GENERAL NOTES:

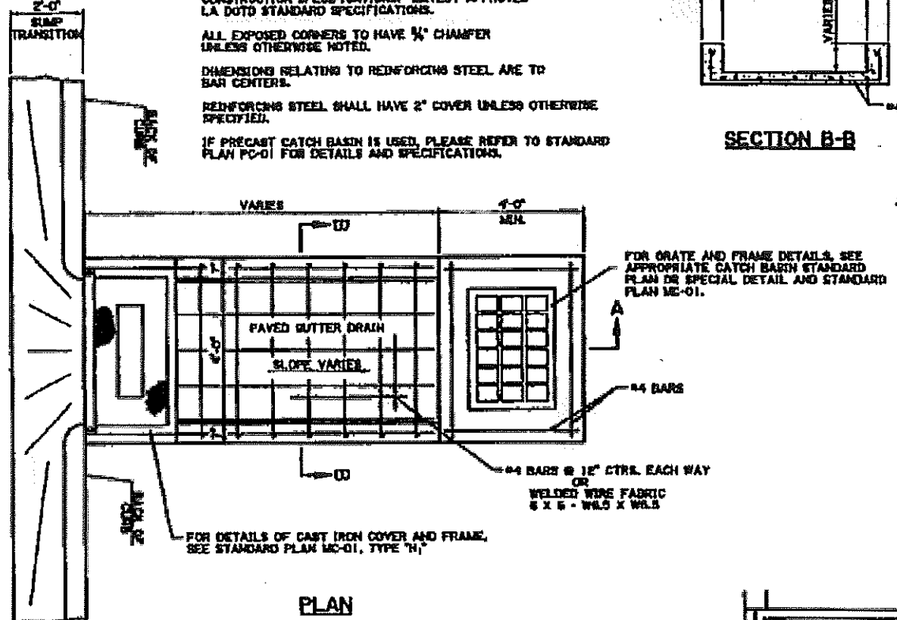
CONSTRUCTION SPECIFICATIONS: LATEST APPROVED LA DOTD STANDARD SPECIFICATIONS.

ALL EXPOSED CORNERS TO HAVE ¾" CHAMFER UNLESS OTHERWISE NOTED.

DIMENSIONS RELATING TO REINFORCING STEEL ARE TO BAR CENTERS.

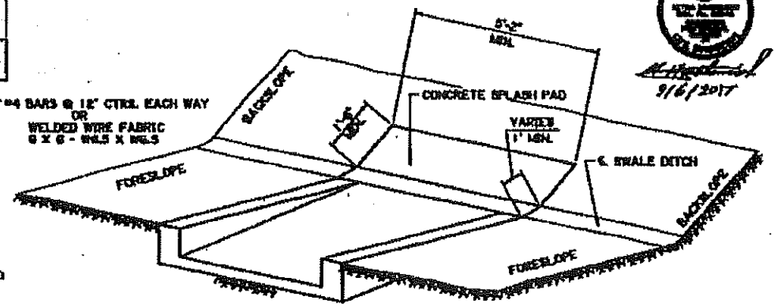
REINFORCING STEEL SHALL HAVE 2" COVER UNLESS OTHERWISE SPECIFIED.

IF PRECAST CATCH BASIN IS USED, PLEASE REFER TO STANDARD PLAN PC-01 FOR DETAILS AND SPECIFICATIONS.

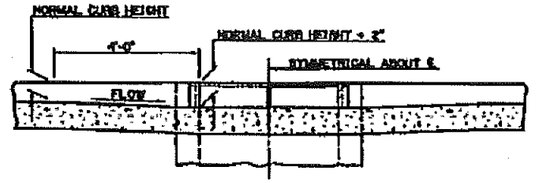


PLAN

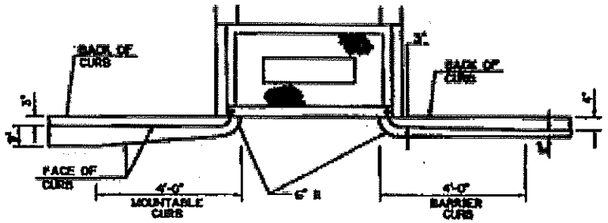
SECTION B-B



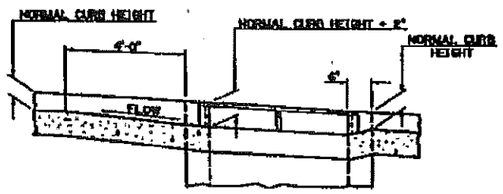
PARTIAL VIEW SHOWING
PAVED GUTTER DRAIN WITHOUT DROP INLET



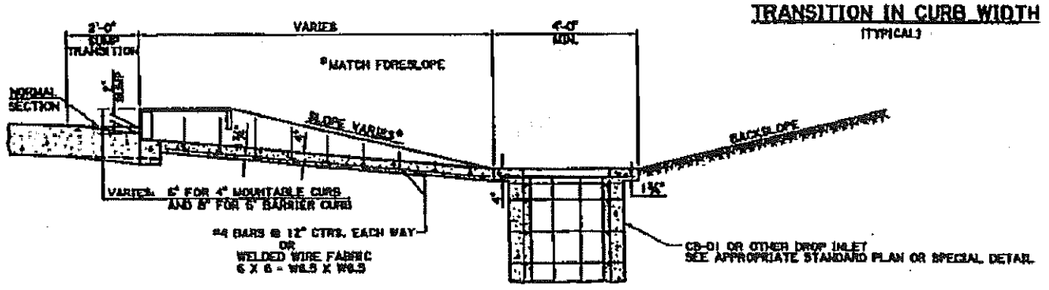
TRANSITION IN CURB HEIGHT
GUTTER DRAIN AT LOW POINT



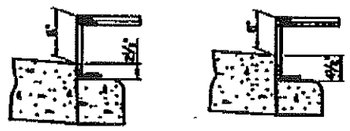
TRANSITION IN CURB WIDTH
(TYPICAL)



TRANSITION IN CURB HEIGHT
GUTTER DRAIN ON A GRADE



SECTION A-A

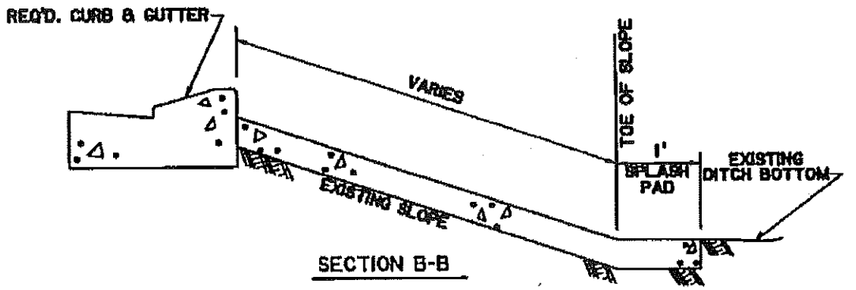


INLET CONFIGURATION
WHEN USED WITH 6" BARRIER CURB — WHEN USED WITH 4" MOUNTABLE CURB

ST. TAMMANY
H.000606
H.000606
PAVED GUTTER DRAIN DETAILS
DOTD

9/14/2018 08:37

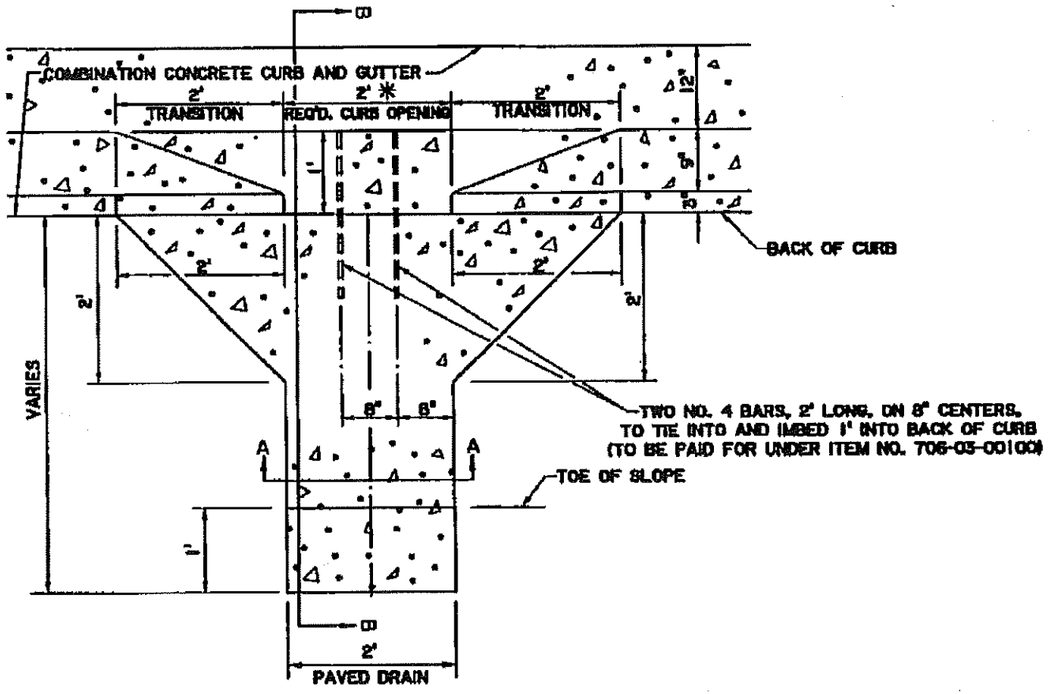
R:\Project Folders\261-06 H.000506 LA 22 (Dalwill DR. - US 190) (TURNLANE WIDENING)\Design LA 22 (Dalwill Dr - US 190)\061 PAVED DRAIN.dgn



SECTION B-B

SECTION A-A

*FOR DETAIL OF CURB OPENING AND TRANSITIONS SEE MOUNTABLE CURB DETAIL.



PAVED DRAIN DETAIL

(TO BE SPACED ON 100' CENTERS OR AS DIRECTED BY THE PROJECT ENGINEER)
(TO BE PAID FOR UNDER ITEM NO. 706-03-00100)

N.T.S.

DOTD DISTRICT 62 DESIGN	PAVED DRAIN DETAILS	NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY
	LA 22 (DALWILL DR - US 190)				
DESIGNED / CHECKED	MDM / BAT	PARISH	ST. TAMMANY	SHEET NUMBER	61
DETAILED / CHECKED	MDM / BAT	CONTROL SECTION	261-06		
SERIES NUMBER		STATE PROJECT	H.000506		

J-67

1) CONDUIT AND CABLE

A) ALL CONDUCTORS AND CABLES FROM SIGNAL HEADS AND DETECTORS SHALL BE RUN IN UNDERGROUND CONDUIT, HOUSED IN POLES OR ON MESSENGER CABLE AND SHALL BE RUN BY THE MOST DIRECT ROUTE TO SIGNAL CONTROLLER CABINET IN ACCORDANCE WITH THE PLANS.

B) A SPARE LENGTH OF CABLE SHALL BE INSTALLED AS SHOWN ON LADOTD STANDARD DETAIL SHEETS LABELED "SIGNAL HEAD INSTALLATION DETAILS" AND JUNCTION BOX AND PULL BOX". SIX FEET OF SPARE 7/C#14 CONTROL CABLE, LOOP LEADER, COMMUNICATION, AND ETHERNET CABLE, SHALL BE COILED IN EACH BASE MOUNTED CABINET IN ACCORDANCE WITH LADOTD STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

2) CONDUIT

A) ALL UNDERGROUND CONDUIT INCLUDING STUBS SHALL BE HDPE OR PVC SCHEDULE 40.

B) USE ANY E-LOC COUPLING WHEN CONNECTING HDPE TO PVC.

C) ALL ABOVE GROUND CONDUIT AND FITTINGS SHALL BE RIGID STEEL AND MUST BE GALVANIZED ACCORDING TO ANSI C80.1.

D) SIGNAL CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH OF 24".

E) PVC OPTIC CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH OF 30".

F) ALL CONDUIT SHALL BE INSTALLED AT THE DEPTHS LISTED ABOVE FOR DEPTH OVER 8'.

G) ALL CONDUIT CONSTRUCTIONS SHALL BE SEALED WITH A WATERPROOF SEALING COMPOUND.

H) ALL CABLE AND WIRE ENTRANCES SHALL BE DUCT SEALED IN CABINET AFTER INSTALLATION

I) NO MORE THAN 270 DEGREES OF BENDS IN CONDUIT WITHOUT A JUNCTION BOX.

3) FOUNDATIONS

A) USE CLASS B CONCRETE WITH AN 8" SLUMP IN ACCORDANCE WITH SECTION 901

4) CONSTRUCTION SEQUENCE

A) THE CONTRACTOR SHALL CONFORM OF ALL EXISTING CONTROLLER AND POLE SIGNAL FOUNDATIONS. POLE BASE FOUNDATIONS SHALL BE SHAVED 24" BELOW NORMAL GROUND AND GRADE PRIOR REMOVAL OF FOUNDATIONS SHALL BE IN ACCORDANCE WITH SECTION 203 OF THE LADOTD STANDARD SPECIFICATIONS.

5) INTERSECTION SPECIFIC NOTES

A) SEE INDIVIDUAL INTERSECTION PLAN SHEETS.

6) JUNCTION BOXES

A) THE MAXIMUM DISTANCE BETWEEN SIGNAL JUNCTION BOXES SHALL BE 500 FEET.

B) THE MAXIMUM DISTANCE BETWEEN JUNCTION BOXES USED FOR COMMUNICATIONS CABLE SHALL BE 1000 FEET

7) PROPERTY DAMAGE

A) ANY PROPERTY DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

8) POWER SERVICE

A) THE POWER SOURCE SHOWN ON THE DRAWINGS IS APPROXIMATE AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATION OF THE POWER SOURCE.

B) THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH AND PAY THE POWER COMPANY FOR TEMPORARY AND PERMANENT ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND POINTS OF ATTACHMENT BEFORE INSTALLATION IN ACCORDANCE WITH LADOTD STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

C) FROM THE POWER DISCONNECT, A 3" CONDUIT WITH THREE #4 AWG #2 STRANDED COPPER, SHALL BE TURNED UP THE POWER COMPANY SERVICE POLE TO A HEIGHT DESIGNATED BY THE POWER COMPANY. THE CONTRACTOR SHALL TERMINATE THE CONDUIT WITH A THREADED SERVICE ENTRANCE FITTING (WEATHER HEAD) AND WIRES SHALL BE A MINIMUM OF 2 FEET BEYOND THE WEATHER HEAD TO ALLOW CONNECTION TO POWER COMPANY SERVICE WITH A DRIP LOOP.

D) THE CONTRACTOR SHALL COORDINATE POWER SERVICE CONNECTION WITH UTILITY COMPANY.

9) POWER DISCONNECT

A) FROM THE POWER DISCONNECT TO THE CONTROLLER, A 3" CONDUIT WITH THREE #6 AWG-AL SHALL BE INSTALLED. MEASUREMENT FOR SIGNAL SERVICE, PAYMENT WILL BE IN ACCORDANCE WITH SIGNAL SERVICE (PEDESTAL MOUNTED) FOR POWER DISCONNECT.

B) A POWER DISCONNECT MUST BE LOCATED WITHIN THE SAME QUADRANT AS THE SIGNAL CONTROLLER CABINET AND MUST BE ABLE TO BE ACCESSED SAFELY WITHOUT OBSTACLES BETWEEN THE DISCONNECT AND THE CONTROLLER. IF THIS CONDITION CANNOT BE MET, A SEPARATE SIGNAL SERVICE (PEDESTAL MOUNTED) POWER DISCONNECT SHALL BE PROVIDED AT THE CONTROLLER LOCATION FOR EMERGENCY POWER SHUT-OFF

10) RIGHT-OF-WAY

A) THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STATE RIGHT-OF-WAY LINES AND MONUMENTS ALL CONSTRUCTION WITHIN THESE LIMITS.

11) SIGNAL CONTROLLER CABINET

A) THE CONTROLLER CABINET SHALL BE ORIENTED SUCH THAT SIGNAL PERSONNEL CAN FACE THE INTERSECTION WHEN OPENING THE CABINET THE DOOR OF THE CABINET SHALL PARALLEL THE MAIN ROADWAY.

B) A 3' X 3' X 6" CONCRETE PAD SHALL BE POURED IN FRONT OF CONTROLLER CABINET FOR A TYPE-X, E-W2 MOUNTED CABINET, ACCESSIBLE AND NEXT TO THE CONTROLLER CABINET POLE FOR POLE MOUNTED CABINETS. PAD SHALL BE INSTALLED ABOVE GROUND LEVEL TO PROVIDE AN ALL WEATHER STANDING AREA FOR SERVICE PERSONNEL.

12) SIGNAL DETECTION LOOPS

A) THE PROJECT ENGINEER SHALL APPROVE THE DEPTH AND DIAMETERS OF EACH DETECTION LOOP SLOT BEFORE THE CONTRACTOR PLACES WIRE IN THE SLOT.

B) SHIELDED CABLE SHALL BE SPLICED TO LOOP WIRE AT A PULL BOX NEAREST THE LOOP FOR LOCATION SPECIFICALLY DESIGNATED ON THE PLANS AND SHALL BE CONTINUED TO THE TERMINATION PANEL IN THE CONTROLLER CABINET. NO SPLICE SHALL BE PERMITTED BETWEEN THE LOOP LEAD-IN AND THE TERMINATION PANEL.

C) LOOPS OPERATED ON THE SAME PHASE SHALL BE WIRED IN SERIES. A SINGLE LOOP LEAD-IN CABLE SHALL BE RUN FROM THE JUNCTION BOX TO THE CONTROLLER.

13) SIGNAL DETECTORS & VIDEO

A) ADJUST CAMERA RANGE TO FEET TO 15 FEET BEFORE STOP BAR TO ALLOW COUNT DETECTION TO BE PROGRAMMED AT A LATER DATE.

14) SIGNAL EQUIPMENT LOCATION

A) LOCATIONS OF POWER PEDESTALS, LOOP DETECTORS, SYSTEM DETECTORS, CONTROLLERS AND JUNCTION BOXES ARE APPROXIMATE. EXACT LOCATIONS SHALL BE APPROVED BY THE PROJECT ENGINEER

B) THE CONTRACTOR SHALL STAKE THE RIGHT-OF-WAY, EDGE OF THE PAVEMENT/CURB, LANE LINES, UTILITY MANHOLE, AND ELEVATION & LOCATION OF EACH POLE FOUNDATION FOR THE PROJECT ENGINEER'S APPROVAL DURING THE ASSEMBLY PERIOD. ANY EXCEPTION HAS TO BE APPROVED BY THE PROJECT ENGINEER. AFTER APPROVAL THE CONTRACTOR MAY PROCEED WITH THE INSTALLATION OF THE POLE FOUNDATION.

C) ONCE THE POLE FOUNDATION IS INSTALLED, MAST ARM LENGTHS SPECIFIED ON PLANS ARE TO BE VERIFIED TO ENSURE THE MATERIALS IF A TIME EXTENSION IS NEEDED IT SHALL BE AT THE DISCRETION OF THE PROJECT ENGINEER TO GRANT THE EXTENSION.

15) SIGNAL EQUIPMENT REMOVAL

A) ALL EXISTING TRAFFIC SIGNAL EQUIPMENT, CONTROL DEVICES, AND SIGNS/APPURTENANCES AT EACH INTERSECTION SHALL BE REMOVED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE PROJECT ENGINEER.

B) THE CONTRACTOR SHALL DELIVER ALL SALVAGEABLE EQUIPMENT TO THE OWNER

C) THE REMOVAL AND DELIVERY OF EQUIPMENT TO THE OWNER SHALL BE PAID FOR UNDER ITEM 641 FOR "REMOVAL OF TRAFFIC SIGNAL EQUIPMENT".

16) SIGNAL POLE HEIGHT

A) THE CONTRACTOR SHALL PROVIDE MEANS THAT ARE SUFFICIENT TO ENSURE THAT THE BOTTOM OF THE LOWEST SIGNAL OR AN ASSEMBLY IS NOT LESS THAN 17' ABOVE THE PAVEMENT. NOM MINIMUM HEIGHT WERE TO THE CURRENT ADOPTED EDITION OF THE NATIONAL

B) SIGNAL HEAD ALIGNMENT AND CLEARANCE SHALL BE IN ACCORDANCE WITH THE LADOTD TRAFFIC SIGNAL DESIGN MANUAL.

17) SIGNAL POLE FINISH NOTES

A) IF NOT SPECIFIED GALVANIZED STEEL POLES ARE SPECIFIED, THE GALVANIZED GALVANIZED AREA SHALL BE REPAIRED BY THE CONTRACTOR IN ACCORDANCE WITH SUBSECTION 811.13 OF THE LADOTD STANDARD SPECIFICATIONS.

18) SIGNAL POLES INSTALLED IN PARADISE

A) THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PROPER CLEARANCES FROM EXISTING UTILITY LINES AND EQUIPMENT IN ACCORDANCE WITH THE NATIONAL ELECTRICAL SAFETY CODE.

19) TRAFFIC SIGNAL - FLASHING SIGNAL

A) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUAL OPERATION OF THE NEW, EXISTING OR TEMPORARY TRAFFIC SIGNALS DURING THE PERIOD OF CONSTRUCTION THAT INCLUDES RECONSTRUCTING POLES. DETECTORS, SIGNAL HEADS, AND OTHER ITEMS PROVIDE TEMPORARY POLES OR OTHER MATERIALS AS NECESSARY TO ENSURE THE CONTINUAL OPERATION OF THE SIGNAL AND COMMUNICATION EQUIPMENT AT ALL TIMES. WHERE VEHICLE DETECTORS ARE PRESENT, VEHICLE DETECTION MUST BE MAINTAINED.

B) THE CONTRACTOR SHALL BE SCHEDULED TO WORK NOT MORE THAN 60 CONSECUTIVE UNLESS DIRECTED OTHERWISE BY THE PROJECT ENGINEER AS APPROVED BY THE OFFICE OF THE DISTRICT TRAFFIC OPERATIONS ENGINEER.

20) UTILITIES

A) UNDERGROUND UTILITIES MAY EXIST IN THE CONSTRUCTION AREA, THE LOCATION AND TYPE OF SYSTEMS IS NOT GUARANTEED TO BE ACCURATE. EVEN ALL INCLUSIVE THE INFORMATION IS SHOWN SOLELY FOR USE IN ESTIMATING BY BIDDING CONTRACTORS FOR THIS PROJECT. THE ENGINEER DOES NOT GUARANTEE ACCURACY OR COMPLETENESS THAT ALL UTILITIES ARE SHOWN

B) BEFORE ANY EXCAVATIONS, THE CONTRACTOR SHALL CONTACT "LOUISIANA ONE CALL", THE APPROPRIATE UTILITY COMPANY, AND LADOTD TRAFFIC OPERATIONS SECTION AT (225)925-6908 FOR LOCATION OF THE UNDERGROUND SERVICE A MINIMUM OF 48 HOURS PRIOR TO BEGINNING CONSTRUCTION. THE "LOUISIANA ONE CALL" NUMBER IS 1-800-272-3020.

C) THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, DEPTH AND SIZE OF ALL UNDERGROUND UTILITIES AND STRUCTURES AND SHALL BE LIABLE FOR ANY DAMAGES CAUSED BY FAILURE TO COMPLY WITH THESE INSTRUCTIONS. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR MAKING INDEPENDENT INVESTIGATIONS INCLUDING ANY EXCAVATIONS AS MAY BE NECESSARY.

21) NOTIFICATION

A) CONTRACTOR SHALL BE REQUIRED TO CALL LADOTD TRAFFIC OPERATIONS SECTION AT (225)925-6908 AT LEAST 7 DAYS BEFORE BEGINNING CONSTRUCTION ACTIVITIES

B) CONTRACTOR SHALL BE REQUIRED TO CALL LADOTD TRAFFIC OPERATIONS SECTION AT (225)925-6908 AT LEAST 7 DAYS BEFORE SIGNALS SCHEDULE FOR A FINAL INSPECTION AND 10 DAYS (MIN) FOR AN INSPECTOR TO BE PRESENT AT SIGNAL TURN ON.

22) COMMUNICATIONS - FIBER

A) ANY FIBER OPTIC CABLE INSTALLED SHALL BE REQUIRED TO HAVE A 18 AWG GAUGE, 8ON COPPER CONDUCTOR, STRANDED OR OTHER APPLICABLE TRACER WIRE IN THE SAME CONDUIT. PAYMENT WILL BE MADE UNDER THE FIBER OPTIC CABLE PAY ITEM.

23) FLASHING SIGNAL OPERATION

A) INSTALL ONE 120VAC RELAY IN THE SIGNAL CABINET. THE RELAY IS ENERGIZED BY ANY ONE OF THE RAILROAD PREEMPTION CALLS AND IS DE-ENERGIZED WHEN PREEMPTION CALLS ARE REMOVED. THE RELAY IS ACTUATED BY THE CONTACT LIKE SHOWN THAT CONNECTS BRIDGE FLASHERS OR THE RAILROAD CONTROL HOUSE WITH GA.

B) RUN A #14 TWO CONDUCTOR WIRE IN A MIN 1" PVC CONDUIT BETWEEN TRAFFIC SIGNAL CABINET TO THE DESIGNATED TERMINAL IN DOWN THE RAILROAD HOUSE, BRIDGE CONTROL HOUSE OR THE MAIN BRIDGE JUNCTION BOX WHERE APPLICABLE. ONE WIRE IS FOR THE 'HOT' SIDE OF SIGNAL WIRE IS GROUNDED WHEN CONNECTION IS MADE AT THE RAILROAD SIDE, #14 SPARE WIRE IS REQUIRED FOR CONTINUITY TESTING BY THE RAILROAD ON RAILROAD CONTROL HOUSE.

C) CONTRACTOR SHALL VERIFY SIGNAL CONTROLLER TERMINATION WITH LA DOTD BRIDGE ENGINEERING SECTION.

D) DESIGNER SHALL COORDINATE TRACK CIRCUITING AND PREEMPTION SEQUENCE WITH THE DISTRICT TRAFFIC OPERATIONS ENGINEER.

E) BRIDGE OR RAILROAD CONTROL HOUSE PROVIDES NORMALLY-CLOSED CONTACT CONNECTION.

LEI Q. WANG
License No. 33365
8/9/2018
PROFESSIONAL ENGINEER

DOTD TRAFFIC ENGINEERING	TRAFFIC SIGNAL DETAILS SIGN NOTES TSD-00	NO.	DATE	REVISION DESCRIPTION	BY	DESIGNED S. MCCARROLL CHECKED D. LORIO	PARISH ST. TAMMANY
						DETAILED S. MCCARROLL CHECKED L. WANG	FEDERAL PROJECT H000506
						DATE 04/12/2017 SHEET 14 OF 14	STATE PROJECT H.000506

SHEET NUMBER 62

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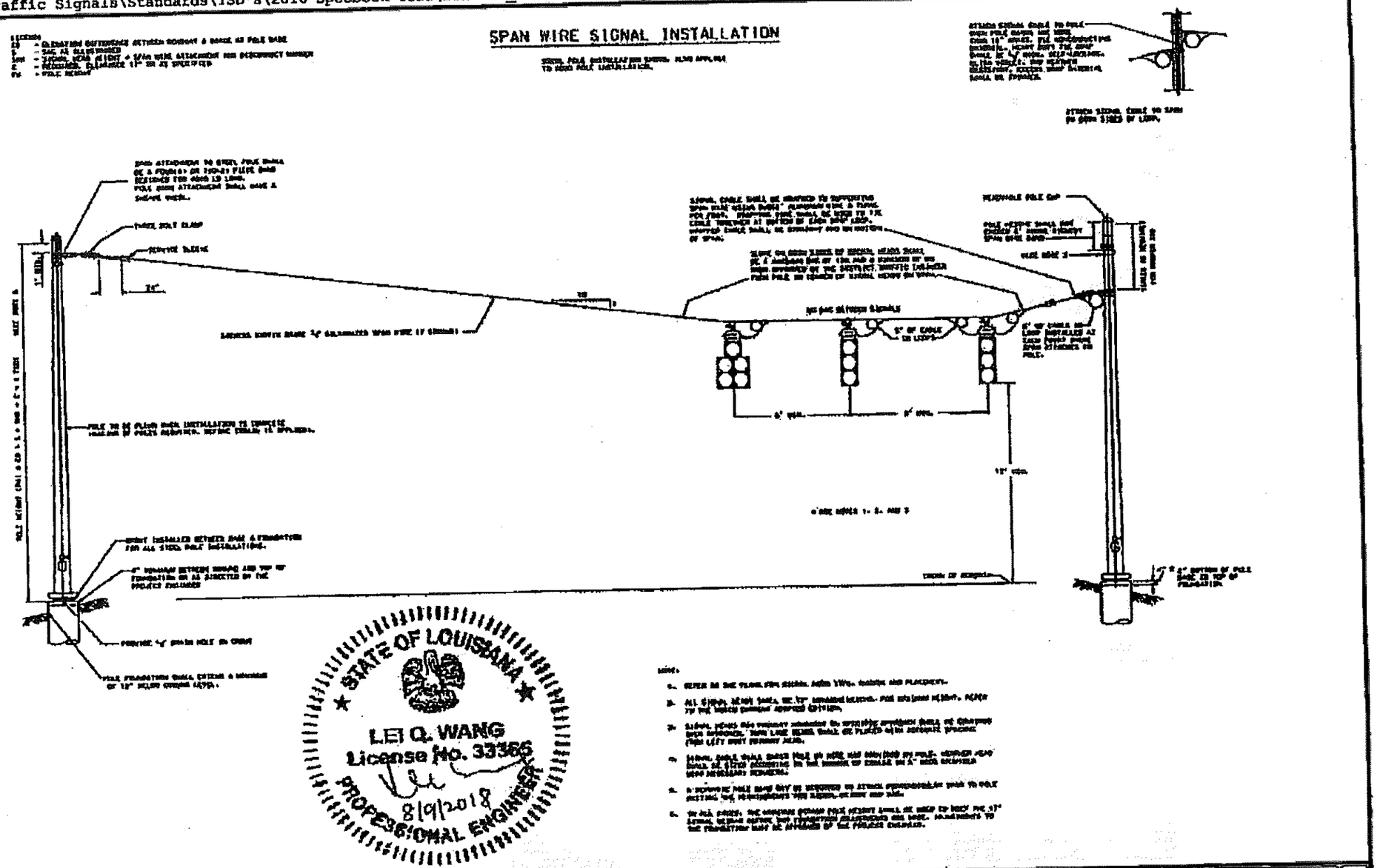
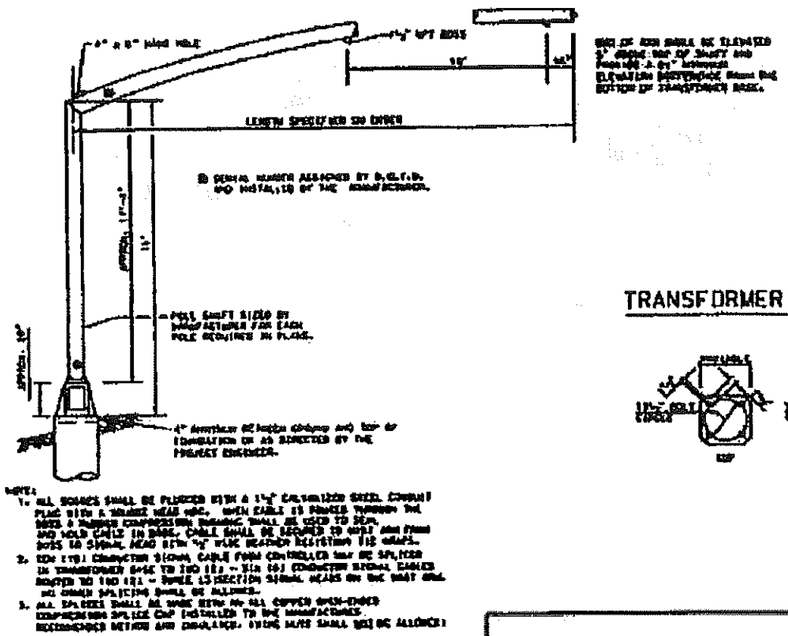
SPAN WIRE SIGNAL INSTALLATION



STATE OF LOUISIANA
LEI Q. WANG
License No. 33366
8/9/2018
PROFESSIONAL ENGINEER

DOTD TRAFFIC ENGINEERING	TRAFFIC SIGNAL DETAILS SPAN WIRE INSTALLATION DETAILS TSD-01	NO.	DATE	REVISION DESCRIPTION	BY	DESIGNED S. MCCARROLL CHECKED D. LORIO DETAILED S. MCCARROLL CHECKED L. WANG DATE 04/12/2017 SHEET 2 OF 14	PARISH ST. TAMMANY FEDERAL PROJECT H000506 STATE PROJECT H.000506	SHEET NUMBER 53

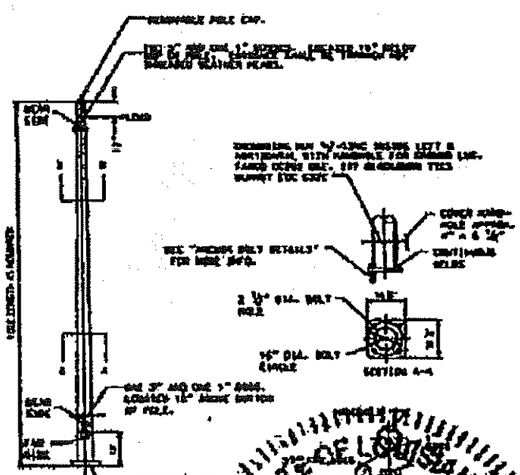
50' SINGLE, 45'X40' DUAL, AND UNDER MAST ARM, STEEL STRAIN POLE STANDARD



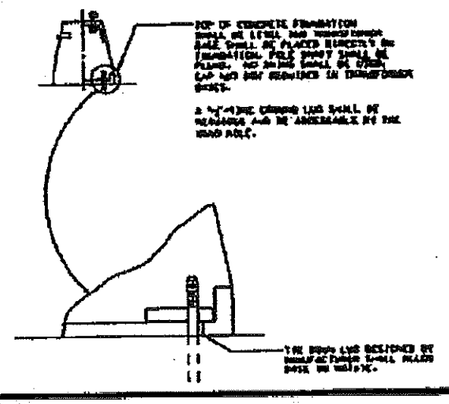
BOSS AND END PLATE DETAIL

TRANSFORMER BASE DETAIL

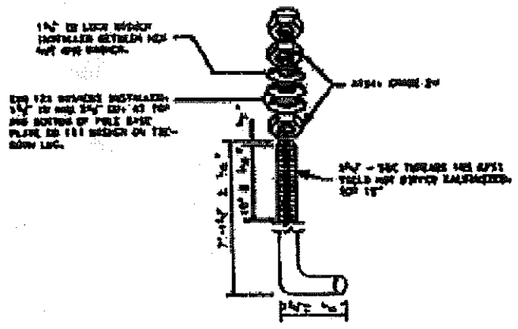
STEEL STRAIN POLE



ROTATABLE BASE



ANCHOR BOLT DETAILS FOR STRAIN POLES AND MAST ARMS



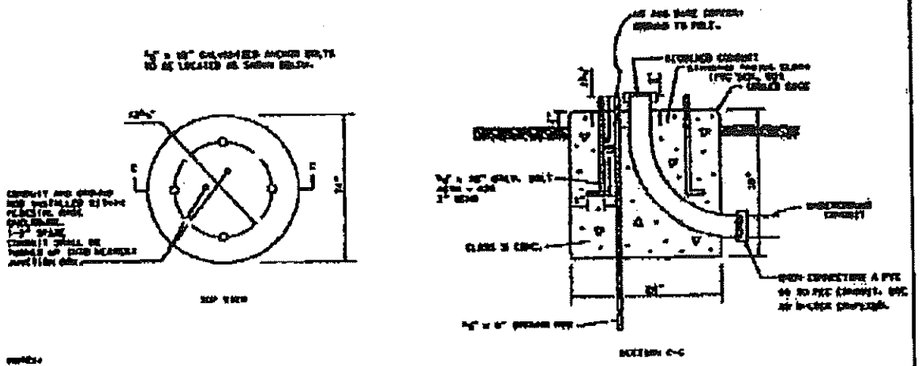
STATE OF LOUISIANA
LEI Q. WANG
License No. 33365
08/09/2018
PROFESSIONAL ENGINEER

J-69

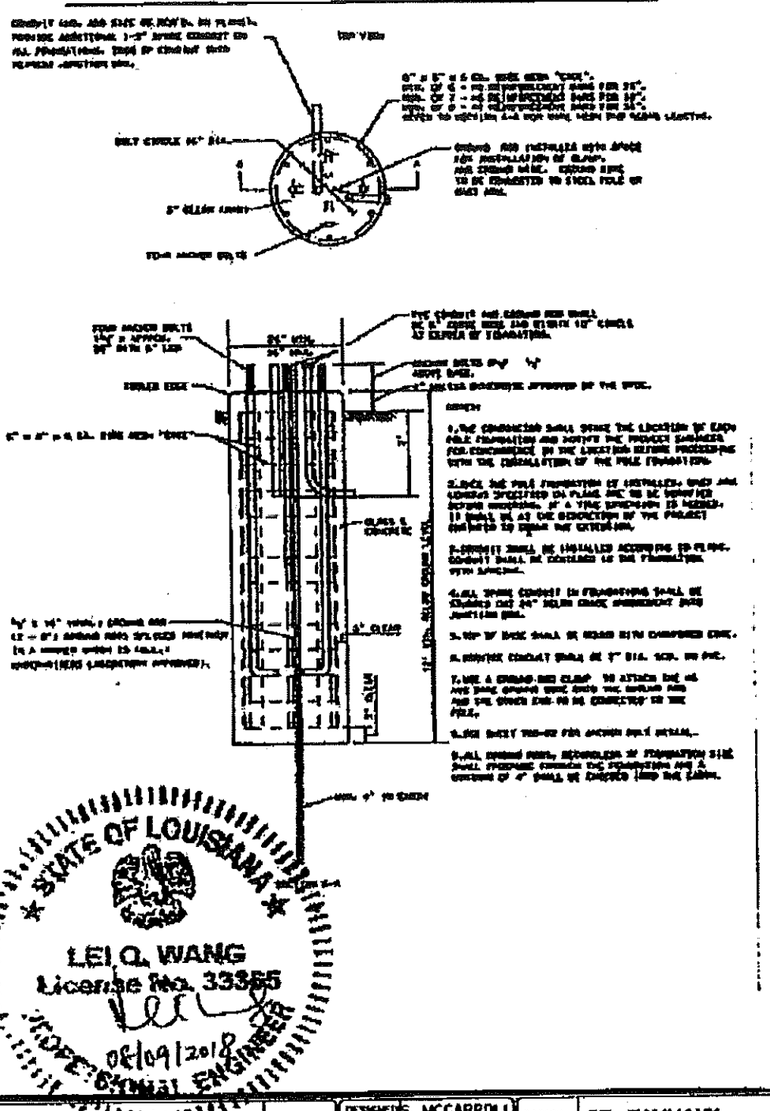
DOTD TRAFFIC ENGINEERING	TRAFFIC SIGNAL DETAILS STRAIN POLE AND MAST ARMS 55' AND UNDER DETAIL TSD-02	NO.	DATE	REVISION DESCRIPTION	BY	DESIGNED S. MCCARROLL CHECKED D. LORIO	PARISH ST. TAMMANY
						DETAILED S. MCCARROLL CHECKED L. WANG	FEDERAL PROJECT H000506
						DATE 04/12/2017 SHEET 3 OF 14	STATE PROJECT H.000506

SHEET NUMBER 64

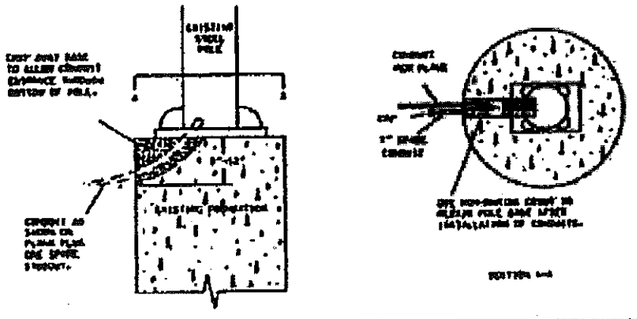
SIGNAL PEDESTAL FOUNDATION



50' SINGLE, 45'X40' DUAL, AND UNDER MAST ARM, STEEL STRAIN POLE STANDARD



CONDUIT ENTRANCE DETAIL TO EXISTING FOUNDATION

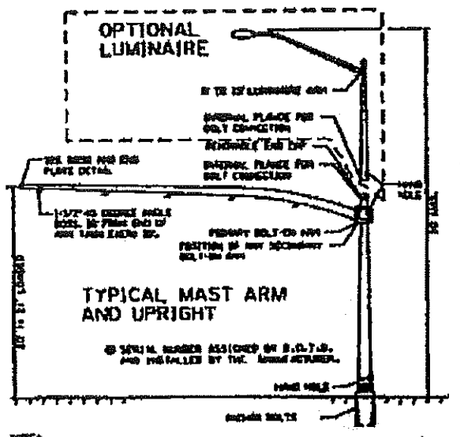


J-70

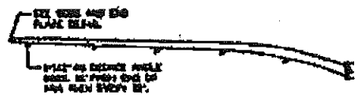
DOTD TRAFFIC ENGINEERING	TRAFFIC SIGNAL DETAILS POLE FOUNDATION DETAILS TSD-03	NO. / DATE / REVISION DESCRIPTION / BY	DESIGNED S. MCCARROLL CHECKED D. LORIO	PARISH	ST. TAMMANY
			DETAILED S. MCCARROLL CHECKED L. WANG	FEDERAL PROJECT	H000506
			DATE 05/17/2018 SHEET 4 OF 14	STATE PROJECT	H.000506

SHEET NUMBER 69

55' SINGLE, 50'X35' DUAL, AND OVER MAST ARM DETAIL



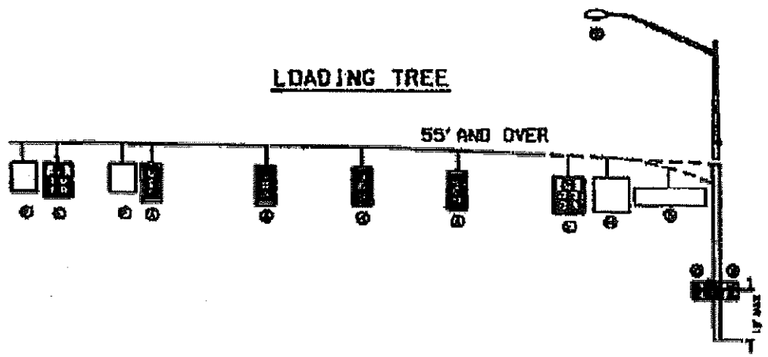
DUAL ARM (BOLT-ON)



BOSS AND END PLATE DETAIL

LOADING TREE

55' AND OVER



MAST ARM DESIGN CRITERIA

THESE TRAFFIC SIGNAL SUPPORT STRUCTURES SHALL BE DESIGNED IN ACCORDANCE WITH LOADING AND ALLOWABLE STRESS REQUIREMENTS OF THE LATEST "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", PUBLISHED BY AASHTO. WIND LOADS ARE BASED ON A BASIC WIND SPEED OF 130 MPH WITH A RECURRENCE INTERVAL OF 50 YEARS AND A FATIGUE CATEGORY OF II. FATIGUE LOADS ARE BASED ON THE ASSUMPTIONS OF SECTION 11.7 AND THE FOLLOWING DESIGN LOADS:

- VORTEX SHEDDING: MAST ARM SHALL BE FOR STRUCTURES WITH A TAPER OF .14" PER FOOT.
- NATURAL WIND GUSTS: THE NEARLY HEAD WIND SPEED FOR NATURAL WIND GUSTS SHALL BE ASSUMED TO BE 11.3 MPH.
- GALLOPING: STRUCTURES ARE NOT DESIGNED TO RESIST PERIODIC GALLOPING FORCES.
- TORSION-INDUCED GUSTS: STRUCTURES ARE NOT DESIGNED TO INCLUDE TORSION-INDUCED GUSTS.
- ARMS MAY BE CURVED OR STRAIGHT.

NOTE:
① EFFECTIVE PROJECTED AREA

DEVICE	DESCRIPTION	PROJ. AREA (SQ. FT.)	WEIGHT (LBS.)
① SIGNAL	12"-3 SEC. SIGNAL W/BACKPLATES	10.45	84
② SIGN	24" X 18" STREET NAME SIGN	3.00	35
③ LUMINAIRE	400 W HPS LUMINAIRE W/ BALLAST	1.00	50
④ SIGNAL	12"-3 SEC SIGNAL W/BACKPLATES	8.00	80
⑤ SIGNAL	12"-3 SEC SIGNAL W/BACKPLATES	10.00	80
⑥ SIGN	24" X 18" PEDESTRIAN SIGN	3.00	35
⑦ LUMINAIRE	1 LUMINAIRE	4.30	74
⑧ SIGN	24" X 18" PEDESTRIAN PUSH BUTTON SIGN	3.00	35
⑨ SIGN	24" X 24" REGULATORY SIGN	4.00	50

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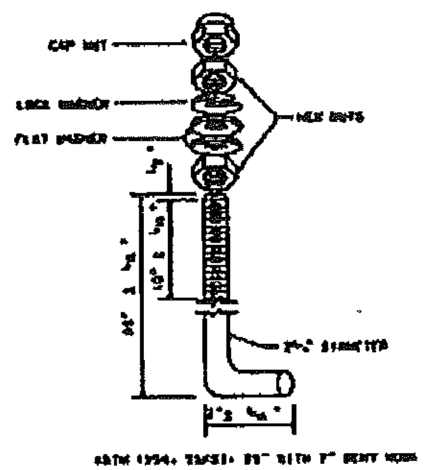
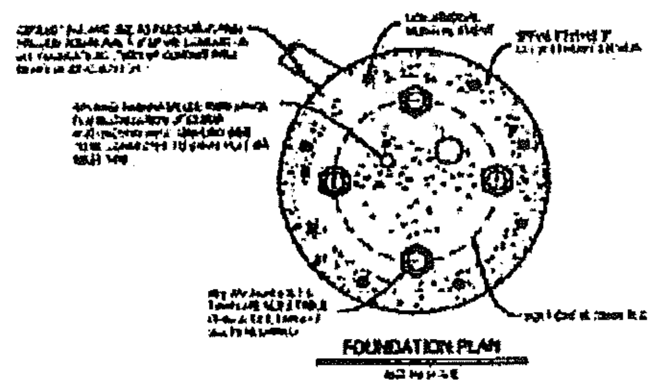
DOTD TRAFFIC ENGINEERING	TRAFFIC SIGNAL DETAILS 55' SINGLE, 50'X35' DUAL, AND OVER MAST ARM DETAILS TSD-04	NO.	DATE	REVISION DESCRIPTION	BY	DESIGNED S. MCCARROLL CHECKED D. LORIO DETAILED S. MCCARROLL CHECKED L. WANG DATE 04/12/2017 SHEET 5 OF 14	PARISH ST. TAMMANY FEDERAL PROJECT H000506 STATE PROJECT H.000506	SHEET NUMBER 55

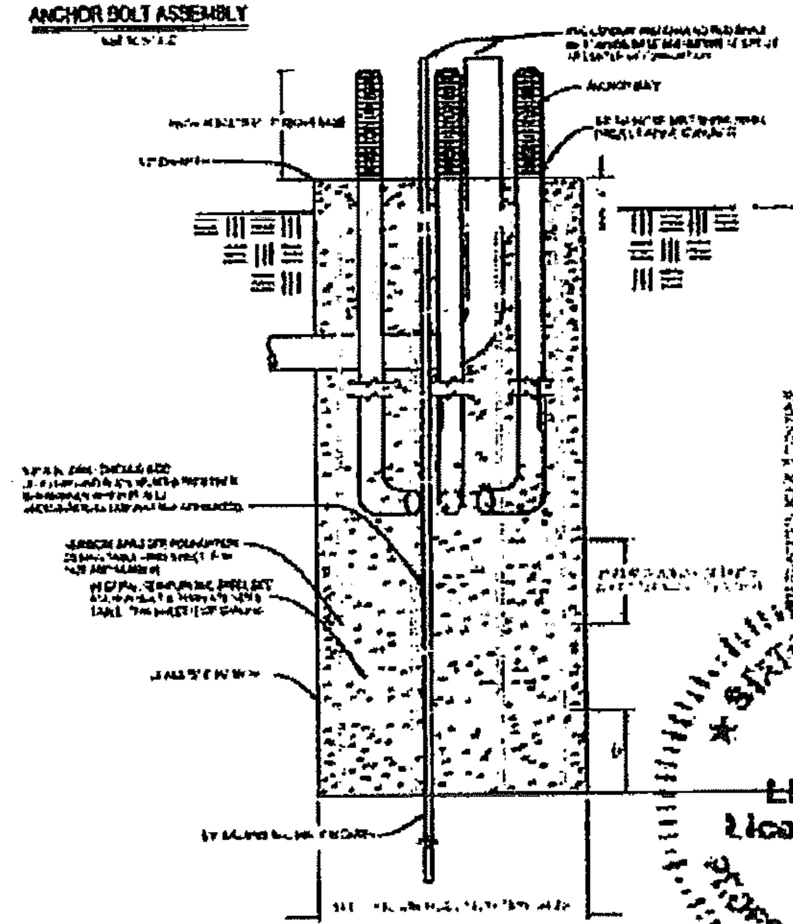
T:\Traffic Signals\Standards\TSD's\2016 Specbook TSDs\STAMPED_LetterSizeTSDs_8-9-19\TSD-05_Letter_8-16-2018.dgn 8/20/2018 13:04



ANCHOR BOLT ASSEMBLY



FOUNDATION PLAN



FOUNDATION SECTION

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ANCHOR BOLT & TEMPLATE SIZE TABLE

GENERAL NOTES:

SPECIAL DESIGN FOUNDATION NOTES:

STATE OF LOUISIANA
LEI Q. WANG
License No. 33385
PROFESSIONAL ENGINEER
08/09/2018

DOTD TRAFFIC ENGINEERING	TRAFFIC SIGNAL DETAILS 55' SINGLE, 50'X35' DUAL AND OVER MAST ARM DETAIL FOUNDATION	DESIGNED S. MCCARROLL CHECKED D. LORIO	PARISH	ST. TAMMANY	SHEET NUMBER 67
	TSD-05	DETAILED S. MCCARROLL CHECKED L. WANG	FEDERAL PROJECT	H000506	
		DATE 10/00/2017 SHEET 6 OF 14	STATE PROJECT	H.000506	

NO.	DATE	REVISION DESCRIPTION	BY

GENERAL STATIC MAP FOR FOUNDATION REQUIREMENTS SHOWN HERE.
SEE http://goo.gl/QHv2o3 FOR LOCATION SPECIFIC CLASSIFICATION.
ALTERNATIVE: LADOTD WEBSITE/HOME/INSIDE LADOTD/DIVISIONS/OPERATIONS /TRAFFIC SERVICES/TRAFFIC OPERATIONS/APPROVED PRODUCT LIST/TOAPL 165.

FOUNDATION SIZE ZONING:

1. FOUNDATION ZONES ARE BASED ON THE 1984 GEOLOGICAL MAP OF LOUISIANA PUBLISHED BY THE LOUISIANA GEOLOGICAL SURVEY. LOCAL GEOLOGICAL VARIATIONS ARE LIKELY DUE TO HUMAN ACTIVITIES OR NATURAL EVENTS.
2. THE ZONING MAP IS INTENDED TO ASSIST IN SIZING FOUNDATION FOR SELECTED SIGNAL POLES AND SHOULD NOT BE VIEWED AS A SUBSTITUTE OF ENGINEERING JUDGMENT OR PROPER DESIGN.
3. SOME SOILS SUCH AS GRAVEL OR CEMENTED SOILS MAY NOT BE AMENABLE TO THE CONVENTIONAL DRILLED SHAFT CONSTRUCTION, EXERCISE CAUTION AND SEEK CONFIRMATION OF THE SOIL CONDITIONS DURING DESIGN AND/OR DURING SHAFT EXCAVATION.

ZONE 1 - ALLUVIAL SOILS FORMED BY THE RED RIVER, THE OUACHITA RIVER, THE ATCHAFALAYA RIVER, AND THE MISSISSIPPI RIVER. ASSUMED AVERAGE SOIL SHEAR STRENGTH IS AT LEAST 250 POUNDS PER SQUARE FOOT (PSF).

ZONE 2 - PLEISTOCENE AGE PRAIRIE TERRACES DEPOSITS. ASSUMED AVERAGE SOIL SHEAR STRENGTH IS AT LEAST 500 PSF.

ZONE 3 – PLEISTOCENE AGE OR OLDER DEPOSITS OTHER THAN ZONE 2. ASSUMED AVERAGED SHEAR STRENGTH IS AT LEAST 1,000 PSF.

ZONE 4 - MOSTLY COASTAL MARSH AND SAND/GRAVEL DEPOSITS. SPECIAL DESIGN IS REQUIRED FOR THE SIGNAL POLE WITHIN THIS ZONE.

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CONSTRUCTION NOTES:

1. IF GROUNDWATER IS ENCOUNTERED DURING FOUNDATION EXCAVATION AND NO CAVE IN IS OBSERVED, THE GROUNDWATER SHOULD BE PUMPED OUT PRIOR TO STEEL CAGE PLACEMENT. THE WATER REMAINS IN THE EXCAVATION SHOULD BE NO MORE THAN ½ INCH.
2. IF GROUNDWATER IS ENCOUNTERED DURING FOUNDATION EXCAVATION AND CAVE IN IS OBSERVED, THE EXCAVATION SHOULD BE CEASED. CONTACT THE PROJECT ENGINEER IMMEDIATELY. SHOULD THE CAVING IS EXCESSIVE, BACKFILL THE EXCAVATION IMMEDIATELY.
3. FREE FALL CONCRETE IS ALLOWED FOR DRY HOLES ONLY. THE CONCRETE SHALL BE PLACED WITH A HOPPER OR A TREMIE. WHEN FREE FALL METHOD IS USED, CONTROL THE CONCRETE TO FALL VERTICALLY WITHOUT CONTACTING SHAFT WALL OR STEEL CAGE TO PREVENT SEGREGATION.
4. CONCRETE PLACEMENT WITH A TREMIE IS REQUIRED IF EXCESSIVE GROUNDWATER (MORE THAN 6 INCHES ACCUMULATION) IS ENCOUNTERED.
   WHEN THE SOIL CONDITIONS ARE SUSPECTED TO BE DIFFERENT THAN THOSE DESCRIBED IN THE FOUNDATION SIZE ZONING, CONTACT THE PROJECT ENGINEER IMMEDIATELY TO EVALUATE THE SUITABILITY OF THE FOUNDATION DESIGN.

STATE OF LOUISIANA
LEI G. WANG
License No. 33365
PROFESSIONAL ENGINEER
08/07/2018

DOTD TRAFFIC ENGINEERING

TRAFFIC SIGNAL DETAILS
55' SINGLE, 50'X35' DUAL, AND OVER MAST ARM DETAIL
FOUNDATION DETAILS
POLE FOUNDATION DETAILS

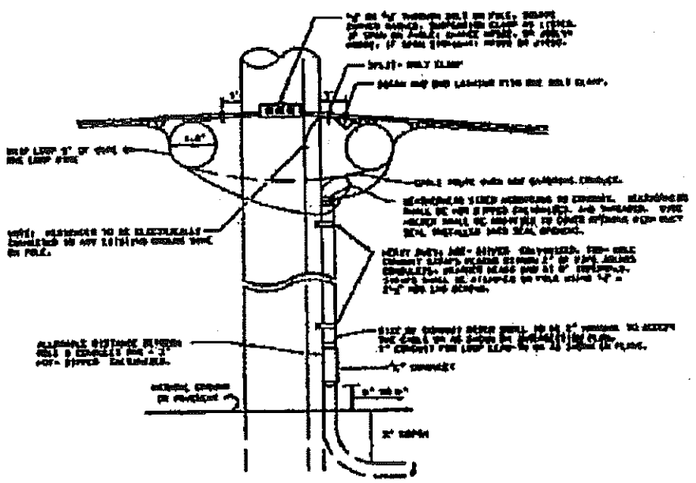
TSD-06

NO.	DATE	REVISION DESCRIPTION	BY

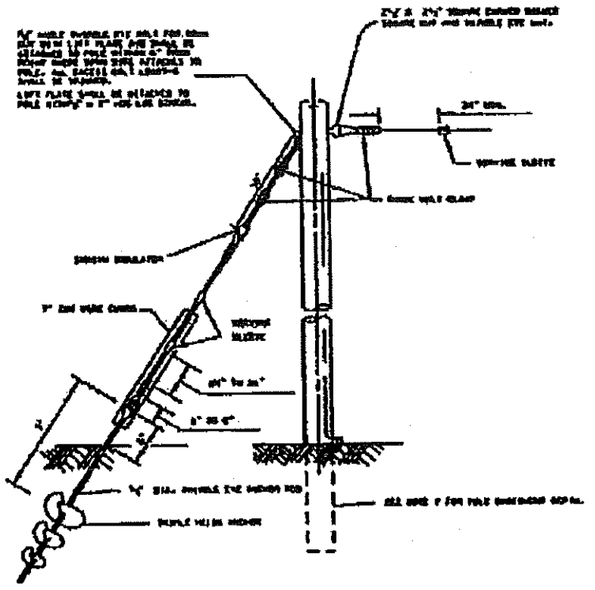
DESIGNED / CHECKED	S. MCCARROLL / D. LORIO	PARISH	ST. TAMMANY
DETAILED / CHECKED	S. MCCARROLL / L. WANG	FEDERAL PROJECT	H000506
DATE / SHEET	04/12/2017 7 OF 14	STATE PROJECT	H.000506

SHEET NUMBER 68

TYPICAL CONDUIT RISER ASSEMBLY & INTERCONNECT DETAIL



WOOD POLE DETAIL



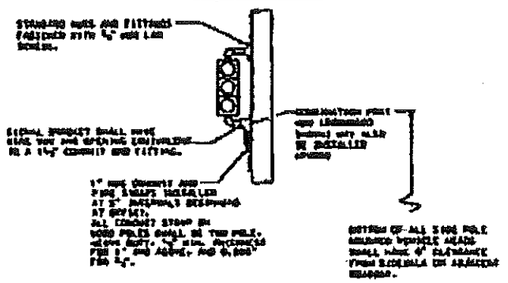
LEI Q. WANG
License No. 33365
PROFESSIONAL ENGINEER
08/09/2018

DOTD TRAFFIC ENGINEERING	TRAFFIC SIGNAL DETAILS WOOD POLE AND CONDUIT RISER DETAIL		DESIGNED L. MCCARROLL CHECKED D. LORIO	PARISH	ST. TAMMANY
	TSD-07		DETAILED L. MCCARROLL CHECKED L. WANG	FEDERAL PROJECT	H000506
			DATE 04/12/2017 SHEET 8 OF 14	STATE PROJECT	H.000506

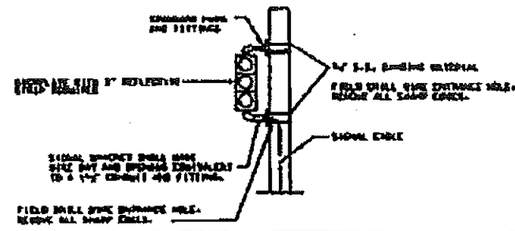
NO. DATE REVISION DESCRIPTION BY

SHEET NUMBER 69

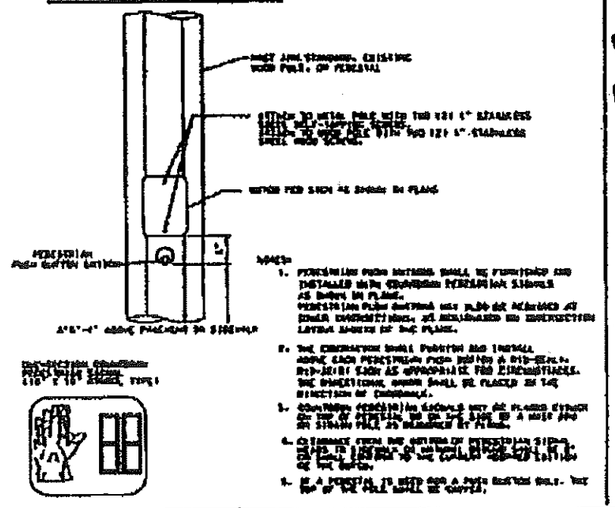
WOOD POLE



METAL POLE (STRAIN OR MAST ARM)

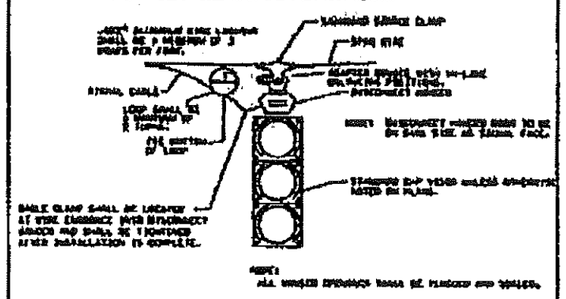


PEDESTRIAN SIGNAL

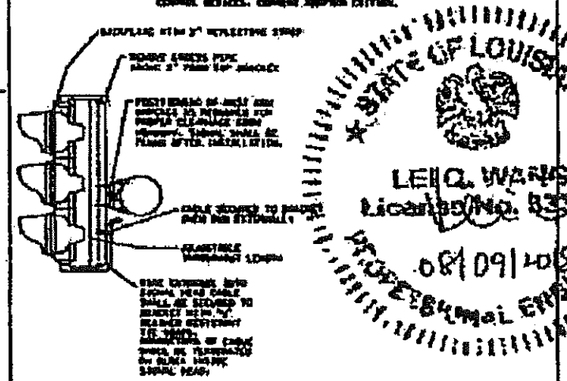


BRACKET MOUNTED TRAFFIC SIGNALS

SPAN WIRE SIGNAL MOUNT



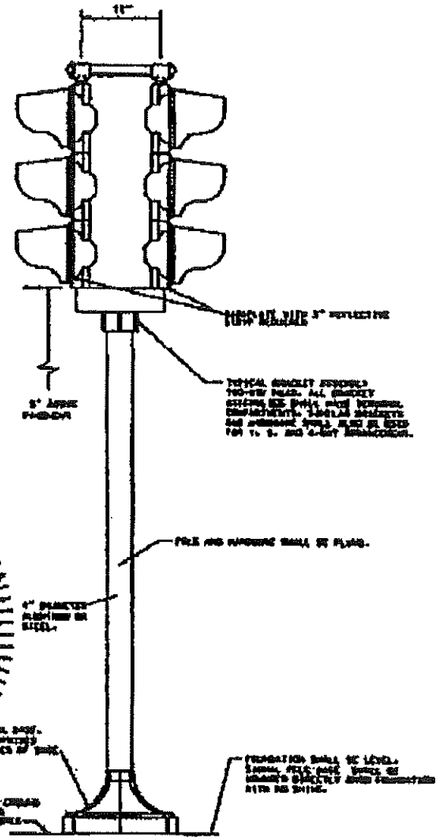
MAST ARM SIGNAL MOUNT



SPAN WIRE FLASHING BEACON MOUNT

ONE 3-WAY HEAD

PEDESTAL MOUNTED SIGNAL INSTALLATION



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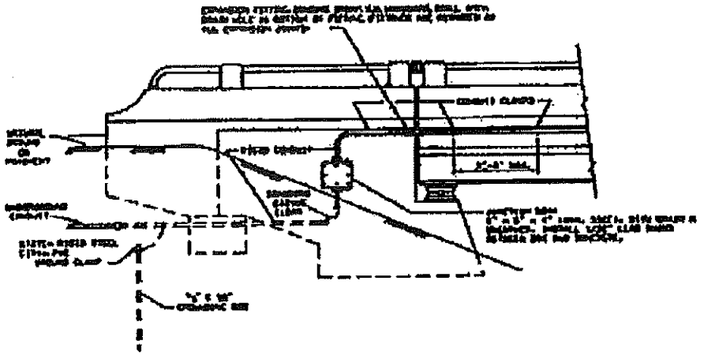
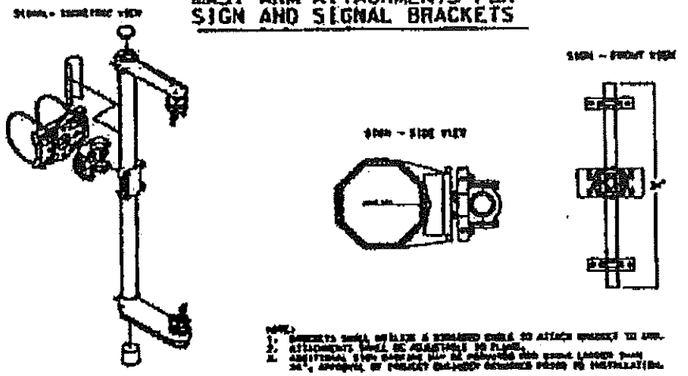
DOTD TRAFFIC ENGINEERING	TRAFFIC SIGNAL DETAILS SIGNAL MOUNTING DETAILS TSD-08	NO. / DATE / REVISION DESCRIPTION / BY	DESIGNED S. MCCARROLL CHECKED D. LORIO DETAILED S. MCCARROLL CHECKED L. WANG DATE 04/12/2017 SHEET 9 OF 14	PARISH ST. TAMMANY FEDERAL PROJECT H000506 STATE PROJECT H.000506	SHEET NUMBER 70

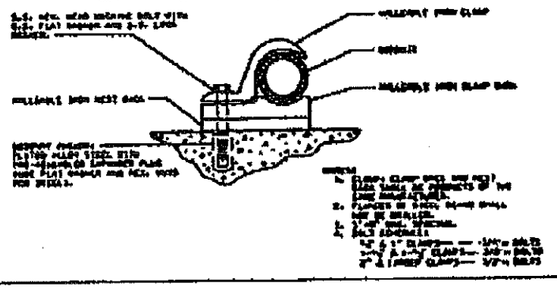
TYPICAL CONDUIT INSTALLATION ON BRIDGE STRUCTURE



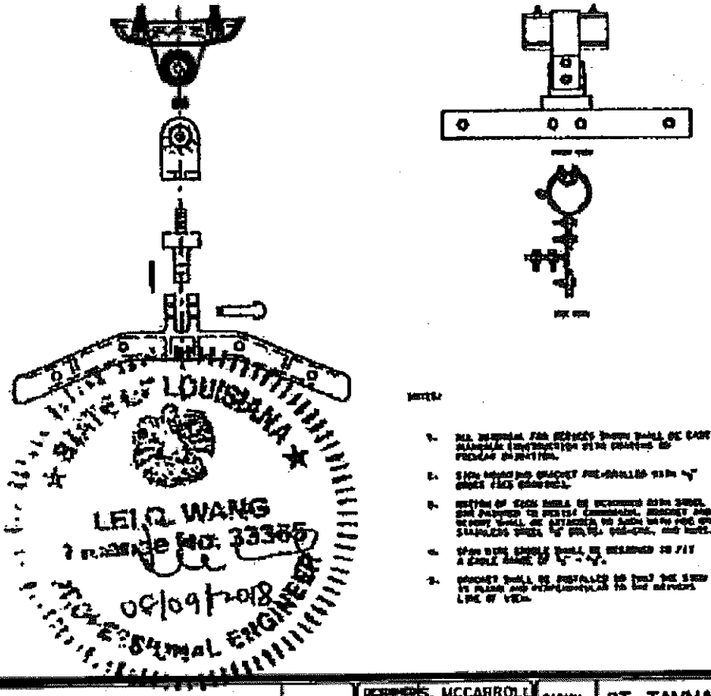
INSTALLATION DETAIL OF MAST ARM ATTACHMENTS FOR SIGN AND SIGNAL BRACKETS



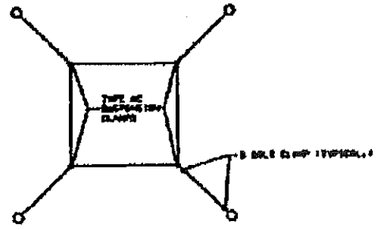
CONDUIT FASTENING DETAIL



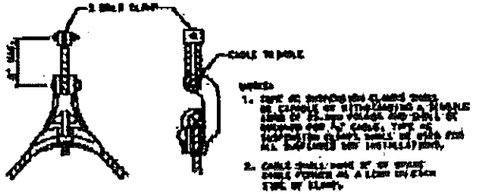
SPAN WIRE SIGN BRACKET



SUSPENDED BOX INSTALLATION



TYPE AC SUSPENSION CLAMP



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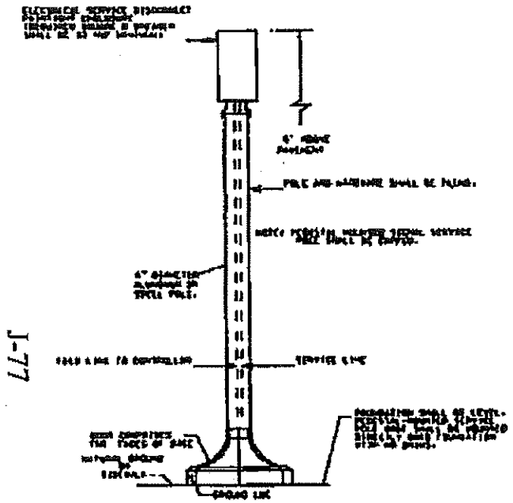
LEI Q. WANG
License No. 33385
PROFESSIONAL ENGINEER
09/07/2018

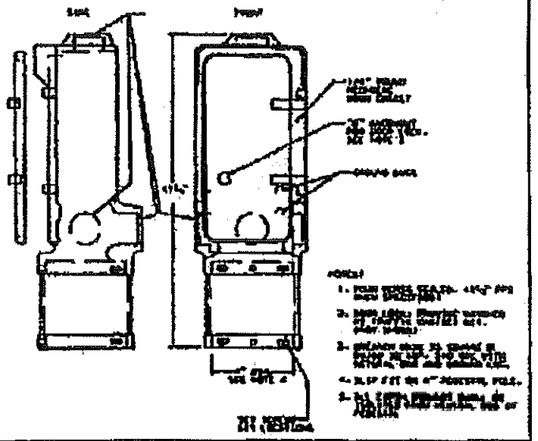
DOTD TRAFFIC ENGINEERING	TRAFFIC SIGNAL DETAILS HARDWARE DETAILS	DESIGNED	S. MCCARROLL	PARISH	ST. TAMMANY
		CHECKED	D. LORIO		
		DETAILED	S. MCCARROLL	FEDERAL PROJECT	H000506
		CHECKED	L. WANG		
		DATE	04/12/2017	STATE PROJECT	H.000506
		SHEET	10 OF 14		
	TSD-09	NO.	DATE	REVISION DESCRIPTION	BY

SHEET 71

PEDESTAL-MOUNTED SIGNAL SERVICE POLE INSTALLATION



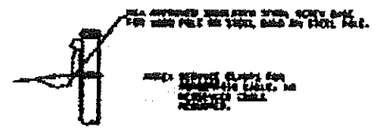
ELECTRICAL SERVICE DISCONNECT RAINTIGHT ENCLOSURE FOR PEDESTAL MOUNTED SIGNAL SERVICE POLE



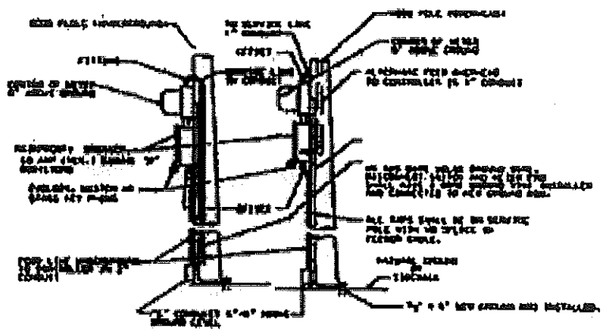
WIRING FOR FLASHING BEACON

WIRING DETAIL FOR TRAFFIC SIGNAL HEADS & HANGERS

OVERHEAD SERVICE TO CONTROLLER



TYPICAL ELECTRICAL SERVICE



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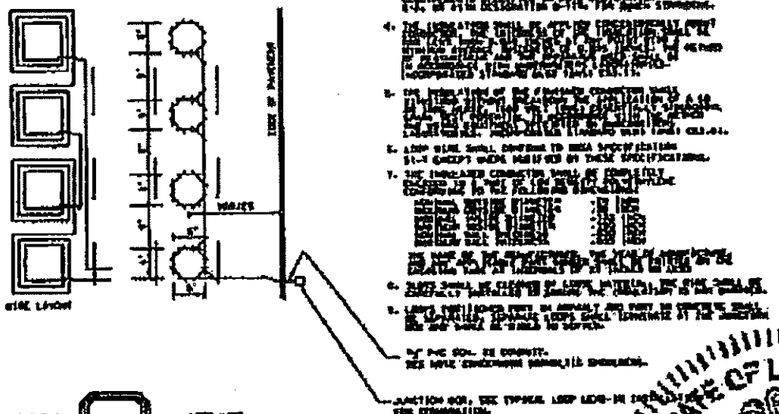
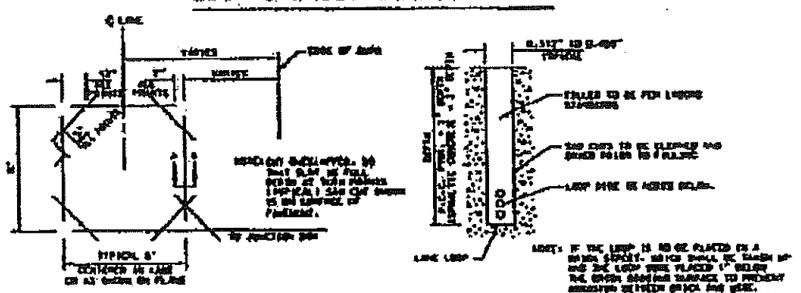
DOTD TRAFFIC ENGINEERING	TRAFFIC SIGNAL DETAILS ELECTRICAL SERVICE AND WIRING DETAILS TSD-10	NO.	DATE	REVISION DESCRIPTION	BY	DESIGNED S. MCCARROLL / CHECKED D. LORIO; DETAILED S. MCCARROLL / CHECKED L. WANG; DATE 04/12/2017; SHEET 11 OF 14; PARISH ST. TAMMANY; FEDERAL PROJECT H000506; STATE PROJECT H.000506; SHEET NUMBER 72

TYPICAL SAW CUT LAYOUT

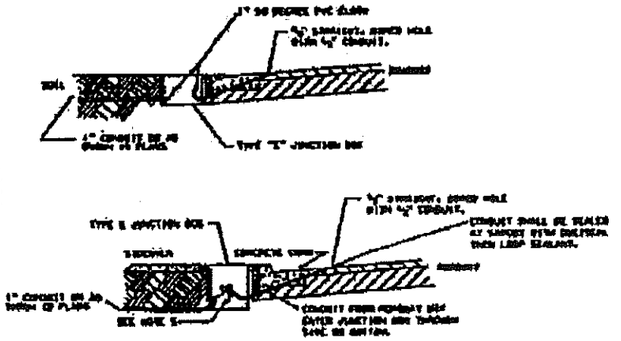


LOOP SAW-CUT CONFIGURATION



SECTION A-A

TYPICAL LOOP LEAD-IN INSTALLATION



PAVEMENT JOINT & CRACK SECTION

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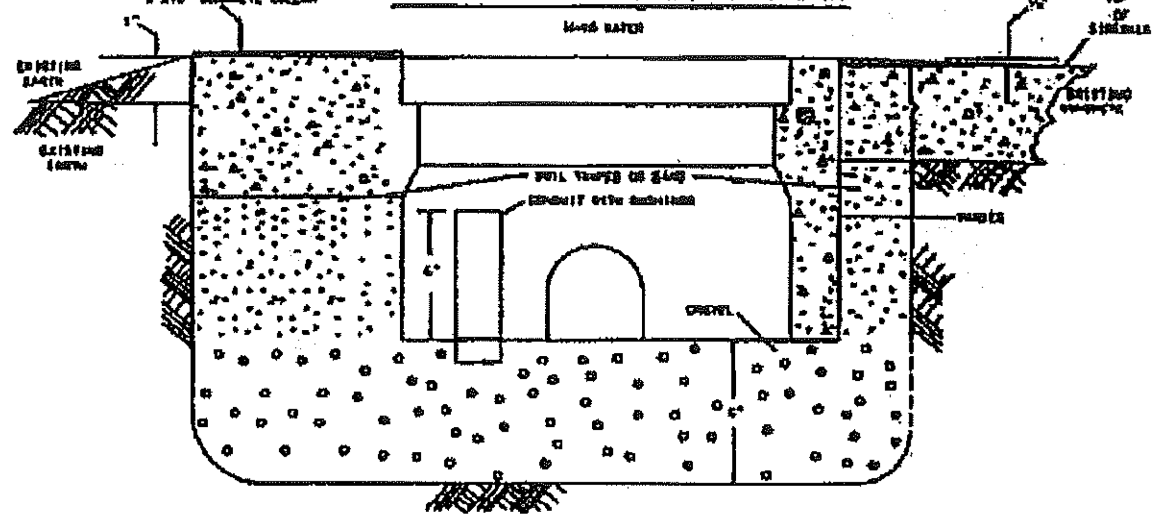
STATE OF LOUISIANA
LEI Q. WANG
License No. 33365
08/09/2017
PROFESSIONAL ENGINEER

DOTD TRAFFIC ENGINEERING	TRAFFIC SIGNAL DETAILS SAW CUTTING PAVEMENT AND LOOP WIRE DETAILS TSD-11	DESIGNED S. MCCARROLL CHECKED D. LORIO	PARISH ST. TAMMANY
		DETAILED S. MCCARROLL CHECKED L. WANG	FEDERAL PROJECT H000506
		DATE 04/12/2017 SHEET 12 OF 14	STATE PROJECT H.000506

NO.	DATE	REVISION DESCRIPTION	BY

JUNCTION BOX INSTALLATION



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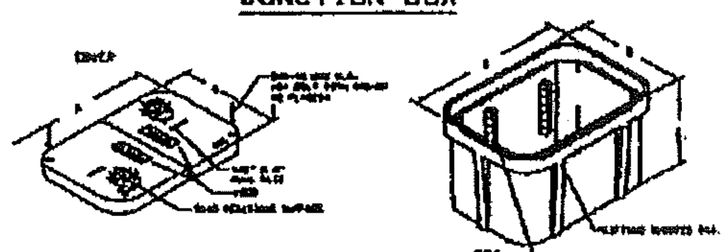
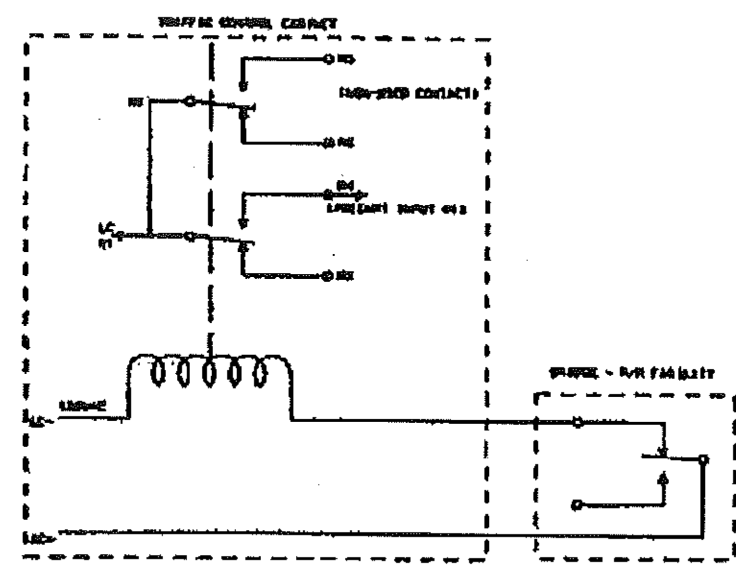
JUNCTION BOX



TYPE DIMENSION (IN.) (APPROX.)					
BOX	A	B	C	D	E
E	23¼	12¾	15	15½	12
F	30½	17½	28¼	19¼	12
G	35¼	24	31¾	25	18
H	35¼	24	37¾	26	30
I	43¾	30½	49¾	32¼	18
J	41¾	34½	49¾	33¼	36

BRIDGE/RAILROAD PREEMPTION

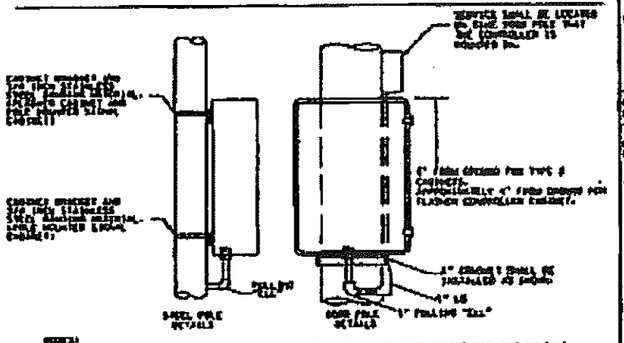


STATE OF LOUISIANA
LEI Q. WANG
License No. 33385
08/09/2018
PROFESSIONAL ENGINEER

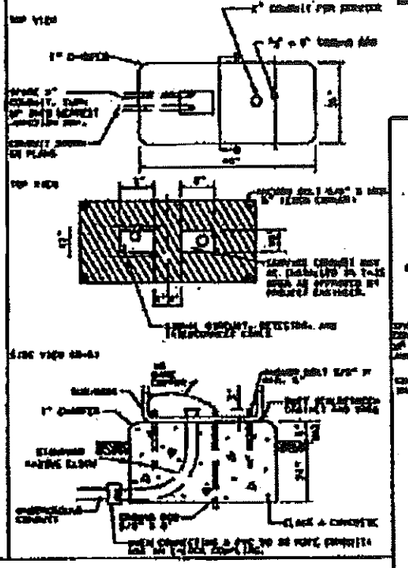
DOTD TRAFFIC ENGINEERING	TRAFFIC SIGNAL DETAILS JUNCTION BOX AND PULL BOX TSD-12			
DESIGNED: S. MCCARROLL	CHECKED: D. LORIO	PARISH	ST. TAMMANY	SHEET NUMBER 74
DETAILED: S. MCCARROLL	CHECKED: L. WANG	FEDERAL PROJECT	H000506	
DATE: 04/12/2017	SHEET: 13 OF 14	STATE PROJECT	H.000506	

NO. | DATE | REVISION DESCRIPTION | BY

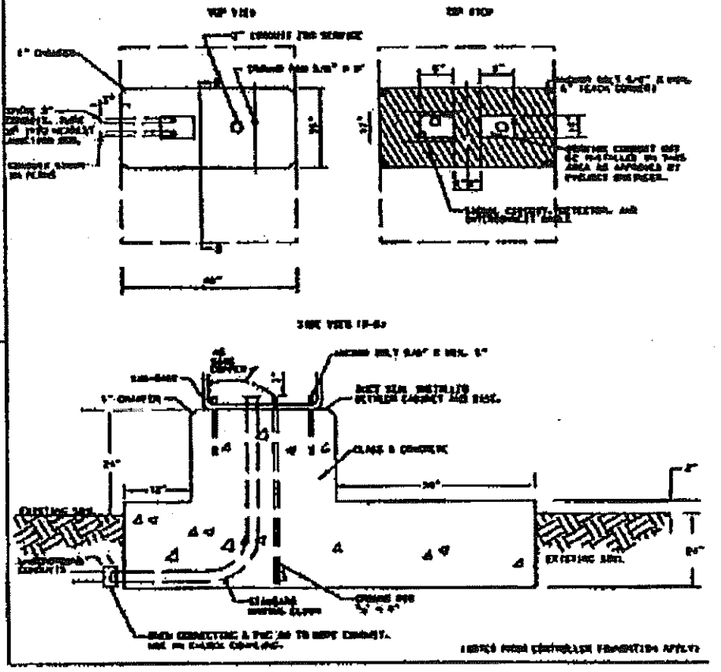
STEEL POLE MOUNTING FOR: SIGNAL CABINET OR FLASHER CABINET



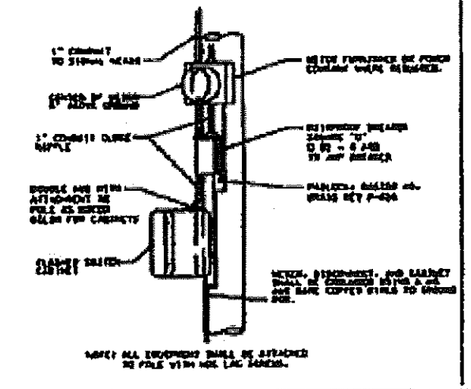
TYPICAL CONTROLLER FOUNDATION



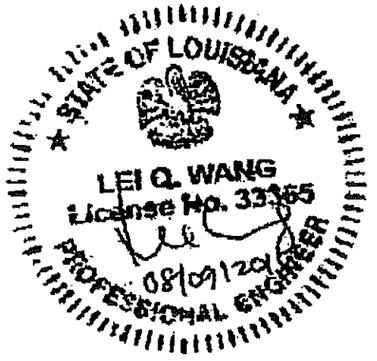
ALTERNATE STEP CONTROLLER FOUNDATION



WOOD POLE MOUNTED FLASHER CONTROLLER SWITCH



J-80



DOTD TRAFFIC ENGINEERING

TRAFFIC SIGNAL DETAILS

CONTROLLER MOUNTING AND FOUNDATION DETAILS

TSD-13

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	S. MCCARROLL / D. LORIO	PARISH	ST. TAMMANY
DETAILED / CHECKED	S. MCCARROLL / L. WANG	FEDERAL PROJECT	H000506
DATE / SHEET	04/12/2017 / 14 OF 14	STATE PROJECT	H.000506

SHEET NUMBER 75