,200.00	441E70600	ASPHALT CONCRETE INTERMEDIATE C	10	Flexible Paving	Yes
109	\$333,900.00	442E10000	ASPHALT CONCRETE SURFACE COURS	10	Flexible Paving	Yes

Reference # Listing for Project 250077

110	\$50,935.00	442E10001	ASPHALT CONCRETE SURFACE COURS	10	Flexible Paving	Yes
111	\$87,175.00	442E10100	ASPHALT CONCRETE INTERMEDIATE C	10	Flexible Paving	Yes
112	\$127,535.00	452E12010	8" NON-REINFORCED CONCRETE PAVE	12	Rigid Paving	Yes
113	\$601,875.00	452E12020	8" NON-REINFORCED CONCRETE PAVE	12	Rigid Paving	Yes
114	\$1,803,298.00	452E13020	9" NON-REINFORCED CONCRETE PAVE	12	Rigid Paving	Yes
115	\$27,900.00	452E12051	8" NON-REINFORCED CONCRETE PAVE	12	Rigid Paving	Yes
116	\$345,508.00	609E12000	COMBINATION CURB AND GUTTER, TYP	38	Misc. Concrete	Yes
117	\$201,019.00	609E26000	CURB, TYPE 6	38	Misc. Concrete	Yes
118	\$3,120.00	609E26001	CURB, TYPE 6, AS PER PLAN	38	Misc. Concrete	Yes
119	\$3,225.00	609E28000	CURB, TYPE 7	38	Misc. Concrete	Yes
120	\$18,616.00	609E31000	COMBINATION CURB AND GUTTER, TYP	38	Misc. Concrete	Yes
121	\$31,945.75	609E71000	CONCRETE MEDIAN	38	Misc. Concrete	Yes
122	\$3,944.00	609E71001	CONCRETE MEDIAN, AS PER PLAN	38	Misc. Concrete	Yes
123 AA1	\$45,075.00	452E11010	7" NON-REINFORCED CONCRETE PAVE	12	Rigid Paving	Yes
125	\$50,690.00	638E00090	3" WATER MAIN DUCTILE IRON PIPE AN	35	Drainage (Culverts, Misc.)	Yes
126	\$4,290.00	638E00700	6" WATER MAIN DUCTILE IRON PIPE AN	35	Drainage (Culverts, Misc.)	Yes
127	\$5,640.00	638E01300	8" WATER MAIN DUCTILE IRON PIPE AN	35	Drainage (Culverts, Misc.)	Yes
128	\$2,540.00	638E07701	4" GATE VALVE AND VALVE BOX, AS PE	35	Drainage (Culverts, Misc.)	Yes
129	\$7,685.00	638E10201	6" FIRE HYDRANT, AS PER PLAN	35	Drainage (Culverts, Misc.)	Yes
130	\$3,700.00	638E10481	FIRE HYDRANT REMOVED, AS PER PLA	35	Drainage (Culverts, Misc.)	Yes
131	\$3,330.00	638E10801	VALVE BOX ADJUSTED TO GRADE, AS	35	Drainage (Culverts, Misc.)	Yes
132	\$6,450.00	638E11101	METER AND CHAMBER REMOVED AND	35	Drainage (Culverts, Misc.)	Yes
133	\$1,900.00	202E58000	MANHOLE REMOVED (SANITARY)	0	(No WT Req)	Yes
134	\$6,200.00	611E00400	4" CONDUIT, TYPE E (SANITARY)	35	Drainage (Culverts, Misc.)	Yes
135	\$3,600.00	611E01800	8" CONDUIT, TYPE B (SANITARY)	35	Drainage (Culverts, Misc.)	Yes
136	\$6,400.00	611E99574	MANHOLE, NO. 3 (SANITARY)	35	Drainage (Culverts, Misc.)	Yes
137	\$28,420.00	625E00450	CONNECTION, FUSED PULL APART	43	Highway Lighting	Yes
138	\$130.00	625E00470	CONNECTION, UNFUSED BOLTED	43	Highway Lighting	Yes
139	\$21,840.00	625E00480	CONNECTION, UNFUSED PERMANENT	43	Highway Lighting	Yes
140	\$3,050.00	625E02501	TRANSFORMER BASE, TYPE AT-A, AS P	43	Highway Lighting	Yes
141	\$40,000.00	625E10500	LIGHT POLE, MISC.: (POCKET PARKS, 1	43	Highway Lighting	Yes
142	\$49,500.00	625E10503	LIGHT POLE (INSTALLATION ONLY), AS	43	Highway Lighting	Yes
143	\$5,000.00	625E13500	LIGHT TOWER, MISC.: INSTALLATION O	43	Highway Lighting	Yes
144	\$180,000.00	625E14000	LIGHT POLE FOUNDATION, 24" X 6' DEE	43	Highway Lighting	Yes
145	\$18,000.00	625E15200	LIGHT TOWER FOUNDATION, 36" X 25' D	43	Highway Lighting	Yes
146	\$660.00	625E17901	BRACKET ARM, AS PER PLAN, 4'	43	Highway Lighting	Yes
147	\$840.00	625E17961	BRACKET ARM, 8', AS PER PLAN	43	Highway Lighting	Yes
148	\$11,100.00	625E18101	BRACKET ARM, 12', AS PER PLAN	43	Highway Lighting	Yes
149	\$14,541.00	625E23400	NO. 10 AWG POLE AND BRACKET CABL	43	Highway Lighting	Yes
150	\$170,722.50	625E23200	NO. 4 AWG 2400 VOLT DISTRIBUTION C	43	Highway Lighting	Yes
151	\$19,810.00	625E25400	CONDUIT, 2", 725.04	43	Highway Lighting	Yes
152	\$268,303.75	625E25500	CONDUIT, 3", 725.04	43	Highway Lighting	Yes
153	\$182,710.00	625E25902	CONDUIT, JACKED OR DRILLED, 725.04,	43	Highway Lighting	Yes
154	\$32,625.00	625E26253	LUMINAIRE, CONVENTIONAL, SOLID ST	43	Highway Lighting	Yes
155	\$48,000.00	625E27403	LUMINAIRE, POST TOP, SOLID STATE (L	43	Highway Lighting	Yes
156	\$12,000.00	625E27403	LUMINAIRE, POST TOP, SOLID STATE (L	43	Highway Lighting	Yes
157	\$9,000.00	625E27403	LUMINAIRE, POST TOP, SOLID STATE (L	43	Highway Lighting	Yes
158	\$8,400.00	625E27503	LUMINAIRE, UNDERPASS, SOLID STATE	43	Highway Lighting	Yes
159	\$111,670.00	625E29002	TRENCH, 24" DEEP	43	Highway Lighting	Yes
160	\$48,000.00	625E29900	JUNCTION BOX	43	Highway Lighting	Yes
161	\$113,900.00	625E30700	PULL BOX, 725.08, 18"	43	Highway Lighting	Yes
162	\$7,000.00	625E30706	PULL BOX, 725.08, 24"	43	Highway Lighting	Yes
163	\$27,000.00	625E34001	POWER SERVICE, AS PER PLAN	43	Highway Lighting	Yes
164	\$1,800.00	625E75506	LUMINAIRE REMOVED	0	(No WT Req)	Yes
165	\$23,829.00	621E00100	RPM, 2-WAY	41	Raised Pavement Markers	» No
166	\$9,600.00	621E54000	RAISED PAVEMENT MARKER REMOVED	0	(No WT Req)	Yes
167	\$10,782.00	630E02100	GROUND MOUNTED SUPPORT, NO. 2 P	42	Signing	Yes
168	\$15,994.50	630E03100	GROUND MOUNTED SUPPORT, NO. 3 P	42	Signing	Yes

Reference # Listing for Project 250077

169	\$4,735.50	630E04100	GROUND MOUNTED SUPPORT, NO. 4 P	42	Signing	Yes
170	\$1,085.00	630E06400	GROUND MOUNTED STRUCTURAL BEA	42	Signing	Yes
171	\$5,700.00	630E07000	GROUND MOUNTED STRUCTURAL BEA	42	Signing	Yes
172	\$6,258.00	630E07600	GROUND MOUNTED STRUCTURAL BEA	42	Signing	Yes
173	\$180.00	630E08600	SIGN POST REFLECTOR	42	Signing	Yes
174	\$13,205.00	630E09000	BREAKAWAY STRUCTURAL BEAM CON	42	Signing	Yes
175	\$76,550.00	630E72420	OVERHEAD SIGN SUPPORT, TYPE TC-1	42	Signing	Yes
176	\$22,912.00	630E80100	SIGN, FLAT SHEET	42	Signing	Yes
177	\$10,755.00	630E80200	SIGN, GROUND MOUNTED EXTRUSHEE	42	Signing	Yes
178	\$14,490.00	630E80224	SIGN, OVERHEAD EXTRUSHEET	42	Signing	Yes
179	\$16,625.00	630E84500	GROUND MOUNTED STRUCTURAL BEA	42	Signing	Yes
180	\$20,600.00	630E84510	RIGID OVERHEAD SIGN SUPPORT FOU	42	Signing	Yes
181	\$1,610.00	630E84900	REMOVAL OF GROUND MOUNTED SIGN	0	(No WT Req)	Yes
182	\$520.00	630E85100	REMOVAL OF GROUND MOUNTED SIGN	42	Signing	Yes
183	\$2,590.00	630E85400	REMOVAL OF GROUND MOUNTED MAJ	0	(No WT Req)	Yes
184	\$2,840.00	630E86002	REMOVAL OF GROUND MOUNTED POS	0	(No WT Req)	Yes
185	\$5,415.00	630E86102	REMOVAL OF GROUND MOUNTED STR	0	(No WT Req)	Yes
186	\$3,950.00	630E86310	REMOVAL OF STRUCTURE MOUNTED S	0	(No WT Req)	Yes
187	\$4,620.00	630E87400	REMOVAL OF OVERHEAD MOUNTED SI	0	(No WT Req)	Yes
188	\$350.00	630E87500	REMOVAL OF POLE MOUNTED SIGN AN	0	(No WT Req)	Yes
189	\$10,000.00	630E89702	REMOVAL OF OVERHEAD SIGN SUPPO	0	(No WT Req)	Yes
190	\$850.00	642E00200	LANE LINE, 4", TYPE 1	45	Pavement Markings	» No
191	\$21,303.00	644E00104	EDGE LINE, 6"	45	Pavement Markings	» No
192	\$5,406.00	644E00204	LANE LINE, 6"	45	Pavement Markings	» No
193	\$5,928.00	644E00300	CENTER LINE	45	Pavement Markings	» No
194	\$13,039.60	644E00404	CHANNELIZING LINE, 12"	45	Pavement Markings	» No
195	\$6,440.00	644E00500	STOP LINE	45	Pavement Markings	» No
196	\$1,440.00	644E00620	CROSSWALK LINE, 12"	45	Pavement Markings	» No
197	\$11,128.00	644E00630	CROSSWALK LINE, 24"	45	Pavement Markings	» No
198	\$7,480.00	644E00700	TRANSVERSE/DIAGONAL LINE	45	Pavement Markings	» No
199	\$184.00	644E00720	CHEVRON MARKING	45	Pavement Markings	» No
200	\$9,350.00	644E01300	LANE ARROW	45	Pavement Markings	» No
201	\$465.00	644E01510	DOTTED LINE, 6"	45	Pavement Markings	» No
202	\$207.00	644E20800	YIELD LINE	45	Pavement Markings	» No
203	\$8,100.00	646E10010	EDGE LINE, 6"	45	Pavement Markings	» No
204	\$3,059.00	646E10110	LANE LINE, 6"	45	Pavement Markings	» No
205	\$4,836.00	646E10200	CENTER LINE	45	Pavement Markings	» No
206	\$7,362.30	646E10310	CHANNELIZING LINE, 12"	45	Pavement Markings	» No
207	\$4,152.00	646E10400	STOP LINE	45	Pavement Markings	» No
208	\$14,768.00	646E10520	CROSSWALK LINE, 24"	45	Pavement Markings	» No
209	\$9,207.00	646E10600	TRANSVERSE/DIAGONAL LINE	45	Pavement Markings	» No
210	\$549.00	646E10620	CHEVRON MARKING	45	Pavement Markings	» No
211	\$11,780.00	646E20300	LANE ARROW	45	Pavement Markings	» No
212	\$8,125.00	646E20320	WRONG WAY ARROW	45	Pavement Markings	» No
213	\$765.00	646E20504	DOTTED LINE, 6"	45	Pavement Markings	» No
214	\$29,240.00	625E25400	CONDUIT, 2", 725.04	43	Highway Lighting	Yes
215	\$32,064.00	625E25500	CONDUIT, 3", 725.04	43	Highway Lighting	Yes
216	\$5,265.00	625E25600	CONDUIT, 4", 725.04	43	Highway Lighting	Yes
217	\$10,076.00	625E25902	CONDUIT, JACKED OR DRILLED, 725.04,	43	Highway Lighting	Yes
218	\$124,944.00	625E25902	CONDUIT, JACKED OR DRILLED, 725.04,	43	Highway Lighting	Yes
219	\$40,976.00	625E29000	TRENCH	43	Highway Lighting	Yes
220	\$9,800.00	625E30500	PULL BOX, 725.06, SIZE 1.5	43	Highway Lighting	Yes
221	\$42,000.00	625E30706	PULL BOX, 725.08, 24"	43	Highway Lighting	Yes
222	\$16,500.00	625E32000	GROUND ROD	43	Highway Lighting	Yes
223	\$9,360.00	630E79100	SIGN HANGER ASSEMBLY, MAST ARM	42	Signing	Yes
224	\$6,208.00	630E80100	SIGN, FLAT SHEET	42	Signing	Yes
225	\$63,000.00	632E05007	VEHICULAR SIGNAL HEAD, (LED), 3-SEC	44	Traffic Signals - Standard	Yes
226	\$21,600.00	632E05087	VEHICULAR SIGNAL HEAD, (LED), 5-SEC	44	Traffic Signals - Standard	Yes

Reference # Listing for Project 250077

227	\$35,100.00	632E20731	PEDESTRIAN SIGNAL HEAD (LED), TYP	44	Traffic Signals - Standard	Yes
228	\$2,880.00	632E25000	COVERING OF VEHICULAR SIGNAL HEA	44	Traffic Signals - Standard	Yes
229	\$1,620.00	632E25010	COVERING OF PEDESTRIAN SIGNAL HE	44	Traffic Signals - Standard	Yes
230	\$17,010.00	632E26000	PEDESTRIAN PUSHBUTTON	44	Traffic Signals - Standard	Yes
231	\$15,097.50	632E40300	SIGNAL CABLE, 3 CONDUCTOR, NO. 14	44	Traffic Signals - Standard	Yes
232	\$42,783.00	632E40500	SIGNAL CABLE, 5 CONDUCTOR, NO. 14	44	Traffic Signals - Standard	Yes
233	\$9,173.20	632E40700	SIGNAL CABLE, 7 CONDUCTOR, NO. 14	44	Traffic Signals - Standard	Yes
234	\$317,250.00	632E64010	SIGNAL SUPPORT FOUNDATION	44	Traffic Signals - Standard	Yes
235	\$56,000.00	632E64020	PEDESTAL FOUNDATION	44	Traffic Signals - Standard	Yes
236	\$28,000.00	632E64950	TEST HOLE PERFORMED	44	Traffic Signals - Standard	Yes
237	\$17,970.00	632E65200	LOOP DETECTOR LEAD-IN CABLE	44	Traffic Signals - Standard	Yes
238	\$9,895.00	632E68200	POWER CABLE, 2 CONDUCTOR, NO. 6 A	44	Traffic Signals - Standard	Yes
239	\$21,000.00	632E70001	POWER SERVICE, AS PER PLAN	44	Traffic Signals - Standard	Yes
240	\$9,600.00	632E70400	CONDUIT RISER, 2" DIAMETER	44	Traffic Signals - Standard	Yes
241	\$3,000.00	632E72101	SIGNAL SUPPORT, TYPE TC-81.22, DESI	44	Traffic Signals - Standard	Yes
242	\$12,000.00	632E79101	COMBINATION SIGNAL SUPPORT, TYPE	44	Traffic Signals - Standard	Yes
243	\$18,000.00	632E79111	COMBINATION SIGNAL SUPPORT, TYPE	44	Traffic Signals - Standard	Yes
244	\$21,000.00	632E79131	COMBINATION SIGNAL SUPPORT, TYPE	44	Traffic Signals - Standard	Yes
245	\$28,000.00	632E79141	COMBINATION SIGNAL SUPPORT, TYPE	44	Traffic Signals - Standard	Yes
246	\$7,000.00	632E79151	COMBINATION SIGNAL SUPPORT, TYPE	44	Traffic Signals - Standard	Yes
247	\$16,000.00	632E89901	PEDESTAL, 8', TRANSFORMER BASE, A	44	Traffic Signals - Standard	Yes
248	\$52,500.00	632E90100	REMOVAL OF TRAFFIC SIGNAL INSTALL	44	Traffic Signals - Standard	Yes
249	\$57,400.00	632E90400	SIGNALIZATION, MISC.: CELLULAR MOD	44	Traffic Signals - Standard	Yes
250	\$66,000.00	632E90400	SIGNALIZATION, MISC.: QUEUE WARNI	44	Traffic Signals - Standard	Yes
251	\$133,000.00	633E65511	CABINET, TYPE TS-2, AS PER PLAN	44	Traffic Signals - Standard	Yes
252	\$38,500.00	633E67100	CABINET FOUNDATION	44	Traffic Signals - Standard	Yes
253	\$21,000.00	633E67200	CONTROLLER WORK PAD	44	Traffic Signals - Standard	Yes
254	\$42,000.00	633E75000	UNINTERRUPTIBLE POWER SUPPLY (U	44	Traffic Signals - Standard	Yes
255	\$135,000.00	809E69001	ADVANCE RADAR DETECTION, AS PER	44	Traffic Signals - Standard	Yes
256	\$218,750.00	809E69101	STOP LINE RADAR DETECTION, AS PER	44	Traffic Signals - Standard	Yes
257	\$35,000.00	809E69123	ATC CONTROLLER, AS PER PLAN	44	Traffic Signals - Standard	Yes
258	\$7,000.00	809E69201	EMERGENCY VEHICLE PREEMPTION, A	44	Traffic Signals - Standard	Yes
259	\$32,400.00	809E69211	PREEMPT RECEIVING UNIT, AS PER PL	44	Traffic Signals - Standard	Yes
260	\$35,000.00	809E69211	PREEMPT RECEIVING UNIT, AS PER PL	44	Traffic Signals - Standard	Yes
261	\$26,696.25	809E69221	PREEMPT DETECTOR CABLE, AS PER P	44	Traffic Signals - Standard	Yes
262	\$35,000.00	809E69231	PREEMPT PHASE SELECTOR, AS PER P	44	Traffic Signals - Standard	Yes
263	\$13,500.00	809E69241	PREEMPT CONFIRMATION LIGHT, AS P	44	Traffic Signals - Standard	Yes
264	\$3,250.00	203E10001	EXCAVATION, AS PER PLAN	6	Incidental Grading	Yes
265	\$4,500.00	203E20001	EMBANKMENT, AS PER PLAN	6	Incidental Grading	Yes
266	\$10,500.00	601E30000	DUMPED ROCK FILL, MISC.: LARGE RIV	35	Drainage (Culverts, Misc.)	Yes
267	\$1,705.00	661E00501	MULCH, AS PER PLAN	46	Landscaping	Yes
268	\$4,900.00	661E20021	DECIDUOUS SHRUB, 18" HEIGHT, AS PE	46	Landscaping	Yes
269	\$1,400.00	661E20071	DECIDUOUS SHRUB, 30" HEIGHT, AS PE	46	Landscaping	Yes
270	\$2,450.00	661E30061	EVERGREEN SHRUB, 2' HEIGHT, AS PE	46	Landscaping	Yes
271	\$12,000.00	661E40100	DECIDUOUS TREE, 2-1/2" CALIPER; ZEL	46	Landscaping	Yes
272	\$27,100.00	690E98000	SPECIAL - POCKET PARK WITH BENCH	0	(No WT Req)	Yes
273	\$13,200.00	690E98000	SPECIAL - POCKET PARK WITHOUT BE	0	(No WT Req)	Yes
274	\$3,900.00	203E10000	EXCAVATION FOR MAINTAINING TRAFFI	4	Roadway Excavation & Embankment C	Yes
275	\$5,200.00	203E20000	EMBANKMENT FOR MAINTAINING TRAF	4	Roadway Excavation & Embankment C	Yes
276	\$25,000.00	614E11110	LAW ENFORCEMENT OFFICER WITH PA	39	Maintenance of Traffic	Yes
277	\$22,680.00	614E12380	WORK ZONE IMPACT ATTENUATOR, 24"	39	Maintenance of Traffic	Yes
278	\$30,000.00	614E12420	DETOUR SIGNING	39	Maintenance of Traffic	Yes
279	\$1,500.00	614E12500	REPLACEMENT SIGN	39	Maintenance of Traffic	Yes
280	\$3,200.00	614E12600	REPLACEMENT DRUM	39	Maintenance of Traffic	Yes
281	\$126,000.00	614E13000	ASPHALT CONCRETE FOR MAINTAININ	39	Maintenance of Traffic	Yes
282	\$2,725.00	614E13310	BARRIER REFLECTOR, TYPE 1, ONE-W	0	(No WT Req)	Yes
283	\$1,260.00	614E13318	BARRIER REFLECTOR, TYPE 5, ONE-W	0	(No WT Req)	Yes
284	\$3,836.00	614E13350	OBJECT MARKER, ONE WAY	0	(No WT Req)	Yes

Reference # Listing for Project 250077

285	\$120,000.00	614E18601	PORTABLE CHANGEABLE MESSAGE SI	39	Maintenance of Traffic	Yes
286	\$13,284.00	614E20056	WORK ZONE LANE LINE, CLASS I, 6", 80	39	Maintenance of Traffic	Yes
287	\$7,527.00	614E21050	WORK ZONE CENTER LINE, CLASS I, 80	39	Maintenance of Traffic	Yes
288	\$51,761.00	614E22056	WORK ZONE EDGE LINE, CLASS I, 6", 80	39	Maintenance of Traffic	Yes
289	\$24,522.00	614E23110	WORK ZONE CHANNELIZING LINE, CLA	39	Maintenance of Traffic	Yes
290	\$5,832.75	614E24102	WORK ZONE DOTTED LINE, CLASS I, 6",	39	Maintenance of Traffic	Yes
291	\$5,376.00	614E25200	WORK ZONE TRANSVERSE/DIAGONAL	39	Maintenance of Traffic	Yes
292	\$11,850.00	614E26200	WORK ZONE STOP LINE, CLASS I, 642 P	39	Maintenance of Traffic	Yes
293	\$35,970.00	614E30200	WORK ZONE ARROW, CLASS I, 642 PAI	39	Maintenance of Traffic	Yes
294	\$2,000.00	614E40050	BUSINESS ENTRANCE SIGN	39	Maintenance of Traffic	Yes
295	\$192,525.00	615E25000	PAVEMENT FOR MAINTAINING TRAFFIC	10	Flexible Paving	Yes
296	\$4,750.00	616E10000	WATER	0	(No WT Req)	Yes
297	\$60,249.00	622E41100	PORTABLE BARRIER, UNANCHORED	39	Maintenance of Traffic	Yes
298	\$500.00	503E11100	COFFERDAMS AND EXCAVATION BRACI	53	Piling	Yes
299	\$29,044.00	518E21201	POROUS BACKFILL WITH GEOTEXTILE	34	Earth Retaining Structures	Yes
300	\$238,050.00	870E10001	PREFABRICATED MODULAR RETAINING	34	Earth Retaining Structures	Yes
301	\$18,200.00	870E11000	WALL EXCAVATION	34	Earth Retaining Structures	Yes
302	\$2,959.00	870E12000	6" DRAINAGE PIPE, PERFORATED	34	Earth Retaining Structures	Yes
303	\$1,600.00	870E12100	6" DRAINAGE PIPE, NON-PERFORATED	34	Earth Retaining Structures	Yes
304	\$1,000.00	870E14000	ON-SITE ASSISTANCE	34	Earth Retaining Structures	Yes
305	\$6,000.00	870E15000	PMRW INSPECTION AND COMPACTION	34	Earth Retaining Structures	Yes
306	\$46,980.00	503E21100	UNCLASSIFIED EXCAVATION	6	Incidental Grading	Yes
307	\$119,814.28	509E10000	EPOXY COATED STEEL REINFORCEME	23	Reinforcing Steel	Yes
308	\$105,000.00	511E46012	CLASS QC1 CONCRETE WITH QC/QA, R	38	Misc. Concrete	Yes
309	\$81,225.00	511E46512	CLASS QC1 CONCRETE WITH QC/QA, F	38	Misc. Concrete	Yes
310	\$15,085.00	512E10051	SEALING OF CONCRETE SURFACES (N	57	Sealing of Concrete Surfaces with Epox	Yes
311	\$784.00	512E33000	TYPE 2 WATERPROOFING	40	Waterproofing	Yes
312	\$1,792.00	516E13601	1" PREFORMED EXPANSION JOINT FILL	0	(No WT Req)	Yes
313	\$114,570.00	517E75121	RAILING (CONCRETE PARAPET WITH T	36	Guardrail / Attenuators	Yes
314	\$3,420.00	518E20000	PREFABRICATED GEOCOMPOSITE DRA	35	Drainage (Culverts, Misc.)	Yes
315	\$4,320.00	518E21200	POROUS BACKFILL WITH GEOTEXTILE	34	Earth Retaining Structures	Yes
316	\$2,872.00	518E40000	6" PERFORATED CORRUGATED PLASTI	0	(No WT Req)	Yes
317	\$450.00	518E40010	6" NON-PERFORATED CORRUGATED PL	0	(No WT Req)	Yes
318	\$600.00	518E40011	6" NON-PERFORATED CORRUGATED PL	0	(No WT Req)	Yes
319	\$63,720.00	530E13000	SPECIAL - FORM LINER	34	Earth Retaining Structures	Yes
320	\$3,000.00	690E98400	SPECIAL - MISC: PROTECTION OF UTILI	0	(No WT Req)	Yes
321	\$34,100.00	202E11501	PORTIONS OF STRUCTURE REMOVED,	19	Structure Removal	Yes
322	\$36,640.00	510E09951	DOWEL HOLES WITH CEMENT GROUT,	23	Reinforcing Steel	Yes
323	\$228,375.00	511E51512	CLASS QC2 CONCRETE WITH QC/QA, SI	38	Misc. Concrete	Yes
324	\$30,396.00	512E10050	SEALING OF CONCRETE SURFACES (N	57	Sealing of Concrete Surfaces with Epox	Yes
325	\$287,385.00	514E27710	FIELD PAINTING, MISC.: OVERCOAT PAI	26	Structural Steel Painting	» No
326	\$62,200.00	516E01301	ELASTOMERIC STRIP SEAL WITHOUT S	27	Expansion & Contraction Joints, Joint S	Yes
327	\$102,000.00	516E12201	STRUCTURAL STEEL EXPANSION JOINT	27	Expansion & Contraction Joints, Joint S	Yes
328	\$57,750.00	518E12301	SCUPPERS, INCLUDING SUPPORTS, AS	29	Structure Repairs	Yes
329	\$30,936.00	202E32800	CONCRETE SLOPE PROTECTION REMO	0	(No WT Req)	Yes
330	\$46,200.00	518E12500	SCUPPER, MISC.: PLUG EXISTING SCU	29	Structure Repairs	Yes
331	\$6,400.00	518E12500	SCUPPER, MISC.: SCUPPER REPLACEM	29	Structure Repairs	Yes
332	\$20,000.00	518E51101	8" PIPE DOWNSPOUT, INCLUDING SPE	0	(No WT Req)	Yes
333	\$41,850.00	601E20000	CRUSHED AGGREGATE SLOPE PROTE	35	Drainage (Culverts, Misc.)	Yes
334	\$30,000.00	100E51200	DEPARTMENT'S SHARE OF THE DISPUT	0	(No WT Req)	Yes
335	\$93,000.00	103E05000	PREMIUM FOR CONTRACT PERFORMA	0	(No WT Req)	Yes
336	\$10,000.00	108E10000	CPM PROGRESS SCHEDULE	0	(No WT Req)	Yes
337	\$450,000.00	614E11000	MAINTAINING TRAFFIC	39	Maintenance of Traffic	Yes
338	\$56,000.00	619E16010	FIELD OFFICE, TYPE B	0	(No WT Req)	Yes
339	\$200,000.00	623E10000	CONSTRUCTION LAYOUT STAKES AND	0	(No WT Req)	Yes
340	\$950,000.00	624E10000	MOBILIZATION	0	(No WT Req)	Yes
400	\$55,300.00	630E72320	OVERHEAD SIGN SUPPORT, TYPE TC-1	42	Signing	Yes
401	\$17,300.00	630E84010	CONCRETE BARRIER MEDIAN OVERHE	42	Signing	Yes

Reference # Listing for Project 250077

403	\$4,400.00	202E58001	MANHOLE REMOVED, AS PER PLAN	0	(No WT Req)	Yes
404	\$2,920.00	202E58701	MANHOLE ABANDONED, AS PER PLAN	0	(No WT Req)	Yes
405	\$2,080.00	202E62001	JUNCTION BOX REMOVED, AS PER PLA	0	(No WT Req)	Yes
406	\$4,000.00	511E71300	CONCRETE, MISC.: CONCRETE, CLASS	38	Misc. Concrete	Yes
407	\$1,960.00	613E41300	LOW STRENGTH MORTAR BACKFILL (T	0	(No WT Req)	Yes
408	\$10,000.00	633E72001	TRAINING, AS PER PLAN- ITEM 452 TRAI	44	Traffic Signals - Standard	Yes
409	\$3,255.00	614E20550	WORK ZONE LANE LINE, CLASS III, 4", 6	39	Maintenance of Traffic	Yes
410	\$4,495.00	614E21550	WORK ZONE CENTER LINE, CLASS III, 6	39	Maintenance of Traffic	Yes
411	\$5,425.00	614E22350	WORK ZONE EDGE LINE, CLASS III, 4", 6	39	Maintenance of Traffic	Yes
412	\$5,222.00	614E23680	WORK ZONE CHANNELIZING LINE, CLA	39	Maintenance of Traffic	Yes
413	\$1,579.50	614E24610	WORK ZONE DOTTED LINE, CLASS III, 4	39	Maintenance of Traffic	Yes
414	\$5,485.50	614E26610	WORK ZONE STOP LINE, CLASS III, 642	39	Maintenance of Traffic	Yes
415	\$6,250.00	614E30650	WORK ZONE ARROW, CLASS III, 642 PA	39	Maintenance of Traffic	Yes
416	\$12,150.00	202E70000	SPECIAL - FILL AND PLUG EXISTING CO	0	(No WT Req)	Yes

\$19,286,683.78 Total

Prime is not Pre-Qual for: \$526,546.90

2.73%



**Department of
Transportation**

transportation.ohio.gov

Mike DeWine, *Governor*
Jon Husted, *Lt. Governor*
Pamela Boratyn, *Director*

1/28/2025

Project 250077 **Addendum No. 1**
PID No. 113013
ROS - SR 159 – 00.41
Major Reconstruction
Letting: February 13, 2025

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

For internet access to information referenced in this addendum, please see the ODOT web site at: <https://ftp.dot.state.oh.us/pub/Contracts/Attach/ROS-113013/>

The Department utilizes Bid Express (<http://www.bidx.com>) as the official medium for electronic bid submittal. All bidders must prepare bids and submit them online via Bid Express using AASHTOWare Project Bids software.

Addenda amendments must be acknowledged in the miscellaneous section of the Project Bids file and all amendments loaded in order for your bid to be considered for award of this project. Bid express will not accept bids that do not have amendments incorporated. Failure to incorporate changed quantities or items in your Project Bids submissions will result in the rejection of your bid.

**PROPOSAL ADDENDUM
FOR
PROJECT: 250077 | CRS: ROS-159-0.41 | PID: 113013**

MODIFICATIONS

REVISED COMPLETION DATE	N/A
REPLACE/ADD PLAN SHEETS	1

The prime percentage is reduced to 40%.

ADDED NOTES

1. This Addendum-001 adds Special Provision – “Signal and Light Supports 1/17/2025” to provide the bidder the information about the Material Only contract that the Department has already executed for the manufacture and delivery of certain poles for the project.
2. This Addendum-001 adds Special Provision – “Item 452 Training 1/21/2025” to provide a new requirement to include some prescribed training for project personnel on concrete items for the project. The General Summary will be updated with Addendum-002 to include the pay item for this Special Provision.

PRE-BID QUESTIONS

The inclusion of the question(s) that accompany answer(s) in this addendum is provided for reference only and the question(s) shall not be construed as a contract modification or change.

Question Submitted: 1/17/2025 12:37:22 PM

Page 134/592 the column for 9" non-reinforced pavement has a quantity of 1618.62 and 561.59 sy. These appear to be square feet and not the square yards. Please verify.

Answer: Yes, the quantity should be square feet. Also, this column should be 4" concrete walk. This will be corrected by Addendum.

Question Submitted: 1/17/2025 1:36:49 PM

Page 134/592 the quantities that are in the column for 9" pavement seem to be for 4" concrete walk shown on page 280. Please verify.

Answer: Yes, this column should be for 4" concrete walk. This will be corrected by Addendum.

Question Submitted: 1/17/2025 3:57:07 PM

Can you please clarify if the 8" and 9" 452 concrete pavement has to be slip-formed or can they be hand formed and poured?

Answer: All concrete placement shall conform to the CMS section 450 and any other pertinent sections. ODOT specification 451.04 requires the use of slip-form paving machines for mainline pavement, which includes the mainline from approximately Sta 710+65 to Sta 720+30. Small sections, short sections, or irregular pavement areas, may be constructed with fixed form methods, as determined by the Engineer.

Question Submitted: 1/22/2025 3:57:56 PM

For Bid Ref 155, 156 & 157 will King Luminaire's K137 Yarmouth Series Luminaire be considered an approved equal to the specified Holophane Luminaires. The K137R-P4NG series is Dark Sky compliant with a U rating of 0.

Answer: The Department and Local public agencies coordinated closely on the style and performance chosen during design and prefer the specified luminaire style and this proposed luminaire does not match close enough to be an approved equal.

Question Submitted: 1/23/2025 10:26:26 AM

Ref #158 – Would the Current EWAS Underpass fixture be an approved equal to the fixtures called out in the plans? CURRENT LIGHTING EWAS LED UNDERPASS FIXTURE - 120-277V - 4,900 LUMENS - 36 WATTS - ASYMMETRIC NARROW DISTRIBUTION - 3000K – NO PE/DIMMING - FLUSH MOUNT - BLACK - FUSING - ENHANCED SURGE PROTECTION - ODOT LABELING GE PART #EWAS-01-3-B2-AN-7-30-N-1-FM-BLCK-FR-004

Answer: The GE EWAS product family is an approved product for underpass lighting, however, a cursory analysis indicates that the product number would be more like GE #EWAS-01-3-B4-AF-7-30-N-1-FM-BLCK to match the performance of the Holophane specified luminaire. The Department would accept this GE EWAS product line, however, documentation would be required prior to luminaire purchase during construction to demonstrate equivalent illuminance and performance to the specified products.

Question Submitted: 1/24/2025 8:48:40 AM

Due to the requirement of the concrete pavement having to be slip-formed will ODOT please consider changing the 50% self-performed work to 30%?

Answer: The percentage will be reduced to 40%.



**Department of
Transportation**
transportation.ohio.gov

Mike DeWine, *Governor*
Jon Husted, *Lt. Governor*
Pamela Boratyn, *Director*

1/30/2025

Project 250077 **Addendum No. 2**
PID No. 113013
ROS - SR 159 – 00.41
Major Reconstruction
Letting: February 13, 2025

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

For internet access to information referenced in this addendum, please see the ODOT web site at: <https://ftp.dot.state.oh.us/pub/Contracts/Attach/ROS-113013/>

The Department utilizes Bid Express (<http://www.bidx.com>) as the official medium for electronic bid submittal. All bidders must prepare bids and submit them online via Bid Express using AASHTOWare Project Bids software.

Addenda amendments must be acknowledged in the miscellaneous section of the Project Bids file and all amendments loaded in order for your bid to be considered for award of this project. Bid express will not accept bids that do not have amendments incorporated. Failure to incorporate changed quantities or items in your Project Bids submissions will result in the rejection of your bid.

**PROPOSAL ADDENDUM
FOR
PROJECT: 250077 | CRS: ROS-159-0.41 | PID: 113013**

MODIFICATIONS

REVISED COMPLETION DATE	N/A
REPLACE/ADD PLAN SHEETS	1, 11, 28, 29, 30, 32, 33, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 116, 117, 118, 119, 134, 138, 146, 163, 164, 166, 167, 169, 170, 172, 173, 174, 372, 378, 379, 387, 388, 421, 467

CONTRACT (PAY) ITEM MODIFICATIONS

REVISED

REF. NO.	ITEM	DESCRIPTION	TOTAL QTY.	UNIT	SECTION
0029	608E10000	4" CONCRETE WALK	49,727	SF	0001
0114	452E13020	9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA	18,401.00 0	SY	0004
0115	452E12051	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC MS, AS PER PLAN	180.000	SY	0004
0128	638E07701	4" GATE VALVE AND VALVE BOX, AS PER PLAN	2.000	EACH	0006
0129	638E10201	6" FIRE HYDRANT, AS PER PLAN	1.000	EACH	0006
0130	638E10481	FIRE HYDRANT REMOVED, AS PER PLAN	1.000	EACH	0006
0131	638E10801	VALVE BOX ADJUSTED TO GRADE, AS PER PLAN	9.000	EACH	0006
0132	638E11101	METER AND CHAMBER REMOVED AND RESET, AS PER PLAN	6.000	EACH	0006
0175	630E72420	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	1.000	EACH	0009
0180	630E84510	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	4.000	EACH	0009

ADDED

REF. NO.	ITEM	DESCRIPTION	TOTAL QTY.	UNIT	SECTION
0400	630E72320	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 6	2.000	EACH	0009
0401	630E84010	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.50	1.000	EACH	0009

PRE-BID QUESTIONS

The inclusion of the question(s) that accompany answer(s) in this addendum is provided for reference only and the question(s) shall not be construed as a contract modification or change.

Question Submitted: 1/22/2025 4:31:22 PM

For Bid Ref 175, plan page 421/592 shows what appears to be (2) TC-12.31 Overhead Sign Supports. However, these are carried over to the Signing Subsummary and the General Summary on page 372/592 and 119/592 respectively as TC-15.116, Des 1 Overhead Sign Support. Please verify the correct structures to be supplied.

Answer: The correction will be made in the forthcoming Addendum.

Question Submitted: 1/24/2025 10:45:46 AM

Ref #155-157 – Would the Spring City Post Top fixture be an approved equal to the fixtures called out in the plans? SPRING CITY POST TOP AUGUSTA LUMINAIRE - 120-277V - TYPE II / III / V DISTRIBUTION - 3000K COLOR TEMP – 40W / 60W / 100W - CLEAR TEMPERED GLASS - BLACK SPRING CITY PART #ALMAGS-M6-LE040/LE060/LE100-EVX-2F2-30-CR2/CR3/CR5-GPLO-FPA-CU

Answer: The Department and Local public agencies coordinated closely on the style and performance chosen during design and prefer the specified luminaire style and this proposed luminaire does not match close enough to be an approved equal.

Question Submitted: 1/27/2025 8:14:49 AM

The question the department answered on the slip form paving requirement you have ending station at 720.30. Please verify this station as it is in the middle of the project.

Answer: Thank you for the correction. The station range that ODOT specification 451.04 requires the use of slip-form paving machines for mainline pavement includes the mainline from approximately Sta 710+65 to Sta 729+30.



2/7/2025

Project 250077 **Addendum No. 3**
PID No. 113013
ROS - SR 159 – 00.41
Major Reconstruction
Letting: February 13, 2025

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

For internet access to information referenced in this addendum, please see the ODOT web site at: <https://ftp.dot.state.oh.us/pub/Contracts/Attach/ROS-113013/>

The Department utilizes Bid Express (<http://www.bidx.com>) as the official medium for electronic bid submittal. All bidders must prepare bids and submit them online via Bid Express using AASHTOWare Project Bids software.

Addenda amendments must be acknowledged in the miscellaneous section of the Project Bids file and all amendments loaded in order for your bid to be considered for award of this project. Bid express will not accept bids that do not have amendments incorporated. Failure to incorporate changed quantities or items in your Project Bids submissions will result in the rejection of your bid.

**PROPOSAL ADDENDUM
FOR
PROJECT: 250077 | CRS: ROS-159-0.41 | PID: 113013**

MODIFICATIONS

REVISED COMPLETION DATE	N/A
REPLACE/ADD PLAN SHEETS	1, 27, 28, 29, 30, 32, 33, 75, 116, 117, 118, 122, 123, 124, 125, 126, 131, 132, 138, 150, 153, 154, 155, 157, 164, 165, 167, 168, 169, 170, 179, 180, 186, 189, 349, 353, 435, 441, 446, 451, 456, 461, 465, 468, 469, 470, 471, 472, 473

CONTRACT (PAY) ITEM MODIFICATIONS

REVISED

REF. NO.	ITEM	DESCRIPTION	TOTAL QTY.	UNIT	SECTION
0004	202E30700	CONCRETE BARRIER REMOVED	467.000	FT	0001
0013	203E10000	EXCAVATION	15,532.000	CY	0001
0016	204E13000	EXCAVATION OF SUBGRADE	1824.000	CY	0001
0017	204E30020	GRANULAR MATERIAL, TYPE C	1824.000	CY	0001
0019	204E50000	GEOTEXTILE FABRIC	4329.000	SY	0001
0091	611E98820	INLET, NO. 3D	1.000	EACH	0003
0150	625E23200	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	52,530.000	FT	0008
0281	614E13000	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	250.000	CY	0012

ADDED

REF. NO.	ITEM	DESCRIPTION	TOTAL QTY.	UNIT	SECTION
0403	202E58001	MANHOLE REMOVED, AS PER PLAN	4.000	EACH	0001
0404	202E58701	MANHOLE ABANDONED, AS PER PLAN	4.000	EACH	0001
0405	202E62001	JUNCTION BOX REMOVED, AS PER PLAN	4.000	EACH	0001
0406	511E71300	CONCRETE, MISC.: CONCRETE, CLASS RRCM	8.000	SY	0001
0407	613E41300	LOW STRENGTH MORTAR BACKFILL (TYPE 2)	8.000	CY	0001
0408	633E72001	TRAINING, AS PER PLAN - ITEM 452 TRAINING	1.000	LS	0004
0409	614E20550	WORK ZONE LANE LINE, CLASS III, 4", 642 PAINT	4.200	MILE	0012
0410	614E21550	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	3.100	MILE	0012
0411	614E22350	WORK ZONE EDGE LINE, CLASS III, 4", 642 PAINT	6.200	MILE	0012
0412	614E23680	WORK ZONE CHANNELIZING LINE, CLASS III, 8", 642 PAINT	10,444.000	FT	0012
0413	614E24610	WORK ZONE DOTTED LINE, CLASS III, 4", 642 PAINT	1,053.000	FT	0012
0414	614E26610	WORK ZONE STOP LINE, CLASS III, 642 PAINT	1,219.000	FT	0012
0415	614E30650	WORK ZONE ARROW, CLASS III, 642 PAINT	50	EACH	0012

ADDED NOTES

1. This Addendum-003 revises Special Provision – “Signal and Light Supports” with a new date, namely 2/3/2025. The revision to the SP only adds the Vendors Production Drawings to the SP at the end of the document.

2. The AEP Utility Relocation plan dated 01.23.2025 has been updated in the Reference Files. The Department is aware of some changed relocation completion dates for portions of the project and these will be communicated by Addendum.

PRE-BID QUESTIONS

The inclusion of the question(s) that accompany answer(s) in this addendum is provided for reference only and the question(s) shall not be construed as a contract modification or change.

Question Submitted: 1/28/2025 3:54:20 PM

The pavement removal appears to be included in the excavation end area/quantities. Can the excavation quantity be adjusted to exclude the pavement removal?

Answer: The pavement removal is included in the excavation end area quantities. We will calculate the pavement removal quantities and remove that amount from the Item 203 totals for each alignment as summarized on sheet 28 and the General Summary. This correction will be addressed by Addendum.

Question Submitted: 1/29/2025 8:25:24 AM

While trying to open the zip file that contains the cad files for the project, we are getting a message that says the archive is corrupt. Can you look into this please. Thank you.

Answer: With Addendum #2 being published soon, the Department is uploading 1/29/2025 a new CADDFiles.zip file to the Reference Folder for bidders to access.

Question Submitted: 1/29/2025 12:16:41 PM

Can the location of the pre-purchase stored electric materials be given? Light poles, Transformer Bases, Bracket Arms ,Etc.

Answer: As per the "Special Provisions - Signals and Light Supports", the pre-purchased items will be delivered by the Vendor to Chillicothe, Ohio for the contractor to unload at their designated location. Please refer to the Special Provision provided with Addendum #1. It was included as a file for download from the FTP site.

Question Submitted: 1/29/2025 12:19:55 PM

The plans call for reference 141 (Light Pole, Misc. (Pocket Parks, 15' Mtg Ht), to exactly match the light poles be used on the bridge and SUP. Can the manufacturer and part numbers be provided?

Answer: The approved shop drawings for the pole manufacturer are included in the "Special Provisions - Signal and Light Supports" that was provided with Addendum #1. The files for both Special Provisions (Signal and Light Supports and Item 452 Training) are provided at a download link on the first page of the Addendum #1.

Question Submitted: 1/30/2025 1:41:36 PM

With respect to revised plan sheet 29 (addendum 2) concerning Driveway Construction. While we respect ODOT's ingenuity and looking ahead with regard to the optimum concrete mix for quick strength driveway aprons, please just go back to a standard fast set mix in which all the concrete producers can easily handle. The notes contain mix designs, lab testing, beams, maturity curves, trial mixes, etc. This seems extreme and costly for 180 SY @ 8" = 40 CY of concrete.

Answer: The Department is phasing out Fast Set mix and desires to use the Rapid Repair Concrete Mix (RRCM). The existing plan note for ITEM 452 - 8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC MS, AS PER PLAN does not require a new mix design. An already developed mix per CMS 255.02 is acceptable. An existing approved RRCM JMF is available at local concrete producers.

Question Submitted: 1/31/2025 6:54:13 PM

We would like to submit King Luminaires, K147 Series as an approved equal to the Holophane. This is a new product offering to match the specified product, see attached submittals. Will the K147 series be an approved equal?

Answer: The King K147 series seems to match the Holophane Utility Washington series in aesthetic style, however it is not clear whether the lighting level would match the specified luminaire as there are three different types of usages of this luminaire in the plans (Bridge, Shared Use Path, and Pocket Park). With regard to the aesthetics, provided the features match the specified product, the King appears to be an equal and as long as the luminaire could be shown to be equal to the Holophane through detailed lighting analysis during the construction phase product/shop drawing submittal, then it could be approved by the Engineer at that time.

Question Submitted: 2/2/2025 9:14:30 PM

It appears they existing Type D Wall on outside of SR159 Northbound and Southbound is being replaced. There is not a quantity of concrete barrier removal for these locations.

Answer: The Department will add by Addendum 315 linear feet of concrete barrier removed to R10 on sheet 123. This will change pay item 0004 (202E3070) from 152 FT to 467 FT.

Question Submitted: 2/2/2025 6:33:43 PM

The note on sheet 30 Maintaining Traffic - Lanes open during holidays or special events, states that all existing lanes shall be open during holidays or special events, the phasing and schedule will not allow for existing lanes to be opened back up during these holidays. Please remove this note

Answer: This MOT plan note will be removed by Addendum.

Question Submitted: 2/3/2025 8:37:42 AM

The lighting sub-summary has 3" Rigid Conduit and 1-1/2" Duct Cable. Is the intention of the plans to have the duct cable installed within the 3" rigid conduit or was it intent to have distribution cable (only) installed within the 3" rigid conduit? It will be extremely difficult to pull the duct cable into rigid conduit.

Answer: ITEM 625 1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES will be revised to ITEM 625 NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE and the quantity revised to reflect the change by Addendum.

Question Submitted: 2/3/2025 9:17:42 AM

Plan note for Item 512 (page 353/592) calls for a non-epoxy urethane sealant per Item 512. Please clarify which product is required: non-epoxy sealer from QPL 705.23B or a urethane sealer from QPL 705.23A.

Answer: Item 512 – Sealing of Concrete Surfaces (Non-Epoxy), As Per Plan should consist of “two coats of non-epoxy silane sealant per Item 512”. This item should conform to QPL 705.23B. The change will be reflected in Addendum.

Question Submitted: 2/3/2025 9:44:54 AM

Are the luminaires on the signal supports being powered by the traffic signal cabinet or are they on the lighting circuit? If they are being powered by the signal cabinet, why does it show the lighting conduit entering the signal foundations? If they are being powered by the signal cabinet then should the fixtures be 120V? The ones on the lighting circuit are 240V.

Answer: The lighting attached to the traffic signal poles was designed to be powered by the lighting circuit. The plans will be updated to remove the lighting items from the traffic signal wiring diagrams to avoid confusion.

Question Submitted: 2/3/2025 3:21:48 PM

Item #36 - Crushed Aggregate Slope Protection - 6". The proposal and general summary in plans state 6". Sheet 350 shows this as being installed at 12" depth. Which depth will be required? Can drawings/description be adjusted to match correct depth?

Answer: The crushed aggregate slope protection (6") included under Erosion Control on sheet 116 covers the aggregate shown on typical section sheet 14 between the shared use path and type D barrier under the bridge. The 12" crushed aggregate slope protection (shown on sheets 350 and 518) that is replacing the existing concrete slope protection under the bridge is quantified on sheet 519 and carried to general summary sheet 121 with the ROS-35-1972 Structure Repair items.

Question Submitted: 2/4/2025 9:49:57 AM

What are the allowable hours for lanes closures on SR159 and Ramp Closures for US35/SR159 Ramps?

Answer: The Permitted Lane Closure Schedule (PLCS) only applies to US35 mainline and not the ramps or SR159. The PLCS restrictions for lane closures on US35 will apply to the scupper work on the US35 bridges. For the remaining work on the project, the Maintenance of Traffic Plan notes and plan sheets detail the traffic lanes that are to be maintained and lane closure plans for SR159 and the US35/SR159 ramps. Any other closures not considered by the MOT plan would need coordinated through and approved by the Engineer during construction phase.

Question Submitted: 2/4/2025 1:00:35 PM

Is the contractor allowed to leave a milled surface on SR-159 and if so how long is it allowed to be milled before needing surface course placed?

Answer: The following note will be added by Addendum. **PLACEMENT OF PAVEMENT ON THE MAINLINE OF SR159 BETWEEN STA 729+30 AND 755+48.50 COMPLETE THE MILL AND FILL OPERATIONS IN ONE LANE BEFORE MILLING THE ADJACENT LANE TO ENSURE THE NEW SURFACE COURSE IS BUTTING UP TO EITHER PROPOSED OR EXISTING ASPHALT TO ELIMINATE UNCONFINED LONGITUDINAL JOINTS, UNLESS AN ALTERNATE SEQUENCE IS APPROVED BY THE ENGINEER. ALL MILLED SURFACES SHALL BE BACKFILLED WITH SURFACE COURSE DURING THE SAME WORK PERIOD AND CANNOT BEGIN UNTIL 2026.**

SUFFICIENT QUANTITIES ARE INCLUDED IN "ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC" TO PAVE THE NEW FULL DEPTH SEGMENTS BETWEEN STA 729+30 AND 755+48.50 WITH INTERMEDIATE ASPHALT TO THE SURFACE UNTIL THE FINISH COURSE IS PLACED BY THE MILL AND FILL OPERATIONS. THE FINISH COURSE SHALL SPAN THE JOINT CREATED BY THE ADDED FULL DEPTH PAVEMENT ON THE RIGHT AND LEFT SIDE OF THE ROAD. THE MILL AND FILL OPERATIONS FOR THIS SEGMENT SHALL BE COMPLETE DURING NIGHT SHIFTS (SUN-THUR 8P-6A AND FRI-SAT 10P-8A) AND WITHIN CONSECUTIVE DAYS OF OPERATION WITHIN ONE WEEK OF WORK UNTIL ALL PAVEMENT IS PLACED AND FULL PATTERN PAVEMENT MARKINGS ARE INSTALLED.

IN ALL OTHER MILL AND FILL OPERATIONS, TRAFFIC MAY BE PLACED ON A MILLED/PLANED SURFACE BUT SHALL NOT EXCEED 5 DAYS BEFORE SURFACE COURSE IS PLACED, PROVIDED SUFFICIENT TRAFFIC CONTROL AND WORK ZONE PAVEMENT MARKINGS ARE APPLIED PRIOR TO OPENING TO TRAFFIC, OR AS APPROVED BY THE ENGINEER.

THE DEPARTMENTS PREFERENCE IS TO APPLY THE SURFACE COURSE AT THE END OF CONSTRUCTION IN ORDER TO COVER ALL PAVEMENT MARKINGS FOR THE VARIOUS MOT PHASES.

Question Submitted: 2/5/2025 5:12:36 PM

Please add bid items for Work Zone Markings, Class III 642 for the surface course prior to the installation of permanent pavement markings as it will be needed to maintain traffic throughout the surface course paving operation.

Answer: Bid items for this work will be added by Addendum.

Question Submitted: 2/6/2025 7:36:20 AM

Can Ref #332 8" Downspout be Fiberglass Plastic or does it have to be steel?

Answer: The 8" downspouts are to be galvanized steel as per Sheet 519.

Question Submitted: 2/6/2025 9:49:04 AM

Additional lane closures will be required on SR159 for various work including MOT setup, striping, paving. To allow for an accurate bid, and uniform playing field for all bidder please provide allowable day/times for additional lane closures. Closure periods affect the productions of work that can be performed and would possibly cause different assumptions between bidding contractors.

Answer: Except for the restrictions cited in the “PLACEMENT OF PAVEMENT” plan note on sheet 33, it is not the intent for all work to be limited to night operations. Short duration temporary closures or restrictions on the project using LEOS or temporary traffic control may occur on any day and at any time provided the length and duration of the lane closure and/or restriction is approved by the ENGINEER.

Question Submitted: 2/6/2025 9:49:06 AM

The ramps at US35 and SR159 will need closed multiple times for temporary striping, PCB and other work. To allow for an accurate bid, and uniform playing field for all bidder please provide allowable day/times for ramp closures. Closure periods affect the productions of work that can be performed and would possibly cause different assumptions between bidding contractors.

Answer: Except for the restrictions cited in the “PLACEMENT OF PAVEMENT” plan note on sheet 33, it is not the intent for all work to be limited to night operations. Short duration temporary ramp closures or restrictions on the project using LEOS or temporary traffic control may occur on any day and at any time provided the length and duration of the lane or ramp closure and/or restriction is approved by the ENGINEER.

SPECIAL PROVISION

Signal and Light Supports

(Signal, Combination Signals, Pedestal and Light Supports Material Only Contract)

C-R-S: ROS-159-0.41

PID: 113013

Date: 2/3/2025 [Revision-01 - add Production Drawings](#)

Comment – this Special Provision includes the bid documents used for the Material Only contract to acquire certain supports (poles) for the ROS-159-0.41 (113013) project so that they would be available for the installation by the Highway contractor. Also included are the approved shop drawings for the supports. Highway contractor shall coordinate delivery of supports from the support vendor with and perform all inspections of the supports upon delivery and also unload all materials delivered.

Support Vendor

Ohio Traffic and Lighting Solutions, Inc.

2688 Sawbury Blvd., Columbus, OH 43235

Phone: 614-219-7341 **Fax:** 614-219-7346

Web: www.OhioTLS.com **Email:** Mark@OhioTLS.com

Contact: Mark Minic

REQUIREMENTS/ SPECIFICATIONS

Section 1: Intent

The purpose of this Invitation is to procure materials in advance of a construction project, in which ODOT will hire a Highway Contractor to install the materials. The procurement is in advance to minimize delay, due to lead times. Various designs and styles of signal poles, combination signal poles, light poles and pedestals are to be furnished in accordance with the Department's requirements and specifications.

Section 2: Contract Duration

The contract shall be a one (1) time award for the services requested.

Section 2.1 OhioBuys

Vendors must submit their Bid Responses electronically in OhioBuys before the published deadline date & time, Columbus, Ohio local time on the Proposal due date. Vendors will not be able to submit Bid Responses, or unsolicited Proposal amendments after the deadline.

Vendors must allow adequate time for uploading a Bid Response prior to the due date and time. ODOT recommends that vendors submit Bid Responses as early as possible. If a second round is issued for any reason, vendors must resubmit their bid if they had already submitted in a previous round, as the previously submitted Bid Responses do **NOT** carry over to the new round.

The Signature process takes place after the award now. The email will come from documents@esign.ohio.gov and will go to the signatory that was identified in the bid submission. The subject line will be the bid # Signature Request, (example: 101G-25 Signature Request).

No contract can be issued to your company until we receive your signature to complete the process. And you must have an OAKS Payor ID before a contract can be issued. To obtain that, you will need to go into <https://ohiopays.ohio.gov>.

Section 3: Free on Board (F.O.B.) Destination

All deliveries shall be Free on Board (F.O.B.) to Chillicothe, Ohio 45601. The Department will not accept any additional charges for deliveries. The Department intends to contract with a Highway Contractor in February 2025 and will require the Highway Contractor to receive and take delivery of the materials purchased by this contract. The Highway Contractor will coordinate with this VENDOR to facilitate delivery, inspection, acceptance and unloading of the materials. The exact location of the delivery point in Chillicothe, Ohio will be determined by the Highway Contractor.

Section 4: Delivery

Delivery of the materials shall be made by or after the dates listed below once a written notification of a valid State of Ohio Purchase Order (PO) is provided to the VENDOR. Delivery is not anticipated until the Highway Contractor is hired and ready for the materials, which is not likely to occur until mid to late March 2025. However, based upon the highway construction work anticipated at the beginning of the project, the materials supplied by this VENDOR will need to be ready for delivery by March 17, 2025. The Highway Contractor will determine the exact delivery date and it will be on or after March 17, 2025.

4.1: Delivery Hours

All deliveries shall be coordinated to ensure proper storage and hand-off methods are in place. Deliveries must be between the hours of 8:00 a.m. and 3:30 p.m., Monday through Friday,

excluding State of Ohio holidays, unless special permission is granted by the Department to temporarily waive or adjust this requirement.

The awarded VENDOR shall also adhere to the following schedule for shop drawings:

- Shop Drawings shall be submitted to ODOT for review within 4 weeks upon written or verbal notification of a valid State of Ohio Purchase Order (PO), and the VENDOR shall anticipate a two-week period for ODOT to return any comments and grant approval.
- Shop Drawings shall be released by the VENDOR to begin fabrication within 2 weeks after receiving approval from ODOT.

Section 5: Specifications and Procedures for Signal, Combination Signals, Pedestal and Light Supports

5.1: Specifications

These specifications and procedures have been compiled in part from the Ohio Department of Transportation 2023 Construction and Material Specifications Manual (C&MS), which can be found here:

<https://www.dot.state.oh.us/Divisions/ConstructionMgt/OnlineDocs/Pages/2023-Online-Spec-Book.aspx>.

Additionally, all supports furnished shall conform to the following Standards unless otherwise stated: C&MS 625, 630, 632, 725, 730, and 732, as well as Standard Construction Drawings TC-9.11, TC-9.31, TC-10.11, TC-10.12, TC-10.13, TC-12.31, TC-15.116, TC-16.22, TC-17.11, TC-20.11, TC-21.11, TC-21.21, TC-22.10, TC-81.11, TC-81.22, TC-83.20, TC-85.10, TC-85.20, HL-10.11, HL-10.12, HL-10.13, HL-10.31, HL-20.11 and HL-20.21 which can be found here:

<https://www.dot.state.oh.us/SCDs/Pages/traffic.aspx>.

The furnished supports/poles shall include the associated hardware as shown on all applicable SCDs, which includes but is not limited to bracket arms, transformer bases, arm support bolts, damping device (if mast arm length requires), foundation anchor bolts, hand hole covers, pole caps, lightning arrestor, and plugs for blind half couplings washers, leveling nuts and steel hex nuts. If shown on the attached plans from the bid requestor, furnish bracket arms with all attachment hardware.

All supports shall be permanently marked as to ODOT design type, height, and arm length (if applicable) (e.g. TC-81.22, DES 12; 25' HT., 45' ARM) on the bottom of the anchor base plates. The manufacturer's catalog numbers, or other identifying codes may remain on the supports, but they will not fulfill this requirement. Anchor bolt sets shall be identified by permanently marked waterproof tags. If delivered parts are not easily identified on the bottom of the anchor base for supports or by waterproof tags for anchor bolt sets as to design type and length, the parts will be returned to the bidder at his or her expense. No unidentified parts will be accepted.

The supports shall be pre-drilled and shipped with plugs at all powered device locations noted in the detailed design in Attachment A which is the applicable plan sheets. Supports without plugs will not be accepted.

The fabricators must adhere and be listed as required on Supplement 1091 and 1094, which can be found here:

<https://www.dot.state.oh.us/Divisions/ConstructionMgt/Pages/ProposalNotesSupplementalSpecificationsandSupplements.aspx>.

All materials (except bolts, washers and nuts) shall be supplied in gloss black finish in accordance with ODOT Supplemental Specification 916. For field touch-up by the Highway

Contractor, provide 1.0 qt. of the coating per 4 supports ordered. The coated supports shall adhere to Supplemental Specification 916, which can be found here: <http://www.dot.state.oh.us/Divisions/ConstructionMgt/Pages/ProposalNotesSupplementalSpecificationsandSupplements.aspx>.

All materials shall comply with ODOT Supplemental Specifications 800, 809 and 913, as applicable.

5.2: Procedures

The submittal of a unit bid price does not guarantee that ODOT will purchase the materials from the VENDOR. A specific Purchase Order (PO) will be sent to the VENDOR and at that time, the Delivery Dates noted in Section 4 will begin.

The ODOT requestor shall supply the VENDOR with applicable details (see bid spreadsheet and Attachment A) that include but are not limited to the Support Type, Design Number, Support Height, Arm/Structure Attachment Height, Arm/Structure Length, Arm Device Locations, Cable Entrance Distance from the top, and Index Line Angles as well as Pole Item Orientation Angles.

At the time of the bid, the bidder shall file all detailed plans, drawings, photographs, specifications, etc. on the proposed items. If further clarification is needed by the bidder due to issues or design errors before the bid opening date, the bidder shall submit all pre-bid questions to the Office of Contracts. Any deviations from the specifications indicated herein must be clearly pointed out. Otherwise, it will be considered that items offered are in strict compliance with these specifications herein and the successful bidder will be held responsible, therefore. If more than one catalog number, style or type is listed on one sheet the item to be furnished must be identified clearly by circling, underlining, or other marking. Discovery of details not meeting specifications may result in disqualification of the bid.

Approval of these detailed plans, drawings, etc. shall not relieve the bidder of the responsibility for erroneous or inconsistent dimensions, notations, omissions, or other errors in the design of the delivered product.

The unit bid price shall include delivery charges.

Each unit delivered shall be guaranteed against faulty material and workmanship for a period as stated by the bidder in the proposal (this guarantee period shall be not less than that usually granted) and, if during this period such faults develop, the bidder agrees to replace the unit or the part affected without cost to ODOT, with all replacement charges paid for by the VENDOR.

Anchor bolts shall be delivered in bundles. A bundle shall consist of four (4) same size anchor bolts. Each bolt shall have two (2) nuts and two (2) flat washers. The nuts and washers shall be installed on each bolt when delivered.

The supplier shall notify the point of delivery date and time at least five (5) days in advance of the day of delivery or at the time of loading prior to shipment, whichever is sooner. An itemization of all delivered parts shall be provided with each shipment.

Section 6: Storage of Materials

VENDORS are required to store materials at no additional cost until no later than April 18, 2025 and await notification by the Highway Contractor and ODOT of the location that delivery is to be made (See Sections 1 through 4). After April 18, 2025, any cost related to storage of materials, shall be negotiated between the VENDOR and the Highway Contractor.

Section 7: Steel Specification: Ohio Revised Code (Section 153.011) and CM&S 106.09 - Steel & Iron Products Made in the United States

To be noted, all requirements stated in CM&S 106.09 shall be adhered to.

State of Ohio, Department of Transportation (ODOT)
Office of Contract Sales, Purchasing Services
OhioBuys

Terms and Conditions for Submitting Excel Pricing File in Bid Package

If an Excel File is Present in OhioBuys

- 1. SUBMISSION OF EXCEL PRICING FILE:** Bidders should submit the pricing page in the **original excel format**.
- 2. UNAPPROVED ALTERATIONS TO EXCEL PRICING FILE:** Bidders who materially alter the original content of the Excel pricing file (e.g. specifications, formulas, etc.) issued by the Department may be found non-responsive and ineligible for award of this procurement.
- 3. CHANGES TO EXCEL PRICING FILE:** The Department will only make modifications to the Excel pricing file by written addendum only. Where changes are necessary to the Excel pricing page, the Department will issue a new Excel pricing page indicating the revisions made and a revision date for the changes.

It is the sole responsibility of the bidder to check for issued addenda prior to submitting a bid package to ensure the most updated Excel pricing file is being utilized.
- 4. DESCRIPTIVE LITERATURE:** Bidders may electronically provide any descriptive literature (e.g. brochures, spec/cut sheets, drawings, MSDS, etc.) regarding the products and/or services offered by the bidder. As this literature may be publicly posted for viewing by purchasers, bidders must not submit any literature electronically in which they consider to be a trade secret, proprietary, or confidential in any way.

(the remainder of this page has been left intentionally blank)

**State of Ohio, Department of Transportation (ODOT)
Office of Contract Sales, Purchasing Services**

INSTRUCTIONS, TERMS AND CONDITIONS FOR BIDDING

(Last revised 11/2/2023)

1. **BIDDER REGISTRATION:** The Department requires awarded bidder(s) to successfully register as a State of Ohio Supplier with the Department of Ohio Shared Services and successfully obtain an OAKS vendor identification number (OAKS ID) within fourteen (14) calendar days from the date of contract award and execution. The Department cannot utilize awarded Contracts to purchase from a bidder who cannot obtain an OAKS ID from Ohio Shared Services. In the event an awarded bidder is unable to obtain an OAKS ID, the Department shall reserve the right to revoke its award to the bidder and immediately cancel any resulting Contract.
 - a. A Supplier Information Form and W-9 must be completed and sent back directly to Ohio Shared Services in order to register and apply for an OAKS ID. The following website can be accessed by bidders to obtain both the forms and specific instructions for obtaining an OAKS ID:
 - b. <http://ohiosharedservices.ohio.gov/SupplierOperations/Forms.aspx>
 - c. It is strongly recommended that all interested bidders not already registered with Ohio Shared Services submit the above paperwork prior to the bid submission deadline.
2. **HOW BIDS MUST BE SUBMITTED:** Vendors must submit their Bid Responses electronically in OhioBuys before the published deadline date & time, Columbus, Ohio local time on the Proposal due date. Vendors will not be able to submit Bid Responses, or unsolicited Proposal amendments after the deadline.

Vendors must allow adequate time for uploading a Bid Response prior to the due date and time. ODOT recommends that vendors submit Bid Responses as early as possible. If a second round is issued for any reason, vendors must resubmit their bid if they had already submitted in a previous round, as the previously submitted Bid Responses do **NOT** carry over to the new round.

3. **PREBID QUESTIONS, DISCREPANCIES, AND CLARIFICATIONS:** Any discrepancies, omissions, ambiguities, or conflicts in or among the bidding documents or doubts as to the meaning shall be brought to the Department's attention by the bidder no less than three (3) business days prior to the bid submission deadline. All questions, discrepancies, clarifications, etc. must be submitted electronically in OhioBuys. During the competitive bidding process, bidders (and their agents) are prohibited from contacting any ODOT office, including District offices, other than the Office of Contract Sales, Purchasing Services section to obtain responses to any questions. The Department may find a bidder non-responsive for failing to adhere to any of the above requirements.
4. **MODIFICATIONS TO THE BIDDING DOCUMENTS:** When it is deemed necessary to modify these bidding documents, the Department will only do so by written addendum. The issuance of an addendum is dependent upon the information received and the impact on the competitive bid process. All issued addenda will be posted to the OhioBuys website.
5. **PRE-BID CONFERENCES:** The Department reserves the right to hold mandatory or optional pre-bid conferences at its discretion. Conferences may be held either in-person or via webinar/phone conference formats. Bidders will be required to sign-in at all pre-bid conferences. The sign-in sheet for all pre-bid conferences is considered a public record, will be kept in the bid file, and will be shared with any requesting party. Additionally, any business cards collected during any pre-bid conference shall be considered public records and may be distributed out to all conference attendees. Any changes to the requirements or specifications of a procurement, as a result of the pre-bid conference content, will be made by written addendum and publicly posted.
 - a. For mandatory pre-bid conferences, the Department requires that those companies intending on submitting a bid be in attendance for the entire duration of the pre-bid conference. Mandatory pre-bid conferences will officially begin five (5) minutes after the scheduled date and start time at the location specified in the Special Terms and Conditions. Those bidders not in attendance at that time will be considered ineligible to submit a bid. The conference will be considered adjourned and

complete when a representative of the Office of Contract Sales, Purchasing Services section indicates so. To be considered in attendance and eligible to bid, a bidder must have at least one representative of the company in attendance. A single representative cannot be present on behalf of two or more companies (bidders). Each company (bidder) must send its own representative on behalf of their organization. It is the sole responsibility of the bidder to ensure that the representative follows the sign-in procedures to properly document the bidder's attendance. The Department shall not be held responsible for a bidder's failure to arrive at the meeting on time, properly sign-in, or failure to stay for the entire duration of the meeting.

6. **LATE BIDS:** A bid received after 1:00 p.m. eastern time, on the bid submission deadline. The system will not allow a bid after the closing date and time.
7. **BIDS FIRM:** Once opened, all bids are firm and cannot be altered by the bidder. Once a Contract is awarded and executed, the Vendor shall deliver all products and/or services at the bid prices and terms contained in the Contract. All submitted bids shall remain valid for a period of sixty (60) calendar days after the date of the public bid opening. Beyond sixty (60) calendar days, bidders will have the option to either honor their submitted bid or make a written request to withdraw their bid from consideration. The Ohio Department of Transportation shall receive the benefit of any decrease in price during the sixty (60) day period.
8. **WITHDRAWAL OF BIDS:** A bidder may withdraw their bid in OhioBuys prior to opening. If after opening a vendor wishes to withdraw their bid, they may do so in writing to the Ohio Department of Transportation.
9. **MODIFICATION OF SUBMITTED BIDS PRIOR TO BID OPENING:** A bidder may modify their bid response prior to the scheduled date and time set for the public bid opening in OhioBuys.
10. **UNIT BID PRICES:** The unit bid price(s) submitted shall govern the award of this procurement unless otherwise specified in the bid evaluation criteria. The unit bid price should be entered for each required bid item on the Department's pricing page. Use of ditto marks, arrows, or other markings in lieu of the actual unit price may result in a non-responsive bid determination. Lot or group prices listed in the unit bid price area shall be considered as the unit price unless clearly identified as the lot price. Unless specifically allowed in the contract's terms and conditions, requests to change or alter unit bid prices after the public bid opening are prohibited.
 - a. The following requirements also apply to unit bid prices:
11. **DECIMAL POINT:** Bidders should not insert a unit cost of more than two (2) digits to the right of the decimal point. Digit(s) beyond two (2) will be dropped and not recognized by the Department for the purposes of bid evaluation or contract award.
12. **CREDIT CARD FEES:** Bidders must incorporate into their unit bid price(s) submitted all costs and fees associated with the State's use of a payment (credit) card.
13. **DISCOUNTS:** While bidders may offer to the Department discounts for prompt payment and other similar incentives, discounts and incentives these will not be used to alter the submitted unit bid price(s) for purposes of bid evaluation and contract award. This section only applies to bids awarded to the lowest responsive and responsible bidder either by individual bid item or group of bid items and does not include bids which are awarded to all responsive and responsible bidders (i.e. Multiple Award Contracts).
14. **MULTIPLE AWARD CONTRACTS:** Pursuant to Ohio Revised Code 5513.02, the Department may award Contracts to all responsive and responsible bidders for articles (i.e. bid items) meeting the general specifications provided. These are referenced by the Department as 'Multiple Award Contracts'. Unit bid prices submitted for Multiple Award Contracts shall be considered by the Department as an amount-not-to-exceed unit bid price for the entire duration of the Contract. These awarded, amount-not-to-exceed bid prices often do not reflect potential quantity discounts, freight discounts, nor other similar discounts/incentives offered periodically by a distributor, manufacturer, or supplier. Where like or similar bid items are being offered by two or more awarded Vendors (bidders) on the awarded Contract, the Department reserves the right to obtain quotes from all awarded bidders on the Contract in order to achieve the best and most up-to-date pricing available to the Department at the time of ordering.
15. **UNBALANCED BIDS:** The Department will not accept unit bid prices that are deemed to be either materially or mathematically unbalanced. The final determination of an unbalanced unit bid price shall be at the Department's sole discretion.

16. **TIE BID PROCESS:** If two or more responsive bids offer the same unit bid price, ODOT may break the tie as follows: during the bid evaluation process, the bidders that submitted tie bids will be contacted and given up to three (3) business days to submit a written revised unit price for the affected item or items. Bidders are not required to submit a revised unit price. In the event a tie still exists after the above-prescribed deadline has passed, ODOT will schedule a coin flip to be conducted in the presence of both bidders. The winner of the coin flip will be deemed awarded the affected bid item(s).
17. **PREFERENCE FOR OHIO/BORDER STATE PRODUCTS:** The bid award for this procurement may be subject to the domestic preference provisions of the Buy America Act, 41 U.S.C.A., 10a-10d, as amended, and to the preference for Ohio products under O.R.C. Sections 125.09 and 125.11 and Ohio Administrative Code Rule 123:5-1-06.
18. **RESPONSIVE BIDDER:** A bidder is responsive if its bid responds to the bid specifications in all material respects and contains no irregularities or deviations from the specifications that would affect the amount of the bid or otherwise give the bidder an unfair competitive advantage.
19. **MINOR INFORMALITIES OR IRREGULARITIES IN BIDS:** A minor informality or irregularity is one that is merely a matter of form and not of substance. It also pertains to some immaterial defect in a bid or variation of a bid from the exact requirements of the invitation that can be corrected or waived without being prejudicial to other bidders. The defect or variation is immaterial when the effect on price, quantity, quality, or delivery is negligible when contrasted with the total cost or scope of the supplies or services being acquired. The Department either shall give the bidder an opportunity to cure any deficiency resulting from a minor informality or irregularity in a bid or waive the deficiency, whichever is to the advantage of the Department.
20. **BIDDER RESPONSIBILITY:** The Department will only award this procurement to what it deems to be a responsible bidder. The Department's determination of a bidder's responsibility includes, but is not limited to, the following factors:
 - i. experience of the bidder;
 - ii. bidder's financial condition;
 - iii. bidder's conduct and performance on previous contracts;
 - iv. the bidder's facilities;
 - v. the bidder's management skills;
 - vi. the bidder's employees;
 - vii. past experience and/or quality of bidder's proposed subcontractors;
 - viii. the bidder's ability to execute the contract;
 - ix. review of Federal and Department debarment lists;
 - x. bidder has history of successful performance on contracts of similar size and scope; and
 - xi. current or impending legal actions against a bidder.
21. **APPARENT CLERICAL MISTAKES:** Clerical mistakes apparent on the face of the bid may be corrected, at the Department's discretion, before contract award. The Department first shall obtain from the bidder a verification of the information intended and will attach written verification of the mistake by the bidder in the contract file and award documents. Example of apparent clerical mistakes are:
 1. Obvious misplacement of a decimal point or comma;
 2. Obvious incorrect discount factor; or
 3. Transcription error in Part Number.
22. **ADDITIONAL INFORMATION:** The Department reserves the right to request additional information to evaluate a bidder's responsiveness to the procurement's requirements and/or to evaluate a bidder's overall responsibility. These requests may require the bidder's submission of confidential materials (e.g. financial statements). If a bidder does not provide all of the requested information within the prescribed timeframe, the Department may find the bid non-responsive and ineligible for award.
23. **PRODUCT SAMPLES:** The Department may require bidders, by procurement or by request during bid evaluation, to provide sample supplies or equipment or examples of work, at the Bidder's expense. Samples must clearly identify the Bidder, the bid number, and the item the sample represents in the bid. The

Department will return samples that are not destroyed by testing, at the Bidder's expense, upon the Bidder's timely request. The Department may keep the samples of the Bidder awarded the contract until the completion of the contract. Unsolicited samples submitted in response to this procurement will not be evaluated and the Department may dispose of them in any way it chooses.

24. **SPECIFICATIONS:** The Department is authorized by Sections 5513 and/or 125.02(B) of the Ohio Revised Code to prepare specifications and establish contracts to obtain the supplies, equipment, and/or services referenced within this procurement. The purpose of the provided specifications is to describe the supplies, equipment, and/or services to be purchased and will serve as a fair and equitable basis for comparison of submitted bids. The Department may use any form of specification it determines to be in the best interest of the Department and that best describes the supplies or services to be purchased. Specifications may be in the form of a design specification or a combination thereof. If the department determines that a design, performance or a combination specification is not in the best interest of the Department, it may use brand name or equal specifications.
- a. Unless otherwise specified in this procurement, all products, equipment, supplies, etc. offered by bidders must be in a new condition. A 'new' product is one that will be first used by the Department after it has been manufactured or produced. Used, reconditioned, or previously titled products, supplies, or equipment will not be considered for award of this procurement.
 - b. The Department uses qualified products list (QPL) and/or approved products lists (APL) developed by either itself or other qualified institutions to specify acceptable products and supplies that have been through proper application and testing procedures to verify conformance with technical and/or performance specifications. Where the Department requires products and supplies to be included on a specific QPL/APL listing, the Department will not accept bids for products/supplies that are not included on a specified QPL/APL at the time of public bid opening.
 - c. A bidder may not be compensated for damages arising from inaccurate or incomplete information in the procurement specifications or from inaccurate assumptions based upon the specifications.
25. **USE OF BRAND NAMES:** Unless otherwise provided in this solicitation, the name of a certain brand, make, or manufacturer does not restrict bidders to the specific brand, make, or manufacturer named, but conveys the general style, type, character, and quality of the article desired. Any article which the Department, in its sole discretion, determines to be the equivalent of that specified, considering quality, workmanship, economy of operation, or suitability for the purpose intended, may be accepted. The bidder is responsible to clearly and specifically identify the product being offered and to provide sufficient descriptive literature, catalog cuts and technical detail to enable the Department to determine if the product offered meets the requirements of the solicitation. Failure to furnish adequate data for evaluation purposes may result in declaring a bid nonresponsive. Unless the bidder clearly indicates in its bid that the product being offered is an equivalent product, such bid will be considered to offer the exact brand, make, or manufacturer name referenced in the bid solicitation.
26. **DEVIATIONS:** Statements or modifications made by a bidder in their submitted bid package that deviate from this procurement's terms, conditions, specifications and requirements may render a bid non-responsive and ineligible for award.
27. **ESTIMATED QUANTITIES:** Any purchase estimates indicated for bid item(s) are to be considered as estimates only. The Department makes no representation or guarantee as to the actual amount of item(s) to be purchased by the Department or Political Subdivisions.
28. **OVERLAPPING CONTRACT ITEMS:** The products and/or services included in this solicitation may be available from other State of Ohio contracts and/or other contracts made available for the Department's use. The existence of these contracts containing like or similar products and/or services could be either known or unknown to the Department at the time this procurement has been published. Unless otherwise stated in this contract, the Department may acquire these products and/or services from any available source. The Department will make purchases from sources that are deemed to be in the best interest of the Agency.
29. **REJECTION/PARTIAL AWARD OF BIDS:** The Department reserves the right to reject any or all bid responses, award partial contracts, or choose to rebid when:
1. Product, supplies and/or services are not in compliance with the requirements, specifications, and terms and conditions set forth in this procurement; or

2. Pricing offered is determined to be excessive in comparison with existing market conditions, or exceeds the available funds of the Department; or
 3. Only one bid is received, and the Department cannot determine the reasonableness of the bid prices submitted; or
 4. It is determined that the award of any or all items would not be in the best interest of the Department; or
 5. The Department, in its opinion, did not achieve the desired amount of competition amongst qualified bidders for the products, supplies, and/or services being offered in the bid solicitation; or
 6. Inadequate or ambiguous specifications were cited in the bidding documents; or
 7. The Department determines that specifications and/or requirements were missing from the bidding documents; or
 8. A bidder imposes additional terms and conditions against the Department.
30. **NOTICE TO BIDDERS OF REJECTED BIDS:** When the Department deems it necessary to reject a bid, the Department will notify each affected bidder and the reasons for such actions.
31. **BID PROTESTS:** Any apparent low bidder either deemed not responsible or whose bid has been deemed non-responsive shall be notified by the Department of that determination and the reasons for it. The notification will be provided by the Department in writing and sent by U.S. mail and at the email address provided on the front cover of the bidder's bid. The bidder will have five (5) calendar days after receipt (by mail or email confirmation) of this notification to file a written, valid protest of the Department's determination. A valid written protest must contain substantive information and evidence so as to refute the Department's asserted claims against either the bid's responsiveness or bidder's responsibility, whichever apply. The Department will only review and respond to valid written protests containing substantive information and evidence. After review of the valid written protest, the Department will either affirm or reverse its original determination.
- a. If a valid written protest is not received by the Department within five (5) calendar days of receipt, the Director of ODOT will move forward awarding the Contract and the affected bidder will have effectively waived its right to protest the Department's decision. For the purposes of this paragraph, "receipt" shall be defined as verification (via either certified mail return receipt or electronic read or delivery receipt) that the apparent low bidder has received the Department's written determination against the affected bidder. Upon the bidder's receipt, the five (5) calendar day response deadline shall commence.
32. **DELAYS IN CONTRACT AWARD:** Delays in the award of this procurement beyond the anticipated Contract start date may result in a change in the contract period as indicated in the Special terms and conditions of this bid solicitation. In these instances, ODOT shall reserve the right to award a contract covering a period equal to or less than the initial contract term than originally specified in this bid solicitation.
33. **CONTRACT AWARD AND FORMATION:** Successful bidder(s) will receive via U.S. regular mail and/or email a Notice of Contract Award letter as well as a photocopy version of the Signature Page executed by both Parties. These documents shall serve to form the Contract between the Parties. The Signature Page must be executed by both the bidder and the Director of ODOT for the Contract to be deemed valid and enforceable. The Department will maintain in the Contract file the Signature Page document containing each parties' original signature(s).
- a. Upon award of a procurement, the bid invitation number (e.g. Invitation No. 999-16) will subsequently become the number assigned to the resulting Contract (e.g. ODOT Contract number 999-16) and will be referenced by the Department in all matters and documents related to said Contract.
 - b. Upon award of a procurement, successful bidders will thereafter be referenced as "Vendor" or "Contractor" by the Department in all matters and documents related to the resulting Contract.

34. **PUBLIC POSTING OF AWARDED CONTRACTS:** All Contracts awarded by the Office of Contract Sales, Purchasing Services section are posted to the Ohio Buys website and open for public review. Successful bidders and awarded Contract pricing can be found via the following website:

https://ohiobuys.ohio.gov/page.aspx/en/ctr/contract_browse_public

35. **PUBLIC RECORD:** All opened bids and their contents are subject to the Public Records Law, Section 149.43 of the Ohio Revised Code. Copies of bid responses must be requested and will be provided within a reasonable period of time and at a fee established by the Director of ODOT. To expedite and properly respond to such public records requests, a written request must be submitted to the Department. To prevent delays in evaluating bids and awarding contracts, such requests for recently opened bids, will be honored after a Contract has been executed.

- a. Bidders may request that specific information, such as trade secrets or proprietary data, be designated as confidential and not considered as public record. Material so designated shall accompany the bid and be in a sealed container duly marked, and shall be readily separable from the bid in order to facilitate public inspection of non-confidential portion. Prices, makes, models, catalog numbers of items offered, deliveries and terms of payment cannot be considered as confidential. The decision as to whether or not such trade secrets or proprietary data shall be disclosed at the bid opening rests solely with the Department.
- b. Requests to view previously submitted bids must be submitted in writing to either of the following addresses:

Contracts.Purchasing@dot.ohio.gov
Ohio Department of Transportation
Office of Contract Sales, Purchasing Services
1980 West Broad St. Mail Stop 4110
Columbus, OH 43223

(the remainder of this page has been left intentionally blank)

**State of Ohio, Department of Transportation (ODOT)
Office of Contract Sales, Purchasing Services**

GENERAL DEFINITIONS

(Last revised 11/30/2020)

When used in this procurement or any ensuing contract, the following definitions shall apply. If a conflict exists between these definitions and any definition listed in the bid specifications, the bid specifications shall prevail.

1. AGENCY: Ohio Department of Transportation.
2. AUTHORIZED DISTRIBUTOR: The bidder/vendor who maintains written legal agreements with manufacturers/producers to act as their agent and provide supplies, materials, equipment or services listed in the bid/contract. The authorized distributor must maintain active and sufficient facilities necessary to perform the awarded contract, own title to the goods inventoried within these facilities and maintain a true stock of these goods on a continuing basis and in sufficient quantity to provide uninterrupted service to ordering agencies.
3. BIDDER: The company and/or authorized representative of the company who has signed and is submitting a bid response and who will be responsible to ensure proper performance of the contract awarded pursuant to the bid. The term bidder, proposer, contractor, or vendor may be used interchangeably in this document.
4. DEPARTMENT: Ohio Department of Transportation
5. EQUIPMENT: Items, implements and machinery with a predetermined and considerable usage life.
6. F.O.B. PLACE OF DESTINATION: meaning the Vendor pays, and includes the cost of such in their bid, and bears the risk for the transportation/delivery of goods delivered to the specified locations provided by the Purchaser.
7. PROCUREMENT/CONTRACT: All documents, whether attached or incorporated by reference, utilized for soliciting bids. Upon completion of the evaluation and award of the bidder's response, the procurement then becomes the contract between ODOT and the successful bidder, both governed by the laws of the State of Ohio.
8. INVOICE: An itemized listing showing delivery of the commodity or performance of the service described in the order, and the date of the purchase or rendering of the service, or an itemization of the things done, material supplied, or labor furnished, and the sum due pursuant to the contract or obligation.
9. LOWEST RESPONSIVE\RESPONSIBLE BIDDER: A bidder who offers the lowest cost for the goods or services listed in the bid; and whose proposal responds to bid specifications in all material respects and contains no irregularities or deviations from the specifications which would affect the amount of the bid or otherwise give him a competitive advantage; and whose experience, financial condition, conduct and performance on previous contracts, facilities, management skills evidences their ability to execute the contract properly.
10. MINORITY BUSINESS ENTERPRISE (MBE): means an individual, partnership, corporation or joint venture of any kind that is owned and controlled by U. S. Citizens and residents of Ohio, who are and have held themselves out as members of the following socially and economically disadvantaged groups. Only businesses certified by the State of Ohio Equal Opportunity Division in accordance with Section 123.151 of the Ohio Revised Code shall be recognized as being MBE certified within the purpose of this invitation.
11. MATERIALS: Items or substance of an expendable or non-expendable nature from which something can be made, improved or repaired.
12. PURCHASE: To buy, purchase, installment purchase, rent, lease, lease purchase or otherwise acquire equipment, materials, supplies or services. "Purchase" also includes all functions that pertain to obtaining

of equipment, materials, supplies or services, including description of requirements, selection and solicitation of sources, preparation and award of contracts, and all phases of contract administration.

13. SERVICES: The furnishing of labor, time or effort by a person, not involving the delivery of a specific end product other than a report which, if provided, is merely incidental to the required performance. "Services" does not include services furnished pursuant to employment agreements or collective bargaining agreements.
14. SPECIFICATION: Any description of the physical or functional characteristics or of the nature of supplies, equipment, service, or insurance. It may include a description of any requirements for inspecting, testing, or preparing supplies, equipment, services, or insurance.
15. SUPPLIES: Provisions and items normally considered expendable or consumable.
16. UNBALANCED: Any unit price contained in the bid schedule which is obviously unbalanced either above or below reasonable cost analysis and or unreasonably disproportionate to current market prices as determined by the Director of ODOT, or if such unbalanced prices are contrary to the interest of the department.
17. VENDOR: The bidder who, upon awarding of a contract, then becomes a Vendor who is considered to be a primary source for providing the goods and/or services included in the awarded contract and the party to whom payment will be made upon delivery of the goods and/or completion of the contract.
18. SUBVENDOR/SUBCONTRACTOR: An individual, firm or corporation to whom the Vendor sublets part of the contract to be performed.

(the remainder of this page has been left intentionally blank)

**State of Ohio, Department of Transportation (ODOT)
Office of Contract Sales, Purchasing Services**

STANDARD CONTRACT TERMS AND CONDITIONS

(Last Revised 11/8/23)

1. **HEADINGS:** The headings used in this Contract are for convenience only and shall not be used to affect the interpretation of any of the Contract terms and conditions.
2. **ENTIRE CONTRACT:** This Contract consists of the complete procurement, including the Instructions, Terms and Conditions for Bidding, these Standard Contract Terms and Conditions, the Special Contract Terms and Conditions, ODOT Cooperative Purchasing Program Requirements, mutually executed Signature Page, Specifications and Requirements, awarded unit bid pricing, and any written addenda to the procurement; the completed competitive sealed bid, including proper modifications, clarifications and samples; and applicable, valid State of Ohio purchase orders or other ordering documents ("Contract").
3. **APPROPRIATION OF FUNDS.** Pursuant to the Constitution of the State of Ohio, Article II Section 22, ODOT's funds are contingent upon the availability of lawful appropriations by the Ohio General Assembly. If the Ohio General Assembly fails at any time to continue funding for the payments or obligations due hereunder, the Work under this Contract that is affected by the lack of funding will terminate and ODOT will have no further obligation to make any payments and will be released from its obligations on the date funding expires.

The current Ohio General Assembly cannot commit a future Ohio General Assembly to a future expenditure. If the term of this Contract extends beyond a biennium, the Contract will expire at the end of a current biennium and the State may renew this Contract in the next biennium by issuing written notice to the Vendor no later than July 1 of the new biennium. The operating biennium expires June 30th of each odd-numbered calendar year.

4. **OBM CERTIFICATION:** None of the rights, duties, or obligations in this Contract will be binding on the Department, and the Vendor will not begin its performance, until all of the following conditions have been met:
 1. All statutory provisions under the O.R.C., including Section 126.07, have been met; and
 2. All necessary funds are made available by the Ohio Office of Budget and Management; or
 3. If ODOT is relying on Federal or third-party funds for this Contract the ODOT gives the Vendor written notice that such funds have been made available.
5. **CONTRACT MODIFICATIONS:** Amendments or modifications to this Contract must be executed in writing between the parties and signed by the Director of ODOT. Amendments or modifications to this Contract made between the Vendor and other Department personnel shall be void and unenforceable.
6. **CONTRACT CONSTRUCTION:** Any general rule of construction to the contrary notwithstanding this Contract shall be liberally construed in favor of the effect the purpose of this Contract and the policy and purposes of the Department. If any provisions in this Contract are found to be ambiguous, an interpretation consistent with the purpose of this Contract that would render the provision valid shall be favored over any interpretation that would render it invalid.
7. **GOVERNING LAW / SEVERABILITY:** This Contract shall be governed by the laws of the State of Ohio, and the venue for any disputes will be exclusively with the appropriate court in Franklin County, Ohio. If any provision of the Contract or the application of any provision is held by that court to be contrary to law, the remaining provisions of the Contract will remain in full force and effect.
8. **ASSIGNMENT / DELEGATION:** The Vendor will not assign any of its rights nor delegate any of its duties under this Contract without the written consent of the Director of ODOT. Any assignment or delegation not consented to may be deemed void by the Department.
9. **PLACEMENT OF ORDERS/METHODS OF PAYMENT:** The Department shall use either State of Ohio Purchase Order or State of Ohio Payment Card (i.e. credit card) to authorize performance under this Contract and to issue payments for supplies, products, and/or services acquired. Vendors are required to accept both

forms of payment. For Department purchases over \$2,500.00, an official State of Ohio purchase order must be generated and obtain approvals from the Office of Budget and Management, the Department of Administrative Services, and the Director of Transportation prior to its effectiveness. An approved State of Ohio purchase order will be sent to the Vendor and the Vendor will provide the goods and/or services listed on the ordering documents and in accordance with the Contract's terms and conditions. Any order placed not using an approved ODOT purchase order or against a State payment card, shall not be considered a valid order and may result in denial of payment and/or return of goods at the Vendor's expense.

10. **ACCEPTANCE OF ORDERS:** The Vendor must accept orders placed by the Department pursuant to this Contract up through the last day of the Contract's effectiveness, inclusive of any contract extensions exercised or agreed-upon between the Parties.
11. **BLANKET PURCHASE ORDERS:** The Department utilizes blanket purchase orders to pre-authorize funding for use on Contracts containing bid items that, due to the urgent nature of maintaining the Department's highways and facilities, are critical to the Department executing its mission and objectives. The generation of blanket purchase orders are not used by the Department to place a specific order, rather as a means to make funding more readily available for use when Contract items are needed. The Vendor shall keep all blanket purchase orders on file and make them readily available for use by Department personnel to place orders against. When placing orders against a blanket purchase order, the Department will telephone or email orders referencing the blanket purchase order and its associated ODOT purchase order number. All of the Contract's terms and conditions shall apply to the Department's orders referencing a blanket purchase order.

For all blanket purchase orders, quantities and amounts to be purchased from these purchase orders is unknown by the Department and Vendors must not construe these purchase orders as a commitment to purchase a specific amount of goods and/or services. Accordingly, the Department reserves the right to increase or decrease the available funding on these blanket purchase orders at its discretion.

12. **DELIVERY INSPECTION AND ACCEPTANCE:** Upon pick-up or delivery of any supplies, products, and/or services, ODOT retains the right to inspect the product/service prior to final acceptance and/or payment for the product/service. ODOT shall have sufficient and reasonable time to fully inspect supplies and/or services for compliance. The purpose of the inspection process is to ensure that the product/service is in compliance with the specifications set forth in the awarded contract. In the event that the product/service does not meet the specifications, ODOT shall notify the Vendor for removal/replacement of the product and/or service at the Vendor's expense. ODOT shall retain all rights and remedies as described herein. Wherein products ordered by ODOT are delivered to a facility, which is not owned by ODOT and where ODOT has contracted with this facility to take delivery of products ordered by ODOT, acceptance will occur when the products have been inspected and accepted by ODOT within a reasonable amount of time after delivery to the facility. ODOT shall not be responsible for any storage costs incurred prior to the inspection and acceptance.
13. **RETURN GOODS POLICY:** The Department will apply the following Return Goods Policy on all purchases made under the Contract:
 - (A) Return goods, when due to Vendor debar (i.e. over-shipment, defective merchandise, unapproved substitution, etc.) shall be returned to the Vendor, at the Vendor's expense. The Vendor shall make arrangements to remove the return goods from the Department's premises within five (5) calendar days after notification. The Vendor shall not apply any restocking or other charges to the Department. At the option of the Department, replacement items may be accepted and will be shipped within five (5) calendar days of notification. Failure of the Vendor to arrange for return of the items within the specified time will result in the items being deemed as abandoned property and the Department will dispose of accordingly.

(B) For orders of custom manufactured items, the Vendor will provide a production sample of the item to the Department for acceptance. The production sample will be identical to the item to be provided. The Department will provide written acceptance of the item prior to the Vendor continuing with production. Once delivery and acceptance has been completed and the Department determines for any reason that any remaining quantities will not be used, the agency may request the return of the custom manufactured items. Acceptance of the return of custom manufactured items will be at the option of the Vendor. If the Vendor agrees to the return of these items, the Department will be responsible for all costs associated with packaging, shipment and transportation, to include the original shipment to the Department and subsequent return of goods to the location designated by the Vendor. The Vendor may assess restocking fees that are equivalent to restocking fees that are normally assessed to other customers or as published by the Vendor. Failure of the Vendor to provide a production sample and obtain written approval from the Department will result in the Vendor bearing all responsibility and costs associated with the return of these goods.

(C) Return goods of regular catalog stock merchandise, when due to Department error (i.e. over purchase, discontinued use, inventory reduction, etc.) will be accepted by the Vendor if notice is given by the Department within six (6) months of delivery and acceptance. All items to be returned must be unused and in their original containers and in suitable condition for resale. The Department will be responsible for all transportation costs associated with both the original shipment of items to the agency and the subsequent return of the items to the location designated by the Vendor. The Vendor may assess a restocking fee (not to exceed 10%) associated with the return of the items to the location designated by the Vendor. Return of regular stock catalog merchandise, when delivery and acceptance exceed six (6) months will be at the option of the Vendor.

14. **PRODUCT RECALLS:** In the event product delivered has been recalled, seized, or embargoed and/or has been determined to be misbranded, adulterated, or found to be unfit for human consumption by the packer, processor, manufacturer or by any Department or Federal regulatory agency, the Vendor shall be responsible to notify the ODOT Office of Contract Sales, Purchasing Services section and all other ordering agencies/entities within two business days after notice has been given. Vendor shall, at the option of the Department, either reimburse the purchase price or provide an equivalent replacement product at no additional cost. Vendor shall be responsible for removal and/or replacement of the affected product within a reasonable time as determined by the ordering agency. At the option of the ordering agency, Vendor may be required to reimburse storage and/or handling fees to be calculated from time of delivery and acceptance to actual removal. Vendor will bear all costs associated with the removal and proper disposal of the affected product. Failure to reimburse the purchase price or provide equivalent replacement product will be considered a default.
15. **PRODUCT SUBSTITUTION:** In the event a specified product listed in the Contract becomes unavailable or cannot be supplied by the Vendor for any reason (except as provided for in the Force Majeure clause), a product deemed in writing by the Department to be equal to or better than the specified product must be substituted by the Vendor at no additional cost or expense to the Department. Unless otherwise specified, any substitution of product prior to the Department's written approval may be cause for termination of Contract.

The Department reserves the right to deny any substitution request that it is deemed to not be in the best interest of the Department. In these instances, the Department may seek substitute products from another supplier and assess the difference in cost, if any, as damages against the Vendor for their material breach.

16. **INVOICE REQUIREMENTS:** The Vendor must submit an original, proper invoice to the office designated on the purchase order as the "bill to" address. To be a proper invoice, the invoice must include the following information: 1. The ODOT purchase order number authorizing the delivery of products or services. 2. A description of what the Vendor delivered, including, as applicable, the time period, serial number, unit price, quantity, and total price of the products and services. 3. The Contract number pursuant to the deliverable.

17. **DEFECTIVE INVOICES:** In the event the Department is in receipt of defective or improper invoices, the Department shall postpone payment pursuant to Section 126.30 of the Ohio Revised Code. Invoices shall be returned to the Vendor noting areas for correction. If such notification of defect is sent, the required payment date shall be thirty (30) calendar days after receipt of the corrected invoice.
18. **PAYMENT DUE DATE:** Payments under this Contract will be due on the 30th calendar day after the date of actual receipt of a proper invoice in the office designated to receive the invoice, or the date the service is delivered and accepted in accordance with the terms of this Contract. The date of the warrant issued in payment will be considered the date payment is made. Interest on late payments will be paid in accordance with O.R.C. Section 126.30.
19. **INSURANCE POLICIES:** By way of provision in this Contract to maintain specific minimum levels of insurance coverage(s) (e.g. Commercial General liability, Auto liability, Public liability, Property Damage, etc.), the Vendor shall provide to Department upon request evidence of such insurance required to be carried by these provisions, including any endorsement affecting the additional insured status, is in full force and effect and that premiums therefore have been paid. Such evidence shall be furnished by the Vendor within two (2) business days and on the insurance industry's standard ACORD Form (Certificate of Insurance) or a certified copy of the original policy. The Certificate of Insurance or certified copy of the policy must contain an endorsement naming the State of Ohio, Department of Transportation, its officers, agents, employees, and servants as additionally insured, but only with respect to Work performed for the Department under this Contract, at no cost to Department. Vendor shall notify the Department within ten (10) calendar days of receipt of a notice of cancellation, expiration, or any reduction in coverage, or if the insurer commences proceedings or has proceedings commenced against it, indicating the insurer is insolvent. Vendor shall provide to the Department evidence of a replacement policy at least five (5) calendar days prior to the effective date of such cancellation, expiration, or reduction in coverage.

All required insurance policies shall be maintained at Vendor's sole expense and in full force for the complete term of the Contract, including any warranty periods. Reference 107.12 the Construction & Materials Specification handbook.

20. **TAXATION:** ODOT is exempt from federal excise taxes and all Department and local taxes, unless otherwise provided herein. ODOT does not agree to pay any taxes on commodities, goods, or services acquired from any Vendor.
21. **CONTRACT TERMINATION:** If a Vendor fails to perform any one of its obligations under this Contract, it will be in breach of contract and the Department may terminate this Contract in accordance with this section. Notices of contract termination shall be made in writing. The termination will be effective on the date delineated by the Department.

a. **Termination for Breach.** If Vendor's breach is unable to be cured in a reasonable time, the Department may terminate the Contract by written notice to the Vendor.

b. **Termination for Un-remedied Breach.** If Vendor's breach may be cured within a reasonable time, the Department will provide written notice to Vendor specifying the breach and the time within which Vendor must correct the breach. If Vendor fails to cure the specified breach within the time required, the Department may terminate the Contract. If the Department does not give timely notice of breach to Vendor, the Department has not waived any of the Department's rights or remedies concerning the breach.

c. **Termination for Persistent Breach.** The Department may terminate this Contract by written notice to Vendor for defaults that are cured, but persistent. "Persistent" means three or more breaches. After the Department has notified Vendor of its third breach, the Department may terminate this Contract without providing Vendor with an opportunity to cure. The three or more breaches are not required to be related to each other in any way.

d. **Termination for Endangered Performance.** The Department may terminate this Contract by written notice to the Vendor if the Department determines that the performance of the Contract is endangered through no fault of the Department.

e. **Termination for Financial Instability.** The Department may terminate this Contract by written notice to the Vendor if a petition in bankruptcy or a Federal or State tax lien has been filed by or against the Vendor.

f. **Termination for Delinquency, Violation of Law.** The Department may terminate this Contract by written notice, if it determines that Vendor is delinquent in its payment of federal, Department or local taxes, workers' compensation, insurance premiums, unemployment compensation contributions, child support, court costs or any other obligation owed to a Department agency or political subdivision. The Department also may cancel this Contract, if it determines that Vendor has violated any law during the performance of this Contract. However, the Department may not terminate this Contract if the Vendor has entered into a repayment agreement with which the Vendor is current.

g. **Termination for Subcontractor Breach.** The Department may terminate this Contract for the breach of the Vendor or any of its subcontractors. The Vendor will be solely responsible for satisfying any claims of its subcontractors for any suspension or termination and will indemnify the Department for any liability to them. Subcontractors will hold the Department harmless for any damage caused to them from a suspension or termination. The subcontractors will look solely to the Vendor for any compensation to which they may be entitled.

h. **Termination for Vendor's Failure to Pay Material Suppliers.** Pursuant to Section 4113.61 of the Ohio Revised Code, Vendors shall promptly pay material suppliers, within ten (10) calendar days of receipt of payment from the State of Ohio, for materials ordered and delivered as a result of this contract. A Vendor unable to furnish bid items because of non-payment issues related to a material supplier shall constitute grounds for the Director of ODOT to terminate this contract immediately. A Vendor may, at the discretion of the Department, be given an amount of time, amount shall be specified by the Department in writing, to furnish past due payment to the material supplier before termination shall occur.

j. **Failure to Maintain MBE Certification.** Pursuant to O.R.C. Section 125.081, the State may set aside a bid for supplies or services for participation only by minority business enterprises (MBE's) certified by the State of Ohio, Equal Opportunity Coordinator. After award of the Contract, it is the responsibility of the MBE Vendor to maintain certification as a MBE. If the Vendor fails to renew its certification and/or is decertified by the State of Ohio, Equal Opportunity Coordinator, the State may immediately cancel the Contract.

k. **Failure to Maintain Licensure.** The Vendor's failure to maintain the proper license(s) to perform the services or provide the goods prescribed by this Contract shall be grounds to terminate this Contract without prior notice.

l. **Qualified Products Listing and Approved Products Listing.** Any products or supplies removed from a specific qualified products listing/approved product listing, by either the Department, government, or governing body throughout the duration of the Contract shall be removed from the Contract effective on the date of removal from the respective listing.

22. **NOTICE OF BREACH:** Each party of this Contract has an obligation to provide written notice when it is determined by one party that the other party is in default of this Contract. A notice of ODOT's default of this Contract must be sent to the Procurement Manager of the ODOT Office of Contract Sales.
23. **CONTRACT SUSPENSION:** A Vendor who fails to perform any one of its obligations under this Contract will be in breach. In these instances, ODOT may choose to suspend the Vendor from the contract rather than terminate the Contract.

In the case of a suspension for ODOT's convenience, the amount of compensation due the Vendor for work performed before the suspension will be determined in the same manner as provided in this section for termination for ODOT's convenience or the Vendor may be entitled to compensation for work performed before the suspension, less any damage to ODOT resulting from the Vendor's breach of this Contract or other fault.

The notice of suspension, whether with or without cause, will be effective immediately on the Vendor's receipt of the notice. The Vendor will immediately prepare a report and deliver it to ODOT which will include a detailed description of work completed, percentage of project completion, estimated time for delivery of all orders received to date, and costs incurred by the Vendor.

24. **Termination for Convenience.** The Contracting Agency may terminate this Contract, or an Ordering Agency may terminate an order placed under this Contract, for its convenience after issuing written notice to the Contractor. The Contractor will be entitled to the pro-rated price for any Deliverable or portion of a Deliverable that the Contractor has delivered and the Ordering Agency or the State has accepted before the termination. Total payments will not exceed the amount payable to the Contractor as if the Contract or order had been fully performed. This will be the Contractor's exclusive remedy in the case of termination for convenience and is available to the Contractor only after the Vendor has submitted an invoice that complies with Section 16 of these Standard Contract Terms and Conditions.
25. **CONTRACT DAMAGES:** The Department may assess, at a minimum but not limited to, the following damages against a Vendor:
- A. **ACTUAL DAMAGES:** Vendor is liable to the State of Ohio for all actual and direct damages caused by Vendor's breach. The Department may substitute supplies or services, from a third party, for those that were to be provided by Vendor. In accordance with Ohio Revised Code §5513.05(c), the Department may recover the costs associated with acquiring substitute supplies or services, less any expenses or costs saved by Vendor's breach, from Vendor.
 - B. **LIQUIDATED DAMAGES:** If actual and direct damages are uncertain or difficult to determine, the Department may recover liquidated damages in the amount of 1% of the value of the order, deliverable or milestone that is the subject of the breach for every day that the breach is not cured by the Vendor. If Delay of the cure is caused by ODOT, the delivery date shall be extended accordingly to offset such delays. Approval to extend any scheduled delivery date(s) shall be at the sole discretion of ODOT.
 - C. **DEDUCTION OF DAMAGES FROM CONTRACT PRICE:** The Department may deduct all or any part of the damages resulting from Vendor's breach from any part of the price still due on the contract, upon prior written notice issued to the Vendor by the Department.
 - D. **INCIDENTAL/CONSEQUENTIAL DAMAGES:** Pursuant to Section 5513.05 of the Ohio Revised Code, the Department may recover from a Vendor who fails to promptly provide conforming articles, any incidental or consequential damages as defined in Section 1302.89 of the Ohio Revised Code, incurred by the Department in promptly obtaining the conforming articles.
26. **CONTRACT TERM EXTENSIONS:** ODOT reserves the right to unilaterally extend this Contract up to one (1) calendar month beyond the original contract expiration date at the original unit bid prices awarded. Contract extensions beyond one (1) calendar month shall be executed by means of written, mutual agreement with the Contract Vendor, but in no instance with the Contract be extended beyond the biennium unless it is procured as a multi-year contract stating an option for biennial extension.
27. **FIRM, FIXED PRICE CONTRACT:** Unless otherwise specified in the bidding documents, this Contract is a Firm, Fixed-Price Contract. The Vendor will be required to provide to the Department with the materials, supplies, equipment and/or services at the awarded bid price(s) for the entire duration of the contract, and any extensions thereto.
28. **FORCE MAJEURE:** If the Department or Vendor is unable to perform any part of its obligations under this Contract by reason of force majeure, the party will be excused from its obligations, to the extent that its performance is prevented by force majeure, for the duration of the event. The party must remedy with all reasonable dispatch the cause preventing it from carrying out its obligations under this Contract. The term "force majeure" means without limitation: acts of God; such as epidemics; lightning; earthquakes; fires; storms; hurricanes; tornadoes; floods; washouts; droughts; any other severe weather; explosions; restraint of government and people; war; labor strikes; and other like events.
29. **EQUAL EMPLOYMENT OPPORTUNITY:** The Vendor will comply with all state and federal laws regarding equal employment opportunity, including O.R.C. Section 125.111 and all related Executive Orders.
30. **ANTITRUST ASSIGNMENT TO THE DEPARTMENT:** Vendor assigns to the State of Ohio, through the Department of Transportation, all of its rights to any claims and causes of action the Vendor now has or may acquire under Department or federal antitrust laws if the claims or causes of action relate to the supplies or

services provided under this Contract. Additionally, the State of Ohio will not pay excess charges resulting from antitrust violations by Vendor's suppliers and subcontractors.

31. **CONFIDENTIALITY:** The Vendor may learn of information, documents, data, records, or other material that is confidential in the performance of this Contract. The Vendor may not disclose any information obtained by it as a result of this Contract, without the written permission of the Department. The Vendor must assume that all Department information, documents, data, records or other material is confidential.

The Vendor's obligation to maintain the confidentiality of the information will not apply where it: (1) was already in the Vendor's possession before disclosure by the Department, and it was received by the Vendor without the obligation of confidence; (2) is independently developed by the Vendor; (3) is or becomes publicly available without breach of this Contract; (4) is rightfully received by the Vendor from a third party without an obligation of confidence; (5) is disclosed by the Vendor with the written consent of the Department; or (6) is released in accordance with a valid order of a court or governmental agency, provided that the Vendor (a) notifies the Department of such order immediately upon receipt of the order and (b) makes a reasonable effort to obtain a protective order from the issuing court or agency limiting disclosure and use of the confidential information solely for the purposes intended to be serviced by the original order of production. The Vendor will return all originals of any information and destroy any copies it has made on termination or expiration of this Contract.

The Vendor will be liable for the disclosure of any confidential information. The parties agree that the disclosure of confidential information of the Department's may cause the Department irreparable damage for which remedies other than injunctive relief may be inadequate, and the Vendor agrees that in the event of a breach of the obligations hereunder, the Department shall be entitled to temporary and permanent injunctive relief to enforce this provision without the necessity of providing actual damages. This provision shall not, however, diminish or alter any right to claim and recover.

32. **DRUG-FREE WORKPLACE:** The Vendor agrees to comply with all applicable Department and federal laws regarding drug-free workplace and shall make a good faith effort to ensure that all its employees, while working on Department property, will not purchase, transfer, use or possess illegal drugs or alcohol or abuse prescription drugs in any way.
33. **WORKERS' COMPENSATION:** Workers' compensation insurance, as required by Ohio law or the laws of any other Department where work under this Contract will be done. The Vendor will also maintain employer's liability insurance with at least a \$1,000,000.00 limit.
34. **OHIO ETHICS LAW:** Vendor agrees that it is currently in compliance and will continue to adhere to the requirements of Ohio Ethics law as provided by Section 102.03 and 102.04 of the Ohio Revised Code.

VENDOR RESPONSIBILITIES:

All vendors who are actively doing business with or seeking to do business with the State and/or with ODOT are expected to perform their business activities in a professional manner and avoid any "perceptions of impropriety." Vendors will be responsible to review and become familiar with the ethics laws of the state of Ohio. Any vendor who violates Ohio's ethics laws or any executive order or ODOT policy will be subject to legal penalties up to and including debarment.

ODOT utilizes a variety of methods for establishing contracts for supplies and services which include: competitive sealed bidding, competitive sealed proposals, direct purchases, reverse auction, multiple award contracts and request for quotes. Processes for implementing these methods have been developed to ensure fair and equal treatment of all vendors participating in the purchasing activity. Any vendor that attempts to influence the evaluation and/or award of a contract either directly or through an outside agent or representative will be disqualified and will not be able to participate in the purchasing activity. In addition, a vendor who attempts to influence an evaluation or award will be subject to penalties set forth by law up to and including debarment from doing business with ODOT and/or the state of Ohio.

SUSPECTED VIOLATION OF ETHICS LAWS:

Suspected violations of ODOT purchasing statutes, rules, policies, or guidelines, or of Ohio's ethics laws, executive orders by any employee of the State or a vendor are to be reported to the Agency Procurement Officer(s) or APO. The APO will advise the Chief Legal Counsel who may take appropriate action. If necessary or appropriate, the matter may be referred to the Inspector General, the Ohio Attorney General and/or the Ohio Ethics Commission for resolution.

35. **PUBLICITY:** The Vendor will not advertise that it is doing business with the Department or use this Contract as a marketing or sales tool without prior, written consent of the Department. This provision includes marketing or sales tools related to the ODOT Cooperative Purchasing Program.
36. **STRICT PERFORMANCE:** The failure of either party, at any time to demand strict performance by the other party of any of the terms of this Contract, will not be construed as a waiver of any such term and either party may at any time demand strict and complete performance by the other party.
37. **SUBCONTRACTING.** The Department recognizes that it may be necessary for the Vendor to use subcontractors to perform portions of the work under the Contract. In those circumstances, the Vendor shall submit a list identifying its subcontractors or joint venture partners performing portions of the work under the Contract. If any changes occur during the term of the Contract, the Vendor shall supplement its list of subcontractors or joint venture business partners. In addition, all subcontractors or joint venture business partners agree to be bound by all of the Terms and Conditions and specifications of the Contract. The Department reserves the right to reject any subcontractor submitted by the Vendor. All subcontracts will be at the sole expense of the Vendor and the Vendor will be solely responsible for payment of its subcontractors. The Vendor assumes responsibility for all sub-contracting and third party manufacturer work performed under the Contract. In addition, Vendor will cause all subcontractors to be bound by all of the Terms and Conditions and specifications of the Contract. The Vendor will be the sole point of contact with regard to all contractual matters.
38. **SURVIVORSHIP:** All sections herein relating to payment, confidentiality, license and ownership, indemnification, publicity, construction warranties, limitations of warranties and limitations on damages shall survive the termination of this Contract.
39. **GENERAL REPRESENTATIONS AND WARRANTIES:** The Vendor warrants that the recommendations, guidance, and performance of the Vendor under this Contract will:
 1. Be in accordance with the sound professional standards and the requirements of this Contract and without any material defect.
 2. No services, products or supplies will infringe on the intellectual property rights of any third party.
 3. All warranties are in accordance with Vendor's standard business practices attached.
 4. That the products or supplies hereunder are merchantable and fit for the particular purpose described in this contract. Additionally, with respect to the Vendor's activities under this Contract, the Vendor warrants that:
 5. The Vendor has the right to enter into this Contract.
 6. The Vendor has not entered into any other contracts or employment relationships that restrict the Vendor's ability to perform under this Contract.
 7. The Vendor will observe and abide by all applicable laws and regulations, including those of the Department regarding conduct on any premises under the Department's control.
 8. The Vendor has good and marketable title to any products or supplies delivered under this Contract and which title passes to the Department.
 9. The Vendor has the right and ability to grant the license granted in products or supplies in which title does not pass to the Department. If any services of the Vendor or any products or supplies fails

to comply with these warranties, and the Vendor is so notified in writing, the Vendor will correct such failure with all due speed or will refund the amount of the compensation paid for the services, products or supplies. The Vendor will also indemnify the Department for any direct damages and claims by third parties based on breach of these warranties.

40. **VENDOR'S WARRANTY AGAINST AN UNRESOLVED FINDING FOR RECOVERY:** Vendor warrants that it is not subject to an unresolved finding for recovery under O.R.C. Section 9.24. If the warranty was false on the date the parties signed this Contract, the Contract is void ab initio.
41. **LIMITATION OF LIABILITY:** Notwithstanding any limitation provisions contained in the documents and materials incorporated by reference into this contract, the Vendor agrees that the Vendor shall be liable for all direct damages due to the fault or negligence of the Vendor.
42. **INDEMNITY:** The Vendor will indemnify the Department for any and all claims, damages, lawsuits, costs, judgments, expenses, and any other liabilities resulting from bodily injury to any person (including injury resulting in death) or damage to property that may arise out of or are related to Vendor's performance under this Contract, providing such bodily injury or property damage is due to the negligence of the Vendor, its employees, agents, or subcontractors. Reference 107.12 the Construction & Materials Specification handbook, if applicable for this product or service.

The Vendor will also indemnify the Department against any claim of infringement of a copyright, patent, trade secret, or similar intellectual property rights based on the Department's proper use of any products or supplies under this Contract. This obligation of indemnification will not apply where the Department has modified or misused the products or supplies and the claim of infringement, is based on the modification or misuse. The Department agrees to give the Vendor notice of any such claim as soon as reasonably practicable and to give the Vendor the authority to settle or otherwise defend any such claim upon consultation with and approval by the Office of the Department Attorney General. If a successful claim of infringement is made, or if the Vendor reasonably believes that an infringement claim that is pending may actually succeed, the Vendor will take one (1) of the following four (4) actions:

1. Modify the products or supplies so that is no longer infringing;
2. Replace products or supplies with an equivalent or better item;
3. Acquire the right for the Department to use the infringing products or supplies as it was intended for the Department to use under this Contract; or
4. Remove the products or supplies and refund the fee the Department paid for the products or supplies and the fee for any other products or supplies that required the availability of the infringing products or supplies for it to be useful to the Department.

43. **AUDITS:** The Vendor must keep all financial records in a manner consistent with generally accepted accounting principles. Additionally, the Vendor must keep separate business records for this Contract, including records of disbursements and obligations incurred that must be supported by contracts, invoices, vouchers and other data as appropriate. During the period covered by this Contract and until the expiration of three (3) years after final payment under this Contract, the Vendor agrees to provide the Department, its duly authorized representatives or any person, agency or instrumentality providing financial support to the work undertaken hereunder, with access to and the right to examine any books, documents, papers and records of the Vendor involving transactions related to this Contract. The Vendor shall, for each subcontract in excess of two thousand five hundred (\$2,500), require its subcontractor to agree to the same provisions of this Article. The Vendor may not artificially divide contracts with its subcontractors to avoid requiring subcontractors to agree to this provision. The Vendor must provide access to the requested records no later than (5) five business days after the request by the Department or any party with audit rights. If an audit reveals any material deviation from the Contract requirements, and misrepresentations or any overcharge to the Department or any other provider of funds for the Contract, the Department or other party will be entitled to recover damages, as well as the cost of the audit.
44. **INDEPENDENT CONTRACTOR ACKNOWLEDGEMENT:** It is fully understood and agreed that Vendor is an independent contractor and is not an agent, servant, or employee of the State of Ohio or the Ohio Department of Transportation. Vendor declares that it is engaged as an independent business and has complied with all applicable federal, state, and local laws regarding business permits and licenses of any kind, including but not limited to any insurance coverage, workers' compensation, or unemployment compensation that is required in the normal course of business and will assume all responsibility for any federal, state, municipal or other tax liabilities. Additionally, Vendor understands that as an independent

contractor, it is not a public employee and is not entitled to contributions from the State to any public employee retirement system.

TRADE: Pursuant to R.C. 9.76(B), Vendor warrants that Vendor is not boycotting any jurisdiction with whom the State of Ohio can enjoy open trade, including Israel, and will not do so during the term of this Contract.

45. **EXECUTIVE ORDER 2019-12D:** The Vendor affirms to have read and understands Executive Order 2019-12D issued by Ohio Governor Mike DeWine and shall abide by those requirements in the performance of this Contract, shall sign and require its subcontractors (if any) to sign the attached "Standard Affirmation and Disclosure Form," and shall perform no services required under this Contract outside of the United Departments. The Executive Order is incorporated by reference and also is available at the following website: (https://procure.ohio.gov/pdf/EO2019-12D/Executive_Order_2019_12WEB.pdf)

The Vendor also affirms, understands, and agrees to immediately notify the Department of any change or shift in the location(s) of services performed by the Vendor or its subcontractors under this Contract, and no services shall be changed or shifted to a location(s) that are outside of the United Departments.

46. **NON-DISCRIMINATION/COMPLIANCE WITH APPLICABLE LAWS:**

Vendor agrees that Vendor, any subcontractor, and any person acting on behalf of Vendor or a subcontractor, shall not discriminate, by reason of race, color, religion, sex (including pregnancy, gender identification and sexual orientation), age (40 years or older), disability, military status, national origin, or ancestry against any citizen of this state in the employment of any person qualified and available to perform the Work. Vendor further agrees that Vendor, any subcontractor, and any person acting on behalf of Vendor or a subcontractor shall not, in any manner, discriminate against, intimidate, or retaliate against any employee hired for the performance of the Work on account of race, color, religion, sex (including pregnancy, gender identification and sexual orientation), age, disability, military status, national origin, or ancestry.

During the performance of this Contract, the Vendor, for itself, its assignees, and successors in interest agrees to comply with the Federal Requirements as follows:

1. Vendor will ensure that applicants are hired and that employees are treated during employment without regard to their race, religion, color, sex (including pregnancy, gender identification and sexual orientation), national origin (ancestry), disability, genetic information, age (40 years or older), or military status (past, present, or future). Such action shall include, but not be limited to, the following: Employment, Upgrading, Demotion, or Transfer; Recruitment or Recruitment Advertising; Layoff or Termination; Rates of Pay or other forms of Compensation; and Selection for Training including Apprenticeship.
2. Vendor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. Vendor will, in all solicitations or advertisements for employees placed by or on behalf of Vendor, state that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex (including pregnancy, gender identification and sexual orientation), national origin (ancestry), disability, genetic information, age (40 years or older), or military status (past, present, or future).
3. Vendor agrees to fully comply with Title VI of the Civil Rights Act of 1964, 42 USC Sec. 2000. Vendor shall not discriminate on the basis of race, color, national origin, sex (including pregnancy, gender identification and sexual orientation), age, disability, low-income status, or limited English proficiency in its programs or activities. The Director of Transportation may monitor the Vendor's compliance with Title VI.
4. Compliance with Regulations: The Vendor (hereinafter includes consultants) will comply with the Acts and Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration (FHWA), as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
5. Nondiscrimination: The Vendor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin (ancestry), sex (including

pregnancy, gender identification and sexual orientation), age (40 years or older), disability, low-income status, or limited English proficiency in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Vendor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations as set forth in section 10. below, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

6. Solicitations for Subcontractors, including procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the Vendor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Vendor of the Vendor's obligations under this contract and the Acts and the Regulations relative to nondiscrimination on the grounds of race, color, national origin (ancestry), sex (including pregnancy, gender identification and sexual orientation), age (40 years or older), disability, low-income status, or limited English proficiency.
7. Information and Reports: The Vendor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Ohio Department of Transportation (hereinafter "ODOT") or FHWA to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a Vendor is in the exclusive possession of another who fails or refuses to furnish this information, the Vendor will so certify to ODOT or FHWA, as appropriate, and will set forth what efforts it has made to obtain the information.
8. Sanctions for Noncompliance: In the event of the Vendor's noncompliance with the nondiscrimination provisions of this contract, ODOT will impose such contract sanctions as it or FHWA may determine to be appropriate, including, but not limited to:
 - a. Withholding of payments to the Vendor under the contract until the Vendor complies, and/or
 - b. Cancellation, termination or suspension of the contract, in whole or in part.
9. Incorporation of Provisions: The Vendor will include the provisions of sections 1. through 9. in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. The Vendor will take action with respect to any subcontract or procurement as ODOT or FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Vendor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Vendor may request ODOT to enter into any litigation to protect the interests of ODOT. In addition, the Vendor may request the United States to enter into the litigation to protect the interests of the United States.
10. During the performance of this contract, the Vendor, for itself, its assignees, and successors in interest, consultants and sub-contractors, agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 U.S.C. § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-Aid programs and projects)
- Federal-Aid Highway Act of 1973 (23 U.S.C. § 324 et seq.) (prohibits discrimination on the basis of sex)
- Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. § 794 et seq.), as amended (prohibits discrimination on the basis of disability) and 49 CFR Part 27
- The Age Discrimination Act of 1975, as amended (42 U.S.C. § 6101 et seq.) (prohibits discrimination on the basis of age)
- Airport and Airway Improvement Act of 1982 (49 U.S.C. § 471, Section 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex)

- The Civil Rights Restoration Act of 1987 (PL 100-209) (broadened the scope, coverage, and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of Federal-Aid recipients, sub-recipients, and contractors, whether such programs or activities are Federally funded or not)
- Titles II and III of the Americans with Disabilities Act (42 U.S.C. §§ 12131-12189), as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38 (prohibits discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities)
- The Federal Aviation Administration’s Non-Discrimination Statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex)
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations)
- Executive Order 13166, Improving Access to Services for People with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100)
- Title VIII of the Civil Rights Act of 1968 (Fair Housing Act), as amended (prohibits discrimination in the sale, rental, and financing of dwellings on the basis of race, color, religion, sex, national origin, disability, or familial status (presence of child under the age of 18 and pregnant women)
- Title IX of the Education Amendments Act of 1972, as amended (20 U.S.C. 1681 et seq.) (prohibits discrimination on the basis of sex in education programs or activities)
- Uniformed Services Employment and Reemployment Rights Act of 1994 (USERRA 38 U.S.C. 4301-4335) (prohibits discrimination on the basis of present, past or future military service)
- Genetic Information Nondiscrimination Act (GINA) (29 CFR Part 1635, 42 U.S.C. 2000ff)

ITEM 632 COMBINATION SIGNAL SUPPORT, BY TYPE AND SIZE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 632, 632.15, AND 732.11, THE SIGNAL SUPPORT SHALL HAVE A FACTORY-APPLIED BLACK FINISH MATCHING THE TRAFFIC SIGNAL CABINETS, SIGNAL PEDESTALS AND LUMINAIRES. WAST ARMS SHALL BE A CURVED MONOARM/HAUNCHED DESIGN.

ITEM 632 SIGNAL SUPPORT, (BY TYPE), AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 632, 632.15, AND 732.11, THE SIGNAL SUPPORT SHALL HAVE A FACTORY-APPLIED BLACK FINISH MATCHING THE TRAFFIC SIGNAL CABINETS, SIGNAL PEDESTALS AND LUMINAIRES. WAST ARMS SHALL BE A CURVED MONOARM/HAUNCHED DESIGN.

ITEM 632 PEDESTAL, 8', TRANSFORMER BASE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 632, 632.19, AND 732.15, THE PEDESTALS AND TRANSFORMER BASES SHALL HAVE A FACTORY-APPLIED BLACK FINISH MATCHING THE TRAFFIC SIGNAL CABINETS, SIGNAL SUPPORTS AND LUMINAIRES.

625, TRANSFORMER BASE, TYPE AT-A, AS PER PLAN

ALL TRANSFORMER BASE ITEMS REQUIRED BY THE C&MS ITEM 625.09 SHALL BE INCLUDED AS PART OF THIS ITEM. THE FOLLOWING ITEMS SHALL APPLY TO THE MATERIAL AND INSTALLATION OF THE TRANSFORMER BASES:

ONLY TRANSFORMER BASES WITH A FACTORY-APPLIED BLACK FINISH TO MATCH SIGNAL POLES, SIGNAL SUPPORTS, LUMINAIRES, LIGHT POLES, ETC. SHALL BE INSTALLED.

625, LIGHT POLE, CONVENTIONAL (35' MTG HT), AS PER PLAN

ALL LIGHT POLE ITEMS REQUIRED BY THE C&MS ITEM 625.09 SHALL BE INCLUDED AS PART OF THIS ITEM. THE FOLLOWING ITEMS SHALL APPLY TO THE MATERIAL AND INSTALLATION OF THE LIGHT POLE AND FOUNDATION.

ONLY LIGHT POLES WITH A FACTORY-APPLIED BLACK FINISH TO MATCH SIGNAL POLES, SIGNAL SUPPORTS, LUMINAIRES, LIGHT BRACKET ARMS, ETC. SHALL BE INSTALLED.

625, LIGHT POLE, MISC. (BRIDGE POLE REPLACEMENTS), AS PER PLAN

ALL LIGHT POLE ITEMS REQUIRED BY THE C&MS ITEM 625.09 SHALL BE INCLUDED AS PART OF THIS ITEM. THE FOLLOWING ITEMS SHALL APPLY TO THE MATERIAL AND INSTALLATION OF THE LIGHT POLE AND FOUNDATION.

LIGHT POLE SHALL BE HOLOPHONE "WADSWORTH" TYPE DECORATIVE POLE WITH ACCOMPANYING BASE OR EQUAL AS APPROVED BY THE ENGINEER. ONLY LIGHT POLES WITH A FACTORY-APPLIED BLACK FINISH TO MATCH SIGNAL POLES, SIGNAL SUPPORTS, LUMINAIRES, LIGHT BRACKET ARMS, ETC. SHALL BE INSTALLED.

625, LIGHT POLE, MISC. (BRIDGE POLE REPLACEMENTS), AS PER PLAN

ALL LIGHT POLE ITEMS REQUIRED BY THE C&MS ITEM 625.09 SHALL BE INCLUDED AS PART OF THIS ITEM. THE FOLLOWING ITEMS SHALL APPLY TO THE MATERIAL AND INSTALLATION OF THE LIGHT POLE AND FOUNDATION.

LIGHT POLE SHALL BE HOLOPHONE "WADSWORTH" TYPE DECORATIVE POLE WITH ACCOMPANYING BASE OR EQUAL AS APPROVED BY THE ENGINEER. POLE BASE SHALL BE ORDERED TO FIT BOIT PATTERN ON EXISTING BRIDGE PILASTERS. LIGHT POLE SHALL BE 15' IN HEIGHT, WHICH WHEN ERCTED ON BRIDGE PILASTERS WILL GIVE OVERALL FIXTURE MOUNTING HEIGHT OF 18'. ONLY LIGHT POLES WITH A FACTORY-APPLIED BLACK FINISH TO MATCH SIGNAL POLES, SIGNAL SUPPORTS, LUMINAIRES, LIGHT BRACKET ARMS, ETC. SHALL BE INSTALLED.

625, BRACKET ARM, (MULTIPLE SIZES), AS PER PLAN

ALL BRACKET ARM ITEMS REQUIRED BY THE C&MS ITEM 625.09 SHALL BE INCLUDED AS PART OF THIS ITEM. THE FOLLOWING ITEMS SHALL APPLY TO THE MATERIAL AND INSTALLATION OF THE LUMINAIRE BRACKET ARMS:

ONLY BRACKET ARMS WITH A FACTORY-APPLIED BLACK FINISH TO MATCH SIGNAL POLES, SIGNAL SUPPORTS, LUMINAIRES, LIGHT POLES, ETC. SHALL BE INSTALLED.

ITEM	EXT	GRAND TOTAL	UNIT	DESCRIPTION
632	72101	1	EACH	TRAFFIC SIGNALS
632	79101	4	EACH	SIGNAL SUPPORT, TYPE TC-81.2Z, DESIGN 2, AS PER PLAN
632	79111	6	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.2Z, DESIGN 2, AS PER PLAN
632	79131	6	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.2Z, DESIGN 4, AS PER PLAN
632	79141	8	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.2Z, DESIGN 12, AS PER PLAN
632	79151	2	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.2Z, DESIGN 14, AS PER PLAN
632	89901	32	EACH	PEDESTAL, 8', TRANSFORMER BASE, AS PER PLAN
625	2501	61	EACH	TRANSFORMER BASE, TYPE AT-A, AS PER PLAN
625	10481	61	EACH	LIGHT POLE, CONVENTIONAL (35' MTG HT), AS PER PLAN
625	10501	6	EACH	LIGHT POLE, MISC. (SUP LIGHT POLE, 15' MTG HT), AS PER PLAN
625	10501	32	EACH	LIGHT POLE, MISC. (BRIDGE POLE REPLACEMENTS), AS PER PLAN
625	17901	22	EACH	BRACKET ARM, 4', AS PER PLAN
625	17981	28	EACH	BRACKET ARM, 8', AS PER PLAN
625	18101	37	EACH	BRACKET ARM, 12', AS PER PLAN

NOTES

DESIGN ASSOCI



DESIGNER

R/M/L

REVIEWER

JTP 7-5-24

PROJECT ID

113013

SHEET

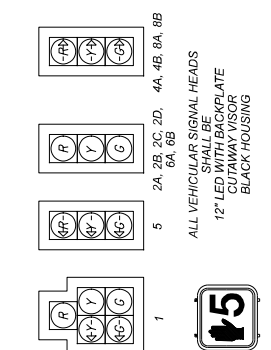
2

TOTAL

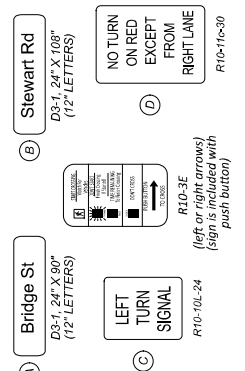
16



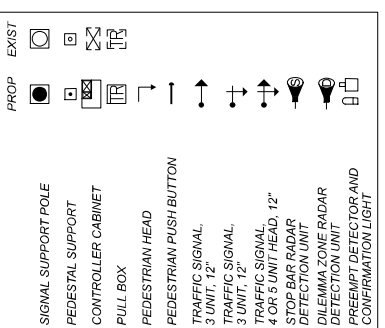
SIGNAL HEADS



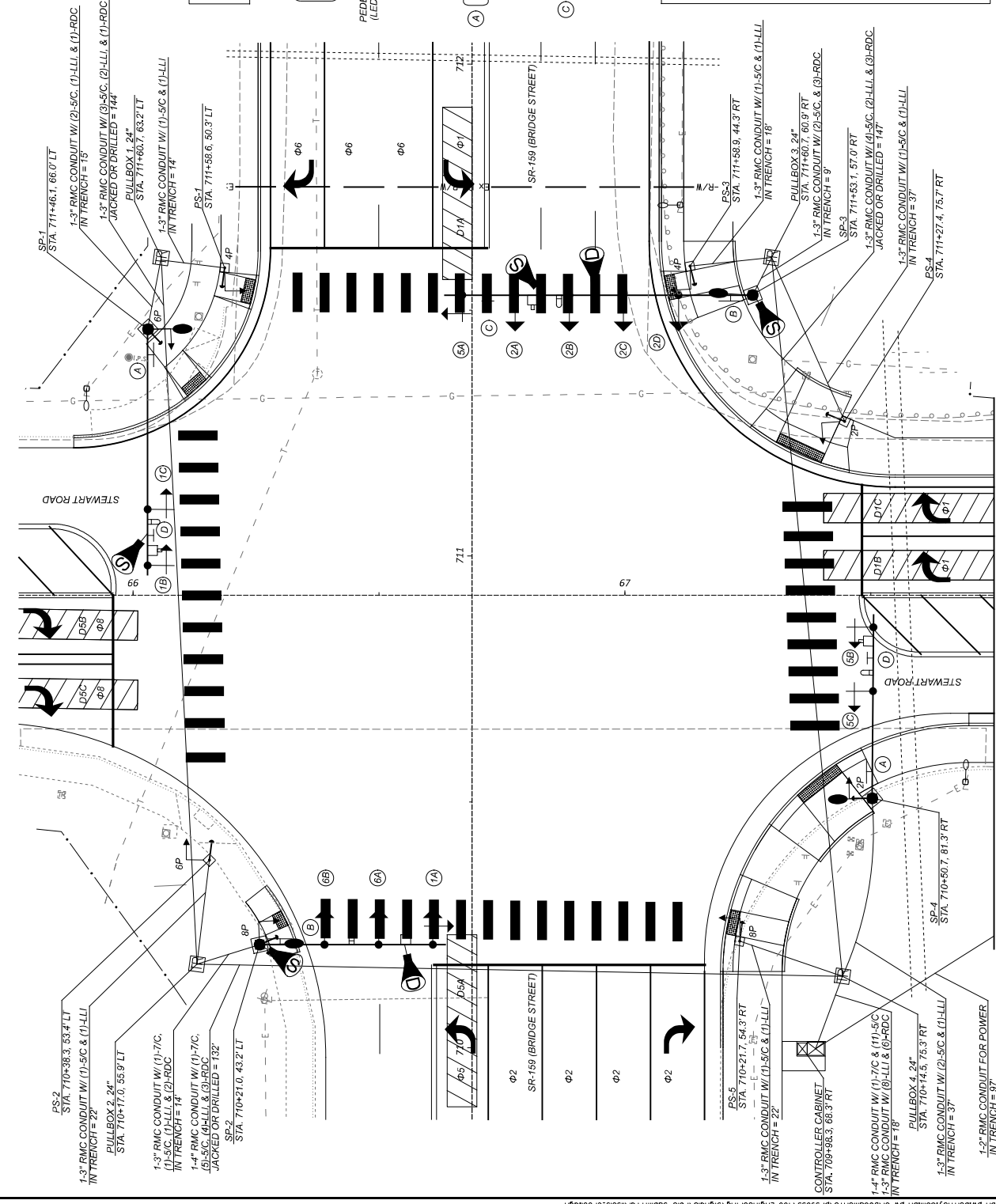
SIGNING LEGEND

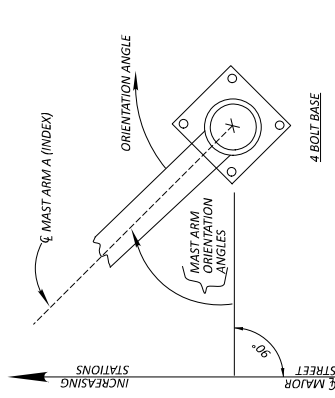
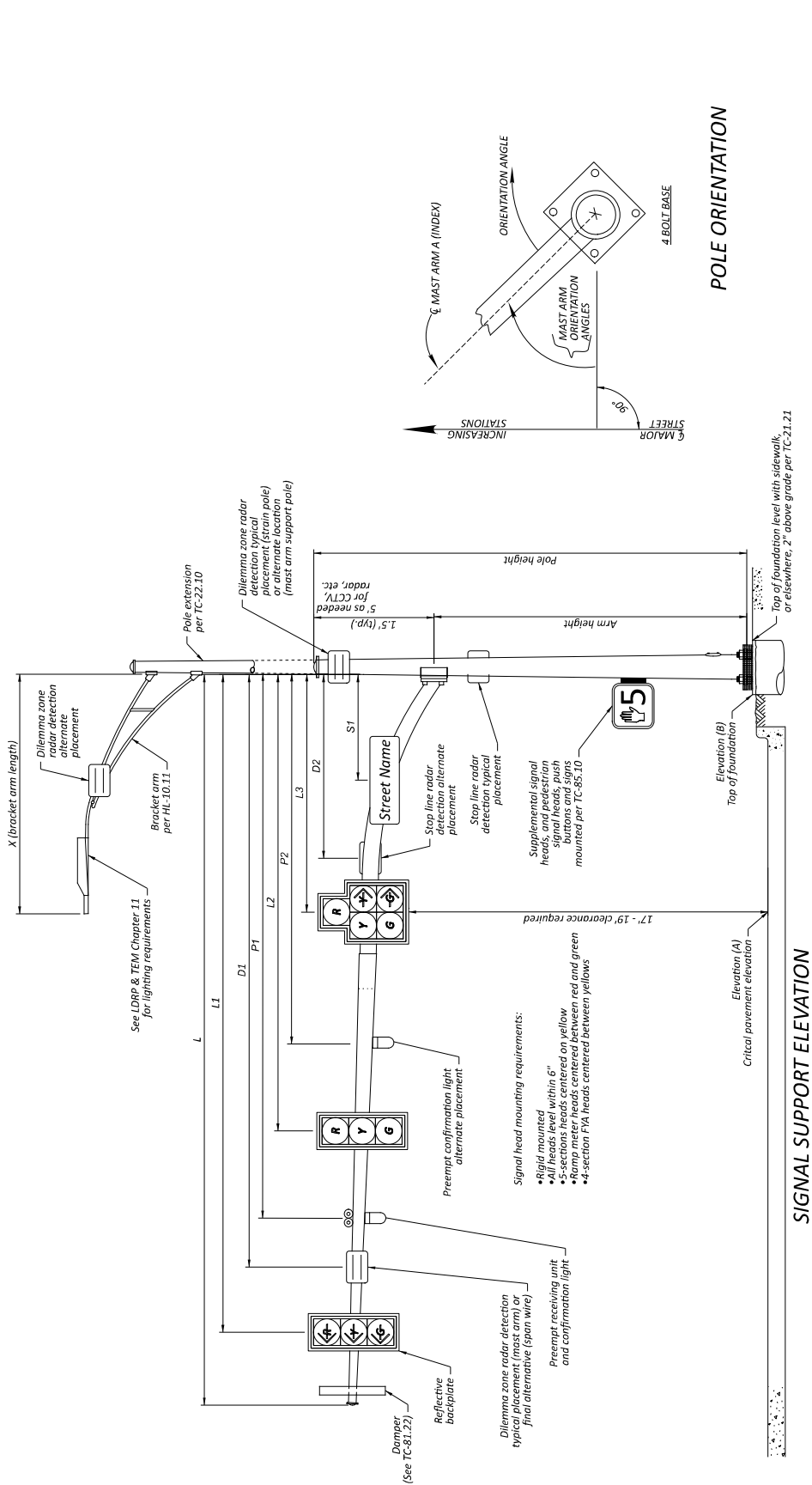


LEGEND



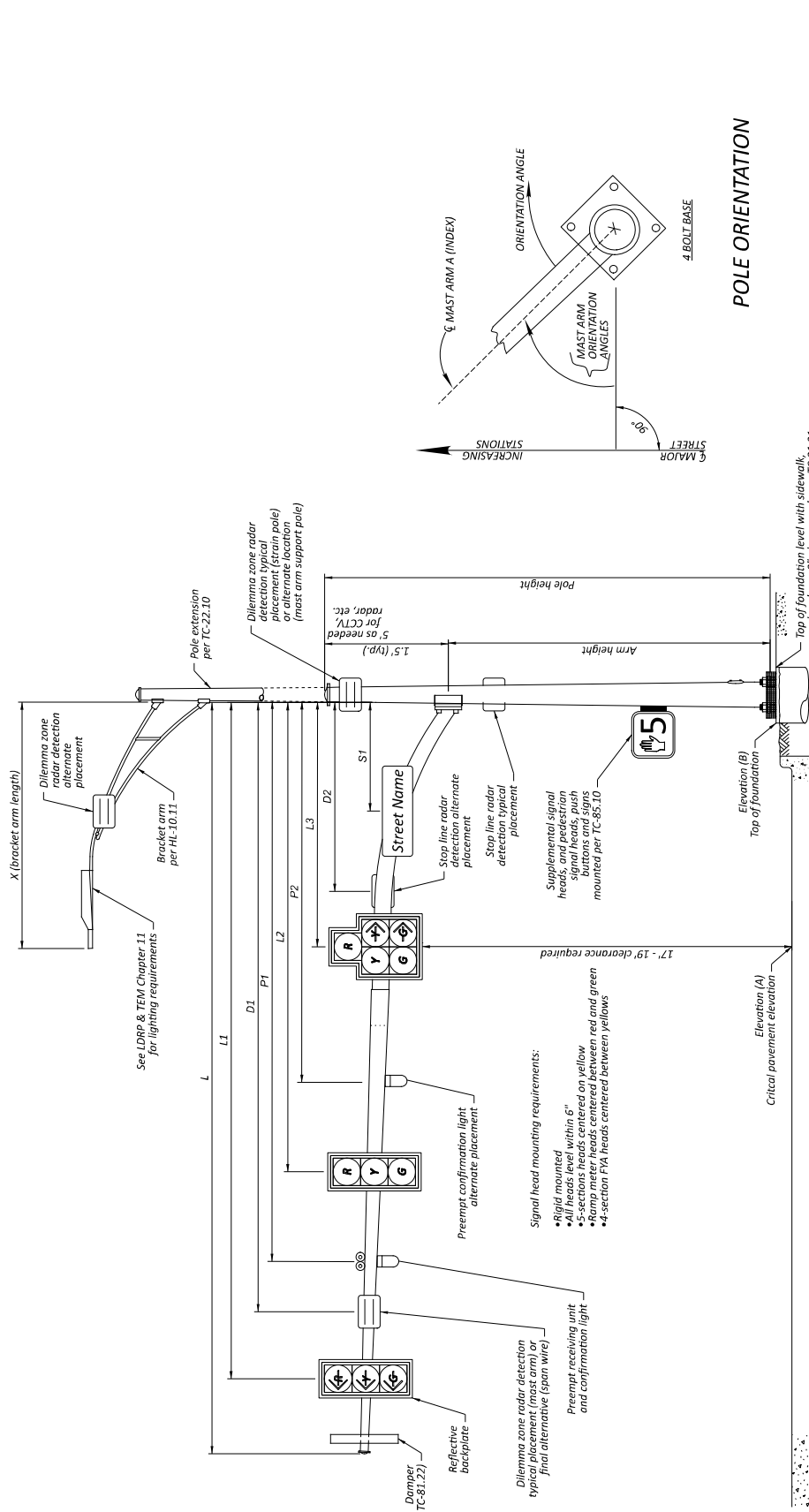
DESIGNED BY	JTP
REVIEWER	JTP
RMSL	
PROJECT ID	113013
SHEET	3
TOTAL	16



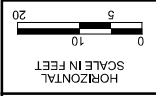


MAST ARM TABLE

SUPPORT NO.	STATION	OFFSET	ELEVATION		DESIGN TYPE	DESIGN NO.	POLE HEIGHT		ARM HEIGHT		L	L1	L2	L3	L4	L5	S1	S2	P1	P2	D1	D2	D3	X	ORIENTATION ANGLES FROM MAST ARM								
			A (PAVT. ELEV.)	B (TOP OF FOUND.)			FT	FT	FT	FT		FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	
SP-1	711+46.1	66.0' LT	623.65	623.20	TC-81.22	13	36.0	21	51	48	36.5	-	-	-	-	-	42	5.5	45	39	41.5	-	-	-	12	90	-	270	315	270	270	270	180
SP-2	710+21.0	43.2' LT	625.30	625.50	TC-81.22	4	36.0	21	38	35.5	24.5	13	-	-	-	-	4	-	28.5	18.5	28.5	0	-	-	12	0	-	270	335	0	90	90	
SP-3	711+53.3	57.2' RT	623.50	622.40	TC-81.22	14	36.5	21.5	62	59	48.5	37.5	26.5	15.5	-	-	54.5	4.5	45	39.5	42.5	32	0	-	12	0	-	-	-	-	0	90	
SP-4	710+50.7	81.3' RT	623.80	623.50	TC-81.22	4	36.0	21	38	35	22	-	-	-	-	-	28.5	5.5	32	25.5	-	-	-	12	90	-	270	270	270	270	180		

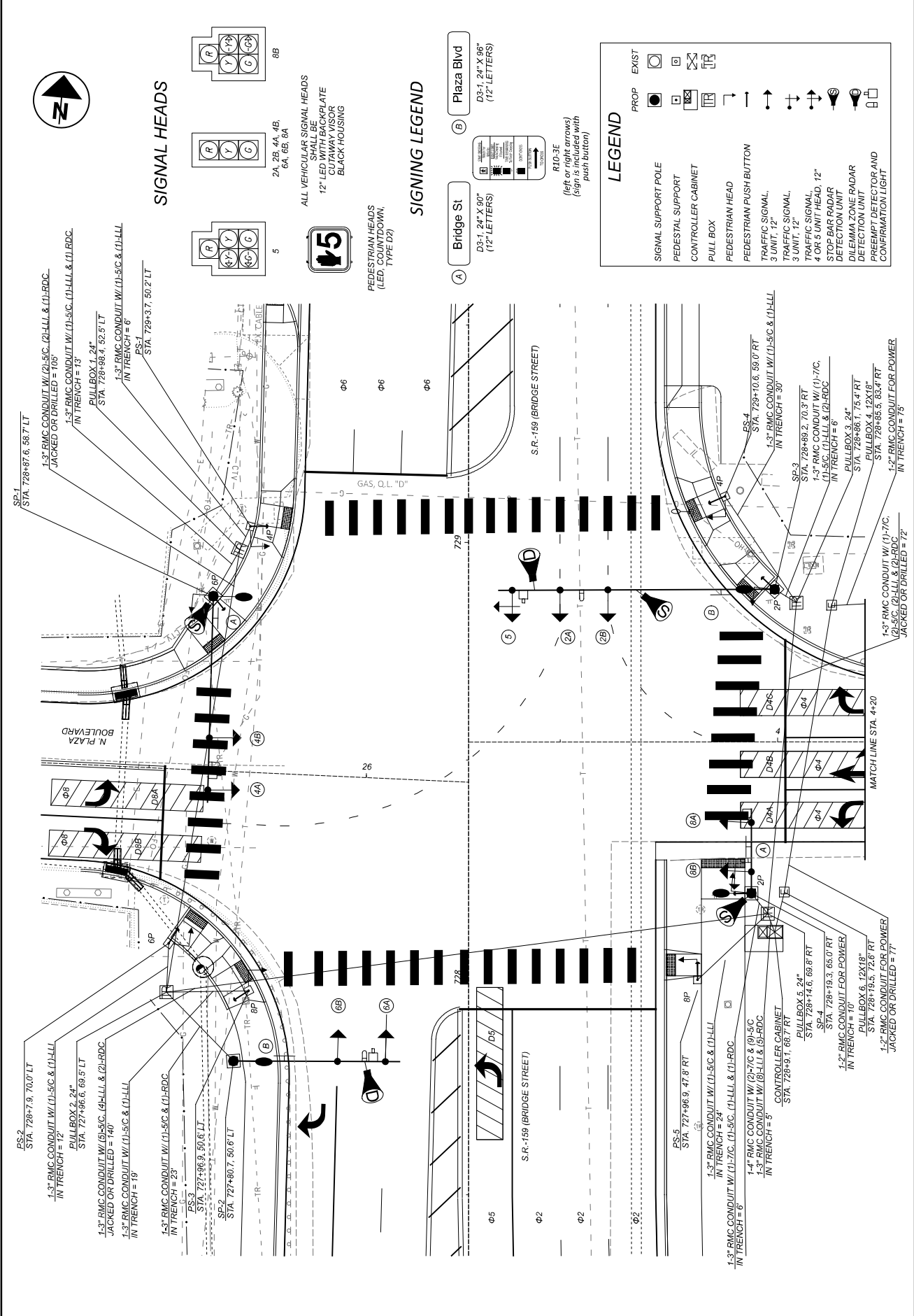


SUPPORT NO.	STATION	OFFSET	ELEVATION		DESIGN TYPE	DESIGN NO.	POLE HEIGHT	ARM HEIGHT	SIGNAL SUPPORT DETAILS						ORIENTATION ANGLES FROM MAST ARM												
			A (PART. ELEV.)	B (TOP OF FOUND.)					L	L1	L2	L3	S1	P1	P2	D1	D2	X	MAST ARM A ANGLE	MAST ARM B ANGLE	PEDESTRIAN SIGNAL	PEDESTRIAN PUSHBUTTON	BRACKET ARM	HANDHOLE			
SP-1	718+13.3	45.4' LT	623.20	623.30	TC-81.22	4.0	36.0	21	37	34	23	0	-	31	26.5	0	12	0	270	280	0	180	0	270	0	180	
SP-2	719+13.9	59.0 RT	627.23	619.77	TC-81.22	4.0	37.5	22.5	38	35	24	13	-	31.5	29.5	0	12	0	-	-	-	-	-	-	-	-	180
SP-3	718+33.9	77.1 RT	620.60	619.87	TC-81.22	13.0	36.5	21.5	60	59	47.5	12.5	4	54	-	-	12	90	-	-	-	-	-	-	-	180	
									TOTAL																		
									6																		
																		6									

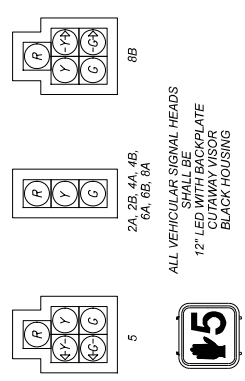


TRAFFIC SIGNAL PLAN
S.R.-159 & N. PLAZA BOULEVARD

DESIGNER	RML
REVIEWER	JTP
PROJECT ID	7-5-24
SHEET	113013
TOTAL	7
	16



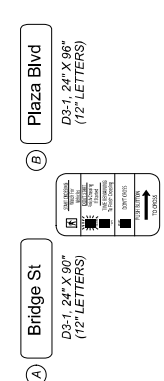
SIGNAL HEADS



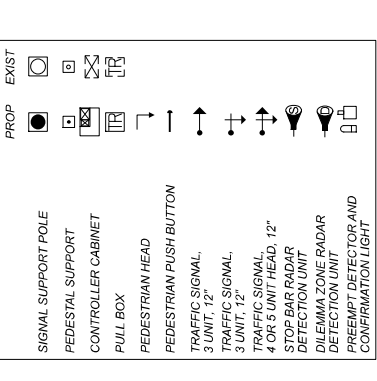
ALL VEHICULAR SIGNAL HEADS SHALL BE BLACK PLATE CUTAWAY VISOR BLACK HOUSING
12" LED VEHICLE SIGNAL HEADS

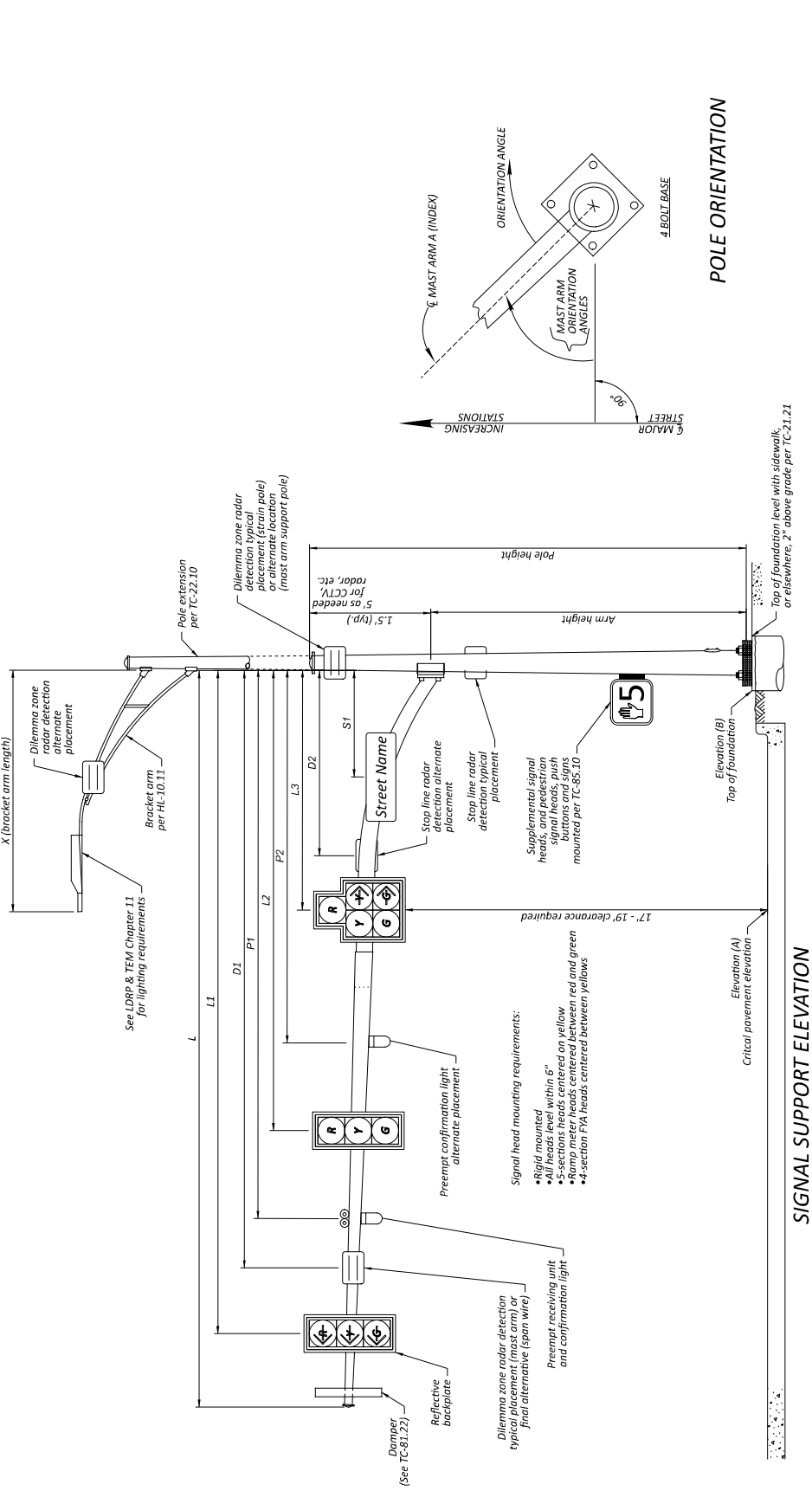
PEDESTRIAN HEADS (LED, COUNTDOWN, TYPE D)

SIGNING LEGEND



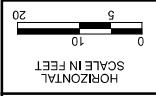
LEGEND





MAST ARM TABLE

SUPPORT NO.	STATION	OFFSET	ELEVATION		DESIGN NO.	POLE HEIGHT	ARM HEIGHT	SIGNAL SUPPORT DETAILS							ORIENTATION ANGLES FROM MAST ARM																				
			A (PAVT. ELEV.)	B (TOP OF FOUND.)				L	L1	L2	L3	S1	P1	P2	D1	D2	X	MAST ARM A ANGLE	PEDESTRIAN ANGLE	PEDESTRIAN SIGNAL	PEDESTRIAN PUSHBUTTON	BRACKET ARM	HANDHOLE												
SP-1	728+87.6	55.7' LT	622.85	624.20	TC-81.22	13	35.0	20	50	47	33	-	5	41	-	0	-	12	12	12	0	180	270	270	0	180	90	320	270	0	90				
SP-2	727+80.7	50.6' LT	623.20	621.90	TC-81.22	4	37.0	22	38	35	24	-	12	32	-	30.5	-	12	12	32	12	0	45	0	180	270	270	0	90	320	270	0	180		
SP-3	728+89.2	70.2' RT	624.07	623.50	TC-81.22	14	35.0	21	63	60.5	49.5	38.5	12.5	58	44.5	55	32	12	12	12	0	18	7	0	0	180	270	270	0	90	320	270	0	180	
SP-4	728+19.3	65.0' RT	623.00	622.80	TC-81.22	2	36.0	21	19	16.5	10.5	-	5	18	-	0	-	12	12	12	0	12	0	0	180	270	270	0	90	320	270	0	180		
								TOTAL																											
								8																											

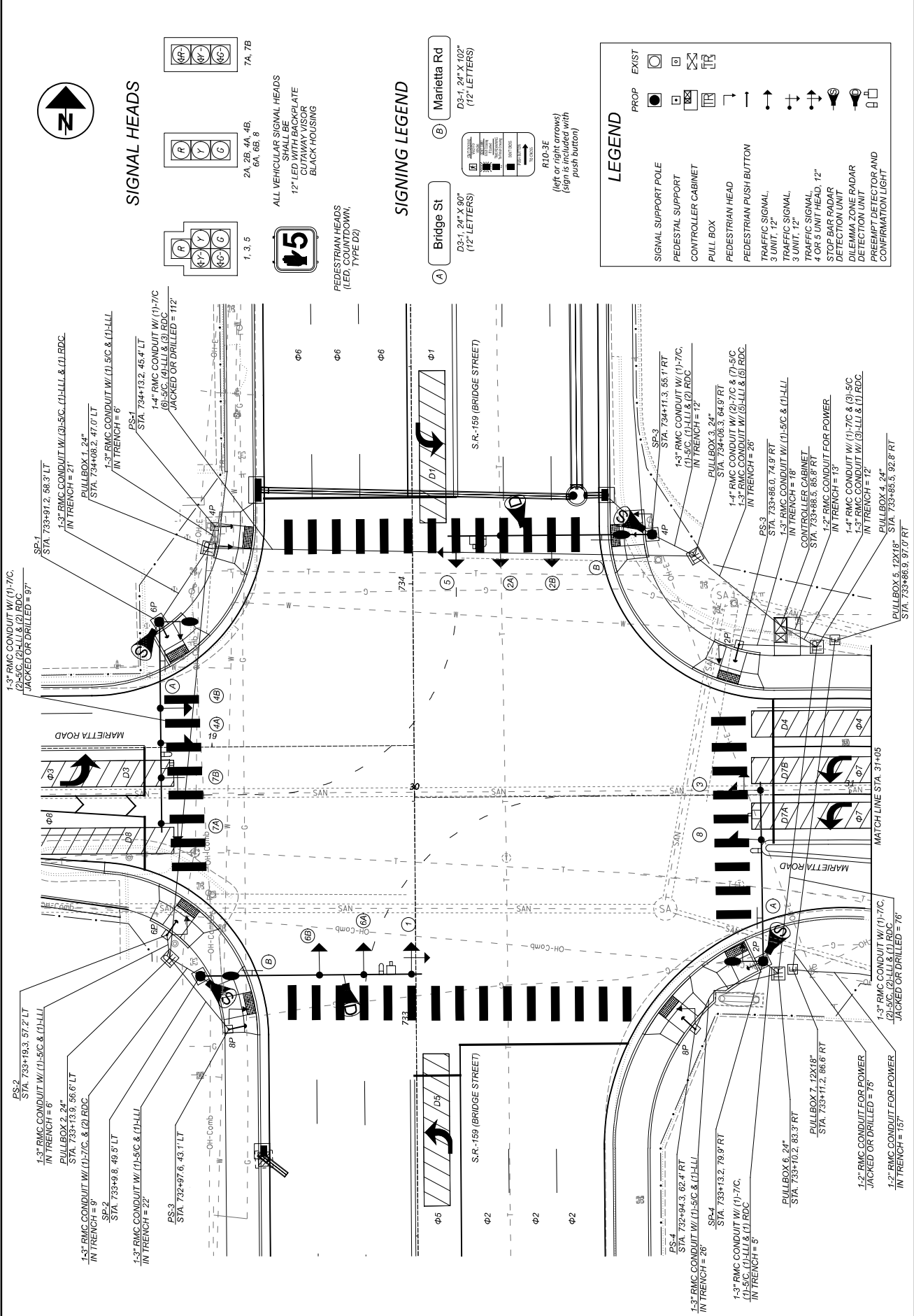


TRAFFIC SIGNAL PLAN
S.R.-159 & MARIETTA ROAD

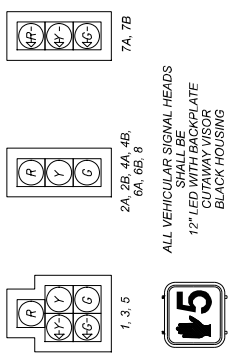
PROJECT NO.	JTP 7-5-24
PROJECT DATE	11/30/23
SHEET	9
TOTAL	16

RESUBMITAL
B&N
burgessbriar.com

REVISION
RML
JTP 7-5-24



SIGNAL HEADS

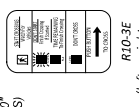


ALL VEHICULAR SIGNAL HEADS SHALL BE 12" LED WITH BACKPLATE CUTAWAY VISOR BLACK HOUSING

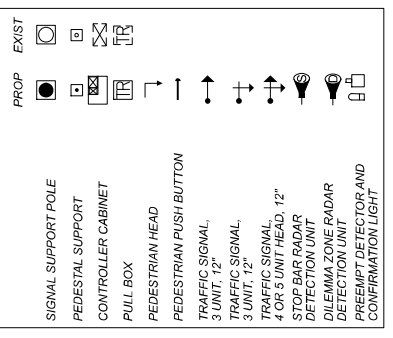


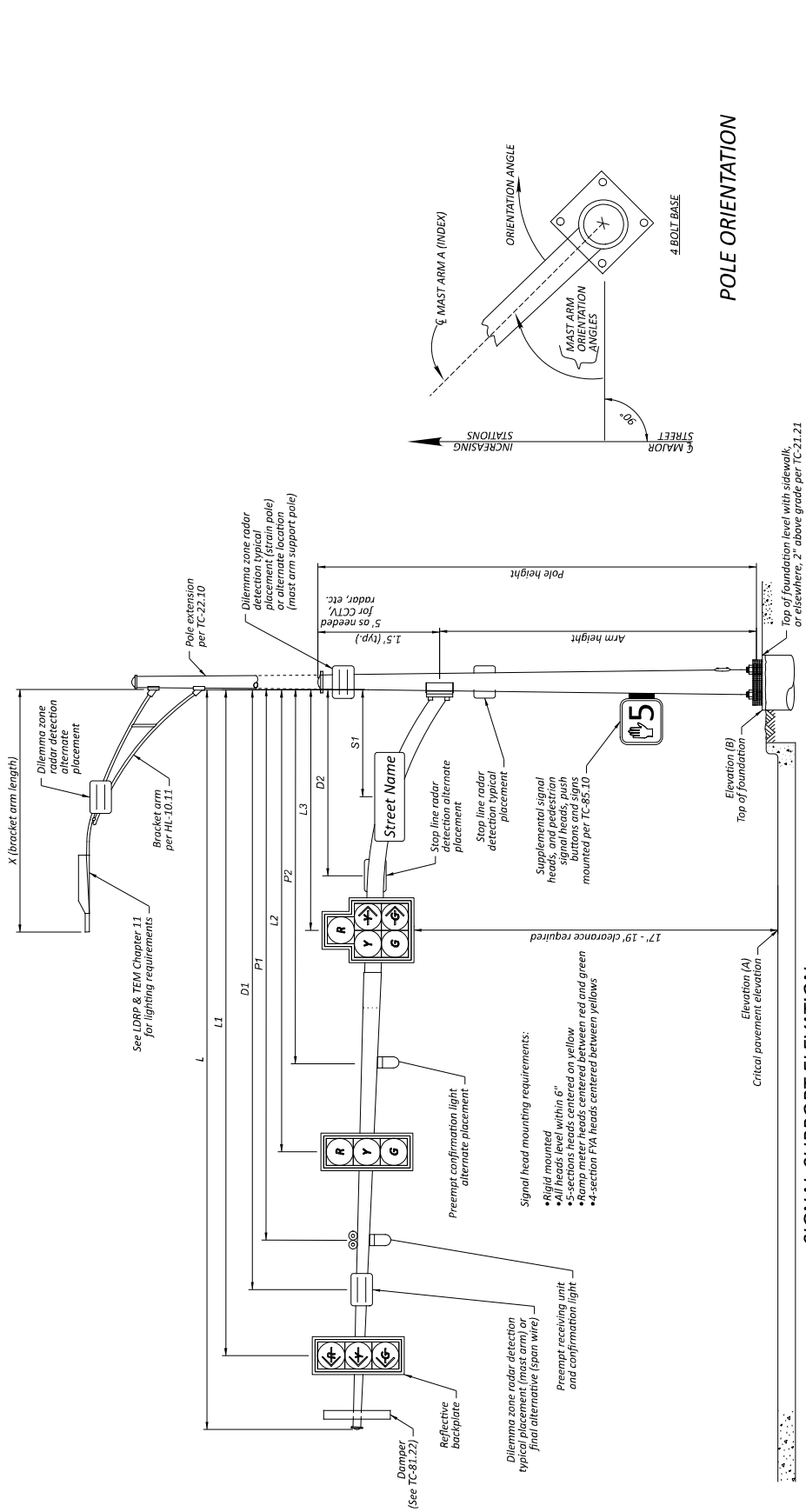
PEDESTRIAN HEADS (LED, COLD-DOWN, TYPE D4)

SIGNING LEGEND



LEGEND



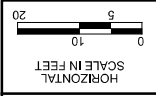


SIGNAL SUPPORT ELEVATION

POLE ORIENTATION

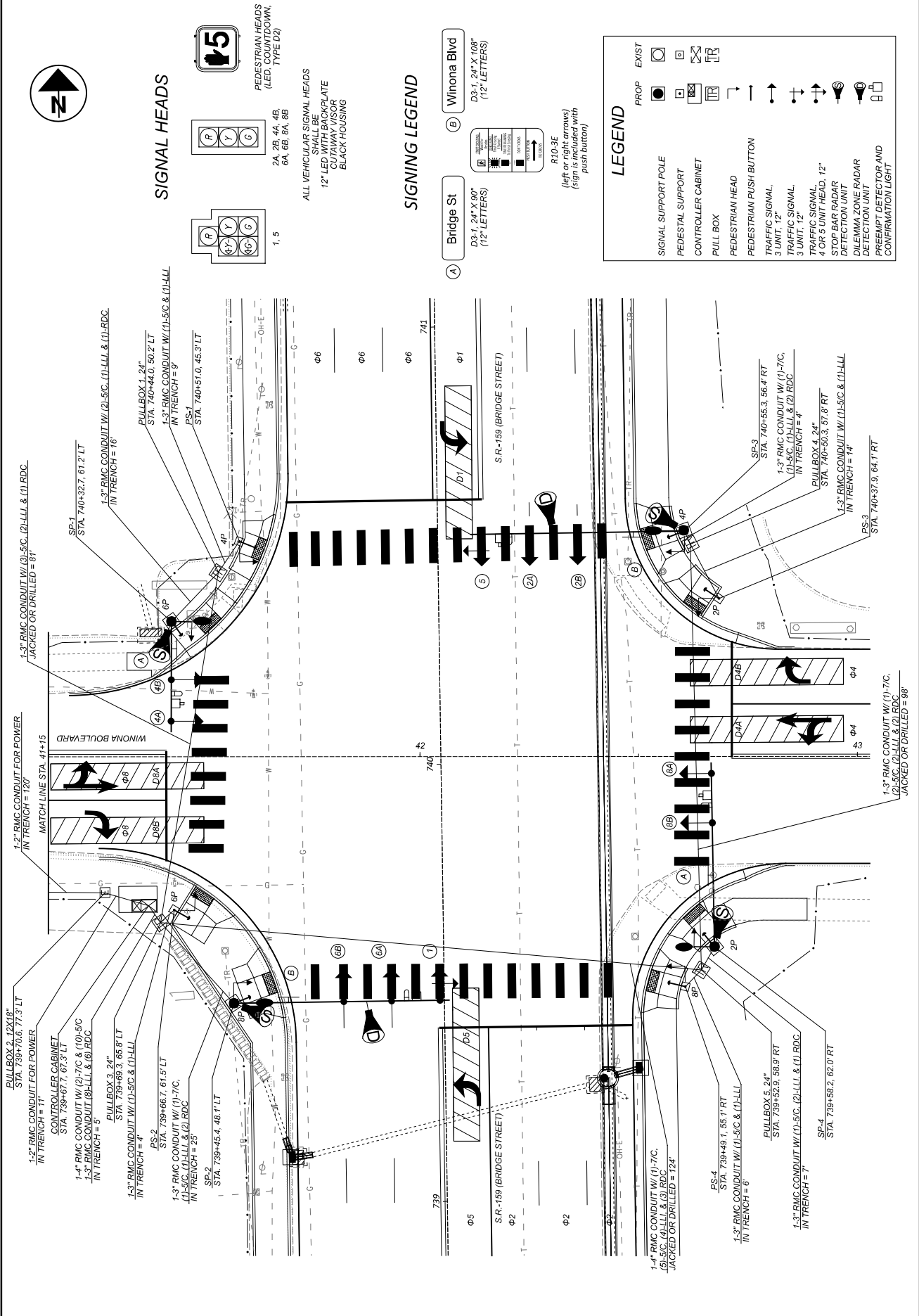
MAST ARM TABLE

SUPPORT NO.	STATION	OFFSET	ELEVATION		DESIGN TYPE	DESIGN NO.	POLE HEIGHT		ARM HEIGHT		SIGNAL SUPPORT DETAILS										ORIENTATION ANGLES FROM MAST ARM														
			(A) (PAVT. ELEV.)	(B) (TOP OF FOUND.)			FT	IN	FT	IN	L	L1	L2	L3	L4	S1	P1	P2	D1	D2	X	MAST ARM A ANGLE	MAST ARM B ANGLE	PEDESTRIAN SIGNAL	PEDESTRIAN PUSHBUTTON	BRACKET ARM	HANDHOLE								
SP-1	733+91.2	58.3' LT	627.35	628.10	TC-81.22	13	35.0	20	49	46.5	36	28	20	9	33	0	0	0	0	12	12	12	12	12	12	12	12	12	90	270	335	270	180	180	
SP-2	733+09.8	49.5' LT	627.63	627.63	TC-81.22	13	36.0	21	51	48.5	37.5	27.5	-	12	44	-	33	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	180	180
SP-3	734+11.3	55.1' RT	627.80	628.30	TC-81.22	12	36.0	21	48	45	35	23.5	-	11.5	41	-	30	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	180	180
SP-4	733+13.2	75.9' RT	626.85	627.20	TC-81.22	12	36.0	21	42	39.5	28	-	-	10	34	25.5	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	180	180

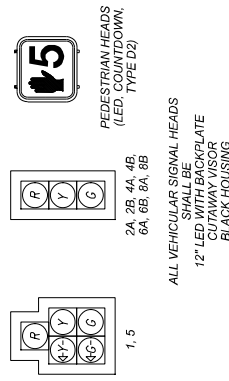


TRAFFIC SIGNAL PLAN
S.R.-159 & WINONA BOULEVARD

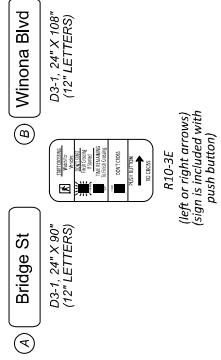
DESIGNER	B&N burgessnoble.com
REVISION	RML
PROJECT	JTP 7-5-24
PROJECT ID	113013
SHEET	11
TOTAL	16



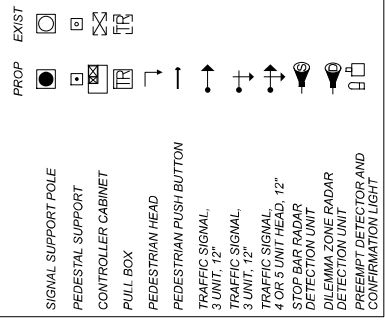
SIGNAL HEADS

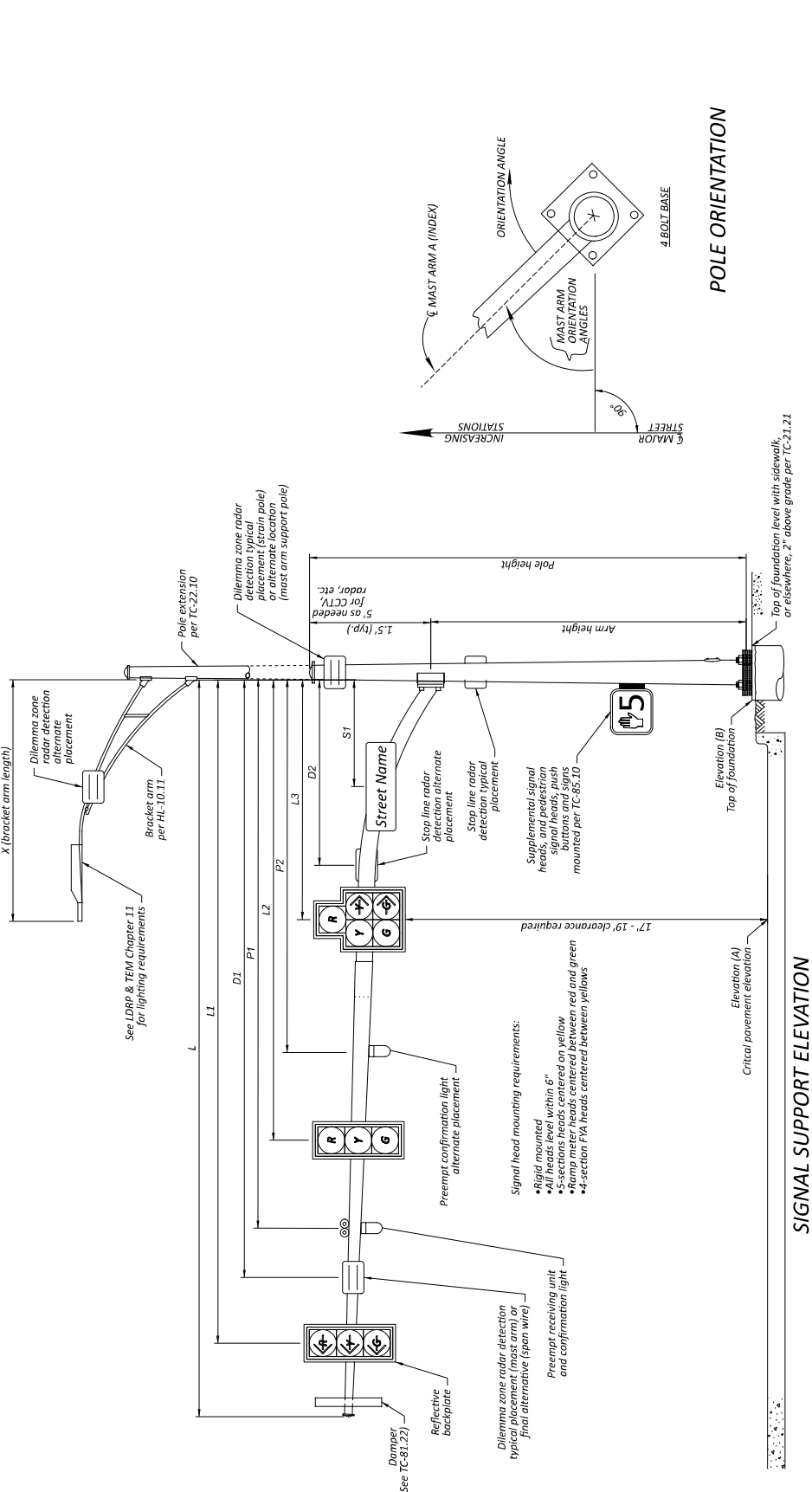


SIGNING LEGEND



LEGEND



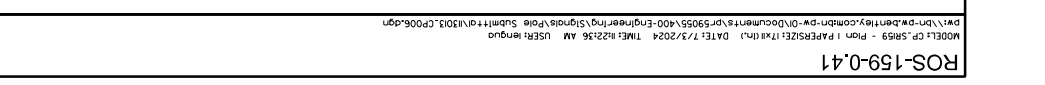
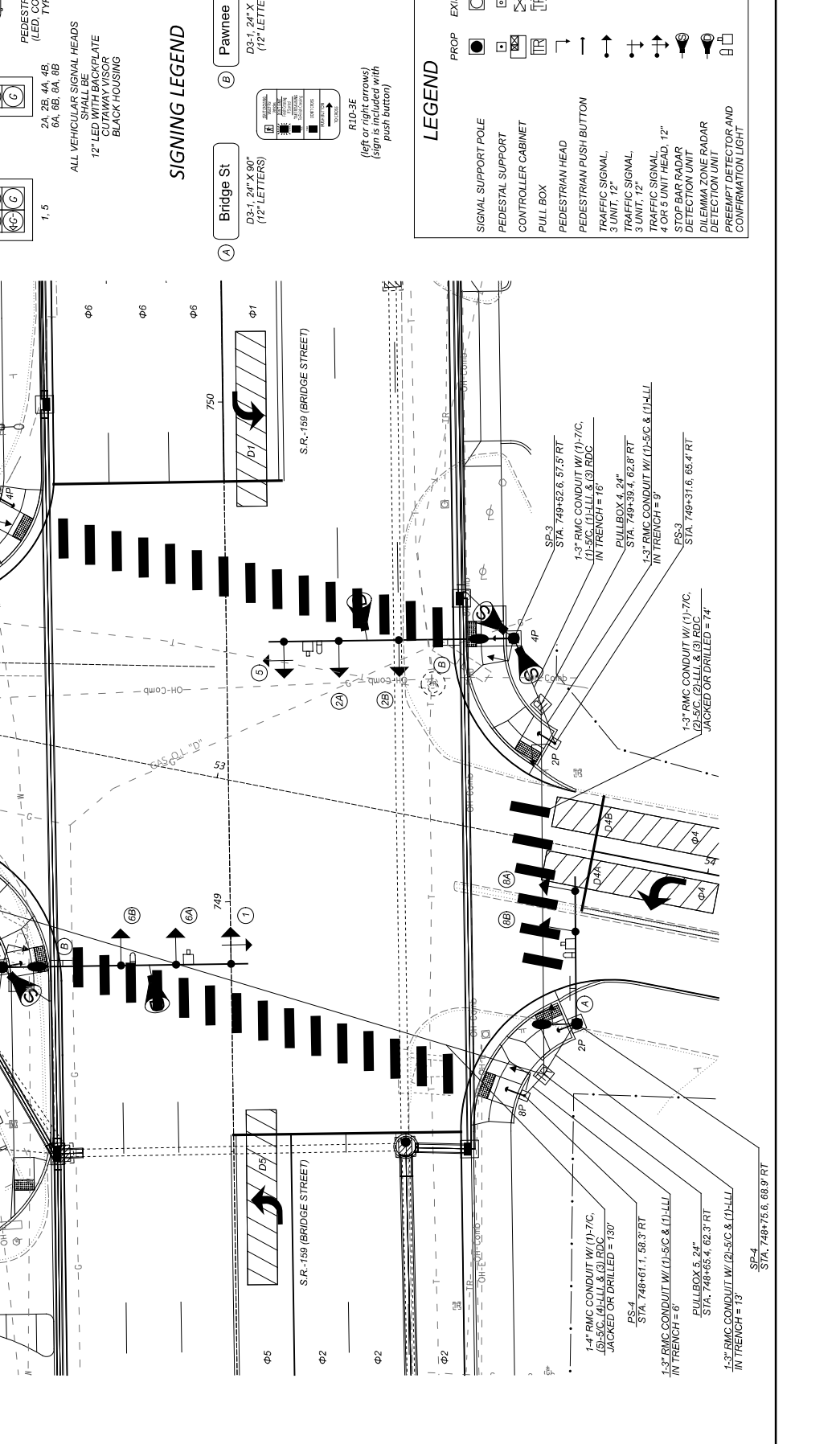
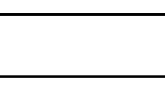
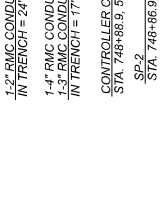
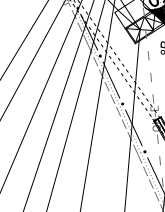
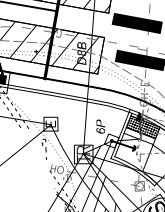
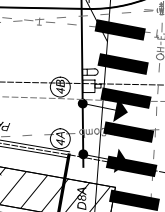
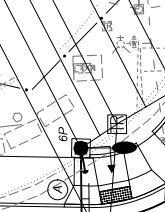
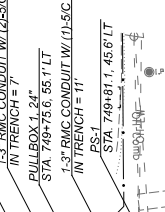
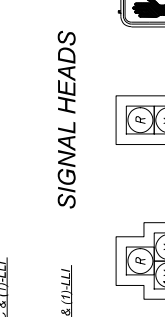


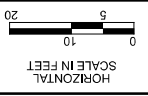
MAST ARM TABLE

SUPPORT NO.	STATION	OFFSET	ELEVATION		DESIGN TYPE	DESIGN NO.	POLE HEIGHT		ARM HEIGHT		SIGNAL SUPPORT DETAILS				ORIENTATION ANGLES FROM MAST ARM										
			(A) (PAVT. ELEV.)	(B) (TOP OF FOUND.)			FT	FT	FT	FT	L1	L2	L3	S1	P1	D1	D2	X	MAST ARM A	MAST ARM B	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN	BRACKET ARM	HANDHOLE
SP-1	740+32.7	61.2 LT	626.75	626.20	TC-81.22	2.0	36.0	21	29	27	17.5	0	0	0	0	0	12	90	-	270	325	270	180	180	180
SP-2	739+43.4	48.1 LT	627.03	627.60	TC-81.22	13.0	36.0	21	50	47.5	36.5	25.5	12.5	42	30.5	0	12	0	-	270	340	0	0	180	180
SP-3	740+53.3	56.4 RT	626.47	625.90	TC-81.22	13.0	36.0	23	49	46.5	35.5	24.5	11.5	42	30	0	12	0	-	270	340	0	0	90	90
SP-4	739+53.2	62.0 RT	626.15	625.10	TC-81.22	12.0	36.0	21	42	40	28.5	-	3.5	35	0	-	12	90	-	270	325	270	180	180	

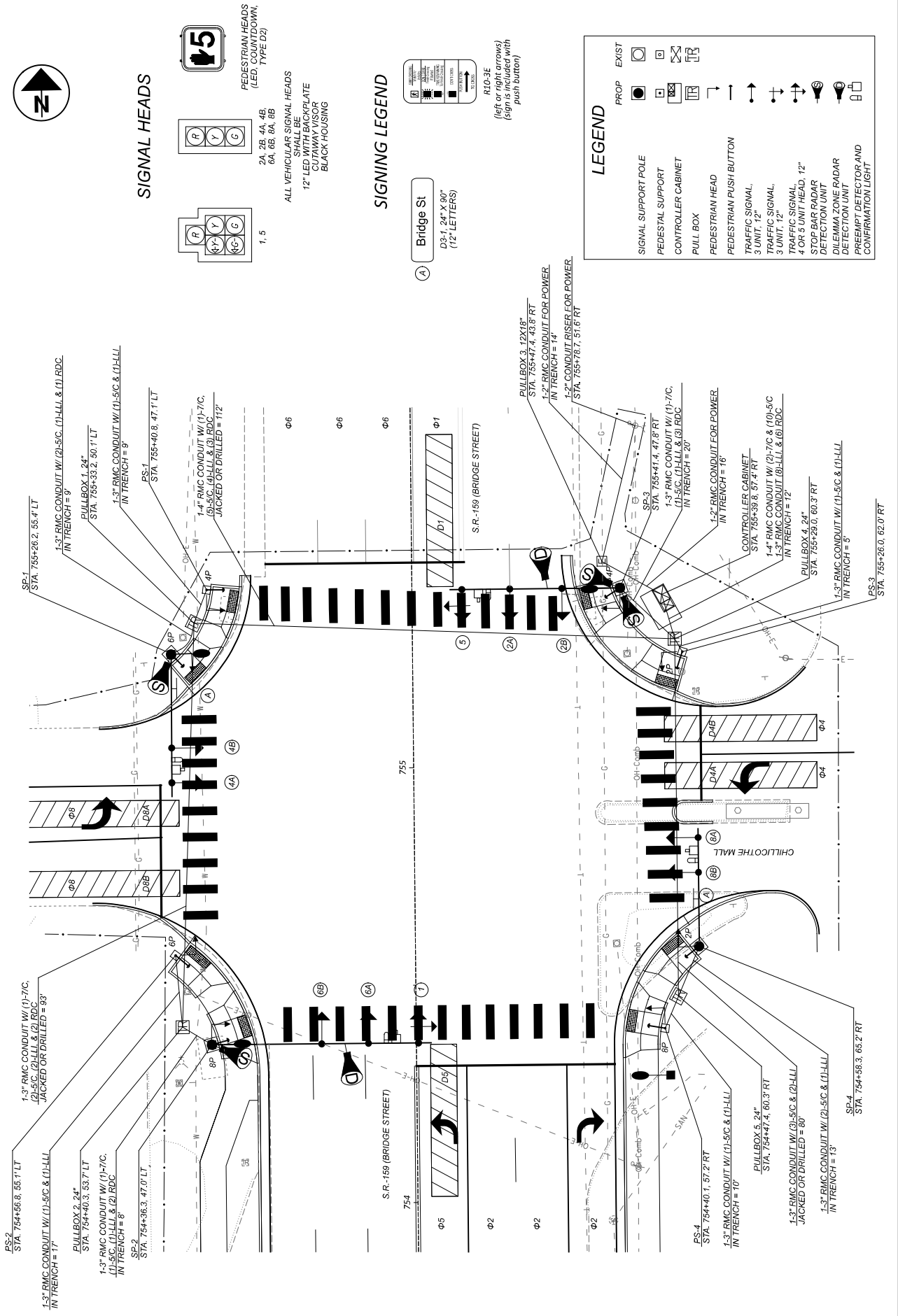
SIGNAL SUPPORT ELEVATION

POLE ORIENTATION

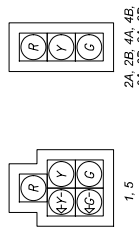




PROJECT	S.R. 159 & CHILlicoTHE MALL
DRAWN BY	CP, SMIS9 - Pich
CHECKED BY	PFEIFER, TXR (m)
DATE	7/3/2024
TIME	12:50:4 AM
USER	USFR (m)
PROJECT NO.	13013.CP00.dgn
PROJECT TITLE	
JTP	7-5-24
REVISION	
RML	
TOTAL	16
SHEET	15

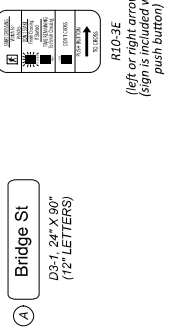


SIGNAL HEADS



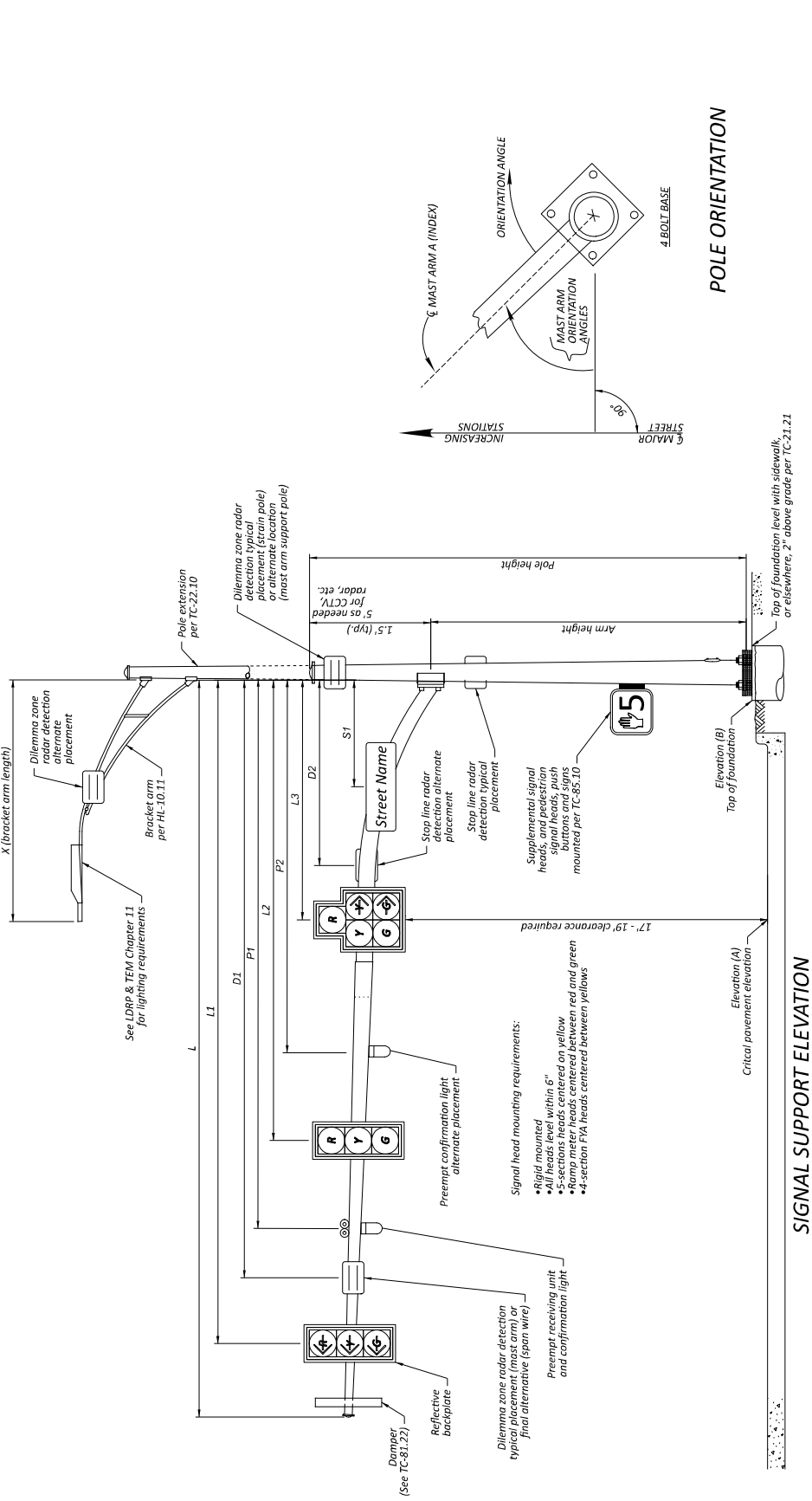
ALL VEHICULAR SIGNAL HEADS
SHALL BE SKATE
12\"/>

SIGNING LEGEND



LEGEND

PROF	EXIST
SIGNAL SUPPORT POLE	
PEDESTAL SUPPORT	
CONTROLLER CABINET	
PULL BOX	
PEDESTRIAN HEAD	
PEDESTRIAN PUSH BUTTON	
TRAFFIC SIGNAL 3 UNIT, 12"	
TRAFFIC SIGNAL 3 UNIT, 12"	
TRAFFIC SIGNAL 4 OR 5 UNIT HEAD, 12"	
STOP BAR RADAR DETECTION UNIT	
DILEMMA ZONE RADAR DETECTION UNIT	
PREEMPT DETECTOR AND CONFIRMATION LIGHT	



MAST ARM TABLE

SUPPORT NO.	STATION	OFFSET	ELEVATION		DESIGN TYPE	DESIGN NO.	POLE HEIGHT			ARM HEIGHT			L			SIGNAL SUPPORT DETAILS			ORIENTATION ANGLES FROM MAST ARM					
			A (PAVT. ELEV.)	B (TOP OF FOUND.)			FT	INCH	FT	INCH	FT	INCH	FT	INCH	FT	INCH	FT	INCH	FT	INCH	MAST ARM A ANGLE	MAST ARM B ANGLE	PEDESTRIAN SIGNAL	PEDESTRIAN PUSHBUTTON
SP-1	755+26.2	55.4' LT	626.50	626.30	TC-81.22	2	37.0	22	32	30	22	8	26.5	0	12	90	0	270	315	270	0	90		
SP-2	754+36.3	47.0' LT	627.73	626.70	TC-81.22	13	37.0	22	50	47.5	36.5	25.5	42	30.5	0	12	0	270	345	0	90			
SP-3	755+47.4	43.8' RT	627.80	626.70	TC-81.22	12	37.0	22	39	36.5	25.5	13.5	32	19.5	0	12	0	270	330	0	180			
SP-4	754+56.3	65.2' RT	626.25	626.40	TC-81.22	2	23.0	21	27	25	17	-	21	-	-	90	-	270	235	-	-			

426-25 SIGNAL POLE AND PEDESTAL PRICING

Vendor Name:

Bidders are required to fill out the unit bid price and lead time for the supports ordered.

ODOT Traffic Engineering Manual for reference.

ODOT Signal Design Reference Packet for reference.

Item 632 Signal Pole and Haunched Mast Arm Details

		TEM Fig. 498-37: Plan Details for Signal Supports - Arm Lengths		SIGNAL SUPPORT DETAILS		TEM Fig. 498-38: Plan Details for Signal Supports - Mast Arm Orientation																													
Unit Bid Price (ea.)	Lead time (wks.)	Quantity (ea.)	Finish (none=Galv, Steel)	Intersection	SUPPORT NO.	DESIGN TYPE	DESIGN NO.	POLE HEIGHT	ARM HEIGHT	L	L1	L2	L3	L4	L5	S1	S2	P1	P2	D1	D2	D3	X	ORIENTATION ANGLES FROM MAST ARM A											
																								MAST ANGLE	MAST ANGLE B	PEDSTRM SIGNAL	PEDSTRM SIGNAL	POWER SERVICE	SIGNAL CABINET	BRACKET ARM	HANDHOLE	CABLE ENTRANCE 12 FROM TOP	DEG	DEG	DEG
		1	Gloss black	SR159 & Stewart Rd	SP-1	TC-41.22	13	36	21	51	48	36.5	24	13	-	-	42	5.5	45	39	41.5	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Stewart Rd	SP-2	TC-41.22	4	36	21	38	35.5	24.5	13	-	-	4	29.5	18.5	29.5	0	0	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Stewart Rd	SP-3	TC-41.22	14	36.5	21.5	62	59	48.5	37.5	26.5	15.5	54.5	4.5	45	39.5	42.5	32	0	0	12	90	270	180	-							
		1	Gloss black	SR159 & US55 EB	SP-4	TC-41.22	4	36	21	38	35	22	-	-	-	26.5	5.5	32	26.5	-	-	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & US55 EB	SP-1	TC-41.22	4	36	21	37	34	23	0	-	-	-	31	26.5	26.5	0	0	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & US55 EB	SP-2	TC-41.22	4	37.5	22.5	38	35	24	13	-	-	-	31.5	-	29.5	0	0	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & US55 EB	SP-3	TC-41.22	13	36.5	21.5	60	59	47.5	12.5	-	-	4	-	54	-	-	-	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Plaza Blvd	SP-1	TC-41.22	13	35	20	50	47	33	-	-	-	5	-	41	-	0	0	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Plaza Blvd	SP-2	TC-41.22	4	37	22	38	35	24	-	-	-	12	-	32	-	30.5	-	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Plaza Blvd	SP-3	TC-41.22	14	36	21	63	60.5	49.5	38.5	-	-	12.5	-	58	44.5	55	32	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Plaza Blvd	SP-4	TC-41.22	2	36	21	19	16.5	10.5	-	-	-	5	-	18	7	0	-	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Marietta Rd	SP-1	TC-41.22	13	35	20	49	46.5	36	28	20	-	9	-	33	-	33	0	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Marietta Rd	SP-2	TC-41.22	13	36	21	51	48.5	37.5	27.5	-	-	12	-	44	-	33	0	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Marietta Rd	SP-3	TC-41.22	12	36	21	48	45	35	23.5	-	-	11.5	-	41	-	30	0	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Marietta Rd	SP-4	TC-41.22	12	36	21	42	39.5	28	-	-	-	10	-	34	26.5	-	-	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Winona Blvd	SP-1	TC-41.22	2	36	21	29	27	17.5	-	-	-	6.5	-	19	-	0	0	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Winona Blvd	SP-2	TC-41.22	13	36	21	50	47.5	36.5	25.5	-	-	12.5	-	42	-	30.5	0	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Winona Blvd	SP-3	TC-41.22	13	38	23	49	46.5	35.5	24.5	-	-	11.5	-	42	-	30	0	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Winona Blvd	SP-4	TC-41.22	12	36	21	42	40	28.5	-	-	-	3.5	-	35	-	0	0	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Pawnee Rd	SP-1	TC-41.22	4	36	21	38	35	27	-	-	-	8	-	24	-	0	0	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Pawnee Rd	SP-2	TC-41.22	12	36	21	48	46	36.5	24	-	-	12	-	37.5	26	29.5	0	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Pawnee Rd	SP-3	TC-41.22	12	37	22	48	46	35	24	-	-	15.5	-	41	-	29.5	0	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Pawnee Rd	SP-4	TC-41.22	2	36	21	29	26.5	18.5	-	-	-	7	-	16	-	0	0	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Chillicothe Mall	SP-1	TC-41.22	2	37	22	32	30	22	-	-	-	8	-	26.5	-	0	0	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Chillicothe Mall	SP-2	TC-41.22	13	37	22	50	47.5	36.5	25.5	-	-	-	-	42	-	30.5	0	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Chillicothe Mall	SP-3	TC-41.22	12	37	22	39	36.5	25.5	13.5	-	-	-	-	32	-	19.5	0	-	-	12	90	270	180	-							
		1	Gloss black	SR159 & Chillicothe Mall	SP-4	TC-41.22	2	23	21	27	25	17	-	-	-	11	-	21	-	-	-	-	-	12	90	270	180	-							

Item 632 Pedestrian Pedestals

Unit Bid Price (ea.)	Lead time (wks.)	Quantity	Finish	Description
		32	Gloss black	PEDESTAL, 6', TRANSFORMER BASE, AS PER PLAN

Notes:
 1. The gloss black finish on all signal supports, combination signal supports, poles, pedestals, and haunched mast arms shall comply with ODOT Supplemental Specification 916, July 21, 2023.
 2. Refer to sheet Z-01 for equipment and item extension number for each bid item.
 3. Refer to Attachment A for other details and specifications to comply with.

426-25 Light Pole Pricing

Vendor Name:

Item 625 Light Poles							Delivery Contact and Info	
ITEM	QUANTITY	Finish	DESCRIPTION	MANUFACTURER	Lead Time (weeks)	Unit Price	Extension	Delivery Address
1	61	Gloss black	TRANSFORMER BASE, TYPE AT-A, AS PER PLAN					Chillicothe, OH 45601 (exact location in Chillicothe to be provided by Highway Contractor) Zachary Schaff, 740-774-8980 zachary.schaaf@dot.ohio.gov
2	61	Gloss black	LIGHT POLE, CONVENTIONAL, (35' MTG HT), AS PER PLAN					
3	6	Gloss black	LIGHT POLE, MISC. (SUP LIGHT POLE, 15' MTG HT), AS PER PLAN					
4	32	Gloss black	LIGHT POLE, MISC. (BRIDGE POLE REPLACEMENTS), AS PER PLAN					
5	22	Gloss black	BRACKET ARM, 4', AS PER PLAN					
6	28	Gloss black	BRACKET ARM, 8', AS PER PLAN					
7	37	Gloss black	BRACKET ARM, 12', AS PER PLAN					
Grand Total								

Notes:

1. The gloss black finish on all light poles, transformer bases, and bracket arms shall comply with ODOT Supplemental Specification 916, July 21, 2023.
2. Refer to Sheet 2 of Attachment A for the ODOT Item and Item Extension number for each bid item.
3. Refer to Attachment A for other details and specifications to comply with.

Shop Drawings

Please note that no luminaires are provided with this Signal and Light Supports Material Only contract. The luminaires cut sheets are provided herein as Reference only.

ENGINEER/ARCHITECT'S REVIEW STAMP	
<input checked="" type="checkbox"/> Approved (A)	<input type="checkbox"/> Not Approved (NA)
<input type="checkbox"/> Approved as Noted (AAN)	<input type="checkbox"/> Revise & Resubmit (RR)

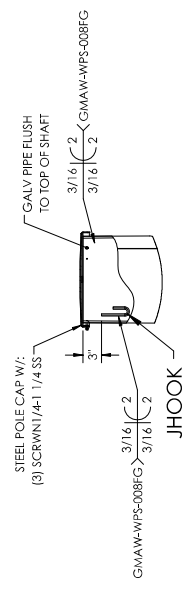
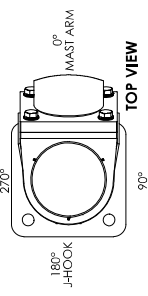
Approval is only for general conformance with the design concept of the project and for compliance with the information given in the contract documents. The contractor is responsible for quantities and dimensions to be confirmed and completed at the job site, for information that is not shown on drawings, for the accuracy of the work, for the use of construction, and for coordination of the work of all trades.

BURGESS & NIPLE, INC.

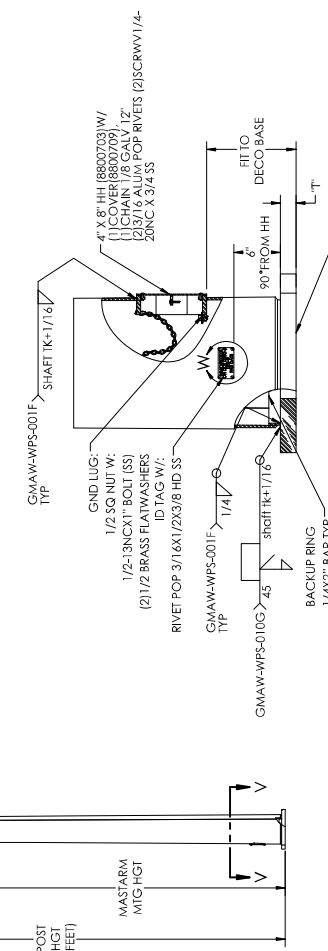
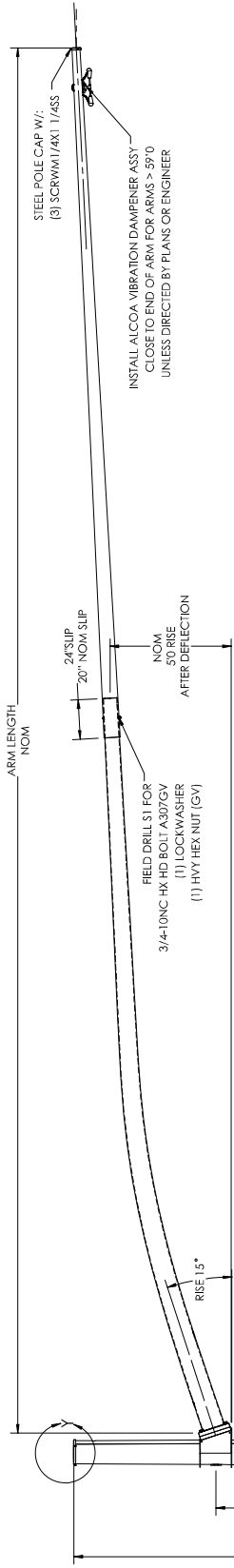
Date: 10/22/24 By: J Pennock

SEE ATTACHED SHEET FOR ADDITIONAL COMMENTS
ADDITIONAL INFORMATION REQUIRED

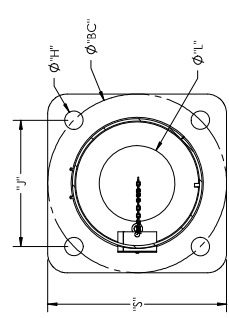
REV.	ECO	DESCRIPTION	DATE	DRFT
A		REVISED POLE HEIGHTS, MAST ARM HEIGHTS TO MATCH CUSTOMER COMMENTS. REVISED STD. SIZES FOR BASE PLATE CONNECTION AND ALCOA CONNECTION TO MAST ARM (DDI)	10/14/2024	RK



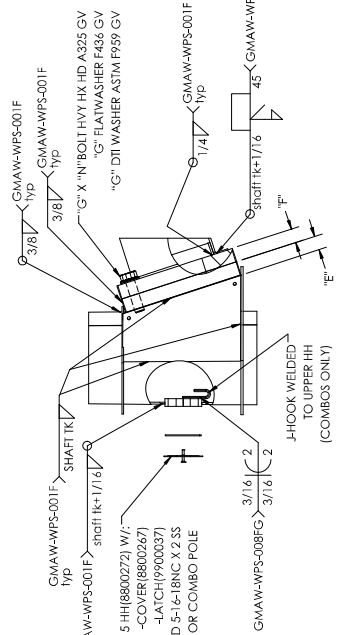
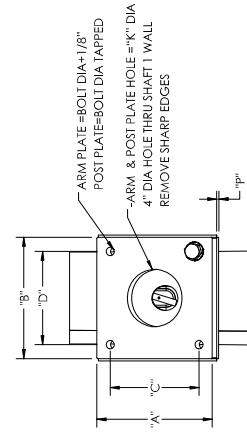
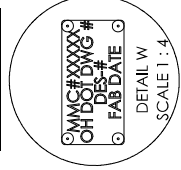
****GROMMET HOLES TO BE FIELD DRILLED****



****GALV TAG W/ PROJECT LOCATION WIRED TO 1/2 SQ NUT****



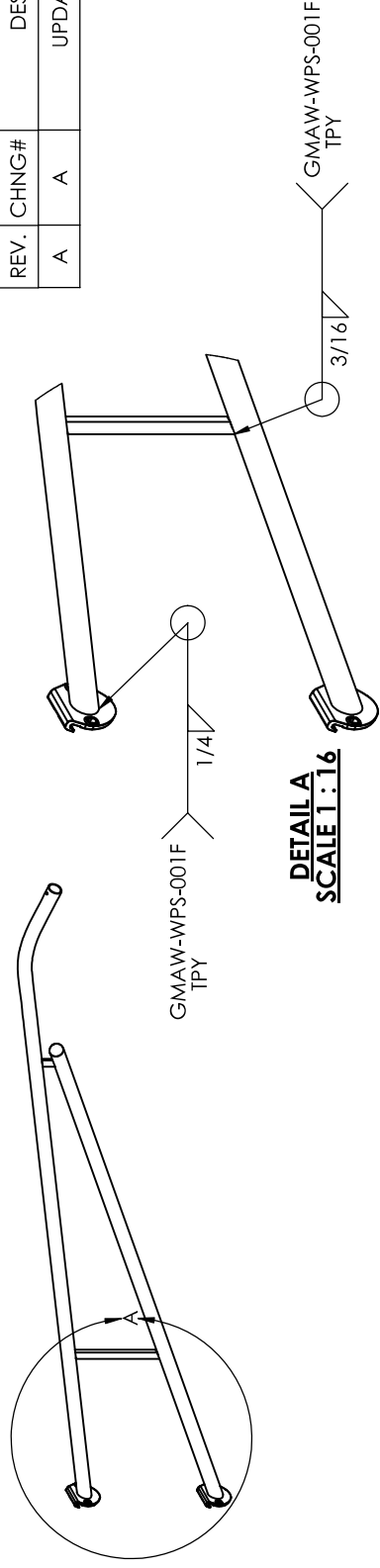
ID TAG INFO



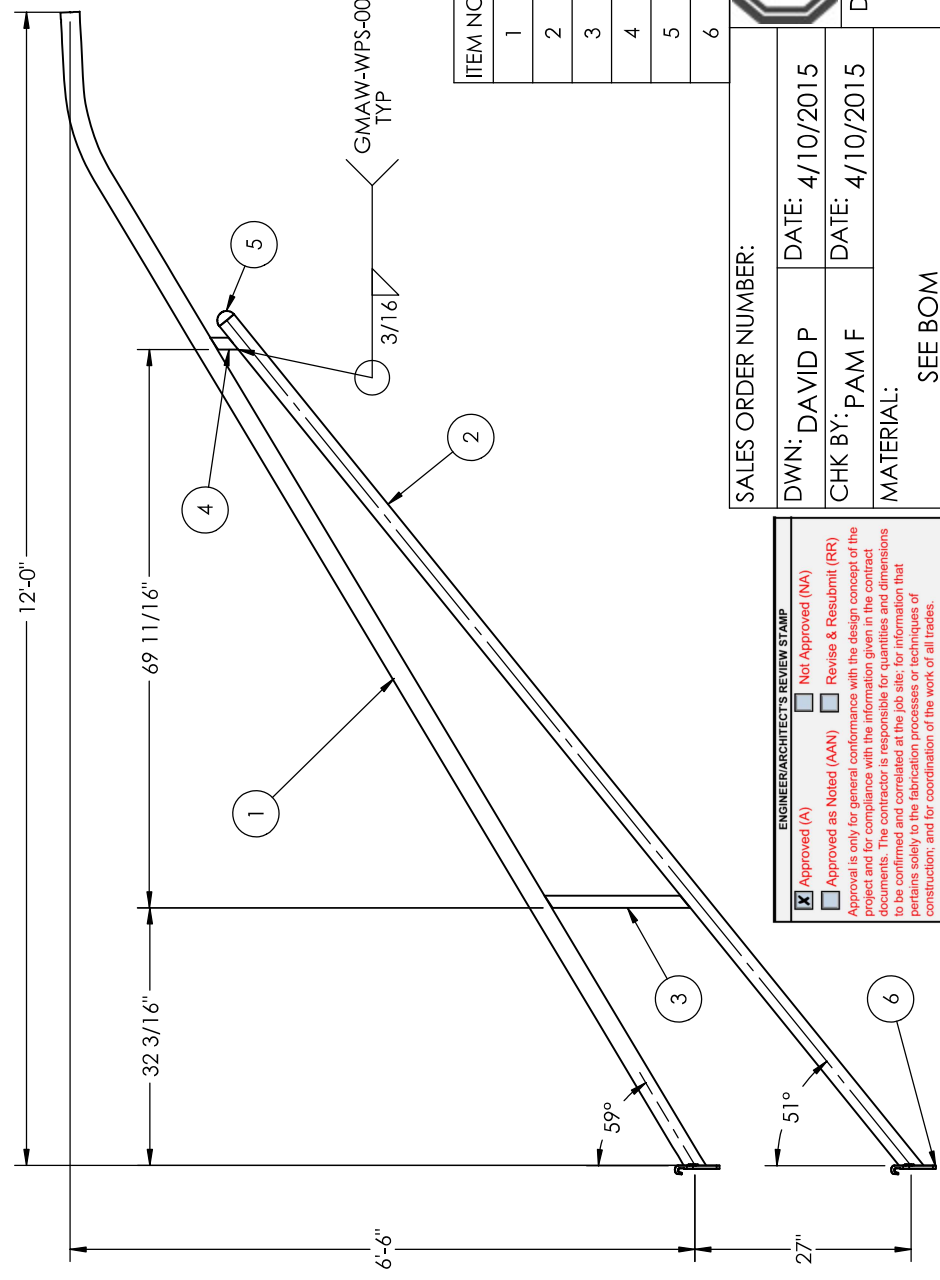
MATERIAL SPECIFICATIONS
POST: ASTM A572 GR55 OR A595 GRADE A BASE PLATE: ASTM A709 GR36 MAST ARM: ASTM A572 GR55 OR A595 GRADE A MOUNTING PLATE: ASTM A709 GR36 HARDWARE FINISH: ASTM A325 GALV A153 ANCHOR BOLTS: ASTM F1554 GR105 SIZE: PER CHART
DESIGN CRITERIA
2015 FIRST EDITION (RFIDTS-1), ASHTO LRFD STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS. WINDS: 115 MPH VORTEX SHED: N/A FATIGUE CAT. II NATURAL WIND GUST: YES TRUCK GUST: YES
WELD SPECIFICATION
THE POST AND MAST ARM TO BE A TAPERED TUBE FABRICATED WITH ONE SUBMERGED AND LONGITUDINAL WELD JOINT PER MEMBER. THE WELDING SHALL BE A FULL PENETRATION GMAW WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION. WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT) BASED ON THE THINNESS MATING. ASHTO 2015 S.15.3-5 WELD JOINT THICKNESS. ≥ 6MM (0.25 IN) UT A RANDOM 30% OF ALL FILLET WELDS AND PARTIAL JOINT WELDS TO BE LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).
FINISH SPECIFICATION
GALV OR PRIME COAT: HOT DIP GALVANIZED PER ASTM A123 FINISH COAT: PAINT - BLACK COLOR: OR PER SPEC. FED. STD. 595B 17038 WEIGHT W/GALV. & PAINT: 4.109/35 SURFACE AREA: SQUARE FOOT PAINT: 3.16/42

MILLERBERND 622 6TH ST. SO. WINSTED, MN 55395	SALES ORDER NO.: 213267	QTY: 1	STATE: OH	SHEET: 1 OF 2
THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT OF MILLERBERND AND ITS AFFILIATES.	SEE TABLE	OH		
	DESCRIPTION: SUB POLE SIG CHARTED TC-81.22			
	EST. WEIGHT: 3951.3		DRAWING NO: 213267-1	
	PROJECT NAME: PO #4169-TL-928738D / Mark 0000190523 / Job Name ODOT 426-25 Chillicothe OH ROS-159-0-41			
	PROJECT LOCATION: OH 426-25 / SCIOTO TWP / ROSS COUNTY OHIO			
	DWN BY: REBEKAH		DATE: 09-19-2024	
	CHK BY:		DATE:	

REVISIONS			
REV.	CHNG#	DESCRIPTION	DATE
A	A	UPDATED WELDS	8/26/2020
			PR



MMC 213267
PO #4169-TL-928738D / Mark 0000190523 /
Job Name ODOT 426-25 / Chillicothe OH
ROS-159-0.41
OH 426-25 / SCIOTO TWP / ROSS COUNTY
PAINTED TO MATCH FED STD 595B-173 #17038
PT-1-17-FTU-017-FR



NOTES:
 1. GAS METAL ARC WELDING PROCESS WITH 40% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.
 3. WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT) - A RANDOM 30% OF ALL FILLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1002655	PIPE TRUSS ARM TOP SCH 40 2'X120	1
2	1002656	PIPE TRUSS ARM BTM SCH 40 2'X120	1
3	1002657	BRACE TRUSS ARM 5/8X18 3/16	1
4	1002658	BRACE TRUSS ARM 3/8X1 1/2X3 1/2	1
5	9900296	DRIVE IN PLUG	1
6	9900049	2BS 2-BOLT SIMPLEX ARM BRACKET [8779]	2

MILLERBERND
 622 6TH ST. SO.
 WINSTED, MN 55395

SALES ORDER NUMBER:
 DWN: DAVID P DATE: 4/10/2015
 CHK BY: PAM F DATE: 4/10/2015
 MATERIAL: SEE BOM

DESCRIPTION:
 WLDMT PIPE TRUSS ARM SCH 40 2'X120
 27" SPACING - 78" RISE - 2 BOLT SIMPLEX

DRWG NO.: 1002654
WEIGHT: 104.1 - LBS
SURFACE AREA: 4416 SQ IN
SCALE: 1:24
SHEET 1 OF 1
A

ENGINEER/ARCHITECT'S REVIEW STAMP
 Approved (A) Not Approved (NA)
 Approved as Noted (AAN) Revise & Resubmit (RR)
 Approval is only for general conformance with the design concept of the project and for compliance with the information given in the contract documents. The contractor is responsible for quantities and dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication processes or techniques of construction, and for coordination of the work of all trades.
 BURGESS & NIPLÉ, INC.
 Date: 10/22/24 By: J Penmook
 SEE ATTACHED SHEET FOR ADDITIONAL COMMENTS
 ADDITIONAL INFORMATION REQUIRED

REVISIONS		
REV.	DESCRIPTION	DATE
A	CHANGED THE 4 NUTS, 2 WASHERS, AND ANCHOR BOLT PLATE FROM 2" TO 1 3/4"	8/31/2022
		SG

ENGINEER/ARCHITECT'S REVIEW STAMP

Approved (A) Not Approved (NA)

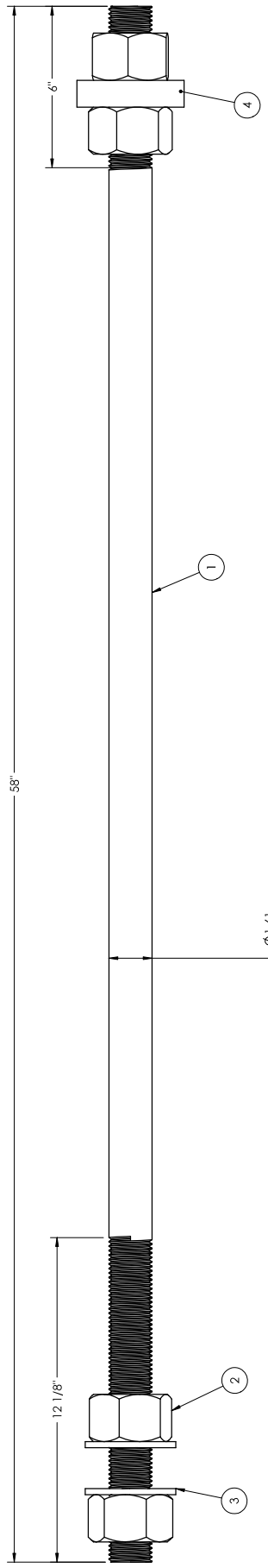
Approved as Noted (AAN) Revise & Resubmit (RR)

Approval is only for general conformance with the design concept of the project and for compliance with the information given in the contract documents. The contractor is responsible for quantities and dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication processes or techniques of construction; and for coordination of the work of all trades.

BURGESS & NIPL, INC.

Date: 09/28/24 By: J Pennock

SEE ATTACHED SHEET FOR ADDITIONAL COMMENTS
 ADDITIONAL INFORMATION REQUIRED



MMC 213267
 PO #4169-TL-928738D / Mark 0000190523 /
 Job Name ODOT 426-25 / Chillicothe OH
 ROS-159-0.41
 OH 426-25 / SCIOTO TWP / ROSS COUNTY
 QTY 20

NOTE: SUPPLIED BY FSA

- HIGH STRENGTH STEEL ANCHOR BOLT PER ASTM F1554 GRADE 105 MATERIAL - QUENCHED AND TEMPERED COLD DRAWN STRESS-RELIEVED (SAE 4140) ROD WITH 105,000 PSI MIN YIELD AND 125,000-150,000 PSI TENSILE STRENGTH, 15% MIN ELONGATION AND 45% MIN REDUCTION OF AREA
- HOT DIP FULLY GALVANIZE PER ASTM A153.
- THREAD TO BE CLASS 2A PER AMERICAN STD. B 1.1 .030 OVER SIZE AFTER GALVANIZING
- ALL BOLTS POLLED THREAD
- HEAVY HEX NUTS PER ASTM A563 GR DH (.030 OVER SIZE) OR (A194 2H EQUIVALENT)
- NO WELDING IS ALLOWED ON ANCHOR BOLTS
- GALVANIZED FLATWASHER PER ASTM F436
- THE END OF ANCHOR BOLT TO PROJECT FROM CONCRETE PAINTED RED

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	9900346	ANCHOR BOLT 1 3/4" X 58" LG GR 105	1
2	NUTHVHX1-3/4-5A563DHGV	NUT HVY HX 1-3/4-5NC A563 GV(DH)	4
3	WASHFLAT1-3/4GV	WASHER FLAT 1-3/4 GV	2
4	460B1406	ANCHOR BOLT PLATE 1"X4" FOR 1 3/4 A.B.	1

MILLERBERND 422 6TH ST. SO. WINSTED, MN 55395

SALES ORDER NUMBER: _____ DATE: 4/4/2018

DWN: PAM F. _____ DATE: _____

CHK BY: _____ DATE: _____

MATERIAL: SEE BOM

DESCRIPTION: ANCHOR BOLT 1 3/4" X 58" LG GR 105 W/4 NUTS 2 FLATWASHER

WEIGHT: 45.1 LBS. SURFACE AREA: 550.2 SQ IN SCALE: 1:12

DRWG NO.: 9900347 SHEET 1 OF 1

B

REV.	CHNG#	DESCRIPTION	DATE	DRFT

ENGINEER/ARCHITECT'S REVIEW STAMP

Approved (A) Not Approved (NA)

Approved as Noted (AAN) Revise & Resubmit (RR)

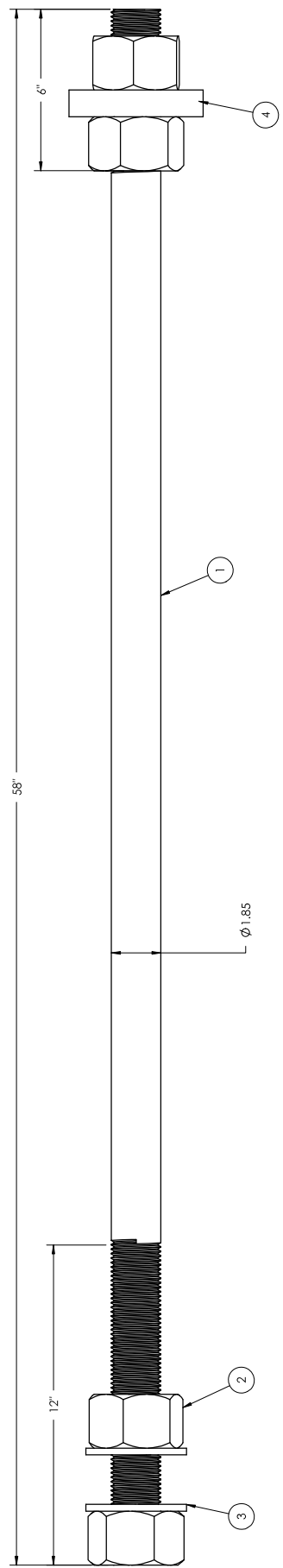
Approval is only for general conformance with the design concept of the project and for compliance with the information given in the contract documents. The contractor is responsible for quantities and dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication processes or techniques of construction; and for coordination of the work of all trades.

BURGESS & NIPLÉ, INC.

Date: 09/28/24 By: J Penmock

SEE ATTACHED SHEET FOR ADDITIONAL COMMENTS

ADDITIONAL INFORMATION REQUIRED



MMC 213267
 PO #4169-TL-928738D / Mark 0000190523 /
 Job Name ODOT 426-25 / Chillicothe OH
 ROS-159-0.41
 OH 426-25 / SCIOTO TWP / ROSS COUNTY
 QTY 88

NOTE: SUPPLIED BY FSA

- HIGH STRENGTH STEEL ANCHOR BOLT PER ASTM F1554 GRADE 105 MATERIAL - QUENCHED AND TEMPERED, COLD DRAWN, STRESS-RELIEVED (SAE 4140) ROD WITH 105,000 PSI MIN. YIELD AND 125,000 - 150,000 PSI TENSILE STRENGTH, 1.5% MIN ELONGATION AND 45% MIN REDUCTION OF AREA.
- HOT DIP FULLY GALVANIZE PER ASTM A153. THREAD TO BE CLASS 2A PER AMERICAN STD. B 1.1 .030 OVER SIZE AFTER GALVANIZING
- HEAVY HEX NUTS PER ASTM A563 GR DH (.030 OVER SIZE) OR (A194 2H EQUIVALENT)
- NO WELDING IS ALLOWED ON ANCHOR BOLTS
- GALVANIZED FLATWASHER PER ASTM F436
- THE END OF ANCHOR BOLT TO PROJECT FROM CONCRETE PAINTED RED

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	9900348	ANCHOR BOLT 2" X .58" LG GR 105	1
2	NUTHVHX2-4-1-2A563GV	NUT Hvy HX 2-4-1-2 A563 GV(DH)	4
3	WASHFLAT2"GV	WASHER FLAT 2" SAE ASTM F436 GV 3/32" OD	2
4	460B1424	ANCHOR BOLT PLATE 17X5" FOR 2 1/2" A.B.	1



422 6TH ST. SO.
 WINSTED, MN 55395

SALES ORDER NUMBER:	
DWN: PAM F.	DATE: 5/27/2020
CHK BY:	DATE:
MATERIAL:	SEE BOM
DESCRIPTION:	ANCHOR BOLT 2" X .58" LG GR 105 W/4 NUTS 2 FLATWASHER
WEIGHT:	61.1 LBS.
SURFACE AREA:	663.5 SQ IN
SCALE:	1:12
DRWG NO.:	9900349
SHEET	1 OF 1
B	

ENGINEER/ARCHITECT'S REVIEW STAMP

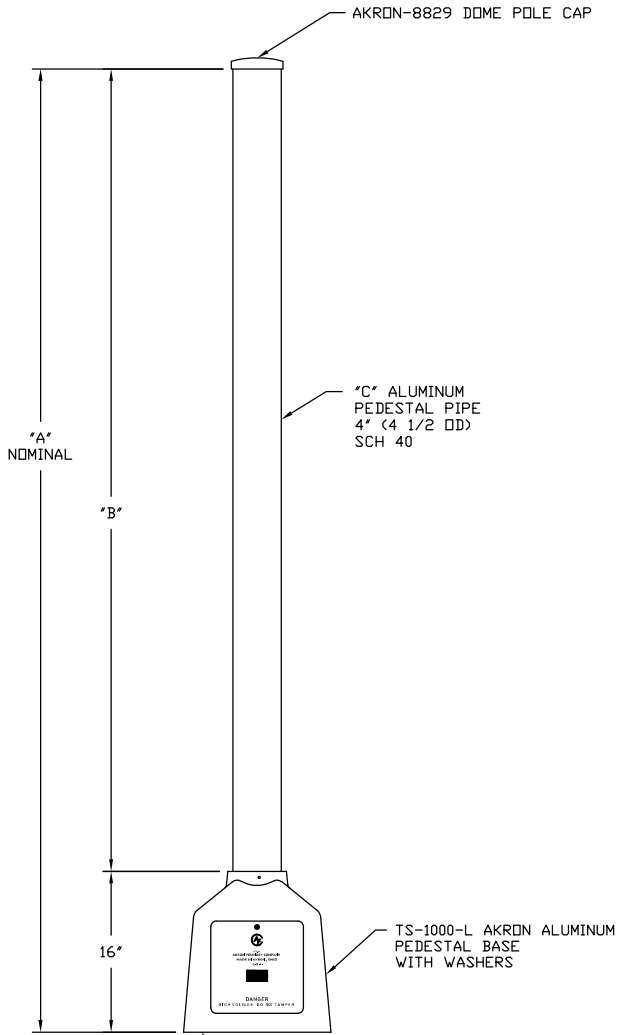
Approved (A) Not Approved (NA)
 Approved as Noted (AAN) Revise & Resubmit (RR)

Approval is only for general conformance with the design concept of the project and for compliance with the information given in the contract documents. The contractor is responsible for quantities and dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication processes or techniques of construction; and for coordination of the work of all trades.

BURGESS & NIPLE, INC.

Date: 09/28/24 By: J Pennock

SEE ATTACHED SHEET FOR ADDITIONAL COMMENTS
 ADDITIONAL INFORMATION REQUIRED



(4) 2 1/2 DD X 13/16 ID X 1/4 TK AKRON WASHER (3/4 BOLTS DN 14 1/2 BC)
 NOTE: T-BASE MUST BE INSTALLED DIRECTLY ONTO FOUNDATION FOR AASHTO APPROVAL, USE (4) 500A103 GALVANIZED 14GA U-SHAPED SHIMS FOR LEVELING T-BASE

- NOTE:
- MATERIAL: ALUMINUM PIPE ALLOY 6061-T6
 - T-BASE FINISH- BARE CAST FINISH **PAINTED TO MATCH PIPE**
 - THREADS WILL HAVE A PLASTIC PROTECTOR.
 - PIPE WILL BE HAND STAMPED ABOVE THE THREAD WITH ALLOY NUMBER 6061-T6
 - PIPE WILL HAVE A COMPLETE CARDBOARD PROTECTOR SLEEVE FOR EACH LENGTH PIPE (DO NOT GET CARDBOARD WET)
 - PLASTIC WRAPPING MUST BE REMOVED UPON RECEIPT OF MATERIAL. FAILURE TO COMPLY MAY VOID THE FINISH WARRANTY.
 - THE PIPE, T-BASE W/WASHERS & THE FOLLOWING PARTS ARE SHIPPED UNASSEMBLED:
 (4) 500A103 SHIM
 (1) AKRON-8829 DOME CAP

****PAINTED TO MATCH FED STD 595B-173 # 17038
 PT-1-17-FTU-017-FR**

DRAWING REF NO	QTY	'A'	'B'	'C' ALUMINUM PEDESTAL PIPE	PART NO
-2		3'-0"	2'-0"	AKRON-PIPEX2	3SRPB45030-DC-001
-3		4'-0"	3'-0"	AKRON-PIPEX3	3SRPB45040-DC-001
-4		5'-0"	4'-0"	AKRON-PIPEX4	3SRPB45050-DC-001
-5		6'-0"	5'-0"	AKRON-PIPEX5	3SRPB45060-DC-001
-6		7'-0"	6'-0"	AKRON-PIPEX6	3SRPB45070-DC-001
-7		8'-0"	7'-0"	AKRON-PIPEX7	3SRPB45080-DC-001
-8	32	9'-0"	8'-0"	AKRON-PIPEX8	3SRPB45090-DC-001
-9		10'-0"	9'-0"	AKRON-PIPEX9	3SRPB45100-DC-001
-10		11'-0"	10'-0"	AKRON-PIPEX10	3SRPB45110-DC-001
-11		12'-0"	11'-0"	AKRON-PIPEX11	3SRPB45120-DC-001
-12		13'-0"	12'-0"	AKRON-PIPEX12	3SRPB45130-DC-001
-13		14'-0"	13'-0"	AKRON-PIPEX13	3SRPB45140-DC-001
-14		15'-0"	14'-0"	AKRON-PIPEX14	3SRPB45150-DC-001
-15		16'-0"	15'-0"	AKRON-PIPEX15	3SRPB45160-DC-001
-16		17'-0"	16'-0"	AKRON-PIPEX16	3SRPB45170-DC-001
-17		18'-0"	17'-0"	AKRON-PIPEX17	3SRPB45180-DC-001
-18		19'-0"	18'-0"	AKRON-PIPEX18	3SRPB45190-DC-001
-20		21'-0"	20'-0"	AKRON-PIPEX20	3SRPB45210-DC-001
-42		54'	42'	AKRON-PIPEX42	3SRPB45046-DC-001

MMC 213269
 PO # 0000190523
 Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41
 OH 426-25 / SCIOTO TWP / ROSS COUNTY

DWN: JASON D	3SRPB45(030-210)-DC-001
DATE: 07-27-15	ALUMINUM TRAFFIC SIGNAL BREAKAWAY PEDESTAL POLE WITH DOME CAP FOR 3/4 ANCHOR BOLTS DN 12"-14 1/2 BC
CHK: DOUG F.	Millerbernd MANUFACTURING CO. WINSTED, MN
SCALE: NTS	740B109

REVISIONS

REV.	DESCRIPTION	DATE	DRAFTER
------	-------------	------	---------

ENGINEER/ARCHITECT'S REVIEW STAMP

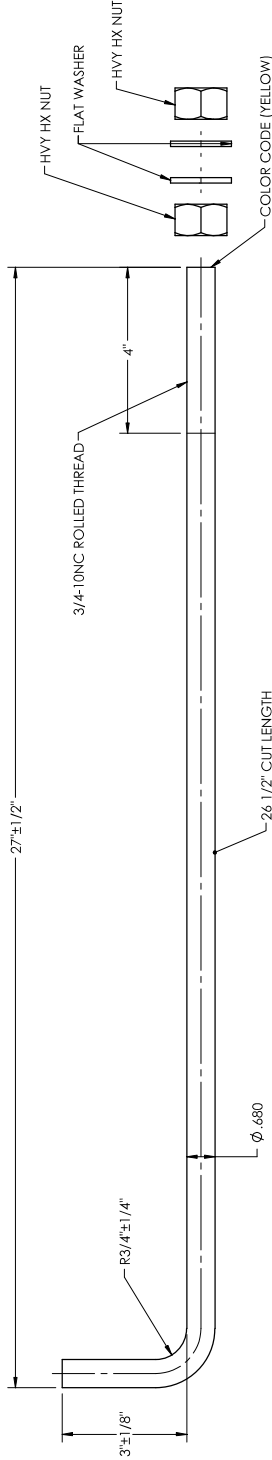
Approved (A) Not Approved (NA)
 Approved as Noted (AAN) Revise & Resubmit (RR)

Approval is only for general conformance with the design concept of the project and for compliance with the information given in the contract documents. The contractor is responsible for quantities and dimensions to be confirmed and correlated at the job site. For information that pertains solely to the fabrication processes or techniques of construction, and for coordination of the work of all trades.

BURGESS & NIPLÉ, INC.

Date: 09/28/24 By: J Pennock

SEE ATTACHED SHEET FOR ADDITIONAL COMMENTS
 ADDITIONAL INFORMATION REQUIRED



460B1201-1	460B1201-1DN	460B1201-1DNW	128	256	256
PART NO BOLT ONLY	PART NO BOLT W/2 NUTS	PART NO BOLT W/2 NUTS & 2 FLAT WASHERS	QTY BOLTS	QTY GALV NUTS	QTY GALV FLAT WASHERS

- NOTES: SUPPLIED BY FSA**
- ANCHOR BOLT PER ASTM F1554 GRADE 55 YIELD STRENGTH = 55,000 PSI MIN YIELD TENSILE STRENGTH = 75,000-95,000 PSI
 - HOT DIP FULLY GALVANIZE PER ASTM A153.
 - THREAD TO BE CLASS 2A PER AMERICAN STD. B 1.1 .030 OVER SIZE AFTER GALVANIZING
 - ALL BOLTS ROLLED THREAD
 - GALVANIZED HEAVY HEX NUTS (A563GV) PER ASTM A563 GR DH (.030 OVER SIZE) OR (A194 2H EQUIVALENT)
 - NO WELDING IS ALLOWED ON ANCHOR BOLTS
 - GALVANIZED FLAT WASHERS PER ASTM F436.

THE DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND WFG AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE WRITTEN CONSENT FROM MILLERBERND WFG

MILLERBERND 422 6TH ST. SO. WINSTED, MN 55395

MMC 213269
 PO # 0000190523
 Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41
 OH 426-25 / SCIOTO TWP / ROSS COUNTY

DWN: JEFF A.	DATE: 07-21-2017	DESCRIPTION: 3/4 ANCHOR BOLT (F1554 GR 55) FULLY GALVANIZED
CHK BY:	DATE:	
MATERIAL: SEE BOM		
WEIGHT: 3.6 LBS.	SURFACE AREA: 460B1201	SCALE: 1:3
	SQ IN	DRWG NO.: 460B1201
		SHEET 1 OF 1
		B

REV.	DESCRIPTION	DATE	DRFT

REVISIONS

SHOP DRAWING REVIEW

REVIEW IS FOR GENERAL COMPLIANCE WITH THE DESIGN DRAWINGS AND SPECIFICATIONS. NO LIABILITY IS ASSUMED FOR CORRECTNESS OF DIMENSIONS OR DETAILS.

NO EXCEPTIONS TAKEN FOR FIELD VARIATIONS UNLESS SPECIFICALLY REQUESTED - SEE COMMENTS

DATE: 10/23/24

BY: RGS

PALMER ENGINEERING COMPANY

MATERIAL SPECIFICATIONS

POST: ASTM A1011 GR 50 OR A572 GR 50
 FINISH: POLYURETHANE GR 36
 MAST ARM: PIPE GR 500
 MOUNTING PLATE: ASTM A709 GR 36
 HARDWARE FINISH: ASTM F1554 GR 55
 ANCHOR BOLTS: ASTM F1554 GR 55

DESIGN CRITERIA

2013 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIES & TRAFFIC SIGNALS.

WINDS: 90 MPH
 FATIGUE CAT: N/A
 NATURAL WIND VELOCITY: N/A

VORTEX SHED: N/A
 GALLOPING: N/A
 TRUCK GUST: N/A

WELD SPECIFICATION

THE POST AND MAST ARM TO BE ROUND TAPERED TUBE SEAM WELD WITH 100% PENETRATION 6" FROM BASE PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS MATERIAL: (PER AASHTO 2013.3.1.5: WELD INSET) THICKNESS: < 6MM (0.25 IN) UT > 6MM (0.25 IN) UT

ALL INLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).

FINISH SPECIFICATION

GALV OR PRIME COAT: HOT DIP GALV PER ASTM A123
 FINISH COAT: PAINT
 COLOR: OR RAL SPEC.: FED STD 598-1/3 #17038
 WEIGHT W/GALV: 1.70 LB/SQ FT
 SURFACE AREA: 1.70 LB/SQ FT
 SAIL OFF PAINT:



622 6TH ST. SO.
 WINSTED, MN 55395

THE DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND MFG AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT OF MILLERBERND MFG

SALES ORDER NO.:
 QTY:
 STATE:
 SHEET

213269 SEE CHART OH 1 OF 1

DESCRIPTION:
 SUB POLE LIGHT TRUSS RD CHARTED
 A-BASE/TB-ASE/HH & TRUSS ARM OPTIONS

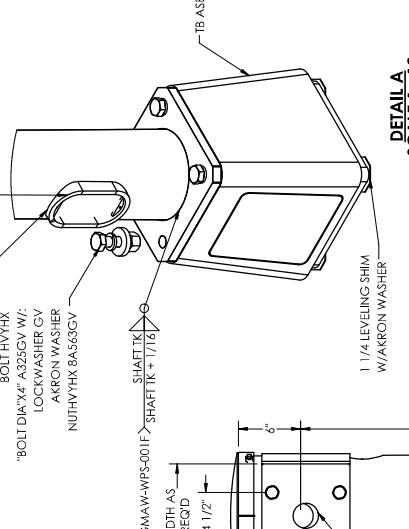
EST. WEIGHT:
 912.4 - LBS

DRAWING NO:
 213269-1

PROJECT NAME:
 PO # 0000190523 /
 Job Name ODOT 426-25
 Chillicothe OH ROS-159-0-41

PROJECT LOCATION:
 DWN BY: REBEKAH DATE: 09-23-2024
 CHK BY: DATE:

IF A-BASE. SUPPLY HANDHOLE:
 12-18" ABOVE ABASE
 180" FROM ARM
 (1) 8800703-4X8 HH
 (1) 8800709 COVER
 (1) CHAIN-A-1-B-GV-12"
 (2) RY/PP3/16X1 1/8/5 (BH)IAL
 (2) SCRWV/4-20X3/4SS



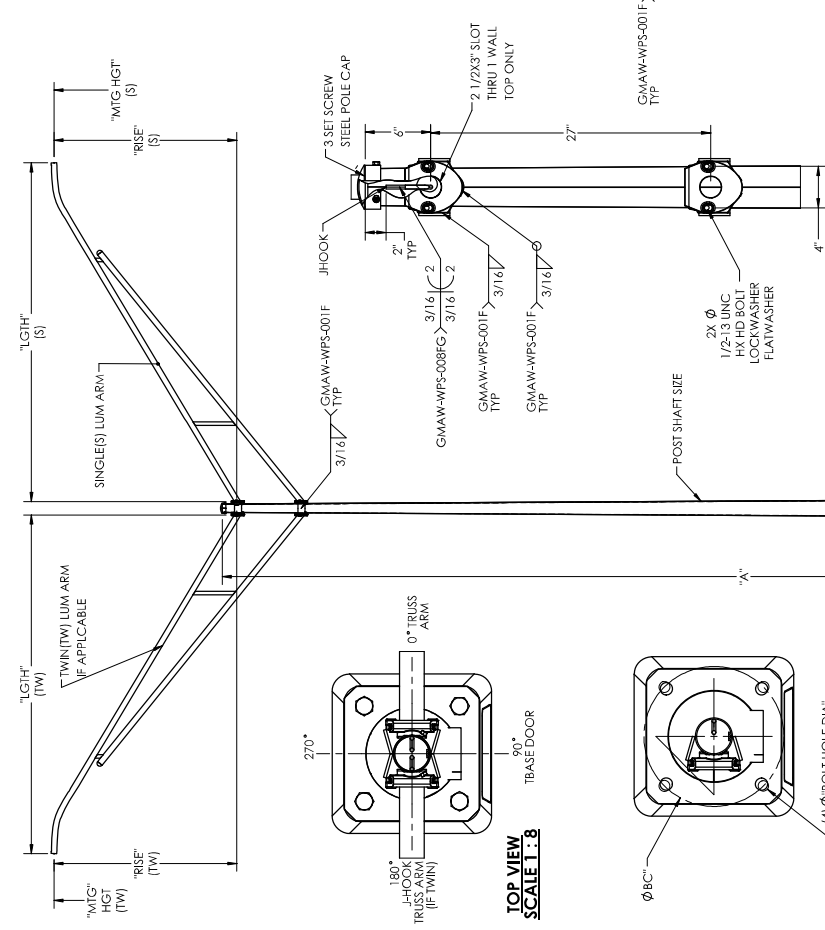
DETAIL A
 SCALE 1:12

T-BASE MUST BE INSTALLED DIRECTLY ONTO FOUNDATION FOR AASHTO APPROVAL.
 USE: (4) 14 GA ZINC PLATED U-SHAPED SHIMS FOR LEVELING T-BASE.

****NOTE 4* SINGLE MEMBER LUM ARM ATTACHES WITH A 3 BOLT MOUNTING PLATE****

**TRUSS ARM ≥ 18FT:
 4 BOLT MTG PLT W/
 3/4-10NCX 2 1/2 F593C SS.
 SS FLATWASHER & SS LOCKWASHER**

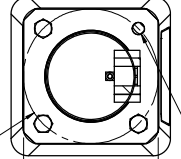
**TRUSS ARM < 18 FT:
 2 BOLT SIMPLEX W/
 1/2-13NCX 1 1/4 F593C SS BOLT,
 SS FLATWASHER & SS LOCKWASHER**



ID TAG INFO

MMC XXXXX
HL-10-11
STRUCTURE #
MM/YYYY

BASE BASEPLATE SECTION C-C SCALE 1:12



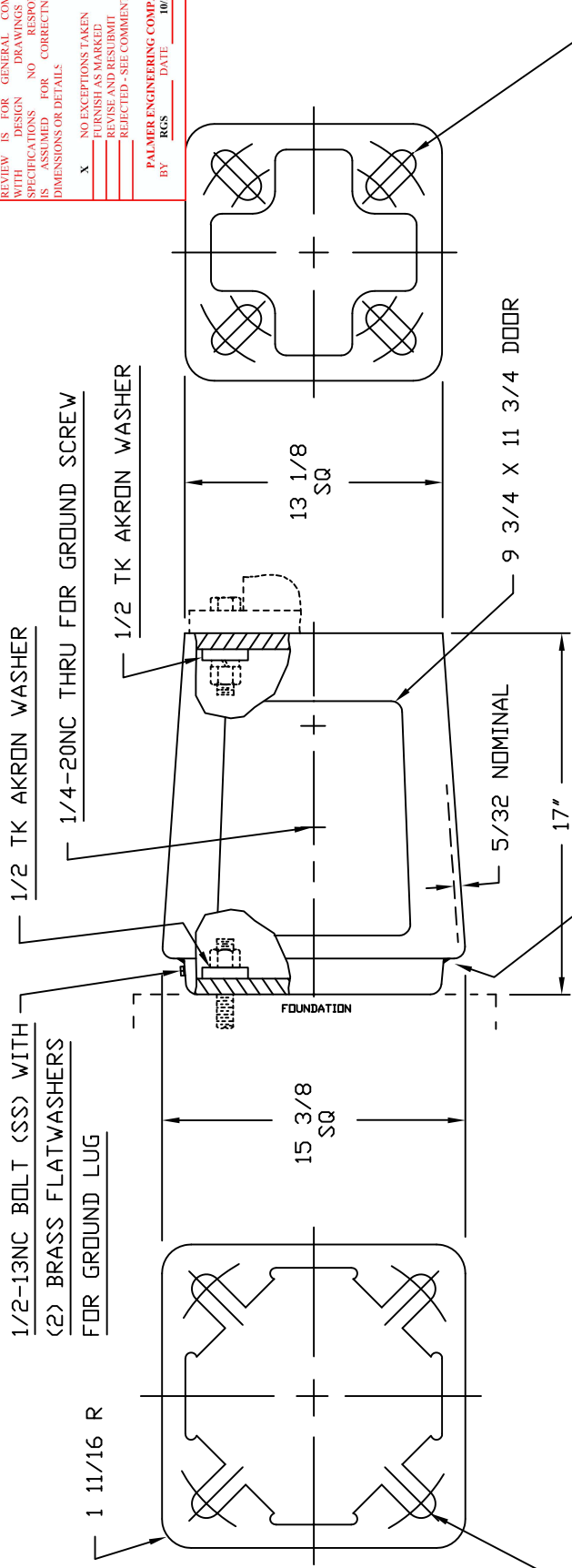
POST BASEPLATE SECTION C-C SCALE 1:12

STRUCTURE #	QTY	POST SHIRT SIZE	TK X BASE Ø X TOP Ø X "A"	BC	SQ	TK	POST BASEPLATE		BOLT HOLE DIA	TBASE BC	AB SEE	RISE	SINGLE(S) LUM ARM HGT	TWIN(TW) LUM ARM HGT	TBASE OR TBASE ALU (TB-1/ABASE)	ANCHOR BOLTS SIZES
							BC	TK								
A14835	22	11GAx7.61x3.19x317	13"	13"	1"	1 3/16	1"	1 3/16	15"	1"	40	350	30"	-	-	1 1/4-40 4608920
A18835	28	11GAx8.09x4.29x277	13"	13"	1"	1 3/16	15"	1 3/16	15"	1"	80	350	78"	-	-	1 1/4-40 4608920
A112835	11	11GAx8.09x4.29x277	13"	13"	1"	1 3/16	15"	1 3/16	15"	1"	120	350	78"	-	-	1 1/4-40 4608920

SHOP DRAWING REVIEW
 REVIEW IS FOR GENERAL COMPLIANCE WITH DESIGN DRAWINGS AND SPECIFICATIONS. NO RESPONSIBILITY IS ASSUMED FOR CORRECTNESS OF DIMENSIONS OR DETAILS.

X NO EXCEPTIONS TAKEN
 _____ FURNISH AS MARKED
 _____ REVISE AND RESUBMIT
 _____ REJECTED - SEE COMMENTS

PALMER ENGINEERING COMPANY
 BY _____ DATE 10/23/24



MIG 4043 WIRE 1/4 WITH APPROX. 5" OF WELD ON EACH OF THE (4) INTERNAL CORNERS

(W1) 2 3/4 DD X 1 1/16 ID X 1/2 TK STEEL WASHERS
 4 PLS EA SPACED ON 10 1/2 DIA TO 13 1/2 DIA BC

(W1) 2 3/4 DD X 1 1/16 ID X 1/2 TK STEEL WASHERS FOR 1" DIA ANCHORAGE OR (W2) 1 5/16 ID FOR 1 1/4 DIA ANCHORAGE
 4 PLS EA SPACED ON 13" DIA TO 15" DIA BOTTOM GROUND BC

DOOR SUPPLIED WITH LOGO IN ALUMINUM OR PLASTIC WITH OR WITHOUT HINGE WITH 1/4-20 SS HX SCREW

ALL WASHERS TO BE ZINC MECHANICAL COATED PER ASTM B 695-85 CLASS 50

356 T-6 ALUMINUM ALLOY / SS WHEELABRATED FINISH CHEMICAL AND PHY CERTS TO BE SUPPLIED WITH EACH SHIPMENT MMC 213269 PO # 0000190523

ADHESIVE BREAKAWAY AND CAUTION LABELS TO APPEAR ON INSIDE WALL OPPOSITE DOOR OPENING

TB1-17-P-HD-MDD-1	T-BASE WITH HINGED PLASTIC DOOR & (8) (W1) 1 1/16 ID WASHERS
TB1-17-HD-MD	T-BASE WITH HINGED ALUM DOOR, MARYLAND LOGO & (8) (W1) 1 1/16 ID WASHERS
TB1-17-P	T-BASE WITH NON-HINGED PLASTIC DOOR & (8) (W1) 1 1/16 ID WASHERS
TB1-17-HD	T-BASE WITH HINGED ALUM DOOR & (8) (W1) 1 1/16 ID WASHERS
TB1-17	T-BASE WITH NON-HINGED ALUM DOOR & (8) (W1) 1 1/16 ID WASHERS
PART NO	DESCRIPTION
QTY	
FINISH:	

AKRON FOUNDRY CO.
 AKRON OH 44316
 1985 AASHTO T-BASE
 #17038
 WT 39.5#
 1-25-88
 TB1-17

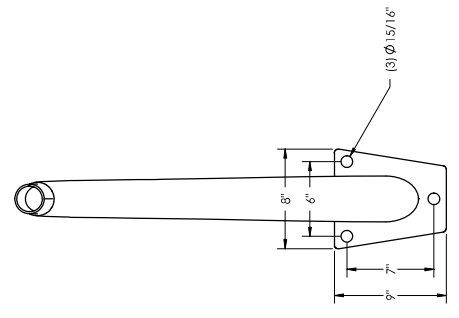
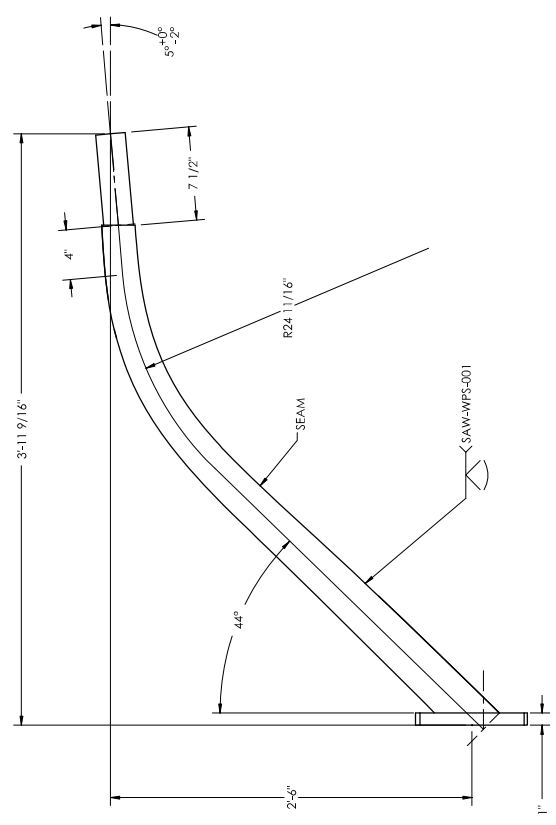
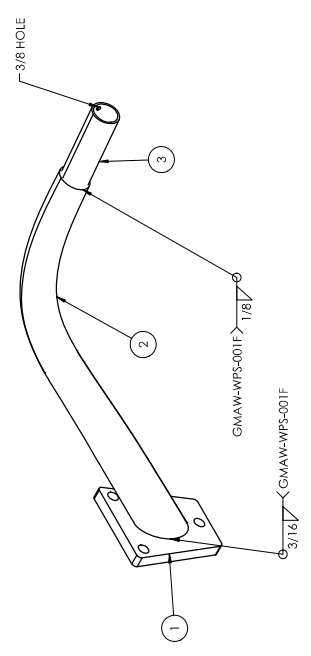
REV.	DESCRIPTION	DATE	DRFT

SHOP DRAWING REVIEW

REVIEW IS FOR GENERAL COMPLIANCE WITH DRAWING SPECIFICATIONS. NO RESPONSIBILITY IS ASSUMED FOR CORRECTNESS OF DIMENSIONS OR DETAILS

X NO EXCEPTIONS TAKEN FOR THIS DRAWING. REVISIONS WILL BE REJECTED. SEE COMMENTS FOR REVISIONS.

PALMER ENGINEERING COMPANY
BY RGS DATE 10/23/24



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1042848	MTG PLT ARM 3BOLT 1"X8X9 15/16 BOLT HOLES	1
2	1035462	SHAFT SCKT RD 11GA X 3.3 X 2.70 X 4'-4" LG	1
3	1026074	PIPE 2" [2 3/8 ODI] X 8" W/ HOLE	1

MILLERBERND
422 6TH ST. SO.
WINSTED, MN 55395

DESCRIPTION:
WILDMT ARM LUM 11GAX4'-0" J" STYLE
11GA X 3.3 X 2.70 X 4'-0"

DWN: PAM F.	DATE: 1/8/2020
CHK BY:	DATE:
MATERIAL:	SEE BOM
WEIGHT: 42.59 LBS.	SURFACE AREA: 1211.74 SQ IN
SCALE: 1:24	DRWG NO.: 1042853
	SHEET 1 OF 1

MMC 213269
PO # 0000190523
Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41
OH 426-25 / SCIOTO TWP / ROSS COUNTY
PAINTED TO MATCH FED STD 595B-T73 #17038
PT-1-17-FTU-017-FR

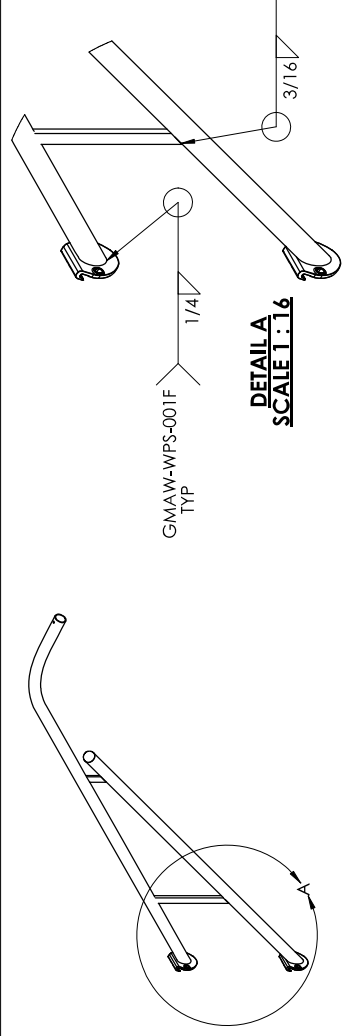
REVISIONS			
REV.	CHNG#	DESCRIPTION	DATE
A	A	UPDATE WELDS	12/15/2020
			PR

SHOP DRAWING REVIEW

REVIEW IS FOR GENERAL COMPLIANCE WITH DESIGN DRAWINGS AND SPECIFICATIONS. NO RESPONSIBILITY IS ASSUMED FOR CORRECTNESS OF DIMENSIONS OR DETAILS.

X NO EXCEPTIONS TAKEN. FURNISH AS MARKED. REVISE AND RESUBMIT REJECTED - SEE COMMENTS.

PALMER ENGINEERING COMPANY
BY RGS DATE 10/23/24



MMC 213269
PO # 0000190523
Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41
OH 426-25 / SCIOTO TWP / ROSS COUNTY
PAINTED TO MATCH FED STD 595B-173 #17038
PT-117-FTU-017-FR

NOTES:

1. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.
3. WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT), A RANDOM 30% OF ALL FILLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1002830	PIPE TRUSS ARM TOP 2X80	1
2	1002831	PIPE TRUSS ARM BTM 2X8-2 5/8"	1
3	1002832	BRACE TRUSS ARM 5/8X18 5/8	1
4	1002833	BRACE TRUSS ARM 3/8X5 1/2	1
5	9900049	2BS 2-BOLT SIMPLEX ARM BRACKET (8779)	2
6	9900296	DRIVE IN PLUG	1

SALES ORDER NUMBER:

DWN: DAVID P. DATE: 4/10/2015

CHK BY: DATE:

MATERIAL: SEE BOM

WLDMT PIPE TRUSS ARM SCH40 2"x80
27" SPACING - 78" RISE - 2 BOLT SIMPLEX

WLDMT PIPE TRUSS ARM SCH40 2"x80
27" SPACING - 78" RISE - 2 BOLT SIMPLEX

DRWG NO.: 1002829

WEIGHT: 80.4 - LBS

SURFACE AREA: 5305 SQ IN

SCALE: 1:32

SHEET 1 OF 1

A



REVISIONS			
REV.	CHNG#	DESCRIPTION	DATE
A	A	UPDATED WELDS	8/26/2020
			PR

SHOP DRAWING REVIEW

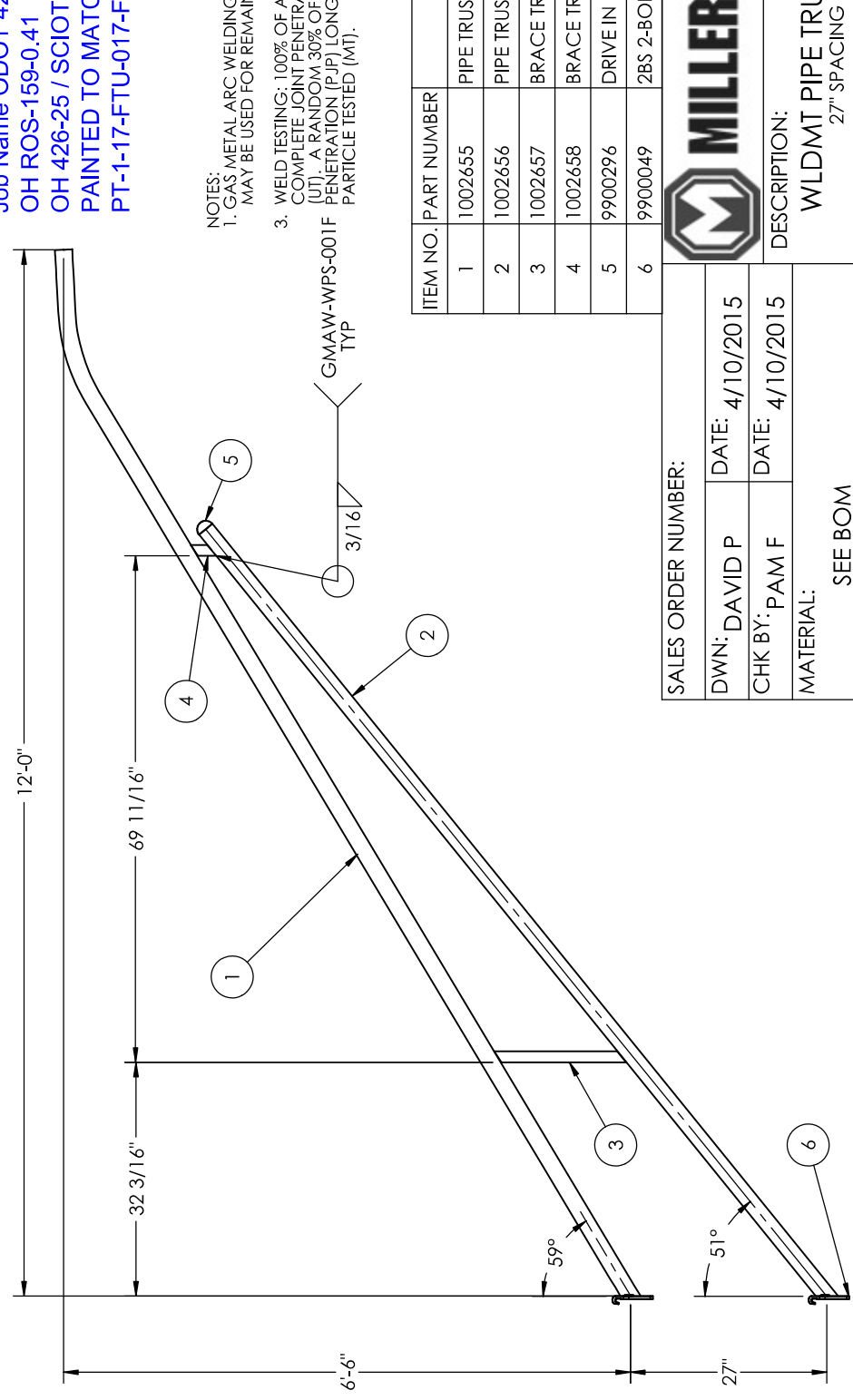
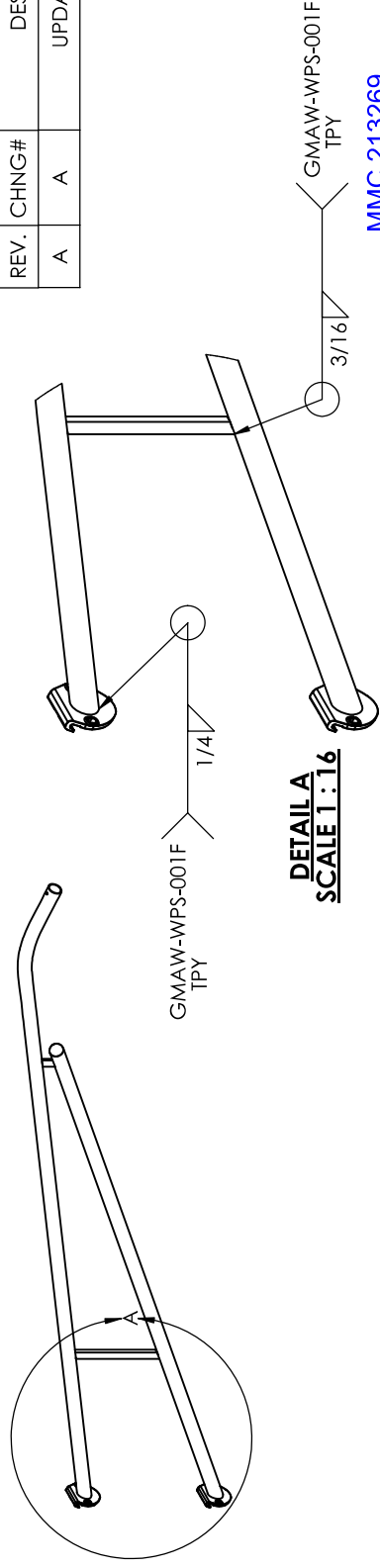
REVIEW IS FOR GENERAL COMPLIANCE WITH DESIGN DRAWINGS AND SPECIFICATIONS. NO RESPONSIBILITY IS ASSUMED FOR CORRECTNESS OF DIMENSIONS OR DETAILS.

X NO EXCEPTIONS TAKEN FURNISH AS MARKED REVISE AND RESUBMIT REJECTED - SEE COMMENTS

PALMER ENGINEERING COMPANY
BY: RGS DATE: 10/23/24

MMC 213269
 PO # 0000190523
 Job Name ODOT 426-25 / Chillicothe
 OH ROS-159-0.41
 OH 426-25 / SCIOTO TWP / ROSS COUNTY
 PAINTED TO MATCH FED STD 595B-173 #17038
 PT-1-17FTU-017-FR

NOTES:
 1. GAS METAL ARC WELDING PROCESS WITH 40% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.
 3. WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT), A RANDOM 30% OF ALL FILLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1002655	PIPE TRUSS ARM TOP SCH 40 2'x120	1
2	1002656	PIPE TRUSS ARM BTM SCH 40 2'x120	1
3	1002657	BRACE TRUSS ARM 5/8x18 3/16	1
4	1002658	BRACE TRUSS ARM 3/8x1 1/2x3 1/2	1
5	9900296	DRIVE IN PLUG	1
6	9900049	2BS 2-BOLT SIMPLEX ARM BRACKET [8779]	2

MILLERBERND 622 6TH ST. SO. WINSTED, MN 55395

SALES ORDER NUMBER: _____

DWN: DAVID P DATE: 4/10/2015

CHK BY: PAM F DATE: 4/10/2015

MATERIAL: SEE BOM

DESCRIPTION: WLDMT PIPE TRUSS ARM SCH 40 2"X120 27" SPACING - 78" RISE - 2 BOLT SIMPLEX

WEIGHT: 104.1 - LBS	SURFACE AREA: 4416 SQ IN	SCALE: 1:24	DRWG NO.: 1002654	SHEET 1 OF 1	A
---------------------	--------------------------	-------------	-------------------	--------------	---

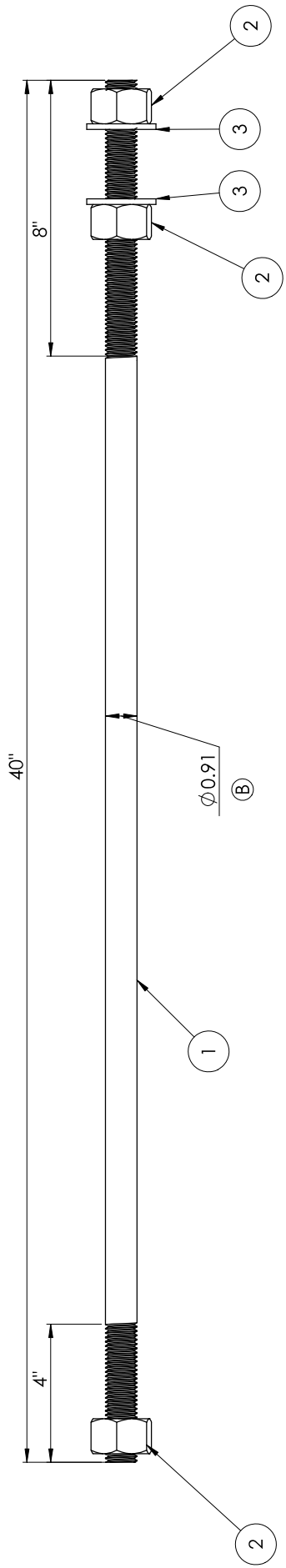
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	CHGD THRD LGTHS, NUT AND FW QTY-PER OHDOT STD	4/24/2020	PJF
A2	B	CHANGED BOLT BODY DIM TO DECIMAL	8/31/2020	AP

SHOP DRAWING REVIEW

REVIEW IS FOR GENERAL COMPLIANCE WITH DESIGN DRAWINGS AND SPECIFICATIONS. NO RESPONSIBILITY IS ASSUMED FOR CORRECTNESS OF DIMENSIONS OR DETAILS.

NO EXCEPTIONS TAKEN
 FURNISH AS MARKED
 REVISE AND RESUBMIT
 REJECTED - SEE COMMENTS

PALMER ENGINEERING COMPANY
 BY RGS DATE 10/23/24



MMC 213269
 PO # 0000190523
 Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41
 OH 426-25 / SCIOTO TWP / ROSS COUNTY
 QTY 244

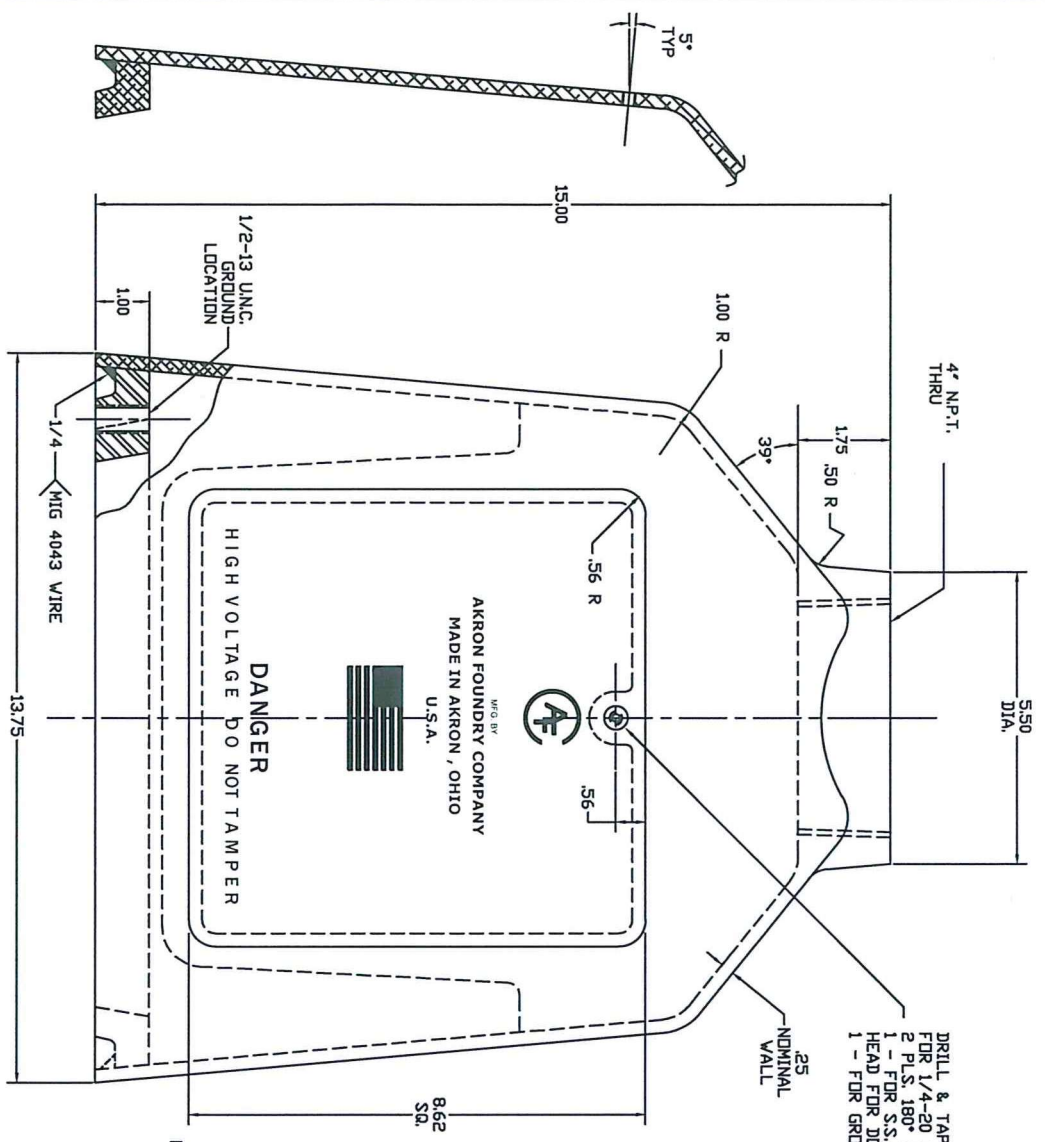
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	460A921	STRAIGHT ANCHOR BOLT 1"X40"LG W/ 6" THD	1
2	NUTHVYHX1-8A563GV	NUT HVY HX 1"-8 A563 GV (D/H)RCP	3
3	WASHFLAT1"GV	WASHFLAT 1"GV ASTM F436	2

THE DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND MFG AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE WRITTEN CONSENT FROM MILLERBERND MFG.

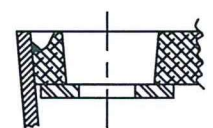
MILLERBERND
 422 6TH ST. SO.
 WINSTED, MN 55395

DWN: PHILL R	DATE: 10-23-2018	DESCRIPTION:	ANCHOR BOLT 1"X40" 3N 2F/GR55-OHDOT FULLY GALV
CHK BY:	DATE:		
MATERIAL:	SEE BOM		
WEIGHT: 7.4 LBS.	SURFACE AREA: 179.0 SQ IN	SCALE: 1:10	DRWG NO.: 460B920
			SHEET 1 OF 1

B



DRILL & TAP THRU FOR 1/4-20 UNC. 2 PLS. 180° APART
 1 - FOR S.S. BUTTON HEAD FOR DOOR
 1 - FOR GROUND SCREW



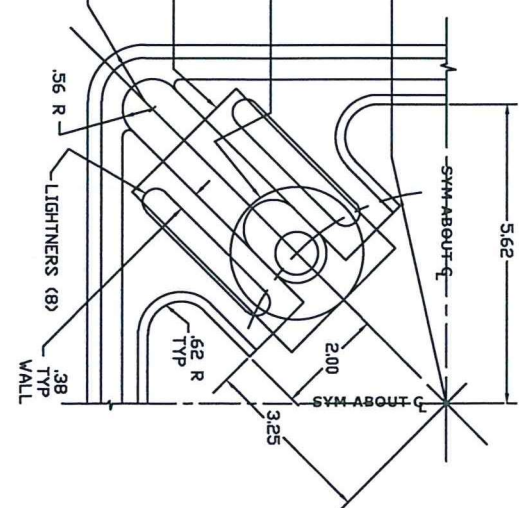
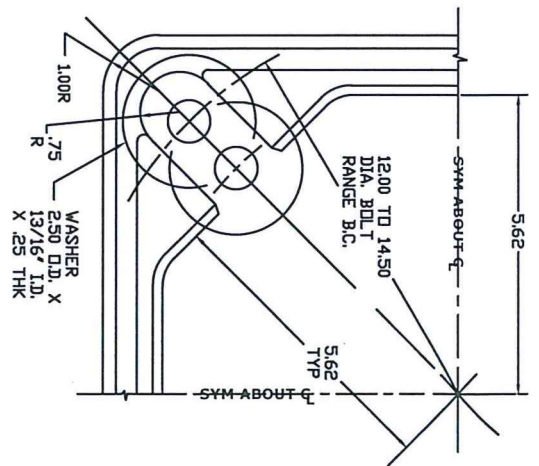
STANDARD TS-1000 BOTTOM JOB# 8698

8.00 MINIMUM DIA. B.C. WITH RECTANGULAR WASHER

WASHER 2.50 O.D. X 13/16" I.D. X .25 THK

RECTANGULAR WASHER 4 1/4" X 2 3/4" X .62 THICK

MODIFIED TS-1000 BOTTOM JOB# 8745



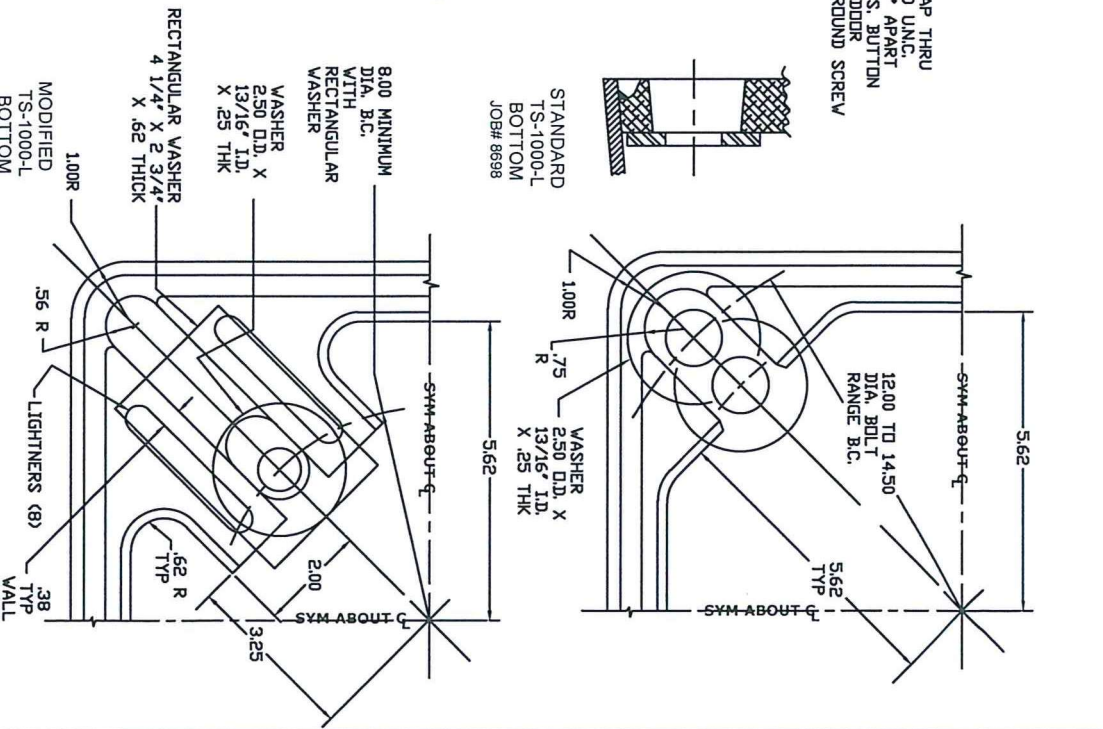
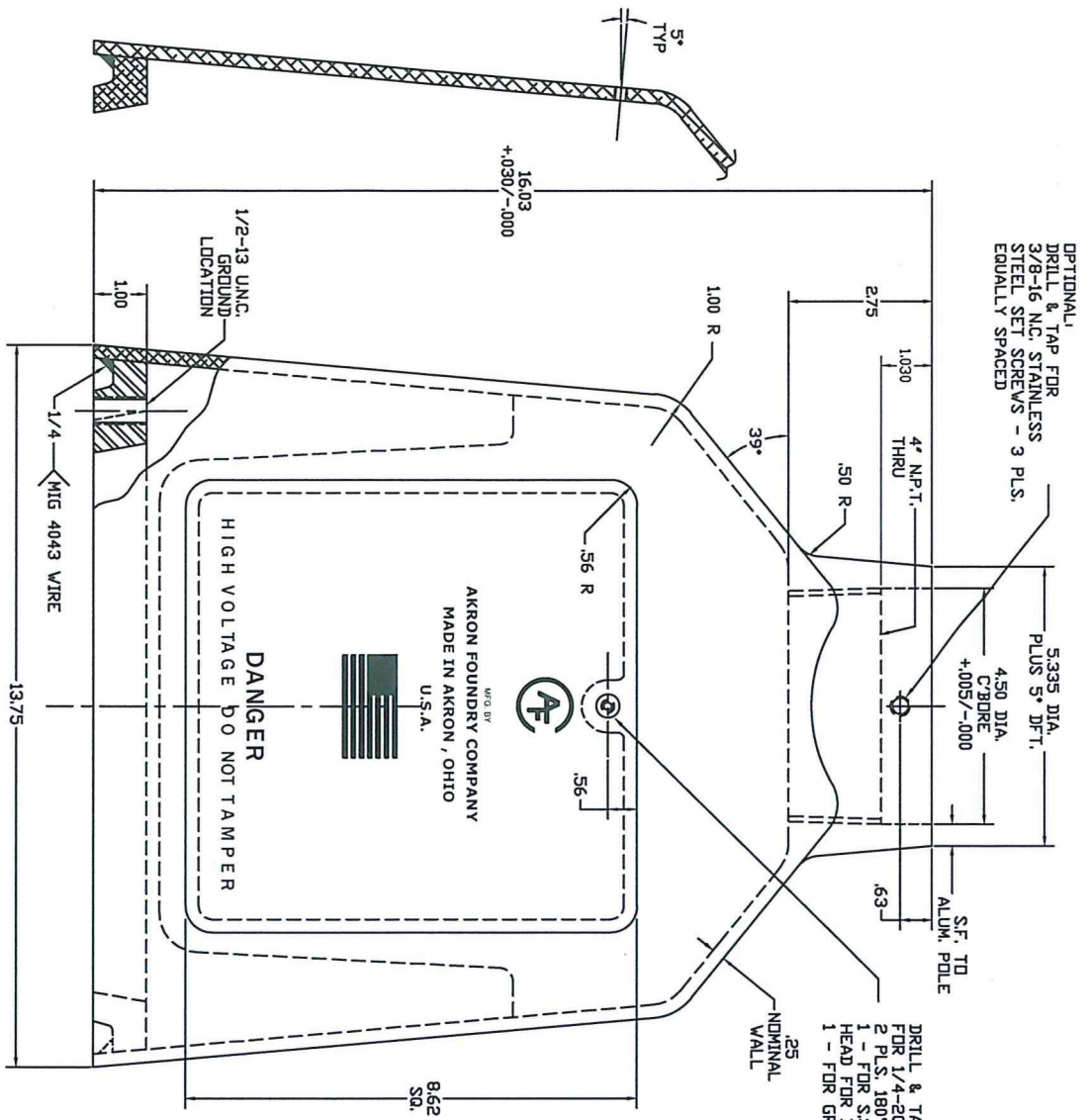
NOTE: UNLESS OTHERWISE SPECIFIED

1. MATERIAL 356 T6 ALUMINUM ALLOY
2. CAST TOL. ± .03
3. NATURAL HEAT-TREAT FINISH
4. 3° MINIMUM DRAFT UNLESS OTHERWISE SPECIFIED

TS-1000 TOP & DOOR
 JOB# 2327 JOB# 2328-D

AKRON FOUNDRY COMPANY

TS-1000 ASS'Y		JOB# 2328	
TS-1000 MODIFIED ASS'Y - JOB# 2328-MODIFIED			
4-16-12	REDRAWN	TRAFFIC SIGNAL PEDESTAL BASE	
FULL	YERGIN		

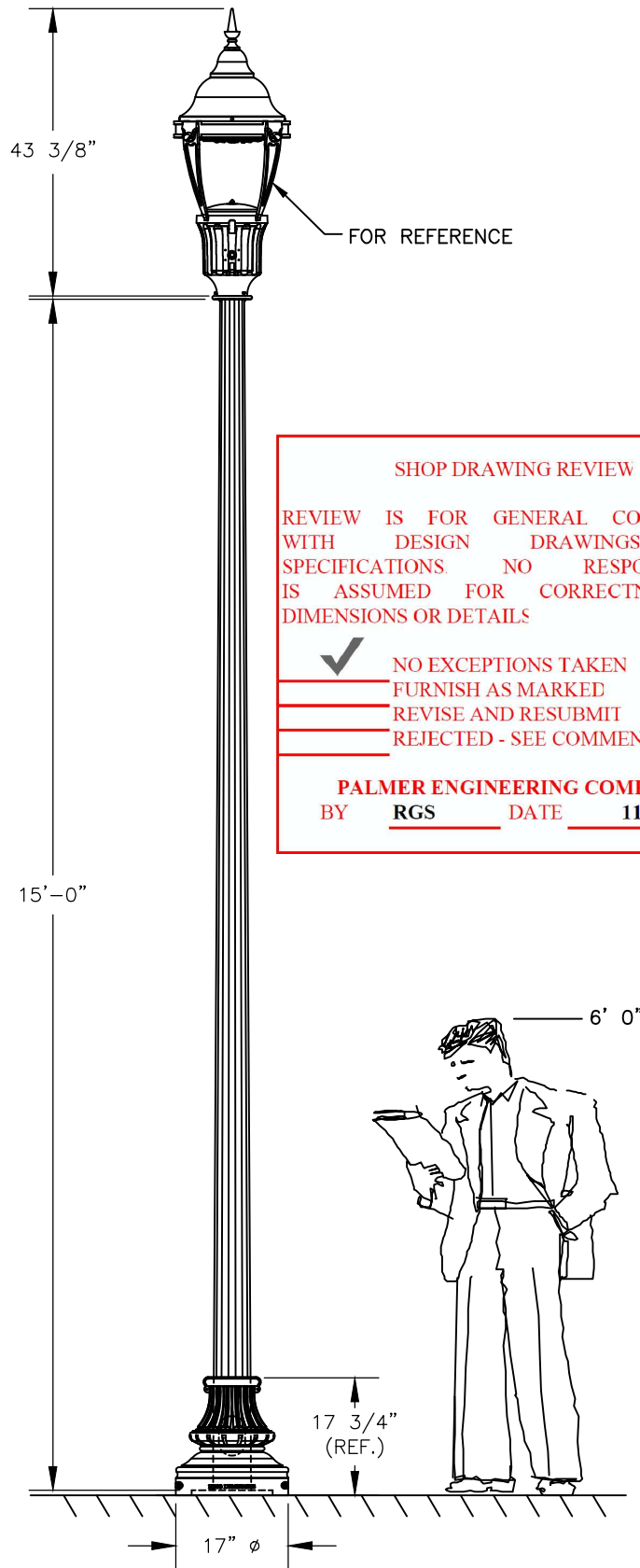


- NOTE: UNLESS OTHERWISE SPECIFIED**
1. MATERIAL 356 T6 ALUMINUM ALLOY
 2. CAST TOL. $\pm .03$
 3. NATURAL HEAT-TREAT FINISH
 4. 3° MINIMUM DRAFT UNLESS OTHERWISE SPECIFIED

CAUTION: THIS BASE DESIGN REQUIRES CONCENTRICITY OF POLE O.D. & THREAD WITHIN .010 T.I.R. AS SUPPLIED BY AKRON FOUNDRY

AKRON FOUNDRY COMPANY	
TS-1000-L ASS'Y	JOB# 2328-L
TS-1000-L MODIFIED ASS'Y	JOB# 2328-L-MODIFIED
4-16-12 REDRAVN FULL YERGIN	TRAFFIC SIGNAL PEDESTAL BASE

REV.	ALTERATION	DATE	BY
A	SPLIT BASE WAS KSB16	08/26/24	JH
B	UPDATED PER CUSTOMER COMMENTS	11/08/24	JH



SHOP DRAWING REVIEW

REVIEW IS FOR GENERAL COMPLIANCE WITH DESIGN DRAWINGS AND SPECIFICATIONS. NO RESPONSIBILITY IS ASSUMED FOR CORRECTNESS OF DIMENSIONS OR DETAILS.

NO EXCEPTIONS TAKEN
 FURNISH AS MARKED
 REVISE AND RESUBMIT
 REJECTED - SEE COMMENTS

PALMER ENGINEERING COMPANY

BY RGS DATE 11/13/24

SPLIT BASE SPECIFICATIONS

CATALOGUE NO.: KSB10
 QUANTITY:
 MATERIAL: ALUMINUM
 PAINT: SMOOTH FEDERAL STANDARD #17038 (STOCK CODE #PWDC11014-1)

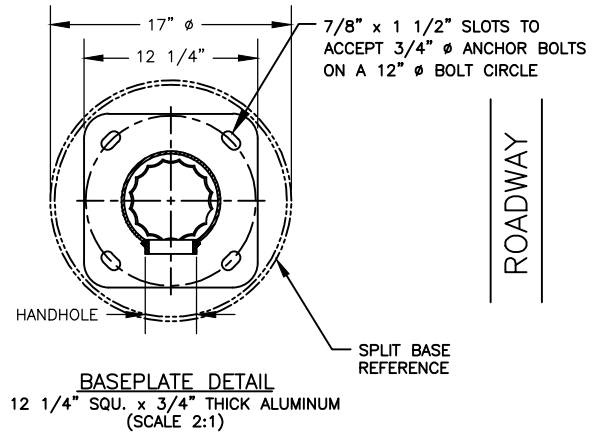
POLE SPECIFICATIONS

CATALOGUE NO.: FF-A-15'-5.75-0.144
 C/W 140-30/30

QUANTITY:
 MATERIAL: 16 FLUTED FORMED ALUM. 7 GAUGE SHAFT

TENON SIZE: 3" O.D. x 3" LONG
 SHAFT TAPER: 0.14"/FT.
 TOP SIZE: 3.7" ϕ
 BUTT SIZE: 5.75" ϕ
 OVERALL LENGTH: 15' 0"
 BOLT CIRCLE: 12" ϕ
 ANCHOR BOLTS: 3/4" ϕ x 27"L
 PAINT: SMOOTH FEDERAL STANDARD #17038 (STOCK CODE #PWDC11014-1)

OPTIONS: -



Notes:
 Although rare, oscillating loads severe enough to cause damage can occasionally occur in structures of all types. Because they are influenced by many factors not provided to StressCrete, these loads are unpredictable. The users maintenance program should include observation for excessive vibration & examination for any structural damage. The StressCrete warranty specifically excludes fatigue failure or similar phenomena resulting from induced vibration, oscillation or resonance associated with the eccentric rotation of attached equipment.

CUSTOMER APPROVAL & DATE: _____

 King Luminaire • StressCrete • Est. 1953 STRESSCRETE GROUP	Manufacturing Locations:	
	Burlington, Ontario 1-800-268-7809 Northport, Alabama 1-800-435-6563 Atchison, Kansas 1-800-837-1024 Jefferson, Ohio 1-800-268-7809	
CUSTOMER ORDER No:	PROJECT/CUSTOMER: ODOT 426-25/CHILLICOTHE, OH	
STRESSCRETE ORDER No:	DRAWN BY: J.H.	AT: SC1
KING U.S. ORDER No:	CHECKED BY:	DATE: 08/08/24
	DRAWING TYPE: CONCEPT. DWG.	REVISION: B
		DRAWING NUMBER: Q-2408003-1

REV.	ALTERATION	DATE	BY

POLE SPECIFICATIONS

CATALOGUE NO.: FF-A-15'-5.75-0.144
C/W 140-30/30

QUANTITY: 16 FLUTED FORMED ALUM.
7 GAUGE SHAFT

TENON SIZE: 3" O.D. x 3" LONG

SHAFT TAPER: 0.14"/FT.

TOP SIZE: 3.7" ϕ

BUTT SIZE: 5.75" ϕ

OVERALL LENGTH: 15' 0"

BOLT CIRCLE: 12" ϕ

ANCHOR BOLTS: 3/4" ϕ x 27"L

PAINT: SMOOTH FED STD #17038
(STOCK CODE #PWDC11014-1)

OPTIONS: -

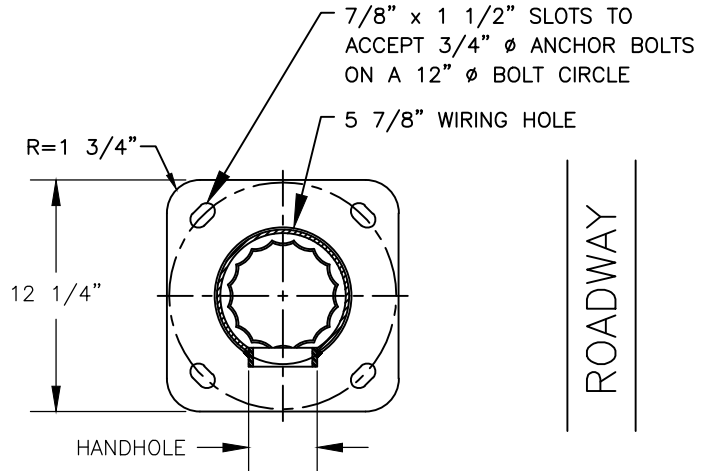
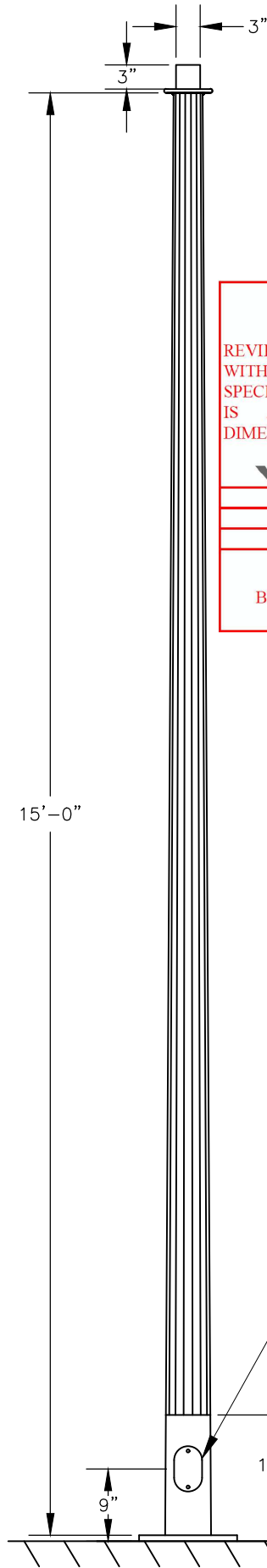
SHOP DRAWING REVIEW

REVIEW IS FOR GENERAL COMPLIANCE WITH DESIGN DRAWINGS AND SPECIFICATIONS. NO RESPONSIBILITY IS ASSUMED FOR CORRECTNESS OF DIMENSIONS OR DETAILS.



NO EXCEPTIONS TAKEN
FURNISH AS MARKED
REVISE AND RESUBMIT
REJECTED - SEE COMMENTS

PALMER ENGINEERING COMPANY
BY RGS DATE 11/13/24



ROADWAY

BASEPLATE DETAIL
12 1/4" SQU. x 3/4" THICK ALUMINUM
(SCALE 2:1)

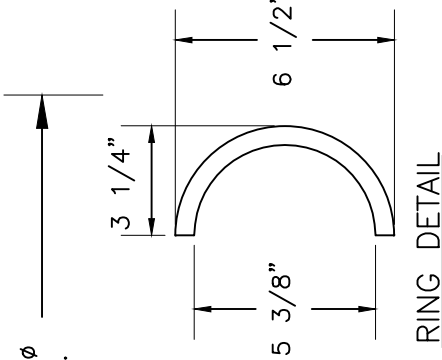
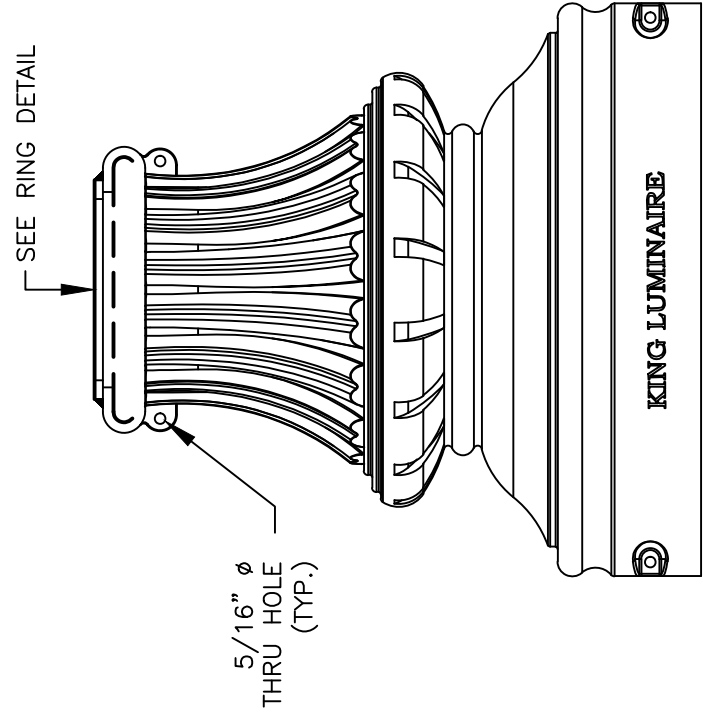
Notes:
Although rare, oscillating loads severe enough to cause damage can occasionally occur in structures of all types. Because they are influenced by many factors not provided to StressCrete, these loads are unpredictable. The users maintenance program should include observation for excessive vibration & examination for any structural damage. The StressCrete warranty specifically excludes fatigue failure or similar phenomena resulting from induced vibration, oscillation or resonance associated with the eccentric rotation of attached equipment.

CUSTOMER APPROVAL & DATE: _____

<p>King Luminaire • StressCrete • Est. 1953</p> <p>STRESSCRETE GROUP</p>	<p>Manufacturing Locations: Burlington, Ontario 1-800-268-7809 Northport, Alabama 1-800-435-6563 Atchison, Kansas 1-800-837-1024 Jefferson, Ohio 1-800-268-7809</p>	
	<p>PROJECT/CUSTOMER: ODOT 426-25/CHILLICOTHE, OH</p>	

CUSTOMER ORDER No:	PROJECT/CUSTOMER: ODOT 426-25/CHILLICOTHE, OH			
STRESSCRETE ORDER No:	DRAWN BY: J.H.	AT: SC1	CHECKED BY:	DATE: 08/26/24
KING U.S. ORDER No:	DRAWING TYPE: CONCEPT. DWG.		DRAWING NUMBER: Q-2408003-2	
			REVISION: B	

REV.	ALTERATION	DATE	BY



SHOP DRAWING REVIEW

REVIEW IS FOR GENERAL COMPLIANCE WITH DESIGN DRAWINGS AND SPECIFICATIONS. NO RESPONSIBILITY IS ASSUMED FOR CORRECTNESS OF DIMENSIONS OR DETAILS

NO EXCEPTIONS TAKEN FURNISH AS MARKED REVISE AND RESUBMIT REJECTED - SEE COMMENTS

PALMER ENGINEERING COMPANY
 BY RGS DATE 11/13/24

SPLIT BASE SPECIFICATIONS
 CATALOGUE NO.: KSB10
 QUANTITY:
 MATERIAL: ALUMINUM
 WEIGHT: 32 lbs.
 BASE HEIGHT: 17 3/4"
 BASE WIDTH: 17"
 PAINT COLOR: SMOOTH FED STD #117038
 (STOCK CODE #PWDC11014-1)

CUSTOMER APPROVAL & DATE:



King Luminaire • StressCrete • Est. 1953
S T R E S S C R E T E
G R O U P

Manufacturing Locations:
 Burlington, Ontario 1-800-268-7809
 Northport, Alabama 1-800-435-6563
 Atchison, Kansas 1-800-837-1024
 Jefferson, Ohio 1-800-268-7809

PROJECT/CUSTOMER: ODOT 426-25/CHILLICOTHE, OH	
DRAWN BY: J.H.	CHECKED BY DATE: 08/26/24
AT: SC1	REVISION: A
DRAWING TYPE: APPROVAL DWG.	
DRAWING NUMBER: Q-2408003-4	

CUSTOMER ORDER No:
STRESSCRETE ORDER No:
KING CANADA ORDER No:



Catalog Number	WFCL3 P70 30K FC3 CLGL	
Notes		Type

WFCL3

Utility Washington Series Luminaire
Full Cutoff LED3



Mechanical

- Heavy grade A360 cast aluminum (<1% copper)
- Tool-less access with a spring-loaded latch
- Hidden hinge door allowing the door to swing open and remain open
- Optional internal or external NEMA twist lock photocontrol receptacle. Housing contains a tempered glass window to allow light to reach the cell for internal versions.
- Mount to slip-fitter that will accept 3" high by 2-7/8" to 3-1/8" O.D. pole tenon
- Decorative top cover contains stainless steel hinge which secures entry the LED optical chamber
- Polyester power coat paint to ensure maximum durability
- Rigorous multi-stage pre-treating and painting process yields a finish that achieves a scribe creepage rating of 8 (per ASTM D1654) after over 5,000 hours exposure to salt fog chamber (operated per ASTM B117) on standard and RAL finish options.
- RAL (RALxxxxSDCR) paint colors are Super Durable Corrosion Resistant, 80% gloss.

Electrical

- Surge protection meets ANSI/IEEE C62.41.2 10kV/10kA.
- Standard SPD meets 20kV/10kA per ANSI C136.2-2015
- Quick disconnect connectors for ease of installation and maintenance.
- Three pole terminal block is standard, with optional prewired leads for ease of installation
- LED electronic 0-10v dimmable driver meets maximum total harmonic distortion (THD) of 20%, >0.90 Power Factor and is ROHS compliant.
- Minimum operating temperature is -40°C.
- Electronic driver has an estimated minimum life of 100,000 hours at 25°C.

Optical

- IP65 rated optical compartment
- LED circuit board located in the top cover
- Asymmetric or Symmetric zero uplight distributions
- 2700K, 3000K and 4000K CCT
- 70CRI Standard

Control Options

- Field Adjustable Output (AO) module - Onboard device that adjusts the light output and input wattage to meet site specific requirements. The AO module is preset at the factory to position number 8
- nLight Air rSBOR6 outdoor fixture-mounted motion and photo-sensor, features a dual radio to communicate wirelessly to other nLight Air devices for group response to motion, on/off control in response to daylight and by switch - rSBOR6
- Long life photocontrol, 20 years - PCLL, P34 and P48 with DTL

- 7 pin photocontrol receptacles internally (PR7) or externally (PR7E) mounted in place of the finial
- DTL DIN dedicated bracket with external mounted antenna -DINBRA

Manufacturing

- Manufactured in Crawfordsville, Indiana, ARRA compliant
- 100% electrical testing on all luminaires before shipment
- Ten (10) years minimum experience in manufacturing LED based products

Certification and Standards

- Luminaire shall be UL 1598 - Wet Location Safety Listing
- Suitable for operation in an ambient temperature -40°C (40°F) to 40°C (104°F) per UL certification for performance packages P05 thru P100 Type 2, 3 & 5 no glass, P05 thru P90 Type 2, 3, 4 & 5 clear glass and P05 thru P90 Type 3 & 5 frosted glass
- Suitable for operation in an ambient temperature -40°C (40°F) to 35°C (95°F) per UL certification for performance packages P100 Type 45 no glass, P100 Type 2, 3, 4 & 5 clear glass and P100 Type 3 & 5 frosted glass
- LM79 compliant
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

Government Procurement

BAA – Buy America(n) Act: Product qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product also qualifies as manufactured in the United States under DOT Buy America regulations.

BABA – Build America Buy America: Product qualifies as produced in the United States under the definitions of the Build America, Buy America Act.

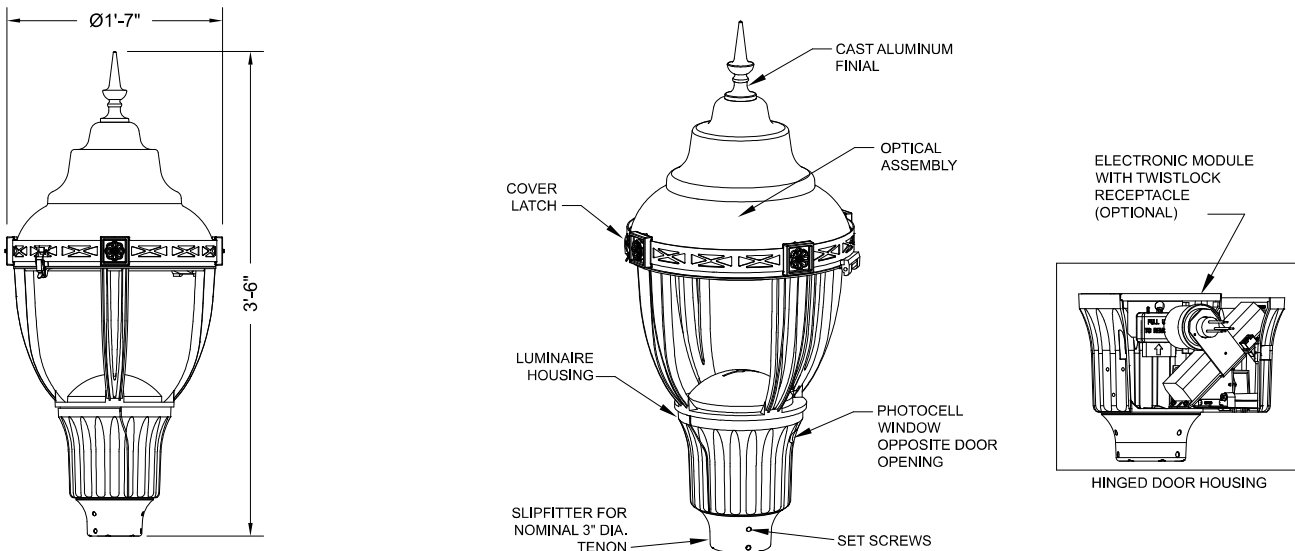
Please refer to www.acuitybrands.com/resources/buy-american for additional information.

Warranty

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

DIMENSIONAL DATA



Maximum Weight - 53 lbs
Maximum Effective Projected Area - 1.72 sq. ft.

ORDERING INFORMATION (refer to page 3 for configurable options)

Example: WFCL3 P20 30K MVOLT FC3 BK NF PR7E

Series	LED performance package	LED Color temperature	Voltage	Optics	Housing Color	Finial
WFCL3 Utility Washington LED FCO	P05 3,200 nominal lumens P10 4,500 nominal lumens P20 5,600 nominal lumens P30 7,000 nominal lumens P40 8,100 nominal lumens P50 9,200 nominal lumens P60 10,200 nominal lumens P70 10,800 nominal lumens P80 11,700 nominal lumens P90 12,700 nominal lumens P100 13,600 nominal lumens	27K 2700K CCT 30K 3000K CCT 40K 4000K CCT	MVOLT Auto-sensing voltage (120 thru 277) 50/60 HZ HVOLT Auto-sensing voltage (347 thru 480) 50/60 HZ XVOLT Auto-sensing voltage (277 thru 480V) with enhanced power quality protection	FC2 Type 2 distribution full cutoff FC3 Type 3 distribution full cutoff FC4 Type 4 distribution full cutoff FC5 Type 5 distribution full cutoff	BK Black GR Gray GH Graphite GN Green PP Prime paint WH White BZ Bronze RALxxxxSDCR RAL Super Durable Corrosion Resistant, 80% Gloss Paint, replace xxxx with RAL number. CMC Custom color match	NF None BL Ball SK Spike

Options: Option Compatibility Matrix on page 3 of 4

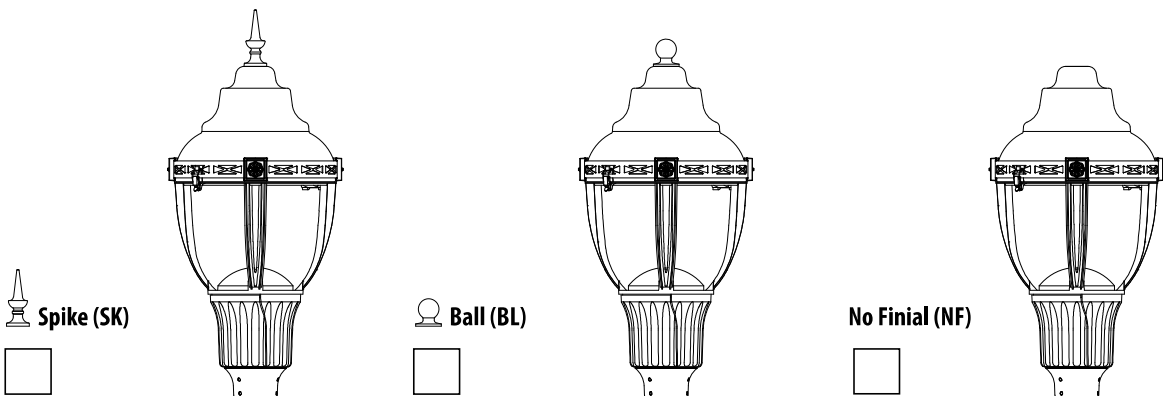
CONTROLS OPTIONS	PREWIRED LEAD OPTIONS	OPTIC OPTIONS
A0 Field Adjustable Output DINBRA DTL DIN node bracket with external mounted antenna, DTL DIN node ordered and shipped separately PR7 NEMA twistlock dimming photocontrol receptacle - 7 pin PR7E NEMA twistlock dimming photocontrol receptacle - 7 Pin (Must use NF Finial Option) PCLL Long Life DTL Twistlock Photocontrol for Solid State, MVOLT P34 Long Life DTL Twistlock Photocontrol for Solid State, 347V P48 Long Life DTL Twistlock Photocontrol for Solid State, 480V SH Shorting Cap RSBOR6 nLight Motion Sensing Photocontrols	L1H 1.5 ft prewired leads L03 3 ft prewired leads L10 10 ft prewired leads L20 20 ft prewired leads L25 25 ft prewired leads L30 30 ft prewired leads	CLGL Clear tempered glass lens FRGL 10% Frosted tempered glass lens HSS Louvered house side shield LEM REVEAL COLOR OPTIONS MHC LEM Reveal Plate Painted to match Housing Color NEMA LABEL OPTIONS NL1X1 1" X 1" ANSI Wattage Label NL2X2 2" X 2" ANSI Wattage Label

Accessories: Order as separate catalog number.

HOUSE SIDE SHIELD	SURGE PROTECTION KITS
CLHSSNG25 No glass, Type 2 & Type 5 - Louvered house side shield CLHSSNG34 No glass, Type 3 & Type 4 - Louvered house side shield CLHSSGL25 Glass, Type 2 & Type 5 - Louvered house side shield CLHSSGL34 Glass, Type 3 & Type 4 - Louvered house side shield	SPDPLUGIN MVOLT-20KV Replacement for 120-277V 20KV/ 10KA SPDPLUGIN HVOLT-20KV Replacement for 347-480V 20KV/ 10KA

FINIAL INFORMATION

Mark Appropriate Box for Finial Options



OPTIONS MATRIX

Option Matrix table with columns: LED Package (P05-P100), Voltage (MVOLT, HVOLT, XVOLT), Distributions (FC2-FC5), Finials (BL, NF, SK), Options (A0-FRGL). Rows include LED Package, Voltage, Distributions, Finials, and Options categories.

Y = Combination available / N = Combination not available / RFD = Additional information required, consult factory

LUMEN AMBIENT TEMPERATURE (LAT) MULTIPLIERS

Use the factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F)

Lumen Maintenance - LLD (by Performance Package) table with columns: Ambient Temp (°C, °F) and Lumen Maintenance factors (P05-P100).

PROJECTED LED LUMEN MAINTENANCE

Data references the extrapolated performance projections for the platforms noted in 25°C ambient, based on 6,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11). To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Lumen Maintenance - LLD (by Performance Package) table with columns: Hours (0, 25,000, 36,000, 50,000, 60,000, 67,500, 75,000, 100,000) and Lumen Maintenance factors (P05-P100).

PERFORMANCE DATA

STANDARD OPTIONS: NO GLASS

LED Package	Glass/Optic	System Watts	27K (27000K, 70CRI)					30K (3000K, 70CRI)					40K (4000K, 70CRI)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
P05	FC2	30	3,054	102	1	0	1	3,105	104	1	0	1	3,317	111	1	0	1
	FC3		3,111	104	1	0	1	3,163	105	1	0	1	3,379	113	1	0	1
	FC4		3,068	102	1	0	1	3,119	104	1	0	1	3,332	111	1	0	1
	FC5		3,334	111	2	0	1	3,389	113	2	0	1	3,621	121	3	0	1
P10	FC2	39	4,294	110	1	0	2	4,365	112	1	0	2	4,663	120	1	0	2
	FC3		4,374	112	1	0	1	4,447	114	1	0	1	4,750	122	1	0	1
	FC4		4,314	111	1	0	2	4,385	112	1	0	2	4,685	120	1	0	2
	FC5		4,687	120	3	0	1	4,765	122	3	0	1	5,090	131	3	0	1
P20	FC2	48	5,284	110	1	0	2	5,372	112	1	0	2	5,738	120	2	0	2
	FC3		5,383	112	1	0	2	5,472	114	1	0	2	5,845	122	1	0	2
	FC4		5,309	111	1	0	2	5,397	112	1	0	2	5,765	120	1	0	2
	FC5		5,768	120	3	0	1	5,864	122	3	0	1	6,264	131	3	0	2
P30	FC2	59	6,750	114	2	0	2	6,862	116	2	0	2	7,330	124	2	0	2
	FC3		6,649	113	1	0	2	6,759	115	1	0	2	7,221	122	2	0	2
	FC4		6,413	109	2	0	2	6,520	111	2	0	2	6,965	118	2	0	2
	FC5		7,386	125	3	0	2	7,509	127	3	0	2	8,021	136	3	0	2
P40	FC2	69	7,911	115	2	0	2	8,042	117	2	0	2	8,591	125	2	0	3
	FC3		7,792	113	2	0	2	7,921	115	2	0	2	8,462	123	2	0	2
	FC4		7,319	106	2	0	2	7,440	108	2	0	2	7,948	115	2	0	2
	FC5		8,656	125	4	0	2	8,800	128	4	0	2	9,400	136	4	0	2
P50	FC2	81	8,924	110	2	0	3	9,072	112	2	0	3	9,692	120	2	0	3
	FC3		8,791	109	2	0	2	8,937	110	2	0	2	9,546	118	2	0	2
	FC4		8,378	103	2	0	2	8,517	105	2	0	2	9,098	112	2	0	2
	FC5		9,766	121	4	0	2	9,928	123	4	0	2	10,605	131	4	0	2
P60	FC2	91	9,944	109	2	0	3	10,109	111	2	0	3	10,799	119	3	0	3
	FC3		9,795	108	2	0	2	9,957	109	2	0	2	10,637	117	2	0	2
	FC4		9,125	100	2	0	2	9,276	102	2	0	2	9,909	109	2	0	3
	FC5		10,881	120	4	0	2	11,062	122	4	0	2	11,816	130	4	0	2
P70	FC2	98	10,475	107	2	0	3	10,649	109	3	0	3	11,375	116	3	0	3
	FC3		10,318	105	2	0	2	10,489	107	2	0	2	11,205	114	2	0	2
	FC4		9,667	99	2	0	3	9,827	100	2	0	3	10,498	107	2	0	3
	FC5		11,462	117	4	0	2	11,652	119	4	0	2	12,447	127	4	0	2
P80	FC2	107	11,437	107	3	0	3	11,627	109	3	0	3	12,421	116	3	0	3
	FC3		11,266	105	2	0	2	11,453	107	2	0	2	12,235	114	2	0	2
	FC4		10,408	97	2	0	3	10,580	99	2	0	3	11,302	106	2	0	3
	FC5		12,516	117	4	0	2	12,723	119	4	0	2	13,592	127	4	0	3
P90	FC2	117	12,338	105	3	0	3	12,543	107	3	0	3	13,399	115	3	0	3
	FC3		12,153	104	2	0	2	12,355	106	2	0	2	13,198	113	2	0	2
	FC4		11,319	97	2	0	3	11,507	98	2	0	3	12,293	105	2	0	3
	FC5		13,501	115	4	0	2	13,725	117	4	0	3	14,662	125	4	0	3
P100	FC2	130	13,177	101	3	0	3	13,396	103	3	0	3	14,310	110	3	0	3
	FC3		12,980	100	2	0	2	13,195	102	2	0	2	14,096	108	3	0	3
	FC4		12,110	93	2	0	3	12,311	95	2	0	3	13,152	101	3	0	3
	FC5		14,419	111	4	0	3	14,658	113	4	0	3	15,659	120	4	0	3

PERFORMANCE DATA

OPTIONAL: CLEAR GLASS

LED Package	Glass/Optic	System Watts	27K (27000K, 70CRI)					30K (3000K, 70CRI)					40K (4000K, 70CRI)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
P05	FC2	30	2,759	92	1	0	1	2,804	93	1	0	1	2,996	100	1	0	1
	FC3		2,803	93	1	0	1	2,850	95	1	0	1	3,044	101	1	0	1
	FC4		2,681	89	1	0	1	2,726	91	1	0	1	2,912	97	1	0	1
	FC5		2,975	99	2	0	1	3,025	101	2	0	1	3,231	108	2	0	1
P10	FC2	39	3,878	99	1	0	1	3,943	101	1	0	1	4,212	108	1	0	1
	FC3		3,941	101	1	0	1	4,006	103	1	0	1	4,280	110	1	0	1
	FC4		3,770	97	1	0	1	3,832	98	1	0	1	4,094	105	1	0	1
	FC5		4,183	107	3	0	1	4,252	109	3	0	1	4,543	116	3	0	1
P20	FC2	48	4,773	99	1	0	1	4,852	101	1	0	1	5,183	108	1	0	1
	FC3		4,850	101	1	0	1	4,930	103	1	0	1	5,267	110	1	0	1
	FC4		4,639	97	1	0	1	4,716	98	1	0	1	5,038	105	1	0	1
	FC5		5,148	107	3	0	1	5,233	109	3	0	1	5,590	116	3	0	1
P30	FC2	59	6,050	103	2	0	2	6,150	104	2	0	2	6,570	111	2	0	2
	FC3		6,052	103	1	0	1	6,152	104	1	0	1	6,572	111	1	0	2
	FC4		5,604	95	1	0	2	5,697	97	1	0	2	6,086	103	1	0	2
	FC5		6,444	109	3	0	1	6,551	111	3	0	1	6,998	119	3	0	1
P40	FC2	69	7,090	103	2	0	2	7,208	104	2	0	2	7,699	112	2	0	2
	FC3		7,092	103	2	0	2	7,210	104	2	0	2	7,702	112	2	0	2
	FC4		6,396	93	2	0	2	6,502	94	2	0	2	6,945	101	2	0	2
	FC5		7,551	109	3	0	2	7,677	111	3	0	2	8,201	119	3	0	2
P50	FC2	81	7,999	99	2	0	2	8,131	100	2	0	2	8,686	107	2	0	2
	FC3		8,001	99	2	0	2	8,134	100	2	0	2	8,689	107	2	0	2
	FC4		7,321	90	2	0	2	7,442	92	2	0	2	7,950	98	2	0	2
	FC5		8,519	105	3	0	2	8,660	107	3	0	2	9,251	114	3	0	2
P60	FC2	91	8,912	98	2	0	2	9,060	100	2	0	2	9,678	106	2	0	2
	FC3		8,915	98	2	0	2	9,063	100	2	0	2	9,682	106	2	0	2
	FC4		7,974	88	2	0	2	8,106	89	2	0	2	8,659	95	2	0	2
	FC5		9,492	104	3	0	2	9,650	106	3	0	2	10,308	113	4	0	2
P70	FC2	98	9,388	96	2	0	2	9,544	97	2	0	2	10,195	104	2	0	2
	FC3		9,391	96	2	0	2	9,547	97	2	0	2	10,199	104	2	0	2
	FC4		8,448	86	2	0	2	8,588	88	2	0	2	9,174	94	2	0	2
	FC5		9,999	102	3	0	2	10,165	104	3	0	2	10,859	111	4	0	2
P80	FC2	107	10,251	96	2	0	2	10,421	97	2	0	2	11,132	104	3	0	3
	FC3		10,254	96	2	0	2	10,425	97	2	0	2	11,136	104	2	0	2
	FC4		9,095	85	2	0	2	9,246	86	2	0	2	9,877	92	2	0	2
	FC5		10,918	102	4	0	2	11,099	104	4	0	2	11,857	111	4	0	2
P90	FC2	117	11,058	95	3	0	3	11,241	96	3	0	3	12,009	103	3	0	3
	FC3		11,062	95	2	0	2	11,245	96	2	0	2	12,013	103	2	0	2
	FC4		9,892	85	2	0	2	10,056	86	2	0	2	10,742	92	2	0	2
	FC5		11,778	101	4	0	2	11,973	102	4	0	2	12,790	109	4	0	2
P100	FC2	130	11,810	91	3	0	3	12,006	92	3	0	3	12,826	99	3	0	3
	FC3		11,814	91	2	0	2	12,010	92	2	0	2	12,830	99	2	0	2
	FC4		10,583	81	2	0	2	10,759	83	2	0	2	11,493	88	2	0	2
	FC5		12,579	97	4	0	2	12,787	98	4	0	2	13,660	105	4	0	2

PERFORMANCE DATA

OPTIONAL: FROSTED GLASS

LED Package	Glass/Optic	System Watts	27K (27000K, 70CRI)					30K (3000K, 70CRI)					40K (4000K, 70CRI)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
P05	FC3	30	1,962	65	1	0	1	1,994	66	1	0	1	2,130	71	1	0	1
	FCS		2,070	69	1	0	1	2,105	70	1	0	1	2,248	75	1	0	1
P10	FC3	39	2,758	71	1	0	1	2,804	72	1	0	1	2,995	77	1	0	1
	FCS		2,911	75	1	0	1	2,959	76	1	0	1	3,161	81	1	0	1
P20	FC3	48	3,394	71	2	0	1	3,450	72	2	0	1	3,686	77	2	0	1
	FCS		3,582	75	2	0	1	3,641	76	2	0	1	3,890	81	2	0	1
P30	FC3	59	4,162	71	2	0	1	4,231	72	2	0	1	4,520	77	2	0	1
	FCS		4,425	75	2	0	1	4,498	76	2	0	1	4,805	81	2	0	1
P40	FC3	69	4,878	71	2	0	2	4,959	72	2	0	2	5,297	77	2	0	2
	FCS		5,185	75	2	0	1	5,271	76	2	0	1	5,631	82	2	0	1
P50	FC3	81	5,503	68	2	0	2	5,594	69	2	0	2	5,976	74	2	0	2
	FCS		5,850	72	2	0	1	5,947	73	2	0	1	6,353	78	2	0	1
P60	FC3	91	6,131	67	2	0	2	6,233	68	2	0	2	6,659	73	2	0	2
	FCS		6,518	72	2	0	1	6,626	73	2	0	1	7,078	78	2	0	1
P70	FC3	98	6,459	66	2	0	2	6,566	67	2	0	2	7,014	72	2	0	2
	FCS		6,866	70	2	0	1	6,980	71	2	0	1	7,456	76	2	0	1
P80	FC3	107	7,052	66	2	0	2	7,169	67	2	0	2	7,659	72	2	0	2
	FCS		7,497	70	2	0	1	7,621	71	2	0	2	8,142	76	3	0	2
P90	FC3	117	7,608	65	2	0	2	7,734	66	2	0	2	8,262	71	2	0	2
	FCS		8,087	69	3	0	2	8,221	70	3	0	2	8,783	75	3	0	2
P100	FC3	130	8,125	63	2	0	2	8,260	64	2	0	2	8,824	68	2	0	2
	FCS		8,637	66	3	0	2	8,781	68	3	0	2	9,380	72	3	0	2

COMPONENTS & OPTIONS DATA



AO
Manual field adjustable output dimming device



HSS
Minimize backlight with a louvered house-side-shield.
Available as a factory installed

Performance Package	FAO Position	% Lumen Output	% Wattage
P05-P20	8	100%	100%
	7	94%	95%
	6	82%	83%
	5	70%	72%
	4	57%	60%
	3	45%	48%
	2	32%	38%
	1	19%	25%

Performance Package	FAO Position	% Lumen Output	% Wattage
P30-P100	8	100%	100%
	7	94%	93%
	6	83%	81%
	5	71%	69%
	4	59%	56%
	3	46%	44%
	2	33%	32%
	1	19%	20%

ACCESSORIES OPTION DATA



CLHSS
Minimize backlight with a louvered house-side-shield,
field accessory



The Rapid Ship Pole and Luminaire program provides quick solutions for urgent needs.

The most popular and readily available are available for those urgent projects. Select from the following options to get up to 20 units shipped in 20 working days or less!

ORDERING INFORMATION

Example: WFCL3 P20 30K MVOLT FC3 BK NF PR7E

Series	Lumen/Wattage Package	Color Temperature	Voltage	Optics	Housing Color	Finial
WFCL3 Utility Washington LED FCO	P05 3,200 nominal lumens	27K 2700 series CCT	MVOLT Auto-sensing voltage (120 thru 277) 50/60 HZ	FC2 Type 2 distribution zero uplight	BK Black	NF None
	P10 4,500 nominal lumens	30K 3000 series CCT	HVOLT Auto-sensing voltage (347 thru 480) 50/60 HZ		GR Gray	BL Ball
	P20 5,600 nominal lumens	40K 4000 series CCT		FC3 Type 3 distribution zero uplight	GH Graphite	SK Spike
	P30 7,000 nominal lumens		FC4 Type 4 distribution zero uplight		GN Green	
	P40 8,100 nominal lumens				FC5 Type 5 distribution zero uplight	WH White
	P50 9,200 nominal lumens		BZ Bronze			
	P60 10,200 nominal lumens					
	P70 10,800 nominal lumens					
	P80 11,700 nominal lumens					
	P90 12,700 nominal lumens					
P100 13,600 nominal lumens						

Options: Option Compatibility Matrix on page 3 of 4

<p>CONTROLS OPTIONS</p> <p>A0 Field Adjustable Output</p> <p>DINBRA DTL DIN node bracket with external mounted antenna, DTL DIN node ordered and shipped separately</p> <p>PR7 NEMA Twist Lock Dimming photocontrol receptacle - 7 PIN receptacle only.</p> <p>PR7E NEMA Twist Lock Photocontrol Receptacle - 7 PIN. Externally mounted, available with NF option</p> <p>PCLL DTL long life twistlock photocontrol for solid-state MVOLT</p> <p>SH Shorting cap</p>	<p>PREWIRED LEAD OPTIONS</p> <p>L1H 1.5 ft. prewired leads</p> <p>L03 3 ft. prewired leads</p> <p>L10 10 ft. prewired leads</p> <p>L20 20 ft. prewired leads</p>	<p>OPTIC OPTIONS</p> <p>CLGL Clear tempered glass lens</p> <p>FRGL 10% Frosted tempered glass lens</p> <p>HSS House side shield</p> <p>LEM REVEAL COLOR OPTIONS</p> <p>MHC LEM Reveal Plate Painted to match Housing Color</p> <p>NEMA LABEL OPTIONS</p> <p>NL1X1 NEMA Label 1" x 1"</p> <p>NL2X2 NEMA Label 2" x 2"</p>
--	---	---

Accessories: Order as separate catalog number, ships separately & field installed.	
HOUSE SIDE SHIELD	
CLHSSNG25	No glass, Type 2 & Type 5 - Louvered house side shield
CLHSSNG34	No glass, Type 3 & Type 4 - Louvered house side shield
CLHSSGL25	Glass, Type 2 & Type 5 - Louvered house side shield
CLHSSGL34	Glass, Type 3 & Type 4 - Louvered house side shield

Contractor Added Options



Catalog Number	WFCL3 P30 30K FC2 CLGL	
Notes		Type

WFCL3

Utility Washington Series Luminaire
Full Cutoff LED3



Mechanical

- Heavy grade A360 cast aluminum (<1% copper)
- Tool-less access with a spring-loaded latch
- Hidden hinge door allowing the door to swing open and remain open
- Optional internal or external NEMA twist lock photocontrol receptacle. Housing contains a tempered glass window to allow light to reach the cell for internal versions.
- Mount to slip-fitter that will accept 3" high by 2-7/8" to 3-1/8" O.D. pole tenon
- Decorative top cover contains stainless steel hinge which secures entry the LED optical chamber
- Polyester power coat paint to ensure maximum durability
- Rigorous multi-stage pre-treating and painting process yields a finish that achieves a scribe creepage rating of 8 (per ASTM D1654) after over 5,000 hours exposure to salt fog chamber (operated per ASTM B117) on standard and RAL finish options.
- RAL (RALxxxxSDCR) paint colors are Super Durable Corrosion Resistant, 80% gloss.

Electrical

- Surge protection meets ANSI/IEEE C62.41.2 10kV/10kA.
- Standard SPD meets 20kV/10kA per ANSI C136.2-2015
- Quick disconnect connectors for ease of installation and maintenance.
- Three pole terminal block is standard, with optional prewired leads for ease of installation
- LED electronic 0-10v dimmable driver meets maximum total harmonic distortion (THD) of 20%, >0.90 Power Factor and is ROHS compliant.
- Minimum operating temperature is -40°C.
- Electronic driver has an estimated minimum life of 100,000 hours at 25°C.

Optical

- IP65 rated optical compartment
- LED circuit board located in the top cover
- Asymmetric or Symmetric zero uplight distributions
- 2700K, 3000K and 4000K CCT
- 70CRI Standard

Control Options

- Field Adjustable Output (AO) module - Onboard device that adjusts the light output and input wattage to meet site specific requirements. The AO module is preset at the factory to position number 8
- nLight Air rSBOR6 outdoor fixture-mounted motion and photo-sensor, features a dual radio to communicate wirelessly to other nLight Air devices for group response to motion, on/off control in response to daylight and by switch - rSBOR6
- Long life photocontrol, 20 years - PCLL, P34 and P48 with DTL

- 7 pin photocontrol receptacles internally (PR7) or externally (PR7E) mounted in place of the finial
- DTL DIN dedicated bracket with external mounted antenna -DINBRA

Manufacturing

- Manufactured in Crawfordsville, Indiana, ARRA compliant
- 100% electrical testing on all luminaires before shipment
- Ten (10) years minimum experience in manufacturing LED based products

Certification and Standards

- Luminaire shall be UL 1598 - Wet Location Safety Listing
- Suitable for operation in an ambient temperature -40°C (40°F) to 40°C (104°F) per UL certification for performance packages P05 thru P100 Type 2, 3 & 5 no glass, P05 thru P90 Type 2, 3, 4 & 5 clear glass and P05 thru P90 Type 3 & 5 frosted glass
- Suitable for operation in an ambient temperature -40°C (40°F) to 35°C (95°F) per UL certification for performance packages P100 Type 45 no glass, P100 Type 2, 3, 4 & 5 clear glass and P100 Type 3 & 5 frosted glass
- LM79 compliant
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

Government Procurement

BAA – Buy America(n) Act: Product qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product also qualifies as manufactured in the United States under DOT Buy America regulations.

BABA – Build America Buy America: Product qualifies as produced in the United States under the definitions of the Build America, Buy America Act.

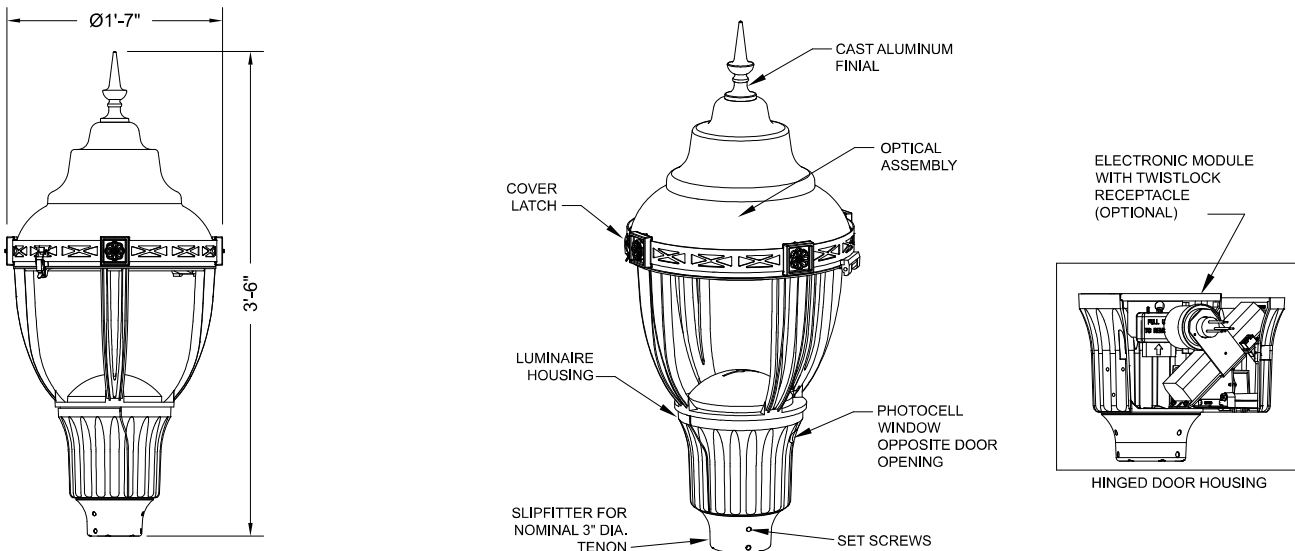
Please refer to www.acuitybrands.com/resources/buy-american for additional information.

Warranty

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

DIMENSIONAL DATA



Maximum Weight - 53 lbs
Maximum Effective Projected Area - 1.72 sq. ft.

ORDERING INFORMATION (refer to page 3 for configurable options)

Example: WFCL3 P20 30K MVOLT FC3 BK NF PR7E

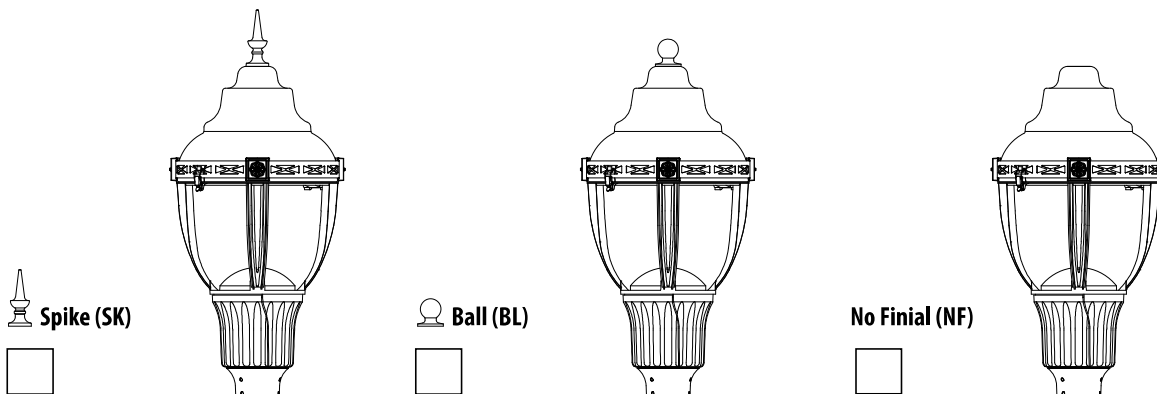
Series	LED performance package	LED Color temperature	Voltage	Optics	Housing Color	Finial
WFCL3 Utility Washington LED FCO	P05 3,200 nominal lumens P10 4,500 nominal lumens P20 5,600 nominal lumens P30 7,000 nominal lumens P40 8,100 nominal lumens P50 9,200 nominal lumens P60 10,200 nominal lumens P70 10,800 nominal lumens P80 11,700 nominal lumens P90 12,700 nominal lumens P100 13,600 nominal lumens	27K 2700K CCT 30K 3000K CCT 40K 4000K CCT	MVOLT Auto-sensing voltage (120 thru 277) 50/60 HZ HVOLT Auto-sensing voltage (347 thru 480) 50/60 HZ XVOLT Auto-sensing voltage (277 thru 480V) with enhanced power quality protection	FC2 Type 2 distribution full cutoff FC3 Type 3 distribution full cutoff FC4 Type 4 distribution full cutoff FC5 Type 5 distribution full cutoff	BK Black GR Gray GH Graphite GN Green PP Prime paint WH White BZ Bronze RALxxxxSDCR RAL Super Durable Corrosion Resistant, 80% Gloss Paint, replace xxxx with RAL number. CMC Custom color match	NF None BL Ball SK Spike

Options: Option Compatibility Matrix on page 3 of 4		
CONTROLS OPTIONS A0 Field Adjustable Output DINBRA DTL DIN node bracket with external mounted antenna, DTL DIN node ordered and shipped separately PR7 NEMA twistlock dimming photocontrol receptacle - 7 pin PR7E NEMA twistlock dimming photocontrol receptacle - 7 Pin (Must use NF Finial Option) PCLL Long Life DTL Twistlock Photocontrol for Solid State, MVOLT P34 Long Life DTL Twistlock Photocontrol for Solid State, 347V P48 Long Life DTL Twistlock Photocontrol for Solid State, 480V SH Shorting Cap RSBOR6 nLight Motion Sensing Photocontrols	PREWIRED LEAD OPTIONS L1H 1.5 ft prewired leads L03 3 ft prewired leads L10 10 ft prewired leads L20 20 ft prewired leads L25 25 ft prewired leads L30 30 ft prewired leads	OPTIC OPTIONS CLGL Clear tempered glass lens FRGL 10% Frosted tempered glass lens HSS Louvered house side shield LEM REVEAL COLOR OPTIONS MHC LEM Reveal Plate Painted to match Housing Color NEMA LABEL OPTIONS NL1X1 1" X 1" ANSI Wattage Label NL2X2 2" X 2" ANSI Wattage Label

Accessories: Order as separate catalog number.	
HOUSE SIDE SHIELD CLHSSNG25 No glass, Type 2 & Type 5 - Louvered house side shield CLHSSNG34 No glass, Type 3 & Type 4 - Louvered house side shield CLHSSGL25 Glass, Type 2 & Type 5 - Louvered house side shield CLHSSGL34 Glass, Type 3 & Type 4 - Louvered house side shield	SURGE PROTECTION KITS SPDPLUGIN MVOLT-20KV Replacement for 120-277V 20KV/ 10KA SPDPLUGIN HVOLT-20KV Replacement for 347-480V 20KV/ 10KA

FINIAL INFORMATION

Mark Appropriate Box for Finial Options



PERFORMANCE DATA

STANDARD OPTIONS: NO GLASS

LED Package	Glass/Optic	System Watts	27K (27000K, 70CRI)					30K (3000K, 70CRI)					40K (4000K, 70CRI)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
P05	FC2	30	3,054	102	1	0	1	3,105	104	1	0	1	3,317	111	1	0	1
	FC3		3,111	104	1	0	1	3,163	105	1	0	1	3,379	113	1	0	1
	FC4		3,068	102	1	0	1	3,119	104	1	0	1	3,332	111	1	0	1
	FC5		3,334	111	2	0	1	3,389	113	2	0	1	3,621	121	3	0	1
P10	FC2	39	4,294	110	1	0	2	4,365	112	1	0	2	4,663	120	1	0	2
	FC3		4,374	112	1	0	1	4,447	114	1	0	1	4,750	122	1	0	1
	FC4		4,314	111	1	0	2	4,385	112	1	0	2	4,685	120	1	0	2
	FC5		4,687	120	3	0	1	4,765	122	3	0	1	5,090	131	3	0	1
P20	FC2	48	5,284	110	1	0	2	5,372	112	1	0	2	5,738	120	2	0	2
	FC3		5,383	112	1	0	2	5,472	114	1	0	2	5,845	122	1	0	2
	FC4		5,309	111	1	0	2	5,397	112	1	0	2	5,765	120	1	0	2
	FC5		5,768	120	3	0	1	5,864	122	3	0	1	6,264	131	3	0	2
P30	FC2	59	6,750	114	2	0	2	6,862	116	2	0	2	7,330	124	2	0	2
	FC3		6,649	113	1	0	2	6,759	115	1	0	2	7,221	122	2	0	2
	FC4		6,413	109	2	0	2	6,520	111	2	0	2	6,965	118	2	0	2
	FC5		7,386	125	3	0	2	7,509	127	3	0	2	8,021	136	3	0	2
P40	FC2	69	7,911	115	2	0	2	8,042	117	2	0	2	8,591	125	2	0	3
	FC3		7,792	113	2	0	2	7,921	115	2	0	2	8,462	123	2	0	2
	FC4		7,319	106	2	0	2	7,440	108	2	0	2	7,948	115	2	0	2
	FC5		8,656	125	4	0	2	8,800	128	4	0	2	9,400	136	4	0	2
P50	FC2	81	8,924	110	2	0	3	9,072	112	2	0	3	9,692	120	2	0	3
	FC3		8,791	109	2	0	2	8,937	110	2	0	2	9,546	118	2	0	2
	FC4		8,378	103	2	0	2	8,517	105	2	0	2	9,098	112	2	0	2
	FC5		9,766	121	4	0	2	9,928	123	4	0	2	10,605	131	4	0	2
P60	FC2	91	9,944	109	2	0	3	10,109	111	2	0	3	10,799	119	3	0	3
	FC3		9,795	108	2	0	2	9,957	109	2	0	2	10,637	117	2	0	2
	FC4		9,125	100	2	0	2	9,276	102	2	0	2	9,909	109	2	0	3
	FC5		10,881	120	4	0	2	11,062	122	4	0	2	11,816	130	4	0	2
P70	FC2	98	10,475	107	2	0	3	10,649	109	3	0	3	11,375	116	3	0	3
	FC3		10,318	105	2	0	2	10,489	107	2	0	2	11,205	114	2	0	2
	FC4		9,667	99	2	0	3	9,827	100	2	0	3	10,498	107	2	0	3
	FC5		11,462	117	4	0	2	11,652	119	4	0	2	12,447	127	4	0	2
P80	FC2	107	11,437	107	3	0	3	11,627	109	3	0	3	12,421	116	3	0	3
	FC3		11,266	105	2	0	2	11,453	107	2	0	2	12,235	114	2	0	2
	FC4		10,408	97	2	0	3	10,580	99	2	0	3	11,302	106	2	0	3
	FC5		12,516	117	4	0	2	12,723	119	4	0	2	13,592	127	4	0	3
P90	FC2	117	12,338	105	3	0	3	12,543	107	3	0	3	13,399	115	3	0	3
	FC3		12,153	104	2	0	2	12,355	106	2	0	2	13,198	113	2	0	2
	FC4		11,319	97	2	0	3	11,507	98	2	0	3	12,293	105	2	0	3
	FC5		13,501	115	4	0	2	13,725	117	4	0	3	14,662	125	4	0	3
P100	FC2	130	13,177	101	3	0	3	13,396	103	3	0	3	14,310	110	3	0	3
	FC3		12,980	100	2	0	2	13,195	102	2	0	2	14,096	108	3	0	3
	FC4		12,110	93	2	0	3	12,311	95	2	0	3	13,152	101	3	0	3
	FC5		14,419	111	4	0	3	14,658	113	4	0	3	15,659	120	4	0	3

PERFORMANCE DATA

OPTIONAL: CLEAR GLASS

LED Package	Glass/Optic	System Watts	27K (27000K, 70CRI)					30K (3000K, 70CRI)					40K (4000K, 70CRI)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
P05	FC2	30	2,759	92	1	0	1	2,804	93	1	0	1	2,996	100	1	0	1
	FC3		2,803	93	1	0	1	2,850	95	1	0	1	3,044	101	1	0	1
	FC4		2,681	89	1	0	1	2,726	91	1	0	1	2,912	97	1	0	1
	FC5		2,975	99	2	0	1	3,025	101	2	0	1	3,231	108	2	0	1
P10	FC2	39	3,878	99	1	0	1	3,943	101	1	0	1	4,212	108	1	0	1
	FC3		3,941	101	1	0	1	4,006	103	1	0	1	4,280	110	1	0	1
	FC4		3,770	97	1	0	1	3,832	98	1	0	1	4,094	105	1	0	1
	FC5		4,183	107	3	0	1	4,252	109	3	0	1	4,543	116	3	0	1
P20	FC2	48	4,773	99	1	0	1	4,852	101	1	0	1	5,183	108	1	0	1
	FC3		4,850	101	1	0	1	4,930	103	1	0	1	5,267	110	1	0	1
	FC4		4,639	97	1	0	1	4,716	98	1	0	1	5,038	105	1	0	1
	FC5		5,148	107	3	0	1	5,233	109	3	0	1	5,590	116	3	0	1
P30	FC2	59	6,050	103	2	0	2	6,150	104	2	0	2	6,570	111	2	0	2
	FC3		6,052	103	1	0	1	6,152	104	1	0	1	6,572	111	1	0	2
	FC4		5,604	95	1	0	2	5,697	97	1	0	2	6,086	103	1	0	2
	FC5		6,444	109	3	0	1	6,551	111	3	0	1	6,998	119	3	0	1
P40	FC2	69	7,090	103	2	0	2	7,208	104	2	0	2	7,699	112	2	0	2
	FC3		7,092	103	2	0	2	7,210	104	2	0	2	7,702	112	2	0	2
	FC4		6,396	93	2	0	2	6,502	94	2	0	2	6,945	101	2	0	2
	FC5		7,551	109	3	0	2	7,677	111	3	0	2	8,201	119	3	0	2
P50	FC2	81	7,999	99	2	0	2	8,131	100	2	0	2	8,686	107	2	0	2
	FC3		8,001	99	2	0	2	8,134	100	2	0	2	8,689	107	2	0	2
	FC4		7,321	90	2	0	2	7,442	92	2	0	2	7,950	98	2	0	2
	FC5		8,519	105	3	0	2	8,660	107	3	0	2	9,251	114	3	0	2
P60	FC2	91	8,912	98	2	0	2	9,060	100	2	0	2	9,678	106	2	0	2
	FC3		8,915	98	2	0	2	9,063	100	2	0	2	9,682	106	2	0	2
	FC4		7,974	88	2	0	2	8,106	89	2	0	2	8,659	95	2	0	2
	FC5		9,492	104	3	0	2	9,650	106	3	0	2	10,308	113	4	0	2
P70	FC2	98	9,388	96	2	0	2	9,544	97	2	0	2	10,195	104	2	0	2
	FC3		9,391	96	2	0	2	9,547	97	2	0	2	10,199	104	2	0	2
	FC4		8,448	86	2	0	2	8,588	88	2	0	2	9,174	94	2	0	2
	FC5		9,999	102	3	0	2	10,165	104	3	0	2	10,859	111	4	0	2
P80	FC2	107	10,251	96	2	0	2	10,421	97	2	0	2	11,132	104	3	0	3
	FC3		10,254	96	2	0	2	10,425	97	2	0	2	11,136	104	2	0	2
	FC4		9,095	85	2	0	2	9,246	86	2	0	2	9,877	92	2	0	2
	FC5		10,918	102	4	0	2	11,099	104	4	0	2	11,857	111	4	0	2
P90	FC2	117	11,058	95	3	0	3	11,241	96	3	0	3	12,009	103	3	0	3
	FC3		11,062	95	2	0	2	11,245	96	2	0	2	12,013	103	2	0	2
	FC4		9,892	85	2	0	2	10,056	86	2	0	2	10,742	92	2	0	2
	FC5		11,778	101	4	0	2	11,973	102	4	0	2	12,790	109	4	0	2
P100	FC2	130	11,810	91	3	0	3	12,006	92	3	0	3	12,826	99	3	0	3
	FC3		11,814	91	2	0	2	12,010	92	2	0	2	12,830	99	2	0	2
	FC4		10,583	81	2	0	2	10,759	83	2	0	2	11,493	88	2	0	2
	FC5		12,579	97	4	0	2	12,787	98	4	0	2	13,660	105	4	0	2

PERFORMANCE DATA

OPTIONAL: FROSTED GLASS

LED Package	Glass/Optic	System Watts	27K (27000K, 70CRI)					30K (3000K, 70CRI)					40K (4000K, 70CRI)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
P05	FC3	30	1,962	65	1	0	1	1,994	66	1	0	1	2,130	71	1	0	1
	FCS		2,070	69	1	0	1	2,105	70	1	0	1	2,248	75	1	0	1
P10	FC3	39	2,758	71	1	0	1	2,804	72	1	0	1	2,995	77	1	0	1
	FCS		2,911	75	1	0	1	2,959	76	1	0	1	3,161	81	1	0	1
P20	FC3	48	3,394	71	2	0	1	3,450	72	2	0	1	3,686	77	2	0	1
	FCS		3,582	75	2	0	1	3,641	76	2	0	1	3,890	81	2	0	1
P30	FC3	59	4,162	71	2	0	1	4,231	72	2	0	1	4,520	77	2	0	1
	FCS		4,425	75	2	0	1	4,498	76	2	0	1	4,805	81	2	0	1
P40	FC3	69	4,878	71	2	0	2	4,959	72	2	0	2	5,297	77	2	0	2
	FCS		5,185	75	2	0	1	5,271	76	2	0	1	5,631	82	2	0	1
P50	FC3	81	5,503	68	2	0	2	5,594	69	2	0	2	5,976	74	2	0	2
	FCS		5,850	72	2	0	1	5,947	73	2	0	1	6,353	78	2	0	1
P60	FC3	91	6,131	67	2	0	2	6,233	68	2	0	2	6,659	73	2	0	2
	FCS		6,518	72	2	0	1	6,626	73	2	0	1	7,078	78	2	0	1
P70	FC3	98	6,459	66	2	0	2	6,566	67	2	0	2	7,014	72	2	0	2
	FCS		6,866	70	2	0	1	6,980	71	2	0	1	7,456	76	2	0	1
P80	FC3	107	7,052	66	2	0	2	7,169	67	2	0	2	7,659	72	2	0	2
	FCS		7,497	70	2	0	1	7,621	71	2	0	2	8,142	76	3	0	2
P90	FC3	117	7,608	65	2	0	2	7,734	66	2	0	2	8,262	71	2	0	2
	FCS		8,087	69	3	0	2	8,221	70	3	0	2	8,783	75	3	0	2
P100	FC3	130	8,125	63	2	0	2	8,260	64	2	0	2	8,824	68	2	0	2
	FCS		8,637	66	3	0	2	8,781	68	3	0	2	9,380	72	3	0	2

COMPONENTS & OPTIONS DATA



AO
Manual field adjustable output dimming device



HSS
Minimize backlight with a louvered house-side-shield.
Available as a factory installed

Performance Package	FAO Position	% Lumen Output	% Wattage
P05-P20	8	100%	100%
	7	94%	95%
	6	82%	83%
	5	70%	72%
	4	57%	60%
	3	45%	48%
	2	32%	38%
	1	19%	25%

Performance Package	FAO Position	% Lumen Output	% Wattage
P30-P100	8	100%	100%
	7	94%	93%
	6	83%	81%
	5	71%	69%
	4	59%	56%
	3	46%	44%
	2	33%	32%
	1	19%	20%

ACCESSORIES OPTION DATA



CLHSS
Minimize backlight with a louvered house-side-shield,
field accessory



The Rapid Ship Pole and Luminaire program provides quick solutions for urgent needs.

The most popular and readily available are available for those urgent projects. Select from the following options to get up to 20 units shipped in 20 working days or less!

ORDERING INFORMATION

Example: WFCL3 P20 30K MVOLT FC3 BK NF PR7E

Series	Lumen/Wattage Package	Color Temperature	Voltage	Optics	Housing Color	Finial
WFCL3 Utility Washington LED FCO	P05 3,200 nominal lumens	27K 2700 series CCT	MVOLT Auto-sensing voltage (120 thru 277) 50/60 HZ	FC2 Type 2 distribution zero uplight	BK Black	NF None
	P10 4,500 nominal lumens	30K 3000 series CCT	HVOLT Auto-sensing voltage (347 thru 480) 50/60 HZ	FC3 Type 3 distribution zero uplight	GR Gray	BL Ball
	P20 5,600 nominal lumens	40K 4000 series CCT			GH Graphite	SK Spike
	P30 7,000 nominal lumens			FC4 Type 4 distribution zero uplight	GN Green	
	P40 8,100 nominal lumens			FC5 Type 5 distribution zero uplight	WH White	
	P50 9,200 nominal lumens				BZ Bronze	
	P60 10,200 nominal lumens					
	P70 10,800 nominal lumens					
	P80 11,700 nominal lumens					
	P90 12,700 nominal lumens					
P100 13,600 nominal lumens						

Options: Option Compatibility Matrix on page 3 of 4

<p>CONTROLS OPTIONS</p> <p>A0 Field Adjustable Output</p> <p>DINBRA DTL DIN node bracket with external mounted antenna, DTL DIN node ordered and shipped separately</p> <p>PR7 NEMA Twist Lock Dimming photocontrol receptacle - 7 PIN receptacle only.</p> <p>PR7E NEMA Twist Lock Photocontrol Receptacle - 7 PIN. Externally mounted, available with NF option</p> <p>PCLL DTL long life twistlock photocontrol for solid-state MVOLT</p> <p>SH Shorting cap</p>	<p>PREWIRED LEAD OPTIONS</p> <p>L1H 1.5 ft. prewired leads</p> <p>L03 3 ft. prewired leads</p> <p>L10 10 ft. prewired leads</p> <p>L20 20 ft. prewired leads</p>	<p>OPTIC OPTIONS</p> <p>CLGL Clear tempered glass lens</p> <p>FRGL 10% Frosted tempered glass lens</p> <p>HSS House side shield</p> <p>LEM REVEAL COLOR OPTIONS</p> <p>MHC LEM Reveal Plate Painted to match Housing Color</p> <p>NEMA LABEL OPTIONS</p> <p>NL1X1 NEMA Label 1" x 1"</p> <p>NL2X2 NEMA Label 2" x 2"</p>
--	---	---

Accessories: Order as separate catalog number, ships separately & field installed.

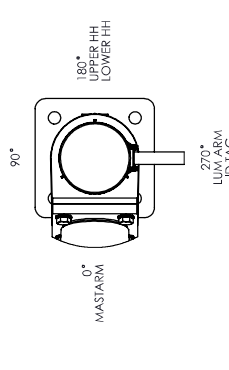
HOUSE SIDE SHIELD	
CLHSSNG25	No glass, Type 2 & Type 5 - Louvered house side shield
CLHSSNG34	No glass, Type 3 & Type 4 - Louvered house side shield
CLHSSGL25	Glass, Type 2 & Type 5 - Louvered house side shield
CLHSSGL34	Glass, Type 3 & Type 4 - Louvered house side shield

Contractor Added Options

Production Drawings added to:

**SPECIAL PROVISION - Signal and
Light Supports 2/3/2025**

REV.	DESCRIPTION	DATE	DWGT



MATERIAL SPECIFICATIONS

POST: ASTM A572 GR 55
 MAST ARM: ASTM A572 GR 55
 MOUNTING PLATE: ASTM A36
 HARDWARE FINISH: GALV ASTM A153
 ANCHOR BOLTS: ASTM F1554 GR 10S

DESIGN CRITERIA

2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.

WINDS: 115 MPH
 FATIGUE CATEGORIES: N/A
 NATURAL WIND GUST: YES
 VORTEX SHED: N/A
 GALLOPING: N/A
 ICE GUST: YES

WELD SPECIFICATION

THE POST AND MAST ARE TO BE ROUND TAPERED TUBE PERVIOUSLY MENTIONED. ALL WELDS TO BE FULL PENETRATION WELDS WITH 100% PENETRATION & FROM BASE PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REPAIRS OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS IN THE MOUNTING PLATE TO BE TESTED BY X-RAY. WELDING MATERIAL: PER AASHTO 2013.3.1.5.5 (WEI IN SPT) THICKNESS. < 6MM (0.25 IN) MT
 3.6MM (0.25 IN) UT
 PENETRATION TEST: ALL ELLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).

FINISH SPECIFICATION

GALV. OR PRIME COAT: HOT DIE GALVANIZED PER ASTM A123
 FINISH COAT: PAINT TROP BLACK
 COLOR: F1-F1U-003-FR
 GLOSS: 60%
 OR PAL SPEC: 3833.37
 WEIGHT W/GALV.: 3833.37
 SURFACE AREA: 79956.5
 GALLON PAINT: 3.07525



622 6TH ST. S.O.
 WINSTED, MN 55395

THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND MFG AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND MFG.

SALES ORDER NO.: 213267
 QTY: 1
 STATE: OH
 SHEET: 1 OF 1

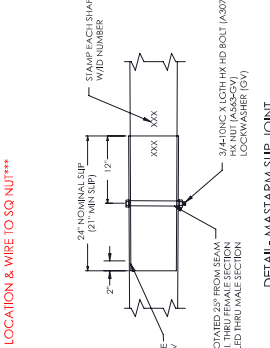
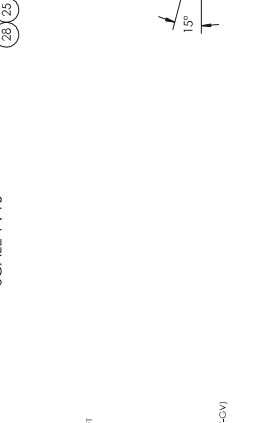
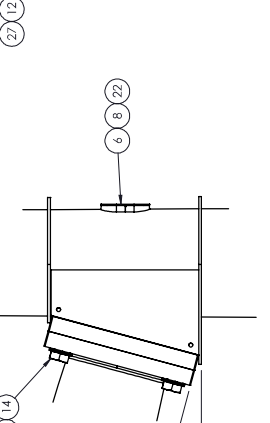
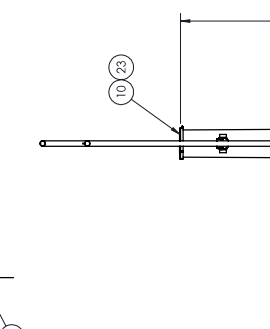
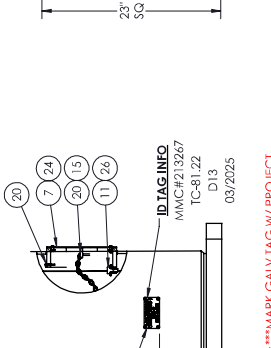
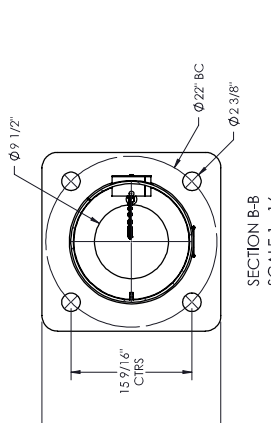
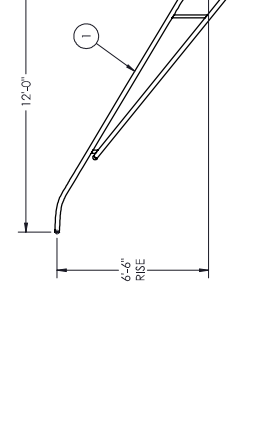
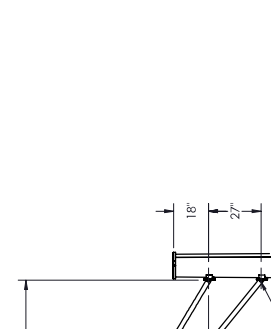
DESCRIPTION: SHIP POLE SIG RD 5/16X300/160 TC-81.22
 D13 POST & 5'10 CRV ARM W/120 LUM

EST. WEIGHT: 3716.5
 DRAWING NO: 213267-01

PROJECT NAME: PO #4169-TL-928738D / Mark 0000190523 / Job Name ODOT 426-25 / Chillicothe OH R03-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 1113013

PROJECT LOCATION: STA 711+46.1 66.0' LT
 STRUCTURE SP-1 / SR 159 & STEWART RD
 DWN BY: MARK S.

DATE: 12-02-2024
 CHK BY:

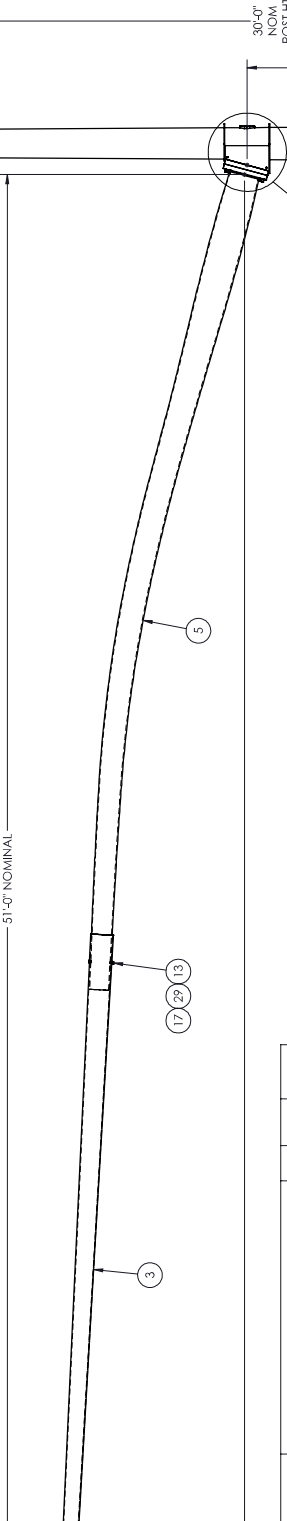


DETAIL A
 SCALE 1 : 16

SECTION B-B
 SCALE 1 : 16

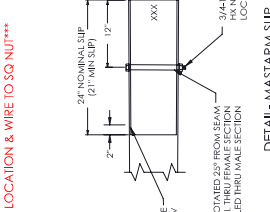
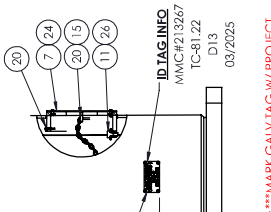
DETAIL - MAST ARM SIP JOINT

DETAIL - MAST ARM SIP JOINT



ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
16	HDWR-120-003	1"ID, 1.34OD, 5/8TKW/GRV 1/4I, .38GVD	6	NOT SHOWN	
17	NUTHYHX3/4-10A56BDHGV	NUT HYV HY 3-4-10NC ASTM A563GV(DH)	1		
18	PL-1-17-FU-003-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACK)	1	REF	
19	PL-5-17-FU-003-FR-EA	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACK)	7	REF	
20	RVTIPP3/16X1-1/8/5/8HJAL	RIVET POP 3/16X1-1/8X5/8 HD ALUM	2	X	
21	RVTIPP3/16X1/2/3/8HJSS	RIVET POP 3/16X1/2X3/8 HD SS	4	X	
22	SCRWA5/16-18X2SS	SCRWA HX SK FL HD 5-16-18NC X 2 SS	1		
23	SCRWM1/4-20X1-1/4SS	SCRW ST SG HD 1-4-20NC X 1-1/4 SS	6		
24	SCRWM1/4-20X3/4SS	SCRW HX SK BT HD 1-4-20NC X 3/4 SS	2	X	
25	WASHFLAT1-1/2GV	WASHER FLAT 1-1/2 SAE ASTM F436 GV	4		
26	WASHFLAT1/2BRASS-001	WASHER FLAT 1/2 COMM. BRASS	2	X	
27	WASHFLAT1/2SS-001	WASHER FLAT 1/2 SS	4		
28	WASHLOADINI-1/2-001-GV	WASHER DTH 1-1/2" ASTM F959 TYPE 325	4		
29	WASHLOCKS4GV	WASHER LOCK 3/4 ANSIB B21.1 G.V	1	X	

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
1	1002654	WLDMT ARV TRUSS PIPE 120 27" SPACING 2- BOLT 3MPLX	1	X	X
2	1005186	ID TAG OHIO	1	X	
3	1069720	WLDMT ARV SIG RD S2 1/4X236 (1/4X9.83X6.54X236)	1		X
4	1078388	WLDMT POLE SIG RD 5/16X300/160	1		X
5	1078389	WLDMT ARV SIG RD CRV RD S1 5/16X296 (5/16X13.0X8.8X300)	1		X
6	8800267	COVER HH M15.3X5 FORMED	1	X	X
7	8800709	COVER HH 4X8 W/CHAIN TAB	1	X	X
8	9900037	LATCH HH M15.3X5	1	X	X
9	9900204	STAMPED POLE CAP WELDMENT (5.75-6.75)	1	X	X
10	9900209	STAMPED POLE CAP WELDMENT (11.75-13.25)	1	X	X
11	BOLTA1/2-13X1TA	BOLT HX HD 1-2-13NC X 1" F593C SS 304 SS	1	X	
12	BOLTA1/2-13X1-1/2A	BOLT HX HD 1-2-13NC X 1-1/2 F593C SS	4		
13	BOLTA3/4-10X11L	BOLT HX HD 3-4-10NC X 11" A307/GV	1		
14	BOLB1-1/2-8X4-1/2B	BOLT HYVHXHD 1-1/2-6 X 4-1-2 A325GV	4		
15	CHAIN-A-1/8-CV-12"	CHAIN 1/8"PROOF COIL CHAIN GV 12LG	1	X	



MARK GALV TAG W/ PROJECT LOCATION & WIRE TO SQ NUM

7/8 DIA THRU HOEWALL OF MALE SECTION OF ARM FOR GALV

24" NOMINAL SIP (21" MIN SIP)

17"

2"

3/4-10NC X 10HX HD BOLT (A307-CV) LOCKWASHER (CV)

2"

7/8 DIA THRU HOEWALL OF MALE SECTION OF ARM FOR GALV

7/8 DIA THRU HOEWALL OF MALE SECTION OF ARM FOR GALV

24" NOMINAL SIP (21" MIN SIP)

17"

2"

3/4-10NC X 10HX HD BOLT (A307-CV) LOCKWASHER (CV)

2"

7/8 DIA THRU HOEWALL OF MALE SECTION OF ARM FOR GALV

7/8 DIA THRU HOEWALL OF MALE SECTION OF ARM FOR GALV

24" NOMINAL SIP (21" MIN SIP)

17"

2"

3/4-10NC X 10HX HD BOLT (A307-CV) LOCKWASHER (CV)

2"

7/8 DIA THRU HOEWALL OF MALE SECTION OF ARM FOR GALV

7/8 DIA THRU HOEWALL OF MALE SECTION OF ARM FOR GALV

24" NOMINAL SIP (21" MIN SIP)

17"

2"

3/4-10NC X 10HX HD BOLT (A307-CV) LOCKWASHER (CV)

2"

7/8 DIA THRU HOEWALL OF MALE SECTION OF ARM FOR GALV

7/8 DIA THRU HOEWALL OF MALE SECTION OF ARM FOR GALV

24" NOMINAL SIP (21" MIN SIP)

17"

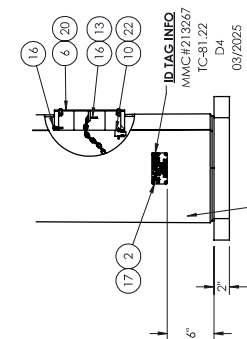
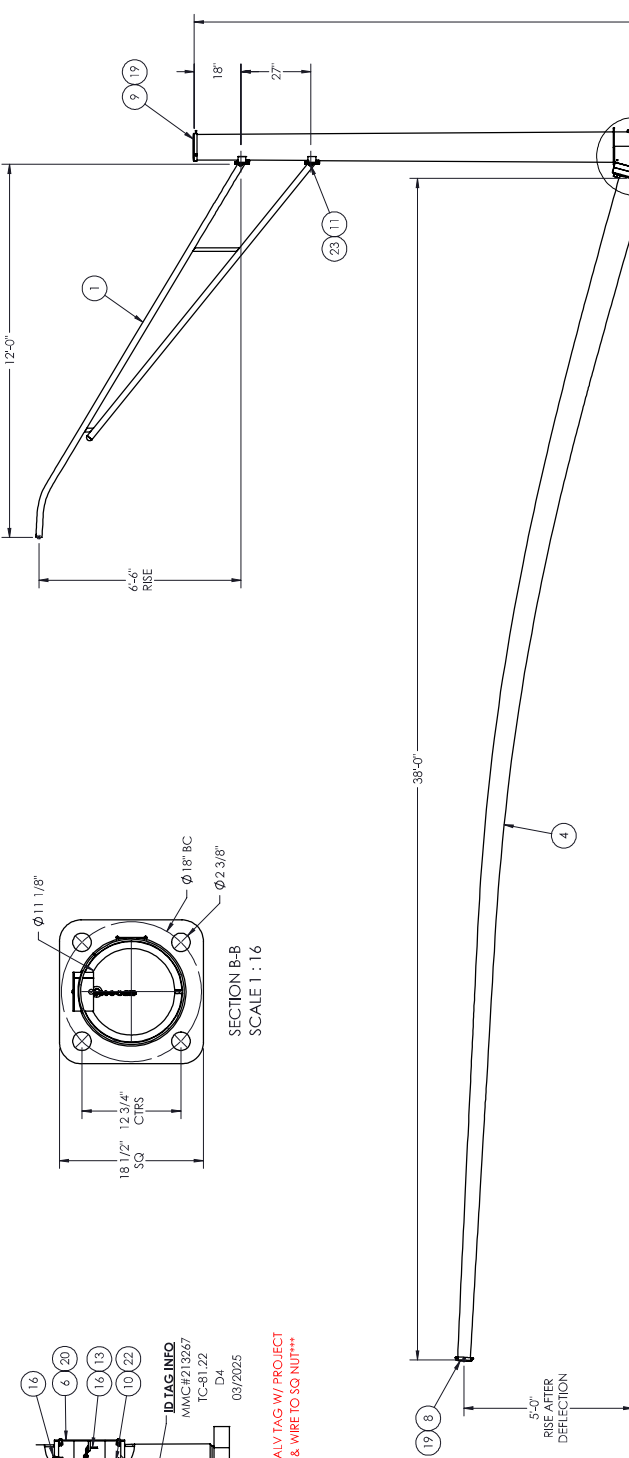
2"

3/4-10NC X 10HX HD BOLT (A307-CV) LOCKWASHER (CV)

2"

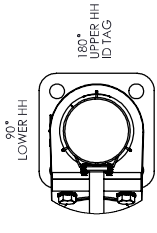
7/8 DIA THRU HOEWALL OF MALE SECTION OF ARM FOR GALV

REV.	DESCRIPTION	DATE	DWGT



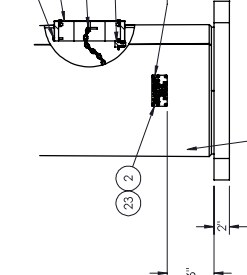
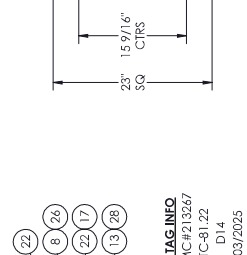
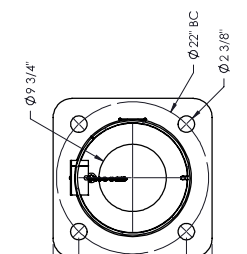
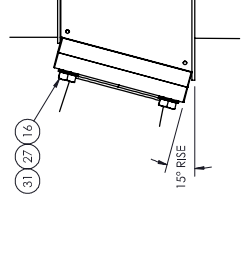
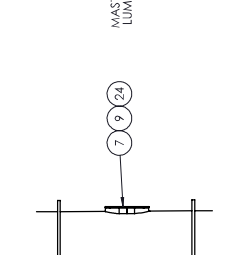
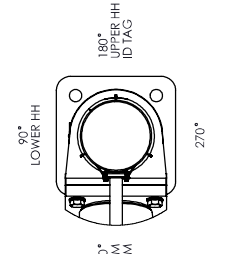
ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
1	1002454	WLDMT ARV TRUSS PIPE 120 27" SPACING 2- BOLT 3M/PLEX	1	X	X
2	1005186	ID TAG OHIO	1	X	X
3	1077839	WLDMT POLE SIG RD 1/4X300/160 (1/4X1.4,0X9.8X300)	1	X	X
4	1077840	WLDMT ARV SIG CRV RD 1/4X380 (1/4X1.0,324.9,328.7)	1	X	X
5	8800267	COVER HH M1.5 3X5 FORMED	1	X	X
6	8800709	COVER HH 4X8 W/CHAIN TAB	1	X	X
7	9900037	LATCH HH M1.5 3X5	1	X	X
8	9900203	STAMPED POLE CAP WELDMENT (47.5-5.75)	1	X	X
9	9900207	STAMPED POLE CAP WELDMENT (87.5-10.25)	1	X	X
10	BOLTA/1/2-13X17A	BOLT HK HD 1-2-13NC X 1" F593C SS 304 SS	1	X	X
11	BOLTA/1/2-13X1-17A	BOLT HK HD 1-2-13NC X 1-1-2 F593C SS	4	X	X
12	BOLTB/1/2-6X4/12B	BOLT HYHXHD 1-1-2-6 X 4-1-2 A325GV	4	X	X
13	CHAIN-A-1/8-GV-12"	CHAIN 1/8"PROOF COIL CHAIN GV 12'L/G	1	X	X
14	HDWR-120-003	1"DI-13/AOD.5/8TKW/GRV 1/4/1.38GYD	4	NOT SHOWN	X
15	PF-1-17-FIU-003-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACK)	1	REF	X
16	RVFP3/16X1-1/8/5/8H/AL	RIVET POP 3/16X1-1/8/5/8 HD ALUM	2	X	X
17	RVFP3/16X1/2/13/8H/SS	RIVET POP 3/16X1/2X3/8 HD SS	4	X	X
18	SCRWA/5/16-18X2-SS	SCRWA HK SK FL HD 5/16-18NC X 2 SS	1	X	X
19	SCRWA/1/4-20X1-1/4/SS	SCRW ST SQ HD 1-4-20NC X 1 1-4 SS	6	X	X
20	SCRWW/1/4-20X3/4SS	SCRW HK SK BT HD 1-4-20NC X 3-4 SS	2	X	X
21	WASHFLAT1-1/2GV	WASHER FLAT 1-1/2 SAE ASTM F466 GV	4	X	X
22	WASHFLAT1/2BRASS-001	WASH F.56 LDX1.375ODX.091THK BRASS	2	X	X
23	WASHFLAT1/2SS-001	WASHER FLAT 1/2 SS	4	X	X
24	WASHLOADN1-1/2-001-GV	WASHER DTI 1-1/2" ASTM F959 TYPE 325	4	X	X

DETAIL A
SCALE 1 : 16



MATERIAL SPECIFICATIONS
POST: ASTM A572 GR 55 FASTENERS: ASTM A572 GR 55 MAST ARM: ASTM A572 GR 55 MOUNTING PLATE: ASTM A36 HARDWARE FINISH: GALV ASTM A153 ANCHOR BOLTS: ASTM F1554 GR 105
DESIGN CRITERIA
2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS. WINDS: 115 MPH VORTEX SHED: N/A FATIGUE CALC: N/A NATURAL WIND GUST: YES GALLOPING: N/A ICE GUST: YES
WELD SPECIFICATION
THE POST AND MAST ARM TO BE ROUND TAPERED TUBE PERMANENTLY WELDED TO THE MOUNTING PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION. WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS IN THE MOUNTING PLATE TO BE X-RAYED. WELDING MATERIAL: PER AASHTO 2013.3.15.5 WELD INSPY THICKNESS. < 6MM (0.25 IN) UT 3.6MM (0.25 IN) UT PENETRATION (IP) TEST: ALL ELLET WELDS AND PARTIAL JOINT PENETRATION (IP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).
FINISH SPECIFICATION
GALV. OR PRIME COAT: HOT DIE GALVANIZED PER ASTM A123 FINISH COAT: PAINT TROP BLACK COLOR: RAL 9005 GALV. OR PAINT SPEC.: FE100 #9538 17038 WEIGHT W/GALV.: 2325.54 SURFACE AREA: 56866.7 GALV. COAT PAINT: 2.187/18
MILLERBERND 622 6TH ST. S.O. WINSTED, MN 55395
THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND MFG AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND MFG
SALES ORDER NO.: 213267 QTY: 1 STATE: 1 OF 1 SHEET
DESCRIPTION: SHIP POLE SIG RD 1/4X300/160 TC-81.22 D4 POST & 380 CRV ARM W/120 LUM
EST. WEIGHT: 2236.1 DRAWING NO: 213267-02
PROJECT NAME: PO #4169-1L-928738D / Mark 0000190523 / Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 113013
PROJECT LOCATION: STA 710+21.0 43.2' LT STRUCTURE SP-2 / SR 159 & STEWART RD DWN BY: MARK S. DATE: 12-02-2024
CHK BY: DATE:

REV.	DESCRIPTION	DATE	DRT



MATERIAL SPECIFICATIONS

POST: ASTM A572 GR 55
 FASTENERS: ASTM A572 GR 55
 MAST ARM: ASTM A572 GR 55
 MOUNTING PLATE: ASTM A36
 HARDWARE FINISH: GALV ASTM A153
 ANCHOR BOLTS: ASTM F1554 GR 10S

DESIGN CRITERIA

2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.

WINDS: 115 MPH
 FATIGUE CATEGORY: 3
 NATURAL WIND GUST: YES
 VORTEX SHED: N/A
 GALLOPING: N/A
 ICE ACCUMULATION: YES

WELD SPECIFICATION

THE POST AND MAST ARM TO BE ROUND TAPERED TUBULAR STRUCTURE WELDED TOGETHER WITH A 1/8" BEVEL FROM SEAM WELD WITH 100% PENETRATION 6" FROM BASE PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS TO BE TESTED BY X-RAY. WELDING MATERIAL: PER AASHTO 2013.3.15.5 (WELD INSP) THICKNESS < 6MM (0.25 IN) MT
 3.6MM (0.25 IN) UT
 3.6MM (0.25 IN) RT
 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS TO BE TESTED BY X-RAY. LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).

FINISH SPECIFICATION

GALV. OR PRIME COAT: HOT DIE GALVANIZED PER ASTM A123
 FINISH COAT: PAINT TROP BLACK
 COLOR CODE: F1-174-F100-FR
 COAT WEIGHT: PER AASHTO #935B 17/038
 WEIGHT W/GALV.: 4480.41
 SURFACE AREA: 92159.7
 GALLON PAINT: 3.9446

MILLERBERND 622 6TH ST. S.O. WINSTED, MN 55395

THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND.

SALES ORDER NO.: QTY: STATE: SHEET

213267 1 OH 1 OF 1

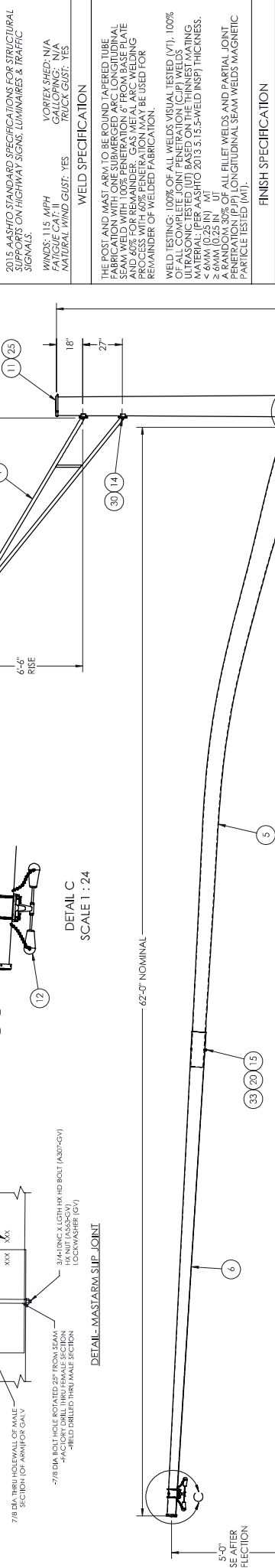
DESCRIPTION: SHIP POLE SIG RD 5/16X300/166 TC-81.22 D14 POST & 620 CRV ARM W/120 LUM

EST. WEIGHT: DRAWING NO: 4314.5 213267-03

PROJECT NAME: PO #4169-TL-9287380 / Mark 0000 190523 / Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 113013

PROJECT LOCATION: STA 711+53.3 57.2 RT STRUCTURE SP-3 / SR 159 & STEWART RD DWN BY: MARK S. DATE: 12-02-2024

CHK BY: DATE:



SECTION B-B
SCALE 1 : 18

DETAIL A
SCALE 1 : 18

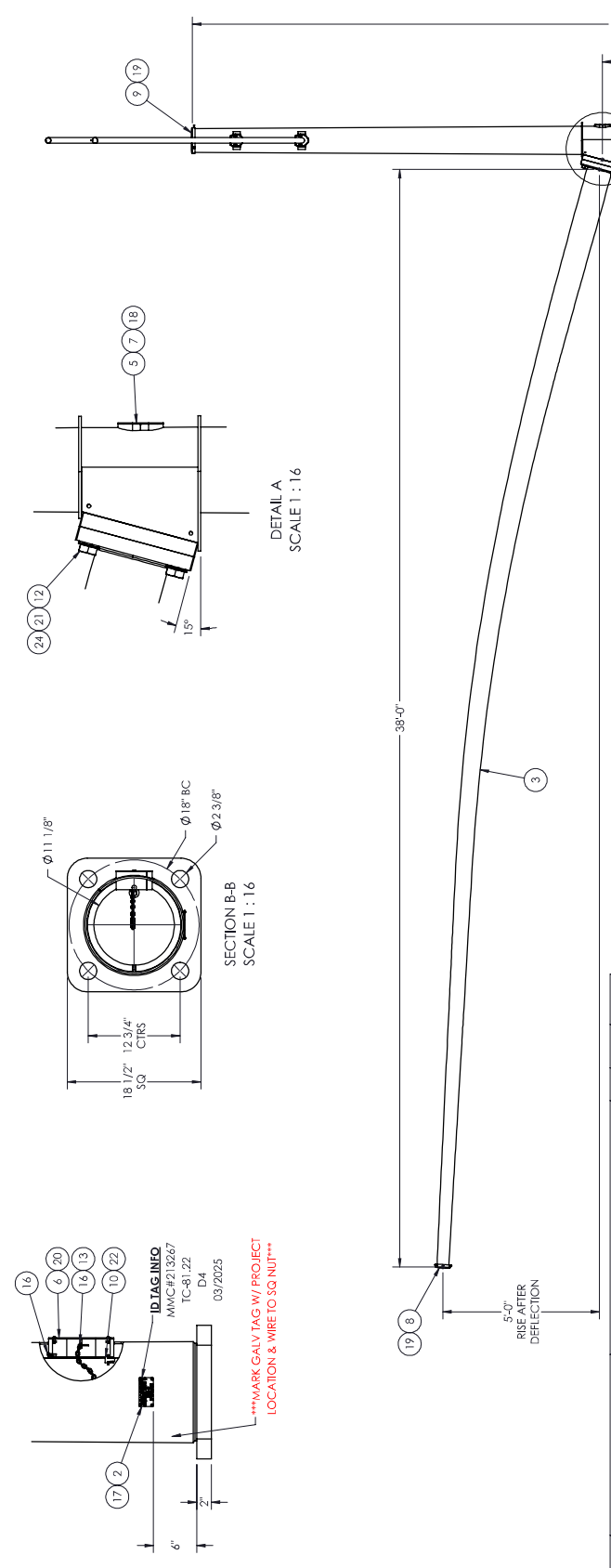
DETAIL C
SCALE 1 : 24

DETAIL--MASTARM SIP JOINT

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
1	1002654	WLDMT ARM TRUSS PIPE 120 27" SPACING 2-	1	X	X
2	1005186	ID TAG OHIO	1	X	
3	1023018	UBOLT 1/2" X 6 3/4 DAC	2		
4	1078400	WLDMT POLE SIG RD 5/16X300/166	1	X	X
5	1078401	WLDMT ARMA SIG CRV RD S1 5/1 6X36.5	1	X	X
6	1078403	WLDMT ARMA SIG RD S2 1/4X277	1	X	X
7	8800267	COVER HH M1.5 3X5 FORMED	1	X	X
8	8800709	COVER HH 4X8 W/CHAIN TAB	1	X	X
9	9900037	LATCH HH M1.5 3X5	1		
10	9900204	STAMPED POLE CAP WELDMENT (5.75-6.75)	1	X	X
11	9900209	STAMPED POLE CAP WELDMENT (11.75-13.25)	1	X	X
12	ALCOA DAMPER B543-1X ASSY W/HARDWARE		1	X	X
13	BOLTA 1/2-13X1YA	BOLT HK HD 1-2-13NC X 1 F599C S3 304 SS	1	X	
14	BOLTA 1/2-13X1-172A	BOLT HK HD 1-2-13NC X 1-1-2 F599C SS	4		
15	BOLTA3/4-10X11L	BOLT HK HD 3/4-10NC X 11" A307/GV	1		
16	BOLTB1-1/2-8X4-1/2B	BOLT HHVHHHD 1-1/2-6 X 4-1-2 A325GV	4		
17	CHAIN-A-1/8-CV-12"	CHAIN 1/8"PROOF COIL CHAIN GV 12LG	1	X	

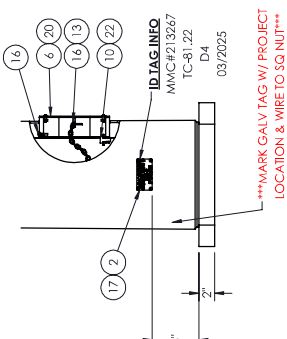
ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
18	HDWR-120-003	TID 1-3/4OD,5/8TKW/GRV 1/41,38GV/D	6	NOT SHOWN	
19	NUTVHYHX1/2-13A563GV	NUT HYY HX 1-2-13NC A563 GV (DH)	4		
20	NUTVHYHX3/4-10A563DHGV	NUT HYY HX 3-4-10NC ASTM A563GV (DH)	1		
21	PF-1-17-FU-005-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACK)	1	REF	
22	RVPP3/16X1-1/8/5(BH)AL	RIVET POP 3/16X1-1/8X5/8 HD ALUM	2	X	
23	RVPP3/16X1/2/3(BH)SS	RIVET POP 3/16X1/2X3/8 HD SS	4	X	
24	SCRWA5/16-18X2 SS	SCRWA HK SK FL HD 5-16-18NC X 2 SS	1		
25	SCRWM1/4-20X1-1/4SS	SCRW ST SO HD 1-4-20NC X 1 1/4 SS	4		
26	SCRWV1/4-20X3/4SS	SCRW HK SK BT HD 1-4-20NC X 3/4 SS	2	X	
27	WASHFLAT1/2GV	WASHER FLAT 1-1/2 SAE ASTM F436 GV	4	X	
28	WASHFLAT1/2BRASS-001	WASH F 56 IDX 1/2 SODX 091 THK BRASS CONIG, BRASS	2	X	
29	WASHFLAT1/2GV	WASHER FLAT 1/2 GV	4		
30	WASHFLAT1/2SS-001	WASHER FLAT 1/2 SS	4		
31	WASHLOADIN1-1/2-001-GV	WASHER DIT 1-1/2" ASTM F959 TYPE 325	4		
32	WASHLOCK1/2GV	WASHER LOCK 1/2 GV	4		
33	WASHLOCK3/4GV	WASHER LOCK 3/4 ANSI B1821.1 GV	1		

REV.	DESCRIPTION	DATE	DWGT



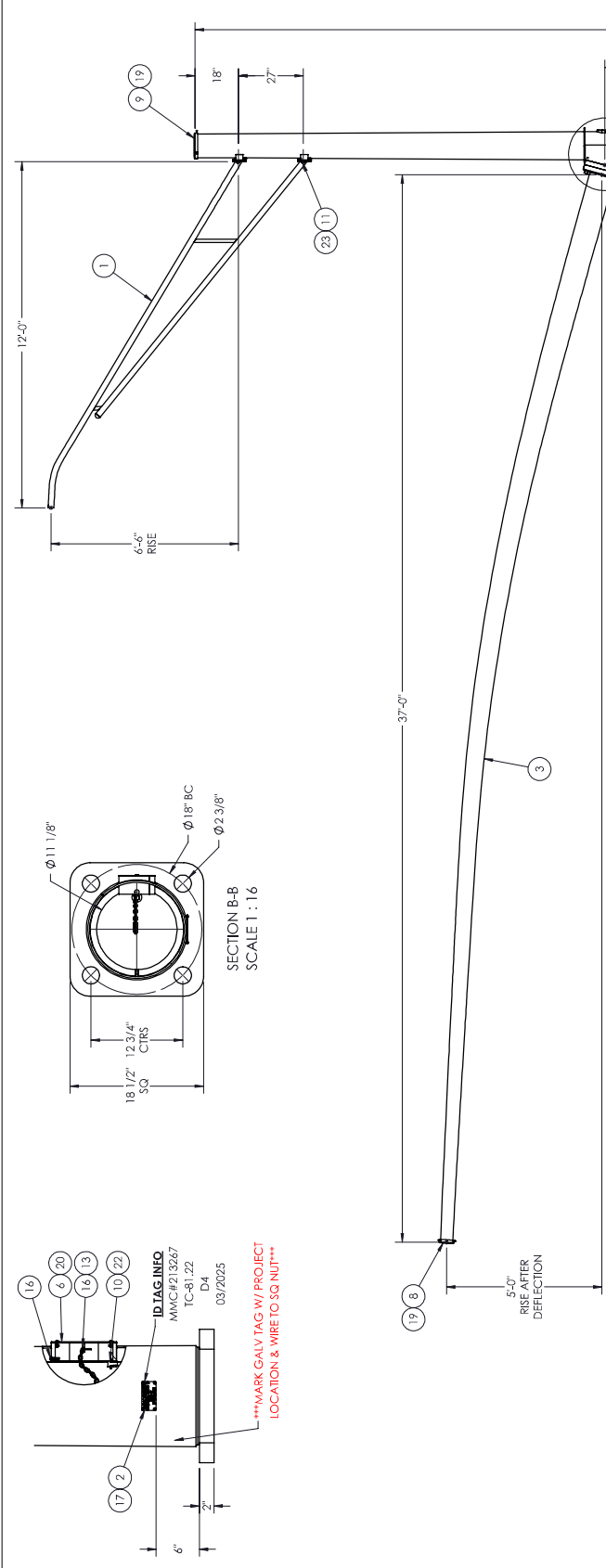
ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
1	1002654	WLDMT ARV TRUSS PIPE 120 27" SPACING 2- BOLT 3/8" X 6"	1	X	X
2	1005186	ID TAG OHIO	1	X	X
3	1077840	WLDMT ARV SIG GRV RD 1/4X380 (1/4X10.32X4.92X387)	1	X	X
4	1077842	WLDMT POLE SIG RD 1/4X300/160 (1/4X14.5X3.85X300)	1	X	X
5	8800267	COVER HH M1.5 3X5 FORMED	1	X	X
6	8800709	COVER HH 4X8 W/CHAIN TAB	1	X	X
7	9900037	LATCH HH M1.5 3X5	1	X	X
8	9900203	STAMPED POLE CAP WELDMENT (47.5-57.5)	1	X	X
9	9900207	STAMPED POLE CAP WELDMENT (87.5-102.5)	1	X	X
10	BOLTA1/2-13X17A	BOLT HK HD 1/2-13NC X 1" F593C SS 304 SS	1	X	X
11	BOLTA1/2-13X11/2A	BOLT HK HD 1/2-13NC X 1-1/2 F593C SS	4	X	X
12	BOLB11/2-6X11/2B	BOLT HYHXHD 1-1/2-6 X 4-1/2 A325GV	4	X	X
13	CHAIN-A-1/8-GV-12"	CHAIN 1/8"PROOF COIL CHAIN GV 12'L	1	X	X
14	HDWR-120-003	1"ID-1.3/AOD.5/8TKW/GRV 1/4"1.38GVD	4	NOT SHOWN	X
15	PT-1-17-FIU-003-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACKS)	1	REF	X
16	RYVPP3/16X11/8(S/8)H/JAL	RIVET POP 3/16X11/8(S/8)HD ALUM	2	X	X
17	SCRWA5/16-18X23SS	RIVET POP 3/16X17/2X3/8 HD SS	4	X	X
18	SCRWA5/16-18X23SS	SCRWA HK SK FL HD 5/16-18NC X 2 SS	4	X	X
19	SCRWA1/4-20X11/4SS	SCRW ST SQ HD 1-4-20NC X 1 1/4 SS	6	X	X
20	SCRWA1/4-20X3/4SS	SCRW HK SK BT HD 1-4-20NC X 3/4 SS	2	X	X
21	WASHFLAT11/2GV	WASHER FLAT 11/2 SAE ASTM F468 GV	4	X	X
22	WASHFLAT11/2BRASS-001	WASH F56 LDX1.375SODX091THK BRASS	2	X	X
23	WASHFLAT1/2SS-001	WASHER FLAT 1/2 SAE ASTM F433	4	X	X
24	WASHLOADN11/2-001-GV	WASHER DTI 11/2" ASTM F959 TYPE 325	4	X	X

MATERIAL SPECIFICATIONS
POST: ASTM A572 GR 55 FASTENER: ASTM A307 MAST ARM: ASTM A372 GR 55 MOUNTING PLATE: ASTM A36 HARDWARE FINISH: GALV ASTM A153 ANCHOR BOLTS: ASTM F1554 GR 10S
DESIGN CRITERIA
2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL STEEL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS. WINDS: 115 MPH FATIGUE CALC: YES NATURAL WIND GUST: YES VORTEX SHED: N/A GALLOPING: N/A ICE GUST: YES
WELD SPECIFICATION
THE POST AND MAST ARM TO BE ROUNDED AT THE TUBE PERIPHERY TO REMOVE ALL SHARP CORNERS. ALL SEAM WELD WITH 100% PENETRATION & FROM BASE PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION. WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS IN ALL JOINTS TO BE PENETRATED BY X-RAY TESTING. MATERIAL: PER AASHTO 2013.3.15.5 WELD INSP/T THICKNESS. 3/16" (0.25 IN) UT 3/16" (0.25 IN) UT PENETRATION (IP) ALL ELLET WELDS AND PARTIAL JOINT FINISHING. (IP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).
FINISH SPECIFICATION
GALV OR PRIME COAT: HOT DIE GALVANIZED PER ASTM A123 FINISH COAT: PAINT TROP BLACK COLOR: RAL 9005 COAT W/ GALV: PER AASHTO #9538 17/088 WEIGHT W/ GALV: 2306.54 SURFACE AREA: 568666.7 GALV COAT PAINT: 2.187/18
MILLERBERND 622 6TH ST. S.O. WINSTED, MN 55395
THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND MFG AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT OF MILLERBERND MFG
SALES ORDER NO.: 213267 QTY: 1 STATE: OH 1 OF 1 SHEET
DESCRIPTION: SHIP POLE SIG RD 1/4X300/160 TC-81.22 D4 POST & 38'0 CURV ARM W/120 LUM
EST. WEIGHT: 2236.1 DRAWING NO.: 213267-04
PROJECT NAME: PO #4169-1L-928738D / Mark 0000190523 / Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 113013
PROJECT LOCATION: STA 710+50.7 81.3' RT STRUCTURE SP-4 / SR 159 & STEWARD RD DWN BY: MARK S. DATE: 12-02-2024
CHK BY: DATE:



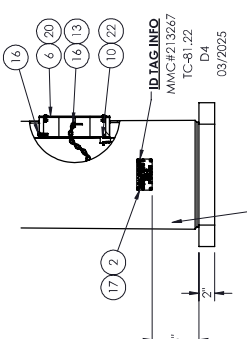
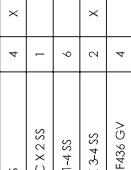
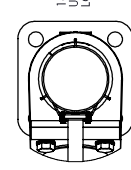
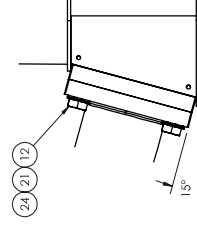
MARK GALV TAG W/ PROJECT LOCATION & WIRE TO SQ NUT

REV.	DESCRIPTION	DATE	DWGT



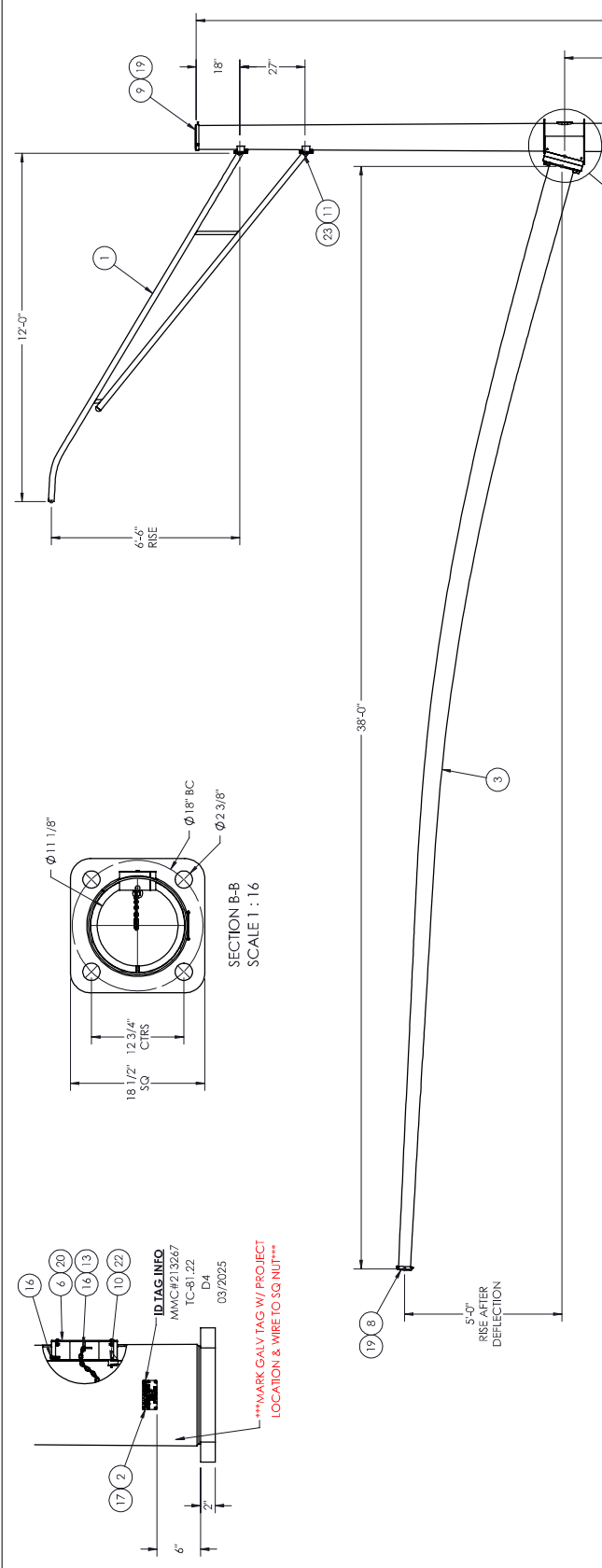
MATERIAL SPECIFICATIONS			
POST: ASTM A572 GR 55	WINDS: 115 MPH		
MAST ARM: ASTM A572 GR 55	FATIGUE CATEGORY: N/A		
MOUNTING PLATE: ASTM A36	NATURAL WIND GUST: YES		
HARDWARE FINISH: GALV ASTM A153	VORTEX SHED: N/A		
ANCHOR BOLTS: ASTM F1554 GR 10S	GALLOPING: N/A		
	WIND GUST: YES		
DESIGN CRITERIA			
2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.			
WELD SPECIFICATION			
THE POST AND MAST ARM TO BE ROUND TAPERED TUBE FABRICATED WITH 100% PENETRATION FULL JOINT WELD AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.			
WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS IN THE MAST ARM TO BE VISUALLY INSPECTED. WELDING MATERIAL: PER AASHTO 2013.3.15.5 WELD INSPT THICKNESS < 6MM (0.25 IN) MT 3.6MM (0.25 IN) UT			
FINISH SPECIFICATION			
GALV. OR PRIME COAT: HOT DIE GALVANIZED PER ASTM A123			
FINISH COAT: PAINT TROP BLACK			
COLOR: RAL 9005			
GEO. NO. OR PAL SPEC.: 2293.13			
WEIGHT W/GALV.: 231.202			
SURFACE AREA: 56492.8			
GALV. COAT PAINT: 217387			
MILLERBERND 622 6TH ST. S.O. WINSTED, MN 55395			
THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND MFG AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND MFG			
SALES ORDER NO.: 213267	QTY: 1	STATE: IA	SHEET: 1 OF 1
DESCRIPTION: SHIP POLE SIG RD 1/4X300/160 TC-81.22	DRAWING NO.: 213267-05		
EST. WEIGHT: 2223.1			
PROJECT NAME: PO #4169-1L-928738D / Mark 0000190523 / Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 113013			
PROJECT LOCATION: STA 718+13.3 45.4' LT			
STRUCTURE SP-1 / SR 159 & US 36 EB			
DWN BY: MARK S. DATE: 12-02-2024			
CHK BY: DATE:			

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
1	1002654	WLDMT ARV TRUSS PIPE 120 27" SPACING 2- BOLT 3M/REX	1	X	X
2	1005186	ID TAG OHIO	1	X	X
3	1077844	WLDMT ARM SIG GRV RD 1/4X370 (1/4X10.32X5.06X37.7)	1	X	X
4	1077843	WLDMT POLE SIG RD 1/4X300/160 (1/4X14.5X9.5X300.5)	1	X	X
5	8800267	COVER HH M1.5 3X5 FORMED	1	X	X
6	8800709	COVER HH 4X8 W/CHAIN TAB	1	X	X
7	9900037	LATCH HH M1.5 3X5	1	X	X
8	9900203	STAMPED POLE CAP WELDMENT (47.5-5.75)	1	X	X
9	9900207	STAMPED POLE CAP WELDMENT (87.5-10.25)	1	X	X
10	BOLTA/1/2-13X17A	BOLT HK HD 1/2-13NC X 1" F593C SS 304 SS	1	X	X
11	BOLTA/1/2-13X11/2A	BOLT HK HD 1/2-13NC X 1 1/2 F593C SS	4	X	X
12	BOLBI1/2-8X41/2B	BOLT HYXKHD 1/2-8 X 4 1/2 A325GV	4	X	X
13	CHAIN-A-1/8-GV-12"	CHAIN 1/8"PROOF COIL CHAIN GV 12TLG	1	X	X
14	HDWR-120-003	1"TD1-3/AOD.5/8TKW/GRV 1/4/1.38GYD	4	NOT SHOWN	X
15	PI-17-FIU-003-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACKS)	1	REF	X
16	RVYPP3/16X11/8/5/8H/JAL	RIVET POP 3/16X1 1/8X5/8 HD ALUM	2	X	X
17	RVYPP3/16X12/13/8H/SS	RIVET POP 3/16X1 1/2X3/8 HD SS	4	X	X
18	SCRWA5/16-18X27SS	SCRWA HK SK FL HD 5/16-18NC X 2.75 SS	1	X	X
19	SCRWM1/4-20X11/4SS	SCRW ST SQ HD 1/4-20NC X 1 1/4 SS	6	X	X
20	SCRWW1/4-20X3/4SS	SCRW HK SK BT HD 1/4-20NC X 3/4 SS	2	X	X
21	WASHFLAT11/2GV	WASHER FLAT 1 1/2 SAE ASTM F466 GV	4	X	X
22	WASHFLAT11/2BRASS-001	WASH F56 LDX1.375ODX0.91THK BRASS	2	X	X
23	WASHFLAT1/2SS-001	WASHER FLAT 1/2 SAE ASTM F433	4	X	X
24	WASHLOADN11/2-001-GV	WASHER DTI 1 1/2" ASTM F959 TYPE 325	4	X	X



MARK GALV TAG W/ PROJECT LOCATION & WIRE TO SQ NUT

REV.	DESCRIPTION	DATE	DWGT



MATERIAL SPECIFICATIONS

POST: ASTM A572 GR 55
 FASTENERS: ASTM A307 GR 55
 MAST ARM: ASTM A572 GR 55
 MOUNTING PLATE: ASTM A36
 HARDWARE FINISH: GALV ASTM A153
 ANCHOR BOLTS: ASTM F1554 GR 105

DESIGN CRITERIA

2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.

WINDS: 115 MPH
 FATIGUE CATEGORY: N/A
 NATURAL WIND GUST: YES
 VORTEX SHED: N/A
 GALLOPING: N/A
 ICE GUST: YES

WELD SPECIFICATION

THE POST AND MAST ARM TO BE ROUND TAPERED TUBULAR PERMANENTLY WELDED TOGETHER WITH A FULL PENETRATION SEAM WELD WITH 100% PENETRATION 6" FROM BASE PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS TO BE TESTED BY UT. WELDING MATERIAL: PER AASHTO 2013.3.15.5 (WELD INSP) THICKNESS < 6MM (0.25 IN) UT < 3.6MM (0.25 IN) UT

FINISH SPECIFICATION

GALV. OR PRIME COAT: HOT DIP GALVANIZED PER ASTM A123
 FINISH COAT: PAINT TROP BLACK
 COLOR: RAL 9005
 COAT W/ GALV.: PER #9336 17038
 WEIGHT W/ GALV.: 2306.33
 SURFACE AREA: 56662.2
 GALLON PAINT: 2.18701

MILLERBERND
 622 6TH ST. S.O.
 WINSTED, MN 55395

THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND.

SALES ORDER NO.: QTY: 1 STATE: 1 OF 1 SHEET

213267 1 OH 1 OF 1

DESCRIPTION: SHIP POLE SIG RD 1/4X300/17 6 TC-81.22
 D4 POST & 38'0 CURV ARM W/120 LUM

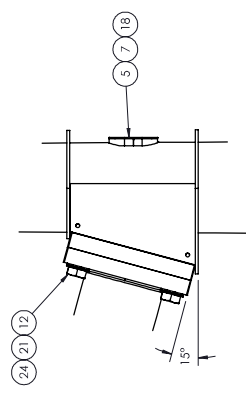
EST. WEIGHT: 2235.9
 DRAWING NO.: 213267-06

PROJECT NAME: PO #4169-1L-928738D / Mark 0000190523 / Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 113013

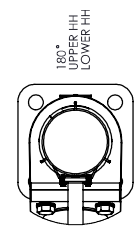
PROJECT LOCATION: STA 719+13.9 59.0 RT
 STRUCTURE SP-2 / SR 159 & US 36 EB
 DWN BY: MARK S. DATE: 12-02-2024

CHK BY: DATE:

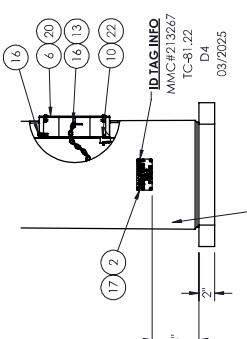
ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
1	1002654	WLDMT ARV TRUSS PIPE 120 27" SPACING 2- BOLT 3/8X1/4	1	X	X
2	1005186	ID TAG OHIO	1	X	X
3	1077840	WLDMT ARM SIG CURV RD 1/4X380 (1/4X10.32X4.92X387)	1	X	X
4	1077846	WLDMT POLE SIG RD 1/4X300/17 6 (1/4X14.5X3.8X305)	1	X	X
5	8800267	COVER HH M1.5 3X5 FORMED	1	X	X
6	8800709	COVER HH 4X8 W/CHAIN TAB	1	X	X
7	9900037	LATCH HH M1.5 3X5	1	X	X
8	9900203	STAMPED POLE CAP WELDMENT (47.5-5.75)	1	X	X
9	9900207	STAMPED POLE CAP WELDMENT (87.5-10.25)	1	X	X
10	BOLTA/1/2:13X17A	BOLT HK HD 1-2-13NC X 1" F593C SS 304 SS	1	X	X
11	BOLTA/1/2:13X17A	BOLT HK HD 1-2-13NC X 1-1-2 F593C SS	4		
12	BOLBI1/2-26X1/2B	BOLT HYXKHD 1-1-26 X 1-1-2 A325GV	4		
13	CHAIN-A-1/8-GV-12"	CHAIN 1/8"PROOF COIL CHAIN GV 12'L	1	X	
14	HDWR-120-003	1"ID-13/4OD-5/8TKW/GRV 1/4"1.38GYD	4	NOT SHOWN	
15	PF-1-17-FIU-003-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACK)	1	REF	
16	RVYPP3/16X1-1/8(S/8H)/AL	RIVET POP 3/16X1-1/8(S/8) HD ALUM	2	X	
17	RVYPP3/16X1/2(S/8H)SS	RIVET POP 3/16X1/2(S/8) HD SS	4	X	
18	SCRWA5/16-18X23SS	SCRWA HK SK FL HD 5/16-18NC X 2.35	1		
19	SCRWM1/4-20X1-1/4SS	SCRW ST SQ HD 1-4-20NC X 1-1/4 SS	6		
20	SCRWW1/4-20X3/4SS	SCRW HK SK BT HD 1-4-20NC X 3/4 SS	2	X	
21	WASHFLAT1-1/2GV	WASHER FLAT 1-1/2 SAE ASTM F468 GV	4		
22	WASHFLAT1/2BRASS-001	WASH F 5/8 LDX 1/2 BRASS 0.091 THK	2	X	
23	WASHFLAT1/2SS-001	WASHER FLAT 1/2 SS	4		
24	WASHLOADN1-1/2-001-GV	WASHER DTI 1-1/2" ASTM F959 TYPE 325	4		



DETAIL A
 SCALE 1 : 16



SECTION B-B
 SCALE 1 : 16



MARK GALV TAG W/ PROJECT LOCATION & WIRE TO SQ NUT

REV.	DESCRIPTION	DATE	DRT
	REVISIONS		

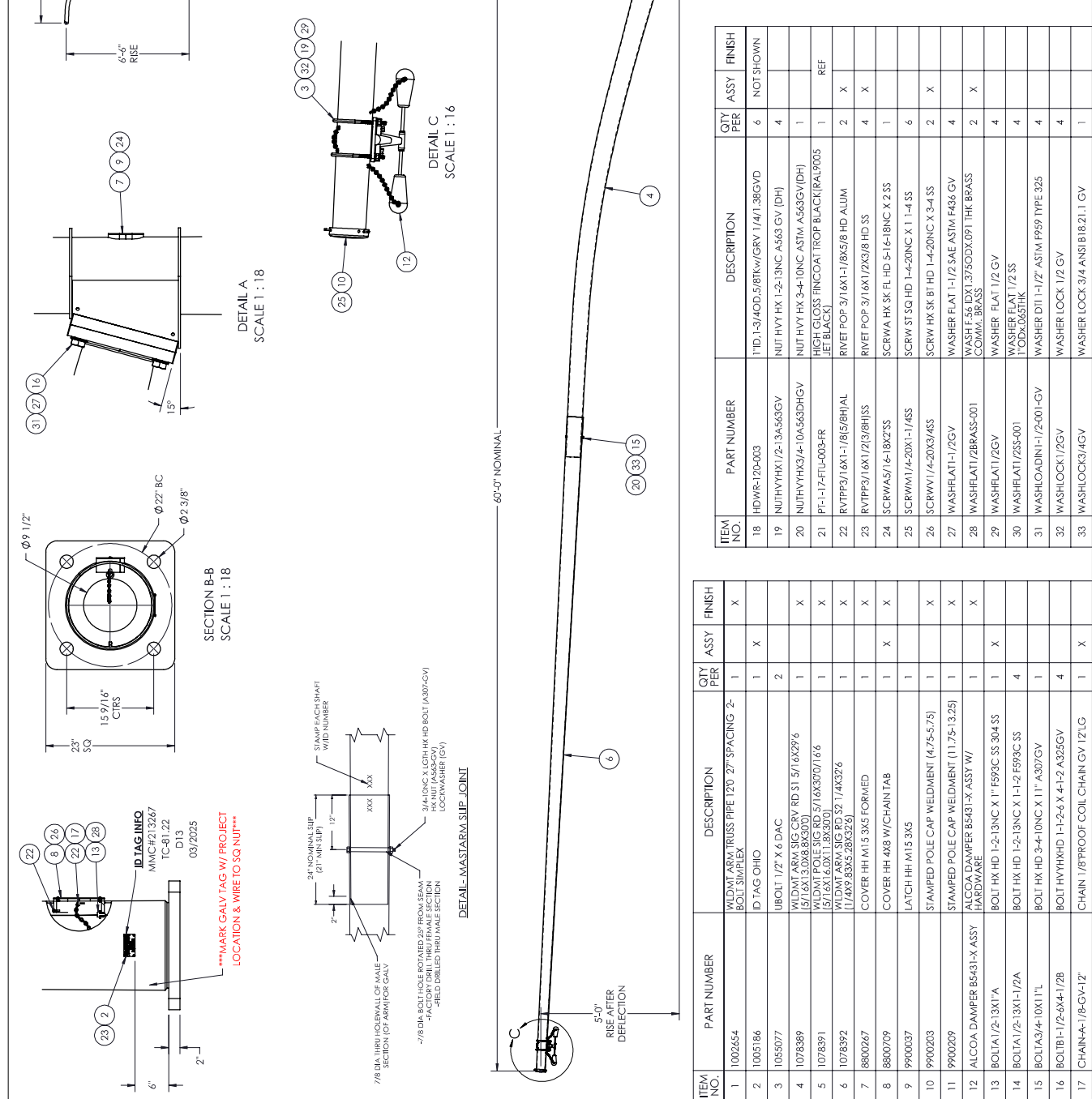
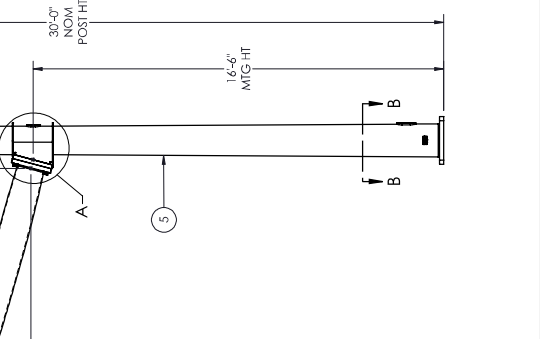
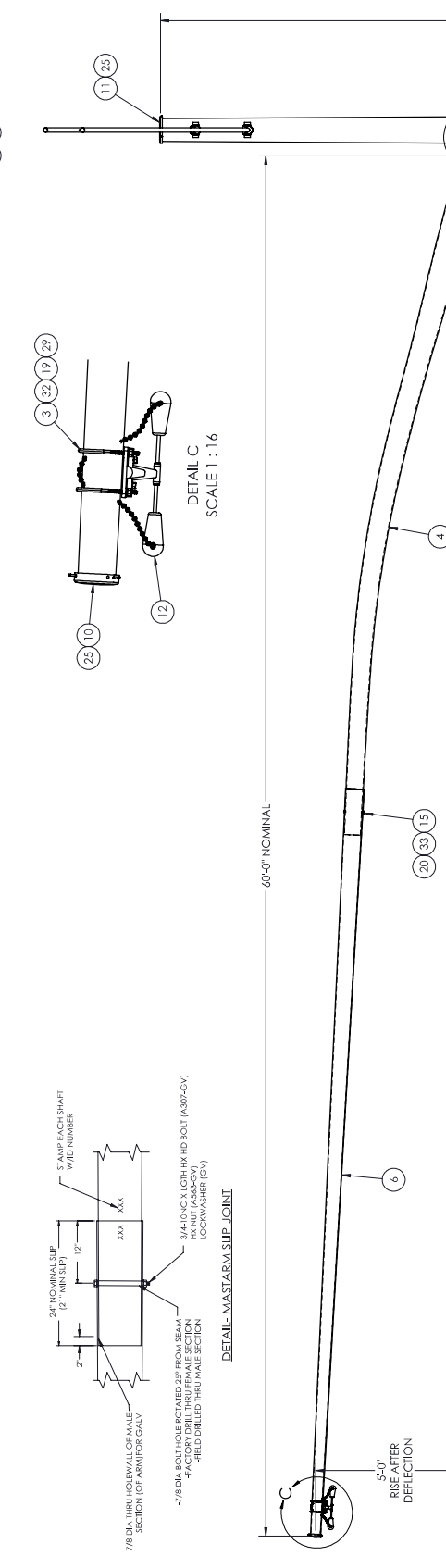
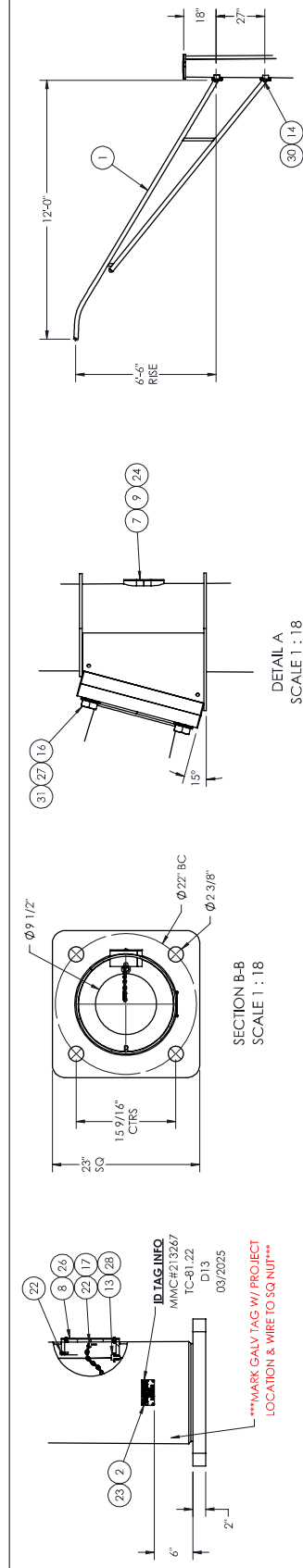
6" DIA THRU HOEWALL OF MALE SECTION OF ARMFOR GALV
180° UPPER HH LOWER HH
LUM ARM
270° LUM ARM
ID TAG

MATERIAL SPECIFICATIONS	
POST: ASTM A572 GR S5	
MAST ARM: ASTM A572 GR 55	
ANCHOR BOLT: ASTM A36	
MOUNTING PLATE: ASTM A36	
HARDWARE FINISH: GALV ASTM A153	
ANCHOR BOLTS: ASTM F1554 GR 10S	
DESIGN CRITERIA	
2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL STEEL SHORING AND BRACING SYSTEMS FOR HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.	
WINDS: 115 MPH	VORTEX SHED: N/A
FATIGUE CATEGORIES: NONE	GALLOPING: N/A
NATURAL WIND GUST: YES	BRICK GUST: YES
WELD SPECIFICATION	
THE POST AND MAST ARM TO BE ROUND TAPERED TUBE PER AASHTO 2015 STANDARD SPECIFICATIONS FOR STRUCTURAL STEEL SHORING AND BRACING SYSTEMS FOR HIGHWAY SIGNS, LUMINAIRES AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.	
WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS TO BE TESTED BY HYDROSTATIC PRESSURE TESTING. MATERIAL: PER AASHTO 2015 3.15.5.4 WELD INSP(T) THICKNESS, < 6MM (0.25 IN) AT 3.6MM (0.14 IN) UT	
WELD FINISH: ALL ELLET WELDS AND PARTIAL JOINT PENETRATION (PJP), LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).	

FINISH SPECIFICATION	
GALV. OR PRIME COAT: HOT DIE GALVANIZED PER ASTM A123	
FINISH COAT: PAINT TROP BLACK	
COLOUR: RAL 9005	FL-171-FUL-003-FR
COLOUR CODE: F57/78	#9758 17/088
WEIGHT W/GALV.: 3987.78	
SUMP/ICE AREA: 4020.64	
PAINT AREA: 84270.7	
PAINT WEIGHT: 3.24118	

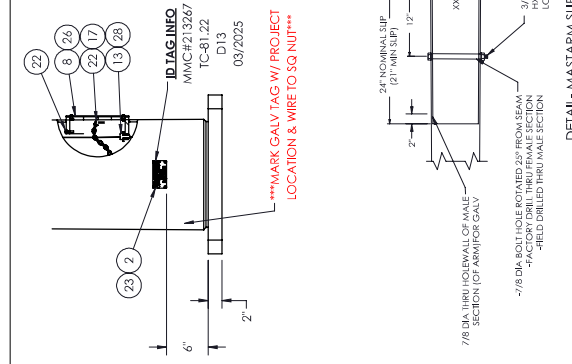
MILLERBERND	
622 6TH ST. S.O. WINSTED, MN 55395	
THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND MFG AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN PERMISSION OF MILLERBERND MFG.	
SALES ORDER NO.: 213267	QTY: 1
STATE: OH	SHEET: 1 OF 1
DESCRIPTION: SHIP POLE SIG RD 5/16X30/166 TC-81.22 D13 POST & 60" CRV ARM W/120 LUM	
EST. WEIGHT: 3866.0	DRAWING NO: 21 3267-07

PROJECT NAME:	
PO #4169-1L-928738D / Mark 0000190523 / Job Name ODOT 42625 / Chillicothe OH ROS-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID : 113013	
PROJECT LOCATION:	
SIA 718+33.9 77.1' RT	
DWN BY: MARK S.	DATE: 12-02-2024
CHK BY:	DATE:



ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER ASSY	FINISH
18	HDWR L20-003	1TD1-3/4ODD-5/8TKW/GRV 1/4/1.38GVD	6	NOT SHOWN
19	NIU/HVYHX/1/2-1.3A563GV	NIU HVY HX 1-2-1.3NC A563 GV (DH)	4	
20	NIU/HVYHX/3/4-1.0A563DHGV	NIU HVY HX 3/4-1.0NC ASTM A563GV (DH)	1	
21	PT-1-17-FUL-003-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACK)	1	REF
22	RVP/FP3/1/6X1-1/8(S)/H/AL	RIVET POP 3/16X1-1/8(S)/8 HD ALUM	2	X
23	RVP/FP3/1/6X1/12(S)/H/SS	RIVET POP 3/16X1/12(S)/8 HD SS	4	X
24	SCRWAS/1/6-18X2SS	SCRWA HX SK FL HD 5-16-18NC X 2 SS	1	X
25	SCRW/1/4-20X1-1/4SS	SCRW ST SQ HD 1-4-20NC X 1 1-4 SS	6	X
26	SCRW/1/4-20X3/4SS	SCRW HX SK BT HD 1-4-20NC X 3-4 SS	2	X
27	WASHFLAT1-1/2GV	WASHER FLAT 1-1/2 SAE ASTM F486 GV COMM. BRASS	4	X
28	WASHFLAT1/2BRASS-001	WASHER FLAT 1/2 SS	2	X
29	WASHFLAT1/2GV	WASHER FLAT 1/2 GV	4	X
30	WASHFLAT1/2SS-001	WASHER FLAT 1/2 SS	4	X
31	WASHLOADIN1-1/2-001-GV	WASHER DTI 1-1/2" ASTM F959 TYPE 325	4	X
32	WASHLOCK1/2GV	WASHER LOCK 1/2 GV	4	X
33	WASHLOCK3/4GV	WASHER LOCK 3/4 ANSIB 18.21.1 GV	1	X

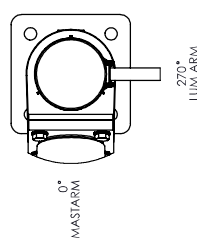
ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER ASSY	FINISH
1	1002654	WLDMT ARM TRUSS PIPE 120 27' SPACING 2-1	1	X
2	1005186	ID TAG OHIO	1	X
3	1055077	UBOLT 1/2" X 6 DAC	2	X
4	1078389	WLDMT ARM SIG CRV RD S1 5/16X29'6 (51'6X1.3)OX8.8X300	1	X
5	1078391	WLDMT POLE SIG RD 5/16X30/166 (51'6X1.6)OX11.8X300	1	X
6	1078392	WLDMT ARM SIG RD S2 1/4X32'6 (11'4X3.85X25.28X32.6)	1	X
7	8800267	COVER HH M15 3X5 FORMED	1	X
8	8800709	COVER HH 4X8 W/CHAIN TAB	1	X
9	9900037	LATCH HH M15 3X5	1	X
10	9900203	STAMPED POLE CAP WELDMENT (4.75-5.75)	1	X
11	9900209	STAMPED POLE CAP WELDMENT (11.75-13.25)	1	X
12	ALCOA DAMPER B543 1-X ASSY W/ HARDWARE	ALCOA DAMPER B543 1-X ASSY W/ HARDWARE	1	X
13	BOLTA 1/2-13X1A	BOLT HX HD 1-2-13NC X 1" F599C S3 304 SS	1	X
14	BOLTA 1/2-13X1-1/2A	BOLT HX HD 1-2-13NC X 1-1/2 F599C SS	4	X
15	BOLTA3/4-10X1 1/4	BOLT HX HD 3-4-10NC X 1 1/4 A307GV	1	X
16	BOLTA 1-1/2-8X4-1/2B	BOLT HVYHX HD 1-1/2-6 X 4-1-2 A325GV	4	X
17	CHAIN-1/8-CV-12"	CHAIN 1/8" PROOF COIL CHAIN GV 12' LG	1	X



ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER ASSY	FINISH							
22	23	24	25	26	27	28	29	30	31	32	33

MARK GALV TAG W/ PROJECT LOCATION & WIRE TO SQ NUT

REV.	DESCRIPTION	DATE	DRT
	REVISIONS		



MATERIAL SPECIFICATIONS

POST: ASTM A572 GR 55
 MAST ARM: ASTM A572 GR 55
 MOUNTING PLATE: ASTM A36
 HARDWARE FINISH: GALV ASTM A153
 ANCHOR BOLTS: ASTM F1554 GR 105

DESIGN CRITERIA

2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL STEEL
 SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.

WINDS: 115 MPH
 FATIGUE CATEGORY: C
 NATURAL WIND GUST: YES
 VORTEX SHED: N/A
 GALLOPING: N/A
 ICE ACCUM: YES

WELD SPECIFICATION

THE POST AND MAST ARE TO BE WELDED TO THE LUMINAIRE SEAM WELD WITH 100% PENETRATION & FROM BASE PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS IN THE JOINTS SHALL BE TESTED BY X-RAY. WELDING MATERIAL: PER AASHTO 2013.3.15.5 (WELD INSP) THICKNESS: < 6MM (0.25 IN) MT
 3.6MM (0.25 IN) UT
 1.5MM (0.06 IN) UT
 FINISH: ALL ELLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).

FINISH SPECIFICATION

GALV OR PRIME COAT: HOT DIE GALVANIZED PER ASTM A123
 FINISH COAT: PAINT TROP BLACK
 COLOR: RAL 9005
 COAT: FE-170-FI-003-FR
 WEIGHT W/GALV: 3815.83
 SURFACE AREA: 79455.3
 GALLON PAINT: 3.0559

MILLERBERND 622 6TH ST. S.O.
 WINSTED, MN 55395

THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND MFG AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND MFG.

SALES ORDER NO.: QTY: STATE: SHEET

213267 1 OH 1 OF 1

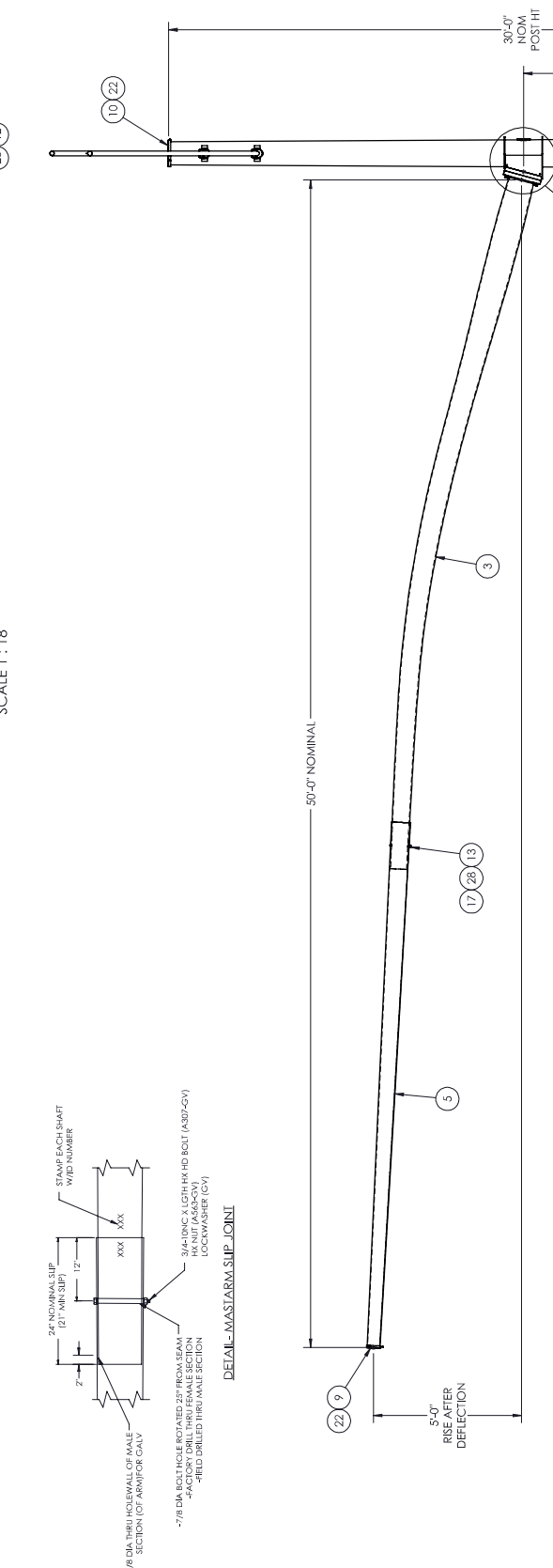
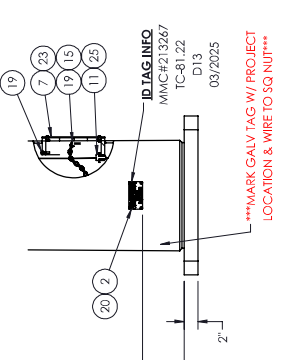
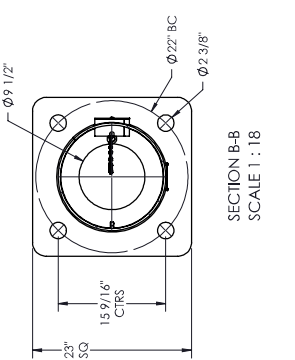
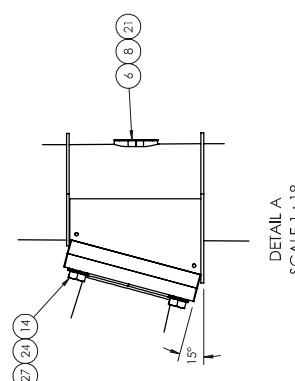
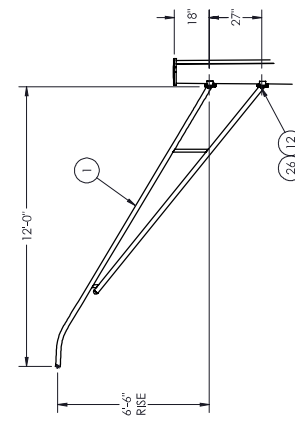
DESCRIPTION: SHIP POLE SIG RD 5/16X300/150 TC-81.22
 D13 POST & 500 CRV ARM W/120 LUM

EST. WEIGHT: DRAWING NO: 213267-08
 3699.3

PROJECT NAME: STA 728+87.6 58.7' LT
 PO #4169-LT-928738D / Mark 0000 190523 / Job
 Name ODOT 426-25 / Chillicothe OH ROS-159-
 0.41 Traffic Signal & Light Pole Material Only
 Contract / PID: 113013

PROJECT LOCATION: STA 728+87.6 58.7' LT
 STRUCTURE SP-1 / SR 159 & PLAZA BLVD
 DWN BY: MARK S. DATE: 12-02-2024

CHK BY: DATE:

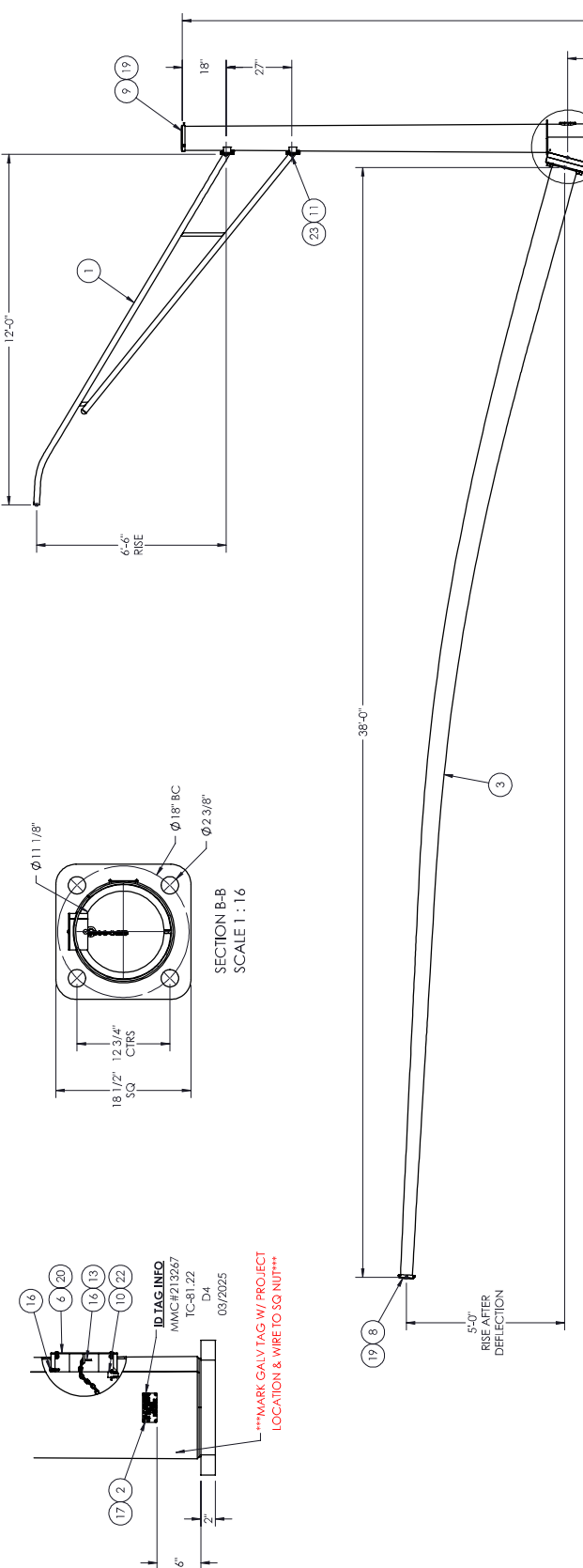


ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER ASSY	FINISH
15	CHAIN-A-1/8-GV-1/2"	CHAIN 1/8PROOF COIL CHAIN GV 1/2LG	1	X
16	HDWR-120-003	1TD-1-3/4OD-5/8TKWGRY 1/41.38GV	6	NOT SHOWN
17	NUTHYHX3/4-10A563DHGV	NUT HVY HK 3/4-10NC ASTM A563GV(DH)	1	REF
18	PE-1-17-FU-003-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005)	1	REF
19	RVTYP3/16X1-1/8/5/8H/AL	RIVET POP 3/16X1-1/8X5/8 HD ALUM	2	X
20	RVTYP3/16X1/2/3/8H/SS	RIVET POP 3/16X1/2X3/8 HD SS	4	X
21	SCRWA5/16-18X2'SS	SCRWA HK 5/16 FL HD 5-16-18NC X 2 SS	1	X
22	SCRWA1/4-20X1-1/4SS	SCRW ST SQ HD 1/4-20NC X 1-1/4 SS	6	X
23	SCRWA1/4-20X3/4SS	SCRW HK SK BT HD 1/4-20NC X 3/4 SS	2	X
24	WASHEFLAT1-1/2GV	WASHER FLAT 1-1/2 SAE ASTM F436 GV	4	X
25	WASHEFLAT1/2BRASS-001	WASH F.56(DX1.375)ODX.091 THK BRASS	2	X
26	WASHEFLAT1/2SS-001	WASHER FLAT 1/2 SS	4	X
27	WASHLOADIN1-1/2-001-GV	WASHER DT 1-1/2" ASTM F959 TYPE 325	4	X
28	WASHLOCK3/4GV	WASHER LOCK 3/4 ANSI B 18.21.1 GV	1	X

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER ASSY	FINISH
1	1002654	WLDMT ARM TRUSS PIPE 120 27" SPACING 2"	1	X
2	1005186	ID TAG OHIO	1	X
3	1078389	WLDMT ARMA SIG CRV RD S1 5/16X299	1	X
4	1078393	WLDMT POST SIG RD 5/16X300/150	1	X
5	1078394	WLDMT ARMA SIG RD S2 1/4X226	1	X
6	8800267	COVER HH M15 3X5 FORMED	1	X
7	8800709	COVER HH 4X8 W/CHAIN TAB	1	X
8	9900037	LATCH HH M15 3X5	1	X
9	9900204	STAMPED POLE CAP WELDMENT (5.75-6.75)	1	X
10	9900209	STAMPED POLE CAP WELDMENT (11.75-13.25)	1	X
11	BOLTA1/2-13X1'A	BOLT HK HD 1/2-13NC X 1" F599C SS 304 SS	1	X
12	BOLTA1/2-13X1-1/2A	BOLT HK HD 1/2-13NC X 1-1/2 F599C SS	4	X
13	BOLTA3/4-10X11'L	BOLT HK HD 3/4-10NC X 11" A307GV	1	X
14	BOLB1-1/2-8X4-1/2B	BOLT HYTHKHD 1-1/2-6 X 4-1/2 A25GV	4	X

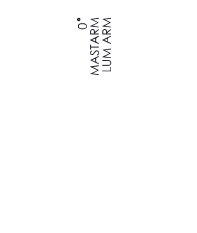
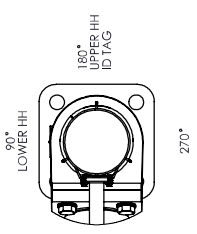
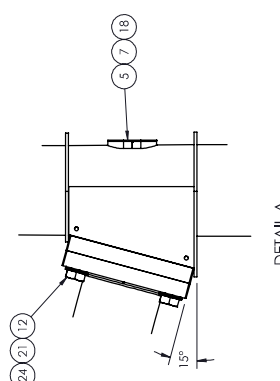
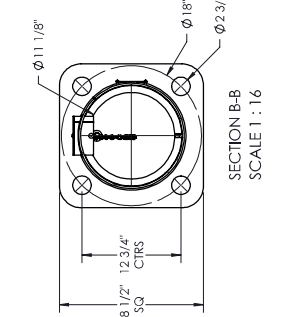
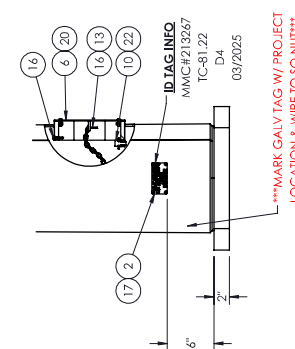
MARK GALV TAG W/ PROJECT LOCATION & WIRE TO SQ NUT

REV.	DESCRIPTION	DATE	DWGT

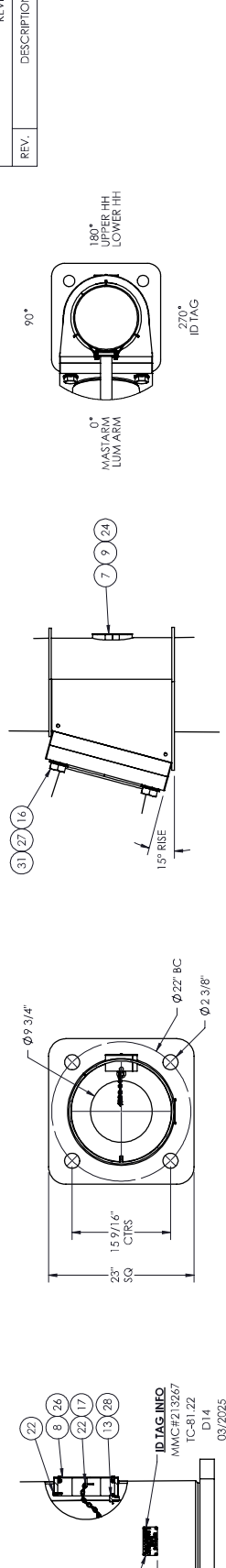


MATERIAL SPECIFICATIONS	
POST: ASTM A572 GR 55	WINDS: 115 MPH
FASTENERS: ASTM A307	FATIGUE CAP: N/A
MAST ARM: ASTM A377 GR 55	NATURAL WIND GUST: YES
MOUNTING PLATE: ASTM A36	VORTEX SHED: N/A
HARDWARE FINISH: GALV ASTM A153	GALLOPING: N/A
ANCHOR BOLTS: ASTM F1554 GR 105	IRREG GUST: YES
DESIGN CRITERIA	
2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.	
WELD SPECIFICATION	
THE POST AND MAST ARM TO BE WELDED TO THE TRUSS MEMBER WITH 100% PENETRATION 6" FROM BASE PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.	
WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS TO BE TESTED TO AASHTO M270. WELDING MATERIAL: PER AASHTO 2013.3.15.5 WELD INSP) THICKNESS: < 6MM (0.25 IN) MT 3.6MM (0.25 IN) UT PENETRATION (IP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).	
FINISH SPECIFICATION	
GALV. OR PRIME COAT: HOT DIP GALVANIZED PER ASTM A123	
FINISH COAT: PAINT TROP BLACK	
COLOR: RAL 9005	
GALV. OR PAINT SPEC.: PER AASHTO #933B 17/038	
WEIGHT W/GALV. & PAINT: 2325.44	
SURFACE AREA: 56665.7	
GALV. COAT PAINT: 2.18/507	
MILLERBRAND 622 6TH ST. S.O. WINSTED, MN 55395	
THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBRAND MFG AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBRAND MFG	
SALES ORDER NO.:	213267
QTY:	1
STATE:	IA
SHEET:	1 OF 1
DESCRIPTION:	SHIP POLE SIG RD 1/4X300/160 TC-81.22 D4 POST & 38'0 CRV ARM W/120 LUM
EST. WEIGHT:	2236.0
DRAWING NO.:	213267-09
PROJECT NAME:	PO #4169-1L-928738D / Mark 0000 190523 / Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 113013
PROJECT LOCATION:	SIA 727+80.7 50.6' LT STRUCTURE SP-2 / SR 159 & PLAZA BLVD
DWN BY:	MARK S.
DATE:	12-02-2024
CHK BY:	

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
1	1002654	WLDMT ARV TRUSS PIPE 120 27" SPACING 2- BOLT 3M/PLEX	1	X	X
2	1005186	ID TAG OHIO	1	X	X
3	1077840	WLDMT ARM SIG CRV RD 1/4X380 (1/4X10.32X4.92X387)	1	X	X
4	1077847	WLDMT POLE SIG RD 1/4X300/170 (1/4X14.5X3.5X305)	1	X	X
5	8800267	COVER HH M1.5 3X5 FORMED	1	X	X
6	8800709	COVER HH 4X8 W/CHAIN TAB	1	X	X
7	9900037	LATCH HH M1.5 3X5	1	X	X
8	9900203	STAMPED POLE CAP WELDMENT (4.75-5.75)	1	X	X
9	9900207	STAMPED POLE CAP WELDMENT (8.75-10.25)	1	X	X
10	BOLTA/1/2-13X17A	BOLT HK HD 1-2-13NC X 1" F593C SS 304 SS	1	X	X
11	BOLTA/1/2-13X17A	BOLT HK HD 1-2-13NC X 1" F593C SS	4	X	X
12	BOLBI1/2-6X1/2B	BOLT HYHXHD 1-1/2-6 X 1-1/2 A325GV	4	X	X
13	CHAIN-A-1/8-GV-12"	CHAIN 1/8"PROOF COIL CHAIN GV 12'L/G	1	X	X
14	HDWR-120-003	1"DI-13/AOD.5/8TKW/GRV 1/4/1.38GYD	4	NOT SHOWN	X
15	PI-1-17-FIU-003-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACK)	1	REF	X
16	RVTPP3/16X1-1/8S/8H/AL	RIVET POP 3/16X1-1/8X5/8 HD ALUM	2	X	X
17	RVTPP3/16X1/2/13/8H/SS	RIVET POP 3/16X1/2X3/8 HD SS	4	X	X
18	SCRWA5/16-18X25SS	SCRWA HK SK FL HD 5/16-18NC X 2.5 SS	1	X	X
19	SCRWM1/4-20X1-1/4SS	SCRW ST SQ HD 1-4-20NC X 1 1/4 SS	6	X	X
20	SCRWW1/4-20X3/4SS	SCRW HK SK BT HD 1-4-20NC X 3/4 SS	2	X	X
21	WASHFLAT1-1/2GV	WASHER FLAT 1-1/2 SAE ASTM F466 GV	4	X	X
22	WASHFLAT1/2BRASS-001	WASH F.56 LDX1.375ODX.091THK BRASS	2	X	X
23	WASHFLAT1/2SS-001	WASHER FLAT 1/2 SAE 304 SS	4	X	X
24	WASHLOADN1-1/2-001-GV	WASHER DTI 1-1/2" ASTM F959 TYPE 325	4	X	X



REV.	DESCRIPTION	DATE	DRT



SECTION B-B
SCALE 1 : 18

DETAIL A
SCALE 1 : 18

DETAIL C
SCALE 1 : 24

DETAIL--MASTARM SLIP JOINT

7/8 DIA. HOLE SPACED 2" FROM SEAM
3/4 DIA. DRILL THRU FEMALE SECTION
-HELD DRILLED THRU MALE SECTION

24" NOMINAL SIP
(21" NET SIP)

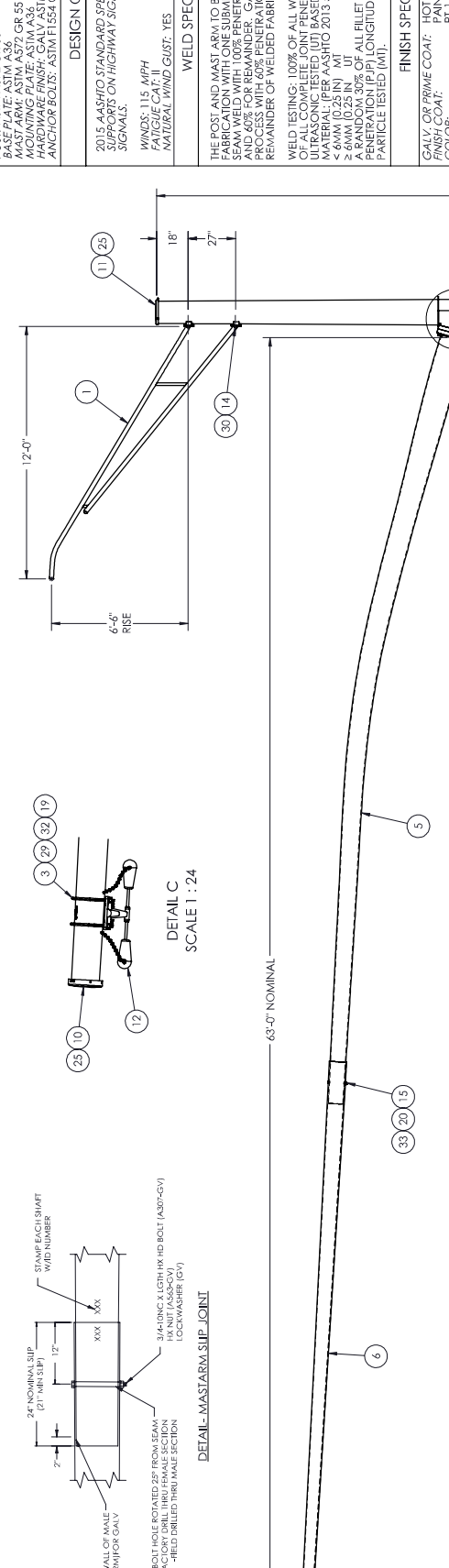
15" WIP BOLT H/WFT
W/B NUMBER

3/4" IDNC X LGTH HK HD BOLT (A307-GV)
LOCKWASHER (GV)

7/8 DIA. THRU HOLE WALL OF MALE
SECTION (OF ARM) FOR GALV

***MARK GALV TAG W/ PROJECT
LOCATION & WIRE TO SQ NUT***

03/2025



ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
1	1002654	WLDMT ARM TRUSS PIPE 120 27" SPACING 2'	1	X	X
2	1005186	ID TAG OHIO	1	X	
3	1023018	UBOLT 1/2" X 6 3/4 DAC	2		
4	1078404	WLDMT POLE SIG RD 5/16X307/160 (5/16X17.0X1.2 BX 307)	1	X	X
5	1078401	WLDMT ARM SIG CRV RD S1 5/16X36.5 (5/16X14.0X8.8X37.0)	1	X	X
6	1078405	WLDMT ARM SIG RD S2 1/4X287 (1/4X9.85X58.28X287)	1	X	X
7	8800267	COVER HH M1.5 3X5 FORMED	1	X	X
8	8800709	COVER HH 4X8 W/CHAIN TAB	1	X	X
9	9900037	LATCH HH M1.5 3X5	1		
10	9900204	STAMPED POLE CAP WELDMENT (5.75-6.75)	1	X	X
11	9900209	STAMPED POLE CAP WELDMENT (11.75-13.25)	1	X	X
12	ALCOA DAMPER B543 1-X ASSY HARDWARE		1		
13	BOLTA 1/2-13X1YA	BOLT HK HD 1-2-13NC X 1-1-2 F599C S3 304 SS	1	X	
14	BOLTA 1/2-13X1-1ZA	BOLT HK HD 1-2-13NC X 1-1-2 F599C SS	4		
15	BOLTA 3/4-10X1 L	BOLT HK HD 3/4-10NC X 1-1-2 A307/GV	1		
16	BOLTB 1-1/2-8X4-1ZB	BOLT HVYHD 1-1-2-6 X 4-1-2 A325GV	4		
17	CHAIN-A 1/8-CV-12"	CHAIN 1/8" PROOF COIL CHAIN GV 1ZLG	1	X	

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
18	HDWR-120-003	TID 1-3/4 OD 5/8 RTW / GRV 1/4 L1 38GV D	6	NOT SHOWN	
19	NUTHVHX1/2-13A563GV	NUT HVY HX 1-2-13NC A563 GV (DH)	4		
20	NUTHVHX3/4-10A563DHGV	NUT HVY HX 3-4-10NC ASTM A563GV (DH)	1		
21	PFL-1-1/2-FU-005-FR	HIGH GLOSS FINCOAT TROP BLACK (RAL9005 JET BLACK)	1	REF	
22	RVPP3/16X1-1/8/5 (8H)AL	RIVET POP 3/16X1-1/8A5/B HD ALUM	2	X	
23	RVPP3/16X1/2/3 (8H)SS	RIVET POP 3/16X1/2X3/8 HD SS	4	X	
24	SCRWA5/16-18X2 SS	SCRWA HK SK FL HD 5-16-18NC X 2 SS	1		
25	SCRWM1/4-20X1-1/4SS	SCRW ST SQ HD 1-4-20UNC X 1-1/4 SS	4		
26	SCRWV1/4-20X3/4SS	SCRW HK SK BT HD 1-4-20UNC X 3-4 SS	2	X	
27	WASHEFLAT1/2GV	WASHER FLAT 1-1/2 SAE ASTM F438 GV	2	X	
28	WASHEFLAT1/2BRASS-001	WASHER FLAT 1/2 INCH THK BRASS CONN. BRASS	2	X	
29	WASHEFLAT1/2GV	WASHER FLAT 1/2 GV	4		
30	WASHEFLAT1/2SS-001	WASHER FLAT 1/2 SS	4		
31	WASHLOADIN1-1/2-001-GV	WASHER DII 1-1/2" ASTM F959 TYPE 325	4		
32	WASHLOCK1/2GV	WASHER LOCK 1/2 GV	4		
33	WASHLOCK3/4GV	WASHER LOCK 3/4 ANSI B1.821.1 GV	1		

MATERIAL SPECIFICATIONS

POST: ASTM A572 GR 55
FASTENERS: ASTM A572 GR 55
MAST ARM: ASTM A572 GR 55
MOUNTING PLATE: ASTM A36
HARDWARE FINISH: GALV ASTM A153
ANCHOR BOLTS: ASTM F1554 GR 10S

DESIGN CRITERIA

2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIES & TRAFFIC SIGNALS.

WINDS: 115 MPH
FATIGUE CATEGORY: II
NATURAL WIND GUST: YES
VORTEX SHED: N/A
GALLOPING: N/A
ICE GUST: YES

WELD SPECIFICATION

THE POST AND MAST ARM TO BE ROUND TAPERED TUBULAR SEAM WELDED TO THE MAINTENANCE SIGN AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS TO BE TESTED BY RADIOGRAPHY (RT).
MATERIAL: PER AASHTO 2013.3.15.5 (WEI IN SPT) THICKNESS < 6MM (0.25 IN) MT
3.6MM (0.25 IN) UT
MATERIAL: PER AASHTO 2013.3.15.5 (WEI IN SPT) THICKNESS < 6MM (0.25 IN) UT
PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).

FINISH SPECIFICATION

GALV OR PRIME COAT: HOT DIE GALVANIZED PER ASTM A123
FINISH COAT: PAINT TROP BLACK
COLOR: RAL 9005
GLOSS: 90
WEIGHT W/GALV.: 4466.09
SURFACE AREA: 9259.51
PAINT: 3.56121

MILLERBERND
622 6TH ST. S.O.
WINSTED, MN 55395

THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND SIG AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND SIG.

SALES ORDER NO.: QTY: STATE: SHEET

213267 1 OH 1 OF 1

DESCRIPTION: SHIP POLE SIG RD 5/16X307/160 TC-81.22 D14 POST & 630 CRV ARM W/120 LUM

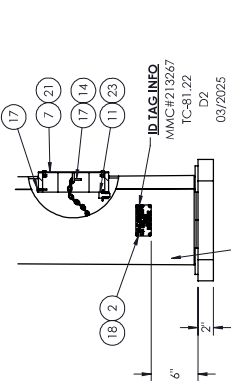
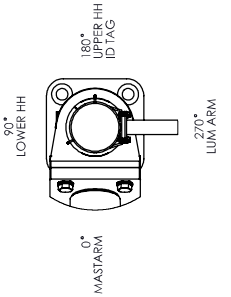
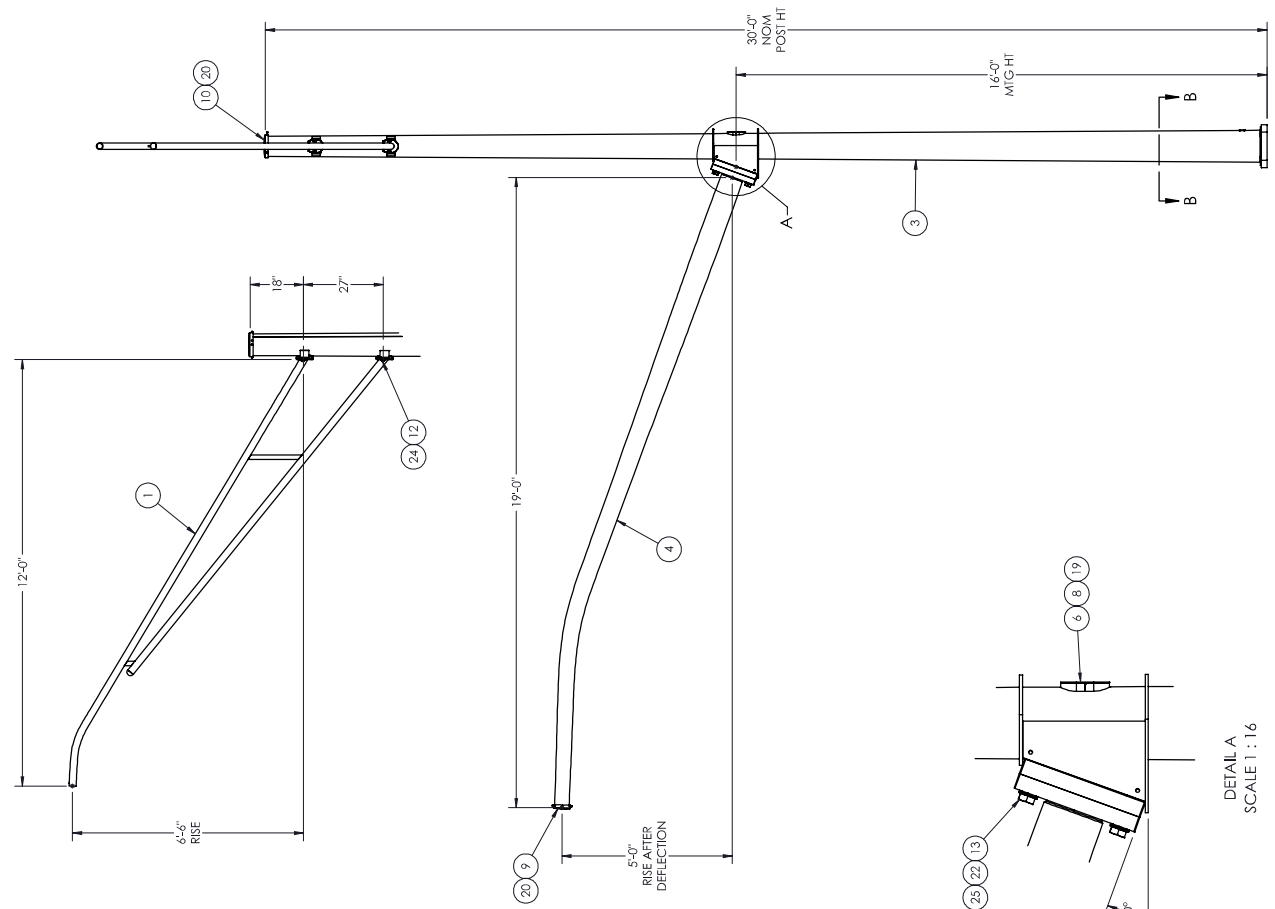
EST. WEIGHT: DRAWING NO: 213267-10

PROJECT NAME: PO #4169-1L-9287380 / Mark 0000 190523 / Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID : 113013

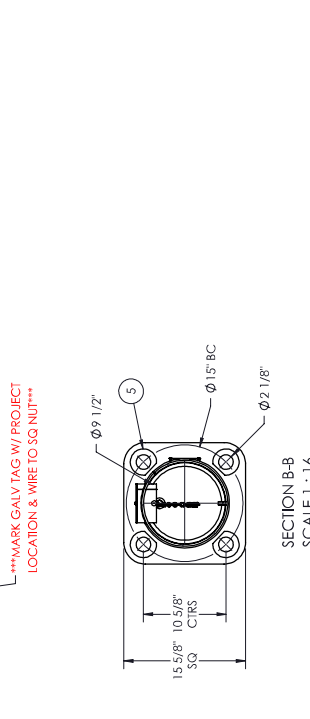
PROJECT LOCATION: STA 728+89.2 70.2 RT
STRUCTURE SP-3 / SR 159 & PLAZA BLVD
DWN BY: MARK S. DATE: 12-02-2024

CHK BY: DATE:

REV.	DESCRIPTION	DATE	DWGT

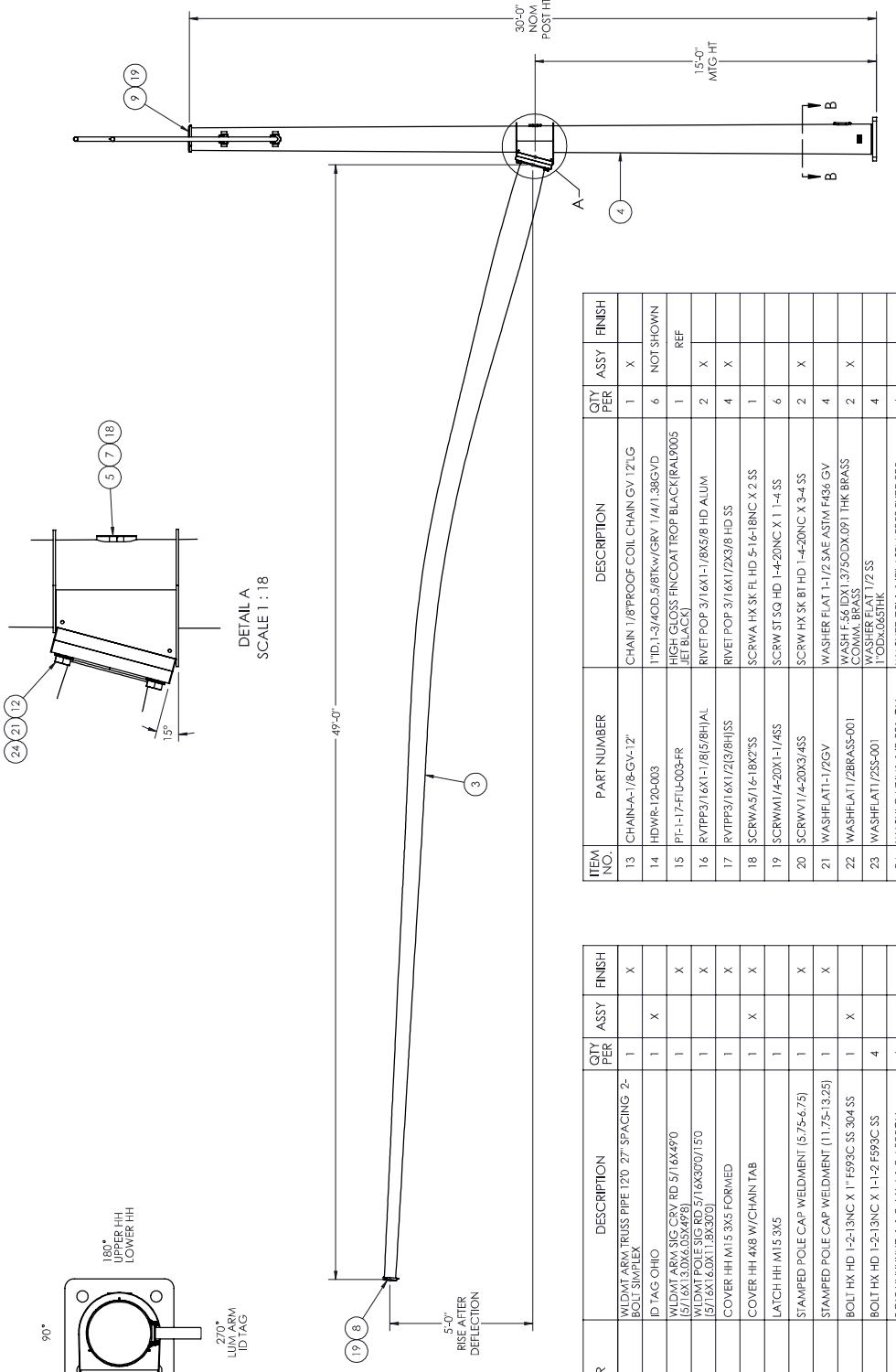
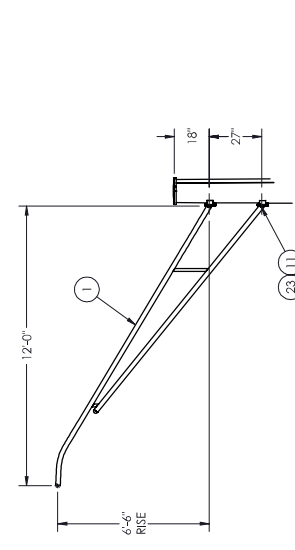
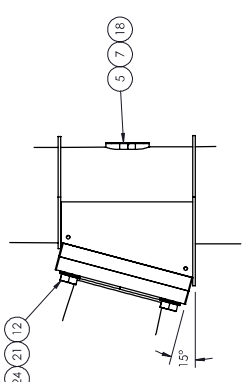
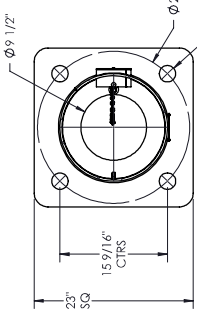
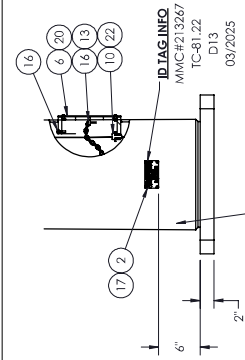


MATERIAL SPECIFICATIONS			
POST: ASTM A572 GR 55	WINDS: 115 MPH		
MAST ARM: ASTM A572 GR 55	NATURAL WIND GUST: YES		
MOUNTING PLATE: ASTM A36	VORTEX SHED: N/A		
HARDWARE FINISH: GALV ASTM A153	GALLOPING: N/A		
ANCHOR BOLTS: ASTM F1554 GR 10S	IRREG GUSTS: YES		
DESIGN CRITERIA			
2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.			
WELD SPECIFICATION			
THE POST AND MAST ARM TO BE BOND TO PERFORM THE PERMANENT WELD JOINTS TO BE FULL PENETRATION WELDS WITH 100% PENETRATION & FROM BASE PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.			
WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS TO BE X-RAY TESTED (RT). ALL ELLET WELDS AND PARTIAL JOINT PENETRATION (PJ) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).			
FINISH SPECIFICATION			
GALV. OR PRIME COAT: HOT DIE GALVANIZED PER ASTM A123			
FINISH COAT: PAINT TROP BLACK			
COLOR: RAL 9005			
GALV. OR PAINT SPEC.: F1-F1-F1-U003-FR			
WEIGHT W/GALV.: 1564.06			
SURFACE AREA: 39172.8			
GALV. COAT PAINT: 1.30492			
622 6TH ST. S.O.			
WINSTED, MN 55395			
THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND AND PFS			
SALES ORDER NO.:	QTY:	STATE:	SHEET
213267	1		1 OF 1
DESCRIPTION:	SHIP POLE SIG RD 1/4X300/160 TC-81.22		
	D2 POST & 19'0 CRV ARM W/120 LUM		
EST. WEIGHT:	DRAWING NO:		
1506.6	213267-11		
PROJECT NAME:	PO #4169-1L-928738D / Mark 0000190523 / Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 113013		
PROJECT LOCATION:	STA 728+19.3 65'0 RT		
	STRUCTURE SP-4 / SR 159 & PLAZA BLVD		
DWN BY: MARK S.	DATE: 12-02-2024		
CHK BY:	DATE:		



ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER ASSY	FINISH
1	1002654	WLDMT ARW TRUSS PIPE 120 27' SPACING 2- BOLT SIMPLEX	1	X
2	1005186	ID TAG OHIO	1	X
3	1077809	WLDMT POLE SIG RD 1/4X300/160 (1/4X11.5X7.3X300)	1	X
4	1077828	WLDMT ARW SIG CRV RD 3/16X190 (3/16X6.0X5.2X200)	1	X
5	1077877	CLIPPED WASHER 3/8" X 3 3/8"	4	GV
6	8800267	COVER HH M15 3X5 FORMED	1	X
7	8800709	COVER HH 4X8 W/CHAIN TAB	1	X
8	9900037	LATCH HH M15 3X5	1	X
9	9900203	STAMPED POLE CAP WELDMENT (4.75-5.75)	1	X
10	9900205	STAMPED POLE CAP WELDMENT (6.75-7.75)	1	X
11	BOLTA/1/2-13X17A	BOLT HK HD 1-2-13NC X 1" F593C SS 304 SS	1	X
12	BOLTA/1/2-13X1-172A	BOLT HK HD 1-2-13NC X 1-1-2 F593C SS	4	
13	BOLBH/1/4-2X4-1/2B	BOLT HYHYKHD 1-1/4-2 X 4-1-2 A325GV	4	
14	CHAIN-A/1/8-GV-12"	CHAIN 1/8"PROOF COIL CHAIN GV 12LG	1	X
15	HDWR-120-003	1"DI-3/AOD.5/8TKW/GRV 1/4/1.38GVD	4	NOT SHOWN
16	PT-1-17-F1U-003-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACK)	1	REF
17	RVYFP3/16X1-1/8S/8H/JAL	RIVET POP 3/16X1-1/8X5/8 HD ALUM	2	X
18	RVYFP3/16X1/213/8H/SS	RIVET POP 3/16X1/2X3/8 HD SS	4	X
19	SCRWA/S/16-18X2/SS	SCRWA HK SK FL HD 5-16-18NC X 2 SS	1	
20	SCRWM/1/4-20X1-1/4SS	SCRW ST SQ HD 1-4-20NC X 1 1/4 SS	6	
21	SCRWM/1/4-20X3/4SS	SCRW HK SK BT HD 1-4-20NC X 3/4 SS	2	X
22	WASHFLAT1-1/4GV	WASHFLAT1-1/4GV	4	
23	WASHFLAT1/2BRASS-001	WASH F56 LDX1.375ODX.091 THK BRASS	2	X
24	WASHFLAT1/2SS-001	WASH F56 LDX1.375ODX.091 THK SS	4	
25	WASHLOADN1-1/4-001-GV	WASHER DTI 1-1/4" ASTM F959 TYPE 325	4	

DETAIL A
SCALE 1 : 16



ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
1	1002654	WIDMT ARM TRUSS PIPE 120 27" SPACING 2- BOLT 3MRFLEX	1	X	X
2	1005186	ID TAG OHIO	1	X	
3	1078395	WIDMT ARM SIG GRV RD 5/1 6X490 (5/1 6X13.0X4.05X4.998)	1	X	X
4	1078393	WIDMT POLE SIG RD 5/1 6X300/150 (5/1 6X16.6X11.2X3.0)	1	X	X
5	8800267	COVER HH M1.5 3X5 FORMED	1	X	X
6	8800709	COVER HH X8 W/CHAIN TAB	1	X	X
7	9900307	LATCH HH M1.5 3X5	1	X	X
8	9900204	STAMPED POLE CAP WELDMENT (5.75-6.75)	1	X	X
9	9900209	STAMPED POLE CAP WELDMENT (11.75-13.25)	1	X	X
10	BOLTA1/2-13X17A	BOLT HH HD 1-2-13NC X 1" F593C SS 304 SS	1	X	
11	BOLTA1/2-13X11-2A	BOLT HH HD 1-2-13NC X 1-1-2 F593C SS	4		
12	BOLBI1/2-8X41/2B	BOLT HYTHKHD 1-1-2-6 X 4-1-2 A325GV	4		

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
13	CHAINA-1/8-GV-12"	CHAIN 1/8PROOF COIL CHAIN GV 12'L G	1	X	
14	HDWR-120-003	1TD-1-3/4OD-5/8TKW/GRV 1/4I-1.38GV D	6	NOT SHOWN	
15	PL-1-1/2-FU-003-R	HIGH GLOSS FINCOAT TROP BLACK (RAL9005 JET BLACK)	1	REF	
16	RVTFPP3/16X1-1/8/5/8HJAL	RIVET POP 3/16X1-1/8X5/8 HD ALUM	2	X	
17	RVTFPP3/16X1/2/3/8HJSS	RIVET POP 3/16X1/2/3/8 HD SS	4	X	
18	SCRWA5/16-18X2 SS	SCRWA HX SK FL HD 5-16-18NC X 2 SS	1		
19	SCRWMI1/4-20X1-1/4SS	SCRW ST SQ HD 1-4-20NC X 1 1-4 SS	6		
20	SCRWMI1/4-20X3/4SS	SCRW HX SK BT HD 1-4-20NC X 3-4 SS	2	X	
21	WASHFLAT1-1/2GV	WASHER FLAT 1-1/2 SAE ASTM F486 GV	4		
22	WASHFLAT1/2BRASS-001	WASH F 5/16 ID X 1/2 OD X 1/2 THK BRASS WASHER FLAT	2	X	
23	WASHFLAT1/2SS-001	WASH F 1/2 ID X 1/2 OD X 1/2 THK SS WASHER FLAT	4		
24	WASHLOADINI1/2-001-GV	WASHER DII 1-1/2" ASTM F959 TYPE 325	4		

REV.	DESCRIPTION	DATE	DWFT

MATERIAL SPECIFICATIONS

POST: ASTM A572 GR 55
 MAST ARM: ASTM A572 GR 55
 MOUNTING PLATE: ASTM A36
 HARDWARE FINISH: GALV ASTM A153
 ANCHOR BOLTS: ASTM F1554 GR 105

DESIGN CRITERIA

2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL STEEL
 SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.

WINDS: 115 MPH
 FATIGUE CLASS: N/A
 NATURAL WIND GUST: YES
 VORTEX SHED: N/A
 GALLOPING: N/A
 ARCH GUST: YES

WELD SPECIFICATION

THE POST AND MAST ARM TO BE ROUND TAPERED TUBE PERVIOUSLY MENTIONED. ALL WELDS TO BE FULL PENETRATION WELDS WITH 100% PENETRATION & FROM BASE PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS TO BE TESTED TO 2013 3.15.5 WELD INSPT THICKNESS. MATERIAL: PER AASHTO 2013 3.15.5 WELD INSPT THICKNESS. < 6MM (0.25 IN) MT
 2.6MM (0.25 IN) UT
 3.6MM (0.25 IN) UT
 FINISH: ALL ELLET WELDS AND PARTIAL JOINT PENETRATION (PJ) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).

FINISH SPECIFICATION

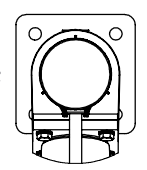
GALV OR PRIME COAT: HOT DIP GALVANIZED PER ASTM A123
 FINISH COAT: PAINT TROP BLACK
 COLOR: F1-1-FU-003-R
 COAT: F1-1-FU-003-R
 WEIGHT W/GALV: 3806.75
 WEIGHT W/GALV & PAINT: 3838.12
 SURFACE AREA: 76403.4
 GALLON PAINT: 2.93667

MILLERBERND
 622 6TH ST. S.O.
 WINSTED, MN 55395

THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND MFG AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND MFG

SALES ORDER NO.:	213267	QTY:	1	STATE:	OH	SHEET:	1 OF 1
DESCRIPTION:	SHIP POLE SIG RD 5/1 6X300/150 TC-81.22 D13 POST & 490 CRV ARM W/120 LUM						
EST. WEIGHT:	3690.5	DRAWING NO.:	213267-12				
PROJECT NAME:	PO #4169-TL-928738D / Mark 0000190523 / Job Name ODOT 42-6-25 / Chillicothe OH ROS-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 113013						
PROJECT LOCATION:	SIA 733+91.2 58.3' LT STRUCTURE SP-1 / SR 159 & MARIETTA RD DWN BY: MARK S. DATE: 12-02-2024						
CHK BY:	DATE:						

REV.	DESCRIPTION	DATE	DRT



MATERIAL SPECIFICATIONS

POST: ASTM A572 GR 55
 MAST ARM: ASTM A572 GR 55
 MOUNTING PLATE: ASTM A36
 HARDWARE FINISH: GALV
 ANCHOR BOLTS: ASTM F1554 GR 105

DESIGN CRITERIA

2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL STEEL
 SUPPORS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.

WINDS: 115 MPH
 FATIGUE CATEG: I
 NATURAL WIND GUST: YES

VORTEX SHED: N/A
 GALLOPING: N/A
 ARCH GUST: YES

WELD SPECIFICATION

THE POST AND MAST ARM TO BE ROUNDED TO RADIUS R10 FOR THE ENTIRE LENGTH OF THE MAST ARM AND TO RADIUS R1/2 FOR THE SEAM WELD WITH 100% PENETRATION & FROM BASE PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS VISUAL TESTED (VT).
 MATERIAL: PER AASHTO 2013 3.13.5-4 (WELD INSP) THICKNESS: < 6MM (0.25 IN) MT
 2. 6MM (0.25 IN) UT
 PENETRATION (IP), LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).

FINISH SPECIFICATION

GALV. OR PRIME COAT: HOT DIE GALVANIZED PER ASTM A123
 FINISH COAT: PAINT TROP BLACK
 COLOR: RAL 9005
 COAT THICKNESS: PER RAL SPEC: 35-60 μm (1.37-2.36 mil)
 WEIGHT W/GALV.: 3853.37
 SURFACE AREA: 79956.5
 GALEL OF PAINT: 3.07525

MILLERBERND 622 6TH ST. SO. WINNETON, MN 55395

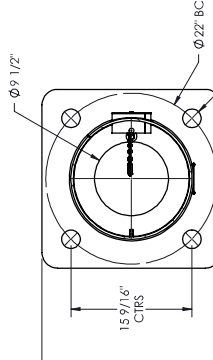
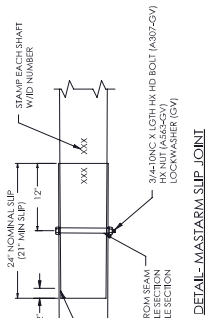
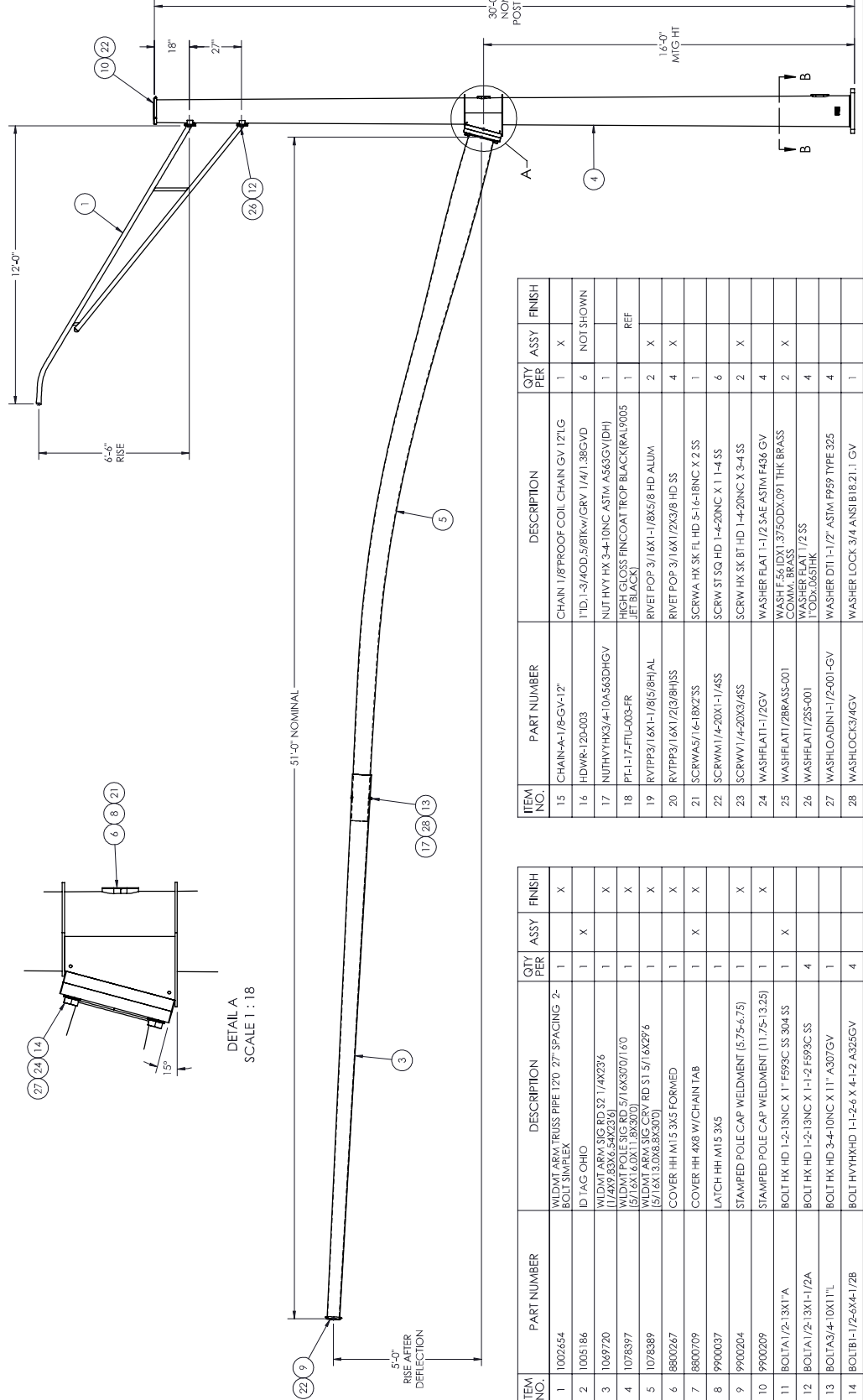
THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND.

SALES ORDER NO.: 213267 QTY: 1 STATE: OH SHEET 1 OF 1
 DESCRIPTION: SHIP POLE SIG RD 5/16X300/160 TC-81.22 D13 POST & 5'10 CRV ARM W/120 LUM.
 EST. WEIGHT: 3716.5 DRAWING NO: 213267-13

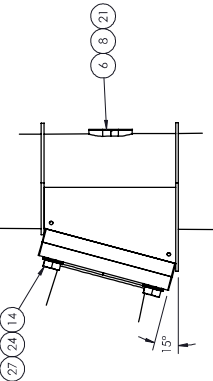
PROJECT NAME: PO #4169-TL-928738D / Mark 0000190523 / Job Name ODOT 426-25 / Chillicothe OH R053-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 113013

PROJECT LOCATION: STA 733+09.8 49.5' LT STRUCTURE SP-2 / SR 159 & MARIETTA RD DWN BY: MARK S. DATE: 12-02-2024

CHECK BY: DATE:



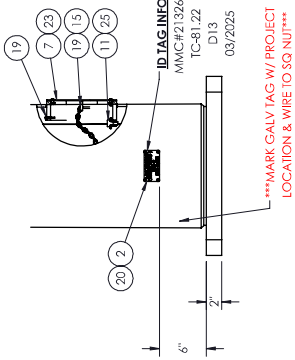
SECTION B-B
SCALE 1 : 16



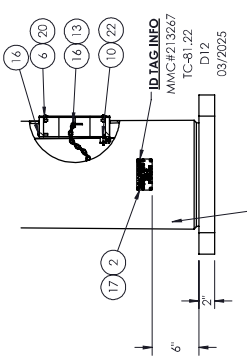
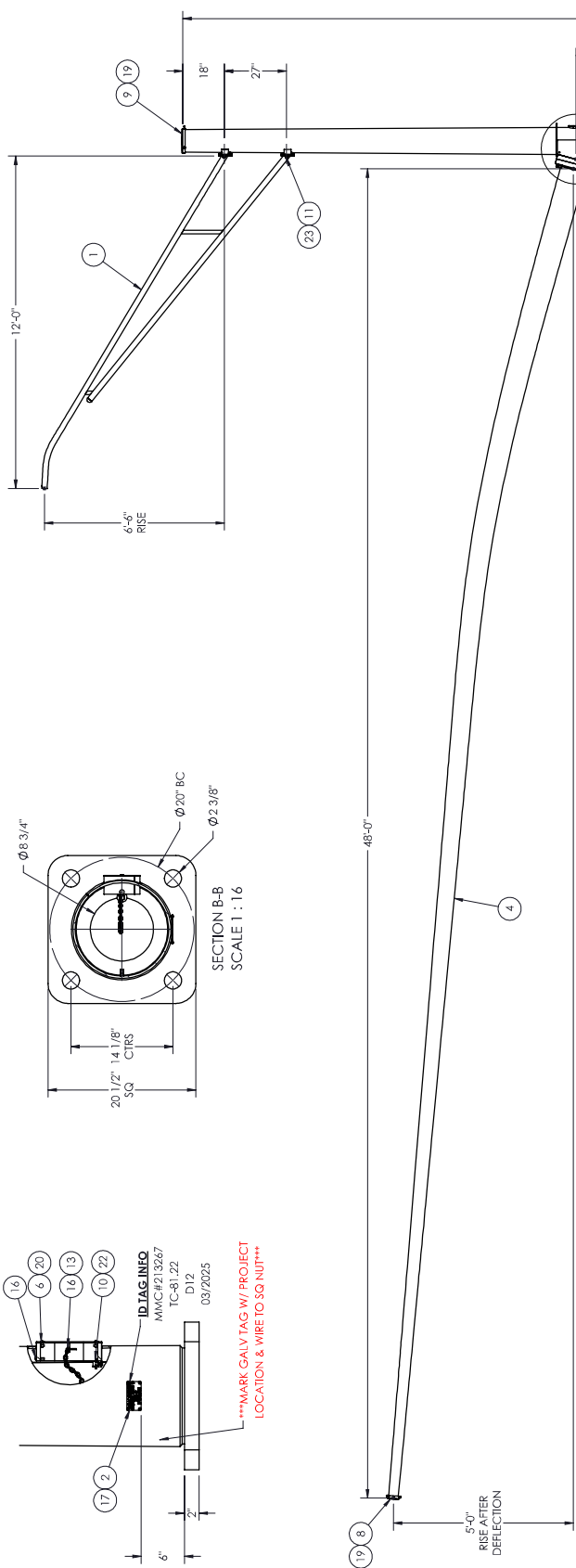
DETAIL A
SCALE 1 : 18

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER ASSY	FINISH
15	CHAIN-A-1/8-GV-12"	CHAIN 1/8"PROOF COIL CHAIN GV 12LG	1	X
16	HDWR-120-003	TTD-1-3/4OD,5.8IKW/GRY 1/4I-1.38GVYD	6	NOT SHOWN
17	NUTHVYHX3-4-10-A563DHGV	NUT HVY HX 3-4-10NC ASTM A563GV(DH)	1	REF
18	PF-1-17-FIU-003-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACK)	1	REF
19	RVPP3/16X1-1/8/5/8H-AL	RIVET POP 3/16X1-1/8X5/8 HD ALUM	2	X
20	RVPP3/16X1/2/3/8H-SS	RIVET POP 3/16X1/2X3/8 HD SS	4	X
21	SCRWA5/16-18X2 SS	SCRWA HK SK FL HD 5-16-18NC X 2 SS	1	X
22	SCRWN1/4-20X1-1/4SS	SCRWN SK SQ HD 1-4-20NC X 1-1/4 SS	6	X
23	SCRWN1/4-20X3/4SS	SCRWN SK BT HD 1-4-20NC X 3/4 SS	2	X
24	WASHFLAT1-1/2GV	WASHER FLAT 1-1/2 SAE ASTM F436 GV	4	X
25	WASHFLAT12BRASS-001	WASH FLAT 1.2 SAE 1.375ODX.091 THK BRASS COMM. BRASS	2	X
26	WASHFLAT1/2SS-001	WASHER FLAT 1/2 SS	4	X
27	WASHLOADIN1-1/2-001-GV	WASHER DTI 1-1/2" ASTM F959 TYPE 325 1.0DX.068THK	4	X
28	WASHLOCK3/4GV	WASHER LOCK 3/4 ANSIB18Z1.1 GV	1	X

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER ASSY	FINISH
1	1002654	WLDMT ARM TRUSS PIPE 120 27" SPACING 2"	1	X
2	1005186	BOLT SIMPLEX	1	X
3	1069720	ID TAG OHIO	1	X
4	1078397	WLDMT ARM SIG RD S2 1/4X236	1	X
5	1078389	WLDMT POLE SIG RD 5/16X300/160 (5/16X1.60X1.8X300)	1	X
6	8800267	WLDMT ARM SIG CRV RD S1 5/1 6X29 6 (5/16X1.375X3.8X300)	1	X
7	8800267	COVER HH M1.5 3X5 FORMED	1	X
8	8800709	COVER HH 4X8 W/CHAIN TAB	1	X
9	9900307	LATCH HH M1.5 3X5	1	X
10	9900204	STAMPED POLE CAP WELDMENT (5.75-6.75)	1	X
11	9900209	STAMPED POLE CAP WELDMENT (11.75-13.25)	1	X
12	BOLTA1/2-13X1A	BOLT HK HD 1-2-13NC X 1" F598C SS 304 SS	1	X
13	BOLTA1/2-13X1-1/2A	BOLT HK HD 1-2-13NC X 1-1/2 F598C SS	4	X
14	BOLTA3/4-10X1 1/4	BOLT HK HD 3-4-10NC X 1" A307GV	1	X
15	BOLBI1-1/2-8X4 1/2B	BOLT HYTHKHD 1-1/2-6 X 4-1/2 A325GV	4	X

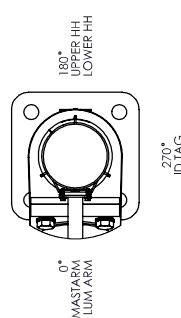


REV.	DESCRIPTION	DATE	DRFT



SECTION B-B
SCALE 1:16

DETAIL A
SCALE 1:16



MATERIAL SPECIFICATIONS	
POST: ASTM A572 GR 55	
FASTENERS: ASTM A307	
MASTAR ARM: ASTM A572 GR 55	
MOUNTING PLATE: ASTM A36	
HARDWARE FINISH: GALV ASTM A153	
ANCHOR BOLTS: ASTM F1554 GR 105	

DESIGN CRITERIA	
2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.	
WINDS: 115 MPH	VORTEX SHED: N/A
FATIGUE CALC: YES	GALLOPING: N/A
NATURAL WIND GUST: YES	IRREG GUST: YES

WELD SPECIFICATION	
THE POST AND MAST ARM TO BE WELDED TO PER THE PERMANENT WELDING PROCEDURE. ALL WELDS TO BE WELDED TO THE SEAM WELD WITH 100% PENETRATION & FROM BASE PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.	
WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS TO BE TESTED BY UT. MATERIAL: PER AASHTO 2013.3.15.5 WELD INSP TEST THICKNESS: < 6MM (0.25 IN) UT < 6MM (0.25 IN) UT	
FINISH: ALL ELLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).	

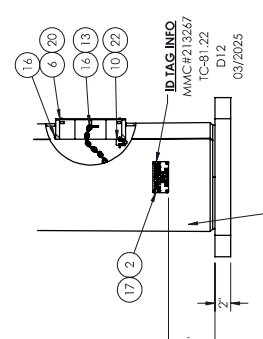
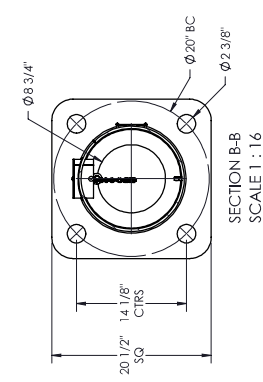
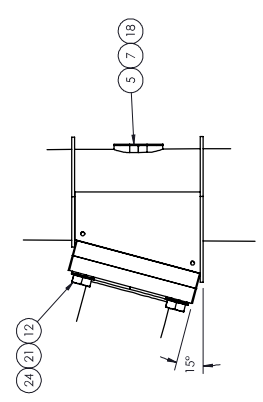
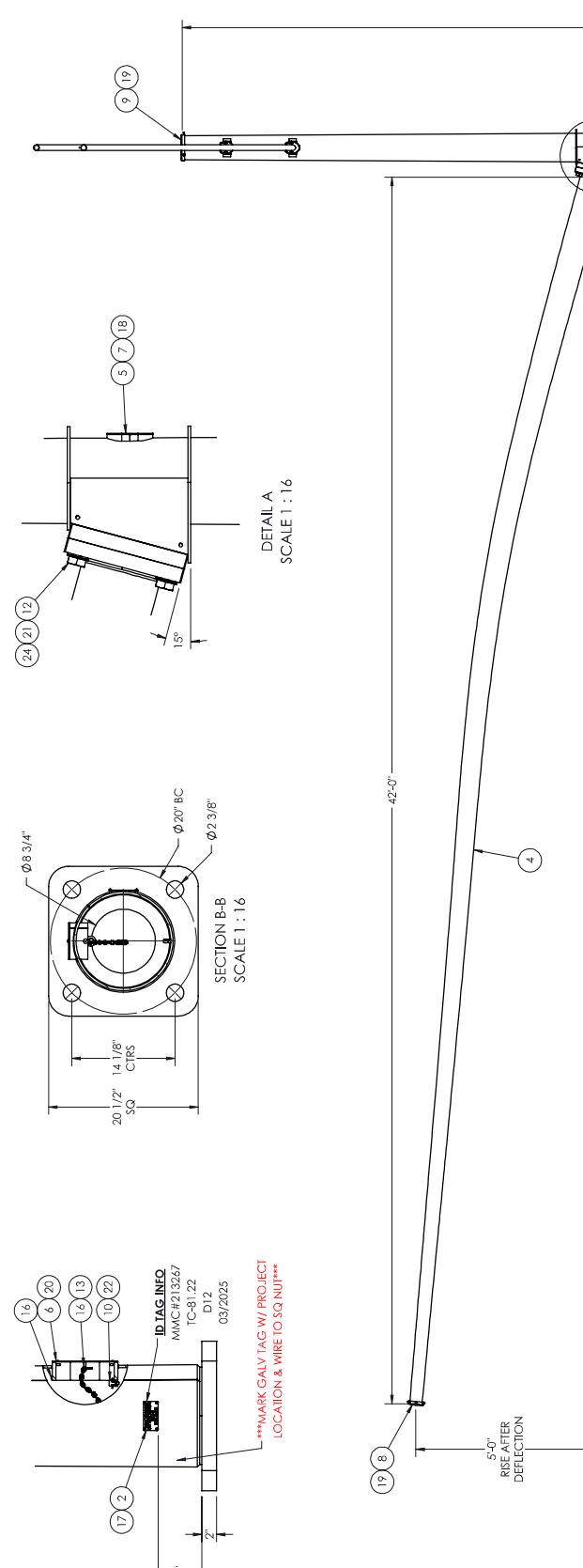
FINISH SPECIFICATION	
GALV. OR PRIME COAT:	HOT DIP GALVANIZED PER ASTM A123
FINISH COAT:	PAINT TROP BLACK
COLOR:	FL-17-F1U-003-FR
WEIGHT W/GALV.:	FECS # 97536 17038
SURFACE AREA:	30333.33
PAINT:	62727.8
PAINT:	229536

MILLERBERND	
622 6TH ST. S.O. WINSTED, MN 55395	
THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND MFG AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND MFG	
SALES ORDER NO.:	213267
QTY:	1
STATE:	OH
SHEET:	1 OF 1

DESCRIPTION:	SHIP POLE SIG RD 5/16X300/160 TC-81.22 D12 POST & 480 CRV ARM W/120 LUM
EST. WEIGHT:	2940.7
DRAWING NO.:	213267-14
PROJECT NAME:	PO #4169-1L-928738D / Mark 0000190523 / Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 113013
PROJECT LOCATION:	STA 734+11.3 55.1' RT
DWN BY:	MARK S.
DATE:	12-02-2024
CHK BY:	DATE:

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
1	1002454	WLDMT ARV TRUSS PIPE 120 27' SPACING 2'-BOLT 3MRLX	1	X	X
2	1005186	ID TAG OHIO	1	X	
3	1077849	WLDMT POLE SIG RD 5/16X300/160 (5/16X14.0X9.8X300)	1	X	X
4	1077850	WLDMT ARV SIG CRV RD 5/16X480 (5/16X11.0X4.2X480)	1	X	X
5	8800267	COVER HH M1.5 3X5 FORMED	1	X	X
6	8800709	COVER HH 4X8 W/CHAIN TAB	1	X	X
7	9900037	LATCH HH M1.5 3X5	1		
8	9900202	STAMPED POLE CAP WELDMENT (375-4.75)	1		X
9	9900207	STAMPED POLE CAP WELDMENT (875-10.25)	1		X
10	BOLTA/1/2:13X1/4	BOLT HK HD 1-2-13NC X 1" F593C SS 304 SS	1	X	
11	BOLTA/1/2:13X1-1/2A	BOLT HK HD 1-2-13NC X 1-1-2 F593C SS	4		
12	BOLTB/1/2:6X4/12B	BOLT HYHXHD 1-1-26 X 4-1-2 A325GV	4		
13	CHAIN-A-1/8-GV-12"	CHAIN 1/8"PROOF COIL CHAIN GV 12'L	1	X	
14	HDWR-120-003	1"ID-1/3/4OD-5/8HTKw/GRV 1/4/1.38GVD	4	NOT SHOWN	
15	PT-1-17-F1U-003-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACK)	1	REF	
16	RVPFP3/16X1-1/8(5/8)H/L	RIVET POP 3/16X1-1/8(5/8) HD ALUM	2	X	
17	RVPFP3/16X1/2(3/8)H/SS	RIVET POP 3/16X1/2(3/8) HD SS	4	X	
18	SCRWA5/16-18X2-SS	SCRWA HK SK FL HD 5/16-18NC X 2 SS	1		
19	SCRWM1/4-20X1-1/4SS	SCRW ST SQ HD 1-4-20NC X 1 1-4 SS	6		
20	SCRWW1/4-20X3/4SS	SCRW HK SK BT HD 1-4-20NC X 3/4 SS	2	X	
21	WASHFLAT1-1/2GV	WASHER FLAT 1-1/2 SAE ASTM F468 GV	4		
22	WASHFLAT11/2BRASS-001	WASH F56 LXX1.375ODX.091THK BRASS	2	X	
23	WASHFLAT1/2SS-001	WASHER FLAT 1/2 SAE ASTM F433	4		
24	WASHLOADN1-1/2-001-GV	WASHER DTI 1-1/2' ASTM F959 TYPE 325	4		

REV.	DESCRIPTION	DATE	DWGT



MATERIAL SPECIFICATIONS

POST: ASTM A572 GR 55
 MAST ARM: ASTM A572 GR 55
 MOUNTING PLATE: ASTM A36
 HARDWARE FINISH: GALV ASTM A153
 ANCHOR BOLTS: ASTM F1554 GR 105

DESIGN CRITERIA

2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.

WINDS: 115 MPH
 FATIGUE CATEGORY: N/A
 NATURAL WIND GUST: YES
 VORTEX SHED: N/A
 GALLOPING: N/A
 ARCH GUST: YES

WELD SPECIFICATION

THE POST AND MAST ARM TO BE ROUND TAPERED TUBES PERMANENTLY WELDED TOGETHER AT THE JOINT. ALL SEAM WELD WITH 100% PENETRATION 6" FROM BASE PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS (IN THE JOINT) TO BE TESTED BY UT.
 MATERIAL: PER AASHTO 2013.3.15.5 WELD INSP/TT THICKNESS < 6MM (0.25 IN) UT
 3.6MM (0.25 IN) UT
 FINISH: PER AASHTO 2013.3.15.5 WELD INSP/TT THICKNESS < 6MM (0.25 IN) UT
 PENETRATION (P.P.) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).

FINISH SPECIFICATION

GALV. OR PRIME COAT: HOT DIP GALVANIZED PER ASTM A123
 FINISH COAT: PAINT TROP BLACK
 COLOR: F1-17-F1U-003-FR
 GLOSS: 60
 WEIGHT W/GALV.: 2942.04
 WEIGHT W/PAINT: 2966.29
 SURFACE AREA: 60305.3
 GALS OF PAINT: 2.31745

MILLERBERND 622 6TH ST. S.O.
 WINSTED, MN 55395

THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND AND PFGS

SALES ORDER NO.: QTY: STATE: SHEET

213267 1 OH 1 OF 1

DESCRIPTION: SHIP POLE SIG RD 5/16X300/160 TC-81.22
 D12 POST & 420 CRV ARM W/120 LUM

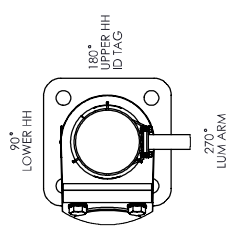
EST. WEIGHT: DRAWING NO: 213267-15

PROJECT NAME: STA 733+13.2 79.9 RT
 PO #4169-1L-928738D / Mark 0000 190523 / Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 113013

PROJECT LOCATION: STA 733+13.2 79.9 RT
 STRUCTURE SP-4 / SR 159 & MARIETTA RD
 DWN BY: MARK S. DATE: 12-02-2024

CHK BY: DATE:

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
1	1002654	WLDMT ARV TRUSS PIPE 120 27" SPACING 2- BOLT 3M/REX	1	X	X
2	1005186	ID TAG OHIO	1	X	X
3	1078379	WLDMT POLE SIG RD 5/16X300/160 (5/16X1.40X9.8X300)	1	X	X
4	1078380	WLDMT ARV SIG CRV RD 5/16X420 (5/16X1.126X5.96X420)	1	X	X
5	8800267	COVER HH M1.5 3X5 FORMED	1	X	X
6	8800709	COVER HH 4X8 W/CHAIN TAB	1	X	X
7	9900037	LATCH HH M1.5 3X5	1	X	X
8	9900203	STAMPED POLE CAP WELDMENT (47.5-57.5)	1	X	X
9	9900207	STAMPED POLE CAP WELDMENT (87.5-102.5)	1	X	X
10	BOLTA/1/2-13X17A	BOLT TX HD 1/2-13NC X 1" F593C SS 304 SS	1	X	X
11	BOLTA/1/2-13X1-172A	BOLT TX HD 1/2-13NC X 1-1-2 F593C SS	4	X	X
12	BOLBI1/2-26X1/2B	BOLT HYHXHD 1/2-26 X 1-1-2 A325GV	4	X	X
13	CHAIN-AA-1/8-GV-12"	CHAIN 1/8"PROOF COIL CHAIN GV 12'L	1	X	X
14	HDWR-120-003	1"DI-1/3/AOD.5/8TKW/GRV 1/4/1.38GYD	4	NOT SHOWN	
15	PF-1-17-F1U-003-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACK)	1	REF	
16	RVPFP3/16X1-1/8/5/8H/AL	RIVET POP 3/16X1-1/8X5/8 HD ALUM	2	X	
17	SCRWA/5/16-18X2-SS	RIVET POP 3/16X1/2X3/8 HD SS	4	X	
18	SCRWA/5/16-18X2-SS	SCRWA HK SK FL HD 5/16-18NC X 2 SS	4	X	
19	SCRWM1/4-20X1-1/4SS	SCRW ST SQ HD 1-4-20NC X 1 1/4 SS	6	X	
20	SCRWW1/4-20X3/4SS	SCRW HK SK BT HD 1-4-20NC X 3/4 SS	2	X	
21	WASHFLAT1-1/2GV	WASHER PLAT 1-1/2 SAE ASTM F466 GV	4	X	
22	WASHFLAT1/2BRASS-001	WASH F.56 LDX1.375ODX.091THK BRASS	2	X	
23	WASHFLAT1/2SS-001	WASHER PLAT 1/2 SAE ASTM F433	4	X	
24	WASHLOADN1-1/2-001-GV	WASHER DTT 1-1/2" ASTM F959 TYPE 325	4	X	



REV.	DESCRIPTION	DATE	DWGT

REVISIONS

MATERIAL SPECIFICATIONS

POST: ASTM A572 GR 55
 MAST ARM: ASTM A572 GR 55
 MOUNTING PLATE: ASTM A36
 HARDWARE FINISH: GALV ASTM A153
 ANCHOR BOLTS: ASTM F1554 GR 105

DESIGN CRITERIA

2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.

WINDS: 115 MPH
 FATIGUE CATEGORY: VORTEX SHED: N/A
 NATURAL WIND GUST: YES
 GALLOPING: N/A
 ARCH GUST: YES

WELD SPECIFICATION

THE POST AND MAST ARE TO BE ROUNDED AND RIBBED TUBE PER SECTION 1. THE JOINTS SHALL BE WELDED TO THE MOUNTING PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS SHALL BE X-RAY TESTED (RT).
 MATERIAL: PER AASHTO 2013.3.15.5 WELD INSP THICKNESS: < 6MM (0.25 IN) MT
 3.6MM (0.25 IN) UT
 PENETRATION (P.P.I.) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).

FINISH SPECIFICATION

GALV. OR PRIME COAT: HOT DIE GALVANIZED PER ASTM A123
 FINISH COAT: PAINT TROP BLACK
 COLOR: FH-17-FILU003-FR
 GLOSS: 60
 OR PAL SPEC: FLS 35 #9338 171038
 WEIGHT W/GALV.: 1.63732
 SURFACE AREA: 47,664
 GALS OF PAINT: 1.28178

622 6TH ST. S.O.
 WINSTED, MN 55395

MILLERBERND

THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND MFG AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND MFG

SALES ORDER NO.: QTY: STATE: SHEET

213267 2 OH 1 OF 1

DESCRIPTION: SHIP POLE SIG RD 1/4X300/160 TC-81.22
 D2 POST & 29'0 CRV ARM W/120 LUM

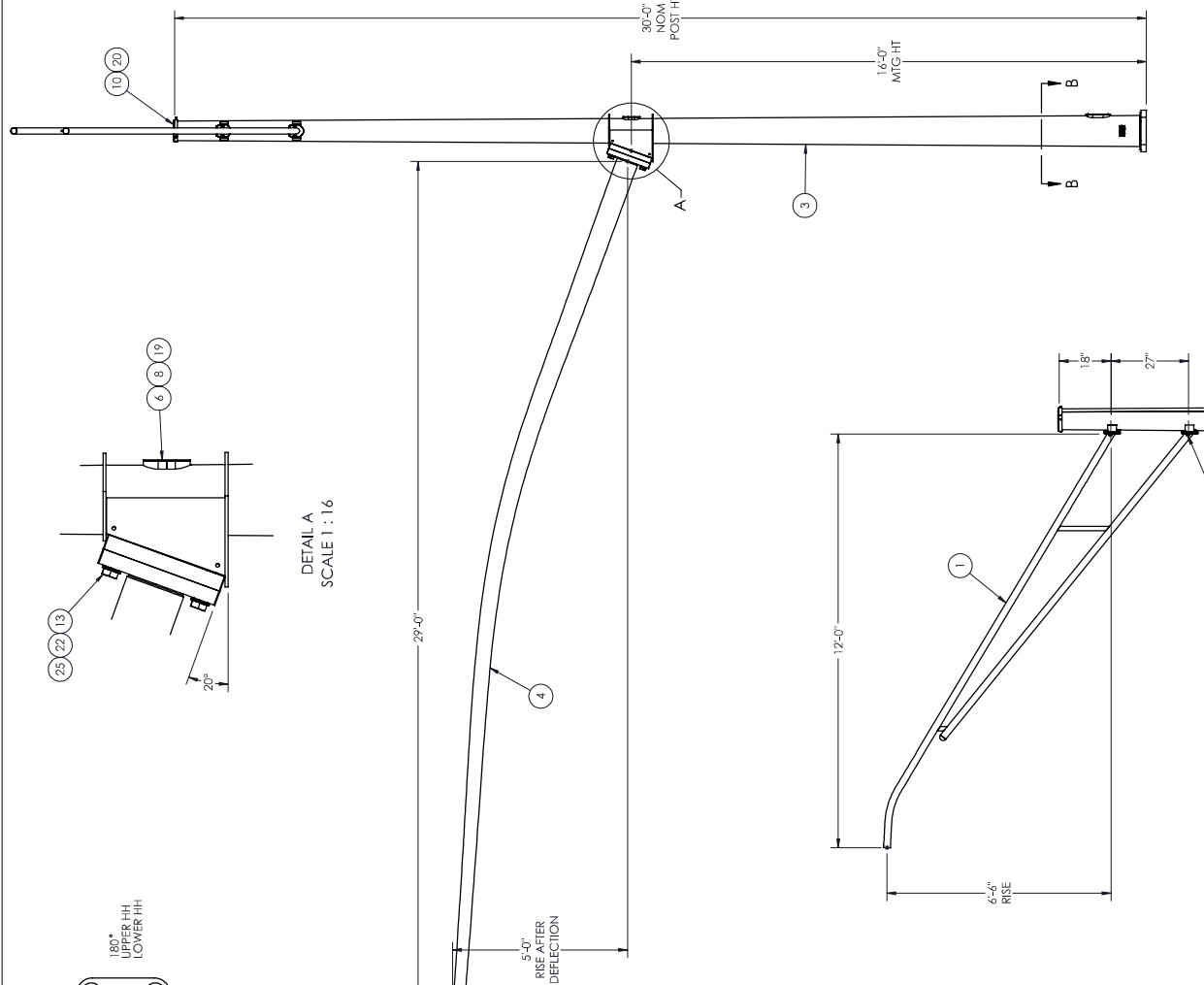
EST. WEIGHT: DRAWING NO: 213267-16

PROJECT NAME: PO #4169-1L-928738D / Mark 0000190523 / Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 113013

PROJECT LOCATION: SEE CHART

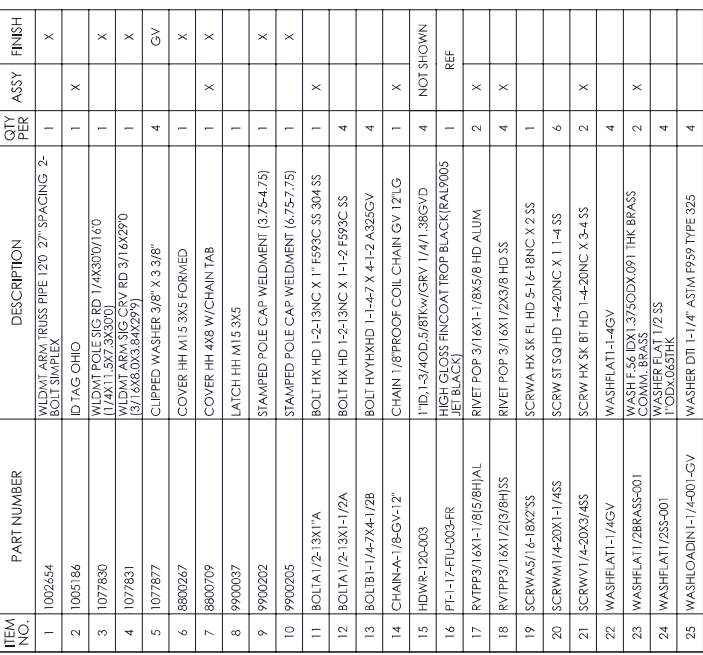
DWN BY: MARK S. DATE: 12-02-2024

CHK BY: DATE:



QTY	STRUCTURE NO	STRUCTURE LOCATION	STRUCTURE INTERSECTION
1	SP-1	STA. 740+32.7 61.2' LT	SR 159 & WINONA BLVD
1	SP-4	STA. 748+75.6 68.9' RT	SR 159 & PAWNEER RD

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER ASSY	FINISH
1	1002654	WLDMT ARM TRUSS PIPE 120 27' SPACING 2- BOLT SIMPLEX	1	X
2	1005186	ID TAG OHIO	1	X
3	1077830	WLDMT POLE SIG RD 1/4X300/160 (1/4X11.5X7.3X30.0)	1	X
4	1077831	WLDMT ARM SIG CRV RD 3/16X290 (3/16X6.0X3.84X299)	1	X
5	1077877	CLIPPED WASHER 3/8" X 3 3/8"	4	GV
6	8800267	COVER HH M1.5 3X5 FORMED	1	X
7	8800709	COVER HH 4X8 W/CHAIN TAB	1	X
8	9900037	LATCH HH M1.5 3X5	1	X
9	9900202	STAMPED POLE CAP WELDMENT (3/75-4/75)	1	X
10	9900205	STAMPED POLE CAP WELDMENT (6/75-7/75)	1	X
11	BOLTA/1/2-13X17A	BOLT HK HD 1-2-13NC X 1" F593C SS 304 SS	1	X
12	BOLTA/1/2-13X1-1/2A	BOLT HK HD 1-2-13NC X 1-1/2 F593C SS	4	REF
13	BOLB1-1/4-7X4-1/2B	BOLT HYHYKHD 1-1/4-7 X 4-1/2 A235GV	4	REF
14	CHAIN-A-1/8-GV-12"	CHAIN 1/8"PROOF COIL CHAIN GV 12LG	1	X
15	HDWR-120-003	1"DI-13/AOD.5/8TKW/GRV 1/4/1.38GYD	4	NOT SHOWN
16	PF-1-17-FILU003-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACKS)	1	REF
17	RVPFP3/16X1-1/8(S/8H)/AL	RIVET POP 3/16X1-1/8(S/8) HD ALUM	2	X
18	RVPFP3/16X1/2(13/8H)/SS	RIVET POP 3/16X1/2(13/8) HD SS	4	X
19	SCRWAS/1/4-18X2-SS	SCRWA HK SK FL HD 5/16-18NC X 2 SS	1	X
20	SCRWM1/4-20X1-1/4SS	SCRW ST SQ HD 1-4-20NC X 1 1/4 SS	6	X
21	SCRWW1/4-20X3/4SS	SCRW HK SK BT HD 1-4-20NC X 3/4 SS	2	X
22	WASHFLAT1-1/4GV	WASHFLAT1-1/4GV	4	X
23	WASHFLAT1/2BRASS-001	WASH F56 LDX1.375ODX.091 THK BRASS	2	X
24	WASHFLAT1/2SS-001	WASH F56 LDX1.375ODX.091 THK SS	4	X
25	WASHLOADIN1-1/4-001-GV	WASHER DTI 1-1/4" ASTM F959 TYPE 325	4	X



REV.	DESCRIPTION	DATE	DRT



MATERIAL SPECIFICATIONS

POST: ASTM A572 GR 55
 MAST ARM: ASTM A572 GR 55
 MOUNTING PLATE: ASTM A36
 HARDWARE FINISH: GALV
 ANCHOR BOLTS: ASTM F1554 GR 105

DESIGN CRITERIA

2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.

WINDS: 115 MPH
 FATIGUE CATEGORY: III
 NATURAL WIND GUST: YES

VORTEX SHED: N/A
 GALLOPING: N/A
 ICE ACCRETION: YES

WELD SPECIFICATION

THE POST AND MAST ARM TO BE ROUNDED AND TAPERED TO THE PERIPHERY TO A MINIMUM OF 1/8" RADIUS. ALL WELDS SHALL BE WELDED WITH 100% PENETRATION & FROM BASE PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS VISUAL TESTED (VT).

FINISH SPECIFICATION

GALV OR PRIME COAT: HOT DIE GALVANIZED PER ASTM A123
 FINISH COAT: PAINT TROP BLACK
 COLOR: RAL 9005
 COAT: 2 MILS
 OR RAL SPEC: RAL 9005
 WEIGHT W/GALV: 3815.83
 SURFACE AREA: 79442.3
 GALLON PAINT: 3.05374

622 6TH ST. S.O.
 WINNETON, MN 55395

MILLERBERND

THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND.

SALES ORDER NO.: QTY: STATE: SHEET

213267 1 OH 1 OF 1

DESCRIPTION: SHIP POLE SIG RD 5/16X300/160 TC-81.22
 D13 POST & 500 CRV ARM W/120 LUM

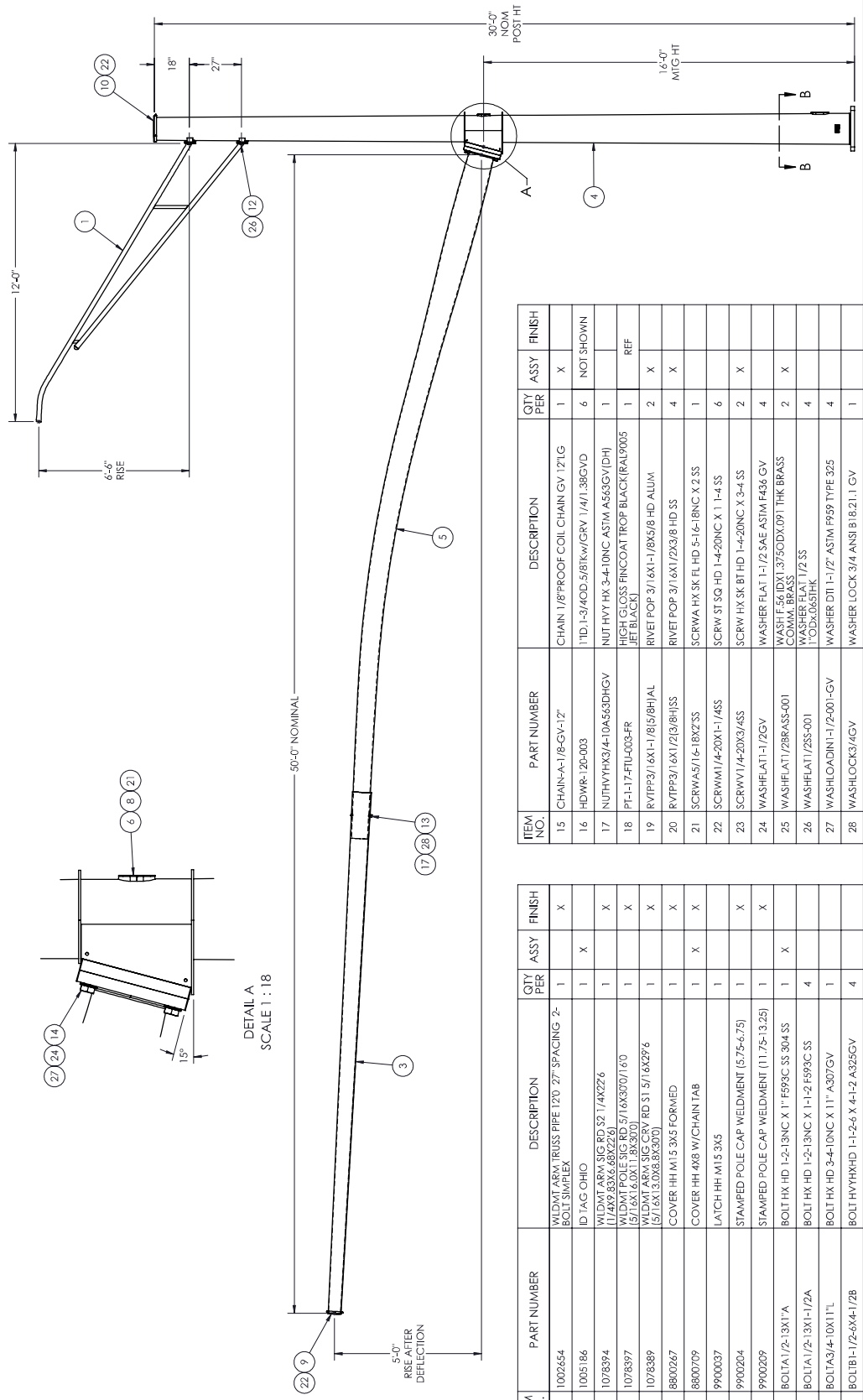
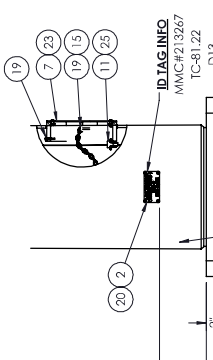
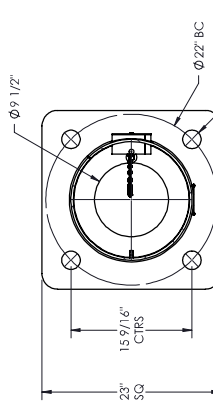
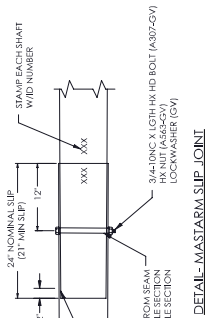
EST. WEIGHT: DRAWING NO: 213267-17

3699.3

PROJECT NAME: SIA 739+45.4 44.1' LT
 PO #4169-TL-928738D / Mark 0000190523 / Job Name ODOT 426-25 / Chillicothe OH R05-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 113013

PROJECT LOCATION: SIA 739+45.4 44.1' LT
 STRUCTURE SP-2 / SR 159 & WINONA BLVD
 DWN BY: MARK S. DATE: 12-02-2024

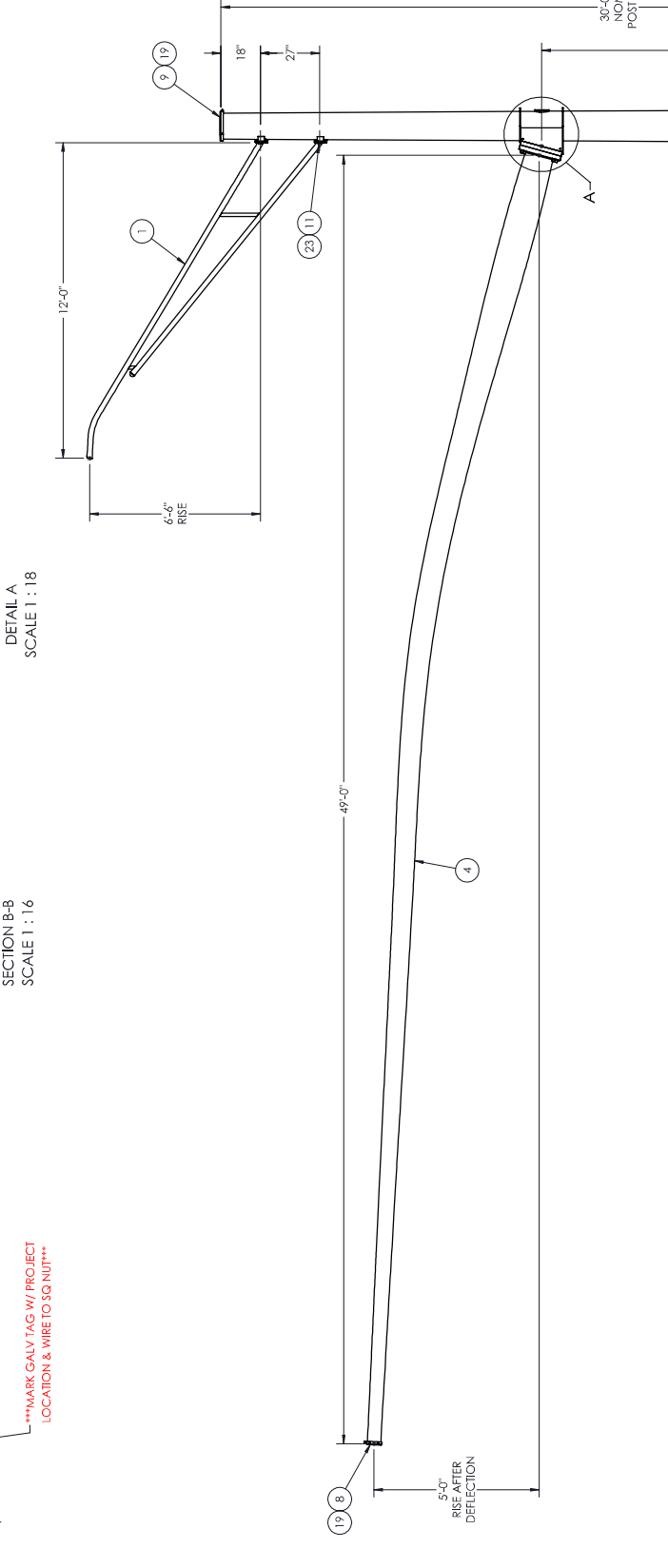
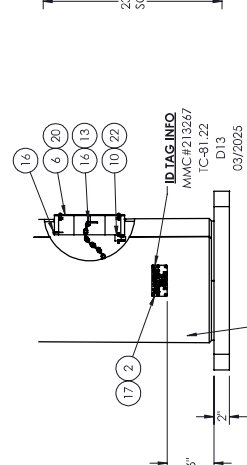
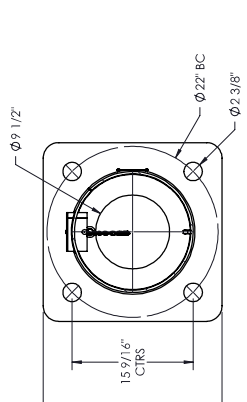
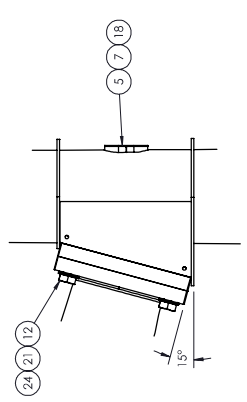
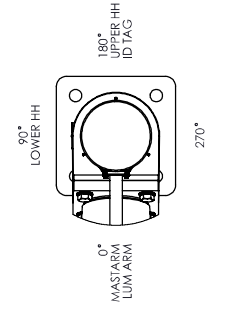
CHK BY: DATE:



ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER ASSY	FINISH
15	CHAIN-A1/B-GV-12"	CHAIN 1/8" PROOF COIL CHAIN GV 12IGD	1	X
16	HDWR-20-003	TID 1-3/4OD, 5/8TKW/GRV 1/4/1.38GV	6	NOT SHOWN
17	NUTHVHX3/4-10A563DHGV	NUT HVY HX 3-4-10NC ASTM A563GV(DH)	1	REF
18	PL-17-FTU-003-FR	HIGH GLOSS FINCOAT TROP BLACK (RAL9005 JET BLACK)	1	REF
19	RVTIPP3/16X1-1/8/5/8HJAL	RIVET POP 3/16X1-1/8/5/8 HD ALUM	2	X
20	RVTIPP3/16X1/2/3/8HJSS	RIVET POP 3/16X1/2/3/8 HD SS	4	X
21	SCRWA5/16-18X23SS	SCRWA HX SK FL HD 5-16-18NC X 2 SS	1	X
22	SCRW11/4-20X1-1/ASS	SCRW ST SQ HD 1-4-20NC X 1 1-4 SS	6	X
23	SCRW1/4-20X3/4SS	SCRW HX SK BT HD 1-4-20NC X 3-4 SS	2	X
24	WASHFLAT1-1/2GV	WASHER FLAT 1-1/2 SAE ASTM F436 GV	4	X
25	WASHFLAT2BRASS-001	WASH F.56 (DX) 3750DX.091 THK BRASS COMM. BRASS	2	X
26	WASHFLAT1/2SS-001	WASHER FLAT 1/2 SS TDDX.065THK	4	X
27	WASHLOADINT1-1/2-200-GV	WASHER DIT 1-1/2" ASTM F599 TYPE 325	4	X
28	WASHLOCKS/GV	WASHER LOCK 3/4 ANSI B18.21.1 GV	1	X

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER ASSY	FINISH
1	1002654	WLDMT ARM TRUSS PIPE 120 27" SPACING 2"	1	X
2	1005186	BOLT SIMPLEX	1	X
3	1078394	ID TAG OHIO	1	X
4	1078397	WLDMT ARM SIG RD S2 1/4X226	1	X
5	1078389	WLDMT POLE SIG RD 5/16X300/160	1	X
6	8800267	WLDMT ARM SIG CRV RD S1 5/16X296	1	X
7	8800267	COVER HH M15 3X5 FORMED	1	X
8	9900307	COVER HH 4X8 W/CHAIN TAB	1	X
9	9900204	LATCH HH M15 3X5	1	X
10	9900209	STAMPED POLE CAP WELDMENT (5.75-6.75)	1	X
11	BOL1A1/2-13X1A	STAMPED POLE CAP WELDMENT (11.75-13.25)	1	X
12	BOL1A1/2-13X1-1/2A	BOLT HK HD 1-2-13NC X 1" F599C SS 304 SS	1	X
13	BOL1A3/4-10X11"	BOLT HK HD 1-2-13NC X 1-1/2-2 F599C SS	4	X
14	BOL1B1/2-8X4-1/2B	BOLT HK HD 3-4-10NC X 1 1/2" A307GV	1	X
14	BOL1B1/2-8X4-1/2B	BOLT HYTHKHD 1-1/2-6 X 4-1/2 A325GV	4	X

REV.	DESCRIPTION	DATE	DRT

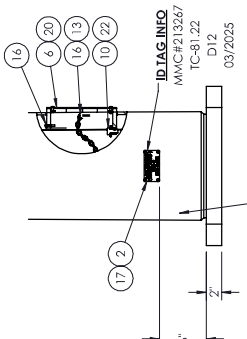
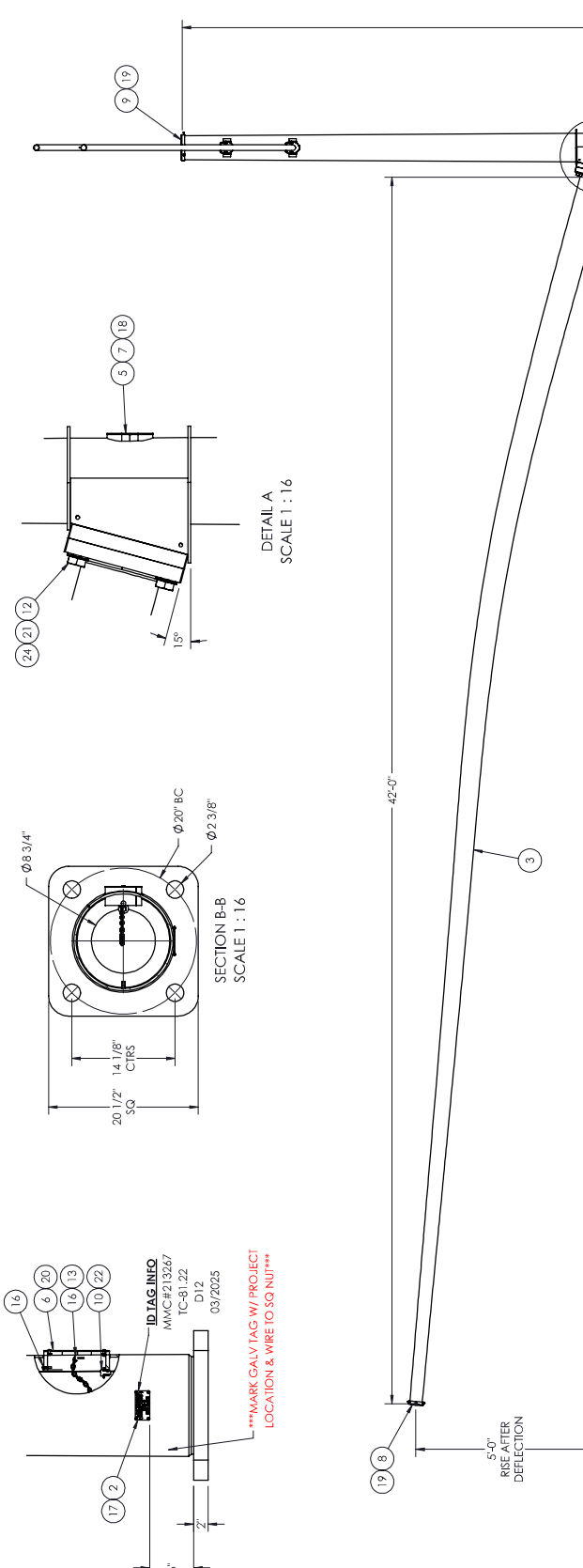


MATERIAL SPECIFICATIONS			
POST: ASTM A572 GR 55	WINDS: 115 MPH		
MAST ARM: ASTM A572 GR 55	NATURAL WIND GUST: YES		
MOUNTING PLATE: ASTM A36	VORTEX SHED: N/A		
HARDWARE FINISH: GALV ASTM A153	GALLOPING: N/A		
ANCHOR BOLTS: ASTM F1554 GR 10S	REIN GUST: YES		
DESIGN CRITERIA			
2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.			
WELD SPECIFICATION			
THE POST AND MAST ARM TO BE ROUNDED AND FINISHED PER THE ABOVE SPECIFICATIONS. ALL WELDS TO BE FULL PENETRATION WELDS WITH 100% PENETRATION & FROM BASE PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.			
WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS IN THE JOINTS SHALL BE TESTED PER ASHTO 2013 3.15.5 WELD INSPECTION. MATERIAL: PER ASHTO 2013 3.15.5 WELD INSPECTION. < 6MM (0.25 IN) UT 3.6MM (0.25 IN) UT			
ALL ELLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).			
FINISH SPECIFICATION			
GALV. OR PRIME COAT: HOT DIE GALVANIZED PER ASTM A123			
FINISH COAT: PAINT TROP BLACK			
COLOR: RAL 9005			
COATING: 05 RAL SPEC: FE 11-F11-003-FR			
WEIGHT W/GALV.: 3806.24			
WEIGHT W/GALV. & PAINT: 3837.6			
SURFACE AREA: 7.639246			
PAINT: MILLERBERND			
PAINT LOT: 212825			
622 6TH ST. S.O. WINSTED, MN 55395			
THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND.			
SALES ORDER NO.: 213267	QTY: 1	STATE: OH	SHEET 1 OF 1
DESCRIPTION: SHIP POLE SIG RD 5/16X300/180 TC-81.22	D13 POST & 49'0 CRV ARM W/120 LUM	DRAWING NO: 213267-18	
EST. WEIGHT: 3690.0	PROJECT NAME: STA 740+55.3 56.4 RT		
PROJECT LOCATION: STA 740+55.3 56.4 RT			
STRUCTURE SP-3 / SR 159 & WINONA BLVD			
DWN BY: MARK S. DATE: 12-02-2024			
CHK BY: DATE:			

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
13	CHAIN-A1/8-GV-12'	CHAIN 1/8PROOF COIL CHAIN GV 12' LG	1	X	
14	HDWR-120-003	1"ID-1.3/4OD-0.581KW/GRV 1/4"1.38GVID	6	NOT SHOWN	
15	PE-1-17-F1U-003-RR	HIGH GLOSS FINCOAT TROP BLACK (RAL9005 JET BLACK)	1	REF	
16	RVTFP3/16X1-1/8(5/8)HIAL	RIVET POP 3/16X1-1/8X5/8 HD ALUM	2	X	
17	RVTFP3/16X1/2(3/8)HJSS	RIVET POP 3/16X1/2X3/8 HD SS	4	X	
18	SCRWA5/16-18X2SS	SCRWA HK SK FL HD 5/16-18NC X 2 SS	1		
19	SCRWA1/4-20X-1-1/4SS	SCRW ST SQ HD 1/4-20NC X 1-1/4 SS	6		
20	SCRWV1/4-20X3/4SS	SCRW HK 3/8 BT HD 1/4-20NC X 3/4 SS	2	X	
21	WASHFLAT1-1/2GV	WASHER FLAT 1-1/2 SAE ASTM F486 GV	4		
22	WASHFLAT1/2BRASS-001	WASHER FLAT 1/2 SODXK091 THK BRASS	2	X	
23	WASHFLAT1/2SS-001	WASHER FLAT 1/2 SODXK091 THK SS	4		
24	WASHLOADIN1-1/2-001-GV	WASHER DIT 1-1/2" ASTM F959 TYPE 325	4		

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
1	1002654	WLDMT ARVY TRUSS PIPE 120 27" SPACING 2- BOLT SIMPLEX	1		X
2	1005186	ID TAG OHIO	1	X	
3	1078398	WLDMT POLE SIG RD 5/16X300/180 (5/16X1.60X1.18X300)	1		X
4	1078395	WLDMT ARM SIG CRV RD 5/16X490 (5/16X1.50X6.03X490)	1		X
5	8800267	COVER HH M15 3X5 FORMED	1		X
6	8800709	COVER HH 4X8 W/CHAIN TAB	1	X	X
7	9900037	LATCH HH M15 3X5	1		X
8	9900024	STAMPED POLE CAP WELDMENT (5.75-6.75)	1		X
9	9900209	STAMPED POLE CAP WELDMENT (11.75-13.25)	1		X
10	BOLTA1/2-13X1-A	BOLT HK HD 1/2-13NC X 1"-F593C SS 304 SS	1	X	
11	BOLTA1/2-13X1-1/2A	BOLT HK HD 1/2-13NC X 1-1/2-F593C SS	4		
12	BOLTB1-1/2-8X4-1/2B	BOLT HYTHXHD 1-1/2-6 X 4-1/2 A325GV	4		

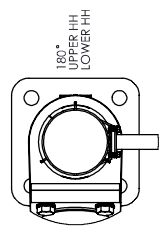
REV.	DESCRIPTION	DATE	DRFT



DETAIL A
SCALE 1 : 16

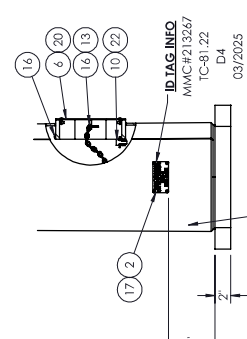
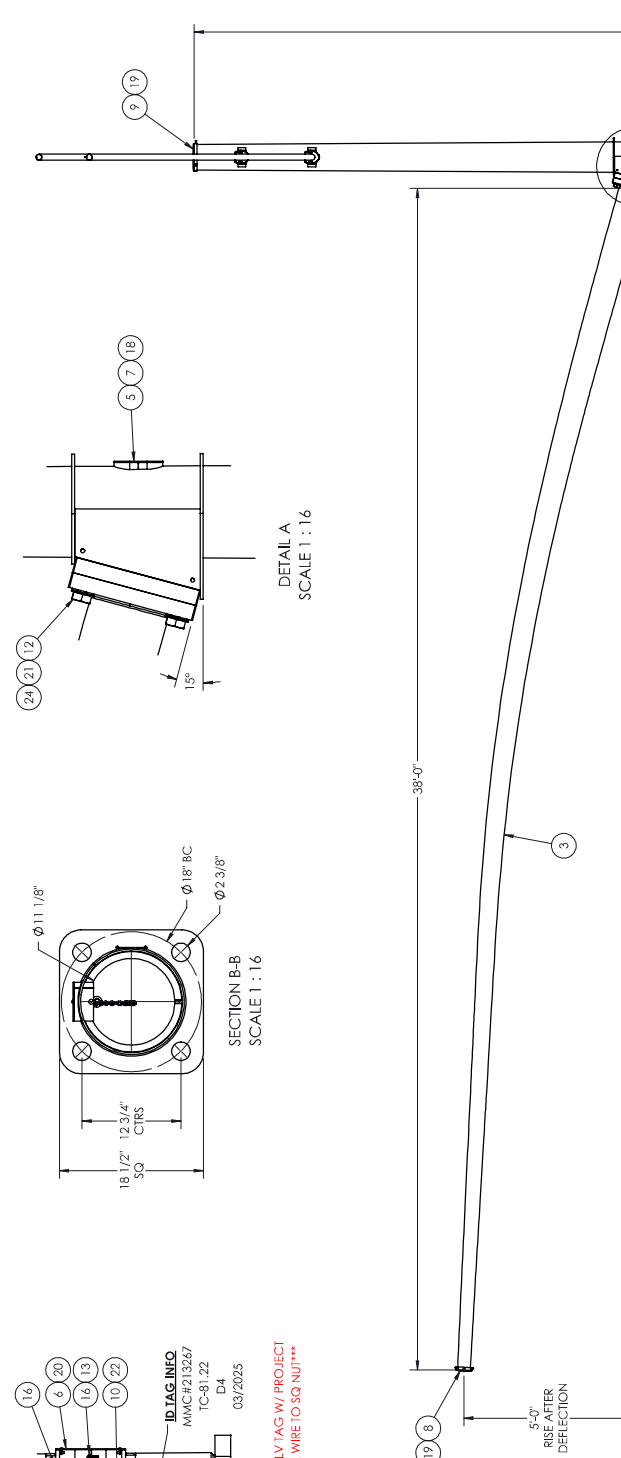
SECTION B-B
SCALE 1 : 16

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
1	1002654	WLDMT ARW TRUSS PIPE 120 27' SPACING 2'-BOLT 3/8IN X 6	1	X	X
2	1005186	ID TAG OHIO	1	X	X
3	1078380	WLDMT ARW SIG GRV RD 5/1 6X420 (5/1 6X11.0X5.0X4X27)	1	X	X
4	1078382	WLDMT POLE SIG RD 5/1 6X307/160 (5/1 6X14.0X2.8X307)	1	X	X
5	8800267	COVER HH M15 3X5 FORMED	1	X	X
6	8800709	COVER HH 4X8 W/CHAIN TAB	1	X	X
7	9900037	LATCH HH M15 3X5	1	X	X
8	9900203	STAMPED POLE CAP WELDMENT (47.5-57.5)	1	X	X
9	9900207	STAMPED POLE CAP WELDMENT (87.5-102.5)	1	X	X
10	BOLTA/1/2-13X17A	BOLT 1/2-13X17A	1	X	X
11	BOLTA/1/2-13X17A	BOLT 1/2-13X17A	1	X	X
12	BOLTB/1/2-6X1/2B	BOLT 1/2-6X1/2B	4	X	X
13	CHAIN-AA-1/8-GV-12"	CHAIN 1/8" PROOF COIL CHAIN GV 12' LG	1	X	X
14	HDWR-120-003	1" DI-1/3 (MOD) 5/8 IN KW/GRV 1/4 I-1.38 GVD	4	NOT SHOWN	
15	PT-1-17-FTU-003-FR	HIGH GLOSS FINCOAT TROP BLACK (RAL9005 JET BLACK)	1	REF	
16	RVTFP3/16X1-1/8(S/8H)/AL	RIVET POP 3/16X1-1/8(S/8) HD ALUM	2	X	
17	RVTFP3/16X1/2(I3)/BH/SS	RIVET POP 3/16X1/2(I3)/8 HD SS	4	X	
18	SCRWA(S/16-18X2)SS	SCRWA 1/8 X 2 HD 5-16-18 NC X 2 SS	1	X	
19	SCRWM1/4-20X1-1/4SS	SCRW ST SQ HD 1-4-20 NC X 1 1/4 SS	6	X	
20	SCRWW1/4-20X3/4SS	SCRW HK SK BT HD 1-4-20 NC X 3/4 SS	2	X	
21	WASHFLAT1-1/2GV	WASHER FLAT 1-1/2 SAE ASTM F466 GV	4	X	
22	WASHFLAT11/2BRASS-001	WASH F 5/8 I.D X 1.375 O.D X 0.091 THK BRASS	2	X	
23	WASHFLAT1/2SS-001	WASHER FLAT 1/2 SAE ASTM F433	4	X	
24	WASHLOADN1-1/2-001-GV	WASHER DTI 1-1/2" ASTM F959 TYPE 325	4	X	



MATERIAL SPECIFICATIONS	
POST: ASTM A572 GR 55	WINDS: 115 MPH
MAST ARM: ASTM A572 GR 55	NATURAL WIND GUST: YES
MOUNTING PLATE: ASTM A36	VORTEX SHED: N/A
HARDWARE FINISH: GALV ASTM A153	GALLOPING: N/A
ANCHOR BOLTS: ASTM F1554 GR 10S	IRREG GUST: YES
DESIGN CRITERIA	
2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.	
THE POST AND MAST ARM TO BE ROUND TAPERED TUBE PERFORMING ALL WELDS TO BE FULL PENETRATION JOINTS AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.	
WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS (IN ALL DIRECTIONS) TO BE X-RAY TESTED (RT). WELDING MATERIAL: PER AASHTO 2013.3.15.5 WELD (INSP) THICKNESS < 6MM (0.25 IN) UT 3.6MM (0.25 IN) UT	
FINISH SPECIFICATION: GALV OR PRIME COAT: HOT DIP GALVANIZED PER ASTM A123	
FINISH COAT: PAINT TROP BLACK	
COLOR: RAL 9005	
GALV OR PRIME COAT: PER AASHTO 2013.3.15.5 WELD (INSP) THICKNESS	
WEIGHT W/GALV: 2942.15	
SURFACE AREA: 60305.3	
GALV COAT PAINT: 2.31745	
EST. WEIGHT: 2852.3	
DRAWING NO: 213267-19	
PROJECT NAME: SHIP POLE SIG RD 5/1 6X307/160 TC-81.22	
D12 POST & 420 CRV ARM W/120 LUM	
SALES ORDER NO: 213267	
QTY: 1	
STATE: OH	
SHEET: 1 OF 1	
THE DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND AND PGS	
MILLERBERND 622 6TH ST. S.O. WINSTED, MN 55395	
PROJECT LOCATION: STA 739+58.2 62.0 RT	
STRUCTURE SF-4/ SR 159 & WINONA BLVD	
DWN BY: MARK S. DATE: 12-02-2024	
CHK BY: DATE:	

REV.	DESCRIPTION	DATE	DWGT



MATERIAL SPECIFICATIONS

POST: ASTM A572 GR 55
 MAST ARM: ASTM A572 GR 55
 MOUNTING PLATE: ASTM A36
 HARDWARE FINISH: GALV ASTM A153
 ANCHOR BOLTS: ASTM F1554 GR 105

DESIGN CRITERIA

2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.

WINDS: 115 MPH
 FATIGUE CATEGORY: N/A
 NATURAL WIND GUST: YES
 VORTEX SHED: N/A
 GALLOPING: N/A
 ICE GUST: YES

WELD SPECIFICATION

THE POST AND MAST ARM TO BE ROUND TAPERED TUBE PERMANENTLY WELDED TOGETHER AT THE JOINT. ALL SEAM WELD WITH 100% PENETRATION & FROM BASE PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS (IN ALL DIRECTIONS) TO BE TESTED BY X-RAY. WELDING MATERIAL: PER AASHTO 2013.3.15.5 (WEI INSP) THICKNESS < 6MM (0.25 IN) UT 3.6MM (0.25 IN) UT

FINISH SPECIFICATION

GALV. OR PRIME COAT: HOT DIP GALVANIZED PER ASTM A123
 FINISH COAT: PAINT TROP BLACK
 COLOR: RAL 9005
 COAT: OR RAL SPEC: 2306.54
 WEIGHT W/GALV.: 2325.54
 SURFACE AREA: 56866.7
 GALLON PAINT: 2.18718

MILLERBERND
 622 6TH ST. S.O.
 WINSTED, MN 55395

THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND MFG AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND MFG

SALES ORDER NO.: QTY: STATE: SHEET

213267 1 OH 1 OF 1

DESCRIPTION: SHIP POLE SIG RD 1/4X300/160 TC-81.22
 D4 POST & 38'0 CRV ARM W/120 LUM

EST. WEIGHT: DRAWING NO: 213267-20

PROJECT NAME: STA 749+71.9 40.9' LT
 PO #4169-1L-928738D / Mark 0000 190523 / Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 113013

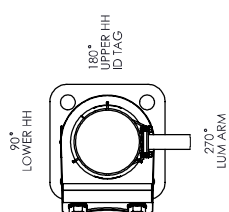
PROJECT LOCATION: STA 749+71.9 40.9' LT
 STRUCTURE SP-1 / SR 159 & PAWNEE RD
 DWN BY: MARK S. DATE: 12-02-2024

CHK BY: DATE:

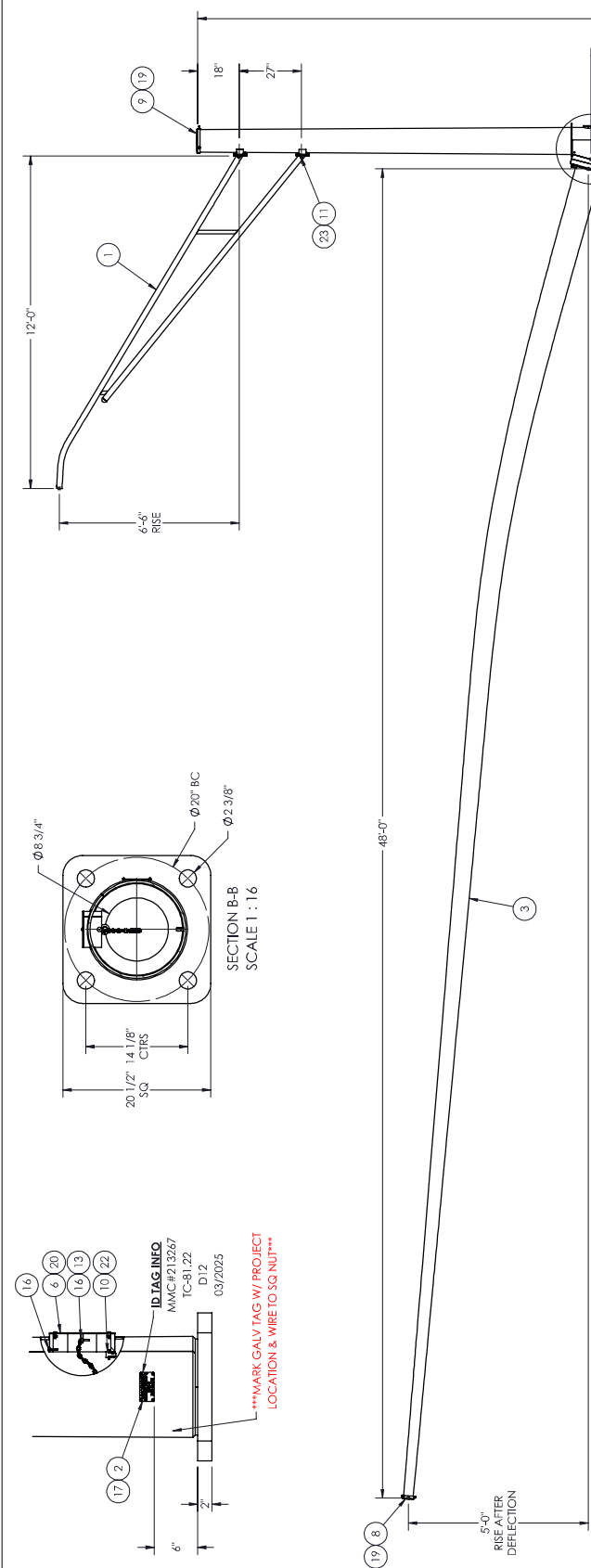
ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
1	1002654	WLDMT ARV TRUSS PIPE 120 27" SPACING 2- BOLT 3M/REX	1	X	X
2	1005186	ID TAG OHIO	1	X	X
3	1077840	WLDMT ARV SIG CRV RD 1/4X380 (1/4X10.32X4.92X387)	1	X	X
4	1077848	WLDMT POLE SIG RD 1/4X300/160 (1/4X14.5X3.85X305)	1	X	X
5	8800267	COVER HH M1.5 3X5 FORMED	1	X	X
6	8800709	COVER HH 4X8 W/CHAIN TAB	1	X	X
7	9900037	LATCH HH M1.5 3X5	1	X	X
8	9900203	STAMPED POLE CAP WELDMENT (47.5-5.75)	1	X	X
9	9900207	STAMPED POLE CAP WELDMENT (87.5-10.25)	1	X	X
10	BOLTA/1/2-13X17A	BOLT HK HD 1-2-13NC X 1" F593C SS 304 SS	1	X	X
11	BOLTA/1/2-13X1-172A	BOLT HK HD 1-2-13NC X 1-1-2 F593C SS	4		
12	BOLBI1/2-26X1/2B	BOLT HYHXHD 1-1-26 X 1-1-2 A325GV	4		
13	CHAIN-A-1/8-GV-12"	CHAIN 1/8"PROOF COIL CHAIN GV 12'L	1	X	
14	HDWR-120-003	1"DI-1.3/AOD.5/8TKW/GRV 1/4I-1.38GVD	4		NOT SHOWN
15	PT-1-17-FTU-003-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACKS)	1		REF
16	RVPFP3/16X1-1/8S/8H/JAL	RIVET POP 3/16X1-1/8X5/8 HD ALUM	2	X	
17	RCRWA5/16-18X25SS	RIVET POP 3/16X1/2X3/8 HD SS	4	X	
18	SCRWA5/16-18X25SS	SCRWA HK SK FL HD 5/16-18NC X 2.5 SS	1		
19	SCRWM1/4-20X1-1/4SS	SCRW ST SQ HD 1-4-20NC X 1 1/4 SS	6		
20	SCRWW1/4-20X3/4SS	SCRW HK SK BT HD 1-4-20NC X 3/4 SS	2	X	
21	WASHFLAT1-1/2GV	WASHER FLAT 1-1/2 SAE ASTM F468 GV	4		
22	WASHFLAT1/2BRASS-001	WASH F.56 LDX1.375ODX.091THK BRASS	2	X	
23	WASHFLAT1/2SS-001	WASHER FLAT 1/2 SAE ASTM F433	4		
24	WASHLOADN1-1/2-001-GV	WASHER DTI 1-1/2" ASTM F959 TYPE 325	4		

DETAIL A
SCALE 1 : 16

SECTION B-B
SCALE 1 : 16



REV.	DESCRIPTION	DATE	DWGT



MATERIAL SPECIFICATIONS	
POST: ASTM A572 GR 55	VORTEX SHED: N/A
FASTENERS: ASTM A307	GALLOPING: N/A
MAST ARM: ASTM A572 GR 55	WIND GUST: YES
MOUNTING PLATE: ASTM A36	NATURAL WIND: YES
HARDWARE FINISH: GALV ASTM A153	
ANCHOR BOLTS: ASTM F1554 GR 105	

DESIGN CRITERIA	
2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.	
WINDS: 115 MPH	
NATURAL WIND GUST: YES	

WELD SPECIFICATION	
THE POST AND MAST ARE TO BE BOND WELDED TO THE FINISH COAT. ALL WELDS SHALL BE FULL PENETRATION AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.	
WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS TO BE TESTED BY UT.	
MATERIAL: PER AASHTO 2013.3.15.5 WELD INSP/T THICKNESS.	
3.6MM (0.25 IN) UT	
3.6MM (0.25 IN) UT	
PARTICLE TESTED (MT)	
FINISH COAT: HOT DIE GALVANIZED PER ASTM A123	
PAINT TROP BLACK	
FINISH COAT: P1-H-17U-003-FR	
COLOR: F013	
WEIGHT W/GALV.: 3033.33	
SURFACE AREA: 6227.78	
GALV. COAT PAINT: 2.29536	

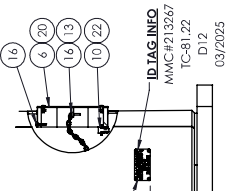
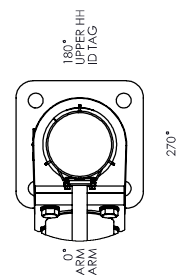
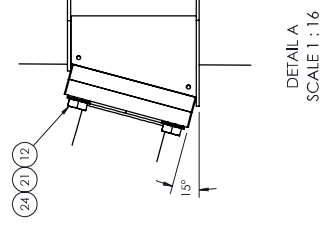
FINISH SPECIFICATION	
GALV. OR PRIME COAT: HOT DIE GALVANIZED PER ASTM A123	
FINISH COAT: PAINT TROP BLACK	
FINISH COAT: P1-H-17U-003-FR	
COLOR: F013	
WEIGHT W/GALV.: 3033.33	
SURFACE AREA: 6227.78	
GALV. COAT PAINT: 2.29536	

MILLERBERND	
622 6TH ST. S.O.	
WINSTED, MN 55395	
THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND MFG AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND MFG	
SALES ORDER NO.:	213267
QTY:	1
STATE:	OH
SHEET:	1 OF 1
DESCRIPTION:	SHIP POLE SIG RD 5/16X300/160 TC-81.22 D12 POST & 480 CRV ARM W/120 LUM
EST. WEIGHT:	2940.7
DRAWING NO.:	213267-21

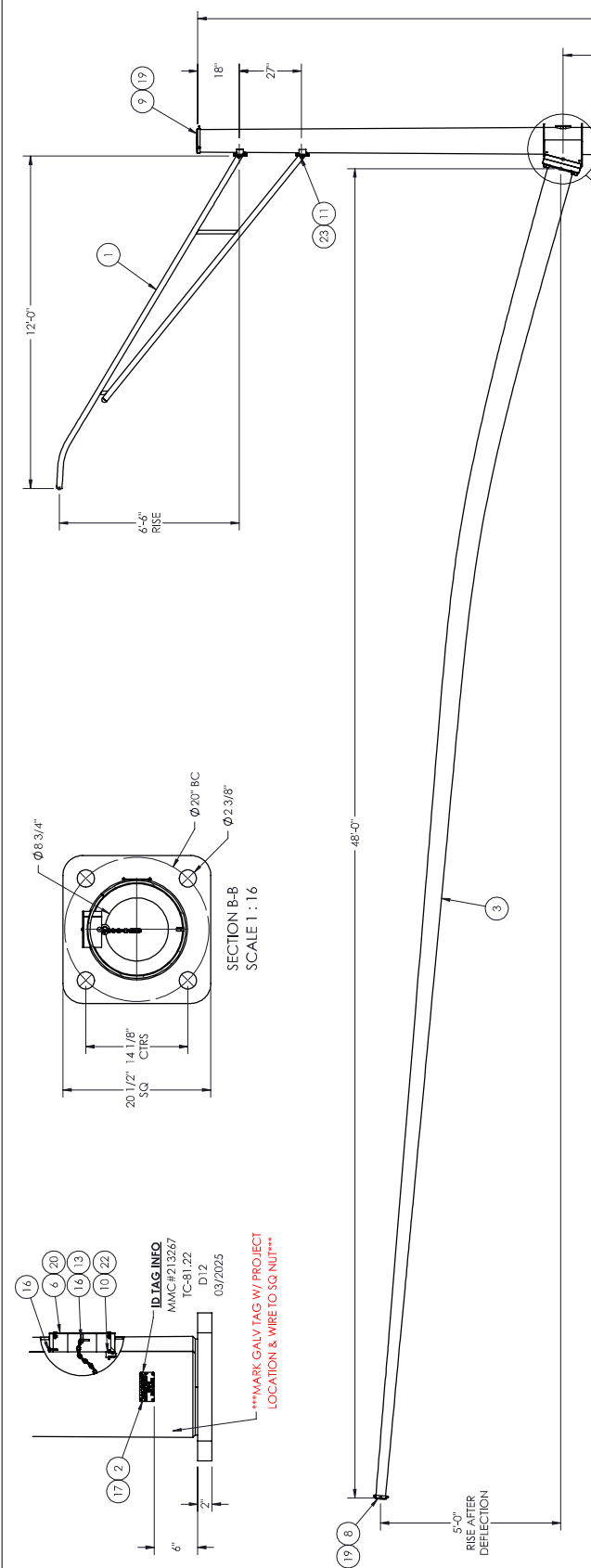
PROJECT NAME:	
PO #4169-1L-928738D / Mark 0000190523 / Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 113013	

PROJECT LOCATION:	
STA 748+86.9 45'8" LT	
STRUCTURE SP-2 / SR 159 & PAWNEE RD	
DWN BY:	MARK S.
DATE:	12-02-2024
CHK BY:	
DATE:	

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
1	1002454	WLDMT ARM TRUSS PIPE 120 27" SPACING 2- BOLT 3MTRLEX	1	X	X
2	1005186	ID TAG OHIO	1	X	X
3	1077850	WLDMT ARM SIG CRV RD 5/16X480 (5/16X11.0X4.2X487)	1	X	X
4	1078383	WLDMT POLE SIG RD 5/16X300/160 (5/16X14.0X2.8X300)	1	X	X
5	8800247	COVER HH M1.5 3X5 FORMED	1	X	X
6	8800709	COVER HH 4X8 W/CHAIN TAB	1	X	X
7	9900037	LATCH HH M1.5 3X5	1	X	X
8	9900202	STAMPED POLE CAP WELDMENT (375-475)	1	X	X
9	9900207	STAMPED POLE CAP WELDMENT (875-1025)	1	X	X
10	BOLTA/1/2-13X17A	BOLT HK HD 1-2-13NC X 1" F593C SS 304 SS	1	X	X
11	BOLTA/1/2-13X1-172A	BOLT HK HD 1-2-13NC X 1-1-2 F593C SS	4	X	X
12	BOLTB/1/2-6X4/12B	BOLT HYHXHD 1-1-26 X 4-1-2 A325GV	4	X	X
13	CHAIN-A-1/8-GV-12"	CHAIN 1/8"PROOF COIL CHAIN GV 12TLG	1	X	X
14	HDWR-120-003	1"TD-1/3/4OD.5/8TKW/GRV 1/4/1.38GYD	4	NOT SHOWN	X
15	PT-17-F1U-003-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACKS)	1	REF	X
16	RVPFP3/16X1-1/8(5/8)AL	RIVET POP 3/16X1-1/8(5/8)HD ALUM	2	X	X
17	RVFP3/16X1/2(3/8)SS	RIVET POP 3/16X1/2(3/8)HD SS	4	X	X
18	SCRWA5/16-18X2-SS	SCRWA HK SK FL HD 5/16-18NC X 2 SS	1	X	X
19	SCRWM1/4-20X1-1/4SS	SCRW ST SQ HD 1-4-20NC X 1-1/4 SS	6	X	X
20	SCRWW1/4-20X3/4SS	SCRW HK SK BT HD 1-4-20NC X 3/4 SS	2	X	X
21	WASHFLAT1-1/2GV	WASHER FLAT 1-1/2 SAE ASTM F468 GV	4	X	X
22	WASHFLAT11/2BRASS-001	WASH F56 LDX1.375ODX0.91THK BRASS	2	X	X
23	WASHFLAT1/2SS-001	WASHER FLAT 1/2 SAE ASTM F433	4	X	X
24	WASHLOADN1-1/2-001-GV	WASHER DTI 1-1/2" ASTM F959 TYPE 325	4	X	X



REV.	DESCRIPTION	DATE	DWGT



MATERIAL SPECIFICATIONS

POST: ASTM A572 GR 55
 FASTENERS: ASTM A325
 MAST ARM: ASTM A572 GR 55
 MOUNTING PLATE: ASTM A36
 HARDWARE FINISH: GALV ASTM A153
 ANCHOR BOLTS: ASTM F1554 GR 105

DESIGN CRITERIA

2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.

WINDS: 115 MPH
 FATIGUE CLASS: N/A
 NATURAL WIND GUST: YES
 VORTEX SHED: N/A
 GALLOPING: N/A
 RATCH GUST: YES

WELD SPECIFICATION

THE POST AND MAST ARM TO BE BOND TAPERED TUBE FABRICATED FROM SEAMLESS PIPE. ALL WELDS TO BE FULL PENETRATION WELDS WITH 100% PENETRATION & 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS TO BE TESTED TO A MINIMUM OF 100% PENETRATION. MATERIAL: PER AASHTO 2013.3.15.5 (WEI IN SPT) THICKNESS. < 6MM (0.25 IN) MT
 3.6MM (0.25 IN) UT
 PENETRATION (P.P.) ALL ELLET WELDS AND PARTIAL JOINT PENETRATION (P.P.) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).

FINISH SPECIFICATION

GALV. OR PRIME COAT: HOT DIP GALVANIZED PER ASTM A123
 FINISH COAT: PAINT TROP BLACK
 COLOR: FH-171-FILU00-FR
 COAT: FLS-3 #9538 17038
 WEIGHT W/GALV.: 3033.23
 SURFACE AREA: 6227.67
 GALLON PAINT: 2.29526

MILLERBERND 622 6TH ST. S.O.
 WINSTED, MN 55395

THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND.

SALES ORDER NO.: QTY: STATE: SHEET

213267 1 OH 1 OF 1

DESCRIPTION: SHIP POLE SIG RD 5/16X300/170 TC-81.22
 D12 POST & 480 CRV ARM W/120 LUM

EST. WEIGHT: DRAWING NO: 213267-22

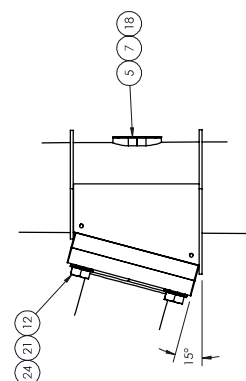
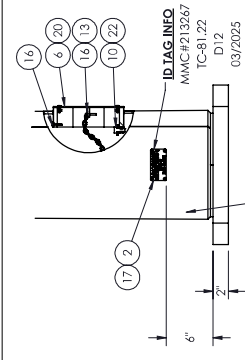
2940.6

PROJECT NAME: PO #4169-1L-928738D / Mark 00001905923 / Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 113013

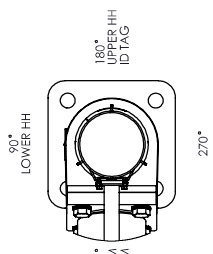
PROJECT LOCATION: STA 749+52.6 57.5 RT
 STRUCTURE SP-3 / SR 159 & PAWNEE RD
 DWN BY: MARK S. DATE: 12-02-2024

CHK BY: DATE:

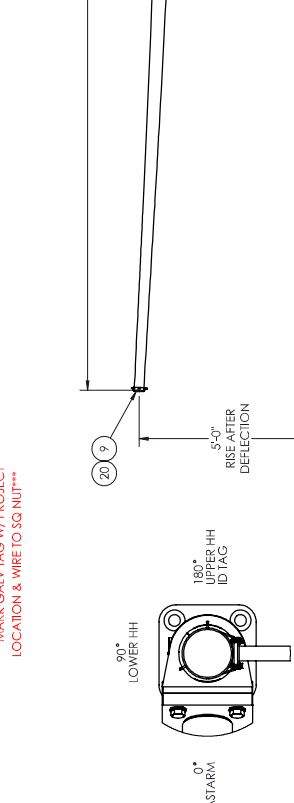
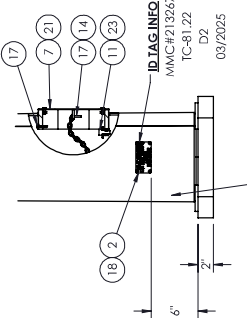
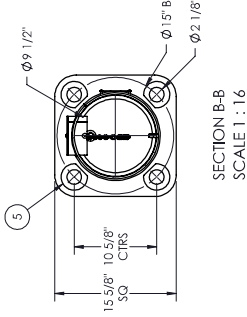
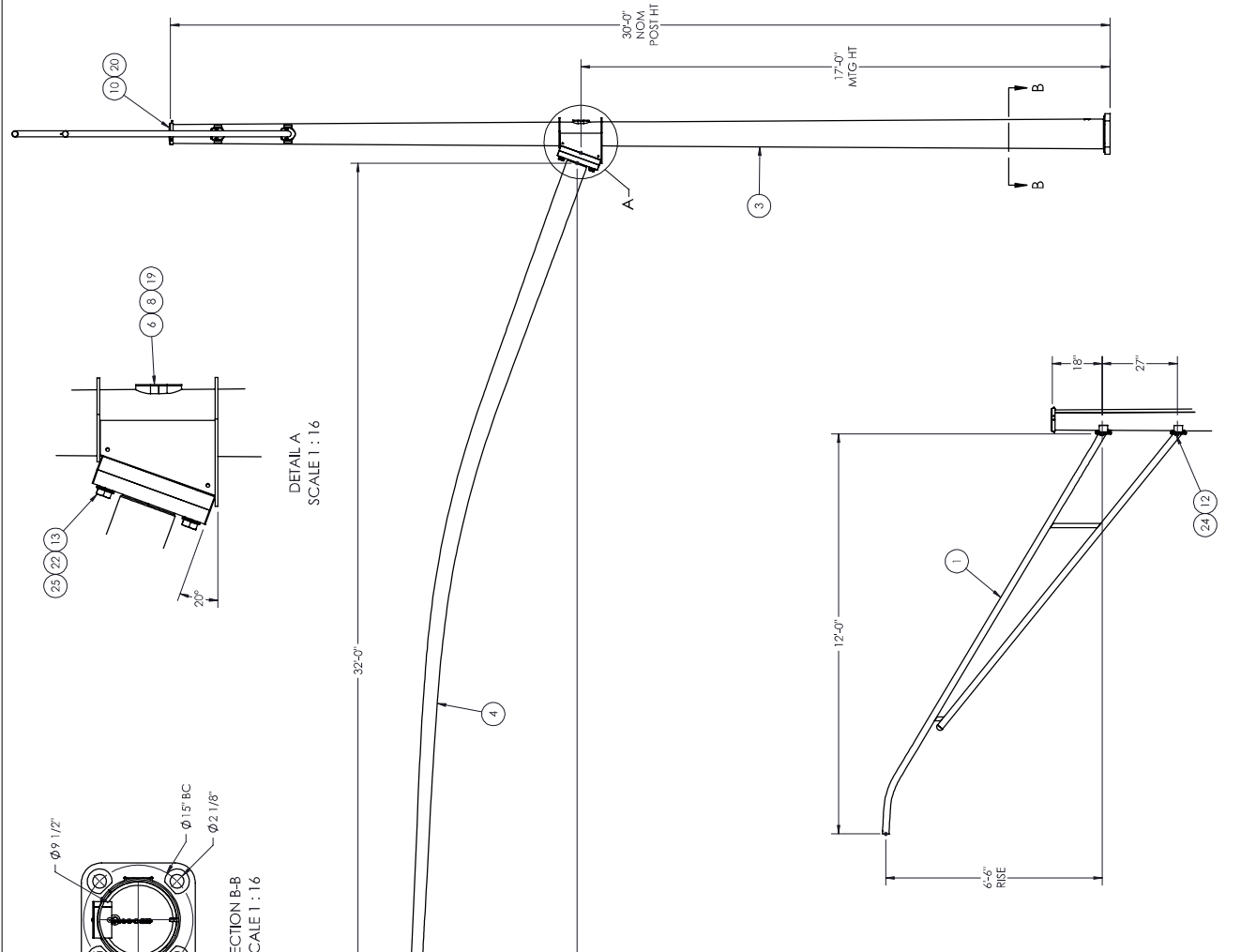
ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
1	1002454	WLDMT ARV TRUSS PIPE 120 27" SPACING 2- BOLT 3/8X1/4	1	X	X
2	1005186	ID TAG OHIO	1	X	
3	1077850	WLDMT ARM SIG CRV RD 5/16X480 (5/16X11.0X4.2X487)	1	X	X
4	1078384	WLDMT POLE SIG RD 5/16X300/170 (5/16X14.0X2.8X300)	1	X	X
5	8800267	COVER HH M1.5 3X5 FORMED	1	X	X
6	8800709	COVER HH 4X8 W/CHAIN TAB	1	X	X
7	9900037	LATCH HH M1.5 3X5	1		
8	9900202	STAMPED POLE CAP WELDMENT (3/75-4/75)	1		X
9	9900207	STAMPED POLE CAP WELDMENT (8/75-10/25)	1		X
10	BOLTA/1/2-13X1/2A	BOLT HK HD 1/2-13NC X 1" F593C SS 304 SS	1	X	
11	BOLTA/1/2-13X1/2A	BOLT HK HD 1/2-13NC X 1-1/2 F593C SS	4		
12	BOLTB/1/2-6X1/2B	BOLT HYHXHD 1/2-6 X 4-1/2 A325GV	4		
13	CHAIN-A-1/8-GV-12"	CHAIN 1/8"PROOF COIL CHAIN GV 12'L	1	X	
14	HDWR-120-003	1"TD1-3/AOD.5/8TKW/GRV 1/4/1.38GYD	4	NOT SHOWN	
15	PF-1-17-FILU00-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACKS)	1	REF	
16	RVPFP3/16X1-1/8(5/8)AL	RIVET POP 3/16X1-1/8(5/8) HD ALUM	2	X	
17	RVPFP3/16X1/2(3/8)SS	RIVET POP 3/16X1/2(3/8) HD SS	4	X	
18	SCRWA5/16-18X2"SS	SCRWA HK SK FL HD 5/16-18NC X 2" SS	1		
19	SCRWM1/4-20X1-1/4SS	SCRW ST SQ HD 1/4-20NC X 1-1/4 SS	6		
20	SCRWW1/4-20X3/4SS	SCRW HK SK BT HD 1/4-20NC X 3/4 SS	2	X	
21	WASHFLAT1-1/2GV	WASHER PLAT 1-1/2 SAE ASTM F468 GV	4		
22	WASHFLAT1/2BRASS-001	WASH F.58 LDX1.375ODX.091 THK BRASS	2	X	
23	WASHFLAT1/2SS-001	WASHER BRASS 1/2"SS	4		
24	WASHLOADN1-1/2-001-GV	WASHER DTI 1-1/2" ASTM F959 TYPE 325	4		



DETAIL A
 SCALE 1:16



REV.	DESCRIPTION	DATE	DWGT



ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER ASSY	FINISH
1	1002654	WLDMT ARM TRUSS PIPE 120 27" SPACING 2-BOLT SIMPLEX	1	X
2	1005186	ID TAG OHIO	1	X
3	1077833	WLDMT POLE SIG RD 1/4X300/170 (1/4X11.5X7.3X300)	1	X
4	1077834	WLDMT ARM SIG CRV RD 3/16X320 (3/16X6.0X3.42X320)	1	X
5	1077877	CLIPPED WASHER 3/8" X 3/8"	4	GV
6	8800267	COVER HH M1.5 3X5 FORMED	1	X
7	8800709	COVER HH 4X8 W/CHAIN TAB	1	X
8	9900037	LATCH HH M1.5 3X5	1	X
9	9900201	STAMPED POLE CAP WELDMENT (3.25-3.75)	1	X
10	9900205	STAMPED POLE CAP WELDMENT (6.75-7.75)	1	X
11	BOLTA/1/2-13X17A	BOLT HK HD 1/2-13NC X 1" F593C SS 304 SS	1	X
12	BOLTA/1/2-13X17A	BOLT HK HD 1/2-13NC X 1-1/2 F593C SS	4	X
13	BOLB18-1/4-7X4-1/2B	BOLT HYHXHD 1-1/4-7 X 4-1/2 A325GV	4	X
14	CHAIN-A-/8-GV-12"	CHAIN 1/8"PROOF COIL CHAIN GV 12LG	1	X
15	HDWR-120-003	1"TD1-3/AOD.5/8TKW/GRV 1/4/1.38GVD	4	NOT SHOWN
16	PF-1-17-FIU-003-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACKS)	1	REF
17	RVFP3/16X1-1/8(S/8)H/L	RIVET POP 3/16X1-1/8(S/8) HD ALUM	2	X
18	RVFP3/16X1/2(13/8)H/SS	RIVET POP 3/16X1/2(13/8) HD SS	4	X
19	SCRWA5/16-18X25SS	SCRWA HK SK FL HD 5/16-18NC X 2.5 SS	1	X
20	SCRWM1/4-20X1-1/4SS	SCRW ST SQ HD 1/4-20NC X 1-1/4 SS	6	X
21	SCRWM1/4-20X3/4SS	SCRW HK SK BT HD 1/4-20NC X 3/4 SS	2	X
22	WASHFLAT1-1/4GV	WASHFLAT1-1/4GV	4	X
23	WASHFLAT1/2BRASS-001	WASH F56 LDX1.375OODX.091 THK BRASS COVER BRASS	2	X
24	WASHFLAT1/2SS-001	WASH F56 LDX1.375OODX.091 THK SS COVER BRASS	4	X
25	WASHLOADN1-1/4-001-GV	WASHER DIT 1-1/4" ASTM F959 TYPE 325	4	X

MATERIAL SPECIFICATIONS

POST: ASTM A572 GR 55
MAST ARM: ASTM A572 GR 55
MOUNTING PLATE: ASTM A36
HARDWARE FINISH: GALV ASTM A153
ANCHOR BOLTS: ASTM F1554 GR 10S

DESIGN CRITERIA

2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.

WINDS: 115 MPH
VORTEX SHED: N/A
FATIGUE CALL: GALLOPING: N/A
NATURAL WIND GUST: YES
WIND GUST: YES

WELD SPECIFICATION

THE POST AND MAST ARM TO BE ROUND TAPERED TUBE PER WELDING CODE. ALL WELDS TO BE FULL PENETRATION AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS TO BE X-RAY TESTED (RT).
MATERIAL: PER AASHTO 2013.3.15.5 WELD INSP) THICKNESS < 6MM (0.25 IN) UT
3.6MM (0.25 IN) UT
PENETRATION (P.P), LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).

FINISH SPECIFICATION

GALV. OR PRIME COAT: HOT DIE GALVANIZED PER ASTM A123
FINISH COAT: PAINT TROP BLACK
COLOR: RAL 9005
GLOSS: 60% OR PAL SPEC: 1588.96
WEIGHT W/GALV.: 1.672.63
SURFACE AREA: 47936.0
GALV. COAT PAINT: 1.85136

622 6TH ST. S.O.
WINSTED, MN 55395

THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND AND PFGS

SALES ORDER NO.: 213267 QTY: 1 STATE: OH 1 OF 1 SHEET

DESCRIPTION: SHIP POLE SIG RD 1/4X300/170 TC-81.22
D2 POST & 320 CRV ARM W/120 LUM

EST. WEIGHT: 1608.3 DRAWING NO: 213267-23

PROJECT NAME: PO #4169-1L-928738D / Mark 0000190523 / Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 113013

PROJECT LOCATION: STA 755+26.2 55.4' LT
STRUCTURE SP-1 / SR 159 & CHILlicothe MALL
DWN BY: MARK S. DATE: 12-02-2024

CHK BY: DATE:

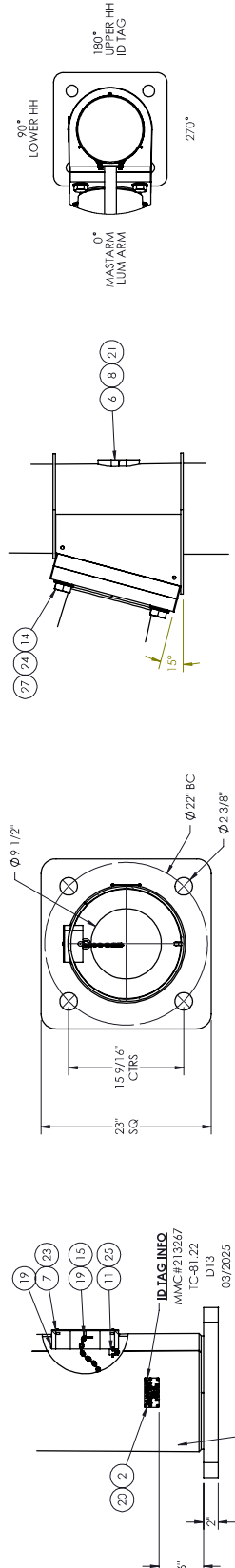
ID TAG INFO
MMC#H213267
TC-81.22
03/2025

0" MAST ARM
90" LOWER HH
180" UPPER HH
ID TAG

6" D2

*****MARK GALV TAG W/ PROJECT LOCATION & WIRE TO SQ NUT*****

REV.	DESCRIPTION	DATE	DRT



DETAIL A
SCALE 1 : 18

SECTION B-B
SCALE 1 : 16

DETAIL-MASTARM SLIP JOINT

MATERIAL SPECIFICATIONS

POST: ASTM A572 GR 55
 MAST ARM: ASTM A572 GR 55
 MOUNTING PLATE: ASTM A36
 HARDWARE FINISH: GALV ASTM A153
 ANCHOR BOLTS: ASTM F1554 GR 105

DESIGN CRITERIA

2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.

WINDS: 115 MPH
 FATIGUE CATEGORY: N/A
 NATURAL WIND GUST: YES
 VORTEX SHED: N/A
 GALLOPING: N/A
 ICE ACCUMULATION: YES

WELD SPECIFICATION

THE POST AND MAST ARM TO BE ROUNDED AND FIBER OPTIC FIBER OPTIC WELDED TO THE MAST ARM. ALL WELDS TO BE MADE WITH 100% PENETRATION 6" FROM BASE PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS IN THE MOUNTING PLATE TO BE VISUAL TESTED (VT).
 MATERIAL: PER AASHTO 2013.3.15.5 WELD INSP) THICKNESS < 6MM (0.25 IN) UT
 3.6MM (0.25 IN) UT
 PENETRATION (IP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).

FINISH SPECIFICATION

GALV OR PRIME COAT: HOT DIE GALVANIZED PER ASTM A123
 FINISH COAT: PAINT TROP BLACK
 COLOR: F1-17-FIL004-FR
 GLOSS: 60%
 WEIGHT W/GALV: 3015.42
 WEIGHT W/GALV & PAINT: 3846.86
 SURFACE AREA: 79445.6
 GALLON PAINT: 3.0552

MILLERBERND
 622 6TH ST. SO.
 WINSTED, MN 55395

THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND.

SALES ORDER NO.: QTY: STATE: SHEET

213267 1 OH 1 OF 1

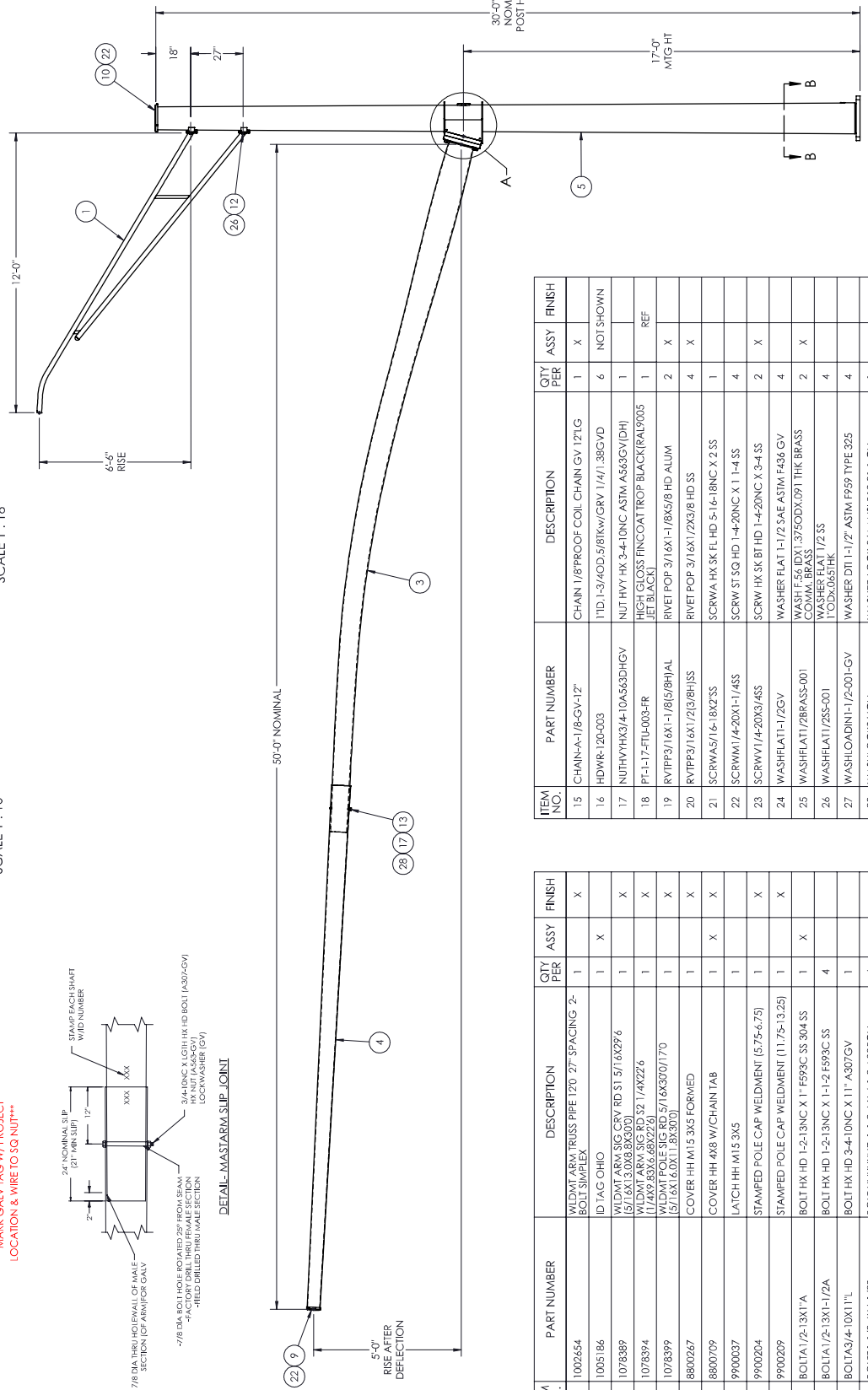
DESCRIPTION: SHIP POLE SIG RD 5/16X300/170 TC-81.22
 D13 POST & 500 CRV ARM W/120 LUM

EST. WEIGHT: DRAWING NO.: 213267-24
 3698.9

PROJECT NAME: PO #4169-TL-928738D / Mark 0000190523 / Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 1113013

PROJECT LOCATION: STA 754+36.3 47.0' LT
 STRUCTURE SF-2 / SR 159 & CHILICOTHE MALL
 DWN BY: MARK S. DATE: 12-02-2024

CHK BY: DATE:

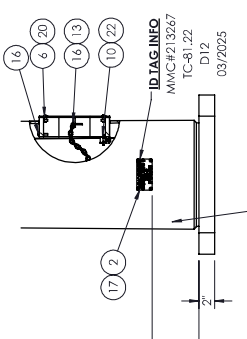
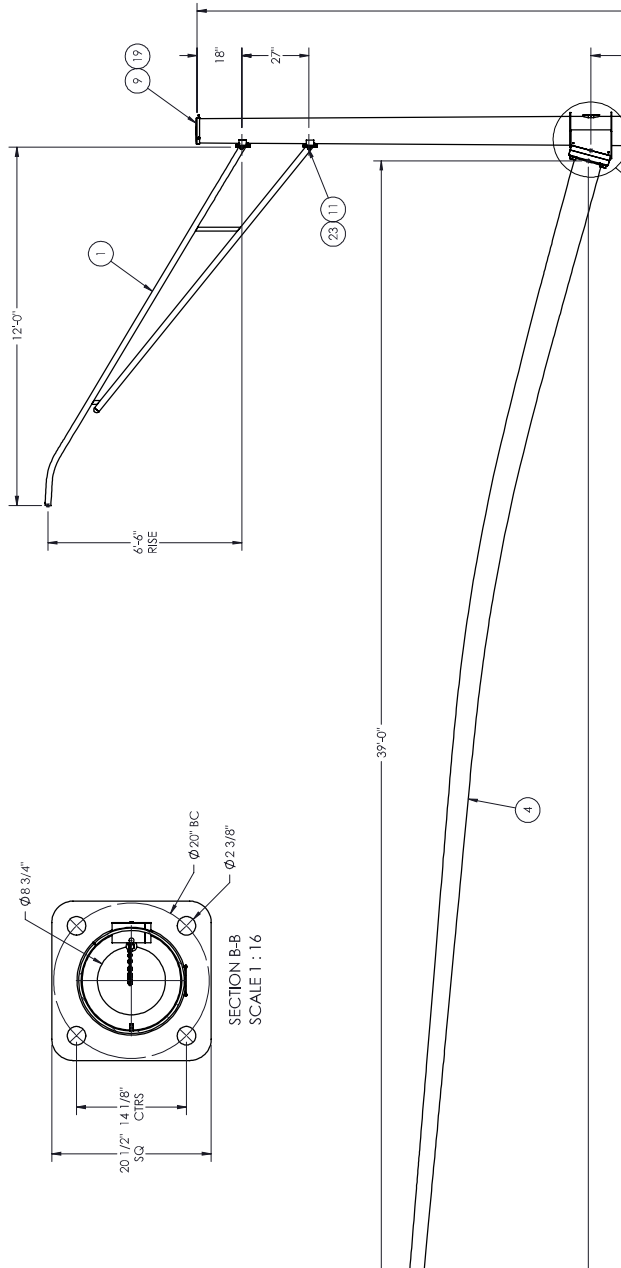


ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER ASSY	FINISH
15	CHAIN-A-1/8-GV-12"	CHAIN 1/8" PROOF COIL CHAIN GV 12LG	1	X
16	HDWR-120-003	ITD-1-3/4OD-3/8TKW/GRV 1/4/1.38GVYD	6	NOT SHOWN
17	NUT-HVTHX3/4-10A-563DHGV	NUT HVY HK 3-4-10NC ASTM A563GV(DH)	1	REF
18	PT-1-17-FTL-003-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACK)	2	X
19	RVTTP2/16X1-1/8/16/8HJAL	RIVET POP 3/16X1-1/8X5/8 HD ALUM	4	X
20	RVTTP3/16X1/2/3/8HJSS	RIVET POP 3/16X1/2X3/8 HD SS	4	X
21	SCRWA5/16-18X2SS	SCRWA HK SK FL HD 5-16-18NC X 2 SS	4	X
22	SCRW1/4-20X1-1/4SS	SCRW ST SQ HD 1-4-20NC X 1-1/4 SS	2	X
23	SCRW1/4-20X3/4SS	SCRW HK SK BT HD 1-4-20NC X 3/4 SS	4	X
24	WASHFLAT1-1/2GV	WASHER FLAT 1-1/2 SAE ASTM F438 GV	2	X
25	WASHFLAT1/2BRASS-001	WASH F.56 (DX) 3/750DX.091 THK BRASS	4	X
26	WASHFLAT1/2SS-001	WASHER FLAT 1/2 SS	4	X
27	WASHLOADINI-1/2-001-GV	WASHER DTL 1-1/2" ASTM F599 TYPE 325	4	X
28	WASHLOCK3/4GV	WASHER LOCK 3/4 ANSI B18.21.1 GV	1	X

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER ASSY	FINISH
1	1002654	WLDMT ARX TRUSS PIPE 120 27" SPACING 2"	1	X
2	1005186	BOLT SIMPLEX	1	X
3	1078389	ID TAG OHIO	1	X
4	1078394	WLDMT ARX SIG CRV RD 5/16X2996	1	X
5	1078399	WLDMT ARX SIG RD 5/16X2226	1	X
6	8800267	WLDMT ARX SIG RD 5/16X300/170 (5/16X1.60X11.8X300)	1	X
7	8800709	COVER HH M15 3X5 FORMED	1	X
8	9900037	COVER HH M15 3X5	1	X
9	9900204	LATCH HH M15 3X5	1	X
10	9900209	STAMPED POLE CAP WELDMENT (5.75-6.75)	1	X
11	BOLTA1/2-13X1A	STAMPED POLE CAP WELDMENT (11.75-13.25)	1	X
12	BOLTA1/2-13X1-1/2A	BOLT HK HD 1-2-13NC X 1" F599C SS 304 SS	4	X
13	BOLTA3/4-10X11"	BOLT HK HD 1-2-13NC X 1-1/2 F599C SS	1	X
14	BOLBI1/2-8X41/2B	BOLT HK HD 3-4-10NC X 11" A307GV	4	X

MARK GALV TAG W/ PROJECT LOCATION & WIRE TO SQ UNIT

REV.	DESCRIPTION	DATE	DWGT



MARK GALV TAG W/ PROJECT LOCATION & WIRE TO SQ NUT

MATERIAL SPECIFICATIONS	
POST: ASTM A572 GR 55	WELD METAL: E7018
FASTENERS: ASTM A307 GR 55	MAST ARM: ASTM A377 GR 55
MOUNTING PLATE: ASTM A36	HARDWARE FINISH: GALV ASTM A153
ANCHOR BOLTS: ASTM F1554 GR 105	

DESIGN CRITERIA	
2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.	
WINDS: 115 MPH	VORTEX SHED: N/A
FATIGUE CALC: YES	GALLOPING: N/A
NATURAL WIND GUST: YES	WRECK GUST: YES

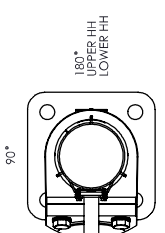
WELD SPECIFICATION	
THE POST AND MAST ARM TO BE BOND TO A FIBER GLASS FIBER REINFORCED POLYESTER (FRP) SHEATHING SEAM WELD WITH 100% PENETRATION & FROM BASE PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.	
WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS TO BE TESTED BY X-RAY (RT) OR ULTRASONIC TESTING.	
MATERIAL: PER AASHTO 2013.3.15.5 WELD INSP) THICKNESS < 6MM (0.25 IN) MT	
3.6MM (0.25 IN) UT	
2.6MM (0.10 IN) RT	
FINISH SPECIFICATION	
GALV. OR PRIME COAT: HOT DIP GALVANIZED PER ASTM A123	
FINISH COAT: PAINT TROP BLACK	PH-F17U-003-FR
COAT WT: PER SPEC. # 9738 17/038	
WEIGHT W/GALV.: 2889.75	
SURFACE AREA: 591,653	
PAINT: PER SPEC. # 9738 17/038	
PAINT: PER SPEC. # 9738 17/038	
PAINT: PER SPEC. # 9738 17/038	
PAINT: PER SPEC. # 9738 17/038	

FINISH SPECIFICATION	
GALV. OR PRIME COAT: HOT DIP GALVANIZED PER ASTM A123	
FINISH COAT: PAINT TROP BLACK	PH-F17U-003-FR
COAT WT: PER SPEC. # 9738 17/038	
WEIGHT W/GALV.: 2889.75	
SURFACE AREA: 591,653	
PAINT: PER SPEC. # 9738 17/038	
PAINT: PER SPEC. # 9738 17/038	
PAINT: PER SPEC. # 9738 17/038	
PAINT: PER SPEC. # 9738 17/038	

MILLERBERND	
622 6TH ST. S.O. WINSTED, MN 55395	
THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND AND PFS	
SALES ORDER NO.:	QTY: 1 STATE: 1 OF 1 SHEET
213267	1
DESCRIPTION: SHIP POLE SIG RD 5/16X300/170 TC-81.22 D12 POST & 39'0 CRV ARM W/120 LUM	
EST. WEIGHT:	DRAWING NO: 213267-25
2801.5	
PROJECT NAME: PO #4169-1L-928738D / Mark 0000190523 / Job Name ODOT 426-25 / Chillicothe OH ROS-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 113013	
PROJECT LOCATION: STA 755+47.4 43.8' RT STRUCTURE SF-3 / SR 159 & CHILlicothe MALL	
DWN BY: MARK S.	DATE: 12-02-2024
CHK BY:	DATE:

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
1	1002454	WLDMT ARM TRUSS PIPE 120 27' SPACING 2- BOLT 3MTRLEX	1		X
2	1005186	ID TAG OHIO	1	X	
3	1078385	WLDMT POLE SIG RD 5/16X300/160 (5/16X14.0X9.8X300)	1		X
4	1078386	WLDMT ARM SIG CRV RD 5/16X390 (5/16X11.025X46837.7)	1		X
5	8800267	COVER HH M1.5 3X5 FORMED	1		X
6	8800709	COVER HH M1.5 3X5 FORMED	1	X	X
7	9900037	LATCH HH M1.5 3X5	1		X
8	9900203	STAMPED POLE CAP WELDMENT (47.5-57.5)	1		X
9	9900207	STAMPED POLE CAP WELDMENT (87.5-102.5)	1		X
10	BOLTA/1/2:13X17A	BOLT HK HD 1-2-13NC X 1" F593C SS 304 SS	1	X	
11	BOLTA/1/2:13X17A	BOLT HK HD 1-2-13NC X 1" F593C SS	4		
12	BOLBI1/2-26X1/2B	BOLT HYHXHD 1-1/2-26 X 1-1/2 A325GV	4		
13	CHAIN-A-1/8-GV-12"	CHAIN 1/8PROOF COIL CHAIN GV 12'L	1	X	
14	HDWR-120-003	1"ID-13/4OD-5/8TKW/GRV 1/4I-1.38GYD	4	NOT SHOWN	
15	PH-17-F1U-003-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL9005 JET BLACK)	1	REF	
16	RVFPP3/16X11/8(S/8H)/AL	RIVET POP 3/16X11/8(S/8) HD ALUM	2	X	
17	RVFPP3/16X12/13(BH)SS	RIVET POP 3/16X12/13(BH) HD SS	4	X	
18	SCRWA5/16-18X25SS	SCRWA HK SK FL HD 5/16-18NC X 2.5 SS	1		
19	SCRWM1/4-20X1-1/4SS	SCRW ST SQ HD 1-4-20NC X 1 1/4 SS	6		
20	SCRWW1/4-20X3/4SS	SCRW HK SK BT HD 1-4-20NC X 3/4 SS	2	X	
21	WASHFLAT11/2GV	WASHER FLAT 1-1/2 SAE ASTM F468 GV	4		
22	WASHFLAT11/2BRASS-001	WASH F56 LDX1.375ODX.091THK BRASS	2	X	
23	WASHFLAT1/2SS-001	WASHER FLAT 1/2 SAE ASTM F433	4		
24	WASHLOADN11/2-001-GV	WASHER DTT 1-1/2' ASTM F959 TYPE 325	4		

DETAIL A SCALE 1:16



180° UPPER HH LOWER HH

0° MAST ARM LUM ARM

220° ID TAG

REV.	DESCRIPTION	DATE	DWGT

2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL STEELWORK ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.

WINDS: 115 MPH
 FATIGUE CATEGORY: VORTEX SHED: N/A
 NATURAL WIND GUST: YES
 GALLOPING: N/A
 ICE GUST: YES

MATERIAL SPECIFICATIONS

POST: ASTM A572 GR 55
 MOUNTING PLATE: ASTM A36
 MOUNTING PLATE: ASTM A36
 HARDWARE FINISH: GALV ASTM A153
 ANCHOR BOLTS: ASTM F1554 GR 10S

DESIGN CRITERIA

2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL STEELWORK ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.

WINDS: 115 MPH
 FATIGUE CATEGORY: VORTEX SHED: N/A
 NATURAL WIND GUST: YES
 GALLOPING: N/A
 ICE GUST: YES

WELD SPECIFICATION

THE POST AND MAST ARE TO BE ROUNDED TO THE FINISH COAT. THE WELDING SHALL BE PERFORMED ON THE SEAM WELD WITH 100% PENETRATION & FROM BASE PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT). 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS TO BE TESTED BY X-RAY. 100% OF ALL BUTT JOINTS TO BE TESTED BY X-RAY. WELD METAL TO BE PER ASHTO 2013.3.15.54 WELD INSP) THICKNESS. < 6MM (0.25 IN) UT

FINISH SPECIFICATION

GALV OR PRIME COAT: HOT DIE GALVANIZED PER ASTM A123
 FINISH COAT: PAINT TROP BLACK
 COLOR: RAL 9005
 COAT: 2
 WEIGHT W/GALV: 1204.33
 SURFACE AREA: 311.9822
 GALE OFF PAINT: 1.12822



622 6TH ST. SO.
 WINSTED, MN 55395

THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND MFG AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND MFG

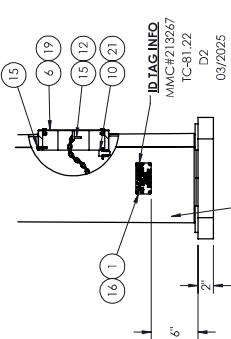
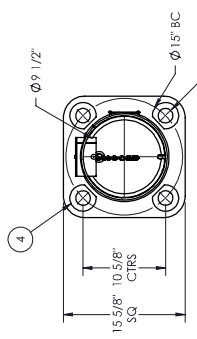
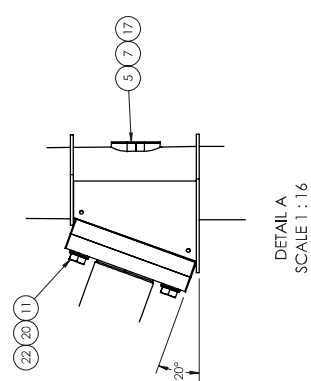
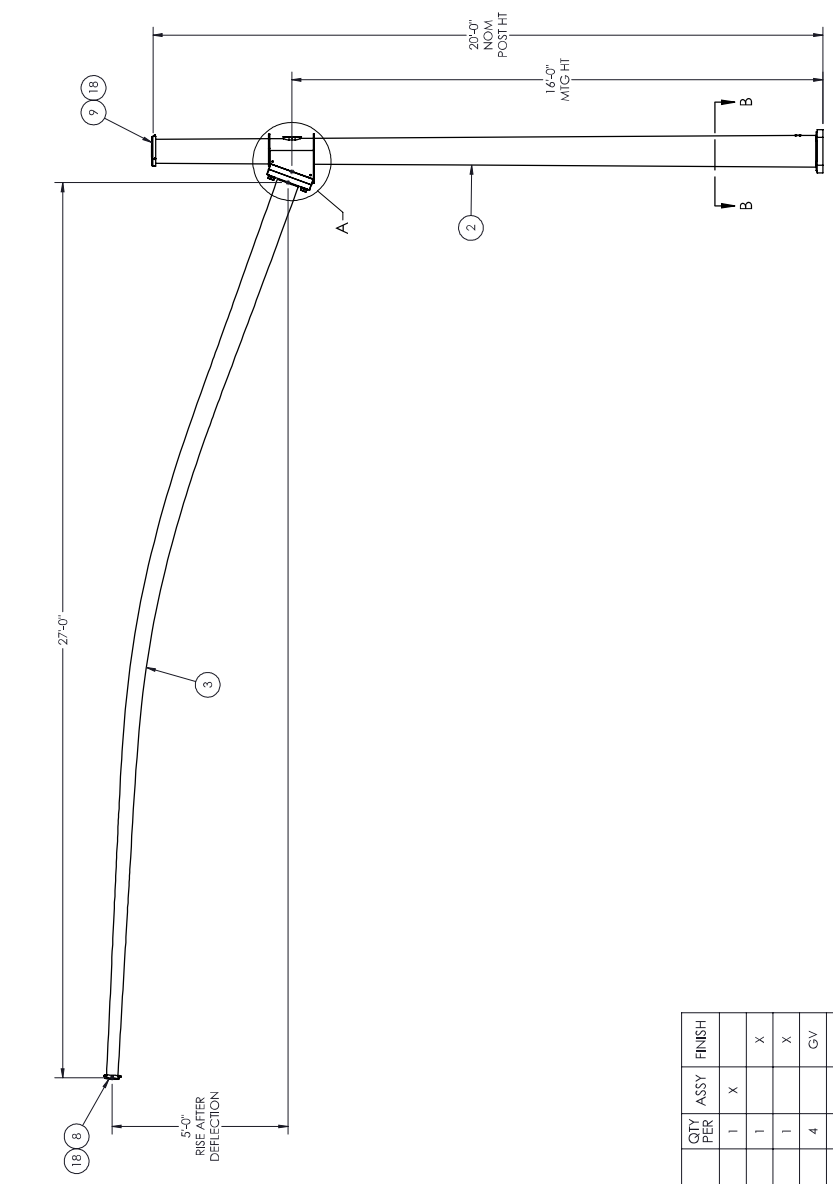
SALES ORDER NO.: 213267
 QTY: 1
 STATE: IA
 SHEET: 1 OF 1

DESCRIPTION: SHIP POLE SIG RD 1/4X200/160 TC-81.22
 D2 POST & 27'0 CRV ARM

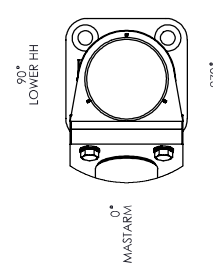
EST. WEIGHT: 1254.8
 DRAWING NO.: 213267-26

PROJECT NAME: PO #4169-TL-9287380 / Mark 0000190523 / Job Name ODOT 426-25 / Chillicothe OH R05-159-0.41 Traffic Signal & Light Pole Material Only Contract / PID: 113013

PROJECT LOCATION: STA 754+58.3 652' RT
 STRUCTURE SF-4 / SR 159 & CHILlicothe MALL
 DWN BY: MARK S.
 DATE: 12-02-2024
 CHK BY: DATE:



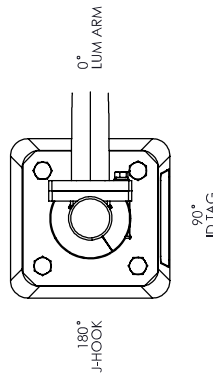
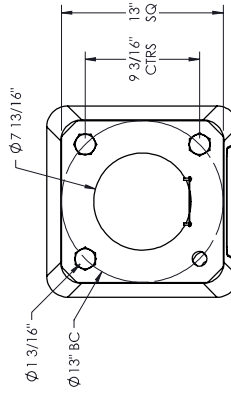
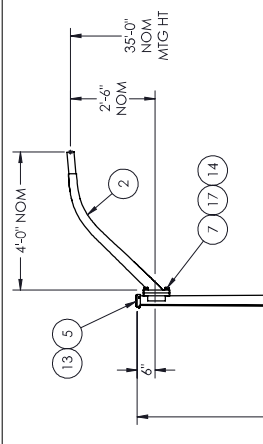
MARK GALV TAG W/ PROJECT LOCATION & WIRE TO SQ NUT



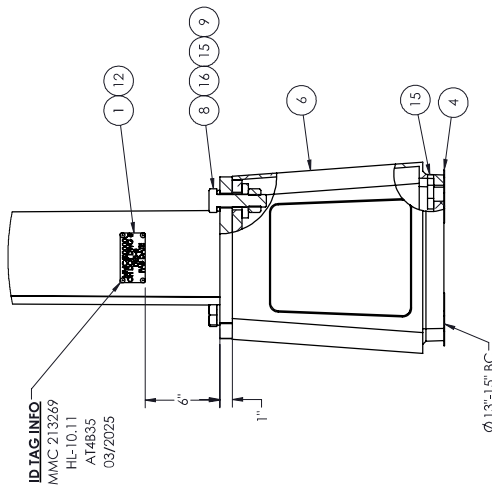
ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER ASSY	FINISH
1	1005186	ID TAG OHIO	1	X
2	1077836	WIDMT POLE SIG RD 1/4X200/160	1	X
3	1077837	WIDMT ARV SIG CRV RD 3/16X270 (3/16X8.0X4.12X275)	1	X
4	1077877	CLIPPED WASHER 3/8" X 3 3/8"	4	GY
5	8800267	COVER HH M1.5 3X5 FORMED	1	X
6	8800709	COVER HH 4X8 W/CHAIN TAB	1	X
7	9900697	LATCH HH M1.5 3X5	1	X
8	9900202	STAMPED POLE CAP WELDMENT (3.75-4.75)	1	X
9	9900207	STAMPED POLE CAP WELDMENT (8.75-10.25)	1	X
10	BOL1A1/2-13X1-A	BOLT HK HD 1-2-13NC X 1" F598C SS 304 SS	1	X
11	BOLT B1-1/4-7X41-2B	BOLT HVYHXHD 1-1/4-7 X 4-1-2 A325GV	4	X
12	CHAIN-A-1/8-GV-12"	CHAIN 1/8"PROOF COIL CHAIN GV 12LG	1	X
13	HDWR-120-003	HD-1-3/4OD-5/8TKW/GRV 1/4/1.38GYD	4	NOT SHOWN
14	PT-1-17-FTU-003-FR	HIGH GLOSS FINCOAT TROP BLACK(RAL)P005 JET(BAGS)	1	REF
15	RVPFP3/16X1-1/8(6/8H)AL	RIVET POP 3/16X1-1/8X5/8 HD ALUM	2	X
16	RVPFP3/16X1/2(3/8H)SS	RIVET POP 3/16X1/2X3/8 HD SS	4	X
17	SCRWA5/16-18X2SS	SCRWA HK SK FL HD 5/16-18NC X 2 SS	1	X
18	SCRWM1/4-20X1-1/4SS	SCRW ST SQ HD 1-4-20NC X 1 1/4 SS	6	X
19	SCRWN1/4-20X3/4SS	SCRW HK SK BT HD 1-4-20NC X 3/4 SS	2	X
20	WASHFLAT1-1/4GV	WASH FL 1-1/4(3.75)ODX.091 THK BRASS COMM. BRASS	4	X
21	WASHFLAT1/2BRASS-001	WASH FL 1/2(1.25)ODX.091 THK BRASS COMM. BRASS	2	X
22	WASHLOADN1-1/4-001-GV	WASHER DTI 1-1/4" ASTM F959 TYPE 325	4	X

SECTION B-B
 SCALE 1 : 16

DETAIL A
 SCALE 1 : 16



BASEPLATE SECTION B-B SCALE 1 : 10



DETAIL A SCALE 1 : 10

REV.	DESCRIPTION	DATE	DRFT
<p>REVISIONS</p>			
<p>MATERIAL SPECIFICATIONS</p> <p>POST: ASTM A572 GR 50 ASTM A1011 GR 50 BASE PLATE: ASTM A709 GR 36 ANCHOR BOLTS: ASTM F1554 GR 55 HARDWARE FINISH: ASTM A153 MOUNTING PLATE: ASTM A709 GR 36 WELDING: ASHTO 2013 5.13.3-SHED INPT WELDING WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT) BASED ON THE THINNEST WELDING. ASHTO 2013 5.13.3-SHED INPT WELDING. > 6MM (0.25 IN) UT A RANDOM 30% OF ALL FILLET WELDS AND PARTIAL JOINT WELDS TO BE TESTED FOR LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).</p>			
<p>DESIGN CRITERIA</p> <p>2013 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.</p> <p>WINDS: 90 MPH VORTEX SHED: N/A FATIGUE CAT: N/A GALLOPING: N/A NATURAL WIND GUST: N/A TRICK GUST: N/A</p>			
<p>WELD SPECIFICATION</p> <p>THE POST AND MAST ARM TO BE A TAPERED TUBE FABRICATED WITH ONE SUBMERGED AND LONGITUDINAL WELD. THE WELDING SHALL BE PERFORMED IN THE PROCESS AND 60% FOR REMAINDER. GAS METAL ARC WELDING REMAINDER OF WELDED FABRICATION.</p>			
<p>FINISH SPECIFICATION</p> <p>GALV. OR PRIME COAT: HOT DIP GALV PER ASTM A123 FINISH COAT: PAINT SEMI-GLOSS BLACK COLOR: OR. OR. GAL. SPEC.: 348 884 WEIGHT W/GALV. & PAINT: 371.904 SURFACE AREA: 17127.2 GALLON PAINT: 0.659738</p>			
<p>PROPERTY OF MILLERBERND AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND AND ITS SHEET</p>			

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
1	1005186	ID TAG OHIO	1	X	
2	1042853	WIDMT ARM LUM 11GAX4-0 "J" STYLE	1	X	X
3	1077805	WIDMT POLE LIGHT TRUSS RD 11GAX317 (11GAXZ.61X3.12X31.7)	1		X
4	500A103	SHIM LEVELING 1-1/4" (DWG. 1233)	4		
5	9900201	STAMPED POLE CAP WELDMENT (3.25-3.75)	1		X
6	AKRON-TB1-17	AKRON BREAK-AWAY T-BASE TB1-17	1		PT
7	BOLTA3/4-10X2-1/4A	BOLT HD 3/4-10NC X 2 1/4 F593D SS	3		
8	BOLTB1-8X4"B	BOLT HVYHD 1-8 X 4 A325GV	4		
9	NUTHVYHX1"-8A563GV	NUT HVY HX 1"-8 A563 GV [DH]-RCP	4		
10	PT-1-17-FIU-017-FR	SEMI-GLOSS FIN COAT BLACK FREDA	1		REF
11	PT-5-17-FIU-017-FR-EA	SEMI-GLOSS FIN COAT BLACK FREDA	24		REF
12	RVPFP3/16X1/2(3/8)SS	RIVET POP 3/16X1/2(3/8) HD SS	4	X	
13	SCRWM1/4-20X1-1/4SS	SCRW ST SQ HD 1/4-20NC X 1 1/4 SS	3		
14	WASHFLAT3/4SS	WASHER FLAT 3/4 SS (SAE) 1 1/2OD	3		
15	WASHFLATAKRON2-3/4X1-1/16	2-3/4X1X1-1/16DK1/2TK FLT WSHR W1	8		
16	WASHLOCK1"GV	WASHER LOCK 1"GV	4		
17	WASHLOCK3/4SS	WASHER LOCK 3/4 SS	3		



622 6TH ST. S.O.
 WINSTED, MN 55395

MILLERBERND

THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND AND ITS SHEET

SALES ORDER NO.: QTY: STATE: OH 1 OF 1

DESCRIPTION:
 SHIP POLE LIGHT TRUSS RD 11GAX317/350
 TB1-17 W/40 LUM ARM 2 & RSE- A14635

EST. WEIGHT: DRAWING NO: 213269-01

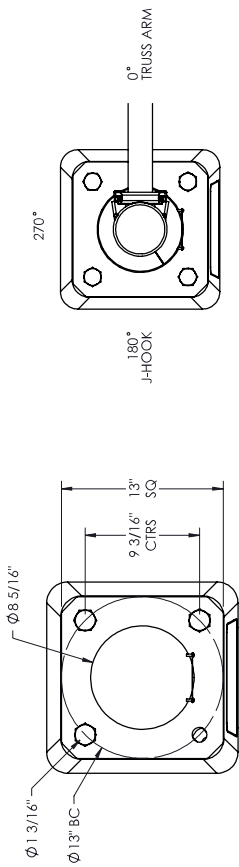
PROJECT NAME:
 PO #4169-TL-928738D / Mork 000190523 /
 Job Name: ODOT 424-25 Traffic Signal & Light Pole
 ROS-159-0-41 Traffic Signal & Light Pole
 Material Only Contract / PID: 113013

PROJECT LOCATION:
 OHIO

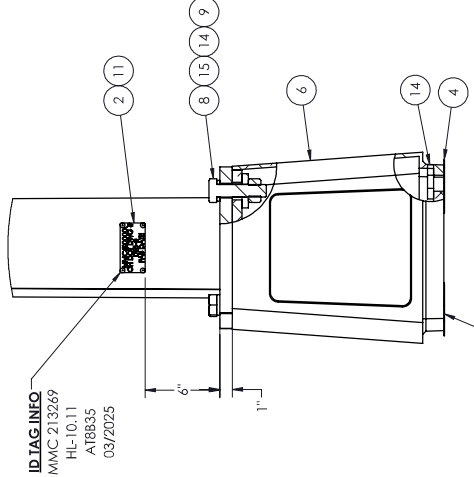
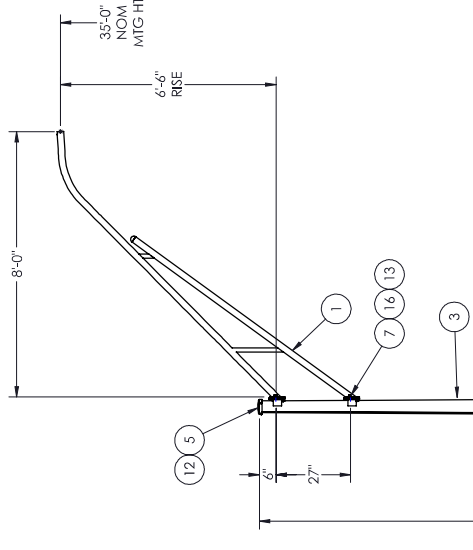
DWN BY: MARK S. DATE: 11-25-2024

CHK BY: DATE:

REV.	DESCRIPTION	DATE	DWGT



BASEPLATE SECTION B-B SCALE 1:10



DETAIL A SCALE 1:10

T-BASE MUST BE INSTALLED DIRECTLY ONTO FOUNDATION FOR AASHTO APPROVAL. USE (4) 1/4 GA ZINC PLATED U-SHAPED SHIMS FOR LEVELING T-BASE

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	FINISH
1	1002829	WIDMT PIPE TRUSS ARM SCH40 2"x80 27" SPACING / 2-BOLT SIMPLEX	1	X
2	1005186	ID TAG OHIO	1	X
3	1077806	WIDMT POLE LIGHT TRUSS RD 11 GA X 27 1/2 27" SPCG / 2BS (11 GA X 8.09 X 4.23 X 27.7)	1	X
4	500A103	SHIM LEVELING 1-1/4" (DWG. 1233)	4	
5	9900202	STAMPED POLE CAP WELDMENT (3/75-4/25)	1	X
6	AKRON-TB1-17	AKRON BREAK-AWAY T-BASE TB1-17	1	PT
7	BOLTA1/2-13X1-1/4A	BOLT 1/2-13NC X 1-1/4 F593C SS	4	
8	BOLT B1-8X4/B	BOLT HVY HD 1-8 X 4 A325GV	4	
9	NUTHVYHX1-8A563GV	NUT HVY HX 1-8 A563 GV (DH)-RCP	4	
10	PT-1-17-FIU-017-FR	SEMI-GLOSS FIN COAT BLACK FREDA	1	REF
11	RVTPP3/16X1/2(3/8)SS	RIVET POP 3/16X1/2X3/8 HD SS	4	X
12	SCRWM1/4-20X1-1/4SS	SCRW ST SQ HD 1-4-20NC X 1-1/4 SS	3	
13	WASHFLAT1/2SS	WASHER FLAT 1/2 SS	4	
14	WASHFLAKRON2-3/4X1-1/16	2-3/4 DIA X 1-1/16 DIA X 1/2 TK FLT WSHR W1	8	
15	WASHLOCK1/GV	WASHER LOCK 1/GV	4	
16	WASHLOCK1/2SS	WASHER LOCK 1/2 SS	4	

REVISIONS			
REV.	DESCRIPTION	DATE	DWGT

270°

180° J-HOOK

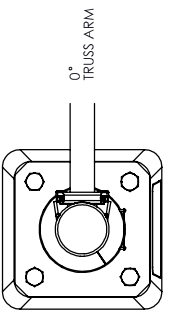
90° ID TAG

Ø 1 3/16"

Ø 13" BC

9 3/16" CTRS SQ

13" SQ



BASEPLATE SECTION B-B SCALE 1:10

MATERIAL SPECIFICATIONS

POST: ASTM A572 GR 50 ASTM A1011 GR 50
 BASE PLATE: ASTM A709 GR 36
 ANCHOR BOLTS: ASTM A709 GR 36
 MOUNTING PLATE: ASTM A709 GR 36
 HARDWARE FINISH: ASTM A153
 ANCHOR BOLTS: ASTM F1554 GR 55

DESIGN CRITERIA

2013 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.

WINDS: 90 MPH
 VORTEX SHED: N/A
 FATIGUE CAT: N/A
 NATURAL WIND GUST: N/A
 GALLOPING: N/A
 TRUCK GUST: N/A

WELD SPECIFICATION

THE POST AND MAST ARM TO BE A TAPERED TUBE FABRICATED WITH ONE SUBMERGED AND LONGITUDINAL WELD. THE JOINT BETWEEN THE TUBE AND THE MOUNTING PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT) BASED ON THE THINTEST WELDING. AASHTO 2013 3.1.3.3 WELD INPT THICKNESS:
 < 6MM (0.25 IN) UT
 ≥ 6MM (0.25 IN) UT
 A RANDOM 30% OF ALL FILLET WELDS AND PARTIAL JOINT PENETRATION JOINTS LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).

FINISH SPECIFICATION

GALV OR PRIME COAT: HOT DIP GALV PER ASTM A123
 FINISH COAT: PAINT SEMI-GLOSS BLACK
 COLOR: ON GAL SPEC: 395 89
 DRY WEIGHT W/GALV & PAINT: 399.152
 WEIGHT W/PAINTE: 17200.0
 SURFACE AREA: 0.738462
 GALL OFF PAINT:

622 6TH ST. S.O.
 WINSTED, MN 55395

MILLERBERND

THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN PERMISSION FROM MILLERBERND.

SALES ORDER NO.: QTY: 28 OH 1 OF 1 SHEET

STATE:

DESCRIPTION:
 SHIP POLE LIGHT TRUSS RD 11 GA X 27 1/2
 TB1-17 W/80 TRUSS ARM 66 RBE- AT8835

EST. WEIGHT: 383.8
 DRAWING NO: 213269-02

PROJECT NAME:
 PO #4169-TL-928738D / Mork 000190523 /
 Job Name: ODOT 424-25 (Chillicothe OH)
 ROS-159-0-41 Traffic Signal & Light Pole
 Material Only Contract / PID: 113013

PROJECT LOCATION:
 OHIO

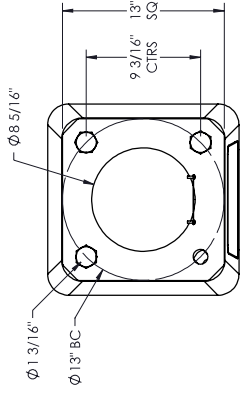
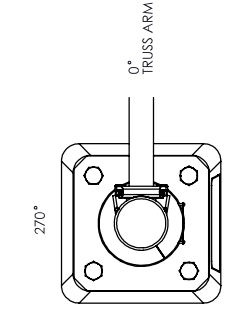
DWN BY: MARK S. DATE: 11-25-2024
 CHK BY: DATE:

Ø 13"-15" BC

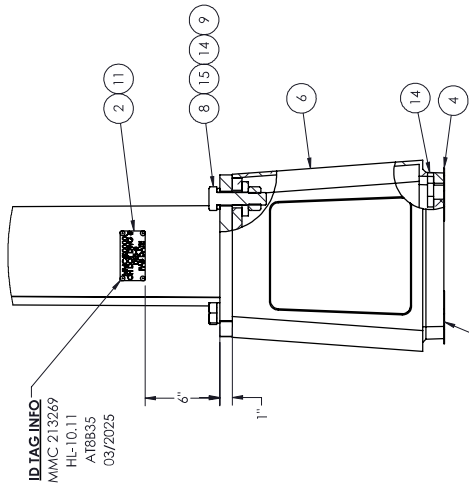
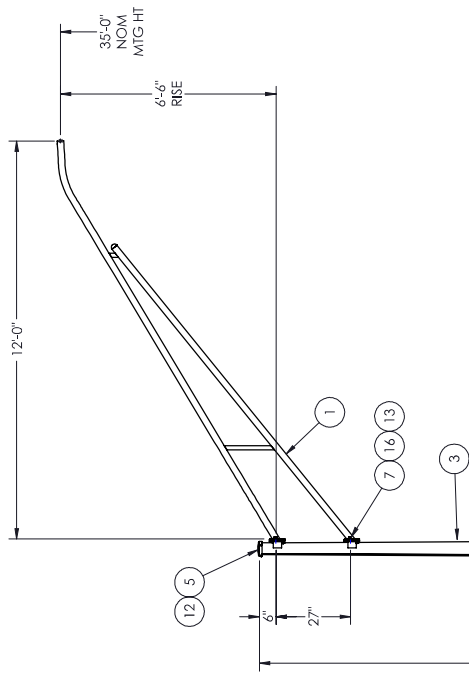
27'-7" NOM SHAFT HT

17"

REV.	DESCRIPTION	DATE	DRFT
------	-------------	------	------



**BASEPLATE
SECTION B-B
SCALE 1 : 10**



**DETAIL A
SCALE 1 : 10**

**T-BASE MUST BE INSTALLED DIRECTLY ONTO
FOUNDATION FOR AASHTO APPROVAL.
USE: (4) 14 GA ZINC PLATED U-SHAPED SHIMS
FOR LEVELING T-BASE**

MATERIAL SPECIFICATIONS
POST: ASTM A572 GR 50 ASTM A 1011 GR 50
BASE PLATE: ASTM A 709 GR 36
ANCHOR BOLTS: ASTM A 490 GR 5B
MOUNTING PLATE: ASTM A 709 GR 36
HARDWARE FINISH: ASTM A 153
ANCHOR BOLTS: ASTM F 1554 GR 55

DESIGN CRITERIA
2013 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.
WINDS: 90 MPH VORTEX SHED: N/A
FATIGUE CAT: N/A GALLOPING: N/A
NATURAL WIND GUST: N/A TRUCK GUST: N/A

WELD SPECIFICATION
THE POST AND MAST ARM TO BE A TAPERED TUBE FABRICATION WITH ONE SUBMERGED AND LONGITUDINAL WELDED JOINT. THE WELDS TO BE FULL PENETRATION AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.
WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT) BASED ON THE THINNESS. MINIMUM THICKNESS: AASHTO 2013 5.13.5-SHELD INPT THICKNESS: < 6MM (0.24 IN) UT ≥ 6MM (0.25 IN) UT
A RANDOM 30% OF ALL FILLET WELDS AND PARTIAL JOINT PENETRATION JOINTS LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).

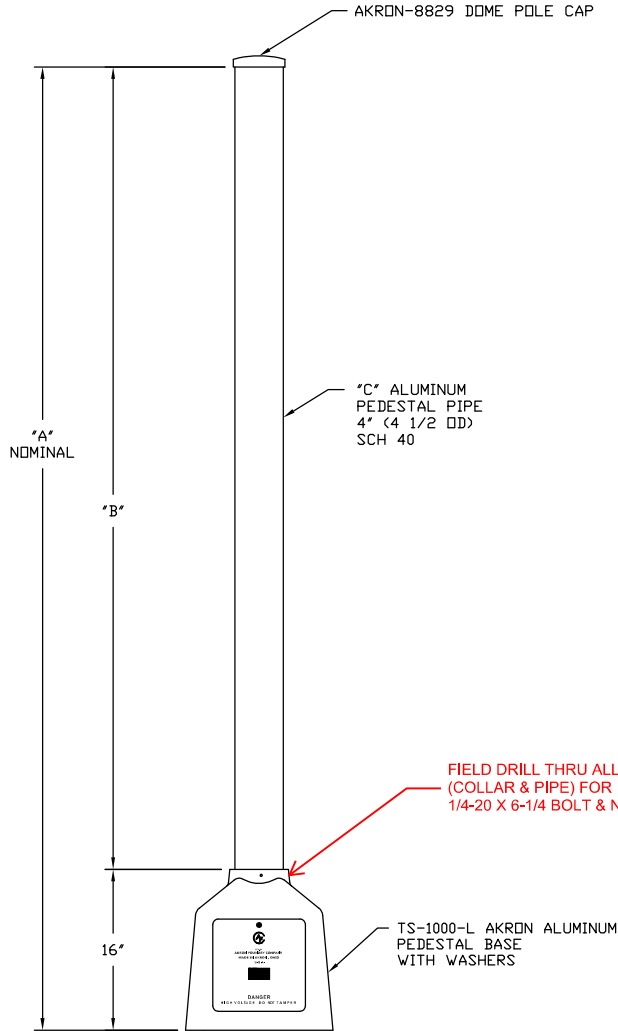
FINISH SPECIFICATION
GALV OR PRIME COAT: HOT DIP GALV PER ASTM A 123
FINISH COAT: PAINT SEMI-GLOSS BLACK
COLOR: ON PAINT SPEC: PF-1-17-FUL-017-FR
WEIGHT: 420.489
WEIGHT W/GALV & PAINT: 423.904
W/PAINT: 20267.0
SURFACE AREA: 0.1775
GALLON OF PAINT:

MILLERBERND
622 6TH ST. S.O.
WINSTED, MN 55395
THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND.
SALES ORDER NO.: QTY: STATE: SHEET
213269 11 OH 1 OF 1

DESCRIPTION:	QTY:	FINISH
SHIP POLE LIGHT TRUSS RD 11 GA X 27 1/2	1	X
TB1-17 W/170 TRUSS ARM 66 RBE- AT1 2B35	1	X
WIDMT ARM TRUSS PIPE 120 27"	1	X
SPACING 2-BOLT SIMPLEX	1	X
ID TAG OHIO	1	X
WIDMT POLE LIGHT TRUSS RD 11 GA X 27 1/2	1	X
27" SPCG/285 (11 GA X 8.09 X 4.23 X 27.71)	4	
SHIM LEVELING 1-1/4" (DWG. 1233)	4	
STAMPED POLE CAP WELDMENT (3/75-4/25)	1	
AKRON BREAK-AWAY T-BASE TB1-17	1	
BOLT HD 1/2-13NC X 1-1/4 F593C SS	4	
BOLT HVVHXHD 1-8 X 4 A325GV	4	
NUT HVVHX 1-8 A563 GV (DH)-RCP	4	
SEMI-GLOSS FIN COAT BLACK FREDA	1	
RIVET POP 3/16X1/2X3/8 HD SS	4	
SCRW ST SQ HD 1-4-20NC X 1 1-4 SS	3	
WASHER FLAT 1/2 SS	4	
WASHER FLAT 1/2 SS	4	
WASHER FLAT 1/2 SS	8	
WASHER LOCK 1/2 SS	4	
WASHER LOCK 1/2 SS	4	

PROJECT LOCATION:	DATE:
OHIO	11-25-2024
DWN BY:	DATE:
MARK S.	
CHK BY:	DATE:

FINISH: PAINT SEMI-GLOSS BLACK / PT-1-17-FTU-017-FR



REV CHANGES:

1. USING TS-1000 PEDESTAL BASE
2. SEE FIELD DRILL HOLE NOTE
3. ADDED BOLT & NUT TO NOTE 7

NOTE:

1. MATERIAL: ALUMINUM PIPE ALLOY 6061-T6
2. T-BASE FINISH- BARE CAST FINISH **PAINTED TO MATCH PIPE**
3. THREADS WILL HAVE A PLASTIC PROTECTOR.
4. PIPE WILL BE HAND STAMPED ABOVE THE THREAD WITH ALLOY NUMBER 6061-T6
5. PIPE WILL HAVE A COMPLETE CARDBOARD PROTECTOR SLEEVE FOR EACH LENGTH PIPE (DO NOT GET CARDBOARD WET)
6. PLASTIC WRAPPING MUST BE REMOVED UPON RECEIPT OF MATERIAL. FAILURE TO COMPLY MAY VOID THE FINISH WARRANTY.
7. THE PIPE, T-BASE W/WASHERS & THE FOLLOWING PARTS ARE SHIPPED UNASSEMBLED:
 (4) 500A103 SHIM
 (1) AKRON-8829 DOME CAP
 (1) BOLTA1-4-20X6-1/4A (BOLT HX HD 1/4-20 X 6-1/4 F593C SS)
 (1) NUTHXNLK1/4-20SS (NUTHXNLK 1/4-20)

FIELD DRILL THRU ALL (COLLAR & PIPE) FOR 1/4-20 X 6-1/4 BOLT & NUT

(4) 2 1/2 DD X 13/16 ID X 1/4 TK AKRON WASHER (3/4 BOLTS DN 14 1/2 BC)
 NOTE: T-BASE MUST BE INSTALLED DIRECTLY ONTO FOUNDATION FOR AASHTO APPROVAL, USE (4) 500A103 GALVANIZED 14GA U-SHAPED SHIMS FOR LEVELING T-BASE

DRAWING REF NO	QTY	'A'	'B'	'C' ALUMINUM PEDESTAL PIPE	PART NO
-2		3'-0"	2'-0"	AKRON-PIPEX2	3SRPB45030-DC-001
-3		4'-0"	3'-0"	AKRON-PIPEX3	3SRPB45040-DC-001
-4		5'-0"	4'-0"	AKRON-PIPEX4	3SRPB45050-DC-001
-5		6'-0"	5'-0"	AKRON-PIPEX5	3SRPB45060-DC-001
-6		7'-0"	6'-0"	AKRON-PIPEX6	3SRPB45070-DC-001
-7		8'-0"	7'-0"	AKRON-PIPEX7	3SRPB45080-DC-001
-8	32	9'-0"	8'-0"	AKRON-PIPEX8	3SRPB45090-DC-001
-9		10'-0"	9'-0"	AKRON-PIPEX9	3SRPB45100-DC-001
-10		11'-0"	10'-0"	AKRON-PIPEX10	3SRPB45110-DC-001
-11		12'-0"	11'-0"	AKRON-PIPEX11	3SRPB45120-DC-001
-12		13'-0"	12'-0"	AKRON-PIPEX12	3SRPB45130-DC-001
-13		14'-0"	13'-0"	AKRON-PIPEX13	3SRPB45140-DC-001
-14		15'-0"	14'-0"	AKRON-PIPEX14	3SRPB45150-DC-001
-15		16'-0"	15'-0"	AKRON-PIPEX15	3SRPB45160-DC-001
-16		17'-0"	16'-0"	AKRON-PIPEX16	3SRPB45170-DC-001
-17		18'-0"	17'-0"	AKRON-PIPEX17	3SRPB45180-DC-001
-18		19'-0"	18'-0"	AKRON-PIPEX18	3SRPB45190-DC-001
-20		21'-0"	20'-0"	AKRON-PIPEX20	3SRPB45210-DC-001
-42		54'	42'	AKRON-PIPEX42	3SRPB45046-DC-001

DWN: JASON D	3SRPB45(030-210)-DC-001
DATE: 07-27-15	ALUMINUM TRAFFIC SIGNAL BREAKAWAY PEDESTAL POLE WITH DOME CAP FOR 3/4 ANCHOR BOLTS DN 12"-14 1/2 BC
CHK: DOUG F.	Millerbernd MANUFACTURING CO. WINSTED, MN
SCALE: NTS	

REV.	ALTERATION	DATE	BY

POLE SPECIFICATIONS

CATALOGUE NO.: FF-A-15'-5.75-0.144
C/W 140-30/30

QUANTITY: 38

MATERIAL: 16 FLUTED FORMED ALUM.
7 GAUGE SHAFT

TENON SIZE: 2 7/8" O.D. x 3" LONG

SHAFT TAPER: 0.14"/FT.

TOP SIZE: 3.7" ϕ

BUTT SIZE: 5.75" ϕ

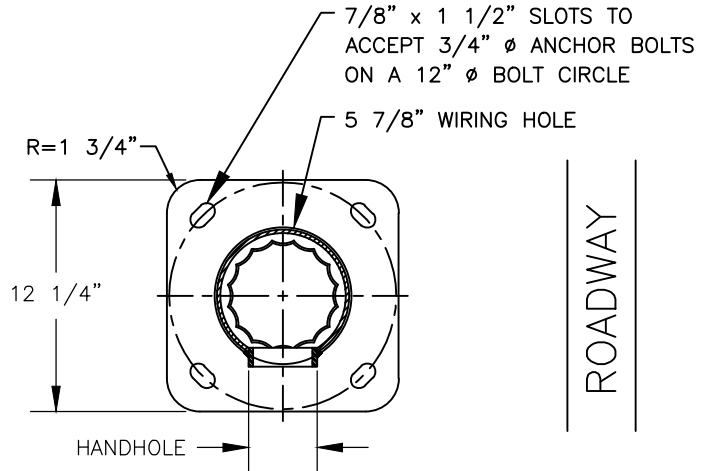
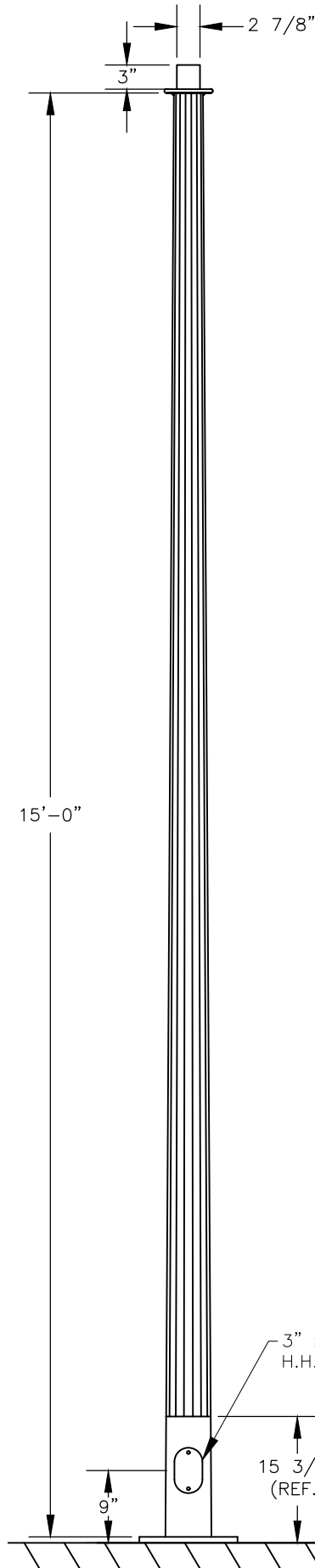
OVERALL LENGTH: 15' 0"

BOLT CIRCLE: 12" ϕ

ANCHOR BOLTS: 3/4" ϕ x 27"L

PAINT: SMOOTH FED STD #17038
(STOCK CODE #PWDC11014-1)

OPTIONS: -





ROADWAY

BASEPLATE DETAIL
12 1/4" SQU. x 3/4" THICK ALUMINUM
(SCALE 2:1)

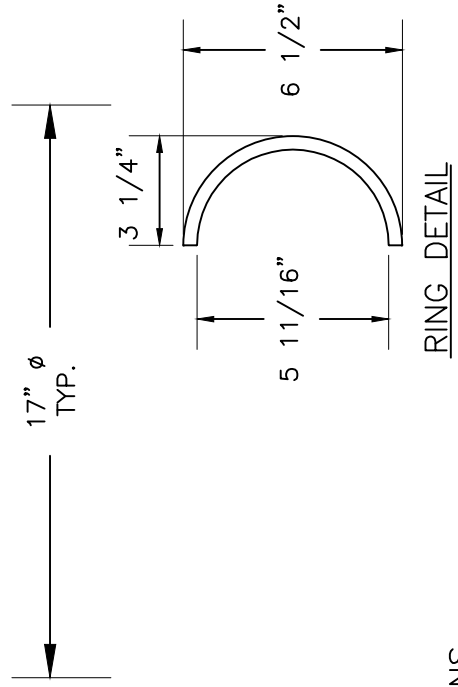
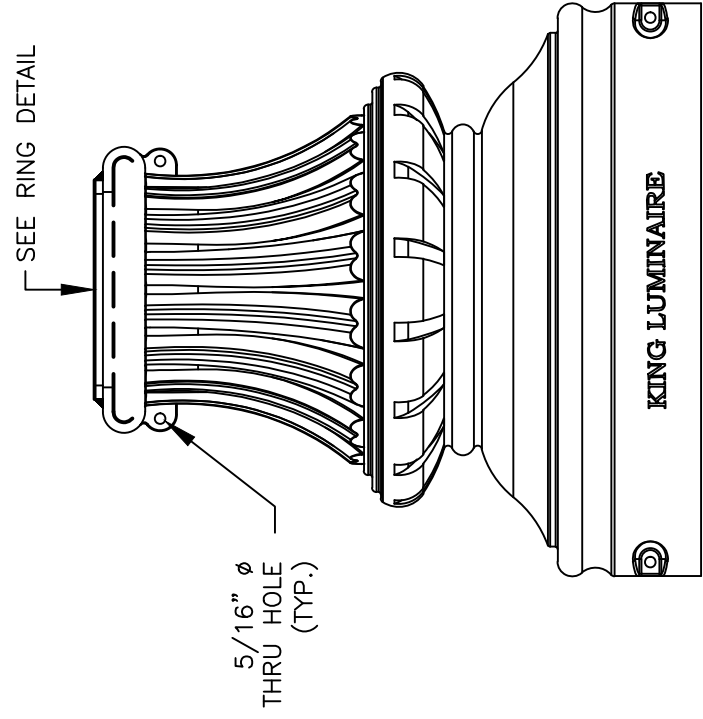
Notes:
Although rare, oscillating loads severe enough to cause damage can occasionally occur in structures of all types. Because they are influenced by many factors not provided to StressCrete, these loads are unpredictable. The users maintenance program should include observation for excessive vibration & examination for any structural damage. The StressCrete warranty specifically excludes fatigue failure or similar phenomena resulting from induced vibration, oscillation or resonance associated with the eccentric rotation of attached equipment.

CUSTOMER APPROVAL & DATE: _____

  King Luminaire • StressCrete • Est. 1953 STRESSCRETE GROUP	Manufacturing Locations: Burlington, Ontario 1-800-268-7809 Northport, Alabama 1-800-435-6563 Atchison, Kansas 1-800-837-1024 Jefferson, Ohio 1-800-268-7809	
	PROJECT/CUSTOMER: ODOT 426-25/CHILLICOTHE, OH	

CUSTOMER ORDER No: S103335296	DRAWN BY: J.H.			AT: SC1	CHECKED BY:	DATE: 08/26/24	REVISION: B
STRESSCRETE ORDER No: S-SC3-2410079	DRAWING TYPE: APPROVAL DWG.			DRAWING NUMBER: Q-2408003-2			
KING U.S. ORDER No:							

REV.	ALTERATION	DATE	BY



SPLIT BASE SPECIFICATIONS
 CATALOGUE NO.: KSB10
 QUANTITY: 38
 MATERIAL: ALUMINUM
 WEIGHT: 32 lbs.
 BASE HEIGHT: 17 3/4"
 BASE WIDTH: 17"
 PAINT COLOR: SMOOTH FED STD #117038
 (STOCK CODE #PWDC11014-1)

CUSTOMER APPROVAL & DATE:



King Luminaire • StressCrete • Est. 1953
S T R E S S C R E T E
G R O U P

Manufacturing Locations:
 Burlington, Ontario 1-800-268-7809
 Northport, Alabama 1-800-435-6563
 Atchison, Kansas 1-800-837-1024
 Jefferson, Ohio 1-800-268-7809

PROJECT/CUSTOMER: ODOT 426-25/CHILLICOTHE, OH	
DRAWN BY: J.H.	CHECKED BY: SC1
AT: SC1	DATE: 08/26/24
DRAWING TYPE: APPROVAL DWG.	REVISION: A
DRAWING NUMBER: Q-2408003-4	

CUSTOMER ORDER No: S103335296
STRESSCRETE ORDER No: S-SC3-2410079
KING CANADA ORDER No:



2/10/2025

Project 250077 **Addendum No. 4**
PID No. 113013
ROS - SR 159 – 00.41
Major Reconstruction
Letting: February 13, 2025

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

The Department utilizes Bid Express (<http://www.bidx.com>) as the official medium for electronic bid submittal. All bidders must prepare bids and submit them online via Bid Express using AASHTOWare Project Bids software.

Addenda amendments must be acknowledged in the miscellaneous section of the Project Bids file and all amendments loaded in order for your bid to be considered for award of this project. Bid express will not accept bids that do not have amendments incorporated. Failure to incorporate changed quantities or items in your Project Bids submissions will result in the rejection of your bid.

PROPOSAL ADDENDUM
FOR
PROJECT: 250077 | **CRS:** ROS-159-0.41 | **PID:** 113013

ADDED NOTES

The following proposal note is removed from the Proposal:

Proposal Note 020 – Notice of Requirement of Affirmative Action to Ensure Equal Employment Opportunity and Workforce Diversity Requirements on All ODOT Administered Federally Funded Projects



2/11/2025

Project 250077 **Addendum No. 5**
PID No. 113013
ROS - SR 159 – 00.41
Major Reconstruction
Letting: February 13, 2025

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

For internet access to information referenced in this addendum, please see the ODOT web site at: <https://ftp.dot.state.oh.us/pub/Contracts/Attach/ROS-113013/>

The Department utilizes Bid Express (<http://www.bidx.com>) as the official medium for electronic bid submittal. All bidders must prepare bids and submit them online via Bid Express using AASHTOWare Project Bids software.

Addenda amendments must be acknowledged in the miscellaneous section of the Project Bids file and all amendments loaded in order for your bid to be considered for award of this project. Bid express will not accept bids that do not have amendments incorporated. Failure to incorporate changed quantities or items in your Project Bids submissions will result in the rejection of your bid.

**PROPOSAL ADDENDUM
FOR
PROJECT: 250077 | CRS: ROS-159-0.41 | PID: 113013**

MODIFICATIONS

REVISED COMPLETION DATE	N/A
REPLACE/ADD PLAN SHEETS	11, 15, 20, 27, 28, 29, 116, 117, 119, 136, 138, 140, 141, 142, 143, 144, 164, 219, 220, 232, 234, 235, 236, 237, 238, 239, 466, 468, 469, 484, 492, 506, 508

CONTRACT (PAY) ITEM MODIFICATIONS

REVISED

REF. NO.	ITEM	DESCRIPTION	TOTAL QTY.	UNIT	SECTION
0013	203E10000	EXCAVATION	18,977	CY	0001
0015	204E10000	SUBGRADE COMPACTION	42,102	SY	0001
0055	202E35200	PIPE REMOVED, OVER 24" DIAMETER	924	FT	0003
0100	301E56000	ASPHALT CONCRETE BASE, PG64-22, (449)	2,749	CY	0004
0163	625E34001	POWER SERVICE, AS PER PLAN	3	EACH	0008
0165	621E00100	RPM	611	EACH	0009
0166	621E54000	RAISED PAVEMENT MARKER REMOVED	600	EACH	0009

ADDED

REF. NO.	ITEM	DESCRIPTION	TOTAL QTY.	UNIT	SECTION
0416	202E70000	SPECIAL - FILL AND PLUG EXISTING CONDUIT, 36"	135	FT	0003

ADDED NOTES

- The Addendum includes a revised Utility Note dated 2/11/2025 with changes highlighted in yellow. Please take note of the phased approach described prior to final relocation completion dates.

PRE-BID QUESTIONS

The inclusion of the question(s) that accompany answer(s) in this addendum is provided for reference only and the question(s) shall not be construed as a contract modification or change.

Question Submitted: 2/6/2025 3:43:20 PM

General Note on sheet 29 requires some overhead signs to have a black finish to match the traffic signal cabinets. Does this only apply to signs mounted on the traffic signals? There is not an as per plan note? Will the sign hanger assembly be required to be black?

Answer: This plan note "OVERHEAD SIGNS, AS PER PLAN" will be deleted by Addendum.

Question Submitted: 2/6/2025 3:56:58 PM

Typical Section for Bridge Street Sta. 724+84.63-729+30.00 on plan sheet 15 shows that there is excavation of subgrade in this area, bubble #5. There is no quantity for this work in the subsummary/general summary. Is there a planned undercut of subgrade in this area?

Answer: Pay items will be revised by Addendum to include this area.

Question Submitted: 2/6/2025 4:03:02 PM

Typical sections shown base underdrain installed at 18" per specification and plans. The area of Marietta Road Extension that has a planned excavation of subgrade of 18" and replacement with granular material type c with geotextile fabric, shows underdrain below this area without a depth listed. What depth does underdrain need installed in this area?

Answer: The undercut for the Marietta Rd Extension will be revised to 12" and the underdrain clarified to be 18". The qty's for the undercut already assume this 12". This will be clarified by Addendum.

Question Submitted: 2/6/2025 7:39:47 PM

There are multiple locations that proposed storm crosses side streets or SR159 in areas that are only getting resurfaced. It does not appear there are pavement quantities to repair these areas. Please provide additional quantities of aggregate base, asphalt base, intermediate and surface asphalt to patch trenches.

Answer: The Department will add by Addendum early next week additional notes and quantities to the plans addressing this question.

Question Submitted: 2/7/2025 9:27:32 AM

The answer to prebid question on 2/6/2025 state the contractor may perform a lane closure any day and at any time provided the length and duration is approved by the ENGINEER. What is the minimum and maximum length and duration the ENGINEER will approve? This will affect the productions of work that can be performed and would possibly cause different assumptions between bidding contractors.

Answer: The Department must balance the needs of both the traveling public and the desire to get the high quality work done as efficient as possible. It is not possible to cite the minimum and maximum duration of lane closures or restrictions due the many different circumstances possible. The Department will consider lane closures and/restrictions that are reasonable for the situation. For example, it is not reasonable to close a ramp for several hours during peak traffic volumes when other times are available. On the other hand, reducing two lanes down to one lane for several hours or more to accomplish work or move MOT during low traffic volumes is reasonable.

Question Submitted: 2/7/2025 11:08:31 AM

can Signify Serenade be used as an approved equal to the Holophane Utility Washington Series <https://www.signify.com/en-us/products/outdoor-luminaires/urban/posttop/serenade-dsx-led-post-top-s55>

Answer: The Department and Local public agencies coordinated closely on the style and performance chosen during design and prefer the specified luminaire style and this proposed luminaire does not match close enough to be an approved equal.

Question Submitted: 2/7/2025 12:07:45 PM

We have been unable to find a bench meeting the exact dimensions and design as shown on sheet 508. Can you provide manufacture used in design?

Answer: The bench used for the basis of design was the Cardinal Curved Bench by Graber Manufacturing. The Department will revise the plan note to include this bench or an approved equal.

Question Submitted: 2/7/2025 12:40:09 PM

The areas of the cross sections that contain special benching do not appear to have correct end areas/volumes. Sheets 219-220 and 234 -240 appear to not include any excavation for benching and embankment appears to only include fill above existing ground. Can these areas be recalculated and quantities adjusted?

Answer: The excavation and embankment quantities for special benching will be added in the next addendum.

Question Submitted: 2/8/2025 12:45:31 PM

After reviewing quantities it appear that the subgrade compaction quantity is understated. There is no subgrade compaction calculated/included for Stewart Road, River Trace, Nourse Entrance and Roundabout area. Sheet 136 does not have any quantities for these areas. Please correct quantity to include these areas.

Answer: The Department will make the correction by Addendum. Subgrade compaction quantity on sheet 136 changes from 117.25 to 3,515.46 and the total quantity of subgrade compaction changes from 38,705 to 42,102.

Question Submitted: 2/10/2025 7:48:59 AM

Page 163 and 164/592 from manhole D-16 to D-22 show the 36" pipe being removed. Will the department allow the contractor to fill and abandon this pipe in place where it does not conflict with the installation of the new 36" conduit.

Answer: The Department will make changes by Addendum to allow abandoning this pipe and fill it in place.

Question Submitted: 2/10/2025 8:04:32 AM

Can the revised earthwork calculations be provided?

Answer: Revised calculations are not available at this time.

Question Submitted: 2/10/2025 2:13:41 PM

FOR REF 154 CAN THE LUMEC RFM-160W48LED-3K-G2-R3M-UNV-DMG-API-NRC-BAC-BK BE BID AS AN EQUAL

<https://www.signify.com/api/assets/v1/file/Signify/content/b785af556e7c49dabc8fa87f0146fa52/Lumec-RoadFocus-LED-Cobra-Head---Medium--RFM--Spec-Sheet.pdf>

Answer: The Lumec RF Series is not approved for use, however the Lumec RP Series is on the approved list if the bidder would like to use that series. During the construction phase the specific luminaire would need evaluated to ensure proper illumination values are met to show the selected fixture with correct IES class/performance package/accessories/etc. is chosen to properly meet illuminance values.

Question Submitted: 2/11/2025 7:27:50 AM

The pay item for CONCRETE, MISC; CONCRETE, CLASS RRCM is 8sy. The quantity for the driveways was 180sy. Please verify the area to be paved with RRCM.

Answer: There are two pay items with RRCM, one of them recently added by Addendum. Item 511 - CONCRETE, MISC.: CONCRETE, CLASS RRCM (8 SY) is included on sheet 27 for use in repairing abandoned utility manholes. Item 452 - 8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC MS, AS PER PLAN (180 SY) was set up on sheet 29 for potential use in driveway apron construction. Both of these pay items are included in the project.



2/11/2025

Project 250077 **Addendum No. 6**
PID No. 113013
ROS - SR 159 – 00.41
Major Reconstruction
Letting: February 13, 2025

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

For internet access to information referenced in this addendum, please see the ODOT web site at: <https://ftp.dot.state.oh.us/pub/Contracts/Attach/ROS-113013/>

The Department utilizes Bid Express (<http://www.bidx.com>) as the official medium for electronic bid submittal. All bidders must prepare bids and submit them online via Bid Express using AASHTOWare Project Bids software.

Addenda amendments must be acknowledged in the miscellaneous section of the Project Bids file and all amendments loaded in order for your bid to be considered for award of this project. Bid express will not accept bids that do not have amendments incorporated. Failure to incorporate changed quantities or items in your Project Bids submissions will result in the rejection of your bid.

PROPOSAL ADDENDUM-006
FOR
PROJECT: 250077 | CRS: ROS-159-0.41 | PID: 113013

MODIFICATIONS

REVISED COMPLETION DATE	N/A
REPLACE/ADD PLAN SHEETS	116

CONTRACT (PAY) ITEM MODIFICATIONS

REVISED

REF. NO.	ITEM	DESCRIPTION	TOTAL QTY.	UNIT	SECTION
0014	203E20000	EMBANKMENT	20,052	CY	0001

PRE-BID QUESTIONS

The inclusion of the question(s) that accompany answer(s) in this addendum is provided for reference only and the question(s) shall not be construed as a contract modification or change.

Question Submitted: 2/11/2025 12:58:13 PM

Addendum 5 did not correct Ref# 14- Embankment for the benching quantity. Plan sheet 28 was corrected, but quantity was not carried to general summary for payment.

Answer: The Department will make the correction by Addendum.

Barnett, Rosalie

From: Beck, Brandon
Sent: Wednesday, March 26, 2025 4:16 PM
To: Barnett, Rosalie
Subject: ROS-159-0.41 PID 113013 Environmental
Attachments: ROS-113013-Enviro.pdf; Section 408 Approval.pdf

Hi Rosie,

Attached is the environmental info for the precon tomorrow.

Please note the attached Section 408 Approval from the U.S Army Corps for construction of the shared-use path on the levee. This approval will expire on **June 15, 2026**. If work on the shared-use path extends beyond this date, we must submit an extension request no later than **May 15, 2026**.

We must also provide construction as-built documentation and survey data to the Army Corps within 60 days of completion of construction. Excess material must be removed from the floodway and floodplain. Borrow material must be free of trash, debris, or hazardous material. Any seed mixes used in site restoration must consist of only native species. All construction equipment must be cleaned prior to being brought to the floodplain area. If a spill occurs, we must notify the Army Corps.

Brandon Beck

District Environmental Coordinator
ODOT District 9
650 Eastern Avenue, Chillicothe, Ohio 45601
(740) 774-8976
[Transportation.ohio.gov](https://transportation.ohio.gov)



Ohio Department of Transportation Environmental Consultation Form

County-Route-Section ROS-159-0.41 **PID** 113013

Funding Source(s): **Federal** **Non-Federal**

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by ODOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 14, 2020, and executed by FHWA and ODOT.

Type of Environmental Document	Clearance Date:
<input type="checkbox"/> NEPA Re-evaluation (if required)	_____
<input type="checkbox"/> C1	_____
<input type="checkbox"/> C2	_____
<input checked="" type="checkbox"/> D1	<u>3/22/2022</u>
<input type="checkbox"/> D2	_____
<input type="checkbox"/> D3	_____
<input type="checkbox"/> EA/FONSI	_____
<input type="checkbox"/> EIS/ROD	_____

Commitments

Verify all environmental commitments and their disposition listed beginning on page 3

- | Yes | No | |
|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Are there long-term commitments that would require federal authorization end date to be extended/revised? |
| <input type="checkbox"/> | <input type="checkbox"/> | If yes, has federal reimbursement end date been revised in Ellis? |

Ohio Department of Transportation Environmental Consultation Form

County-Route-Section ROS-159-0.41

PID 113013

Permits and Required Agency Notifications:

Type of Permit	Required for this Project?		Obtained?		Approving Agency & Approval Date	Will be or has been incorporated into the Construction Contract?	
	Yes	No	Yes	No		Yes	No
USACE Clean Water Act 404 Nationwide Permit*		X					
USACE Clean Water Act 404 Regional General Permit*		X					
USACE Clean Water Act 404 individual*		X					
OEPA Individual 401 WQC*		X					
OEPA NPDES Stormwater Notice of Intent (NOI)	X			X	Will be submitted prior to construction	X	
OEPA Isolated Wetland Permit*		X					
OEPA 27-13 Landfill		X					
OEPA Demolition/Renovation Form*		X					
USCG Section 9 of the Rivers and Harbors Act*		X					
USACE Section 10 of the Rivers and Harbors Act*		X					
Floodplain	X		X		Brian Tornes, P.E, Burgess & Niple; 3/16/2022	X	
Other (Please list)	X		X		Section 408 Approval; U.S Army Corps; 6/24/2024		

*Incorporated into construction contract as a special provision

Is the ECF being used as the NEPA reevaluation document?

Yes No

Disposition:

Based upon the information provided, the NEPA document remains valid and no further environmental documentation is required. The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by ODOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 14, 2020, and executed by FHWA and ODOT. The ECF is confirmation that the proposed action will not result in environmental impacts not previously considered in the original NEPA document or re-evaluation. Furthermore, no new information or circumstances relevant to environmental concerns exist which would result in substantial environmental impacts.

Ohio Department of Transportation
Environmental Consultation Form

County-Route-Section ROS-159-0.41 PID 113013

Prepared by: Brandon Beck Date: 10/7/2024

Approved by: *Brandon Beck* Date: 10/7/2024
District Environmental Coordinator

Commitments Made and Disposition

COMMITMENT	DISPOSITION
None	



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HUNTINGTON DISTRICT
502 8TH STREET
HUNTINGTON, WV 25701-2018

June 24, 2024

Huntington District
408-LRH-2023-0009 – ROS-159-0.41 (PID 113013), Multi-Use Path Connector

Ms. Heather McColeman, P.E.
The Ohio Department of Transportation
1980 West Broad Street, Mail Stop 4170
Columbus, OH 43223

Dear Ms. McColeman:

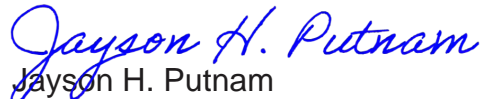
The United States (U.S.) Army Corps of Engineers, (USACE) Huntington District (District) has completed its evaluation of your request to alter the Chillicothe, Ohio Local Protection Project (LPP) under Section 14 of the Rivers and Harbors Act of 1899, 33 U.S.C. 408 (Section 408) for the proposed ROS-159-0.41, PID 113013 Multi-Use Path Connector Project. The Chillicothe LPP is owned, operated, and maintained by the City of Chillicothe, the non-federal sponsor. This evaluation was performed consistent with Engineer Circular (EC) 1165-2-220. The Section 408 request number 408-LRH-2023-0009. Please continue to reference this number on all future correspondence related to this project.

Your request to alter the Chillicothe LPP, which includes the installation of a shared use path to expand the Paint Creek Recreational Trail near the intersection of State Route 159 and Riverside Street in the City of Chillicothe, Ross County, Ohio (39.340196°N, 82.975300°W), has been validated for use with the 2023 *Regional Categorical Permission for Section 408 Requests, U.S. Army Corps of Engineers Great Lakes and Ohio River Division* under Category 4, Linear Transportation Activities. The Section 408 permission is subject to your compliance with the enclosed standard terms and conditions (Enclosure 1), the categorical permission terms and conditions (Enclosure 2), and the project-specific terms and conditions (Enclosure 3).

The USACE will continue to require your cooperation throughout the construction and closeout phases of the approved alteration. Construction oversight inspections will occur at the discretion of the District, and an inspection of the completed alteration is required prior to project closeout. The intent of these inspections is to ensure project compliance with the Section 408 permission and document conditions of the Chillicothe LPP.

A copy of this letter has been submitted to those on the enclosed Recipient List. If you have any questions, please contact Mr. Brett Latta at (740) 221-4181 or by email at Brett.C.Latta@usace.army.mil.

Sincerely,



Jayson H. Putnam
Colonel, U.S. Army
Commanding

Enclosures

Recipient List

cc via e-mail:

Mr. Clint Boggs
City of Chillicothe Administration Building
35 South Paint Street
Chillicothe, OH 45601
Clint.Boggs@chillicotheoh.gov

Ms. Ashley L. Stephens
U.S. Army Corps of Engineers
502 8th Street
Huntington, WV 25701
Ashley.L.Stephens@usace.army.mil

Mr. John R. Ferguson, II
U.S. Army Corps of Engineers
502 8th Street
Huntington, WV 25701
John.R.Ferguson.II@usace.army.mil

The Honorable Luke M. Feeney
Mayor of the City of Chillicothe
City of Chillicothe Administration Building
35 South Paint Street
Chillicothe, OH 45601
Luke.Feeney@chillicotheoh.gov

Mr. Thomas E. Peterson
U.S. Army Corps of Engineers
502 8th Street
Huntington, WV 25701
Thomas.E.Peterson@usace.army.mil

Ms. Tara H. Linville
U.S. Army Corps of Engineers
502 8th Street
Huntington, WV 25701
Tara.H.Linville@usace.army.mil

Ms. Lee A. Robinette
U.S. Army Corps of Engineers
502 8th Street
Huntington, WV 25701
Lee.A.Robinette@usace.army.mil

Mr. Christopher T. Fleming
U.S. Army Corps of Engineers
502 8th Street
Huntington, WV 25701
Christopher.T.Fleming@usace.army.mil

Ms. Mandie A. Ronk
U.S. Army Corps of Engineers
502 8th Street
Huntington, WV 25701
Mandie.A.Ronk@usace.army.mil

Ms. Lea Bodmer
U.S. Army Corps of Engineers
502 8th Street
Huntington, WV 25701
Lea.A.Bodmer@usace.army.mil

Standard Terms and Conditions

LIMITS OF THE AUTHORIZATION

1. This permission only authorizes you, the requester, to undertake the activity described herein under the authority provided in Section 14 of the Rivers and Harbors Act of 1899, as amended (33 USC 408). This permission does not obviate the need to obtain other federal, state, or local authorizations required by law. This permission does not grant any property rights or exclusive privileges, and you must have appropriate real estate instruments in place prior to construction and/or installation.
2. The time limit for completing the work authorized ends on June 15, 2026. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
3. Without prior written approval of the USACE, you must neither transfer nor assign this permission nor sublet the premises or any part thereof, nor grant any interest, privilege or license whatsoever in connection with this permission. Failure to comply with this condition will constitute noncompliance for which the permission may be revoked immediately by the USACE.
4. The requester understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration of the work herein authorized, or if, in the opinion of the Secretary of the Army or an authorized representative, said work will cause unreasonable conditions and/or obstruction of the USACE project authorized design, the requester will be required upon due notice from the USACE, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim can be made against the United States on account of any such removal or alteration.

INDEMNIFICATION AND HOLD HARMLESS

5. The United States will in no case be liable for:
 - a. any damage or injury to the structures or work authorized by this permission that may be caused or result from future operations undertaken by the United States, and no claim or right to compensation will accrue from any damage; or
 - b. damage claims associated with any future modification, suspension, or revocation of this permission.
6. The United States will not be responsible for damages or injuries which may arise from or be incident to the construction, maintenance, and use of the project requested by you, nor for damages to the property or injuries to your officers, agents, servants, or employees, or others who may be on your premises or project work areas or the federal project(s) rights-of-way. By accepting this permission, you hereby agree to fully defend, **indemnify**, and **hold harmless** the United States and the USACE from any and all such claims, subject to any limitations in law.
7. Any damage to the water resources development project or other portions of any federal project(s) resulting from your activities must be repaired at your expense.

REEVALUATION OF PERMISSION

8. The determination that the activity authorized by this permission would not impair the usefulness of the federal project and would not be injurious to the public interest was made in reliance on the information you provided.
9. This office, at its sole discretion, may reevaluate its decision to issue this permission at any time circumstances warrant, which may result in a determination that it is appropriate or necessary to modify or revoke this permission. Circumstances that could require a reevaluation include, but are not limited to, the following:
 - a. you fail to comply with the terms and conditions of this permission;
 - b. the information provided in support of your application for permission proves to have been inaccurate or incomplete; or
 - c. significant new information surfaces which this office did not consider in reaching the original decision that the activity would not impair the usefulness of the water resources development project and would not be injurious to the public interest.

CONDUCT OF WORK UNDER THIS PERMISSION

10. You are responsible for implementing any requirements for mitigation, reasonable and prudent alternatives, or other conditions or requirements imposed as a result of environmental compliance.
11. Work/usage allowed under this permission must proceed in a manner that avoids interference with the inspection, operation, and maintenance of the federal project.
12. In the event of any deficiency in the design or construction of the requested activity, you are solely responsible for taking remedial action to correct the deficiency.
13. The right is reserved to the USACE to enter upon the premises at any time and for any purpose necessary or convenient in connection with government purposes, to make inspections, to operate and/or to make any other use of the lands as may be necessary in connection with government purposes, and you will have no claim for damages on account thereof against the United States or any officer, agent or employee thereof.
14. You must provide copies of pertinent design, construction, and/or usage submittals/documents. USACE may request that survey and photographic documentation of the alteration work and the impacted project area be provided before, during, and after construction and/or installation.
15. You may be required to perform an inspection of the federal project with the USACE, prior to your use of the structure, to document existing conditions.
16. The USACE shall not be responsible for the technical sufficiency of the alteration design nor for the construction and/or installation work.

ENGINEERING CONDITIONS

1. Appropriate property rights must be acquired as needed for construction, operation, and maintenance of the alteration. However, any easements or property transfers or swaps involving any lands acquired by a non-federal sponsor in fulfillment of a Project Partnership Agreement must continue to meet the terms of the Project Partnership Agreement and the project's Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R) manual and require USACE approval.
2. Construction or other work must be coordinated with other work in the area.
3. Excavations and drilling must meet federal, state, and local criteria.
4. Levee-Specific Engineering Conditions:
 - a. The requester is responsible for protecting the levee from being damaged by construction vehicles, equipment, construction activities, and storage of materials. The requester must find the best construction access to minimize impacts to the levee from construction access.
 - b. All material used for fill on levee slopes and the crown must be acceptable cohesive material (Unified Soil Classification System CL, CL-ML, or SC) and free of organics or other materials harmful to the levee consistent with USACE EM 1110-2-1913, *Design and Construction of Levees*, current edition.
 - c. All structures, facilities, related equipment, and other appurtenances must be removable or properly anchored to prevent flotation within the floodway in the event of high water.
5. Any damage to any component of the USACE project caused by construction, removal or modification of any alteration must be repaired as part of the authorized Section 408 activity.
6. The proposed alteration must not result in any increase in operation and maintenance costs to the federal government.
7. The requester shall provide construction as-built documentation and survey data, along with any other information required to update the project's OMRR&R manual to USACE and the sponsor (if applicable) within 60-days of completion of construction.

ENVIRONMENTAL CONDITIONS

8. Access to the proposed alteration site must occur in previously disturbed areas,

Regional Categorical Permission Terms and Conditions

such as existing roads, access ramps, driveways, closure facilities, or the levee crown, unless the USACE authorizes new disturbance areas under this RCP (or other Section 408 permission).

9. Upland areas (and waters of the United States if authorized by the USACE Regulatory Program) may be temporarily cleared or disturbed for staging of equipment and materials during construction. Temporarily cleared or disturbed areas must be disclosed on the alteration plans and returned to pre-construction conditions following construction.
10. Vegetation may be removed during construction; however, the proposed alteration must be designed to minimize the amount of woody vegetation removal, and such removal must be disclosed on the alteration plans.
11. Excess material from construction must be removed from the floodway and floodplain and disposed in an area outside of the federal project footprint/easement in an area that does not include waters of the United States (unless authorized by the USACE Regulatory Program), wetlands, cultural resource sites, or locations that would require tree clearing.
12. Borrow material necessary for construction must be free of trash, debris, and toxic or hazardous constituents.
13. Proposed alterations must be designed to minimize the introduction of exotic and invasive species (both plant and animal) and any seed mixes used in site restoration must consist only of native species. All construction equipment must be cleaned prior to being brought to the construction site, to minimize the chance of accidental transmission of invasive species.
14. Proposed alterations must incorporate Best Management Practices (BMPs) to control any point source discharges or storm water runoff, erosion, and contaminant spills (e.g., diesel fuel spills) in accordance with any required National Pollutant Discharge Elimination System (NPDES) permits or equivalent state permits. All exposed soils must be permanently stabilized at the earliest practicable date.
15. In the event of an environmental spill (or inadvertent return or “frac-out” during horizontal drilling), the requester must notify the USACE, the non-federal sponsor and the appropriate state and/or federal spill response agency immediately. Cleanup and repair are the requester’s responsibility.
16. In the event any previously unknown historic or archaeological sites or human remains are uncovered while accomplishing the activity authorized by this Section 408 categorical permission, the requester must cease all work immediately and contact local, state and county law enforcement offices (only contact law enforcement on findings of human remains) and the USACE. The

Regional Categorical Permission Terms and Conditions

USACE or the appropriate lead federal agency will initiate the federal, state, and tribal coordination required to comply with the National Historic Preservation Act and applicable state and local laws and regulations. Federally recognized tribes are afforded a government-to-government status as sovereign nations and consultation is required under Executive Order 13175 and 36 CFR Part 800.

17. Any other applicable federal, state, or local permits must be secured by the requester before work can begin.

Project Specific Terms and Conditions

1. The point of contact for all United States Army Corps of Engineers (USACE) notifications and submissions shall be the Non-hydropower Section 408 Coordinator, Mr. Brett Latta. He may be contacted at (740) 221-4181 or by email at Brett.C.Latta@usace.army.mil. Submissions that are not time-sensitive may be mailed to:
U.S. Army Corps of Engineers, Huntington District
ATTN: Brett Latta, CELRH-RDS
Building 10 / Section 10
P.O. Box 3990
Columbus, OH 43218-3990
2. The Ohio Department of Transportation, and/or its contracted firm shall notify the shall notify the USACE no less than ten (10) calendar days prior to mobilization onto the property and upon final demobilization. The notification to the USACE shall include an initial construction schedule, which shall be updated as necessary and provided to the USACE to inform the scheduling of construction oversight visits. Representatives from the USACE shall have access to the site during construction.
3. The Ohio Department of Transportation, and any contracted firm(s) shall abide by all elements of the construction plans submitted to the USACE on December 28, 2023. The Ohio Department of Transportation shall be solely responsible for ensuring contractor adherence to the approved plans.
4. The Ohio Department of Transportation, and/or its contracted firm shall notify the USACE Section 408 Coordinator, Brett Latta, immediately if site conditions vary during construction that would require revisions to the approved plans. Any modification to the plans and/or any damage to any component of the USACE project caused by construction, removal or modification may require additional technical review and approval by the USACE prior to continuing field work.
5. Upon completion of the approved multi-use path, the Ohio Department of Transportation and/or its contracted firm shall, at their expense, ensure all disturbed areas within the system right-of-way are restored to pre-construction conditions within seven (7) calendar days after the completion of construction.
6. The City of Chillicothe shall be responsible for long term operation, maintenance, and monitoring of the features altered by this Section 408 permission. In addition, the Ohio Department of Transportation shall coordinate any future modification of constructed features within the system right-of-way with the USACE by submitting a written Section 408 request to the USACE Section 408 Coordinator, Brett Latta.



State of Ohio
Department of Transportation
Contractor Signature Authorization

CONTID	ROS113013	County/Route/Section	ROS-159-0.41
ALTID	250077 Ross	Federal Project Number	E200(947)
CONTRACTOR	Complete General Construction Company		

Progress Payments Authorization (previously CA-D-10A)

I, Michael Obert, Chief Engineer
(Print Name) (Print Title)

(Must be an Officer of the Prime Contractor's Company), do hereby authorize

Jeff Pennington, Project Engineer
(Print Name) (Print Title)

Or

_____, _____
(Print Name) (Print Title)

with authority to sign his/her name to all **Contractor Progress Payment Certification** documents pertaining to this project.

This authorization shall remain in effect for the duration of this project, or until revoked.

Change Orders Authorization (previously CA-D-10B)

I, Michael Obert, Chief Engineer
(Print Name) (Print Title)

(Must be an Officer of the Prime Contractor's Company), do hereby authorize

Michael Obert, Chief Engineer
(Print Name) (Print Title)

Or

_____, _____
(Print Name) (Print Title)

with authority to sign his/her name to **all change order documents** pertaining to this project.

This authorization shall remain in effect for the duration of this project, or until revoked.



**State of Ohio
Department of Transportation
Contractor Signature Authorization**

Certified Payrolls Authorization (previously CA-D-10C)

I, Michael Obert, Chief Engineer
 (Print Name) (Print Title)
 (Must be an Officer of the Prime Contractor's Company), do hereby authorize

Pat Shoemaker, Payroll
 (Print Name) (Print Title)

Or

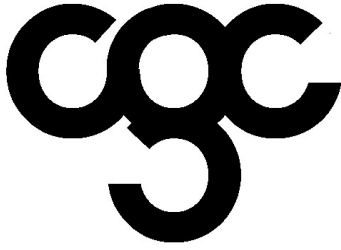
 (Print Name) (Print Title)

with authority to sign his/her name to all ***certified payroll documents*** pertaining to this project.

This authorization shall remain in effect for the duration of this project, or until revoked.

Michael Obert Chief Engineer 3-21-25
 Contractor signature Title Date
 (Officer)

 Contractor signature Title Date
 (Project Representative)



COMPLETE GENERAL CONSTRUCTION COMPANY
1221 EAST FIFTH AVENUE COLUMBUS, OHIO 43219
PHONE (614) 258-9515 FAX (614) 258-5398
EQUAL OPPORTUNITY EMPLOYER

March 26, 2025

Mr. Paul Maravy
District 9 Construction
O.D.O.T. District 9
650 Eastern Avenue
Chillicothe, Ohio 45601

Re: Project #77-25 Ross County

Dear Sir:

Below please find the list of subcontractors we propose to use on the above referenced project.

Shelly & Sands	Asphalt Paving
Twin Rivers Construction	Sealing
Mid Atlantic Maintenance	Maintenance of Traffic
A & A Safety	Pavement Markings
Follow The River	Erosion
Dresden Landscaping	Landscaping
J.N. Graham	Trucking
Armstrong Steel Erectors	Joints & Scuppers
Flatrock Bridge Group	Reinforcing Steel
Spartan Construction	611 Inspection
Soils Testing & Engineering	Testing

Should you have any questions, please contact this office at extension 2341.

Respectfully,

A handwritten signature in black ink that reads "Jeff Pennington".

Jeff Pennington
Project Engineer

Activity ID	Activity Name	Original Duration	Remaining Duration	Total Float	Start	Finish	77 Base																																				
							March 2025				April 2025				May 2025				June 2025				July 2025				August 2025				September 2025				October 2025				November 2025				December 2025
							02	09	16	23	30	06	13	20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24	31	07	14	21	28	05	12	19	26	02	09
Ross 159 Bridge Street							06-Oct-25, Ross 159 Bridge Street																																				
Pre Phase							15-Jun-25, Pre Phase																																				
General							15-Jun-25, General																																				
A1000	Start Project	0	0	0	27-Mar-25		Start Project																																				
A1010	Preconstruction Meeting	1	1	0	27-Mar-25	27-Mar-25	Preconstruction Meeting																																				
A1030	Perform Construction Layout	9	9	28	28-Mar-25	11-Apr-25	Perform Construction Layout																																				
A1050	Mobilize to Project	5	5	0	28-Mar-25	04-Apr-25	Mobilize to Project																																				
A1070	Secure Bridge Expansion Jts & Scuppers	80	80	50	28-Mar-25	15-Jun-25	Secure Bridge Expansion Jts & Scuppers																																				
Phase 1 & 2							24-Apr-25, Phase 1 & 2																																				
A1060	Install Temp Signal Poles & Detection	10	10	0	07-Apr-25	24-Apr-25	Install Temp Signal Poles & Detection																																				
Phase 1 & 2							15-Aug-25, Phase 1 & 2																																				
Maintenance of Traffic							22-Jul-25, Maintenance of Traffic																																				
A1090	Excavate & Place Temp Pavement CSD	3	3	28	14-Apr-25	17-Apr-25	Excavate & Place Temp Pavement CSD																																				
A1080	Place Traffic in Phase 1 A& 2A	2	2	28	21-Apr-25	22-Apr-25	Place Traffic in Phase 1 A& 2A																																				
A1200	Place Temp Pav't @ RT, Nourse, & RA	1	1	29	29-May-25	29-May-25	Place Temp Pav't @ RT, Nourse, & RA																																				
A1260	Switch to Phase 2B	1	1	28	03-Jun-25	03-Jun-25	Switch to Phase 2B																																				
A1420	Switch To Phase 2C	1	1	28	21-Jul-25	21-Jul-25	Switch To Phase 2C																																				
A1730	Switch to Phase 1B	2	2	28	21-Jul-25	22-Jul-25	Switch to Phase 1B																																				
Stewart Rd Roundabout 2A							06-Jun-25, Stewart Rd Roundabout 2A																																				
A1100	Perform Pavement Removal	2	2	28	24-Apr-25	25-Apr-25	Perform Pavement Removal																																				
A1110	Excavate & Place Embankment	3	3	28	28-Apr-25	01-May-25	Excavate & Place Embankment																																				
A1120	Install Storm Drainage	5	5	28	05-May-25	12-May-25	Install Storm Drainage																																				
A1130	Grade Subgrade	3	3	28	13-May-25	15-May-25	Grade Subgrade																																				
A1140	Install Underdrain	1	1	28	19-May-25	19-May-25	Install Underdrain																																				
A1150	Place & Grade Aggregate Base	1	1	28	20-May-25	20-May-25	Place & Grade Aggregate Base																																				
A1160	Pour Curb & Gutter	2	2	28	21-May-25	23-May-25	Pour Curb & Gutter																																				
A1170	Cure Curb & Gutter	5	5	28	21-May-25	25-May-25	Cure Curb & Gutter																																				
A1180	Place Asphalt Base	2	2	29	26-May-25	27-May-25	Place Asphalt Base																																				
A1210	Grade for Walk	3	3	28	26-May-25	28-May-25	Grade for Walk																																				
A1190	Place Intermediate Asphalt	1	1	29	28-May-25	28-May-25	Place Intermediate Asphalt																																				
A1220	Pour Walk & Curb Ramps	2	2	28	29-May-25	02-Jun-25	Pour Walk & Curb Ramps																																				
A1230	Cure Walk & Curb Ramps	7	7	123	29-May-25	04-Jun-25	Cure Walk & Curb Ramps																																				
A1240	Backup & Grade Walk	2	2	67	03-Jun-25	05-Jun-25	Backup & Grade Walk																																				
A1250	Seed & Mulch	1	1	67	06-Jun-25	06-Jun-25	Seed & Mulch																																				
Stewart Rd Roundabout 2B							21-Jul-25, Stewart Rd Roundabout 2B																																				
A1270	Perform Pavement Removal	2	2	28	05-Jun-25	06-Jun-25	Perform Pavement Removal																																				
A1280	Excavate & Place Embankment	3	3	28	09-Jun-25	12-Jun-25	Excavate & Place Embankment																																				
A1290	Install Storm Drainage	5	5	28	13-Jun-25	20-Jun-25	Install Storm Drainage																																				
A1300	Grade Subgrade	3	3	28	23-Jun-25	26-Jun-25	Grade Subgrade																																				
A1310	Install Underdrain	1	1	28	27-Jun-25	27-Jun-25	Install Underdrain																																				
A1320	Place & Grade Aggregate Base	1	1	28	02-Jul-25	02-Jul-25	Place & Grade Aggregate Base																																				
A1330	Pour Curb & Gutter	2	2	28	03-Jul-25	07-Jul-25	Pour Curb & Gutter																																				

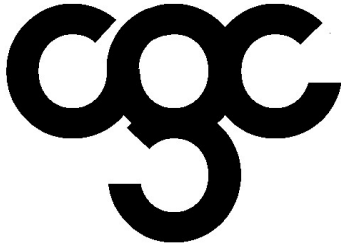
- Actual Work
- Remaining Work
- Critical Remaining Work
- ◆ Milestone
- Summary

Approved by _____ Date _____

Activity ID	Activity Name	Original Duration	Remaining Duration	Total Float	Start	Finish	March 2025				April 2025				May 2025				June 2025				July 2025				August 2025				September 2025				October 2025				November 2025				December 2025			
							02	09	16	23	30	06	13	20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24	31	07	14	21	28	05	12	19	26	02	09	16	23	30
A1770	Construct Retaining Wall Mock-Up	5	5	25	07-Apr-25	14-Apr-25																																								
A1760	Form & Place Rebar for Footing	5	5	0	19-May-25	26-May-25																																								
A1790	Pour Footing	1	1	0	27-May-25	27-May-25																																								
A1800	Cure Footing	5	5	0	28-May-25	01-Jun-25																																								
A1810	Form w/Liner & Place Rebar by Section	5	5	0	02-Jun-25	09-Jun-25																																								
A1820	Cure Wall Sections 1st Pour	5	5	1	10-Jun-25	14-Jun-25																																								
A1830	Form w/Liner Remaining Sections	5	5	0	16-Jun-25	23-Jun-25																																								
A1840	Cure Remaining Sections	5	5	0	24-Jun-25	03-Jul-25																																								
A1850	Place Drainage & Porous Backfill	2	2	0	07-Jul-25	08-Jul-25																																								
A1860	Backfill Wall	5	5	0	09-Jul-25	17-Jul-25																																								
A1870	Seal Concrete Surfaces	3	3	0	18-Jul-25	22-Jul-25																																								
A1880	Install Railing	3	3	0	23-Jul-25	25-Jul-25																																								
Retaining Wall #3		47	47	2	19-May-25	23-Jul-25																																								
A1890	Form & Place Rebar for Footing	5	5	1	19-May-25	26-May-25																																								
A1900	Pour Footing	1	1	1	27-May-25	27-May-25																																								
A1910	Cure Footing	5	5	1	28-May-25	01-Jun-25																																								
A1920	Form w/Liner & Place Rebar by Section	6	6	1	02-Jun-25	11-Jun-25																																								
A1930	Cure Wall Sections 1st Pour	5	5	1	12-Jun-25	16-Jun-25																																								
A1940	Form w/Liner Remaining Sections	6	6	1	17-Jun-25	26-Jun-25																																								
A1950	Cure Remaining Sections	5	5	5	27-Jun-25	01-Jul-25																																								
A1960	Place Drainage & Porous Backfill	2	2	2	02-Jul-25	03-Jul-25																																								
A1970	Backfill Wall	5	5	2	07-Jul-25	14-Jul-25																																								
A1980	Seal Concrete Surfaces	3	3	2	15-Jul-25	18-Jul-25																																								
A1990	Install Railing	3	3	2	21-Jul-25	23-Jul-25																																								
Drainage		20	20	32	09-May-25	12-Jun-25																																								
SR 159		19	19	7	09-May-25	11-Jun-25																																								
A2010	Catch Basins, MHs & Pipe	15	15	7	09-May-25	03-Jun-25																																								
A2030	Install Underdrains	4	4	7	05-Jun-25	11-Jun-25																																								
Marietta Rd Ext.		10	10	32	27-May-25	12-Jun-25																																								
A2060	Install Storm Drainage & Structures	5	5	32	27-May-25	03-Jun-25																																								
A2070	Install Underdrains	2	2	32	11-Jun-25	12-Jun-25																																								
Traffic Signals Marietta Rd & Winona Left Side		16	16	36	08-Jul-25	01-Aug-25																																								
A2210	Install Pole Foundations	8	8	36	08-Jul-25	21-Jul-25																																								
A2230	Install Pull Boxes & Conduit	8	8	36	22-Jul-25	01-Aug-25																																								
Lighting		39	39	7	18-Jul-25	22-Sep-25																																								
Marietta Rd Ext.		10	10	36	18-Jul-25	01-Aug-25																																								
A2180	Install Light Foundations	5	5	31	18-Jul-25	24-Jul-25																																								
A2190	Install Conduit & Pull Boxes	5	5	31	25-Jul-25	01-Aug-25																																								
A2430	Install Light Poles & Wire	5	5	36	25-Jul-25	01-Aug-25																																								
SR 159		35	35	7	24-Jul-25	22-Sep-25																																								
A2220	Install Conduit & Pull Boxes	15	15	7	24-Jul-25	18-Aug-25																																								
A1780	Install Light Pole Foundations	10	10	7	20-Aug-25	04-Sep-25																																								
A2420	Install Light Poles & Wire	10	10	7	05-Sep-25	22-Sep-25																																								

- Actual Work
- Remaining Work
- Critical Remaining Work
- Milestone
- Summary

Approved by _____ Date _____



COMPLETE GENERAL CONSTRUCTION COMPANY
1221 EAST FIFTH AVENUE COLUMBUS, OHIO 43219
PHONE (614) 258-9515 FAX (614) 258-5398
EQUAL OPPORTUNITY EMPLOYER

March 26, 2025

Mr. Paul Maravy
District 9 Construction
O.D.O.T. District 9
650 Eastern Avenue
Chillicothe, Ohio 45601

Re: Project #77-25 Ross County

Dear Sir:

Below please find the list of material suppliers we propose to use on the above referenced project.

Ernst Concrete	Concrete
Melvin Stone	Aggregates
Storm Water Simplified	SWPPP Track
Hanes Geo Components	Geofabrics
Ohio Structures	Expansion Joints
State Highway Supply	Form Liner & Scuppers
Key Cable & Supply	Radar Detection, Luminaires, & Signals
Central Systems & Controls	Lighting Controllers
Double L Reinforcing	Reinforcing Cages
Baldwin & Sours	Queue Warning
Traffic Control Products	Preemption
Electric Sales Company	Pull Boxes
Loeb Electric	Misc. Electric
Rinker Materials	Concrete Pipe
East Jordan Iron Works	Castings
Ferguson Waterworks	Storm Conduit
Contech Construction	Water Quality Structure

Should you have any questions, please contact this office at extension 2341.

Respectfully,

A handwritten signature in black ink that reads "Jeff Pennington".

Jeff Pennington
Project Engineer

Barnett, Rosalie

From: Jeff Pennington <jpennington@completegeneral.com>
Sent: Thursday, March 6, 2025 10:47 AM
To: Barnett, Rosalie
Cc: Brian Vorhees; Mike Obert; Jim George
Subject: 77-25 Precon

Roseanne,

Could you provide some dates for a precon for project 250077 Ross? Maybe the last week of this month.

Let me know if you have any questions.

Thanks,
Jeff Pennington
Complete General Construction Co.

CAUTION: This is an external email and may not be safe. If the email looks suspicious, please do not click links or open attachments and forward the email to csc@ohio.gov or click the Phish Alert Button if available.