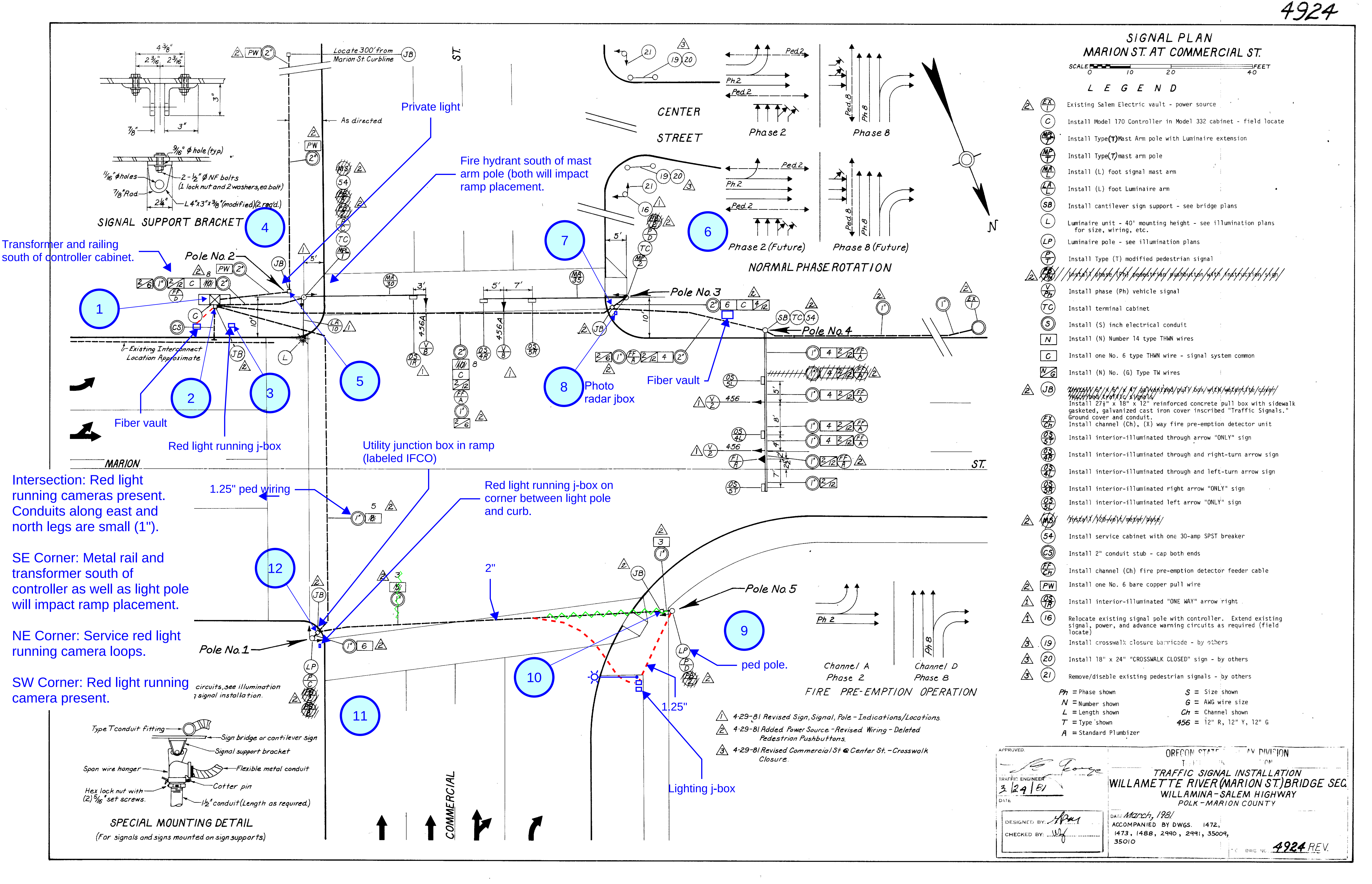
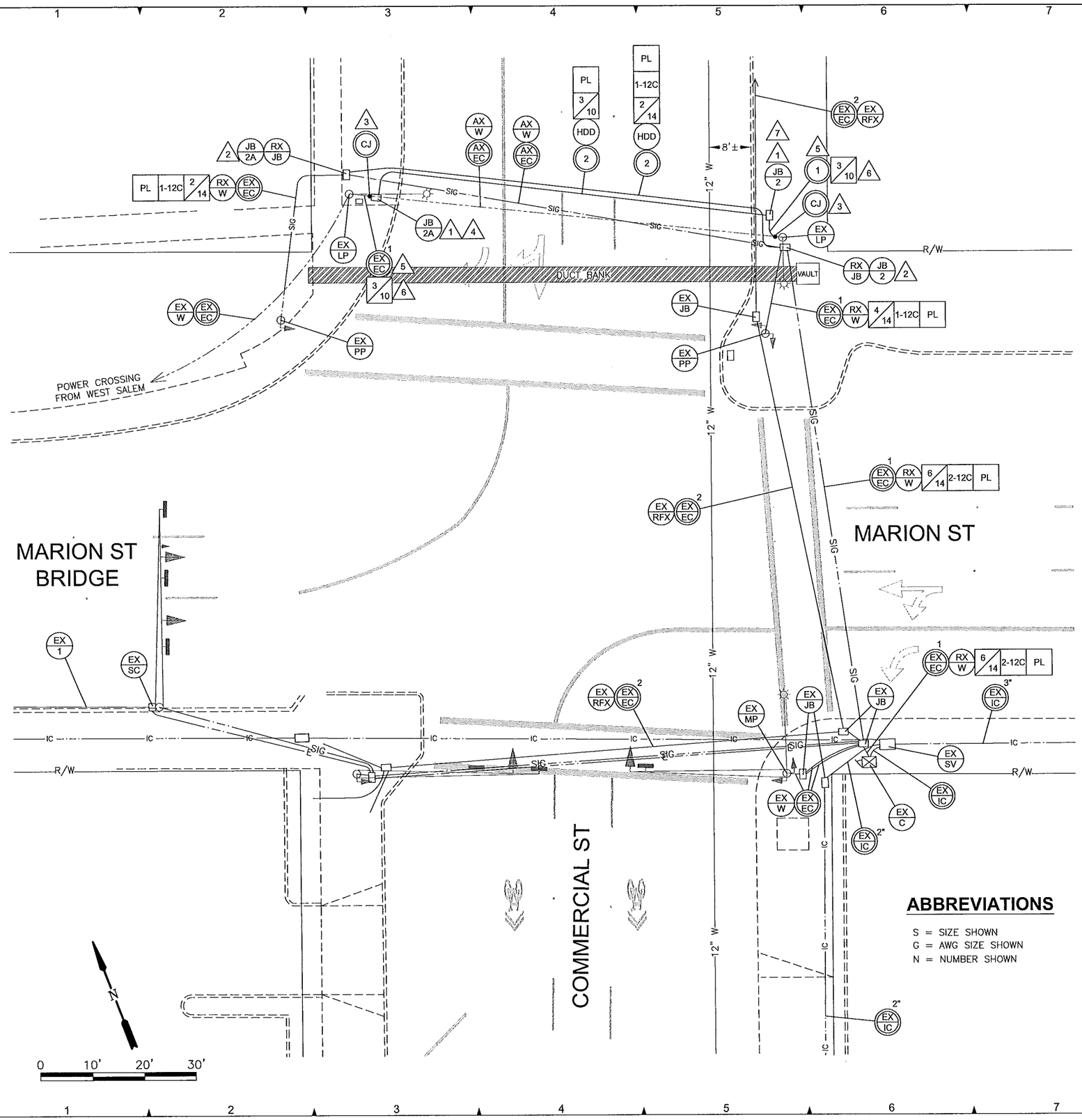

4924
SIGNAL PLAN
MARION ST. AT COMMERCIAL ST.
SCALE 0 10 20 40 FEET
L E G E N D
Existing Salem Electric vault - power source
Install Model 170 Controller in Model 332 cabinet - field locate
Install Type(T)Mast Arm pole with Luminaire extension
Install Type(T)mast arm pole
Install (L) foot signal mast arm
Install (L) foot Luminaire arm
Install cantilever sign support - see bridge plans
Luminaire unit - 40' mounting height - see illumination plans for size, wiring, etc.
Luminaire pole - see illumination plans
Install Type (T) modified pedestrian signal
Install phase (Ph) pedestrian pushbutton with instruction sign
Install phase (Ph) vehicle signal
Install terminal cabinet
Install (S) inch electrical conduit
Install (N) Number 14 type THWN wires
Install one No. 6 type THWN wire - signal system common
Install (N) No. (G) Type TW wires
Install 6" x 6" x 4" galvanized pull box with watertite cover inscribed traffic signals
Install 27½" x 18" x 12" reinforced concrete pull box with sidewalk gasketed, galvanized cast iron cover inscribed "Traffic Signals." Ground cover and conduit.
Install channel (Ch), (X) way fire pre-emption detector unit
Install interior-illuminated through arrow "ONLY" sign
Install interior-illuminated through and right-turn arrow sign
Install interior-illuminated through and left-turn arrow sign
Install interior-illuminated right arrow "ONLY" sign
Install interior-illuminated left arrow "ONLY" sign
Install 120-volt meter base
Install service cabinet with one 30-amp SPST breaker
Install 2" conduit stub - cap both ends
Install channel (Ch) fire pre-emption detector feeder cable
Install one No. 6 bare copper pull wire
Install interior-illuminated "ONE WAY" arrow right
Relocate existing signal pole with controller. Extend existing signal, power, and advance warning circuits as required (field locate)
Install crosswalk closure barricade - by others
Install 18" x 24" "CROSSWALK CLOSED" sign - by others
Remove/disable existing pedestrian signals - by others
Ph = Phase shown
N = Number shown
L = Length shown
T = Type shown
A = Standard Plumbizer
S = Size shown
G = AWG wire size
Ch = Channel shown
456 = 12" R, 12" Y, 12" G
SIGNAL SUPPORT BRACKET
4 3/8"
2 3/16"
2 3/16"
3"
7/8"
9/16" ϕ hole (typ)
11/16" ϕ holes
2 - ½" ϕ NF bolts (1 lock nut and 2 washers,ea.bolt)
7/8" Rad.
2¼"
L 4"x3"x3/8" (modified)(2 req'd.)
Pole No. 1
Pole No. 2
Pole No. 3
Pole No. 4
Pole No. 5
Locate 300' from Marion St. Curbline
As directed
Existing Interconnect Location Approximate
CENTER STREET
MARION ST.
COMMERCIAL
ST.
Phase 2
Phase 8
Phase 2 (Future)
Phase 8 (Future)
NORMAL PHASE ROTATION
Ped 2
Ph 2
Ped 8
Ph 8
Channel A Phase 2
Channel D Phase 8
FIRE PRE-EMPTION OPERATION
circuits, see illumination & signal installation.
Type T conduit fitting
Sign bridge or cantilever sign
Signal support bracket
Span wire hanger
Flexible metal conduit
Hex lock nut with (2) 5/16" set screws.
Cotter pin
1½" conduit (Length as required)
SPECIAL MOUNTING DETAIL
(For signals and signs mounted on sign supports)
4-29-81 Revised Sign, Signal, Pole - Indications/Locations.
4-29-81 Added Power Source - Revised Wiring - Deleted Pedestrian Pushbuttons.
4-29-81 Revised Commercial St @ Center St. - Crosswalk Closure.
APPROVED
TRAFFIC ENGINEER
3/24/81
DATE
DESIGNED BY
CHECKED BY
OREGON STATE HIGHWAY DIVISION
TRAFFIC SIGNAL INSTALLATION
WILLAMETTE RIVER (MARION ST.) BRIDGE SEC.
WILLAMINA - SALEM HIGHWAY
POLK - MARION COUNTY
DATE March, 1981
ACCOMPANIED BY DWGS. 1472, 1473, 1488, 2990, 2991, 35009, 35010
4924 REV.
Private light
Fire hydrant south of mast arm pole (both will impact ramp placement.
Transformer and railing south of controller cabinet.
Fiber vault
Red light running j-box
Utility junction box in ramp (labeled IFCO)
Photo radar jbox
Fiber vault
Intersection: Red light running cameras present. Conduits along east and north legs are small (1").
1.25" ped wiring
Red light running j-box on corner between light pole and curb.
2"
SE Corner: Metal rail and transformer south of controller as well as light pole will impact ramp placement.
NE Corner: Service red light running camera loops.
SW Corner: Red light running camera present.
ped pole.
1.25"
Lighting j-box
1
2
3
4
5
6
7
8
9
10
11
12

STSD

PN 715501



LEGEND

- EX 1 — MAINTAIN AND PROTECT EXISTING POWER SOURCE.
- EX C — MAINTAIN AND PROTECT EXISTING CONTROLLER CABINET.
- EX SC — MAINTAIN AND PROTECT EXISTING SERVICE CABINET.
- EX MP — MAINTAIN AND PROTECT EXISTING MAST POLE.
- EX PP — MAINTAIN AND PROTECT EXISTING PEDESTRIAN PEDESTAL.
- EX LP — MAINTAIN AND PROTECT EXISTING LUMINAIRE POLE.
- EX JB — MAINTAIN AND PROTECT EXISTING JUNCTION BOX.
- EX SV — MAINTAIN AND PROTECT EXISTING SPLICE VAULT.
- EX EC (S) — MAINTAIN AND PROTECT EXISTING (S) INCH ELECTRICAL CONDUIT.
- EX IC (S) — MAINTAIN AND PROTECT EXISTING (S) INCH INTERCONNECT CONDUIT.
- EX W — MANTAIN AND PROTECT EXISTING WIRING.
- EX RFX — MAINTAIN AND PROTECT EXISTING REDFLEX WIRING.
- AX EC — ABANDON EXISTING ELECTRICAL CONDUIT.
- AX W — ABANDON EXISTING WIRING.
- RX W — REMOVE EXISTING WIRING.
- RX JB — REMOVE JUNCTION BOX.
- JB 2 — INSTALL 13" x 24" x 18" HD POLYMER CONCRETE JUNCTION BOX WITH HD COVER PER STANDARD PLAN 705. LABEL COVER "TRAFFIC SIGNAL" OR "STREET LIGHTS" AS APPLICABLE.
- JB 2A — INSTALL 13" x 24" x 18" HD POLYMER CONCRETE JUNCTION BOX WITH HD COVER AND CONCRETE APRON PER STANDARD PLAN 705. LABEL COVER "TRAFFIC SIGNAL" OR "STREET LIGHTS" AS APPLICABLE.
- S — INSTALL (S) INCH ELECTRICAL CONDUIT.
- CJ — SPLICE NEW ELECTRICAL CONDUIT TO EXISTING ELECTRICAL CONDUIT.
- HDD — INSTALL CONDUIT BY HORIZONTAL DIRECTIONAL DRILLING, OPEN TRENCH NOT ALLOWED
- N / G — INSTALL (N) NO. (G) TYPE THWN WIRES.
- N-12C — INSTALL (N) NO. 12 TYPE THWN WIRE (PEDESTRIAN SIGNAL SYSTEM COMMON).
- PL — INSTALL POLY PULL LINE (500 LB. MIN. TENSILE STRENGTH).
- 1 — LABEL COVER "STREET LIGHTING".
- 2 — LABEL COVER "TRAFFIC SIGNAL".
- 3 — CUT EXISTING CONDUIT AND INSTALL SWEEP(S) INTO NEW JUNCTION BOX.
- 4 — INTERRUPT EXISTING ELECTRICAL CONDUIT WITH NEW JUNCTION BOX.
- 5 — CONTRACTOR TO VERIFY EXISTING CONDUIT SIZE PRIOR TO CONSTRUCTION.
- 6 — SPLICE NEW POWER WIRING INTO EXISTING POWER WIRING IN LUMINAIRE POLE.
- 7 — REPLACE SIDEWALK PANELS AS NEEDED.

ABBREVIATIONS

S = SIZE SHOWN
G = AWG SIZE SHOWN
N = NUMBER SHOWN

CITY OF Salem AT YOUR SERVICE

SHEET PREPARED BY:

ENGINEERING DIVISION
SALEM PUBLIC WORKS DEPARTMENT

AS-BUILT

"THIS AS-CONSTRUCTED DRAWING WAS PREPARED UNDER MY SUPERVISION FROM DATA COLLECTED UNDER MY SUPERVISION AND REPRESENTS, TO MY KNOWLEDGE, THE BEST INFORMATION REGARDING MATERIALS AND DIMENSIONS INCLUDED IN THE AS-CONSTRUCTED PROJECT. THE CITY OF SALEM DOES NOT GUARANTEE THE ACCURACY OF THIS AS-CONSTRUCTED DRAWING."

Julie Titchbourne, P.E.
Date: 2/15/2018

UNION ST NE AT COMMERCIAL ST NE

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1			

PN: 715501

DATUM:	SPCS / NGVD 29(47)
SURVEY:	COS
HORIZ SCALE:	AS SHOWN
VERT SCALE:	AS SHOWN
DESIGN:	JT
DRAWN:	DTN
CHECKED:	
APPROVED:	

SHEET TITLE

CHANGE ORDER WORK

COMMERCIAL ST/MARION ST

SHEET 1 OF 1

INTERCONNECT BUBBLE LEGEND

CONTROLLERS

- EX / C — MAINTAIN AND PROTECT EXISTING CONTROLLER.

POLES

- EX / 1 — MAINTAIN AND PROTECT EXISTING POWER SOURCE.
- EX / WP — MAINTAIN AND PROTECT EXISTING WOOD POLE.
- EX / VF — MAINTAIN AND PROTECT EXISTING VEHICLE SIGNAL PEDESTAL.
- EX / PP — MAINTAIN AND PROTECT EXISTING PEDESTRIAN SIGNAL PEDESTAL.
- EX / LP — MAINTAIN AND PROTECT EXISTING LUMINAIRE POLE.
- EX / SP — MAINTAIN AND PROTECT EXISTING STRAIN POLE.
- EX / MPL — MAINTAIN AND PROTECT EXISTING METAL POWER POLE.
- EX / MP — MAINTAIN AND PROTECT EXISTING TRAFFIC SIGNAL MAST ARM POLE .
- EX / MTL — MAINTAIN AND PROTECT EXISTING TRAFFIC SIGNAL MAST ARM POLE .
- AN — INSTALL BACK GUY AND ANCHOR(S).

CABINETS

- EX / SC — MAINTAIN AND PROTECT EXISTING SERVICE CABINET.
- EX / CC — MAINTAIN AND PROTECT EXISTING COMMUNICATIONS CABINET.
- EX / MS — MAINTAIN AND PROTECT EXISTING METER BASE.
- EX / BCC — MAINTAIN AND PROTECT EXISTING BATTERY BACKUP CABINET..
- CC — INSTALL CITY SUPPLIED COMMUNICATIONS CABINET.
- ACC — INSTALL 24" H X 20" W X 8" D AUXILIARY COMMUNICATIONS CABINET.

JUNCTION BOXES

- EX / JB — MAINTAIN AND PROTECT EXISTING JUNCTION BOX.
- EX / GRD — MAINTAIN AND PROTECT EXISTING GROUND ROD BOX.
- RX / JB — REMOVE EXISTING JUNCTION BOX.
- JB / 2 — INSTALL 25"x15-1/2"x12" HD POLYMER CONCRETE JUNCTION BOX WITH HD COVER. LABEL COVER "TRAFFIC SIGNAL"
- JB / 2A — INSTALL 25"x15-1/2"x12" HD POLYMER CONCRETE JUNCTION BOX WITH HD COVER AND CONCRETE APRON. LABEL COVER "TRAFFIC SIGNAL"
- JB / 3 — INSTALL 32-1/4"x19-1/4"x12" HD POLYMER CONCRETE JUNCTION BOX WITH HD COVER. LABEL COVER "TRAFFIC SIGNAL".
- AX / JB — ABANDON EXISTING JUNCTION BOX.

MISCELLANEOUS

- EX / CAM — MAINTAIN AND PROTECT EXISTING VIDEO VEHICLE DETECTOR CAMERA.
- RX / WH — REMOVE EXISTING WEATHER HEAD. INSTALL WEATHER TIGHT CAP.
- RX / ID — REMOVE EXISTING INNERDUCT.
- PTZ — INSTALL CITY SUPPLIED PAN-TILT ZOOM SURVEILLANCE CAMERA.
- POE — INSTALL POWER OVER ETHERNET HIGH POWER INJECTOR AND LIGHTNING SURGE PROTECTOR.

CONDUITS

- (S) EX / EC — MAINTAIN AND PROTECT EXISTING (S) INCH ELECTRICAL CONDUIT.
- EX / EC — MAINTAIN AND PROTECT EXISTING ELECTRICAL CONDUIT.
- EX / DC — MAINTAIN AND PROTECT EXISTING DETECTOR CONDUIT.
- (S) EX / DC — MAINTAIN AND PROTECT EXISTING (S) INCH DETECTOR CONDUIT.
- EX / IC — MAINTAIN AND PROTECT EXISTING INTERCONNECT CONDUIT.
- (S) EX / IC — MAINTAIN AND PROTECT EXISTING (S) INCH INTERCONNECT CONDUIT.
- (S) EX / CS — MAINTAIN AND PROTECT EXISTING (S) INCH CONDUIT STUB.
- RX / IC — REMOVE EXISTING INTERCONNECT CONDUIT.
- AX / EC — ABANDON EXISTING ELECTRICAL CONDUIT.
- IC — INTERCONNECT CONDUIT (SEE INTERCONNECT PLAN)
- AX / IC — ABANDON EXISTING INTERCONNECT CONDUIT.
- AX / DC — ABANDON EXISTING DETECTOR CONDUIT.
- S — INSTALL (S) INCH ELECTRICAL CONDUIT.
- CS — INSTALL 2" CONDUIT STUB (FOR FUTURE USE, CAP ENDS)
- CJ — SPLICE NEW ELECTRICAL CONDUIT TO EXISTING ELECTRICAL CONDUIT
- EXP — INSTALL 2" EXPANSION FITTING.
- PPB — INSTALL 2-1/2" X 36" GALVANIZED PULL BOX WITH 2-1/2" X 2" BUSHINGS AT EACH END.
- DEF — INSTALL 2" GALVANIZED DEFLECTION FITTING.

WIRES

- EX / W — MAINTAIN AND PROTECT EXISTING WIRING.
- EX / VF — MAINTAIN AND PROTECT EXISTING VIDEO FEEDER CABLE AND POWER CABLE.
- EX / VDF — MAINTAIN AND PROTECT EXISTING VIDEO DETECTION COAXIAL FEEDER CABLE .
- EX / FF — MAINTAIN AND PROTECT EXISTING FIRE PREEMPTION FEEDER CABLE.
- EX / TW — MAINTAIN AND PROTECT EXISTING TRACER WIRE.
- EX / PT — MAINTAIN AND PROTECT EXISTING DETECTABLE PULL TAPE.
- EX / PL — MAINTAIN AND PROTECT EXISTING PULL LINE.
- EX / 39 — MAINTAIN AND PROTECT EXISTING MESSENGER CABLE.
- RX / W — REMOVE EXISTING WIRING.
- RX / LF — REMOVE EXISTING LOOP FEEDER CABLES.
- RR / VF — REMOVE AND RELOCATE EXISTING VIDEO FEEDER CABLE AND POWER CABLE.
- RR / FF — REMOVE AND RELOCATE EXISTING FIRE PREEMPTION FEEDER CABLE.
- RR / PT — REMOVE AND RELOCATE EXISTING DETECTABLE PULL TAPE.
- RI / VF — REINSTALL EXISTING VIDEO FEEDER CABLE AND POWER CABLE.
- RI / W — REINSTALL EXISTING WIRING.
- RI / FF — REINSTALL EXISTING FIRE PREEMPTION FEEDER CABLE.
- AX / W — ABANDON EXISTING WIRING.
- N / G — INSTALL (N) NO. (G) TYPE THWN WIRES.
- 42 — INSTALL 5/16" GALVANIZED STEEL MESSENGER CABLE.
- CAT / 5 — INSTALL CATEGORY 5 OUTDOOR RATED CABLE FOR PAN-TILT ZOOM SURVEILLANCE CAMERA.
- FF / Ch — INSTALL CHANNEL (Ch) FIRE PREEMPTION FEEDER CABLE.

INTERCONNECT AND FIBER OPTICS

- EX / GP N — MAINTAIN AND PROTECT (N) EXISTING GATOR PATCH PANEL(S).
- EX / GPFO — MAINTAIN AND PROTECT EXISTING GATOR PATCH FIBER OPTIC CABLE.
- EX / FO N — MAINTAIN AND PROTECT EXISTING (N) STRAND FIBER OPTIC CABLE.
- EX / SV — MAINTAIN AND PROTECT EXISTING FIBER OPTIC SPLICE VAULT.
- EX / HH — MAINTAIN AND PROTECT EXISTING FIBER OPTIC HAND HOLE BOX.
- (N) EX / IC — MAINTAIN AND PROTECT EXISTING (N) TWISTED PAIR INTERCONNECT CABLE(S).
- EX / DM12 — MAINTAIN AND PROTECT EXISTING DISTRIBUTION MODULE WITH 12 LC CONNECTORS.
- EX / DM24 — MAINTAIN AND PROTECT EXISTING DISTRIBUTION MODULE WITH 24 LC CONNECTORS.
- RX / IC — REMOVE EXISTING INTERCONNECT CABLE(S).
- (N) RX / IC — REMOVE EXISTING (N) TWISTED PAIR INTERCONNECT CABLE.
- RX / GP — REMOVE EXISTING GATOR PATCH PANEL.
- RX / GPFO — REMOVE EXISTING GATOR PATCH FIBER OPTIC CABLE.
- RX / FO(N) — REMOVE EXISTING (N) STRAND FIBER OPTIC CABLE(S).
- RR / IC — REMOVE AND RELOCATE EXISTING INTERCONNECT CABLE(S).
- RR / FO(N) — REMOVE AND RELOCATE EXISTING (N) STRAND FIBER OPTIC CABLE(S).
- RI / IC — REINSTALL EXISTING OVERHEAD INTERCONNECT CABLE IN NEW UNDERGROUND ELECTRICAL CONDUIT TERMINATING IN SPLICE VAULT.
- RI / FO(N) — REINSTALL EXISTING (N) STRAND FIBER OPTIC CABLE.
- RI / IC — REINSTALL EXISTING INTERCONNECT CABLE(S).
- (S) RX / IC — REMOVE EXISTING (S) INCH INTERCONNECT CONDUIT.
- GPN — INSTALL (N) GATOR PATCH PANEL(S). (SEE SPECIAL PROVISIONS) NEW POWER SOURCE. COORDINATE WORK WITH MARK YOUNG WITH PGE AT (503) 463-4365.
- GP / N — INSTALL (N) GATOR PATCH 12 FIBER CABLE(S).
- DMN / 12 — INSTALL (N) FIBER DISTRIBUTION MODULE(S) WITH 12 LC CONNECTORS EACH. (SEE SPECIAL PROVISIONS)

INTERCONNECT AND FIBER OPTICS

- DMN / 24 — INSTALL (N) FIBER DISTRIBUTION MODULE(S) WITH 24 LC CONNECTORS EACH. (SEE SPECIAL PROVISIONS)
- DM / 12 — INSTALL FIBER DISTRIBUTION MODULE MTP 12 STRAND CABLE.
- DM / 24 — INSTALL FIBER DISTRIBUTION MODULE MTP 24 STRAND CABLE.
- FO / N — INSTALL FIBER OPTIC CABLE WITH (N) STRANDS SINGLE MODE.
- PL — INSTALL POLY PULL LINE (500 LB TENSILE STRENGTH).
- SPC — INSTALL FIBER OPTIC SPLICE CLOSURE. COIL A MINIMUM OF 50' OF EACH FIBER OPTIC TRUNK LINE AND 40' OF EACH 12 OR 24 FIBER MTP SPUR LINE IN SPLICE VAULT. (SEE LOGICAL DIAGRAM FOR SPLICES)
- SPC / SV — INSTALL FIBER OPTIC SPLICE CLOSURE IN SPLICE VAULT. COIL A MINIMUM OF 50' OF EACH FIBER OPTIC CABLE IN SPLICE VAULT UNLESS OTHERWISE SPECIFIED. (SEE LOGICAL DIAGRAM FOR SPLICES)
- SPC / OH — INSTALL OVERHEAD FIBER OPTIC SPLICE CLOSURE. (SEE LOGICAL DIAGRAM FOR SPLICES)
- IC / 1 — INSTALL INTERCONNECT CABLE ON EXISTING POWER POLES USING 1/4" HIGH STRENGTH GALVANIZED STEEL MESSENGER CABLE. SEE CONSTRUCTION NOTE (19.5' MOUNTING HEIGHT UNLESS OTHERWISE NOTED)
- OSPC — INSTALL OVERHEAD FIBER OPTIC SPLICE CLOSURE. STORE A MINIMUM OF 200' OF 96 STRAND FIBER OPTIC CABLE. (SEE DETAIL SHEET FOR SPLICES). USE SNOWSHOES TO STORE CABLE (100' FROM EACH DIRECTION). STORE 100' OF EACH 12 STRAND GATOR PATCH FIBER OPTIC CABLE.
- OST — INSTALL OVERHEAD CABLE STORAGE BRACKETS (SNOWSHOES). STORE 200' (100' FROM EACH DIRECTION) OF 96 STRAND FIBER OPTIC CABLE. (SEE SPECIAL PROVISIONS)
- (L) OST — INSTALL OVERHEAD CABLE STORAGE BRACKETS (SNOWSHOES). STORE (L) OF 96 STRAND FIBER OPTIC CABLE. (SEE SPECIAL PROVISIONS)
- OWN / ID — ATTACH INTERCONNECT CABLE TO WOOD POLE (ID), OWNED BY (OWN) AS SHOWN. (19.5' MOUNTING HEIGHT UNLESS OTHERWISE NOTED)
- SV / FO — INSTALL 37 5/8" x 26" x 24" HD POLYMER CONCRETE FIBER OPTIC SPLICE VAULT WITH HD COVER. SEE DETAIL SHEET AND SPECIAL PROVISIONS.
- SV / FOA — INSTALL 37 5/8" x 26" x 24" HD POLYMER CONCRETE FIBER OPTIC SPLICE VAULT WITH HD COVER AND CONCRETE APRON. SEE DETAIL SHEET AND SPECIAL PROVISIONS.
- HH / FO — INSTALL 32 1/4" x 19 1/4" x 24" HD POLYMER CONCRETE FIBER OPTIC HAND HOLE BOX WITH HD COVER. SEE DETAIL SHEET AND SPECIAL PROVISIONS.
- HH / FOA — INSTALL 32 1/4" x 19 1/4" x 24" HD POLYMER CONCRETE FIBER OPTIC HAND HOLE BOX WITH HD COVER AND CONCRETE APRON. SEE DETAIL SHEET AND SPECIAL PROVISIONS.

ABBREVIATIONS

S = SIZE SHOWN
G = AWG SIZE SHOWN
T = TYPE SHOWN
CH = CHANNEL SHOWN
N = NUMBER SHOWN
Ph = PHASE SHOWN
L = LENGTH SHOWN
E = ELEVATOR PLUMBIZER
MP = INSTALL ON MAST ARM POLE
MA = INSTALL ON MAST ARM
LA = INSTALL ON LUMINARE ARM
SP = INSTALL ON STRAIN POLE

* = INSTALL NO. 16 TYPE THWN TRACER WIRE PER ODOT SPECIFICATIONS. INSTALL EACH LOCATE WIRE CONTINUOUS FROM CONTROLLER CABINET TO CONTROLLER CABINET.

MMFO
- EX / FO N — MAINTAIN AND PROTECT EXISTING (N) STRAND MULTI MODE FIBER OPTIC CABLE.
- RR / W — REMOVE AND RELOCATE EXISTING WIRING.

- PW — NEW 120/240 VOLT POWER SOURCE. COORDINATE WITH SALEM ELECTRIC.

CITY OF Salem AT YOUR SERVICE

SHEET PREPARED BY:

ENGINEERING DIVISION
SALEM PUBLIC WORKS DEPARTMENT

AS-BUILT

"THIS AS-CONSTRUCTED DRAWING WAS PREPARED UNDER MY SUPERVISION FROM DATA COLLECTED BY ME OR UNDER MY SUPERVISION AND REPRESENTS, TO MY KNOWLEDGE, THE BEST INFORMATION REGARDING MATERIALS AND DIMENSIONS INCLUDED IN THE AS-CONSTRUCTED PROJECT. THE CITY OF SALEM DOES NOT GUARANTEE THE ACCURACY OF THIS AS-CONSTRUCTED DRAWING."

Richard L. Barnes PE

Date:

SEALED
ORIGINALS SEALED BY:
HOWARD D. RONEY
REG#: 10714
DATE SIGNED: 05/18/2011
CERTIFICATE EXPIRED: 12/31/2012

TRAFFIC SIGNAL COMMUNICATIONS

REVISIONS

NO.	DESCRIPTION	DATE	BY
1	ADDED CALLOUTS	12/27/11	DTN
2	AS-BUILT	8/6/12	DTN

PN: 709524

HORIZ DATUM:	NAD 83-SPCS
VERT DATUM:	NGVD 1929(47)
HORIZ SCALE:	AS SHOWN
VERT SCALE:	AS SHOWN
DESIGN:	HDR
DRAWN:	JAK
CHECKED:	
APPROVED:	

SHEET TITLE

INTERCONNECT BUBBLE LEGEND SHEET

SG-100

SHEET 11 OF 108

8/22/2012 3:58:48 PM
G:\Group\Transprt\DRAWINGS\709524-BOND SIG_IC\G & D.dwg (SG-100 tab)

INTERCONNECT TRIANGLE CONSTRUCTION NOTES

1. INSTALL IN SIDEWALK. REPLACE SW PANEL(S) AS NEEDED.
2. ~~CONTRACTOR TO INSTALL CONDUIT USING BORE AND JACK METHOD.~~ INSTALL CONDUIT BY HORIZONTAL DIRECTIONAL DRILLING, OPEN TRENCH NOT ALLOWED.
3. INSTALL 18" STANDOFF BRACKET.
4. PRIOR TO INSTALLATION, EXACT LOCATION TO BE DETERMINED IN THE FIELD BY CITY ENGINEER.
5. INSTALL INTERCONNECT CONDUIT TO AND UP POWER POLE ON STREET SIDE TERMINATING WITH A WEATHER TIGHT CAP. DO NOT USE WEATHERHEAD.
6. INSTALL CONCRETE APRON AROUND EXISTING HAND HOLE AS SHOWN IN DRAWING SD-01.
7. CONTRACTOR TO RELOCATE EXISTING JUNCTION BOX IN SIDEWALK AND MODIFY/EXTEND CONDUITS AND WIRING AS NECESSARY.
8. STORE 200' OF INTERCONNECT CABLE BEFORE EACH CROSSING.
9. REMOVE SWEEPS FROM EXISTING INTERCONNECT CONDUIT. SPLICE INTERCONNECT CONDUITS TOGETHER FOR A CONTINUOUS RUN. REPLACE SIDEWALK PANELS AS NEEDED.
10. REMOVE EXISTING INTERCONNECT CONDUITS (AS SHOWN) FROM JUNCTION BOX. JOIN BOTH INTERCONNECT CONDUITS TOGETHER TO CREATE A CONTINUOUS RUN BYPASSING JUNCTION BOX. REPLACE SIDEWALK PANELS AS NEEDED.
11. INSTALL APRON AROUND EXISTING JUNCTION BOX. ADJUST GRADE TO MATCH ADJACENT SIDEWALK.
12. REPLACE SW PANEL(S) AFTER REMOVAL OF JUNCTION BOX.
13. INTERRUPT EXISTING INTERCONNECT CONDUIT RUN WITH SPLICE VAULT/HAND HOLE. INSTALL NECESSARY SWEEPS TO CONFORM WITH STANDARDS ILLUSTRATED ON THE UNDERGROUND ENCLOSURE DETAIL SHEET. REPLACE SIDEWALK PANELS AS NEEDED.
14. INTERRUPT EXISTING INTERCONNECT AND DETECTOR CONDUIT RUNS WITH HAND HOLE. INSTALL NECESSARY SWEEPS TO CONFORM WITH STANDARDS ILLUSTRATED ON THE UNDERGROUND ENCLOSURE DETAIL SHEET. REPLACE SIDEWALK PANELS AS NEEDED.
15. SPLICE NEW 3" CONDUIT TO EXISTING CONDUIT AND EXTEND TO SPLICE VAULT FOR FO INTERCONNECT. REPLACE SIDEWALK AS NEEDED.
16. INTERCEPT EXISTING 3" CONDUIT BEHIND CURB AND REROUTE INTO NEW FIBER OPTIC HAND HOLE BOX. REPLACE SIDEWALK AS NEEDED.
17. STORE ~~AN EXTRA~~ 100' OF 96 FIBER INTERCONNECT CABLE IN SPLICE VAULT/HAND HOLE.
18. ~~LENGTHEN OR SHORTEN~~ EXISTING CONDUITS TO ALLOW TERMINATION OF CONDUITS FROM BOTH JUNCTION BOXES IN ONE FIBER OPTIC HAND HOLE.
19. REMOVE ALL EXISTING INTERCONNECT CONDUITS FROM FIELD WIRING JUNCTION BOX. LENGTHEN OR SHORTEN AS NECESSARY TO ALLOW TERMINATION OF ALL INTERCONNECT CONDUITS IN NEW SPLICE VAULT/HAND HOLE.
20. REMOVE SWEEPS FROM EXISTING INTERCONNECT AND DETECTOR CONDUITS. SPLICE INTERCONNECT CONDUITS TOGETHER FOR A CONTINUOUS RUN. SPLICE DETECTOR CONDUITS TOGETHER FOR A CONTINUOUS RUN. ABANDON SAND POCKET CONDUIT AND LOOP WIRING. BACKFILL WITH DIRT AND RESTORE EXCAVATION SITE WITH TURF TO MATCH SURROUNDING CONDITIONS.
21. EXISTING 12PR COPPER INTERCONNECT CABLE TO BE REMOVED FROM THIS POLE. NEW FO INTERCONNECT CABLE SHALL NOT BE ATTACHED TO THIS POLE.
22. DO NOT REMOVE OR DAMAGE THIS JUNCTION BOX.
23. PULL BACK EXISTING INTERCONNECT AND FIRE PREEMPTION FEEDER CABLE TO INSTALL NEW CONDUIT. REINSTALL IN NEW CONDUIT RUN THROUGH SPLICE VAULT.
24. CONTRACTOR TO CUT FOUNDATION OF EXISTING CONTROLLER CABINET ALLOWING NEW 3" IC CONDUIT TO BE INSTALLED WITH NO EXPOSURE ABOVE FINISH GRADE OF NEW CONCRETE SLAB SURROUNDING NEW SPLICE VAULT, EXISTING JB AND SERVICE CABINET. GROUT AROUND CONDUIT TO SEAL AND PROTECT FROM OUTSIDE ELEMENTS.
DO NOT USE "LB" STYLE CONDUIT FITTING.
25. INSTALL OVERHEAD SPLICE CLOSURE ON THE NORTH SIDE AND WITHIN 10' OF PGE POLE #814.
96 STRAND OVERHEAD FIBER OPTIC CABLE STORAGE FOR MARKET ST/LANCASTER DR TRAFFIC SIGNAL TO BE LOCATED AT TWO LOCATIONS AS SHOWN ON PLANS.
1. ~~100'~~ 200' OF 96 FIBER CABLE TO BE STORED APPROXIMATELY ~~365'~~ 190' NORTH OF EXISTING CONTROLLER CABINET ON THE NORTH SIDE OF ~~GUYED~~ PGE WOODEN POLE ID ~~#812~~ #814.
2. ~~100'~~ 200' OF 96 FIBER CABLE TO BE STORED APPROXIMATELY ~~935'~~ 55' SOUTH OF EXISTING CONTROLLER CABINET ON THE SOUTH SIDE OF PGE WOODEN POLE ID ~~#821~~ #2147.
26. REMOVE EXISTING SPLICE VAULT. REMOVE SWEEPS FROM EXISTING INTERCONNECT CONDUIT FROM COURT ST TRAFFIC SIGNAL AND UNION ST TRAFFIC SIGNAL. SPLICE THESE INTERCONNECT CONDUITS TOGETHER FOR A CONTINUOUS RUN. CAP AND ABANDON REMAINING CONDUIT. BACKFILL RESULTING VOID WITH CLEAN SOIL AND RESTORE AREA TO MATCH ADJACENT LANDSCAPING.
27. PLACE WEATHERPROOF ID TAG ON OVERHEAD FIBER OPTIC CABLE CONTAINING THE LEGEND "CITY OF SALEM" STAMPED ON IT.
PLACE ID TAG ON CABLE WITHIN 3 FEET OF ATTACHMENT POINT TO EACH WOOD POLE THE CABLE IS ATTACHED TO.
IN ADDITION, PLACE ID TAG ON CABLE WITHIN 3 FEET OF EACH OVERHEAD FIBER OPTIC SPLICE CLOSURE.
28. PULL BACK EXISTING 12 PR COPPER INTERCONNECT CABLE FROM CONTROLLER AT WALLACE RD / EDGEWATER ST INTERSECTION TO SALEM ELECTRIC WOOD POLE #220183 BY RR BRIDGE PATHWAY. REMOVE MESSENGER CABLE AND REINSTALL THROUGH NEW 3" CONDUIT ALONG WITH THE 12 FIBER OPTIC MTP CABLE, TO THE CITY SUPPLIED COMMUNICATION CABINET.
DO NOT DISTURB THE REMAAINING 12 PR COPPER CABLE INTERCONNECT BETWEEN POLE #220183 AND THE WALLACE RD / TAGGART DR INTERSECTION.
29. CAREFULLY REMOVE GATOR PATCH FIBER OPTIC CABLE FROM CONDUIT AND GATOR PATCH PANEL FROM FROM CONTROLLER CABINET.
DO NOT SEPARATE FIBER OPTIC CABLE FROM PATCH PANEL.
COIL FIBER OPTIC CABLE AND RETURN CABLE WITH PATCH PANEL TO CITY.
30. REMOVE EXISTING 24 FIBER OPTIC TRUNK LINE FROM SPLICE CLOSURE. CAREFULLY PULL BACK FROM THE CONDUIT THAT CROSSES CHERRY AVE, THE 24 FIBER CABLE INCLUDING ALL CABLE STORED IN EXISTING SPLICE VAULT AND THE DETECTABLE PULL TAPE , TO THE EXISTING HAND HOLE IN THE SW CORNER, BEING CAREFUL NOT TO KINK OR OTHERWISE DAMAGE THE FIBERS. REMOVE THE EXISTING INNERDUCT FROM THE CONDUIT. REINSTALL THE 24 FIBER TRUCK LINE AND DETECTABLE PULL TAPE ALONG WITH THE NEW 96 FIBER CABLE, TRACER WIRE AND PULL LINE COMING FROM THE TRAFFIC SIGNAL CONTROLLER CABINET AT SALEM PARKWAY AND BROADWAY STREET.
31. INSTALL 3" CONDUIT STUB EXTENDING TWO FEET BEYOND CONTROLLER FOUNDATION FOR FUTURE USE. CAP ENDS.
32. STORE AN EXTRA 50' OF 96 FIBER INTERCONNECT CABLE IN SPLICE VAULT.
33. WHEN MOUNTED ON SIGNAL POLE SHAFT, CAMERA MOUNT SHALL BE INSTALLED NOT GREATER THAN TWO FEET BELOW LUMINAIRE ARM ATTACHMENT POINT ON SIGNAL POLE.
CAMERA MOUNT SHALL BE ORIENTED DIAGONALLY WITH INTERSECTION AND CAMERA SHALL BE ON A HORIZONTAL PLANE IN ALL DIRECTIONS.
SEE DETAIL AT EACH LOCATION.
PRIOR TO CAMERA INSTALLATION, CONFIRM LOCATION AND ORIENTATION WITH CITY ENGINEER.
34. MOUNT AT EXISTING ATTACHING HEIGHT.
35. ~~PROTECT EXISTING 6 STRAND MULTI-MODE (MM) FIBER OPTIC CABLE AND POWER CABLES.~~ AND RELOCATE POWER CABLES TO ADJACENT 1.25" CONDUIT CONTAINING EXISTING TRAFFIC SIGNAL FIELD WIRING
36. INSTALL 2" CONDUIT STUB EXTENDING ONE FOOT BEYOND BACK OF SIDEWALK FOR FUTURE CONNECTION TO FIRE STATION. CAP ENDS.
37. USE PREDRILLED HOLES @ 19' OR USE STRAPS ON POLE. DO NOT DRILL NEW HOLE ON POLE.
38. INSTALL A 24" FIBERGLASS ARM ON THE FIELD SIDE OF POLE AND ATTACH NEW FIBER CABLE.
39. THREE TRACER WIRES IN CONDUIT DESCRIBED AS FOLLOWS:
a. EXISTING TRACER WIRE FROM LIBERTY ST/MISSION ST TRAFFIC SIGNAL CONTROLLER CABINET, CONTINUOUS THROUGH SPLICE VAULT AND JUNCTION BOX, TERMINATING IN LIBERTY ST/CIVIC CENTER CONTROLLER CABINET SHALL REMAIN UNDISTURBED.
b. EXISTING TRACER WIRE FROM TRAFFIC CONTROL ROOM IN CITY HALL, CONTINUOUS THROUGH SPLICE VAULT AND JUNCTION BOX, TERMINATING IN LIBERTY ST/CIVIC CENTER CONTROLLER CABINET SHALL REMAIN UNDISTURBED.
c. NEW TRACER WIRE FROM LIBERTY ST/TRADE ST TRAFFIC SIGNAL CONTROLLER CABINET, TO BE CONTINUOUS THROUGH SPLICE VAULT AND JUNCTION BOX, TERMINATING IN LIBERTY ST/CIVIC CENTER CONTROLLER CABINET.
40. PLENUM RATED.
41. SPLICE VAULT TO HAVE A DEPTH OF 36" IN THESE LOCATIONS.
42. BORE CONDUIT UNDERNEATH RETAINING WALL.
43. CONTRACTOR SHALL RELOCATE THE EXISTING WEEPING REWOOD OUTSIDE PUBLIC ROW.
44. CONTRACTOR SHALL RELOCATE ALL CURRENTLY USED FIRE PREEMPTION CABLES.

INTERCONNECT NOTES:

1. ALL SPLICE VAULTS, HAND HOLES, AND JUNCTION BOXES SHALL HAVE CONCRETE APRONS OR BE PLACED IN SIDEWALK AREA AND SURROUNDED BY CONCRETE.

2. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND UNCOVERING, IF BURIED, EXISTING JUNCTION BOXES. ACTUAL LOCATION OF EXISTING JUNCTION BOXES MAY VARY FROM THAT SHOWN ON THESE PLANS.

3. PLACE WEATHERPROOF ID TAG ON OVERHEAD FIBER OPTIC CABLE CONTAINING THE LEGEND "CITY OF SALEM" STAMPED ON IT.
PLACE ID TAG ON CABLE WITHIN 3 FEET OF ATTACHMENT POINT TO EACH WOOD POLE THE CABLE IS ATTACHED TO.
IN ADDITION, PLACE ID TAG ON CABLE WITHIN 3 FEET OF EACH OVERHEAD FIBER OPTIC SPLICE CLOSURE.

CITY OF Salem AT YOUR SERVICE

SHEET PREPARED BY:

ENGINEERING DIVISION
SALEM PUBLIC WORKS DEPARTMENT

AS-BUILT

"THIS AS-CONSTRUCTED DRAWING WAS PREPARED UNDER MY SUPERVISION FROM DATA COLLECTED UNDER MY SUPERVISION AND REPRESENTS, TO MY KNOWLEDGE, THE BEST INFORMATION REGARDING MATERIALS AND DIMENSIONS INCLUDED IN THE AS-CONSTRUCTED PROJECT. THE CITY OF SALEM DOES NOT GUARANTEE THE ACCURACY OF THIS AS-CONSTRUCTED DRAWING."

Richard L. Barnes PE

Date:

SEALED

ORIGINALS SEALED BY:
HOWARD D. RONEY
REG#: 10714
DATE SIGNED: 05/18/2011
CERTIFICATE EXPIRED: 12/31/2012

TRAFFIC SIGNAL COMMUNICATIONS

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	ADD NOTES	11/01/11	DTN
2	ADD NOTES 41-44	1/12/12	DTN
3	FIBER STORAGE CHANGES	3/20/12	WAK
4	AS-BUILT	8/6/12	DTN

PN: 709524

HORIZ DATUM:	NAD 83-SPCS
VERT DATUM:	NGVD 1929(47)
HORIZ SCALE:	AS SHOWN
VERT SCALE:	AS SHOWN
DESIGN:	HDR
DRAWN:	JAK
CHECKED:	
APPROVED:	

SHEET TITLE

INTERCONNECT DETAIL CONSTRUCTION NOTES

SG-101

SHEET 12 OF 108

8/23/2012 1:39:38 PM
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NOTE:
SEE LEGEND SHEETS
SG-100 AND SG-101

MATCHLINE - SEE SHEET SG-112

MATCHLINE - SEE BOTTOM RIGHT

UNION ST

FRONT ST

CHEMEKETA ST

COURT ST

MARION ST BRIDGE

MARION ST

CENTER ST BRIDGE

CENTER ST

COMMERCIAL ST

LIBERTY ST

MATCHLINE - SEE SHEET SG-110

MATCHLINE - SEE TOP LEFT

N

0 60' 120' 180'

A2 SG-228
A3 SG-224
A2 SG-225
A2 SG-226
A3 SG-223
A3 SG-227

PL 1/16 * FO/96 12pr RX IC EX IC 2"
PL 1/16 * FO/96 6pr RX IC EX IC 2"
PL 1/16 * DM/12 6pr RX IC EX IC 2"
HH FOA RX JB
RX JB 9
EX PL FO/96 EX TW EX IC 3"
IC
SIG

8/23/2012 9:13:26 AM
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CITY OF Salem AT YOUR SERVICE

SHEET PREPARED BY:

ENGINEERING DIVISION
SALEM PUBLIC WORKS DEPARTMENT

AS-BUILT

"THIS AS-CONSTRUCTED DRAWING WAS PREPARED UNDER MY SUPERVISION FROM DATA COLLECTED UNDER MY SUPERVISION AND REPRESENTS, TO MY KNOWLEDGE, THE BEST INFORMATION REGARDING MATERIALS AND DIMENSIONS INCLUDED IN THE AS-CONSTRUCTED PROJECT. THE CITY OF SALEM DOES NOT GUARANTEE THE ACCURACY OF THIS AS-CONSTRUCTED DRAWING."

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Date:

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HOWARD D. RONEY
REG#: 10714
DATE SIGNED: 05/18/2011
CERTIFICATE EXPIRED: 12/31/2012

TRAFFIC COMMUNICATIONS SIGNAL INTERCONNECT

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	ADD JB CALLOUT	1/5/12	DTN
2	AS-BUILT	8/7/12	DTN

PN: 709524

DATUM:	SPCS / NGVD 29(47)
SURVEY:	COS
HORIZ SCALE:	AS SHOWN
VERT SCALE:	AS SHOWN
DESIGN:	HDR
DRAWN:	JAK
CHECKED:	
APPROVED:	

SHEET TITLE

SCHEDULE 'B'

INTERCONNECT PLAN

COURT ST TO UNION ST

SG-111

SHEET 50 OF 108

NOTE:
SEE LEGEND SHEETS SG-100 AND SG-101

MARION ST BRIDGE

MARION ST

COMMERCIAL ST

R/W

IC

SIG

0 10' 20' 30'

N

A2 COMMERCIAL STREET NE AT MARION STREET NE

CITY OF Salem AT YOUR SERVICE

SHEET PREPARED BY:

ENGINEERING DIVISION
SALEM PUBLIC WORKS DEPARTMENT

AS-BUILT

"THIS AS-CONSTRUCTED DRAWING WAS PREPARED UNDER MY SUPERVISION FROM DATA COLLECTED UNDER MY SUPERVISION AND REPRESENTS, TO MY KNOWLEDGE, THE BEST INFORMATION REGARDING MATERIALS AND DIMENSIONS INCLUDED IN THE AS-CONSTRUCTED PROJECT. THE CITY OF SALEM DOES NOT GUARANTEE THE ACCURACY OF THIS AS-CONSTRUCTED DRAWING."

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Date:

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CERTIFICATE EXPIRED: 12/31/2012

TRAFFIC COMMUNICATIONS SIGNAL INTERCONNECT

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	AS-BUILT	8/7/12	DTN

PN: 709524

DATUM:	SPCS / NGVD 29(47)
SURVEY:	COS
HORIZ SCALE:	AS SHOWN
VERT SCALE:	AS SHOWN
DESIGN:	HDR
DRAWN:	JAK
CHECKED:	
APPROVED:	

SHEET TITLE

SCHEDULE 'B'

INTERSECTION ENLARGEMENT

COMMERCIAL ST/MARION ST

SG-225

SHEET 58 OF 108

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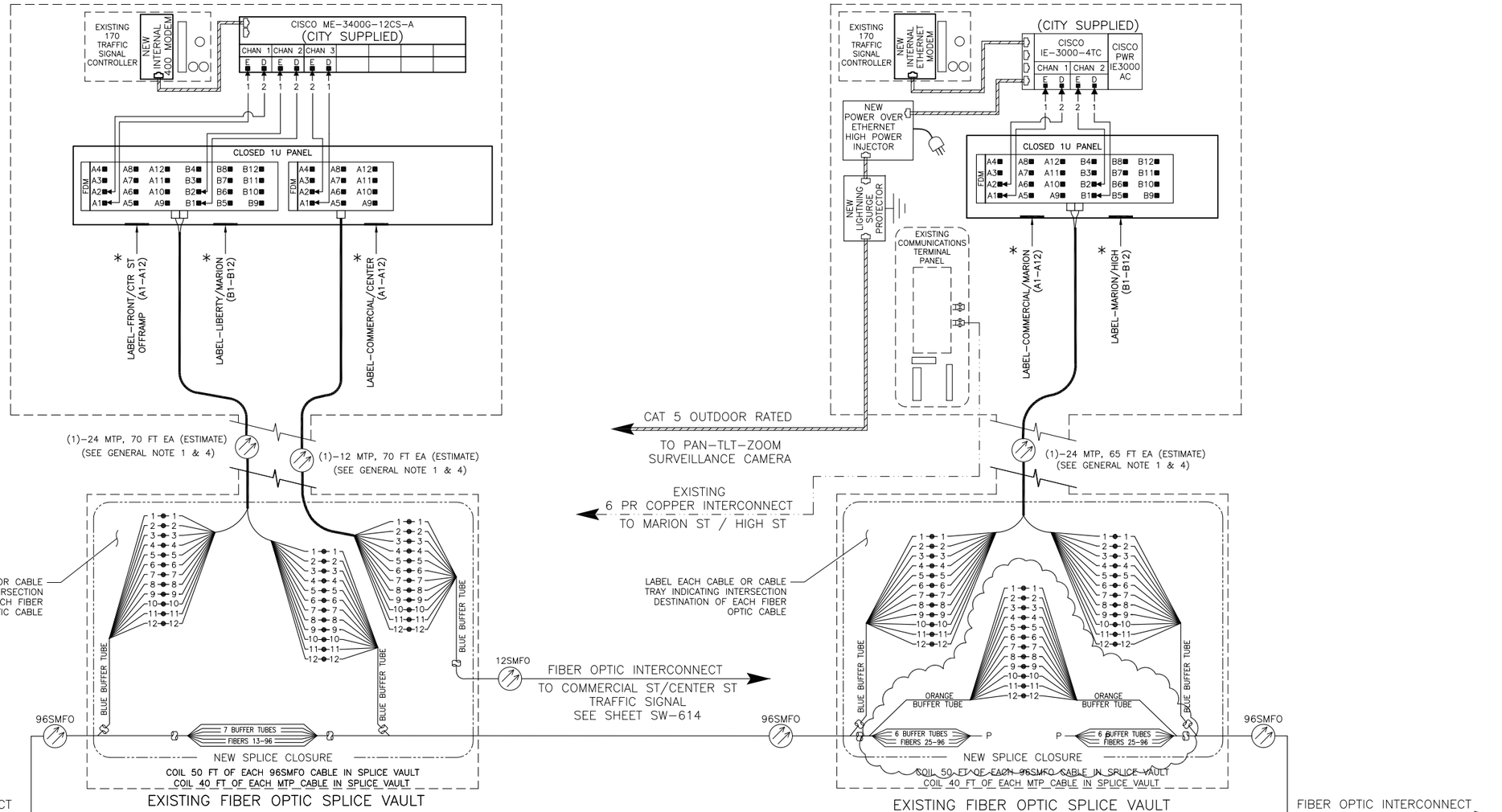

GENERAL NOTES:

1. CONTRACTOR RESPONSIBLE FOR SUPPLYING FIBER DISTRIBUTION MODULE CABLES OF ADEQUATE LENGTH TO MEET INTERCONNECT PLAN SPECIFICATIONS INCLUDING CABLE STORAGE REQUIREMENTS.

2. COORDINATE WITH CITY OF SALEM TRAFFIC ENGINEERING FOR COPPER TERMINATION ASSIGNMENT ON EXISTING INTERCONNECT CABLE.

3. CONTRACTOR RESPONSIBLE FOR SUPPLYING; (A) PATCH CABLES FOR FIBER TERMINATIONS BETWEEN FIBER DISTRIBUTION MODULE AND MODEMS. (B) CATEGORY-5 CABLES BETWEEN CISCO ETHERNET SWITCHES AND/OR ETHERNET MODEMS/MODULES.

4. SUPPLY FIBER OPTIC CABLE CONSISTING OF 24 SINGLE MODE FIBERS (24SMFO) WITH (2)-12 SINGLE MODE FIBERS (12SMFO) PIGTAILS. EACH 12SMFO LINE SHOWN REPRESENTS EACH PIGTAIL CONNECTION.

LEGEND:

- EXISTING TRAFFIC SIGNAL EQUIPMENT
- NEW CATEGORY 5 CABLE
- SMFO JUMPER OR PATCH CORD
- FIBER OPTIC CABLE
- FIBER SPLICE
- P — CUT END OF FIBER, END PROTECTED
- ■ — LC DUPLEX CONNECTOR
- RJ-45 JACK
- COPPER TERMINATION LUG
- SMFO — SINGLE MODE FIBER OPTIC CABLE
- FDM — FIBER DISTRIBUTION MODULE
- * — PLACE LABEL ON FLOOR OF 1U PANEL IN FRONT OF APPLICABLE PORTION OF F.D.M.
- (40) — PLENUM RATED

FIBER COLOR CODE

FIBER NUMBER	FIBER COLOR
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	SLATE
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET
11	ROSE
12	AQUA

CITY OF SALEM AT YOUR SERVICE

SHEET PREPARED BY:

ENGINEERING DIVISION
SALEM PUBLIC WORKS DEPARTMENT

AS-BUILT

"THIS AS-CONSTRUCTED DRAWING WAS PREPARED UNDER MY SUPERVISION FROM DATA COLLECTED UNDER MY SUPERVISION AND REPRESENTS, TO MY KNOWLEDGE, THE BEST INFORMATION REGARDING MATERIALS AND DIMENSIONS INCLUDED IN THE AS-CONSTRUCTED PROJECT. THE CITY OF SALEM DOES NOT GUARANTEE THE ACCURACY OF THIS AS-CONSTRUCTED DRAWING."

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Date:

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ORIGINALS SEALED BY:
HOWARD D. RONEY
REG#: 10714
DATE SIGNED: 05/18/2011
CERTIFICATE EXPIRED: 12/31/2012

TRAFFIC COMMUNICATIONS SIGNAL INTERCONNECT

REVISIONS

NO.	DESCRIPTION	DATE	BY
1	ADD 96FO TO MARION/HIGH	8/5/11	DTN
2	AS-BUILT	8/6/12	DTN

PN: 709524

HORIZ DATUM:	NAD 83-SPCS
VERT DATUM:	NGVD 1929(47)
HORIZ SCALE:	AS SHOWN
VERT SCALE:	AS SHOWN
DESIGN:	HDR
DRAWN:	JAK
CHECKED:	
APPROVED:	

SHEET TITLE

SCHEDULE 'B'

LOGICAL DIAGRAM

COMMERCIAL ST/MARION ST
LIBERTY ST/MARION ST

SW-613

SHEET 69 OF 108

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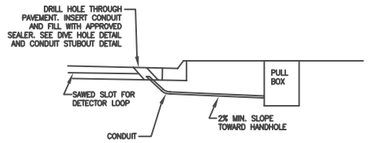
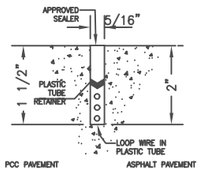
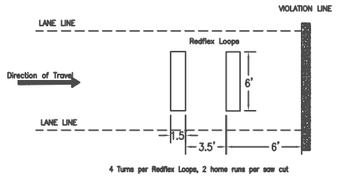


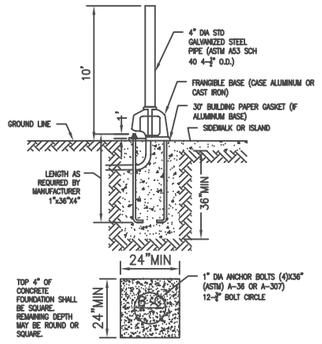
DETECTOR LOOP PLAN



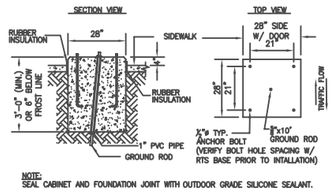
DETECTOR LOOP INSTALLATION



LOOP PLACEMENT PLAN

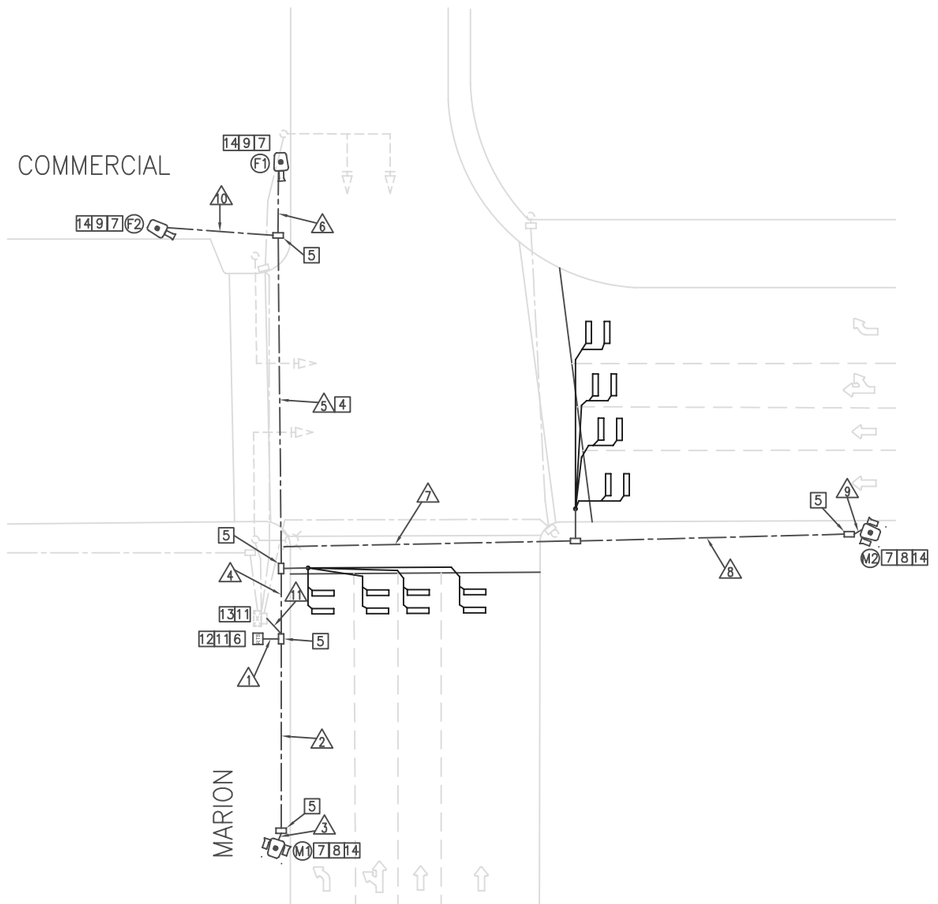


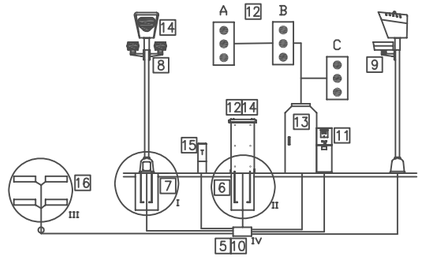
POLE DETAIL I



CABINET FOUNDATION DETAIL II

CONDUCTORS				CONDUITS TERMINATION REDFLEX CABINET																
SOURCE		AWG#		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
APPROACH Φ	POLE (M1)	CAT5	SHIELD 4 PAIR	3	3	3														
		#10	BLACK ⊕ WHITE ⊖	2	2	2														
	POLE (F1)	CAT5	SHIELD 4 PAIR	1			1	1	1											
		#10	BLACK ⊕ WHITE ⊖	2			2	2	2											
APPROACH Φ	POLE (M2)	CAT5	SHIELD 4 PAIR	3			3			3	3	3								
		#10	BLACK ⊕ WHITE ⊖	2			2			2	2	2								
	POLE (F2)	CAT5	SHIELD 4 PAIR	1			1	1					1							
		#10	BLACK ⊕ WHITE ⊖	2			2	2					2							
REDFLEX	LOOP LEAD-IN	DLC	GROUNDED	16			16			8										
	COMMUNICATION	PHONE WIRE	SHIELD 2 PAIR																	
	STRANDED BOND	#8	GREEN	1	1	1	1	1	1	1	1	1	1							
CITY	TRAFFIC RED PHASE	#14	RED ⊕ ORANGE ⊕ WHITE ⊖	5										5						
	POWER PEDESTAL (120V)	#8	BLACK ⊕ WHITE ⊖	2										2						
TOTAL	TOTAL NEW CONDUCTORS			30	6	6	28	7	4	14	6	6	4	7						
	CONDUIT SIZE (INCHES)			2(2)	2	2	2(2)	2	2	2	2	2	2	2						
	NEW/EXISTING CONDUIT			N	N	N	N	N	N	N	N	N	N	N						
AS BUILT	CONDUIT LENGTH FT.																			
	CONDUIT DEPTH IN.																			





CONSTRUCTION NOTES

1. ALL SUBSTRUCTURES MUST BE LOCATED PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL AND MUST NOTIFY ALL UTILITY COMPANIES WITHIN A MINIMUM OF 48 HOURS PRIOR TO START OF WORK.
2. REDFLEX WILL MEET WITH THE CONTRACTOR, CITY OFFICIALS, AND POLICE TO MARK THE EXACT LOCATION OF THE POLES AND CABINET PRIOR TO CONSTRUCTION.
3. TRAFFIC FLOW SHALL BE MAINTAINED AT ALL TIME. TEMPORARY SHUTDOWNS OR DISRUPTION MUST BE COORDINATED WITH THE CITY.
4. CONTRACTORS SHALL COMPLETE AS MANY POTHOLES AS NECESSARY. CONDUIT TO BE BORED UNDER ROADWAY. ALL BORE SHOTS SHALL BE DONE AT THE REQUIRED DEPTH TO MEET THE CITY STANDARDS.
5. INSTALL JB-1(12" x 17" x 12") CONCRETE JUNCTION BOX PER ODOT STANDARDS.
6. INSTALL FOUNDATION AND REDFLEX CONTROL CABINET. INSTALL 5/8" X 10' GROUND ROD AND BOND TO CABINET WITH #8 BARE CU. SEE CABINET FOUNDATION DETAIL.
7. INSTALL FOUNDATION AND POLE FOR REDFLEX EQUIPMENT. CONNECT POLE TO SOLID STRANDED BOND GROUND. SEE DRAWING FOR LOCATION. SEE POLE DETAIL.
8. INSTALL CAMERA AND (2) 250 WATT FLASH ENCLOSURES ON REDFLEX POLE, AIM AT MONITORED APPROACH.
9. INSTALL CAMERA AND 500 WATT FLASH ENCLOSURE ON REDFLEX POLE, AIM AT VIOLATION LINE.
10. ALL SPARE CONDUCTORS/WIRES SHALL TERMINATE AT THE PULL BOXES AND IN THE CAMERA AND FLASH ENCLOSURES, THE CONTROL CABINETS. SPARE WIRES SHALL BE TAPED AT THE END, CONTINUES IN LENGTH AND IDENTIFIABLE WITH PERMANENT IDENTIFICATION BAND AND TAG AS "RTS PROPERTIES".
11. CONTRACTOR SHALL TERMINATE ALL POWER CIRCUITS INTO REDFLEX CABINET. INSTALL 40 AMP BREAKER INTO EXISTING CITY METER PEDESTAL FOR 120V SUPPLY TO RTS CABINET.
12. INSTALL INLINE FUSE HOLDER ON RED PHASE CONDUCTOR WITH 5 AMP FUSE INSIDE REDFLEX CABINET, TO PROTECT CITY TRAFFIC CABINET.
13. INSTALL SOLID STATE RELAY (SSR) DEVICE ON EACH SEPARATE RED INDICATION IN ODOT CABINET. NO DIRECT CONNECTION TO RED PAHSING SHALL BE ALLOWED. SEE CONDUCTOR SCHEDULE FOR APPROACHES AND SEE DETAIL. (NOTE: SCHEDULE CONTROLLER CABINET ACCESS WITH ODOT REGION 2 ELECTRICIAN AT (503) 986-2706 AT LEAST 48 HOURS BEFORE WORK IS TO OCCUR.)
14. TERMINATE POLE TO REDFLEX CABINET POWER CIRCUIT (HOT & NEUTRAL). CONNECT TO SOLID STRANDED BOND GROUND.
15. INSTALL DSL DROP INTO RTS CABINET.
16. INSTALL LOOPS AND CONDUIT STUB OUT FOR REDFLEX DETECTION. EACH LOOP MUST HAVE A SEPARATE HOME RUN AND LOOP LEAD IN CABLE. MAXIMUM 4 LOOPS PER SAW CUT. REDFLEX LOOPS TO BE LABELED AT REDFLEX CABINET. REPLACE CITY LOOPS IF REQUIRED TO CITY STANDARDS. SEE LOOP DETECTOR INSTALLATION DETECTOR LOOP PLACEMENT DETAIL.

LEGEND

- #5 JUNCTION BOX
- RTS LOOPS
- TRAFFIC CONTROL CABINET
- POWER CABINET
- RTS REDFLEX CONTROL CABINET
- CAMERA W/FLASH
- PLATE FLASH

CITY OF SALEM, OR
PUBLIC WORKS DEPARTMENT

PROJECT TITLE:
RED LIGHT PHOTO ENFORCEMENT ON MARION & COMMERCIAL

PLAN SCALE: 1" : 20'

PROJECT CODE: XXXX-MACO-A

SIGNATURE

RED LIGHT PHOTO ENFORCEMENT CAMERAS A PRODUCT OF:
REDFLEX TRAFFIC SYSTEMS
6076 BRISTOL PKWY, SUITE 100
CULVER CITY, CA 90230
PH: 310 642 0470

REVISIONS

	DESCRIPTION

DESIGNED BY: JOHN BABEK
DRAWN BY: CARLOS TLILAYATZI
CHECKED BY:

SUBMITTED BY:
APPROVED BY:
CITY ENGINEER DATE

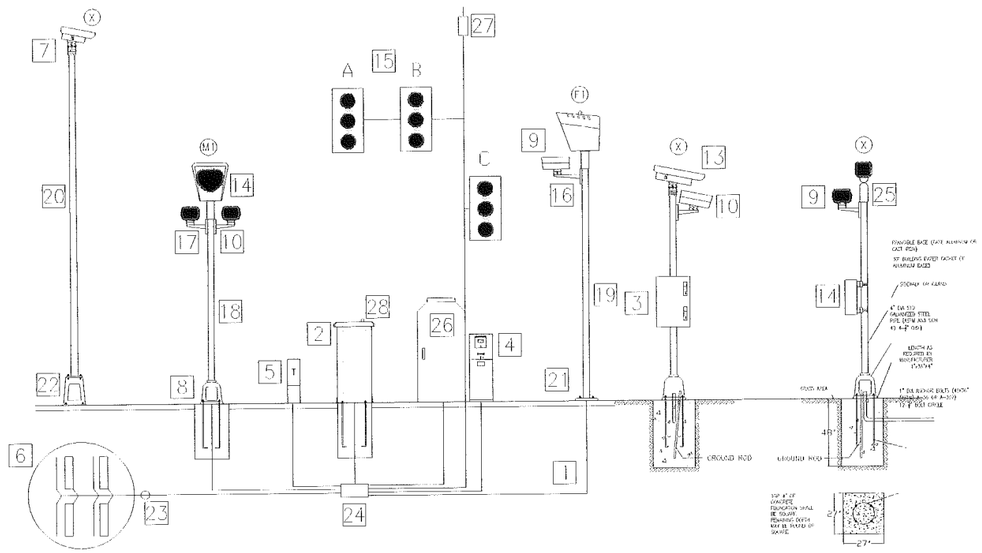
PLAN NO.

SHEET NO. 1 OF 1

			1 CAT 5	2 ROADSIDE CABINET	3 POLEMOUNTED CAB	4 POWER PEDESTAL	5 PHONE PEDESTAL	6 PIEZO LOOPS	7 VIDEO LOOPS
(M1)			–	–	–			–	–
(F1)			–	–	–			–	–
(X1)		HEIGHT	8 POLE BASE	9 500 WATT FLASH	10 250 WATT FLASH	11 MKIII	12 MKIV	13 SLIM	14 MINI POLE
APPROACH Φ	POLE (M1)	10'	–	–	–	–	–	–	–
	POLE (F1)	10'				–	–		
	POLE (X1)	10'	–	–	–			–	–
APPROACH Φ	POLE (M2)	10'	–	–	–	–	–	–	–
	POLE (F2)	10'	–	–	–	–	–	–	–
	POLE (X2)	10'	–	–	–	–	–	–	–
TOTAL			–	–	–	–	–	–	–

NOTES:

L.E.D. COUNTS 15		ARROW REPLACEMENT RED	ARROW REPLACEMENT AMBER	BALL REPLACEMENT RED	BALL REPLACEMENT AMBER
A	8'	–	–	–	–
	12'	–	–	–	–
B	8'	–	–	–	–
	12'	–	–	–	–
C	8'	–	–	–	–
	12'	–	–	–	–
TOTAL		–	–	–	–



1 CAT 5	8 POLE BASE (PELCO)	15 L.E.D. COUNTS	22 POLE BASE FOR VIDEO LOOP
2 ROADSIDE CABINET	9 500 WATT FLASH	16 LONG FLASH ARMS	23 HAND HOLE DEFECTOR
3 POLE MOUNTED CABINET	10 250 WATT FLASH	17 SHORT FLASH ARMS	24 PULL BOX
4 POWER PEDESTAL	11 MKIII	18 10' POLE	25 ENCLOSURE MOUNT FOR SLIM
5 PHONE PEDESTAL	12 MKIV	19 12' POLE	26 TRAFFIC CABINET
6 PIEZO LOOPS	13 SLIM	20 30' POLE	27 WIRELESS ANTENNA FOR COMM.
7 VIDEO LOOPS	14 MINI POLE	21 TYPE 1-A POLE (DOT)	28 WIRELESS ANTENNA FOR SPEED VAN

SYSTEMS	SUB-SYSTEMS	APPLICATION	COMPUTERS	CAMERAS SCENE	CAMERAS PLATE	CAMERAS FACE	LENSES SCENE	LENSES PLATE	LENSES FACE	SOFTWARE	CABINET EQUIPMENT
MKIII 11	WITH ROADSIDE CABINET	USE SLIM SYSTEM FOR W/CABINET	5716	2 MPICS	6 MPIC UP TO FOUR LANES 10 MPICS 6 LANES OR SPLIT LANES 12 MPICS DIFFICULT SHOTS	6 MPIC 1-3 LANES 120' SHOT 10-12 MPICS 4 LANES&UP OVER 120' SHOT 2-6 MPICS SPLIT LANE SLIM LANE & STD.ENCLOSURE	6-12 MM	8-48 MM	80-200 MM	4.6.26.11 STD.,SWITCH TO 4.8 IT BECOMES AVAILBLE	SDCM (LOOP-LOOP, PLP,PLPL,VIDEO) ROUTER HUB MODEM POWER DISTRIBUTION SYSTEM PHASE DETECTION RELAYS (INDUCTIVE, FUSED,OTO-ISOLATOR SOLID STATE
MKIV 12	WITH ROADSIDE CABINET WITHOUT ROADSIDE CABINET	USE SLIM SYSTEM FOR FACE ENCL. CONTRACT MEDIAN INSTALLATION VIDEO LOOPS EXTERNAL COMMUNICATION C. MANAGER PREFERENCE	6612 MB/WAFER	2 MPICS	6 MPIC UP TO FOUR LANES 10 MPICS 6 LANES OR SPLIT LANES 12 MPICS DIFFICULT SHOTS	6 MPIC 1-3 LANES 120' SHOT 10-12 MPICS 4 LANES&UP OVER 120' SHOT SPLIT LANE & SLIM LANE 2-6 MPICS	6-12 MM	8-48 MM	80-200 MM	4.6.26.11 STD.,SWITCH TO 4.8 IT BECOMES AVAILBLE	SDCM (LOOP-LOOP, PLP,PLPL,VIDEO) ROUTER HUB MODEM POWER DISTRIBUTION SYSTEM PHASE DETECTION RELAYS (INDUCTIVE, FUSED,OTO-ISOLATOR SOLID STATE
SLIM 13	POLE MOUNTED CABINET	POLEMOUNTED CABINET AS A PRIMARY SYS. WITH TWO SCENE ENCLOUSER AUXILLIARY FACE ON MKII & MKIV MULTIPLE SLIM SYSTEM W/CABINET	6612 MB/WAFER	2 MPICS	6 MPIC UP TO FOUR LANES 10 MPICS 6 LANES OR SPLIT LANES 12 MPICS DIFFICULT SHOTS	6 MPIC 1-3 LANES 120' SHOT 10-12 MPICS 4 LANES&UP OVER 120' SHOT	6-12 MM	8-48 MM	80-200 MM	4.6.26.11 STD.,SWITCH TO 4.8 IT BECOMES AVAILBLE	SDCM (LOOP-LOOP, PLP,PLPL,VIDEO) ROUTER HUB MODEM POWER DISTRIBUTION SYSTEM PHASE DETECTION RELAYS (INDUCTIVE, FUSED,OTO-ISOLATOR SOLID STATE
MINI POLE 14	BIB POLE MOUNTED CABINET	USE ONE FOR POLE	6612 MB/WAFER	2 MPICS	6 MPIC UP TO FOUR LANES 10 MPICS 6 LANES OR SPLIT LANES 12 MPICS DIFFICULT SHOTS	6 MPIC 1-3 LANES 120' SHOT 10-12 MPICS 4 LANES&UP OVER 120' SHOT	6-12 MM	8-48 MM	80-200 MM	4.6.26.11 STD.,SWITCH TO 4.8 IT BECOMES AVAILBLE	SDCM (LOOP-LOOP, PLP,PLPL,VIDEO) ROUTER HUB MODEM POWER DISTRIBUTION SYSTEM PHASE DETECTION RELAYS (INDUCTIVE, FUSED,OTO-ISOLATOR SOLID STATE

CITY OF RIVERSIDE, CA
PUBLIC WORKS DEPARTMENT

PROJECT TITLE:

RED LIGHT PHOTO ENFORCEMENT ON XXXXX & XXXXX
BILL OF MATERIALS (BOM)

PLAN SCALE: NTS

PROJECT CODE

SIGNATURE

RED LIGHT PHOTO ENFORCEMENT CAMERAS A PRODUCT OF:
REDFLEX TRAFFIC SYSTEMS
6076 BRISTOL PKWY, SUITE 100
CULVER CITY, CA 90230
PH: 310 642 0470

REVISIONS

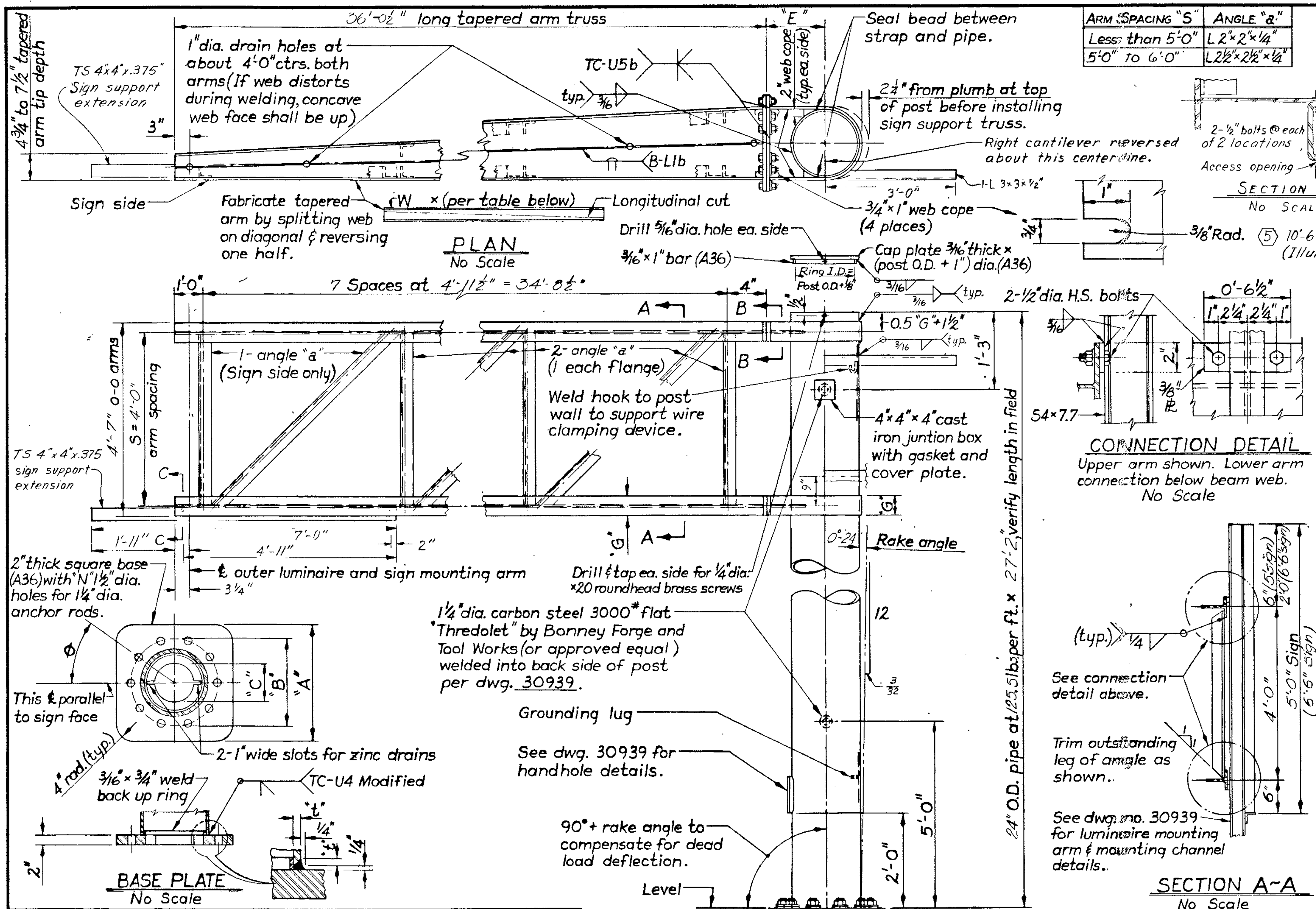
	DESCRIPTION

DESIGNED BY: JOHN BARBER
DRAWN BY: CARLOS TEJAYAZZI
DATE:

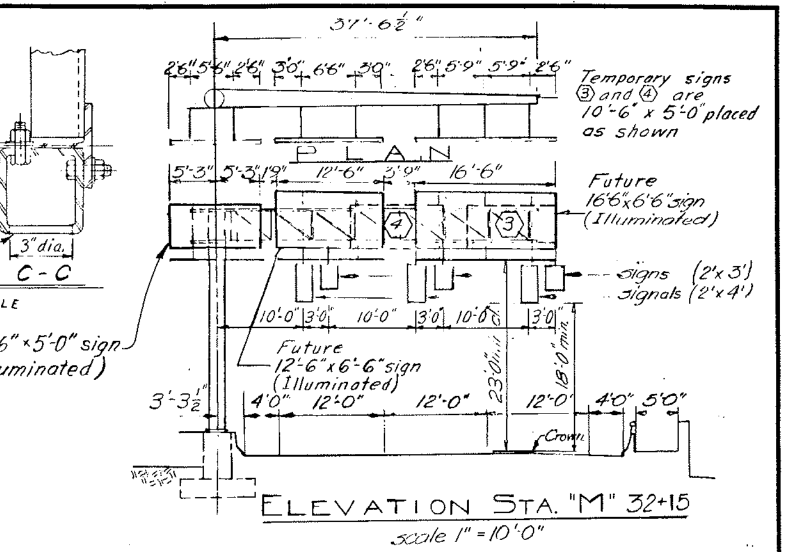
SUBMITTED BY:
APPROVED BY:
DATE

PLAN NO.

SHEET NO. 1 OF 1



Arm Spacing "S"	Angle "a"
Less than 5'-0"	L 2"x2"x¼"
5'-0" To 6'-0"	L 2½"x2½"x¼"



GENERAL NOTES:

Sign supports are designed in accordance with AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. All material and workmanship shall conform to Standard Specifications for Highway Construction of the Oregon State Highway Division.

The design wind velocity is 90 miles per hour. The design sign area is 241 square feet of 6'-1" high sign centered 18'-6" from post centerline. The design sign weighs 5 pounds per square foot and the design luminaire including mounting channels weighs 20 pounds per lineal foot, has an equivalent sign height of 1'-6" centered 0'-9" below the design sign and is as long as the design sign.

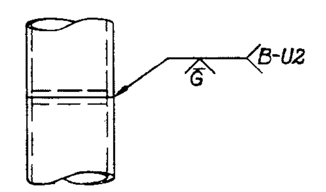
High strength bolts shall conform to A.S.T.M. Specification A-325.

Posts shall conform to A.S.T.M. Specification A53, Grade B. All other structural steel shall conform to A.S.T.M. Specification A36.

All structural steel shall including fasteners shall be hot-dip galvanized after fabrication.

Exposed portion of anchor rods, anchor rod nuts and washers shall be painted with 2 coats of zinc chromate primer(formula 10-74) followed by 2 coats of alluminum point (formula 15-74). Painting shall be started only after anchor rods are fully tensioned.

Posts shall not be fabricated until final elevations have been determined in field.

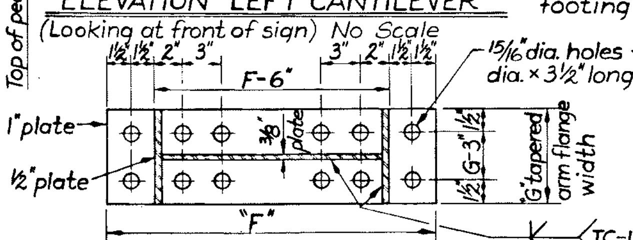


POST SHOP SPLICE

Weld permitted in top half of post only

Pipe Post O.D.	Pipe Post Wall	Cantilever Arm Size	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"N"	θ
12¾"	3/8"	W10×21	24"	18"	8"	34"	12"	19¾"	5¾"	6	60°
14"	3/8"	"	26"	20"	10"	36"	13"	21"	"	6	60°
14"	½"	"	26"	20"	10"	36"	13"	21"	"	8	45°
16"	3/8"	W12×27	28"	22"	12"	38"	14"	23"	6½"	8	45°
16"	½"	"	28"	22"	12"	38"	14"	23"	"	10	36°
18"	3/8"	"	30"	24"	14"	40"	15"	25"	"	8	45°
18"	½"	"	30"	24"	14"	40"	15"	25"	"	12	30°
20"	3/8"	W14×30	32"	26"	16"	42"	16"	27"	6¾"	10	36°
20"	½"	"	32"	26"	16"	42"	16"	27"	"	12	30°
22"	3/8"	"	34"	28"	18"	44"	17"	29"	"	12	30°
22"	½"	"	34"	28"	18"	44"	17"	29"	"	14	25.7°
24"	3/8"	W16×36	36"	30"	20"	46"	18"	31"	7"	12	30°
24"	½"	"	36"	30"	20"	46"	18"	31"	7"	16	22.5°

DIMENSIONS FOR STRUCTURE ABOVE SHOWN ON THIS LINE



SECTION B-B

(Chord connection plate similar)

No Scale

Accompanied by dwg. no. 30939 & 36011

Accompanied by dwg. no's 30937, 30938, 30939 & 30940

OREGON DEPARTMENT OF TRANSPORTATION
STRUCTURAL DESIGN SECTION

APPROVED: [signature] STRUCTURAL DESIGN ENGINEER
DESIGNED H.O.W.
DRAWN L.H.
CHECKED W.M.T.
REVIEWED T.C.T. 3-27-81
REVIEWED L.L. Wallace 3-27-81
CALC. BOOK 1824

DATE	REVISION
4-9-84	As Constructed

WILLAMETTE RIVER (MARION STREET) BRIDGE

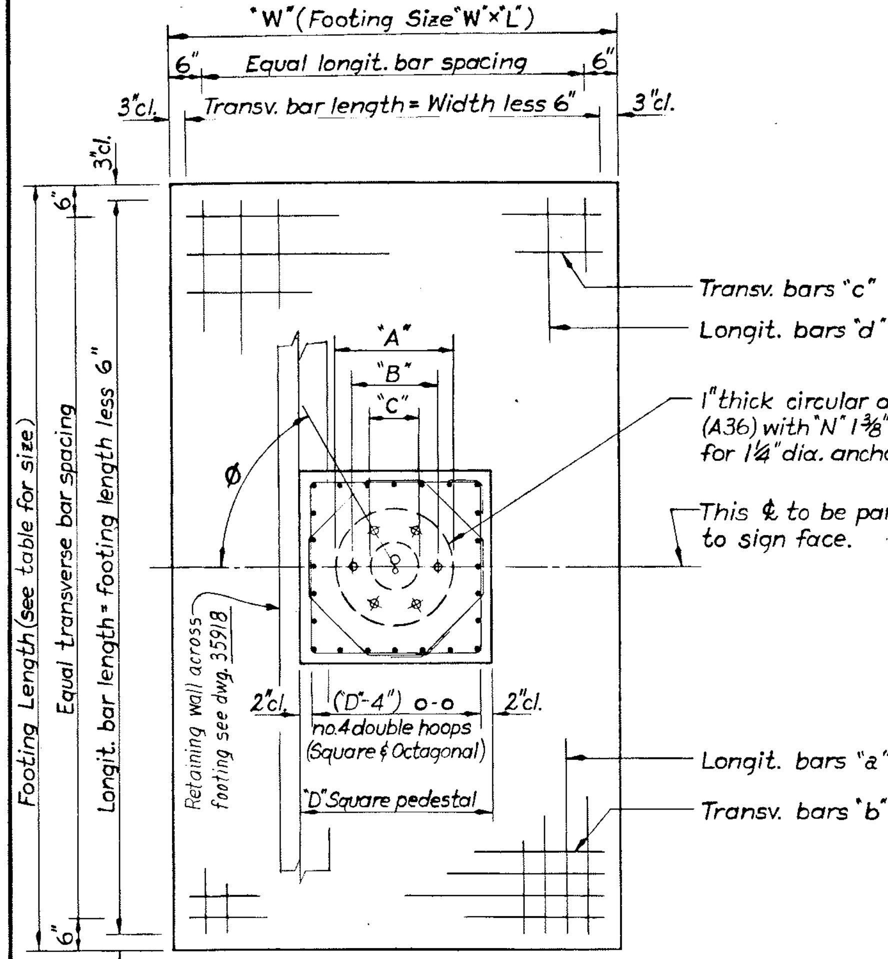
ARM CANTILEVER SIGN SUPPORT AT STATION "M" 32+15

DATE 3/5-1981 SHEET 1 OF 12
BRIDGE NO. 7253B DRAWING NO. 36010

5-4.14

BRUNING 44-131 38925

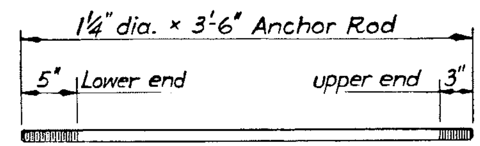
Redrawn 10-1-79 File drawing no. 34944



PLAN

STA.	FOOTING "W"	FOOTING "L"	PEDESTAL "D"	REINFORCING STEEL BARS "a"	BARS "b"	BARS "c"	BARS "d"	BARS "e"	ANCHOR PLATE "A"	"B"	"C"	"D"	"N"	θ
"M" 32+15	9'-0"	20'-0"	*	17-#6	14-#5	14-#5	9-#5	24-#8	36"	30"	20"	–	16	22.5°

* See Dwg No. 35918 for pedestal size.



ANCHOR ROD DETAILS

POST ERECTION PROCEDURE

1. Pour mimimal grout pad on top of pedestal over area beneath post base plate.
2. Place pole on grout pad while grout is fresh. Tighten nuts on anchor rods sufficiently to extrude grout along all edges. For cantilever sign supports, the designed offset at the top of post shall be maintained during this tightening. Delay further tightening until grout strength has reached concrete design strength.
3. After pedestal and grout strength equals the 28 day design strength of the concrete, tighten all anchor rod nuts firmly. Next, tension each rod to 35,000 lbs. (750 ± ft-lbs. torque). Finally, in the same order as the initial tensioning, tension all anchor rods to 71,700 pounds each (final tension shall be determined by using Bethlehem Load Indicator Washers or approved equal. A hardened steel flat washer shall be used between the nut and the load indicator washer. Do not galvanize these washers).
4. Erect truss and complete remaining work.

GENERAL NOTES:

All material and workmanship shall conform to the Standard Specifications for Highway Construction of the Oregon State Highway Division.

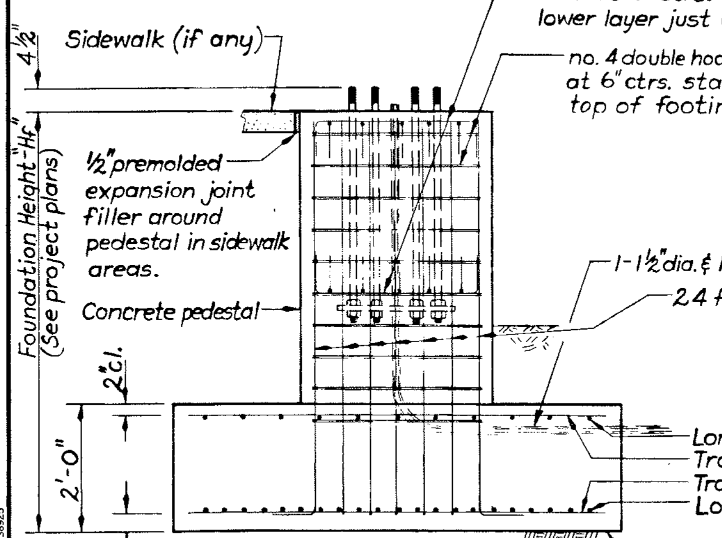
All reinforcing steel shall conform to A.S.T.M. Specification A615 Grade 60 (f_s = 24,000 psi). The following splice lengths shall be used unless shown otherwise:

BAR SIZE	SPLICE LENGTH	BAR SIZE	SPLICE LENGTH
3	1'-6"	6	2'-0"
4	1'-4"	7 thru 11	not permitted
5	1'-8"		

Anchor rods and nuts shall conform to A.S.T.M. Specification A449.

All concrete shall be Class 3300-1½" (f_c = 1320 psi). Grout shall be "Five Star Grout" by U.S. Grout Corporation; "Fonday Nonshrink Grout" by Specrete Products, Ltd.; "Por-Rok Anchoring Cement" by Lehn and Fenk Industrial Products Division; or approved equal. All exposed surfaces of "Por-Rok Anchoring Cement" shall be painted with gray epoxy paint.

Anchor plate, anchor rods, anchor rod nuts and washers shall not be galvanized.



See dwg. no. 35918 for Details of retaining wall across footing.

ELEVATION

SPREAD FOOTING DETAILS

APPROVED: Walter J. Hart, STRUCTURAL DESIGN ENGINEER	OREGON DEPARTMENT OF TRANSPORTATION STRUCTURAL DESIGN SECTION
DESIGNED H.O.W. DRAWN K. Archibald CHECKED W.M.T. REVIEWED TCT 3-27-81 REVIEWED LLWallace 3-27-81 CALC. BOOK 1824	WILLAMETTE RIVER (MARION STREET) BRIDGE
DATE: 4-9-84 REVISION: As Constructed	CANTILEVER SIGN SUPPORT FOOTING AT STA "M" 32 + 15
DATE March 1981 BRIDGE NO. 7253B	SHEET 2 OF 12 DRAWING NO. 36011

5-4.16

BRUNING 44-131 38925

File drawing no. 34946