

JOHNSON CITY MASTER PLAN TMC DESIGN

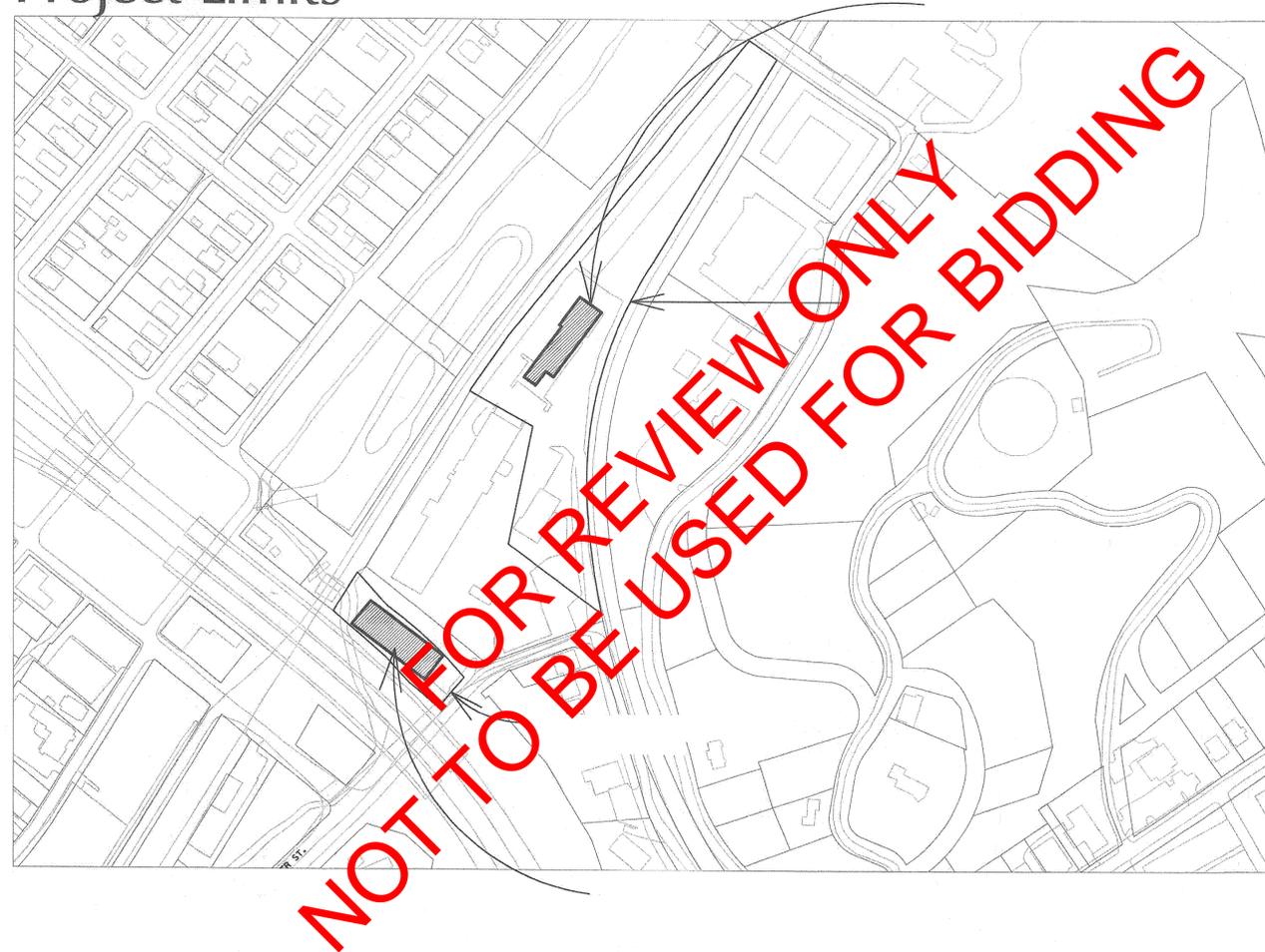
Johnson City, Tennessee
Sept 12, 2012

Locally Managed Project



GRESHAM
SMITH AND
PARTNERS

Project Limits



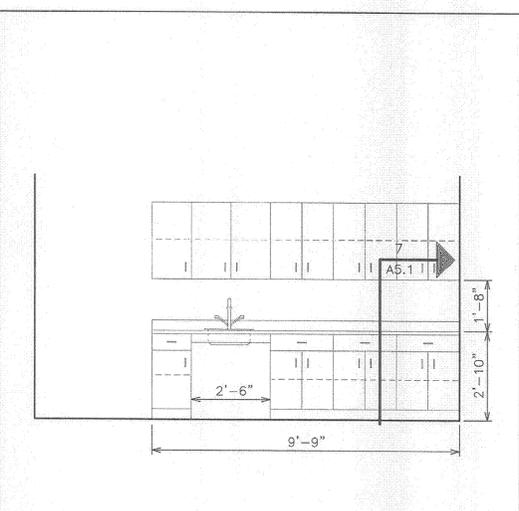
CONSTRUCTION DOCUMENTS



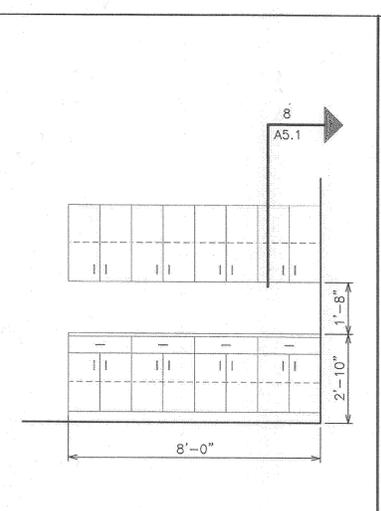
Johnson City Master Plan
TMC Design
GS&P Project # 26575.03

Construction Documents
Sept 12, 2012

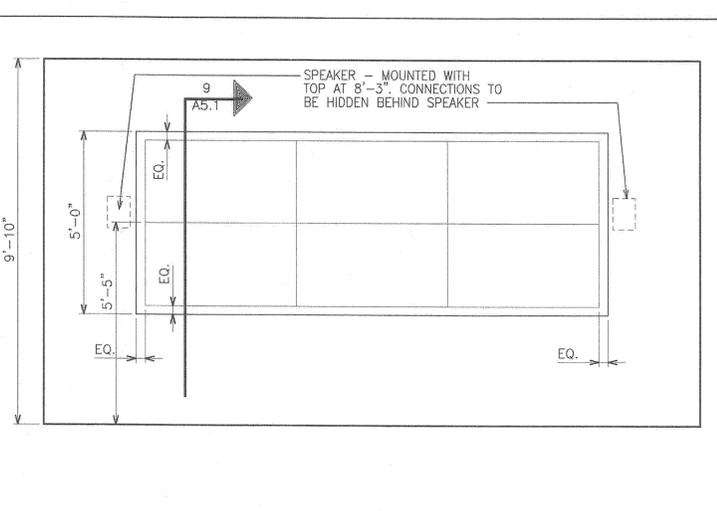
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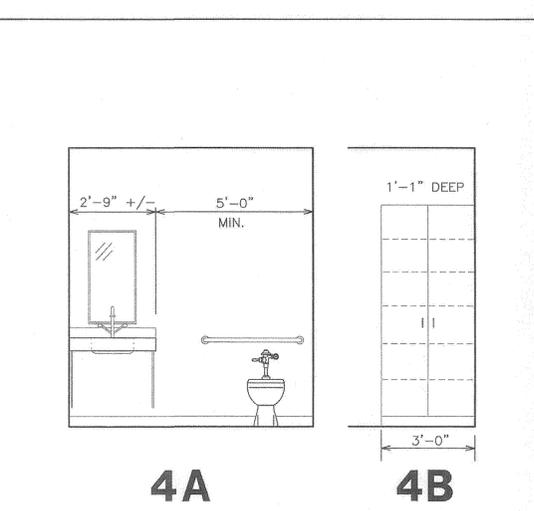
1 ELEVATION BREAK RM 108



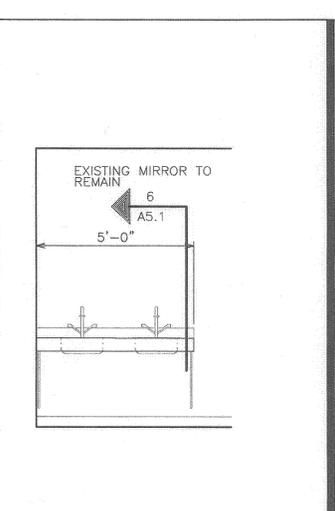
2 ELEVATION RECEPTION 107



3 ELEVATION TMC 103



4 ELEVATION TLT. 111



5 ELEVATION MEN'S 109

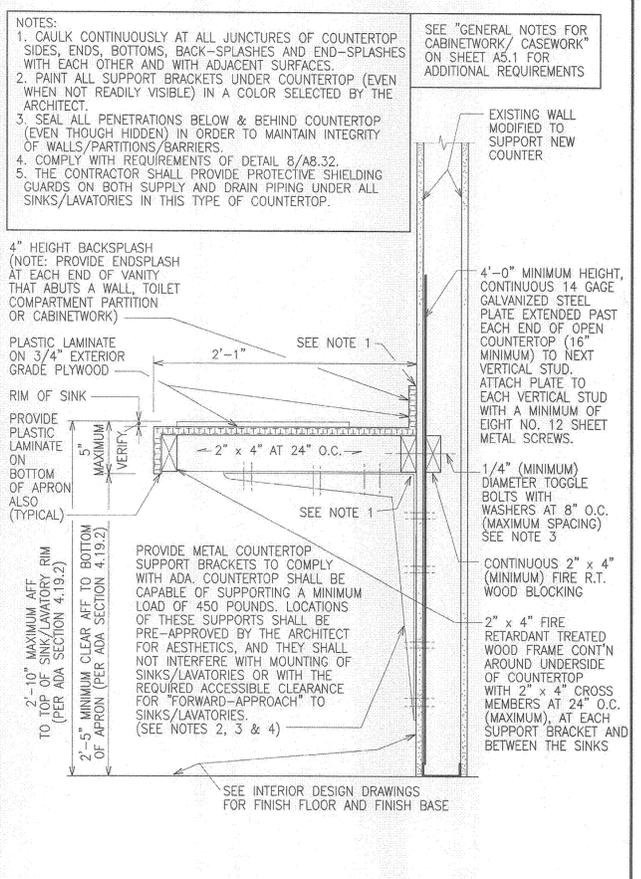
GENERAL NOTES FOR CASEWORK

- 701. THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THESE NOTES, THE "LEGEND FOR CABINETWORK/CASEWORK", THE FLOOR PLANS, THE INTERIOR ELEVATIONS, THE DETAILS, THE SPECIFICATIONS, THE INTERIOR DESIGN DRAWINGS, AND THE MECHANICAL/ELECTRICAL/PLUMBING DRAWINGS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY ERRORS, INCONSISTENCIES OR OMISSIONS THAT ARE DISCOVERED.
- 702. THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THE FLOOR PLANS AND THE SPECIFIED CABINETWORK/CASEWORK TO VERIFY THAT CABINET DOORS AND DRAWERS DO NOT "SWING OUT" OR "OPEN" INTO THE "MINIMUM REQUIRED CLEAR WIDTH" OF ANY CORRIDOR OR PASSAGEWAY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY CONFLICTS THAT ARE DISCOVERED.
- 703. CABINETWORK/CASEWORK AND COUNTERTOP DIMENSIONS SHALL BE FIELD VERIFIED PRIOR TO FABRICATION AND INSTALLATION. DO NOT SCALE THE DRAWINGS TO DETERMINE DIMENSIONS.
- 704. THE TOTAL OVERALL WIDTH OF "WALL CABINETS" (ABOVE) AND THE "BASE CABINETS" (BELOW) ON EACH ELEVATION SHALL BE THE SAME SO THAT THEY ARE ALIGNED, UNLESS OTHERWISE NOTED SPECIFICALLY.
- 705. INDIVIDUAL "WALL CABINET WIDTHS" (ABOVE) SHALL BE ALIGNED WITH INDIVIDUAL "BASE CABINET WIDTHS" (BELOW), UNLESS OTHERWISE NOTED SPECIFICALLY.
- 706. EXCEPT WHERE OTHERWISE INDICATED:
 - A. WALL CABINETS SHALL BE 1'-2" DEEP.
 - B. BASE CABINETS SHALL BE 2'-0" DEEP.
 - C. COUNTERTOPS SHALL BE 2'-1" DEEP AT 2'-0" DEEP BASE CABINETS.
 - D. TOP OF COUNTERTOPS SHALL BE A MAXIMUM OF 2'-10" AFF. HOWEVER, PER ADA AND PER SECTION 606.3 OF THE ICC/ANSI A117.1 ACCESSIBILITY CODE, IF THERE IS A COUNTERTOP MOUNTED SINK WITH ITS RIM ABOVE THE COUNTERTOP LEVEL, THE CONTRACTOR SHALL MOUNT THE COUNTERTOP AT A LOWER MOUNTING HEIGHT (AND ADJUST THE HEIGHT OF THE ADJACENT BASE CABINETS, IF ANY) SO THAT THE RIM OF THE SINK IS A MAXIMUM OF 2'-10" AFF.

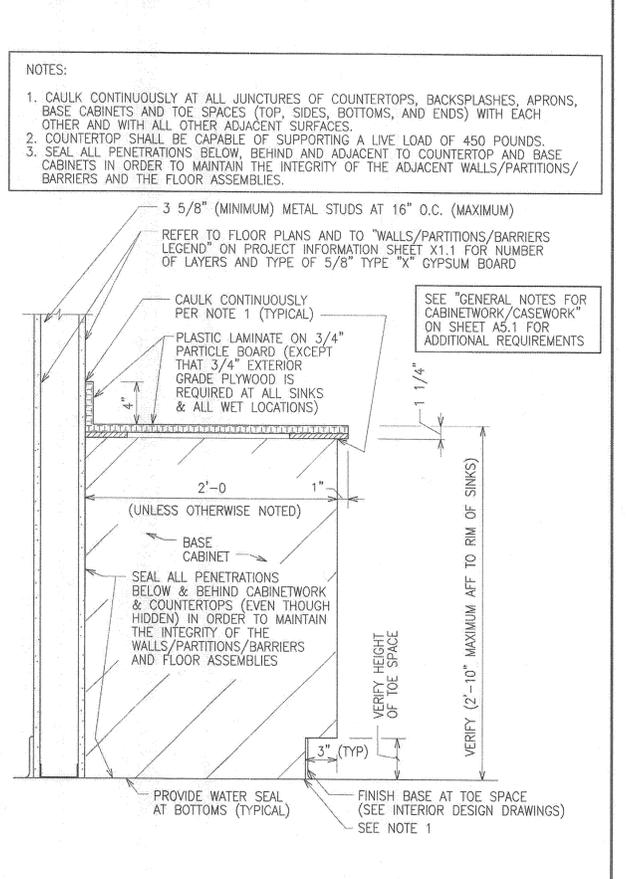
- E. PROVIDE 1'-3" ABSOLUTE MINIMUM HORIZONTAL CLEARANCE BETWEEN THE CENTERLINE OF EACH SINK/LAVATORY BOWL AND THE FACE OF THE ADJACENT VERTICAL CABINET, LEG, END PANEL OR WALL SURFACE.
- F. TOP OF WALL CABINETS SHALL BE 7'-2" AFF FLOOR (TO ALIGN WITH TOP OF THE DOOR FRAMES AT THE 7'-0" TALL DOORS).
- G. THE MAXIMUM WIDTH OF WALL CABINET DOORS SHALL BE 1'-6".
- H. THE MAXIMUM WIDTH OF FULL HEIGHT CABINET DOORS SHALL BE 1'-6".
- I. DRAWER BASE CABINETS SHALL BE A MINIMUM OF 15 INCHES WIDE AND A MAXIMUM OF 24" WIDE.
- J. ALL SHELVING OVER 30 INCHES WIDE SHALL BE 1 INCH THICK; HOWEVER, IN ANY SPACE WHERE 1 INCH THICK SHELVING IS USED, ALL SHELVING IN THAT SPACE SHALL BE 1 INCH THICK.
- K. PROVIDE A MAXIMUM OF ONE 3 INCH FILLER PANEL IN THE OVERALL WIDTH OF CABINETWORK/CASEWORK ON EACH ELEVATION.
- 707. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE CLEAR DIMENSIONS REQUIRED FOR ALL OWNER FURNISHED EQUIPMENT (OFE) WHICH IS LOCATED WITHIN, OR ADJACENT TO, ANY PIECE OF COUNTERTOP OR CABINETWORK/CASEWORK. SEE THE FLOOR PLANS FOR LOCATIONS OF OFE.
- 708. UNLESS OTHERWISE NOTED SPECIFICALLY, COUNTERTOPS SHALL HAVE 4 INCH HIGH BACK-SPLASHES AND SIDE-SPLASHES/END-SPLASHES THAT ARE SCRIBED TO CONFORM TO THE SURFACE OF ADJUTING WALLS AT BACKS AND SIDES/ENDS OF COUNTERTOPS. THE TOP OF SIDE-SPLASHES/END-SPLASHES SHALL BE FLUSH WITH TOP OF BACK-SPLASHES, COUNTERTOPS, BACK-SPLASHES AND SIDE-SPLASHES/END-SPLASHES SHALL BE CONTINUOUSLY CAULKED TO THE WALL. THE THICKNESS OF PLASTIC LAMINATE CLAD BACK-SPLASHES AND SIDE-SPLASHES/END-SPLASHES SHALL BE 3/4 INCH.
- 709. THE CONTRACTOR, THE CABINETWORK/CASEWORK MANUFACTURER, THE SUPPLIER AND THE INSTALLER SHALL COORDINATE WITH ALL APPROPRIATE SUB-CONTRACTORS -- (1) FIRST PRIOR TO THE FABRICATION OF AND (2) THEN AGAIN PRIOR TO THE INSTALLATION OF THE FOLLOWING ITEMS IN, ON AND ADJACENT TO COUNTERTOPS AND CABINETWORK/CASEWORK:
 - A. SINKS/LAVATORIES WITH ASSOCIATED PIPING AND FITTINGS (FIXTURES, FAUCETS, AUTOMATIC SENSORS, SPRAY HOSES, INSTANT HOT WATER SPOTS, WATER FILTRATION SYSTEMS, GARBAGE DISPOSALS, ETC.)
 - B. ELECTRICAL DEVICES (RECEPTACLES, LIGHT FIXTURES, ETC.)
 - C. COMMUNICATION DEVICES (TELEPHONE OUTLETS, DATA OUTLETS, COMPUTER OUTLETS, DICTATION OUTLETS, CABLE OUTLETS, MONITORS, ETC.)

- D. TOILET ACCESSORIES (SOAP DISPENSERS, TOWEL BARS, PAPER TOWEL DISPENSERS, COUNTERTOP WASTE CHUTES, ETC.)
- E. SECURITY DEVICES (MONITORS, PANIC BUTTONS, DOOR RELEASE SWITCHES, ETC.)
- F. ITEMS FURNISHED BY THE CABINETWORK/CASEWORK SUPPLIER (HARDWARE, FILE DRAWER RAILS, GROMMETS, PAPER SLOTS, WIRE MANAGERS, COUNTERTOP SUPPORTS, ETC.)
- G. ITEMS FURNISHED BY THE OWNER (TELEPHONES, BATTERY CHARGERS, ETC.)
- H. TACKABLE BOARDS
- J. SUPPLY AND WASTE PIPING FOR COUNTERTOP MOUNTED ICE MACHINES, ETC.
- 710. PROVIDE KEYPED LOCKS ONLY ON DOORS AND DRAWERS WHERE INDICATED. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WRITTEN INSTRUCTIONS FROM THE OWNER IN REGARDS TO THE KEYING SYSTEM TO BE PROVIDED FOR ALL CABINETWORK/CASEWORK LOCKS THROUGHOUT THE PROJECT.
- 711. AT COUNTERTOPS ABOVE KNEE SPACES AND AT SINK/LAVATORY COUNTERTOPS:
 - A. COUNTERTOPS SHALL BE CAPABLE OF SUPPORTING A MINIMUM LOAD OF 450 POUNDS.
 - B. PROVIDE METAL COUNTER SUPPORT BRACKETS WHICH WILL COMPLY WITH ADA KNEE CLEARANCE REQUIREMENTS, AND COMPLY WITH DETAILS INCLUDED IN THE DRAWINGS.
 - C. THE COUNTER SUPPORT BRACKETS SHALL NOT INTERFERE WITH ADA KNEE CLEARANCE REQUIRED FOR ADA ACCESSIBLE "FRONT-APPROACH" AT SINKS/LAVATORIES. SEE DETAILS.
 - D. THE COUNTER SUPPORT BRACKETS SHALL NOT INTERFERE WITH MOUNTING OF SINKS/LAVATORIES.
 - E. LOCATIONS OF THESE COUNTER SUPPORT BRACKETS SHALL BE PRE-APPROVED BY THE ARCHITECT FOR AESTHETICS, AND SHALL COMPLY WITH THE DETAILS INCLUDED IN THE DRAWINGS.
 - F. ALL UNFINISHED WALL SUPPORTS SHALL BE PAINTED TO MATCH THE COLOR OF THE ADJACENT WALL SURFACE EVEN WHEN THEY ARE NOT READILY VISIBLE.
- 712. CABINETWORK/CASEWORK, BASES AND COUNTERTOPS SHALL BE CAULKED AT ALL JUNCTURES WITH EACH OTHER AND WITH ALL OTHER ADJOINING SURFACES/MATERIALS (INCLUDING WALLS, CABINETWORK/CASEWORK, COUNTERTOPS, BASES, ETC.) EVEN THOUGH JOINTS MAY NOT BE VISIBLE. NOTE: THE PURPOSE OF THIS REQUIREMENT IS TO KEEP INSECTS FROM BEING ABLE TO CRAWL BETWEEN, BEHIND OR UNDER CABINETWORK/CASEWORK, COUNTERTOPS AND SUPPORT BASES. ALL CAULK IS REQUIRED TO BE COLOR-COORDINATED TO MATCH THE COLOR OF THE ADJACENT SURFACE. WHEN THE TWO

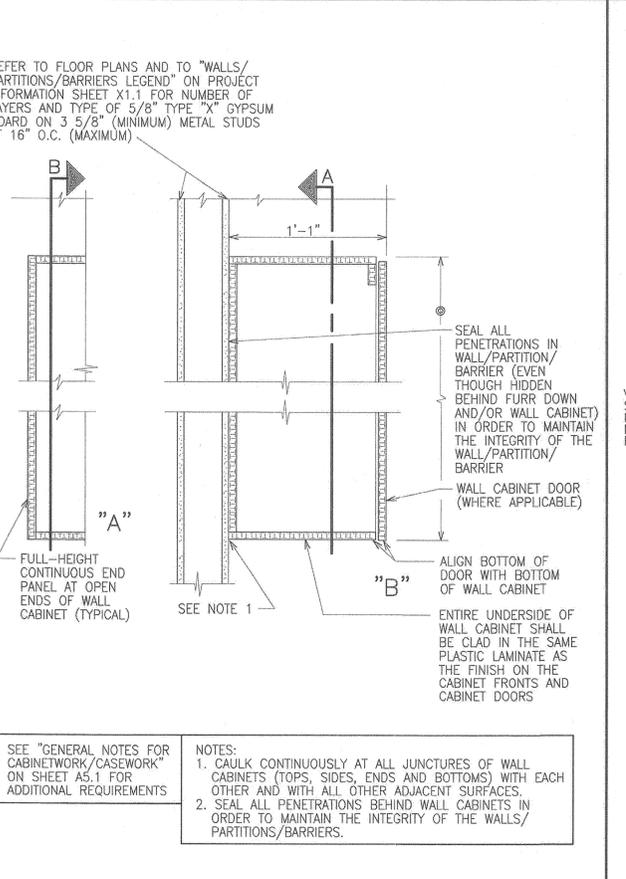
- ADJACENT SURFACES ARE DIFFERENT COLORS, THE CONTRACTOR SHALL SPECIFICALLY REQUEST THAT THE ARCHITECT IDENTIFY WHICH SURFACE COLOR SHALL BE MATCHED.
- 713. PROVIDE FINISHED PLASTIC LAMINATE AND MATCHING 1 MM PVC TRIM ON ALL CABINETWORK/CASEWORK SURFACES WHICH ARE EXPOSED TO VIEW.
- 714. FINISHES, TEXTURES AND COLORS OF THE FOLLOWING SHALL BE AS INDICATED ON THE INTERIOR DESIGN DRAWINGS:
 - A. PLASTIC LAMINATE
- 715. PROVIDE SCHEDULED FINISH BASE ALONG BOTTOM OF EXPOSED FRONTS, BACKS, SIDES AND ENDS OF ALL FIXED CABINETWORK/CASEWORK, END PANELS, VERTICAL SUPPORTS, KNEE SPACES, ETC. THE GENERAL CONTRACTOR SHALL COORDINATE BETWEEN SUB-CONTRACTORS. SEE INTERIOR DESIGN DRAWINGS FOR TYPE AND HEIGHT OF FINISH BASE TO BE PROVIDED IN EACH SPACE.
- 716. AT LOCATIONS WHERE TOILET ACCESSORIES OR OWNER FURNISHED ITEMS NEED TO BE ATTACHED TO PLASTIC LAMINATE, SOLID SURFACE OR WOOD MATERIALS ON CABINETWORK, COUNTERTOPS, BACK SPLASHES OR SIDE SPLASHES/END SPLASHES, THE CONTRACTOR SHALL FIRST CONTACT THE ARCHITECT AND OWNER REGARDING WHICH ATTACHMENT METHOD (DOUBLE SIDED TAPE OR SCREWS) SHALL BE USED FOR EACH SPECIFIC TYPE OF ACCESSORY OR OWNER FURNISHED ITEM ON EACH FINISH MATERIAL.
- 717. ALL CABINETWORK SHALL BE FASTENED TO THE VERTICAL PARTITIONS, TO EACH OTHER AND TO THE FLOORS AS REQUIRED BY THE DETAILS IN THE DRAWINGS. THE CONTRACTOR SHALL ALSO PROVIDE WOOD BLOCKING AND METAL REINFORCEMENT IN THE VERTICAL PARTITIONS PER THE MOST STRINGENT REQUIREMENTS OF THE SPECIFICATIONS, THE MANUFACTURER'S REQUIREMENTS AND THE DETAILS IN THE DRAWINGS.



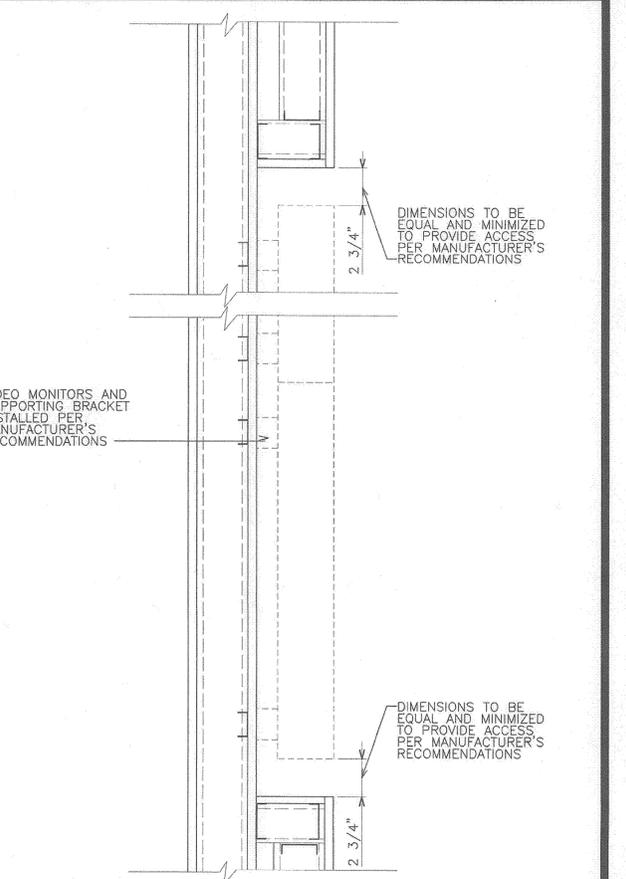
6 DETAIL
NOT TO SCALE



7 DETAIL BASE CABINET AT WALL
NOT TO SCALE



8 DETAIL
TYPICAL WALL CABINET IN SPACES WHERE NO LIGHTS ARE LOCATED UNDER A WALL CABINET
NOT TO SCALE



9 SECTION
THRU VIDEO WALL
NOT TO SCALE



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Johnson City Master Plan - TMC Design

209 WATER STREET
JOHNSON CITY, TN 37605



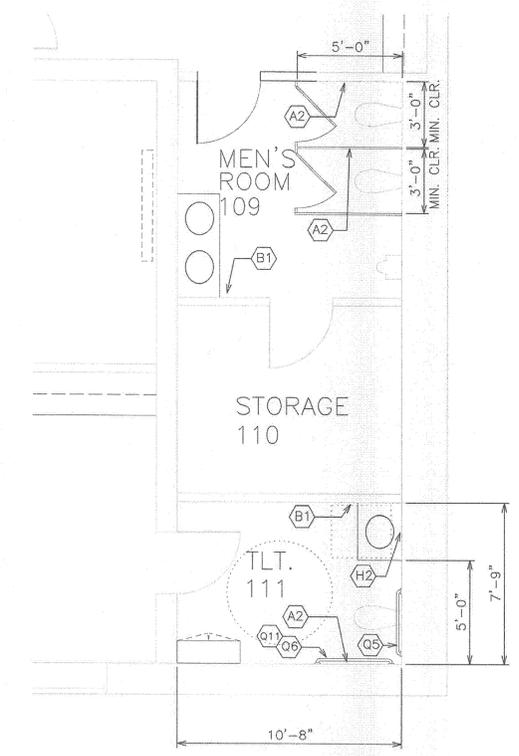
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ELEVATIONS AND SECTIONS

A5.1

FILE: 6575A501.dgn
GS&P PROJECT: 26575.03
DATE: 09/12/12

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Checked By:
Approved By:



1 ENLARGED PLAN AT TOILETS

TOILET ACCESSORIES SEE SPECIFICATION SECTION 10 2800 FOR INFORMATION ON TOILET ACCESSORIES

- (A2) TOILET TISSUE (ROLL) DISPENSER
- (B1) PAPER TOWEL DISPENSER - KIMBERLY CLARK OMNI DISPENSER 09746
- (H2) MIRROR
- (Q5) GRAB BAR - BOBRICK B-6806X36, 36" LENGTH.
- (Q6) GRAB BAR - BOBRICK B-68061X48, 48" LENGTH.

2, 3, 4, 7 OMITTED

GENERAL NOTES FOR 1991 ADA & ICC/ANSI A117.1-2003 ACCESSIBILITY REQUIREMENTS:

1. STRUCTURAL STRENGTH FOR GRAB BARS, BENCHES, TUB AND SHOWER SEATS, FASTENERS AND MOUNTING DEVICES SHALL COMPLY WITH THE SPECIFICATIONS IN THE PROJECT MANUAL AND SHALL MEET THE FOLLOWING CRITERIA:
 - (a) FOR GRAB BARS: ALLOWABLE STRESSES IN BENDING, SHEAR AND TENSION SHALL NOT BE EXCEEDED FOR MATERIALS USED WHERE A VERTICAL OR HORIZONTAL FORCE OF 500 POUNDS IS APPLIED AT ANY POINT ON THE GRAB BAR, FASTENER, MOUNTING DEVICE OR SUPPORTING STRUCTURE. ALSO COMPLY WITH ANSI SECTION 609 AND ADA SECTION 4.26.
 - (b) FOR BENCHES AND SEATS: ALLOWABLE STRESSES IN BENDING, SHEAR AND TENSION SHALL NOT BE EXCEEDED FOR MATERIALS USED WHERE A VERTICAL OR HORIZONTAL FORCE OF 500 POUNDS IS APPLIED AT ANY POINT ON THE BENCH, SEAT, FASTENER, MOUNTING DEVICE OR SUPPORTING STRUCTURE. ALSO COMPLY WITH ANSI SECTION 610.
 - (c) BENDING STRESS IN A GRAB BAR, BENCH OR SEAT INDUCED BY THE MAXIMUM BENDING MOMENT FROM THE APPLICATION OF 500 LB.F. SHALL BE LESS THAN THE ALLOWABLE STRESS FOR THE MATERIAL OF THE GRAB BAR, BENCH OR SEAT.
 - (d) SHEAR STRESS INDUCED IN A GRAB BAR, BENCH OR SEAT BY THE APPLICATION OF 500 LB.F. SHALL BE LESS THAN THE ALLOWABLE SHEAR STRESS FOR THE MATERIAL OF THE GRAB BAR, BENCH OR SEAT. IF THE CONNECTION BETWEEN THE GRAB BAR, BENCH OR SEAT AND ITS MOUNTING BRACKET OR OTHER SUPPORT IS CONSIDERED TO BE FULLY RESTRAINED, THEN DIRECT AND TORSIONAL SHEAR STRESS SHALL BE TOTALED FOR THE COMBINED SHEAR STRESS, WHICH SHALL NOT EXCEED THE ALLOWABLE SHEAR STRESS.
 - (e) SHEAR FORCE INDUCED IN A FASTENER OR MOUNTING DEVICE FROM THE APPLICATION OF 500 LB.F. SHALL BE LESS THAN THE ALLOWABLE LATERAL LOAD OF EITHER THE FASTENER OR MOUNTING DEVICE OR THE SUPPORTING STRUCTURE, WHICHEVER IS THE SMALLER ALLOWABLE LOAD.
 - (f) TENSILE FORCE INDUCED IN A FASTENER BY A DIRECT TENSION FORCE OF 500 LB.F. PLUS THE MAXIMUM MOMENT FROM THE APPLICATION OF 500 LB.F. SHALL BE LESS THAN THE ALLOWABLE WITHDRAWAL LOAD BETWEEN THE FASTENER AND THE SUPPORTING STRUCTURE.
2. THE DIAMETER OF A GRAB BAR SHALL BE 1-1/4" MINIMUM/1-1/2" MAXIMUM PER ADA FIGURE 39(e). THE WALL MOUNTED GRAB BAR SHALL BE MOUNTED SO THAT THE SPACE BETWEEN THE FINISH WALL AND THE GRAB BAR IS 1-1/2" EXACTLY. THE CLEAR SPACE BETWEEN THE GRAB BAR AND OBJECTS BELOW OR AT THE ENDS SHALL BE 1-1/2" MINIMUM. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS ABOVE SHALL BE 1-0" MINIMUM, EXCEPT THAT THE SPACE BETWEEN THE GRAB BAR AND SHOWER CONTROLS, SHOWER FITTINGS, AND OTHER GRAB BARS ABOVE SHALL BE 1-1/2" MINIMUM PER ANSI SECTION 609.3. THE GRAB BAR AND ANY WALL OR OTHER SURFACE ADJACENT TO IT SHALL BE FREE OF ANY SHARP OR ABRASIVE ELEMENTS. EDGES SHALL HAVE A MINIMUM RADIUS OF 1/8". COMPLY WITH ADA SECTION 4.26, ADA FIGURE 39(e), AND ANSI SECTIONS 609.3, 609.4 & 609.5.
3. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS PER ANSI SECTION 609.6.
4. OMITTED
5. "↑" INDICATES DIRECTION OF APPROACH.
6. "AFF" INDICATES "ABOVE FINISH FLOOR"
"MIN" INDICATES "MINIMUM"
"MAX" INDICATES "MAXIMUM"
7. CRITICAL NOTE: ALL MINIMUM FACE-OF-FINISH AND/OR MINIMUM CLEAR DIMENSIONS MUST TAKE INTO ACCOUNT THE THICKNESS OF WALL FINISHES SUCH AS CERAMIC TILE, SOLID SURFACE MATERIAL, BACKER BOARD OR ANY OTHER FINISH MATERIAL BEING USED OVER THE GYPSUM BOARD, CMU, ETC.
8. ALL TOILET ROOMS, SHOWER OR TUB ROOMS, RESTROOMS, AND BATHROOMS (WHETHER PUBLIC-USE, STAFF-USE, OR PRIVATE OFFICE-USE) SHALL BE ACCESSIBLE AS PER ADA SECTION 4.1.3(11), ADA SECTION 6.1(1) - 6.1(4), AND ADA SECTION 3.5 [FOR DEFINITIONS FOR "COMMON USE" AND "PUBLIC USE"].
9. OMITTED.
10. OMITTED.
11. OMITTED.
12. MANEUVERING CLEARANCES SHALL BE PROVIDED AT ALL DOORS THAT ARE NOT "AUTOMATIC" OR "POWER-ASSISTED". SEE ADA SECTION 4.13 AND ANSI SECTION 1002.5.
13. ACCESSIBLE TOILET ROOMS, TOILET STALLS, LAVATORIES, URINALS, TUBS, SHOWERS, ELECTRIC WATER COOLERS, PAY TELEPHONE ENCLOSURES, DRESSING CUBICLES, DRESSING ROOMS, ETC. SHALL BE ON AN ACCESSIBLE ROUTE.
14. LAVATORIES AND SINKS SHALL COMPLY WITH ADA SECTIONS 4.19 & 4.24, ANSI SECTION 606, AND ANSI FIGURES 606.3, 306.2 & 306.3, AND WITH THE FOLLOWING:
 - (a) THE FRONT OF LAVATORIES AND SINKS SHALL BE 2'-10" MAXIMUM ABOVE FINISH FLOOR, MEASURED TO THE HIGHER OF THE FIXTURE RIM OR COUNTER SURFACE PER ANSI SECTION 606.3. SEE 8/A8.32.
 - (b) SINKS SHALL BE A MAXIMUM OF 6 1/2" DEEP PER ADA SECTION 4.24.4. MULTIPLE COMPARTMENT SINKS SHALL HAVE AT LEAST ONE COMPARTMENT COMPLYING WITH THIS REQUIREMENT PER ANSI SECTION 606.2 EXCEPTION 5).
 - (c) A CLEAR 30" BY 48" FLOOR SPACE COMPLYING WITH ANSI SECTION 305.3, POSITIONED FOR "FORWARD APPROACH" (AS REQUIRED BY ANSI SECTION 606.2) SHALL BE PROVIDED. THE CLEAR FLOOR SPACE SHALL BE ON AN ACCESSIBLE ROUTE. KNEE AND TOE CLEARANCE COMPLYING WITH ANSI SECTION 306 SHALL BE PROVIDED. THE DIP OF THE OVERFLOW SHALL NOT BE CONSIDERED IN DETERMINING KNEE AND TOE CLEARANCES. SEE 8/A8.32.
 NOTE: THE ONLY EXCEPTIONS TO THE REQUIREMENT FOR "FORWARD APPROACH" TO A LAVATORY OR SINK ARE INCLUDED IN THE ANSI SECTION 606.2 EXCEPTIONS, INCLUDING:
 - (1) A PARALLEL APPROACH (COMPLYING WITH ANSI SECTION 305) SHALL BE PERMITTED TO A KITCHEN SINK IN A SPACE WHERE A COOK TOP OR CONVENTIONAL RANGE IS NOT PROVIDED.
 - (d) COMPLY WITH DETAIL 8/A8.32.



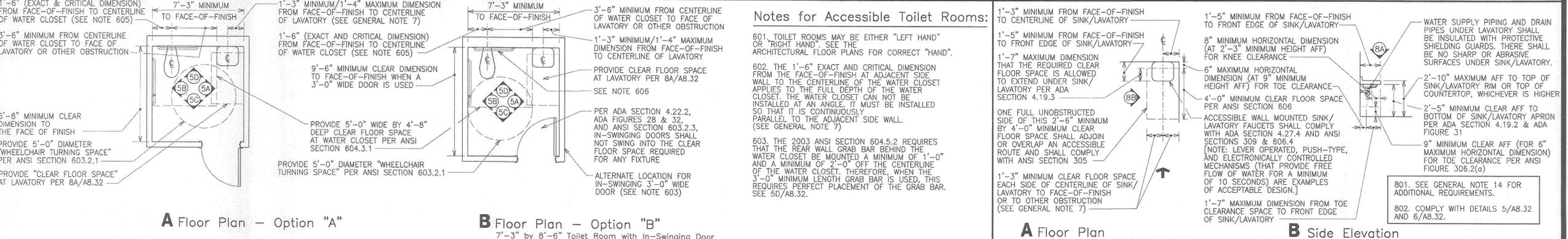
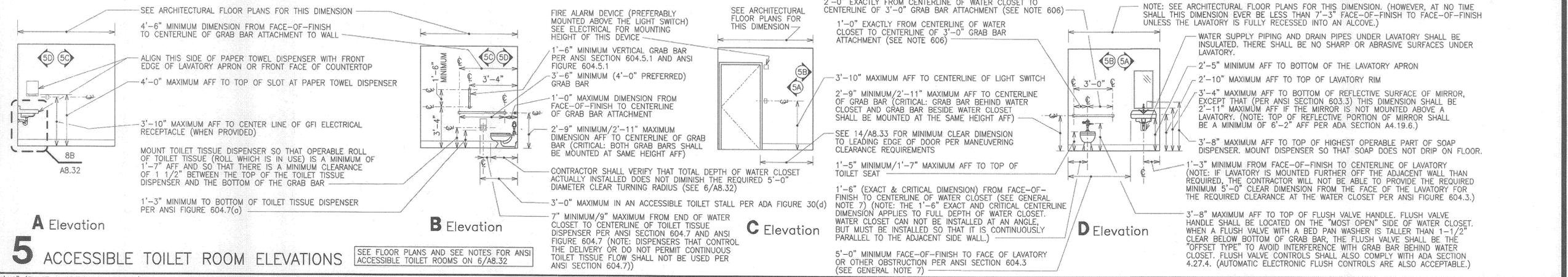
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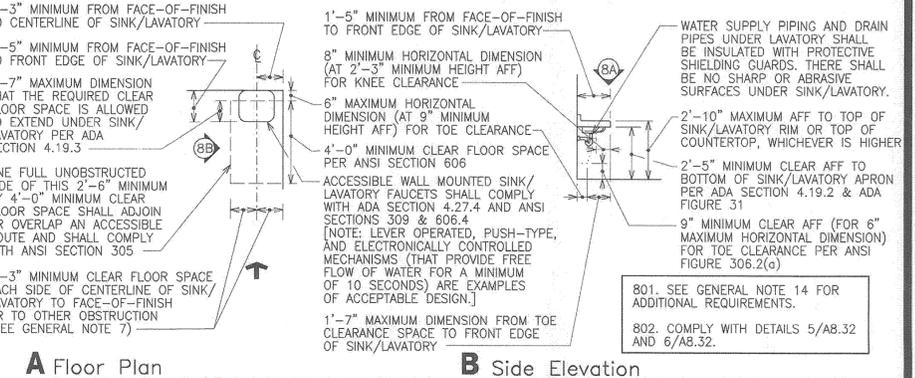
Johnson City Master Plan - TMC Design

209 WATER STREET
JOHNSON CITY, TN 37605



Notes for Accessible Toilet Rooms:

601. TOILET ROOMS MAY BE EITHER "LEFT HAND" OR "RIGHT HAND". SEE THE ARCHITECTURAL FLOOR PLANS FOR CORRECT "HAND".
602. THE 1'-6" EXACT AND CRITICAL DIMENSION FROM THE FACE-OF-FINISH AT ADJACENT SIDE WALL TO THE CENTERLINE OF THE WATER CLOSET APPLIES TO THE FULL DEPTH OF THE WATER CLOSET. THE WATER CLOSET CAN NOT BE INSTALLED AT AN ANGLE. IT MUST BE INSTALLED SO THAT IT IS CONTINUOUSLY PARALLEL TO THE ADJACENT SIDE WALL. (SEE GENERAL NOTE 7)
603. THE 2003 ANSI SECTION 604.5.2 REQUIRES THAT THE REAR WALL GRAB BAR BEHIND THE WATER CLOSET BE MOUNTED A MINIMUM OF 1'-0" AND A MINIMUM OF 2'-0" OFF THE CENTERLINE OF THE WATER CLOSET. THEREFORE, WHEN THE 3'-0" MINIMUM LENGTH GRAB BAR IS USED, THIS REQUIRES PERFECT PLACEMENT OF THE GRAB BAR. (SEE GENERAL NOTE 7)



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ADA & 2003 ANSI
ACCESSIBILITY
DETAILS AND NOTES

A8.32

FILE: 65750832.dgn
GS&P PROJECT: 26575.03
DATE: 09/12/12

DIVISION OF STREET'S VIDEO ARRAY WALL LAYOUT



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Division of Streets
Monitor Wall Layout

209 WATER STREET
JOHNSON CITY, TN 37605



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VIDEO WALL PROJECT
INFORMATION SHEET

V1.1

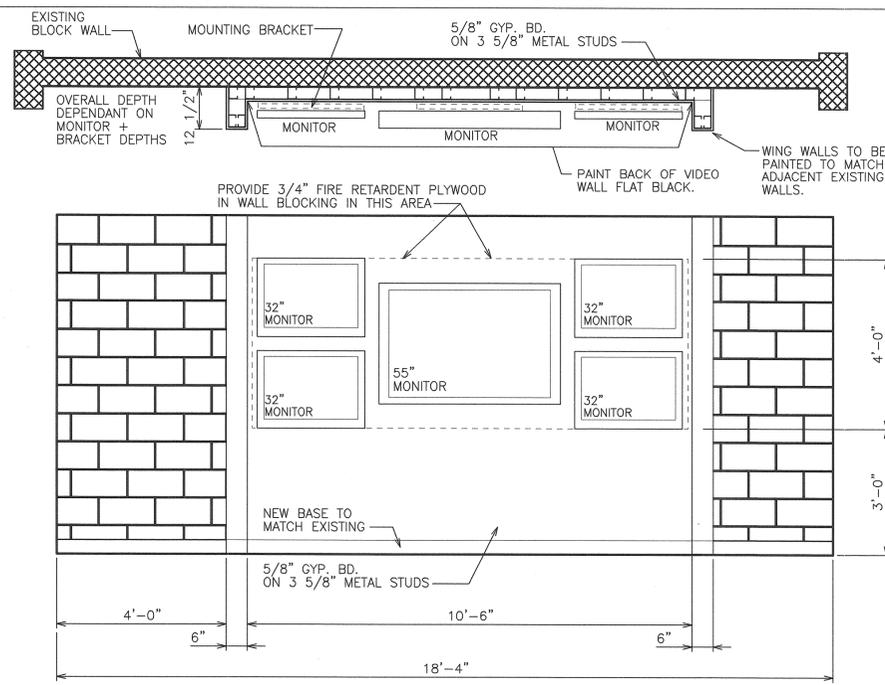
FILE: 6575X002.dgn
GS&P PROJECT: 26575.03
DATE: 05/17/10
Federal Project # IVMS-9447(402)
State Project # 90952-1642-54

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Checked By:
Approved By:

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PARTIAL PLAN AND WALL ELEVATION



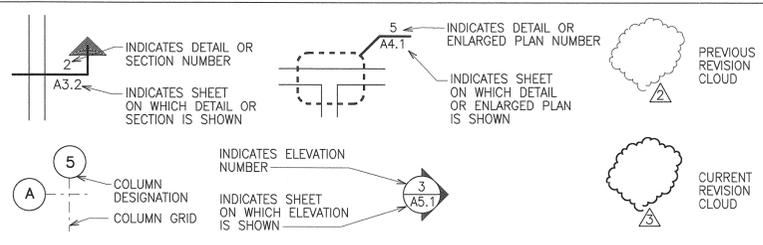
GENERAL NOTES FOR PROJECT

- THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE DRAWINGS AND THE PROJECT MANUAL (SPECIFICATIONS, SCHEDULES, ETC.). THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THESE DRAWINGS AND THE PROJECT MANUAL; AND HE SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY INCONSISTENCIES THAT HE DISCOVERS.
- SEE SHEETS A2.1, A6.1, A8.32 FOR ADDITIONAL NOTES WHICH APPLY TO ALL DISCIPLINES.
- THE CONTRACTOR SHALL PROVIDE CHASES FOR MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL, COMMUNICATIONS, ETC., AS REQUIRED AND AS NECESSARY. SEE RESPECTIVE DISCIPLINES' DRAWINGS.
- PIPING LOCATED ABOVE GRADE AND INSIDE THE BUILDING SHALL BE CONCEALED IN FURRED SPACES (WITH THE EXCEPTION OF PIPING IN STAIRWAYS, ELECTRICAL ROOMS, MECHANICAL ROOMS AND THE CENTRAL ENERGY PLANT). THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES TO PROVIDE FURRING FOR PIPING INSTALLED IN FINISHED AREAS. THE CONTRACTOR SHALL GAIN APPROVAL FROM THE ARCHITECT IN ADVANCE, PRIOR TO LOCATING AND/OR PROVIDING ANY "FURRED SPACES" WHICH ARE NOT SPECIFICALLY INDICATED ON THE FLOOR PLANS.
- REGARDING ACCESS PANELS:
 - THE CONTRACTOR SHALL VERIFY THAT ACCESS PANELS (OF APPROPRIATE SIZE & TYPE) ARE INSTALLED IN WALLS/PARTITIONS/BARRIERS AND IN "NON-ACCESSIBLE TYPE" CEILINGS AND SOFFITS WHERE ACCESS, SERVICE OR ADJUSTMENT TO MECHANICAL, PLUMBING, FIRE PROTECTION, SECURITY, ELECTRICAL AND COMMUNICATION ITEMS MAY BE REQUIRED. COMPLY WITH THE SPECIFICATIONS AND WITH NEC RULE 314.29.
 - THE CONTRACTOR SHALL SUBMIT DRAWINGS WHICH INDICATE PROPOSED LOCATIONS OF ALL ACCESS PANELS FOR APPROVAL.
- PROVIDE CONTINUOUS SEALANT TO PROVIDE "WATER-TIGHT" AND "AIR-TIGHT" CONDITION AT THE PERIMETERS OF ALL DOOR FRAMES, INTERIOR WINDOW FRAMES, EXTERIOR WINDOW FRAMES, WINDOW STOODS, CABINETS, CASEWORK, COUNTERTOPS, PLUMBING FIXTURES, TOILET ACCESSORIES (BOTH RECESSED & SURFACE MOUNTED), FIRE EXTINGUISHER CABINETS, FIRE DEPARTMENT VALVE CABINETS, ETC. (EVEN WHEN THE JOINT AT THE PERIMETER IS EITHER HIDDEN OR NOT READILY VISIBLE).
- EQUIPMENT INDICATED WITH DASHED LINES SHALL BE FURNISHED BY THE OWNER AND RECEIVED/STORED BY THE GENERAL CONTRACTOR. (SEE OWNER FURNISHED EQUIPMENT MANUAL AND OWNER FURNISHED VENDOR DRAWINGS.) THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR THE DELIVERY AND INSTALLATION OF ALL OWNER FURNISHED EQUIPMENT.
- THE CONTRACTOR SHALL VERIFY THAT EXIT EGRESS IS MAINTAINED FOR ALL OCCUPIED AREAS OF THE BUILDING THROUGHOUT ALL PHASES OF CONSTRUCTION. ALL EXISTING STAIRWAYS AND RATED EXIT PASSAGEWAYS SHALL BE MAINTAINED SO THAT THEY ARE CLEAR AND ACCESSIBLE; AND THE INTEGRITY OF THE DESIGNATED RATED ENCLOSURE AROUND THEM SHALL ALSO BE MAINTAINED THROUGHOUT ALL PHASES OF CONSTRUCTION.
- THE EXISTING BUILDING ENVELOPE SHALL BE MAINTAINED SO AS TO PROVIDE WATER-TIGHT, WEATHER-TIGHT AND CONDITIONED EXISTING SPACE AT ALL TIMES THROUGHOUT ALL PHASES OF CONSTRUCTION. PROVIDE TEMPORARY ENCLOSURES AS REQUIRED. PROVIDE PORTABLE HEATING UNITS AND/OR COOLING UNITS TO MAINTAIN 70 DEGREES F. (INSIDE TEMPERATURE) IN OCCUPIED SPACES, UNLESS OTHERWISE DIRECTED BY THE OWNER.

PLAN REVIEW DATA

- 2006 INTERNATIONAL BUILDING CODE WITH LOCAL AMENDMENTS
- 2006 INTERNATIONAL PLUMBING CODE WITH LOCAL AMENDMENTS
- 2006 INTERNATIONAL MECHANICAL CODE WITH LOCAL AMENDMENTS
- 2006 INTERNATIONAL FUEL GAS CODE WITH LOCAL AMENDMENTS
- 2006 INTERNATIONAL FIRE CODE
- 2006 LIFE SAFETY CODE (NFPA 101)
- 2008 NATIONAL ELECTRICAL CODE WITH LOCAL AMENDMENTS
- 2006 INTERNATIONAL CODE
- 2002 NORTH CAROLINA ACCESSIBILITY CODE WITH 2004 AMENDMENTS
- 2006 INTERNATIONAL RESIDENTIAL CODE WITH LOCAL AMENDMENTS

GRAPHIC SYMBOLS LEGEND



PROJECT INTRODUCTION

THE ABOVE VIDEO ARRAY WALL IS TO BE INSTALLED IN THE CONFERENCE ROOM OF THE DIVISION OF STREET BUILDING LOCATED IN ON THE SAME CAMPUS AS THE TMC BUILDING.

THE CONTRACTOR SHOULD CONTACT THE DIVISION OF STREETS TO ACCESS THE BUILDING BEFORE ORDERING ITEMS. THE CONTRACTOR IS RESPONSIBLE FOR A FULLY OPERATIONAL SYSTEM.

THE BELOW SCOPE OF WORK DESCRIBES BUT MAY NOT INCLUDE ALL ITEMS NECESSARY FOR A FULLY OPERATIONAL VIDEO ARRAY WALL FOR THE DIVISION OF STREETS.

SCOPE OF WORK

THE CONTRACTOR IS RESPONSIBLE FOR THE CONSTRUCTION OF A VIDEO MONITOR MOUNTING IN THE STREET DEPARTMENT BUILDING. THE VIDEO ARRAY WALL SHALL CONSIST OF FOUR (4) 32 INCH MONITORS AND ONE (1) 55 INCH MONITOR. ALL EQUIPMENT SHALL BE NEW AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER SPECIFICATION. THE SYSTEM SHALL INCLUDE ONE (1) WORKSTATION AS DESCRIBED IN THE SPECIFICATION MANUAL. THE CONTRACTOR IS RESPONSIBLE FOR ALL CABLING AND CONSTRUCTION MATERIALS TO MAKE A COMPLETE AND OPERATIONAL SYSTEM. THE MONITORS WILL DISPLAY VIDEO IMAGES FROM TRAFFIC CAMERAS AND COMPUTER GENERATED MAPS OF THE CITY AS REQUIRED BY STREETS DEPARTMENT ENGINEER. THE WORKSTATION SHALL BE CONNECTED TO THE EXISTING CITY NETWORK. NETWORK CONNECTION TO THE CITY WAN IS EXISTING. CABLES FROM THE WORKSTATION VIDEO CARDS AND AUDIO OUTPUT TO THE MONITORS SHALL BE MANUFACTURER SPECIFIC AND COST ABSORBED. AUDIO SHALL BE CONNECTED TO THE 55 INCH MONITOR.

THE STREETS DEPARTMENTS MONITOR WALL SHALL INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING:

- 4- 32" MONITORS AS SPECIFIED IN THE SPECIFICATION MANUAL
- 1- 55" MONITOR AS SPECIFIED IN THE SPECIFICATION MANUAL
- 1- WORKSTATION - AS SPECIFIED IN THE SPECIFICATION MANUAL
- ALL CABLING BETWEEN THE WORKSTATION AND THE MONITORS INCLUDING AND POWER CABLES.
- MOUNTING WALL MATERIALS

GENERAL NOTES FOR NEW CONSTRUCTION

- FLAT SCREEN TV TO BE WALL MOUNTED, WALL MOUNT - PEERLESS UNIVERSAL TILT WALL MOUNT FOR 32"-56" SCREENS, ST650P-S.
- NEW WALL TO RUN TO UNDERSIDE OF FINISHED CEILING. ATTACH TOP STUD RUNNER TO CEILING GRID.
- POWER AND DATA TO BE PROVIDED IN NEW WALL, FROM OVERHEAD, BEHIND MONITORS.
- CONTRACTOR IS RESPONSIBLE FOR GETTING POWER TO THE VIDEO ARRAY WALL USING THE EXISTING POWER OUTLETS. ALL CABLING INCLUDING THE POWERCABLE SHALL BE HIDDEN BEHIND THE VIDEO ARRAY WALL AND MONITORS. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE OUTLETS FOR THE MONITORS TO PLUG INTO WHICH ARE HIDDEN AND MUST MEET NEC AND LOCAL CITY CODES.
- THE CONTRACTOR IS RESPONSIBLE FOR INTEGRATING THE MONITORS AND WORKSTATION TO THE VIDEO CONTROL SOFTWARE AND EQUIPMENT BEING INSTALLED UNDER THIS CONTRACT IN THE JOHNSON CITY TRAFFIC MANAGEMENT CENTER.

Drawn By:
Checked By:
Approved By:

10-721
17-JUN-2010 14:38
C:\PROJECTS\26575\03\WORK\26575_03\26575_03.dwg
Arch
8:LNW/8
8:LNW/28
8:LNW/38

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17-JUN-2010 14:38
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Arch
8:LNW/8
8:LNW/28
8:LNW/38

bmcys

ELECTRICAL LEGEND

(NOT ALL SYMBOLS NECESSARILY SHOWN ON PLANS)

LIGHTING

| SYMBOL | MOUNTING HEIGHT TO CENTER LINE | DESCRIPTION |
|--------|--------------------------------|---|
| ○ | -- | LIGHTING FIXTURE, DOWNLIGHT |
| □ | -- | LIGHTING FIXTURE, 2' X 4' FLUORESCENT TROFFER |
| ⊙ | -- | EXIT LIGHT, CEILING MOUNTED, PROVIDE DIRECTIONAL ARROW(S) WHERE INDICATED, DARKENED SIDE INDICATES SIGN FACE(S) |
| ⊙ | BOTTOM 2" ABOVE TOP OF DOOR | EXIT LIGHT, WALL MOUNTED, PROVIDE DIRECTIONAL ARROW(S) WHERE INDICATED, DARKENED SIDE INDICATES SIGN FACE |
| ⊙ | -- | LIGHTING FIXTURE, EMERGENCY WALL PACK TYPE WITH BATTERY, TWO LIGHT HEADS INDICATED |

LIGHTING SWITCHES AND CONTROLS

| SYMBOL | MOUNTING HEIGHT TO CENTER LINE | DESCRIPTION |
|----------------|--------------------------------|--------------------------|
| S | 46" | SINGLE POLE SWITCH |
| S ₃ | 46" | THREE WAY SWITCH |
| S ₄ | 46" | FOUR WAY SWITCH |
| D | 46" | DIMMER SWITCH |
| D ₃ | 46" | DIMMER SWITCH, THREE WAY |
| D ₄ | 46" | DIMMER SWITCH, FOUR WAY |

RACEWAYS AND FITTINGS

| SYMBOL | MOUNTING HEIGHT TO CENTER LINE | DESCRIPTION |
|-----------|--------------------------------|--|
| () | -- | CONDUIT AND WIRING CONCEALED |
| (-) | -- | CONDUIT AND WIRING UNDERSLAB OR UNDERGROUND |
| (- -) | -- | CONDUIT AND WIRING EXPOSED |
| (- - -) | -- | HOMERUN TO PANELBOARD, PANELBOARD DESIGNATION AND CIRCUIT NUMBER AS NOTED |
| () | -- | CONDUIT AND WIRING TURNED UP |
| () | -- | CONDUIT AND WIRING TURNED DOWN |
| () | -- | CONDUIT STUBBED OUT OR UP AND CAPPED |
| ⊙ | -- | JUNCTION BOX AND JUNCTION BOX WITH FLEX CONNECTION TO EQUIPMENT |
| ⊙ | 18" UON | WALL MOUNTED JUNCTION BOX AND JUNCTION BOX WITH FLEX CONNECTION TO EQUIPMENT |
| ~ | -- | FLEXIBLE CONDUIT, WATERPROOF |
| ⊕ | -- | MARKS INDICATE NUMBER OF 12 CONDUCTORS, EXCLUSIVE OF GROUND, IN RACEWAY, UON, NO MARKS INDICATES 2#12 AND 1#12 GROUND, UON |

POWER RECEPTACLES

| SYMBOL | MOUNTING HEIGHT TO CENTER LINE | DESCRIPTION |
|--------|--------------------------------|---|
| ⊕ | 18" | DUPLEX RECEPTACLE |
| ⊕ | -- | DUPLEX RECEPTACLE MOUNTED 4" ABOVE COUNTER BACK SPLASH OR 46" AFF IN ABSENCE OF COUNTER TOP |
| ⊕ | 18" | DUPLEX RECEPTACLE, GROUND FAULT INTERRUPTING TYPE (GFI) WITH IN-USE WEATHERPROOF COVER |
| ⊕ | 18" | DUPLEX RECEPTACLE, GROUND FAULT INTERRUPTING TYPE (GFI) |
| ⊕ | 18" | TWO DUPLEX RECEPTACLES UNDER SINGLE COVERPLATE |
| ⊕ | 18" | SINGLE RECEPTACLE, NEMA TYPE TO MATCH EQUIPMENT |

GENERAL RECEPTACLE MOUNTING NOTE:
REFER TO ARCHITECTURAL ELEVATIONS WITH LOCATIONS OF OUTLETS IN AND AROUND CASEWORK SUPERCEDES MOUNTING HEIGHTS INDICATED ON THIS LEGEND.

POWER SUPPLY, PROTECTION AND CONTROLS

| SYMBOL | MOUNTING HEIGHT TO CENTER LINE | DESCRIPTION |
|----------------|--------------------------------|--|
| S _m | 46" | MANUAL MOTOR STARTER |
| □ | 66" | NON-FUSED SAFETY SWITCH |
| □ | 66" | FUSED SAFETY SWITCH |
| ⊕ | -- | CONNECTION TO MOTOR, CONTROL PANEL, OR STARTER, FBO |
| ⊕ | 66" | COMBINATION STARTER AND FUSED DISCONNECT |
| TR | -- | TRANSFORMER, FLOOR MOUNTED UON |
| ⊕ | 66" | ENCLOSED CIRCUIT BREAKER, FLUSH MOUNTED |
| ⊕ | -- | LIGHTING PANELBOARD, SURFACE MOUNTED |
| ⊕ | -- | LIGHTING PANELBOARD, FLUSH MOUNTED |
| ⊕ | -- | POWER PANELBOARD |
| ATS | -- | AUTOMATIC TRANSFER SWITCH |
| GRA | -- | GENERATOR REMOTE ANNUNCIATOR |
| S | -- | MOTOR, NUMBER DENOTES HORSEPOWER |
| S _o | -- | TOGGLE TYPE DISCONNECT SWITCH, VOLTAGE AND POLES AS REQUIRED (NEMA-4X UON) |
| HD | -- | PUSHBUTTON |

FIRE ALARM

| SYMBOL | MOUNTING HEIGHT TO CENTER LINE | DESCRIPTION |
|-----------------|--------------------------------|--|
| E | 46" TO CENTER | FIRE ALARM PULL STATION |
| E ₄ | 80" TO BOTTOM | FIRE ALARM COMBINATION HORN AND FLASHING LIGHT |
| E ₄ | 80" TO BOTTOM | FIRE ALARM FLASHING LIGHT ONLY |
| ⊙ | -- | SMOKE DETECTOR, CEILING MOUNTED |
| ⊙ | -- | SMOKE DETECTOR, WALL MOUNTED |
| (C) ⊙ | 80" TO BOTTOM | SMOKE DETECTOR REMOTE ALARM INDICATOR (C=CEILING MOUNTED) |
| ⊙ | -- | DUCT SMOKE DETECTOR |
| (C) ⊙ | 46" TO CENTER | DUCT SMOKE DETECTOR REMOTE ALARM INDICATOR, AND KEY TEST SWITCH. (C=CEILING MOUNTED) |
| F ₃ | -- | SPRINKLER SYSTEM TAMPER SWITCH CONNECTION |
| F ₃ | -- | SPRINKLER SYSTEM FLOW SWITCH CONNECTION |
| F ₃ | -- | SPRINKLER SYSTEM PRESSURE SWITCH CONNECTION |
| F _{IV} | -- | POST INDICATOR VALVE CONNECTION |
| ⊙ | -- | SMOKE DAMPER MOTOR OPERATOR |

GENERAL FLASHING LIGHT NOTE:
ALL FLASHING LIGHTS SHALL BE 15 CANDELA UON.

HVAC AND PLUMBING

| SYMBOL | MOUNTING HEIGHT TO CENTER LINE | DESCRIPTION |
|--------|--------------------------------|--------------------------------------|
| VAV | -- | VARIABLE AIR VOLUME BOX, FAN POWERED |
| CUH | -- | CABINET UNIT HEATER |
| UH | -- | UNIT HEATER |
| DH | -- | DUCT HEATER |
| E | -- | EXHAUST FAN |
| FU | -- | FILTER UNIT FAN |
| VFD | -- | VARIABLE FREQUENCY DRIVE |
| WH | -- | WATER HEATER |
| ATC | -- | AUTOMATIC TEMPERATURE CONTROL PANEL |
| DDC | -- | DIRECT DIGITAL CONTROL PANEL |

MISCELLANEOUS SWITCHES AND SIGNALS

| SYMBOL | MOUNTING HEIGHT TO CENTER LINE | DESCRIPTION |
|--------|--------------------------------|--|
| CR | PER MFG DETAIL | CARD READER (REQUIRES A SINGLE GANG BOX) |

VOICE AND DATA

| SYMBOL | MOUNTING HEIGHT TO CENTER LINE | DESCRIPTION |
|-----------|--------------------------------|--|
| ◀ (1V.2D) | 18" | VOICE AND/OR DATA OUTLET WITH 3/4" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING (1=CABLE QUANTITY/JACK PORTS) (V=VOICE AND D=DATA) |
| ◀ (1V.2D) | -- | VOICE AND/OR DATA OUTLET MOUNTED 4" ABOVE COUNTER TOP BACK SPLASH OR 46" AFF IN ABSENCE OF COUNTER TOP WITH 3/4" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING (1=CABLE QUANTITY/JACK PORTS) (V=VOICE AND D=DATA) |

NOTES:
1. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OUTLET BOX SIZES INDICATED ABOVE AND CONDUIT TO ACCOMMODATE CABLING REQUIRED. PROVIDE SINGLE GANG COVER RINGS FOR TWO GANG BOXES.
2. REFER TO ARCHITECTURAL ELEVATIONS WITH LOCATIONS OF OUTLETS IN AND AROUND CASEWORK SUPERCEDES MOUNTING HEIGHTS INDICATED ON THIS LEGEND.

RISER AND ONE LINE DIAGRAM SYMBOLS

| SYMBOL | MOUNTING HEIGHT TO CENTER LINE | DESCRIPTION |
|--------|--------------------------------|---|
| --- | -- | NEW CONDUIT OR DEVICE |
| *** | -- | EXISTING CONDUIT TO BE REMOVED |
| TR | -- | TRANSFORMER |
| □ | -- | PANELBOARD |
| ⊕ | -- | INDICATES 4" CONCRETE HOUSEKEEPING PAD UNDER FLOOR MOUNTED ELECTRICAL EQUIPMENT (SWITCHBOARD, TRANSFORMER, MCC, ETC) |
| ⊕ | -- | CIRCUIT BREAKER |
| ⊕ | -- | FUSE |
| ⊕ | -- | TRANSFER SWITCH |
| ⊕ | -- | TRANSFORMER |
| ⊕ | -- | SWITCH |
| AFC | -- | AVAILABLE FAULT CIRCUIT |
| AIC | -- | ASYMMETRICAL INTERRUPTING CAPACITY OF EQUIPMENT |

ABBREVIATIONS

| SYMBOL | DESCRIPTION |
|--------|--|
| ABC | ABOVE COUNTER (REFER TO SPECIFICATIONS FOR MOUNTING) |
| AC | AIR CONDITIONER |
| AFF | ABOVE FINISHED FLOOR |
| AFG | ABOVE FINISHED GRADE |
| AHU | AIR HANDLING UNIT |
| ATS | AUTOMATIC TRANSFER SWITCH |
| C | CONDUIT |
| CKT | CIRCUIT |
| CLG | CEILING |
| CRU | COMPUTER ROOM A/C UNIT |
| CU | CONDENSING UNIT |
| EX | EXISTING TO REMAIN |
| EXR | EXISTING RELOCATED TO POSITION INDICATED ON PLAN |
| FBO | FURNISHED BY OTHERS |
| FL | FLOOR |
| GND | GROUND |
| MCC | MOTOR CONTROL CENTER |
| MFG | MANUFACTURER |
| MTD | MOUNTED |
| MTS | MANUAL TRANSFER SWITCH |
| NTS | NOT TO SCALE |
| RF | RETURN FAN |
| RTU | ROOFTOP UNIT |
| SWBD | SWITCHBOARD |
| ST | SHUNT TRIP |
| TR | TRANSFORMER |
| TB | TELEPHONE TERMINAL BOARD (8" X 3/4" PLYWOOD, WIDTH AS INDICATED) |
| UON | UNLESS OTHERWISE NOTED |
| WP | WEATHERPROOF |
| 3R | NEMA 3R ENCLOSURE |

LIGHTING FIXTURE SCHEDULE

| FIXTURE TYPE | FIXTURE WATTAGE | DESCRIPTION | MANUFACTURE'S CATALOG NUMBER | VOLTAGE | LAMP | MOUNTING | MOUNTING HEIGHT | NOTES |
|--------------|-----------------|-----------------------------------|---|---------|------------------|----------|-----------------|---|
| A2 | 59 | 2'X4' FLUORESCENT TROFFER FIXTURE | LITHONIA# 2GT8 232 A12125 MVOLT GEB10IS LP841 | 120 | (2) 32W T8 4100K | RECESSED | CEILING | PHILIPS ADVANCE 850 ELECTRONIC BALLAST |
| A3 | 89 | 2'X4' FLUORESCENT PARABOLIC | LITHONIA# 2PM3N 332 18LS MVOLT GEB10IS LP841 | 120 | (3) 32W T8 4100K | RECESSED | CEILING | PHILIPS ADVANCE 850 ELECTRONIC BALLAST. PROVIDE FIXTURE WITH (2) BALLASTS: (1);(1) LAMP & (1);(2) LAMP BALLAST. |
| A3A | 89 | 2'X4' FLUORESCENT TROFFER FIXTURE | LITHONIA# 2GT8 332 A12125 MVOLT 1/3 GEB10IS LP841 | 120 | (3) 32W T8 4100K | RECESSED | CEILING | PHILIPS ADVANCE 850 ELECTRONIC BALLAST. PROVIDE FIXTURE WITH (2) BALLASTS: (1);(1) LAMP & (1);(2) LAMP BALLAST. |
| B3 | 89 | 2'X4' FLUORESCENT MODULAR FIXTURE | LITHONIA# 2M 332 A12125 MVOLT 1/3 GEB10IS LP841 | 120 | (3) 32W T8 4100K | SURFACE | CEILING | PHILIPS ADVANCE 850 ELECTRONIC BALLAST |
| C6 | 100 | INCANDESCENT DOWN LIGHT FIXTURE | LITHONIA# LP6N 609AZ | 120 | (1) 100W A19 | RECESSED | CEILING | |
| E1 | 11 | EMERGENCY LIGHTING FIXTURE | LITHONIA# ELM1254 H1212 SD N | 120 | (2) 12W HALOGEN | WALL | 8'-0" AFF | |
| X1 | NA | EMERGENCY LIGHTING EXIT FIXTURE | LITHONIA# LQM S W 3 R 120/277 EL N SD | 120 | LED | WALL | 8'-0" AFF | |



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Johnson City Master Plan - TMC Design

209 WATER STREET
JOHNSON CITY, TN 37605



REVISION

| No. | Date | Revision |
|-----|------|----------|
| | | |
| | | |
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ELECTRICAL LEGEND AND LIGHT FIXTURE SCHEDULE

E0.1

FILE: 6575e001.dgn
GS&P PROJECT: 26575.03
DATE: 06.17.10
Federal Project # IVHS-9447(402)
State Project # 90952-1642-54



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PARTNERS

Johnson City Master
Plan - TMC Design

209 WATER STREET
JOHNSON CITY, TN 37605



| REVISION | | |
|----------|------|----------|
| No. | Date | Revision |
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ELECTRICAL
SCHEDULES

E0.2

FILE: 6575e002.dgn
GS&P PROJECT: 26575.03
DATE: 06.17.10
Federal Project # IVHS-9447(402)
State Project # 90952-1642-54

CONDUIT AND WIRE SIZING DESIGNATIONS

| MAX WIRE AMPS | DESIGNATION NUMBER | DESCRIPTION | MAX WIRE AMPS | DESIGNATION NUMBER | DESCRIPTION |
|---------------|--------------------|-------------------------|---------------|--------------------|---|
| 20 | 1 | 3/4" - 2#12 & #12 GND | 230 | 34 | 2-1/2" - 3#4/0 & #4 GND |
| 20 | 2 | 3/4" - 3#12 & #12 GND | 230 | 35 | 2-1/2" - 4#4/0 & #4 GND |
| 20 | 3 | 3/4" - 4#12 & #12 GND | 255 | 36 | 2-1/2" - 3#250MCM & #4 GND |
| 30 | 4 | 3/4" - 2#10 & #10 GND | 255 | 37 | 3" - 4#250MCM & #4 GND |
| 30 | 5 | 3/4" - 3#10 & #10 GND | 285 | 38 | 3" - 3#300MCM & #4 GND |
| 30 | 6 | 1" - 4#10 & #10 GND | 285 | 39 | 3" - 4#300MCM & #4 GND |
| 50 | 7 | 3/4" - 2#8 & #10 GND | 310 | 40 | 3" - 3#350MCM & #2 GND |
| 50 | 8 | 1" - 3#8 & #10 GND | 310 | 41 | 3" - 4#350MCM & #2 GND |
| 50 | 9 | 1" - 4#8 & #10 GND | 335 | 42 | 3" - 3#400MCM & #2 GND |
| 65 | 10 | 1" - 2#6 & #10 GND | 335 | 43 | 3-1/2" - 4#400MCM & #2 GND |
| 65 | 11 | 1" - 3#6 & #10 GND | 380 | 44 | 3" - 3#500MCM & #2 GND |
| 65 | 12 | 1-1/4" - 4#6 & #10 GND | 380 | 45 | 4" - 4#500MCM & #2 GND |
| 85 | 13 | 1-1/4" - 2#4 & #8 GND | 400 | 46 | 2 SETS EACH 2-1/2" - 3#3/0 & #3 GND |
| 85 | 14 | 1-1/4" - 3#4 & #8 GND | 400 | 47 | 2 SETS EACH 2-1/2" - 4#3/0 & #3 GND |
| 85 | 15 | 1-1/4" - 4#4 & #8 GND | 460 | 48 | 2 SETS EACH 2-1/2" - 4#4/0 & #2 GND |
| 100 | 16 | 1-1/4" - 2#3 & #8 GND | 510 | 49 | 2 SETS EACH 3" - 4#250MCM & #2 GND |
| 100 | 17 | 1-1/4" - 3#3 & #8 GND | 570 | 50 | 2 SETS EACH 3" - 4#300MCM & #1 GND |
| 100 | 18 | 1-1/2" - 4#3 & #8 GND | 620 | 51 | 2 SETS EACH 3" - 4#350MCM & #1 GND |
| 115 | 19 | 1-1/4" - 2#2 & #8 GND | 760 | 52 | 2 SETS EACH 4" - 4#500MCM & #1/0 GND |
| 115 | 20 | 1-1/4" - 3#2 & #8 GND | 855 | 53 | 3 SETS EACH 3" - 4#300MCM & #1/0 GND |
| 115 | 21 | 1-1/2" - 4#2 & #8 GND | 930 | 54 | 3 SETS EACH 3" - 4#350MCM & #2/0 GND |
| 130 | 22 | 1-1/4" - 2#1 & #6 GND | 1005 | 55 | 3 SETS EACH 3-1/2" - 4#400MCM & #2/0 GND |
| 130 | 23 | 1-1/2" - 3#1 & #6 GND | 1140 | 56 | 3 SETS EACH 4" - 4#500MCM & #3/0 GND |
| 130 | 24 | 2" - 4#1 & #6 GND | 1240 | 57 | 4 SETS EACH 3" - 4#350MCM & #3/0 GND |
| 150 | 25 | 1-1/2" - 2#1/0 & #6 GND | 1675 | 58 | 5 SETS EACH 3-1/2" - 4#400MCM & #4/0 GND |
| 150 | 26 | 2" - 3#1/0 & #6 GND | 1900 | 59 | 5 SETS EACH 4" - 4#500MCM & #250MCM GND |
| 150 | 27 | 2" - 4#1/0 & #6 GND | 2010 | 60 | 6 SETS EACH 3-1/2" - 4#400MCM & #250MCM GND |
| 175 | 28 | 1-1/2" - 2#2/0 & #6 GND | 2280 | 61 | 6 SETS EACH 4" - 4#500MCM & #350MCM GND |
| 175 | 29 | 2" - 3#2/0 & #6 GND | 2660 | 62 | 7 SETS EACH 4" - 4#500MCM & #350MCM GND |
| 175 | 30 | 2" - 4#2/0 & #6 GND | 3040 | 63 | 8 SETS EACH 4" - 4#500MCM & #400MCM GND |
| 200 | 31 | 1-1/2" - 2#3/0 & #6 GND | 4180 | 64 | 11 SETS EACH 4" - 4#500MCM & #500MCM GND |
| 200 | 32 | 2" - 3#3/0 & #6 GND | 5320 | 65 | 14 SETS EACH 4" - 4#500MCM & #700MCM GND |
| 200 | 33 | 2-1/2" - 4#3/0 & #6 GND | | | |

CONDUIT AND WIRE SIZING DESIGNATIONS GENERAL NOTES

- IN GENERAL ACTUAL BKR. AMPS SHALL BE EQUAL TO OR NEXT STANDARD SIZE SMALLER THAN MAX. WIRE AMPS EXCEPTIONS SHALL BE MOTOR AND SPECIAL EQUIPMENT BREAKERS WHICH SHALL BE SIZED PER N.E.C. 430 AND VENDOR REQUIREMENTS.
- PRIOR TO BID COORDINATE BKRS. AND FEEDERS SHOWN AS REQUIRED TO CONFIRM AMPACITIES OF BOTH ARE IN ACCORDANCE WITH NOTE #1. (WHERE CONFLICTS EXIST, OBTAIN WRITTEN CLARIFICATION PRIOR TO BID.)
- OMIT GROUND CONDUCTORS ON SERVICE ENTRANCE FEEDERS. (TYPICAL)

PANEL SCHEDULE NOTE FIELD ABBREVIATIONS

- AF - ARC FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER
- GF - GROUND FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER
- IG - CIRCUIT TO BE PROVIDED WITH ISOLATED GROUND CONDUCTOR-
- K - KEY OPERATED CIRCUIT BREAKER
- LO - PROVIDE CIRCUIT BREAKER WITH LOCK-ON DEVICE
- PL - PROVIDE POWER LINK CONTROLS - REFER TO SPECIFICATIONS
- ST - SHUNT TRIP TYPE CIRCUIT BREAKER

ONE-LINE DIAGRAM NOTE ABBREVIATIONS

- TVSS** PROVIDE TRANSIENT VOLTAGE SURGE SUPPRESSION AT BUS INDICATED. REFER TO PROJECT SPECIFICATIONS.

MAXIMUM BRANCH CIRCUIT LENGTH FOR SINGLE-PHASE LOADS (IN FEET)

| MAXIMUM ALLOWABLE VOLTAGE DROP | 3% | | | | | |
|--------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | 120V | | 208V | | 277V | |
| | BRANCH CIRCUIT BREAKER |
| CONDUCTOR WIRE SIZE (AWG) | 20A/1P | 30A/1P | 20A/1P | 30A/1P | 20A/1P | 30A/1P |
| #12 | 60 | N/A | 105 | N/A | 140 | N/A |
| #10 | 95 | 65 | 170 | 110 | 225 | 150 |
| #8 | 150 | 95 | 260 | 170 | 345 | 230 |
| #6 | 235 | 150 | 410 | 270 | 545 | 360 |
| #4 | 365 | 245 | 635 | 425 | 850 | 565 |
| #3 | 465 | 310 | 810 | 540 | 1,080 | 720 |
| #2 | 560 | 375 | 975 | 650 | 1,295 | 865 |
| #1 | 700 | 465 | 1,215 | 810 | 1,620 | 1,080 |

NOTES:

- CALCULATIONS BASED ON LOAD 80% OF BRANCH BREAKER SIZE.
- VOLTAGE DROP BASED ON 0.95 POWER FACTOR.
- BRANCH CIRCUIT LENGTH VALUES INDICATED ARE WIRE DISTANCE FROM PANELBOARD TO LOAD.

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Checked By:
Approved By:

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17-JUN-2010 14:39
PROJECT: JOHNSON CITY MASTER PLAN
CONTRACT: 2657503
ARCH: MS
DATE: 06/17/10
DRAWN BY: MS
CHECKED BY: MS
APPROVED BY: MS
PAGES: 16
REF: 28
REF: 38

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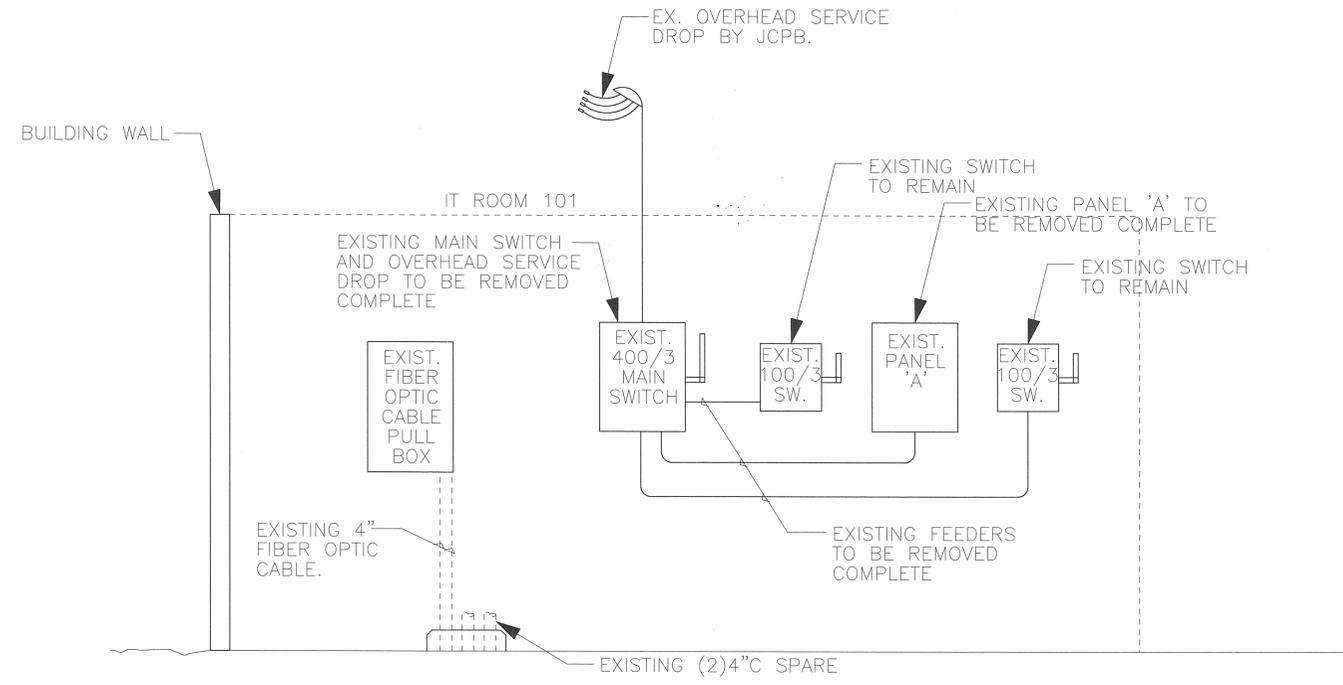


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ELECTRICAL
RISER DIAGRAMS

E7.1

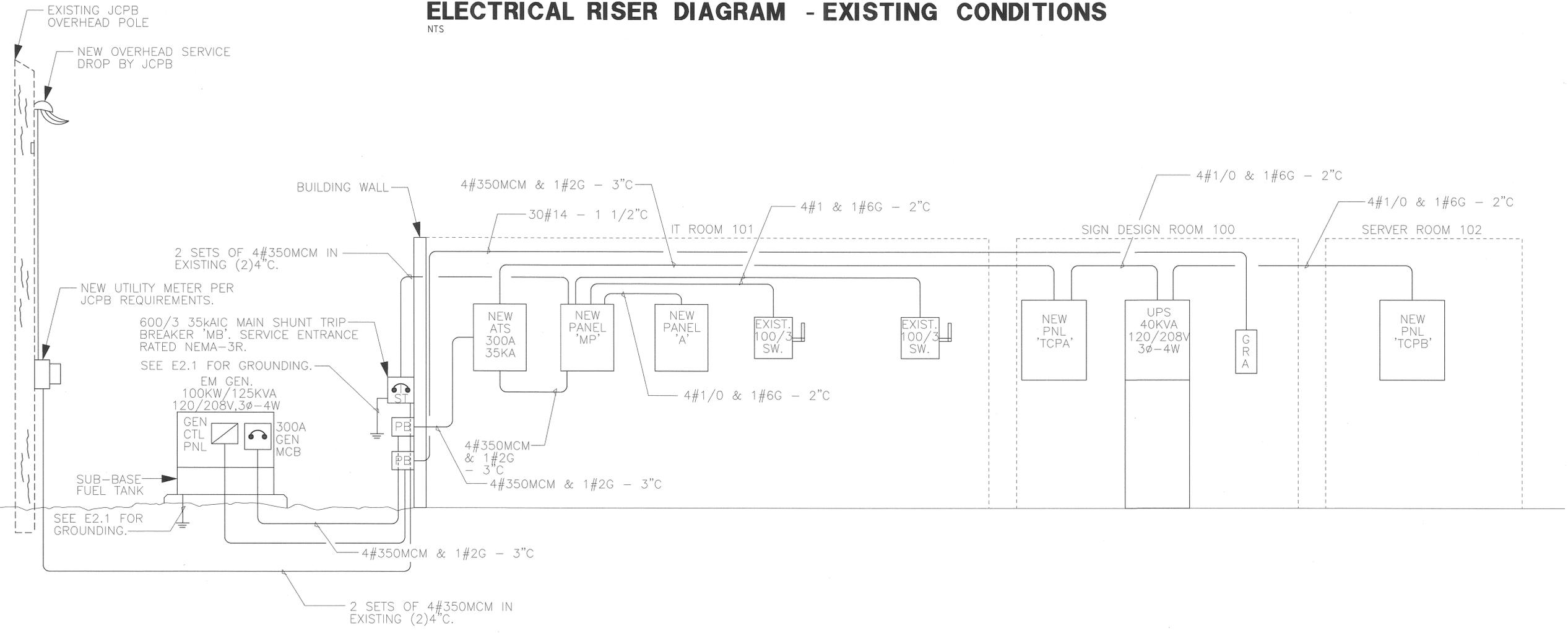
FILE: 6575e701.dgn
GS&P PROJECT: 26575.03
DATE: 06.17.10
Federal Project # IVHS-9447(402)
State Project # 90952-1642-54



- ELECTRICAL CONSTRUCTION PHASING:
1. INSTALL PANEL 'MP', ATS, EMERGENCY GENERATOR, PANEL 'TCPA' & 'TCPB', UPS, GRA AND ALL ASSOCIATED FEEDERS.
 2. INSTALL NEW FEEDERS TO EXISTING 100/3 SWITCHES.
 3. INSTALL TEMPORARY FEEDER TO EXISTING PANEL 'A'.
 4. REMOVE EXISTING MAIN SWITCH, EXISTING OVERHEAD DROP, AND EXISTING FEEDERS TO EXISTING SWITCHES AND EXISTING PANEL 'A' COMPLETE.
 5. INSTALL NEW PANEL 'A' WHERE EXISTING 400AMP SWITCH IS LOCATED, INSTALL PERMANENT FEEDER TO PANEL 'A', PROVIDE NEW PULL BOX FROM EXISTING PANEL 'A' TO INTERCEPT EXISTING BRANCH CIRCUITRY.
 6. REMOVE EXISTING PANEL 'A' COMPLETE, REMOVE EXISTING BRANCH CIRCUITRY UP TO NEW PULL BOX, AND REMOVE TEMPORARY FEEDER.
 7. PROVIDE TEMPORARY STANDBY GENERATOR DURING POWER OUTAGES. (SEE SHEET E2.1 FOR LOADS ON TEMPORARY STANDBY GENERATOR.)

ELECTRICAL RISER DIAGRAM - EXISTING CONDITIONS

NTS



ELECTRICAL RISER DIAGRAM - NEW CONSTRUCTION

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REVISION table with columns for No., Date, and Revision.

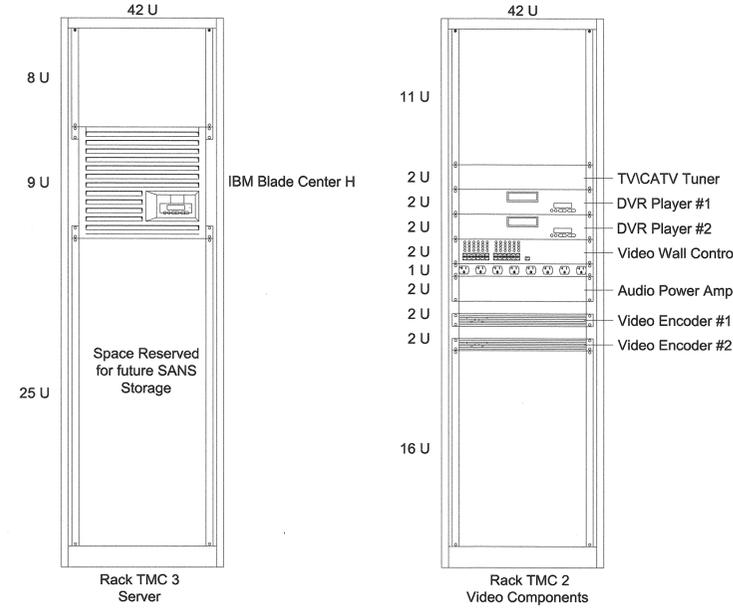
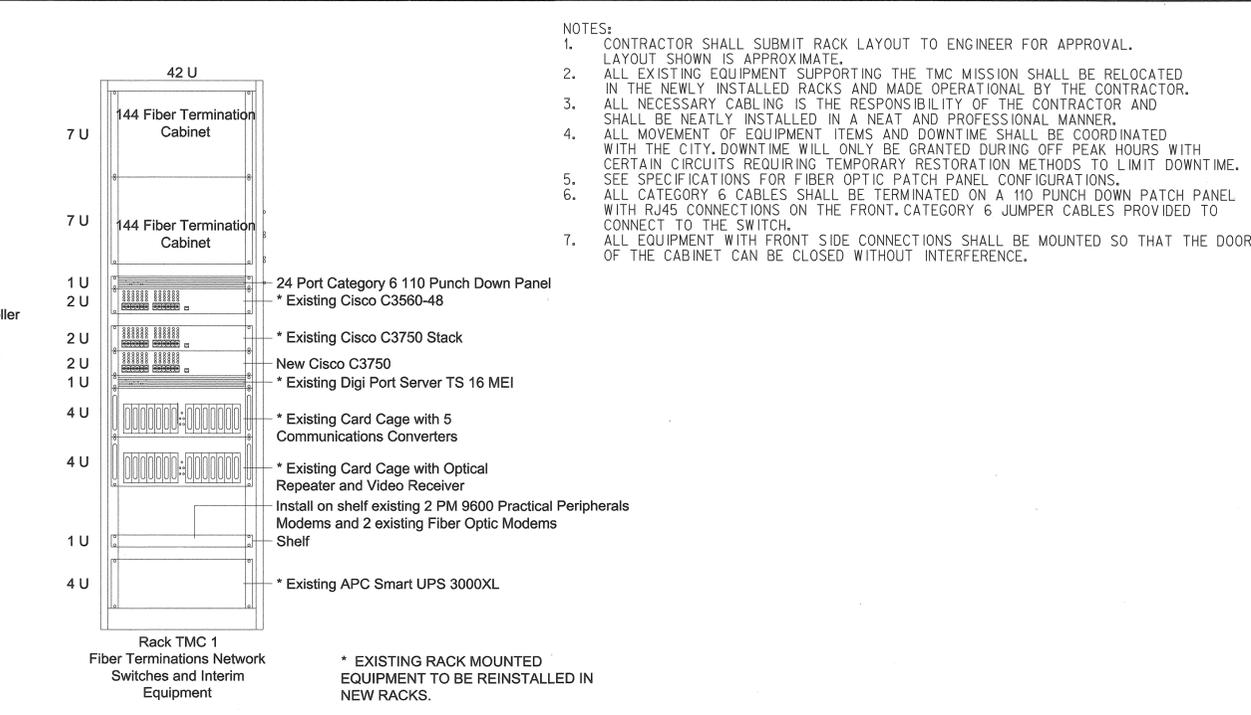
PANEL SCHEDULES & SERVER RACKS

E7.2

FILE: 6575e702.dgn GS&P PROJECT: 26575.03 DATE: 06.17.10 Federal Project # IVHS-9447 (402) State Project # 90952-1642.54

Panel Schedule for Panel 'A' (IT Room 101 New Panelboard). Includes table with columns for CKT, DESCRIPTION, NOTES, DEMAND CODE, VA, DC AMPS P, PHASE, DC AMPS P, VA, DEMAND CODE, NOTES, DESCRIPTION, CKT. Includes summary table at the bottom.

Panel Schedule for Panel 'MP' (DC Device Type: Breaker, DC Device Family: Bolt On). Includes table with columns for CUBICLE NO, DESCRIPTION, CONNECTED KVA, DEMAND KVA, DESIGN KVA, DESIGN MAX AMPS, DC DEVICE TYPE, DC DEVICE SIZE, P, NOTES. Includes summary table at the bottom.



EQUIPMENT ROOM SERVER RACK LAYOUT

NTS

Vertical text on the left margin containing project details, dates, and file names.

bmdys

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Checked By:
Approved By:



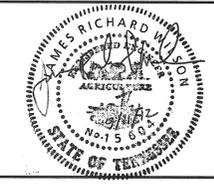
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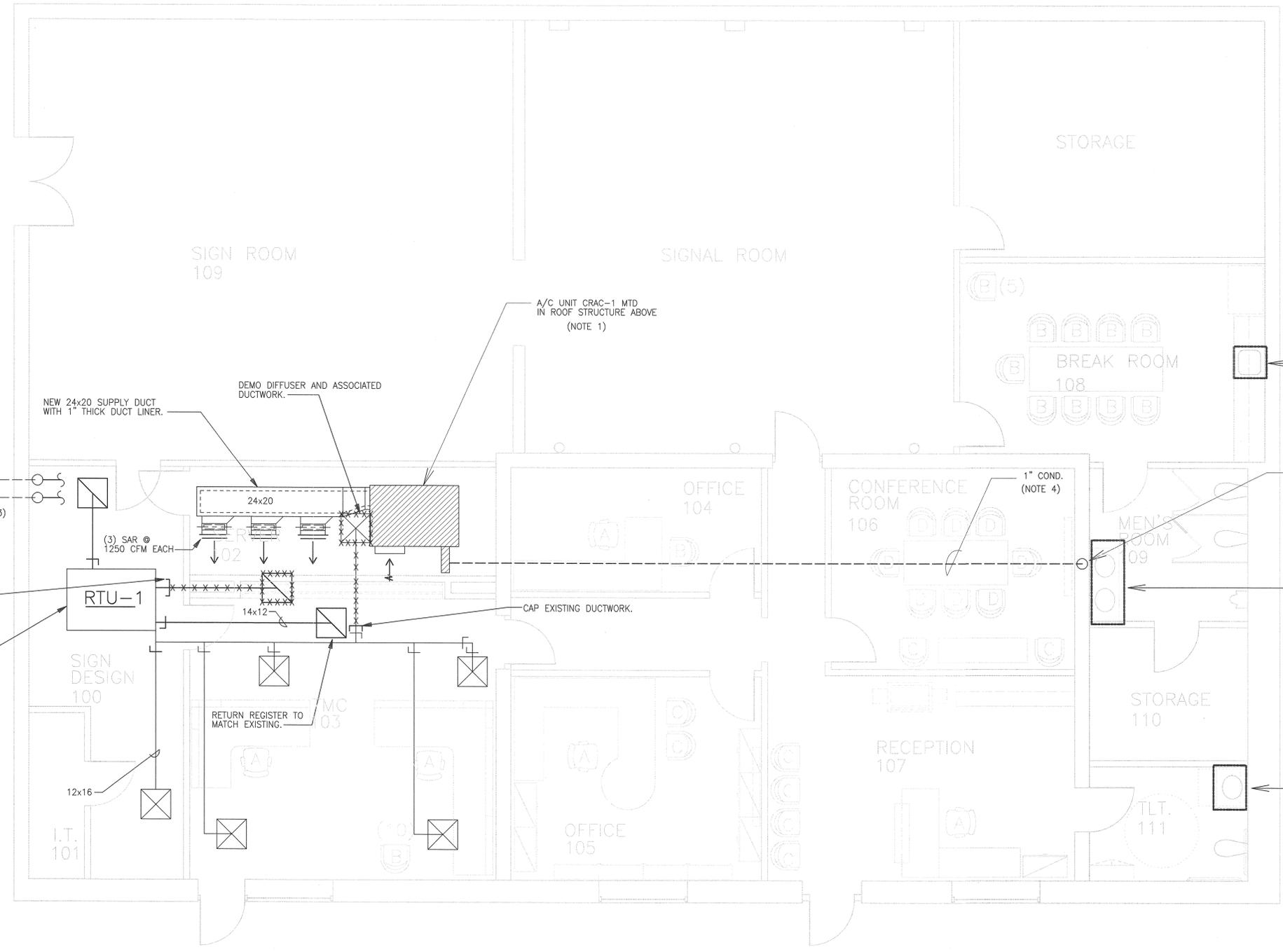


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FIRST FLOOR
MECHANICAL

M2.1

FILE: m201.dgn
G&S&P PROJECT: 26575.03
DATE: 09/12/12



FIRST FLOOR - MECHANICAL



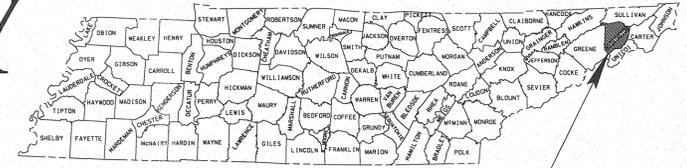
- NOTES:**
- EQUAL TO LIEBERT #MM96E-COELA INDOOR UNIT; 3750 CFM @ 0.5" W.G.; 2 HP FAN; 89,000 BTUH TOTAL/ 77,200 BTUH SENSIBLE COOLING AT 72° F, 50% R.H. 11.5 KW ELECTRIC REHEAT; 34.1 FLA/ 42.6 MCA/ 45 MOCP @ 208/3/60. PROVIDE WITH CONDENSATE PUMP AND FILTERS. PROVIDE AUXILIARY DRAIN PAN WITH CUT-OFF SWITCH.
 - EQUAL TO LIEBERT #PCF096A CONDENSING UNIT; 8 NOMINAL TO CAPACITY; 35.6 FLA/ 40.8 MCA/ 60 MOCP @ 208/3/60.
 - COPPER REFRIGERANT LINES INSULATED WITH 3/4" THICK ARMAFLEX INSTALL PER MANUFACTURER'S RECOMMENDATIONS
 - TYPE M COPPER CONDENSATE SLOPED TOWARD DRAIN CONNECTION @ MIN. 1/8" PER FOOT. INSULATE WITH 1" THICK RIGID FIBERGLASS.
 - PROVIDE INDIRECT DRAIN CONNECTION FOR CONDENSATE DRAIN TIE-IN.
 - SUPPLY AIR REGISTER EQUAL TO TITUS 350-18"x16"; 1250 CFM; NC-30; MAX 0.15" PD

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CITY OF JOHNSON CITY

IMPROVEMENTS TO

TRAFFIC MANGEMENT SYSTEM COMMUNICATIONS INTELLIGENT TRANSPORTATION MANAGEMENT SYSTEM



LOCATION OF PROJECT
WASHINGTON COUNTY

WASHINGTON COUNTY, TENNESSEE

CONSTRUCTION

FEDERAL PROJECT # IVHS-9447(402)

STATE PROJECT # 90952-1642-54

STATE P.I.N. # 041039.00

LOCALLY MANAGED PROJECT



STATE OF FRANKLIN RD.

BRISTOL HWY.

N

N. ROAN ST.

MARKET ST.

UNIVERSITY PKWY.

PROJECT LENGTH 16.2 MI
SCALE: 1" = 1 MILE



GRESHAM
SMITH AND
PARTNERS

SPECIAL NOTES

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 2006 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT

PROJECT LIMITS:

- STATE OF FRANKLIN ROAD BETWEEN SOUTH ROAN ST. AND BROWNS MILL ROAD
- NORTH ROAN STREET BETWEEN JOHN EXUM PARKWAY AND OAKLAND AVE.
- SOUTH ROAN STREET BETWEEN LOCUST-PINE STREET AND I-26 INTERCHANGE
- UNIVERSITY PARKWAY FROM STATE OF FRANKLIN ROAD TO THE I-26 INTERCHANGE

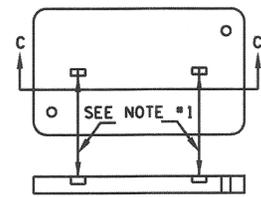
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**FIBER OPTIC PULLBOX
MINIMUM DIMENSIONS**

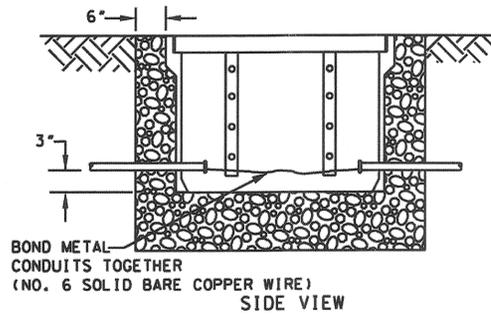
| TYPE | LENGTH | WIDTH | DEPTH |
|------|--------|-------|-------|
| C | 24" | 16" | 18" |
| D | 36" | 24" | 36" |
| E | 48" | 30" | 36" |

TYPE "D" FIBER OPTIC PULLBOXES ARE TO BE USED WHEN NO SPLICING IS REQUIRED IN THE PULLBOX.
TYPE "E" FIBER OPTIC PULLBOXES ARE TO BE USED WHEN SPLICING IS REQUIRED IN THE PULLBOX.

PULL BOX COVER



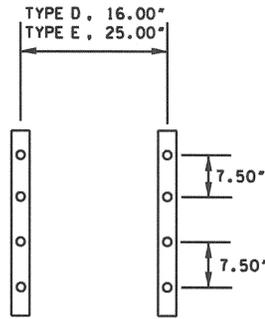
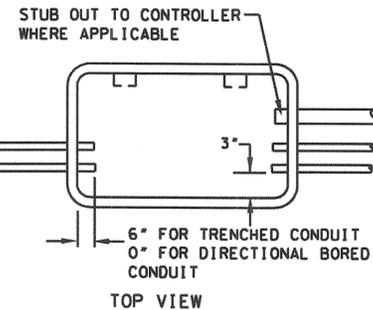
SECTION C-C



**FIBER OPTIC PULLBOX DETAILS
(TYPICAL)**

NOTES:

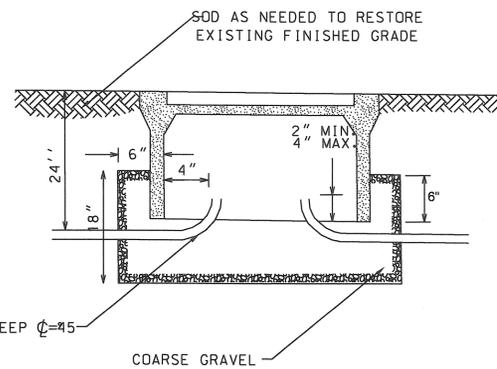
- NOTCHES SHALL BE PROVIDED FOR REMOVING THE COVER.
- COVER SHALL BOLT DOWN.
- THE MESSAGE "ITS" IS TO BE INSCRIBED ON TOP OF THE COVER.
- ASSEMBLY SHALL BE RATED FOR A MINIMUM STATIC LOAD OF 15,000 LBS OVER A 10"x10" AREA AND PASS MINIMUM STATIC TEST LOAD OF 22,000 LBS.
- CONDUIT TO USE LARGE RADIUS BENDS.
- INSTALL CONDUIT OPPOSITE OF CHANNEL RACKING.
- INSTALL INCOMING CONDUIT BOTH VERTICALLY AND HORIZONTALLY PARALLEL TO CORRESPONDING EXITING CONDUIT.
- GROUT COMPLETELY AROUND ALL CONDUIT ENTRIES TO THE FULL THICKNESS OF THE BOX WALL.
- ALL CONDUIT SHALL ENTER THE PULL BOX LEVEL, STRAIGHT AND PERPENDICULAR TO THE WALL OF THE PULL BOX.
- CONDUIT SHALL SLOPE AWAY FROM SIDES OF PULL BOX TO BORE OR TRENCH GRADE.



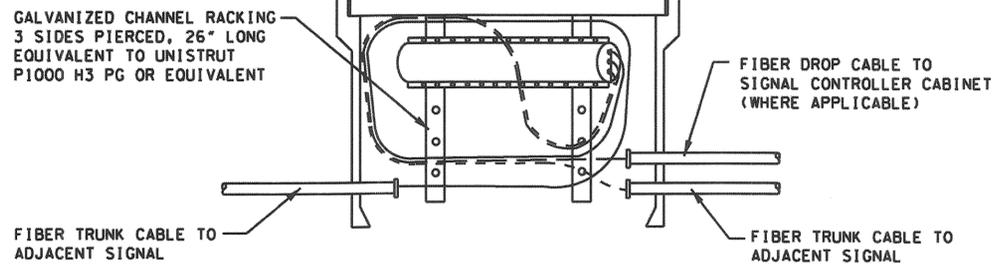
CHANNEL RACKING DETAILS

NOTES:

- INSERTS TO BE CENTERED ON ONE WALL OF TYPE D & E BOXES, 5.625" FROM THE TOP OF EACH BOX.
- TWO PIECE STEEL PIERCED CHANNEL 22" LONG. (UNISTRUT NO. P1000-H3 OR EQUAL) TO BE SUPPLIED WITH EACH BOX. CHANNEL TO BE PIERCED ON THREE SIDES.
- BOLTS TO BE 1/2" x 3/4" LONG STAINLESS STEEL 1/8" SPACERS TO BE PLACED BETWEEN CHANNELS AND WALL OF PULL BOX.
- CHANNEL RACKING TO BE FACTORY INSTALLED.



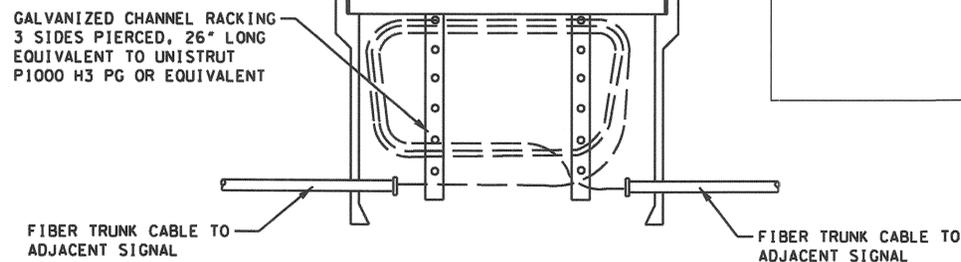
TYPICAL TYPE C PULL BOX INSTALLATION



**FIBER OPTIC SPLICE CLOSURE
TYPE E PULL BOX**

NOTES:

- CABLES SHALL BE DRESSED IN A COMMON BUNDLE EVERY 3 FEET WITH UV RESISTANT NYLON CABLE TIES OR ELECTRICAL TAPE.
- SECURE CABLE SLACK AND CLOSURE TO CHANNEL RACKING VIA UV RESISTANT BLACK NYLON 120-LB (MIN.) TENSILE STRENGTH CABLE TIES.
- MAINTAIN MINIMUM BEND RADIUS (ACCORDING TO MANUFACTURERS SPECIFICATIONS FOR CABLE AT REST) FOR LARGEST CABLE IN BUNDLE.
- MAINTAIN 6 INCHES OF CLEARANCE BETWEEN TOP OF PULL BOX AND CABLE/ CLOSURE.
- ROUTE CABLE EXITING CONDUIT AS TO NOT INTERFERE WITH FUTURE USE OF EMPTY CONDUIT.



**FIBER OPTIC CLOSURE
TYPE D PULL BOX**

NOTES:

- SECURE CABLE SLACK AND CLOSURE TO CHANNEL RACKING VIA UV RESISTANT BLACK NYLON 120-LB (MIN.) TENSILE STRENGTH CABLE TIES.
- MAINTAIN MINIMUM BEND RADIUS (ACCORDING TO MANUFACTURERS SPECIFICATIONS FOR CABLE AT REST) FOR LARGEST CABLE IN BUNDLE.
- MAINTAIN 6 INCHES OF CLEARANCE BETWEEN TOP OF PULL BOX AND CABLE/ CLOSURE.
- ROUTE CABLE EXITING CONDUIT AS TO NOT INTERFERE WITH FUTURE USE OF EMPTY CONDUIT.
- CABLE SLACK SHALL NOT BE STORED ON THE FLOOR OF THE PULL BOX.

SPECIAL NOTES

- CONDUIT FOR FIBER OPTIC CABLE REQUIRED TO UTILIZE LARGE RADIUS BENDS (MINIMUM RADIUS 6 INCHES). NO ELBOW JOINTS ALLOWED.
- FIBER OPTIC CABLE RUNS TO UTILIZE MIN. 2.00" CONDUIT.
- THE COST OF ALL MODIFICATIONS, ADJUSTMENTS, MATERIALS, MOUNTING HARDWARE, ETC. TO BE INCLUDED IN OTHER ITEMS. UNLESS A DIRECT PAY ITEM IS PROVIDED.
- REPLACEMENT/REMOVAL OF COMMUNICATIONS PULL BOXES; THE CONTRACTOR SHALL REMOVE OR REPLACE THE COMMUNICATIONS PULL BOXES IN LOCATIONS SHOWN ON THE PLANS.
- REPLACEMENT: PULL BOXES WILL BE REPLACED TO ACCOMMODATE THE INSTALLATION OF FIBER OPTIC CABLE. REPLACEMENT BOXES ARE TDOT TYPE E AND WILL CONTAIN FIBER OPTIC SLACK STORAGE AND OR SPLICE ENCLOSURES. THE CONTRACTOR SHALL REMOVE EXISTING PULL BOXES AND ENLARGE THE OPENING TO ACCOMMODATE THE LARGER SIZE BOXES REQUIRED. GRAVEL WILL BE RENEWED IN THE BOTTOM OF THE BOX AND THE AREA SURROUNDING THE BOX SHALL BE RETURNED TO ITS PRECONSTRUCTION STATE. EXISTING CONDUIT WILL BE LOCATED AND THE EXISTING COPPER INTERCONNECT CABLE REMOVED. THE EXISTING CONDUIT SWEEPS WILL BE CUT FROM THE CONDUIT RUNS AND THE CONDUIT WILL BE CUT BACK TO 24 INCHES ON EACH SIDE OF THE OUTSIDE WALL OF THE REPLACEMENT PULL BOX. AFTER THE NEW PULL BOX IS SET IN PLACE A SECTION OF CONDUIT WILL BE ROUTED THROUGH THE TERMINATOR RING OF THE PULL BOX TO MEET THE EXISTING CONDUIT AND BE COUPLED WITH A PROPER SIZE COUPLER USING STANDARD GLUING PROCEDURES. ONE 5 DEGREE COUPLING MAY BE USED TO BETTER ALIGN THE CONDUIT WHEN NECESSARY AND APPROVED BY THE ENGINEER. THE RESULTING CONDUIT RUN SHALL BE CLEANED AND A CORRECT SIZED MANDREL PULLED THROUGH TO VERIFY THE INTEGRITY OF THE CONDUIT RUNS FROM BOX TO BOX. THE CONDUIT SECTIONS WILL BE CAPPED AT BOTH ENDS IF THE FIBER IS NOT IMMEDIATELY PLACED IN THE SECTION.
- REMOVAL: WHEN SHOWN ON THE PLANS EXISTING PULL BOXES WILL BE REMOVED AND THE EXISTING CONDUIT COUPLED TO CREATE A CONTINUOUS CONDUIT PATH. THE CONTRACTOR SHALL REMOVE THE EXISTING COPPER CABLE AND PULL BOX TO EXPOSE THE CONDUIT RUN. ALL ELBOWS AND BENDS SHALL BE REMOVED. THE CONTRACTOR SHALL INSERT A SECTION OF CONDUIT TO JOIN THE CONDUITS FROM BOTH SIDES OF THE REMOVED PULL BOXES USING STANDARD COUPLING PROCEDURES. ONE 5 DEGREE COUPLING MAY BE USED TO ENSURE PROPER ALIGNMENT. FLEXIBLE CONDUIT SHALL NOT BE ALLOWED UNDER ANY CIRCUMSTANCES. THE RESULTING CONDUIT RUN SHALL BE CLEANED AND A CORRECT SIZED MANDREL PULLED THROUGH TO VERIFY THE INTEGRITY OF THE CONDUIT RUNS FROM BOX TO BOX. THE CONDUIT SECTIONS WILL BE CAPPED AT BOTH ENDS IF THE FIBER IS NOT IMMEDIATELY PLACED. THE CONTRACTOR IS RESPONSIBLE FOR BACKFILLING, AND SODDING THE AREA DISTURBED BY THE REMOVAL.
- WHEN THE SUBJECT PULL BOX WAS LOCATED IN A SIDEWALK SECTION THE CONTRACTOR SHALL REPLACE THE SIDEWALK SECTION OR SECTIONS FROM EXPANSION JOINT TO EXPANSION JOINT USING CITY OF JOHNSON CITY CONSTRUCTION SPECIFICATIONS.



REVISION

| No. | Date | Revision |
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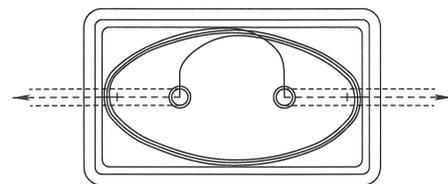
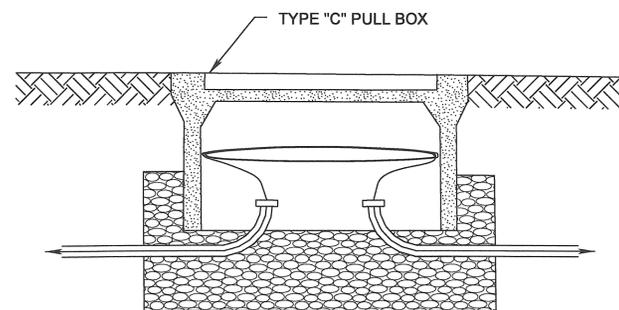
FIBER OPTIC PULL BOX
DETAILS

TYPICAL CABLE COIL INSTALLATION GUIDE

(FEET OF COIL LENGTH PER ENTERING CABLE)

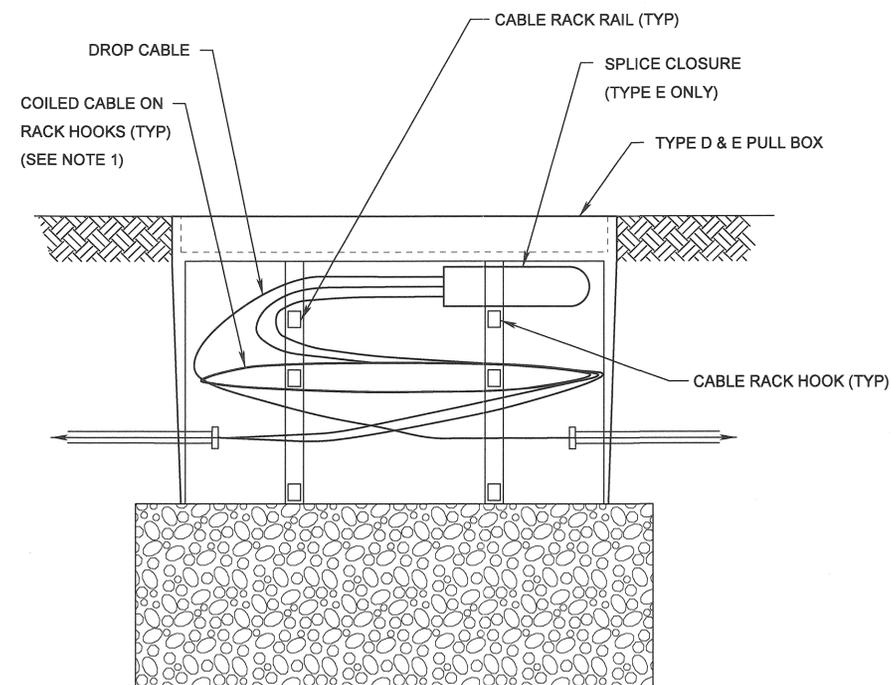
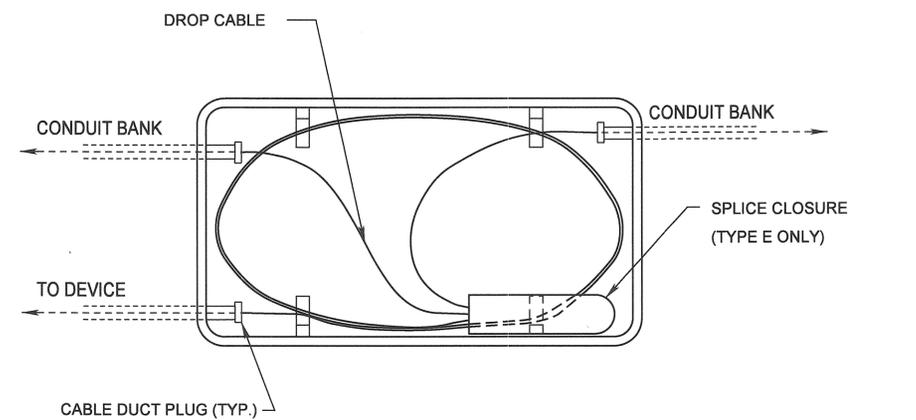
| CABLE TYPE | TYPE "C" PULL BOX | TYPE "D" PULL BOX ON TRUNK | TYPE "D" PULL BOX ON DROP | TYPE "E" PULL BOX |
|-------------------------------|-------------------|----------------------------|---------------------------|-------------------|
| FIBER OPTIC CABLES (TRUNK) | | 50 | | 200 |
| FIBER OPTIC CABLES (DROP) | | | 25 | 100 |
| ELECTRICAL SERVICE CONDUCTORS | 10 | | | |
| PAVEMENT SENSOR | 5 | | | |

NOTE: SEE TSP 725 FOR ADDITIONAL INFORMATION



CABLE MANAGEMENT IN TYPE "C" PULL BOX

N.T.S.



CABLE MANAGEMENT IN TYPE D & E PULL BOX

N.T.S.

- NOTES: 1. FIBER TRUNK AND DROP CABLE SHALL BE COILED TOGETHER.
 2. CONDUIT MAY ENTER THE LONG SIDE OF THE PULL BOX WHEN FIELD CONDITIONS WARRANT
 3. ALL CONDUITS RECEIVE DUCT PLUGS



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CABLE MANAGEMENT
 DETAILS

2AF

SCALE: N.T.S.
 PROJECT: 24525.03
 DATE: 2010



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CABINET EQUIPMENT TABLES

| SHEET NO. | LOCATION | CABINET TYPE B 725-10.12 | NETWORK SWITCH TYPE A 725-07.08 | CCTV CAMERA (TUBE) 725-10.10 | CCTV CAMERA (DOME) 725-10.11 | TERMINAL SERVER 725-10.17 | PAVEMENT SENSOR CONTROLLER 725-10.46 | STREAM GAUGE CONTROLLER 725-10.45 | WEATHER STATION CONTROLLER 725-10.47 | COMMENTS |
|-----------|--|-----------------------------|------------------------------------|---------------------------------|---------------------------------|------------------------------|---|--------------------------------------|---|----------|
| 26 | MOCKINGBIRD LN. & N. ROAN ST. | | 1 | | | 1 | | | | |
| 27 | W. MOUNTCASTLE DR. & N. ROAN ST. | | 1 | 1 | | 1 | | | | |
| 27 | SUNSET DR. & N. ROAN ST. | | 1 | | | 1 | | | | |
| 27 | BROWNS MILL RD. & N. ROAN ST. | | 1 | | | 1 | | | | |
| 27 | BROYLES DR. & PRINCETON RD. | | 1 | | 1 | 1 | | | | |
| 28 | INTERSTATE 26 JUST NORTH OF N. ROAN ST. | | 1 | | 1 | | | | | |
| 28 | SPRINGBROOK DR. & N. ROAN ST. | | 1 | | 1 | 1 | | | | |
| 29 | BRISTOL HWY. & N. ROAN ST. | | 1 | | 1 | 1 | 1 | | | |
| 30 | BRISTOL HWY & W. OAKLAND AVE. | | 1 | | 1 | 1 | | | | |
| 30 | W. OAKLAND AVE. & N. ROAN ST. | | 1 | 1 | | 1 | | | | |
| 32 | E. 8TH AVE. & N. ROAN ST. | | 1 | | | 1 | 1 | | | |
| 32 | UNAKA AVE. & N. ROAN ST. | | 1 | | 1 | 1 | | | | |
| 32 | WATAUGA AVE. & N. ROAN ST. | | 1 | | 1 | 1 | | | | |
| 33 | E. FAIRVIEW AVE. & N. ROAN ST. | | 1 | | | 1 | | | | |
| 33 | KING ST. & N. ROAN ST. | | 1 | | | 1 | | | | |
| 33 | N. ROAN ST. & BUFFALO ST. | | 1 | | 1 | 1 | | | | |
| 33 | BOONE ST. & MAIN ST. | | 1 | | | 1 | | | | |
| 33 | BOONE ST. & MARKET ST. | | 1 | | | 1 | | | | |
| 33 | BUFFALO ST. & MARKET ST. | | 1 | | | 1 | | | | |
| 34 | S. ROAN ST. & PINE ST. | | 1 | | | 1 | | | | |
| 35 | UNIVERSITY PKWY. & INTERSTATE 26 W | | 1 | | | 1 | | | | |
| 35 | UNIVERSITY PKWY. & S. ROAN ST. | | 1 | | 1 | 1 | 1 | | | |
| 35 | LAFE COX DR. & S. ROAN ST. | | 1 | | 1 | 1 | | | | |
| 36 | S. ROAN ST. & FOOD CITY | | 1 | | | 1 | | | | |
| 37 | W. UNAKA AVE. & W. MARKET ST. | | 1 | | | 1 | | | | |
| 37 | W. UNAKA AVE. & W. MAIN ST. | | 1 | | | 1 | | | | |
| 37 | W. WATAUGA AVE. & W. MARKET ST. | | 1 | | | 1 | | | | |
| 37 | W. WATAUGA AVE. & W. MAIN ST. | | 1 | | | 1 | | | | |
| 38 | LAMONT ST. & UNIVERSITY PKWY. | | 1 | | | 1 | | | | |
| 39 | SOUTHWEST AVE. & UNIVERSITY PKWY. | | 1 | | 1 | | | | | |
| 40 | CHEROKEE RD. & UNIVERSITY PKWY. | | 1 | | 1 | 1 | 1 | | | |
| 42 | INTERSTATE 26 JUST NORTH OF UNIVERSITY PKWY. | | 1 | | 1 | | | | | |
| 42 | INTERSTATE 26 & UNIVERSITY PKWY | | 1 | | | 1 | | | | |
| 43 | ELM ST. & UNAKA AVE. | | 1 | | | 1 | | | | |
| 43 | ELM ST. & WATAUGA. AVE. | | 1 | | | 1 | | | | |
| 43 | OAK ST. & UNAKA AVE. | | 1 | | | 1 | | | | |
| 43 | OAK ST. & WATUAGA AVE. | | 1 | | | 1 | | | | |
| 45 | BRISTOL HWY. JUST SOUTH OF CARROLL CREEK RD. | 1 | 1 | | 1 | | | | | |
| 45 | BRISTOL HWY. JUST NORTH OF CARROLL CREEK RD. | | | | | | | | 1 | |



| REVISION | | |
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CABINET EQUIPMENT TABLES



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| CCTV MOUNTING TABLE | | | | |
|---------------------|-------------------|--|-------------------------|-----------------------|
| CCTV NUMBER | PLAN SHEET NUMBER | CCTV LOCATIONS | TYPE MOUNTING | TYPE CCTV RECOMMENDED |
| 1 | 5 | STATE OF FRANKLIN AT BROWNS MILL RD. | MAST ARM-ARM | DOME TYPE |
| 2 | 5 | STATE OF FRANKLIN AT I-26 INTERCHANGE | 50' STRAIN POLE | DOME TYPE |
| 3 | 6 | STATE OF FRANKLIN AT OAKLAND AVE/GREENLINE RD. | MAST ARM-POLE EXTENSION | TUBE TYPE |
| 4 | 7 | STATE OF FRANKLIN AT KNOB CREEK RD. | MAST ARM-POLE EXTENSION | DOME TYPE |
| 5 | 9 | STATE OF FRANKLIN AT MED-TECH PKWY. | MAST ARM-POLE EXTENSION | DOME TYPE |
| 6 | 10 | STATE OF FRANKLIN AT SUNSET DR. | MAST ARM-ARM | TUBE TYPE |
| 7 | 11 | STATE OF FRANKLIN AT INDIAN RIDGE RD. | MAST ARM-ARM | TUBE TYPE |
| 8 | 12 | STATE OF FRANKLIN AT SELLS AVE. | 50' STRAIN POLE | DOME TYPE |
| 9 | 13 | STATE OF FRANKLIN AT MARKET ST. | MAST ARM-ARM | TUBE TYPE |
| 10 | 13 | STATE OF FRANKLIN AT MEDICAL CENTER DR. | MAST ARM-ARM | DOME TYPE |
| 11 | 14 | STATE OF FRANKLIN AT WEST WALNUT ST. | MAST ARM-ARM | TUBE TYPE |
| 12 | 15 | STATE OF FRANKLIN AT S. GREENWOOD DR./LYLE ST. | MAST ARM-ARM | TUBE TYPE |
| 13 | 15 | STATE OF FRANKLIN AT MOUNTAIN HOME DR. | MAST ARM-POLE EXTENSION | DOME TYPE |
| 14 | 16 | STATE OF FRANKLIN AT LAKE ST. | MAST ARM-POLE EXTENSION | DOME TYPE |
| 15 | 17 | STATE OF FRANKLIN AT UNIVERSITY AVE. | MAST ARM-ARM | DOME TYPE |
| 16 | 18 | STATE OF FRANKLIN AT SEVIER ST. | MAST ARM-ARM | DOME TYPE |
| 17 | 19 | STATE OF FRANKLIN AT BUFFALO ST. | MAST ARM-ARM | DOME TYPE |
| 18 | 19 | STATE OF FRANKLIN AT SOUTH ROAN ST. | MAST ARM-ARM | DOME TYPE |
| 19 | 39 | UNIVERSITY PKWY. AT SOUTHWEST AVE. | MAST ARM-ARM | TUBE TYPE |
| 20 | 40 | UNIVERSITY PKWY AT CHEROKEE RD. | MAST ARM-ARM | TUBE TYPE |
| 21 | 35 | UNIVERSITY PKWY AT S. ROAN ST. | MAST ARM-ARM | DOME TYPE |
| 22 | 42 | I-26 WB | 50' STRAIN POLE | DOME TYPE |
| 23 | 35 | S. ROAN ST. AT LAFE COX RD. | MAST ARM-ARM | TUBE TYPE |
| 24 | 33 | N. ROAN ST. AT BUFFALO ST./WATER ST. | MAST ARM-ARM | TUBE TYPE |
| 25 | 32 | N. ROAN ST AT WATAUGA AVE. | MAST ARM-ARM | TUBE TYPE |
| 26 | 32 | N. ROAN ST. AT UNAKA AVE. | MAST ARM-ARM | DOME TYPE |
| 27 | 25 | N. ROAN ST./LIBERTY BELL BLVD. AT JOHN EXUM PKWY | MAST ARM-ARM | DOME TYPE |
| 28 | 26 | N. ROAN ST AT CANARY ST. | MAST ARM-ARM | TUBE TYPE |
| 29 | 27 | N. ROAN ST. AT MOUNTCASTLE DR. | MAST ARM-ARM | TUBE TYPE |
| 30 | 27 | PRINCETON RD. AT BROYLES DR. | STRAIN POLE | TUBE TYPE |
| 31 | 28 | I-26 WB | 50' STRAIN POLE | DOME TYPE |
| 32 | 28 | N. ROAN ST. AT SPRINGBROOKE DR. | MAST ARM-ARM | DOME TYPE |
| 33 | 29 | N. ROAN ST. AT BRISTOL HWY. | MAST ARM-ARM | DOME TYPE |
| 34 | 30 | N. ROAN ST. AT W. OAKLAND AVE. | STRAIN POLE | TUBE TYPE |
| 35 | 30 | BRISTOL HWY AT E. OAKLAND AVE. | STRAIN POLE | DOME TYPE |
| 36 | 45 | BRISTOL HWY AT CARROLL CREEK RD./WESTSHORE PT. | MAST ARM-ARM | DOME TYPE |
| 37 | 21 | MARKET ST. AT INDIAN RIDGE RD. | STRAIN POLE | DOME TYPE |
| 38 | 22 | W. MARKET ST AT KNOB CREEK RD. | STRAIN POLE | DOME TYPE |
| 39 | 22 | W. MARKET ST AT PACTOLAS RD. | MAST ARM-POLE EXTENSION | DOME TYPE |
| 40 | 23 | W. MARKET ST. AT JOHN EXUM PKWY | MAST ARM-POLE EXTENSION | DOME TYPE |
| 41 | 19 | I-26 AT E. MARKET ST. | 50' STRAIN POLE | DOME TYPE |
| 42 | 43 | WATAUGA AT OAK ST. | 50' STRAIN POLE | DOME TYPE |
| 43 | 20 | STATE OF FRANKLIN AT LEGION ST. | MAST ARM-ARM | TUBE TYPE |

| PAVEMENT SENSOR LOCATIONS | | | |
|---------------------------|-------------------|--|------------------|
| ROADWAY SENSOR NUMBER | PLAN SHEET NUMBER | ROADWAY SENSOR LOCATIONS | PLACEMENT |
| 1 | 6 | STATE OF FRANKLIN RD. AT GREENLINE/OAKLAND | UNDER TIRE TRACK |
| 2 | 6 | STATE OF FRANKLIN RD. AT GREENLINE/OAKLAND | UNDER TIRE TRACK |
| 3 | 7 | STATE OF FRANKLIN RD. AT KNOB CREEK RD. | UNDER TIRE TRACK |
| 4 | 9 | STATE OF FRANKLIN RD. AT MED TECH PKWY. | UNDER TIRE TRACK |
| 5 | 11 | STATE OF FRANKLIN RD. AT INDIAN RIDGE RD. | UNDER TIRE TRACK |
| 6 | 15 | STATE OF FRANKLIN RD. AT WALNUT ST. | UNDER TIRE TRACK |
| 7 | 18 | STATE OF FRANKLIN RD. AT SEVIER ST. | UNDER TIRE TRACK |
| 8 | 28 | UNIVERSITY PKWY AT CHEROKEE RD. | UNDER TIRE TRACK |
| 9 | 29 | UNIVERSITY PKWY AT ROAN ST. | UNDER TIRE TRACK |
| 10 | 32 | N. ROAN ST. AT E. 8TH ST. | UNDER TIRE TRACK |
| 11 | 35 | ROAN ST. AT CANARY ST. | UNDER TIRE TRACK |
| 12 | 40 | ROAN ST. AT BRISTOL HWY | UNDER TIRE TRACK |

| WEATHER STATION LOCATIONS | | | |
|---------------------------|-------------------|--|-------------------|
| WEATHER STATION NUMBER | PLAN SHEET NUMBER | WEATHER STATION LOCATIONS | EQUIPMENT DEVICES |
| 1 | 5 | STATE OF FRANKLIN RD. AT I-26 INTERCHANGE | |
| 2 | 45 | BRISTOL HWY. AT CARROLL CREEK RD./LAKE VILLAGE CT. | |

| STREAM GAUGE LOCATIONS | | |
|------------------------|-------------------|--|
| STREAM GAUGE NUMBER | PLAN SHEET NUMBER | STREAM GAUGE LOCATIONS |
| 1 | 17 | UNIVERSITY PKWY ON EAST SIDE OF BRIDGE |
| 2 | 33 | EAST SIDE OF CULVERT UNDER CITY |
| 3 | 22 | UNIVERSITY PKWY ON EAST SIDE OF BRIDGE |

| HUB CABINET LOCATIONS | | |
|-----------------------|-------------------|--|
| HUB CABINET | PLAN SHEET NUMBER | HUB CABINET LOCATIONS |
| A | 5 | STATE OF FRANKLIN RD. AT BROWNS MILL RD. |
| B | 13 | STATE OF FRANKLIN RD. AT W. MARKET ST. |



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EQUIPMENT TABLES



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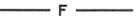
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LEGEND

-  TMC/HUB LOCATION WITH PATCH PANEL
-  PROPOSED PATCH PANEL LOCATION
-  PROPOSED UNDERGROUND FIBER OPTIC CONNECTION
-  EXISTING UNDERGROUND FIBER OPTIC CONNECTION
-  PROPOSED OVERHEAD FIBER OPTIC CONNECTION
-  EXISTING OVERHEAD FIBER OPTIC CONNECTION
-  NEW FIBER INSTALLATION
-  EXISTING FIBER INSTALLATION



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COMMUNICATIONS
ARCHITECTURE
DIAGRAM

2F
SCALE: 1" = 1/4 mi
PROJECT: 28272.03
DATE: 2010



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| TMC FIBER OPTIC TERMINATION CABINET JUMPER TABLE | | | | | | | | | | | | | | |
|--|-------|--------|------|---------------|----|-------------------------|-----|--------|------|----------------|------|------------|---------------|---------------|
| FIBER OPTIC PATCH PANEL | | | | Fiber Numbers | | FIBER OPTIC PATCH PANEL | | | | NETWORK SWITCH | | ORIGIN | CHANNEL | DESTINATION |
| CABLE | FDC | MODULE | PORT | | TO | CABLE | FDC | MODULE | PORT | MODULE | PORT | | | |
| C1-144 | TMC 1 | C | 1 | 13 - 14 | = | | | | | | 1 | TMC | Channel 1 | SOF & Oakland |
| | | C | 2 | 15 - 16 | = | | | | | | 2 | TMC | Channel 2 | SOF & Oakland |
| | | C | 3 | 17 - 18 | = | | | | | | 3 | TMC | Channel 3 | SOF & Oakland |
| | | C | 4 | 19 - 20 | = | | | | | | 4 | TMC | Channel 4 | SOF & Oakland |
| | | C | 5 | 21 - 22 | = | | | | | | 5 | TMC | Channel 7 | SOF & Market |
| | | C | 6 | 23 - 24 | = | | | | | | 6 | TMC | Channel 8 | SOF & Market |
| | | D | 1 | 25 - 26 | = | | | | | | 7 | TMC | Channel 10 | SOF & Market |
| | | D | 2 | 27 - 28 | = | | | | | | 8 | TMC | Channel 11 | SOF & Market |
| | | D | 3 | 29 - 30 | = | | | | | | 9 | TMC | Channel 12 | TMC |
| | | D | 4 | 31 - 32 | = | | | | | | 10 | TMC | Channel 14 | SOF & Market |
| | | D | 5 | 33 - 34 | = | | | | | 11 | TMC | Channel 15 | SOF & Market | |
| | | D | 6 | 35 - 36 | = | | | | | 12 | TMC | Channel 17 | SOF & Market | |
| | | E | 1 | 37 - 38 | = | | | | | 13 | TMC | Gbit-1 | SOF & Oakland | |
| | | E | 2 | 39 - 40 | = | | | | | 14 | TMC | Gbit-2 | SOF & Market | |
| C2-12 | TMC-2 | A | 6 | 11 - 12 | = | | | | | 15 | TMC | Channel 12 | TMC | |

| STATE OF FRANKLIN AND MARKET HUB A FIBER OPTIC TERMINATION CABINET JUMPER TABLE | | | | | | | | | | | | | | |
|---|-------|--------|------|---------------|----|-------------------------|-----|--------|------|----------------|------|--------|------------|-------------|
| FIBER OPTIC PATCH PANEL | | | | Fiber Numbers | | FIBER OPTIC PATCH PANEL | | | | NETWORK SWITCH | | ORIGIN | CHANNEL | DESTINATION |
| CABLE | FDC | MODULE | PORT | | TO | CABLE | FDC | MODULE | PORT | MODULE | PORT | | | |
| C11-48 | MKT-1 | F | 3 | 13 - 14 | = | | | | | | 1 | TMC | Channel 10 | HUB A |
| | | F | 4 | 15 - 16 | = | | | | | | 2 | TMC | Channel 11 | HUB A |
| | | F | 1 | 17 - 18 | = | | | | | | 3 | TMC | Channel 14 | HUB A |
| | | F | 2 | 19 - 20 | = | | | | | | 4 | TMC | Channel 15 | HUB A |
| | | F | 5 | 21 - 22 | = | | | | | | | | TMC | Channel 17 |
| C4-48 | MKT-2 | B | 1 | 13 - 14 | = | | | | | | 5 | TMC | Channel 7 | HUB A |
| | | B | 2 | 15 - 16 | = | | | | | | 6 | TMC | Channel 8 | HUB A |
| | | B | 3 | 17 - 18 | = | | | | | | | | | |
| | | B | 4 | 19 - 20 | = | | | | | | | | | |
| | | B | 5 | 21 - 22 | = | | | | | | | | | |
| C14-36 | MKT-3 | I | 1 | 1 - 2 | = | | | | | | 7 | HUB A | Channel 19 | HUB B |
| | | I | 2 | 3 - 4 | = | | | | | | 8 | HUB A | Channel 20 | HUB B |
| | | I | 3 | 5 - 6 | = | | | | | | 9 | HUB A | Channel 21 | HUB B |
| | | I | 4 | 7 - 8 | = | | | | | | 10 | HUB B | Gbit-3 | HUB A |
| | | I | 5 | 9 - 10 | = | | | | | | | | | |
| | | I | 6 | 11 - 12 | = | | | | | | | | | |

| STATE OF FRANKLIN AND OAKLAND HUB B FIBER OPTIC TERMINATION CABINET JUMPER TABLE | | | | | | | | | | | | | | |
|--|-----|--------|------|---------------|---------------|-------------------------|-----|--------|------|----------------|------|--------|---------------|-------------|
| FIBER OPTIC PATCH PANEL | | | | Fiber Numbers | Fiber Numbers | FIBER OPTIC PATCH PANEL | | | | NETWORK SWITCH | | ORIGIN | CHANNEL | DESTINATION |
| CABLE | FDC | MODULE | PORT | | TO | CABLE | FDC | MODULE | PORT | MODULE | PORT | | | |
| C14-36 | 1 | D | 1 | 1 - 2 | = | | | | | | 2 | HUB A | Channel 19 | HUB B |
| | | D | 2 | 3 - 4 | = | | | | | | 3 | HUB A | Channel 20 | HUB B |
| | | D | 3 | 5 - 6 | = | | | | | | 4 | HUB A | Channel 21 | HUB B |
| | | D | 4 | 7 - 8 | = | | | | | | 5 | HUB B | Gbit-3 | HUB A |
| | | D | 5 | 9 - 10 | = | | | | | | | | | |
| C13-48 | 1 | B | 1 | 13 - 14 | = | | | | | | 6 | TMC | Channel 1 | HUB B |
| | | B | 2 | 15 - 16 | = | | | | | | 7 | TMC | Channel 2 | HUB B |
| | | B | 3 | 17 - 18 | = | | | | | | 8 | TMC | Channel 3 | HUB B |
| | | B | 4 | 19 - 20 | = | | | | | | 9 | TMC | Channel 4 | HUB B |
| C13-48 | 1 | B | 5 | 21 - 22 | = | | | | | 1 | TMC | Gbit-2 | SOF & Oakland | |



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FIBER ASSIGNMENT TABLES



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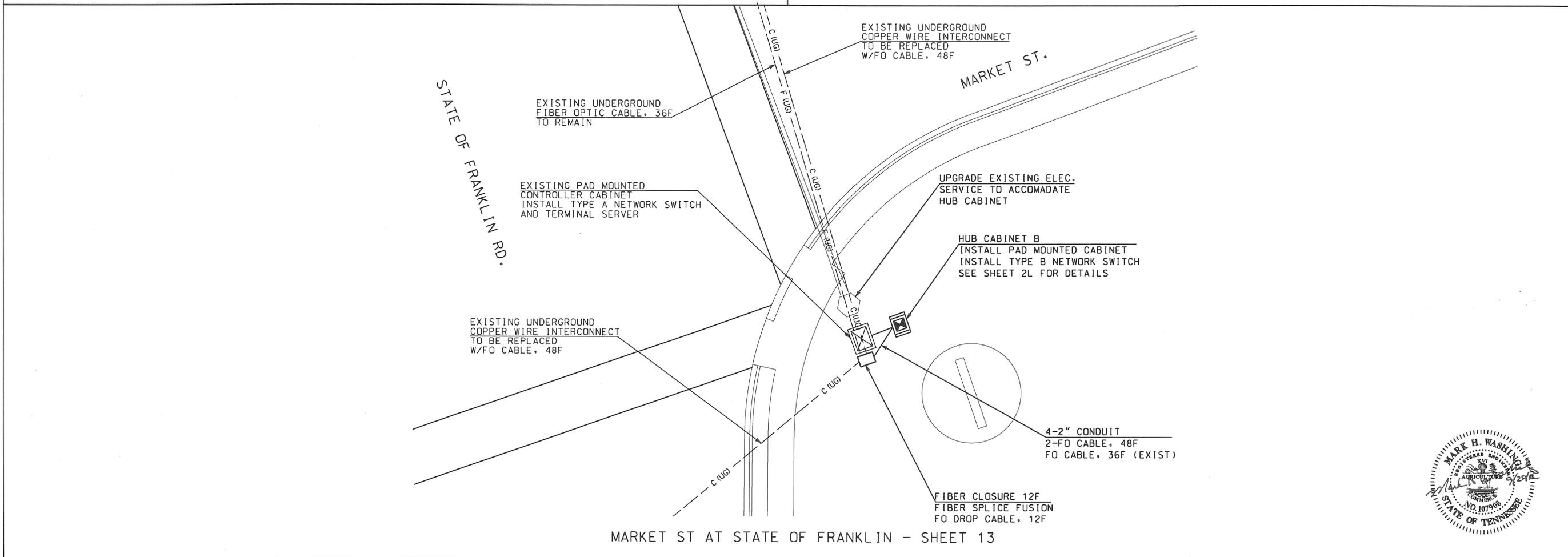
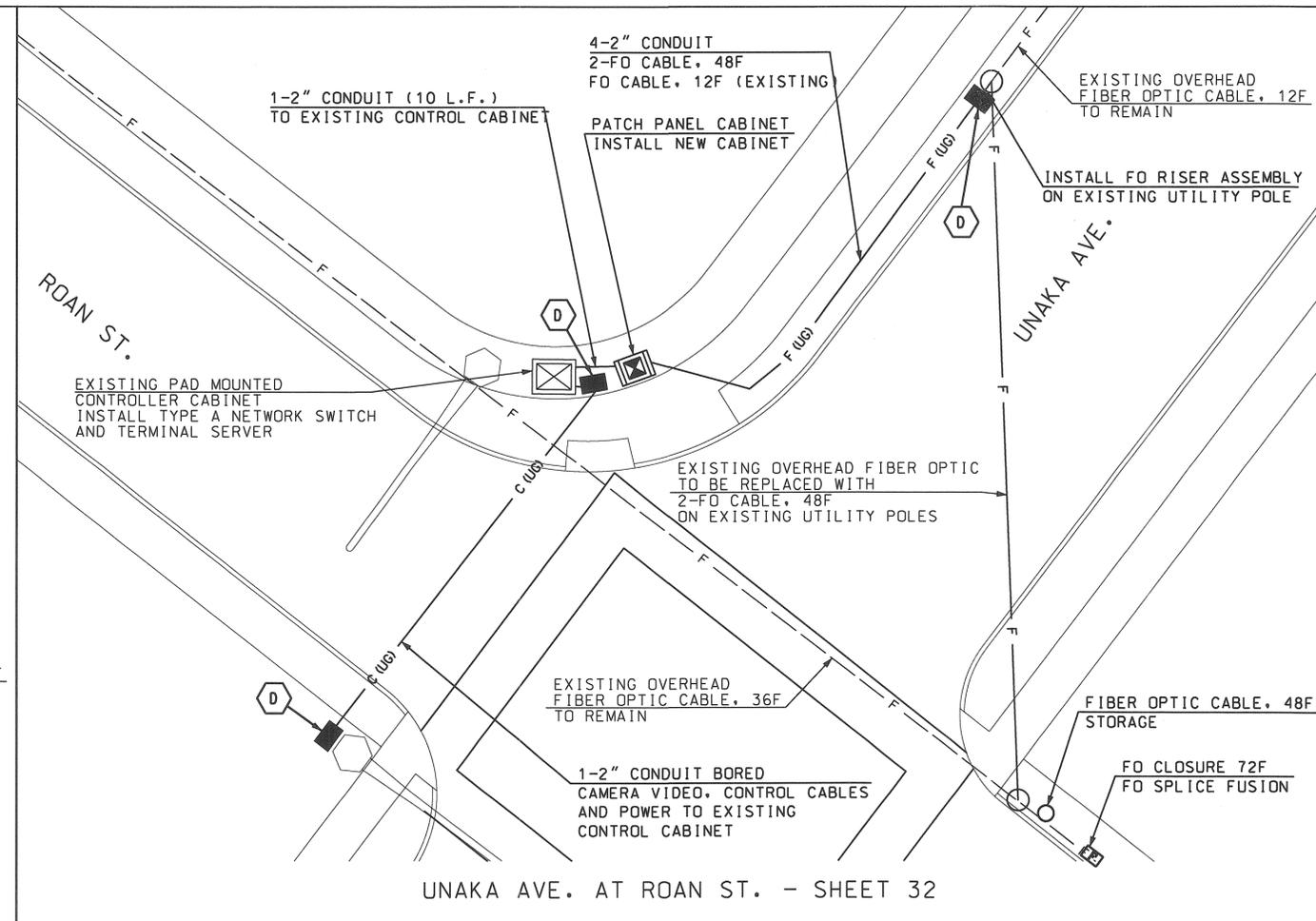
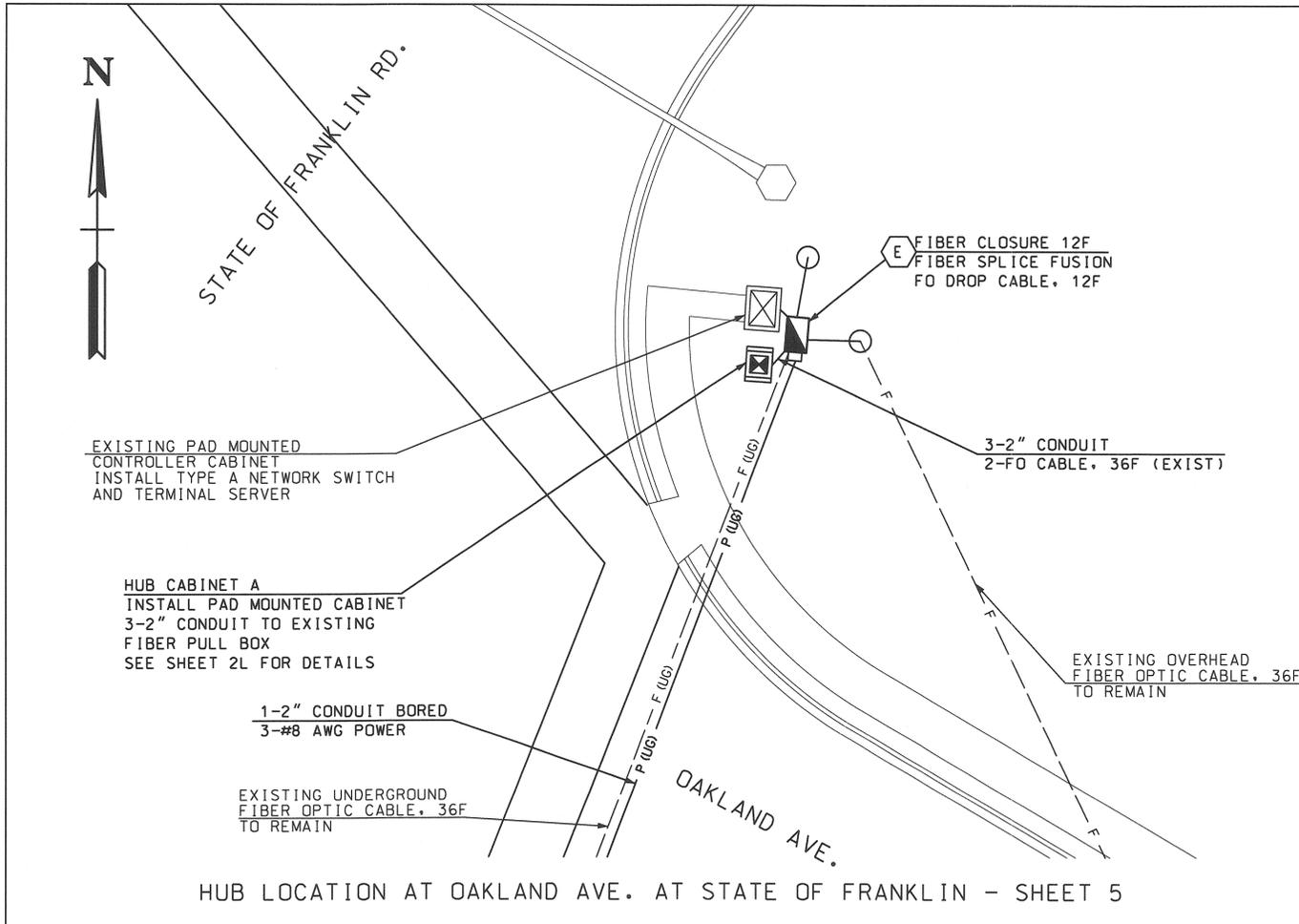
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COMMUNICATIONS
CABINET LOCATION
DETAILS

2U
SCALE: 1" = 10'
PROJECT: 26575.03
DATE: 2010

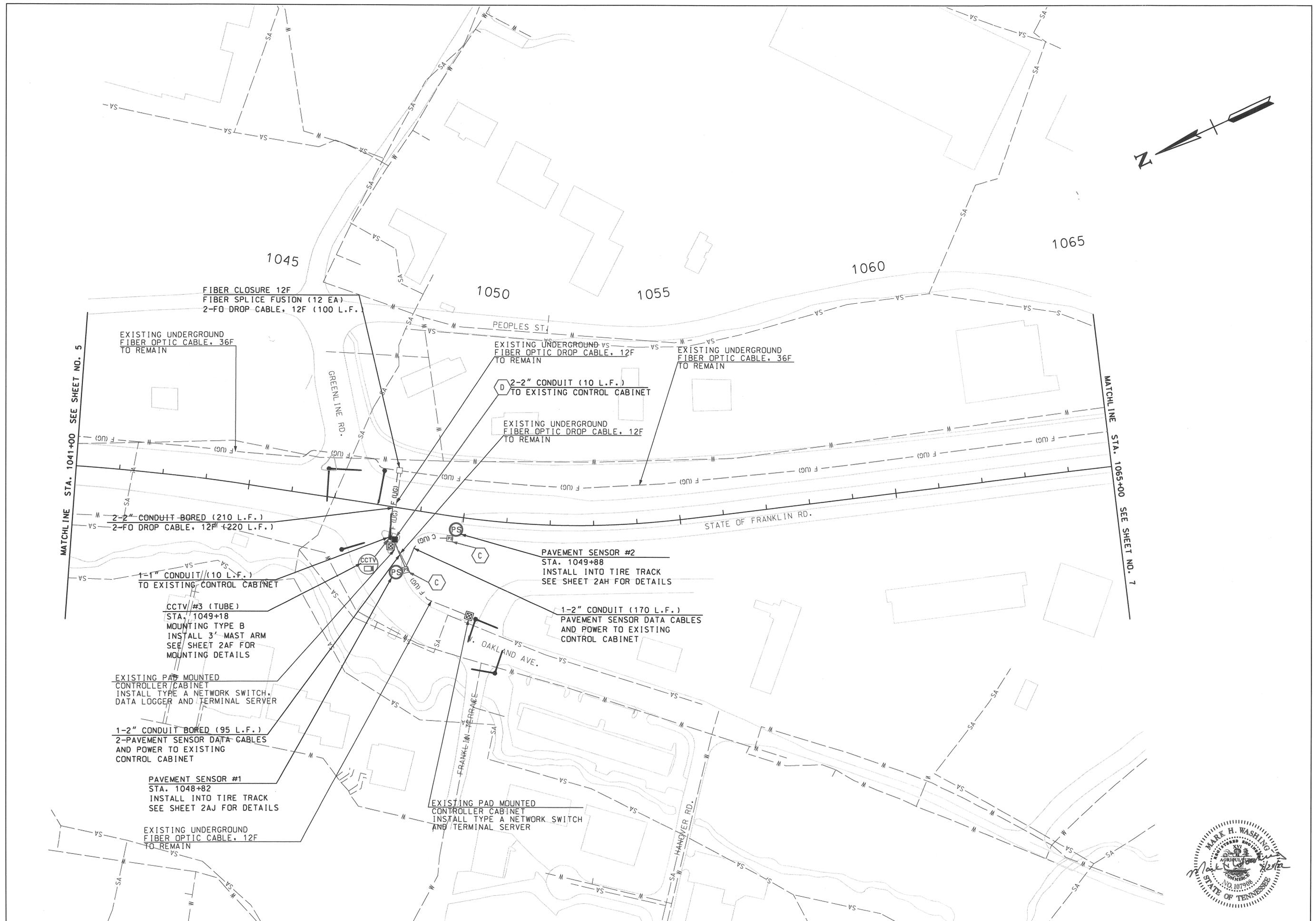
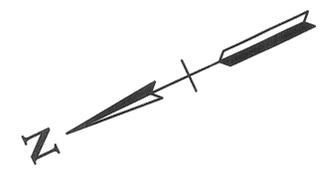




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MATCHLINE STA. 1041+00 SEE SHEET NO. 5

MATCHLINE STA. 1065+00 SEE SHEET NO. 7

FIBER CLOSURE 12F
FIBER SPLICE FUSION (12 EA)
2-FO DROP CABLE, 12F (100 L.F.)

EXISTING UNDERGROUND
FIBER OPTIC CABLE, 36F
TO REMAIN

EXISTING UNDERGROUND VS
FIBER OPTIC DROP CABLE, 12F
TO REMAIN

EXISTING UNDERGROUND
FIBER OPTIC CABLE, 36F
TO REMAIN

2-2" CONDUIT (10 L.F.)
TO EXISTING CONTROL CABINET

EXISTING UNDERGROUND
FIBER OPTIC DROP CABLE, 12F
TO REMAIN

2-2" CONDUIT BORED (210 L.F.)
2-FO DROP CABLE, 12F (220 L.F.)

1-1" CONDUIT (10 L.F.)
TO EXISTING CONTROL CABINET

CCTV #3 (TUBE)
STA. 1049+18
MOUNTING TYPE B
INSTALL 3'-MAST ARM
SEE SHEET 2AF FOR
MOUNTING DETAILS

EXISTING PAD MOUNTED
CONTROLLER CABINET
INSTALL TYPE A NETWORK SWITCH,
DATA LOGGER AND TERMINAL SERVER

1-2" CONDUIT BORED (95 L.F.)
2-PAVEMENT SENSOR DATA CABLES
AND POWER TO EXISTING
CONTROL CABINET

PAVEMENT SENSOR #1
STA. 1048+82
INSTALL INTO TIRE TRACK
SEE SHEET 2AJ FOR DETAILS

EXISTING UNDERGROUND
FIBER OPTIC CABLE, 12F
TO REMAIN

PAVEMENT SENSOR #2
STA. 1049+88
INSTALL INTO TIRE TRACK
SEE SHEET 2AH FOR DETAILS

1-2" CONDUIT (170 L.F.)
PAVEMENT SENSOR DATA CABLES
AND POWER TO EXISTING
CONTROL CABINET

EXISTING PAD MOUNTED
CONTROLLER CABINET
INSTALL TYPE A NETWORK SWITCH
AND TERMINAL SERVER



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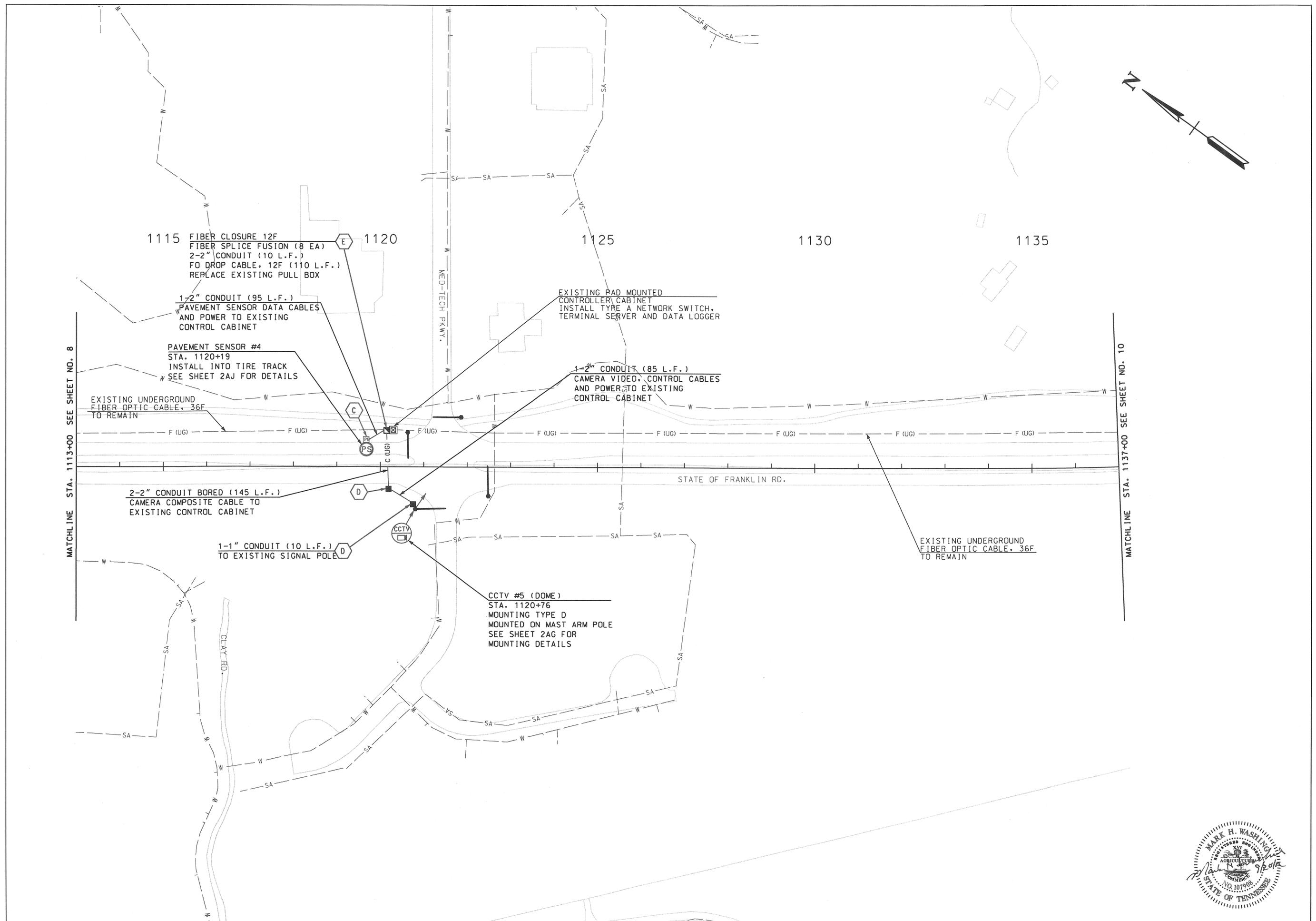
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MATCHLINE STA. 1113+00 SEE SHEET NO. 8

MATCHLINE STA. 1137+00 SEE SHEET NO. 10



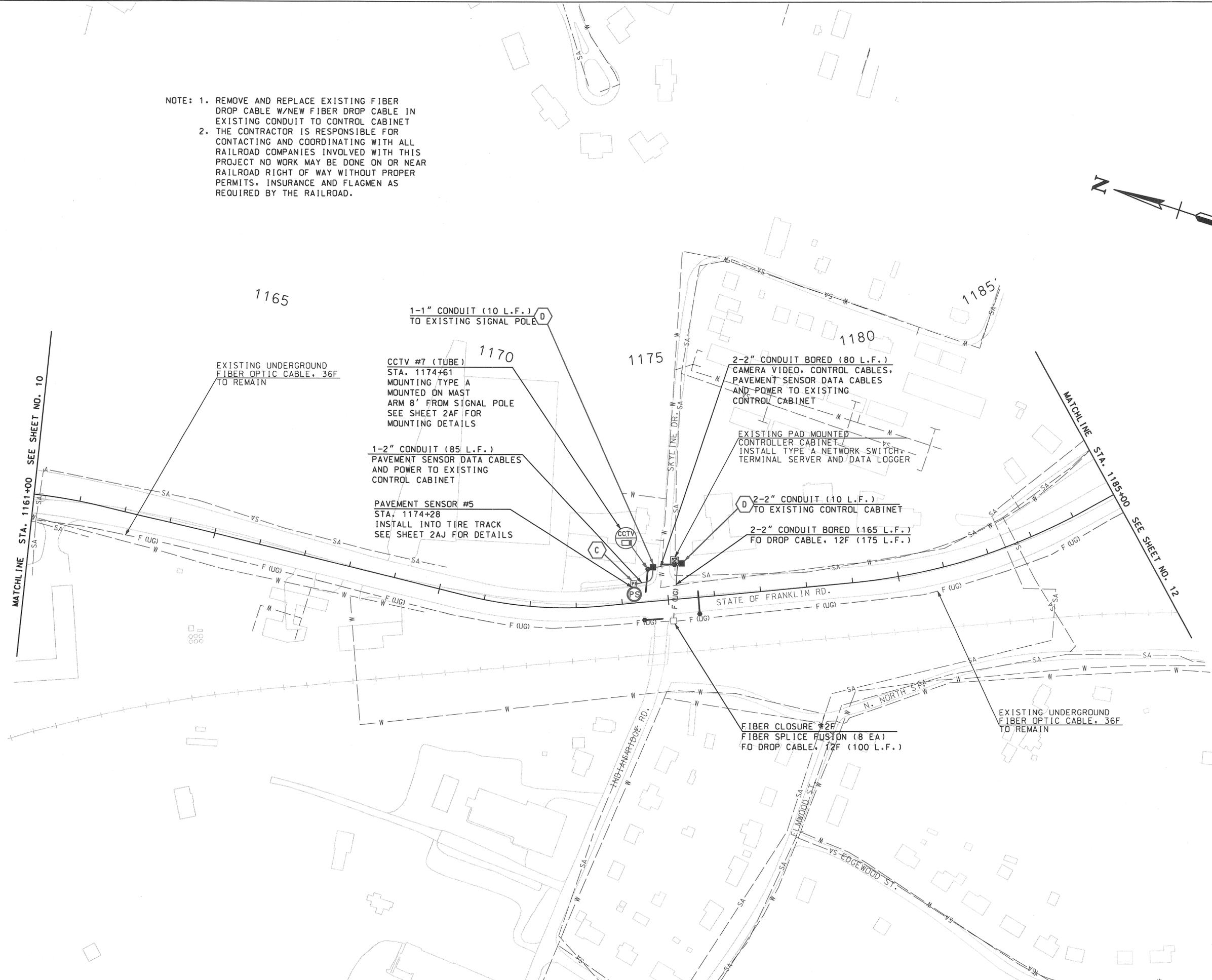
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NOTE: 1. REMOVE AND REPLACE EXISTING FIBER DROP CABLE W/NEW FIBER DROP CABLE IN EXISTING CONDUIT TO CONTROL CABINET
2. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING AND COORDINATING WITH ALL RAILROAD COMPANIES INVOLVED WITH THIS PROJECT NO WORK MAY BE DONE ON OR NEAR RAILROAD RIGHT OF WAY WITHOUT PROPER PERMITS, INSURANCE AND FLAGMEN AS REQUIRED BY THE RAILROAD.



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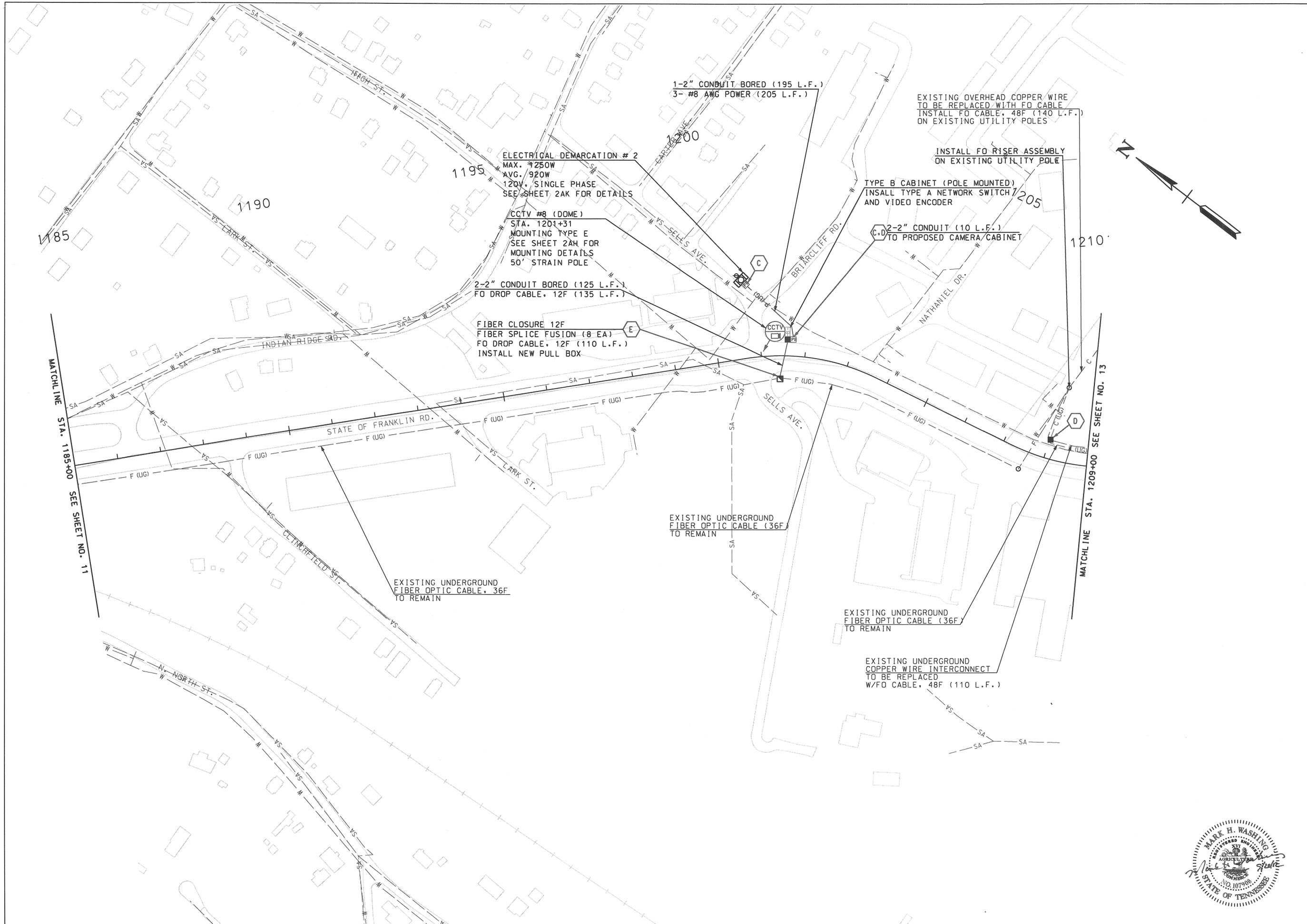
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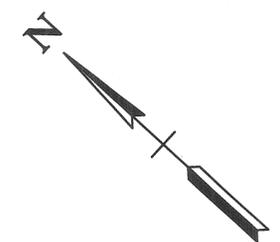
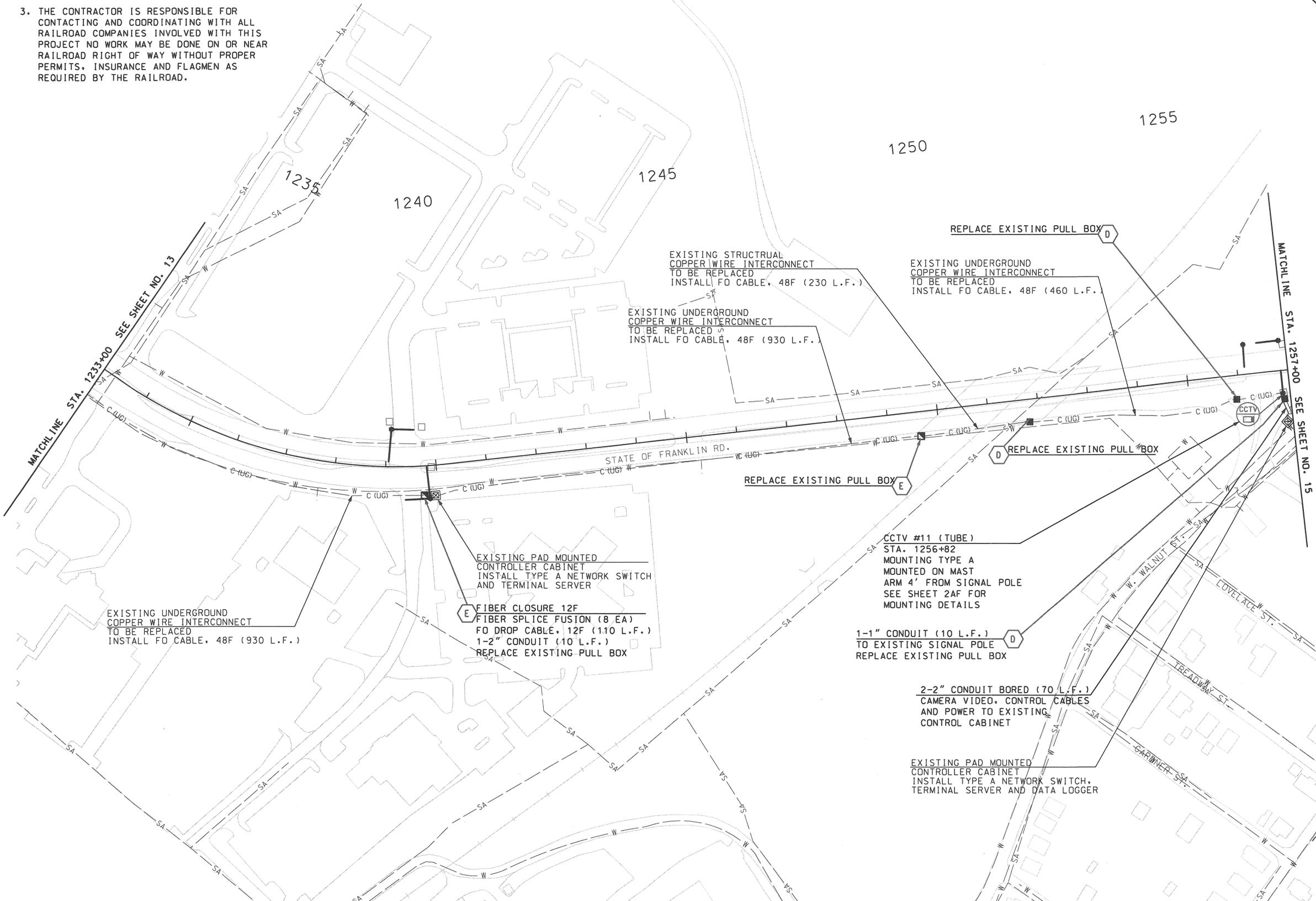
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PROPOSED
LAYOUT

12
SCALE: 1" = 100'
PROJECT: 26575.03
DATE: 2010



- NOTE: 1. CONTRACTOR SHALL REMOVE AND REPLACE EXISTING PULL BOXES WITH FIBER OPTIC JUNCTION BOX SHOWN ON PLAN SHEETS.
2. THE CONTRACTOR SHALL REMOVE EXISTING INTERCONNECT PULL BOXES (COPPER) AND REPAIR CONDUIT EXCEPT WHERE NEW FIBER OPTIC PULL BOX ARE SHOWN TO BE INSTALLED ON PLANS. PULL BOXES NEAR TRAFFIC SIGNALS SHALL BE REMOVED ON A CASE BY CASE BASIS.
3. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING AND COORDINATING WITH ALL RAILROAD COMPANIES INVOLVED WITH THIS PROJECT NO WORK MAY BE DONE ON OR NEAR RAILROAD RIGHT OF WAY WITHOUT PROPER PERMITS, INSURANCE AND FLAGMEN AS REQUIRED BY THE RAILROAD.



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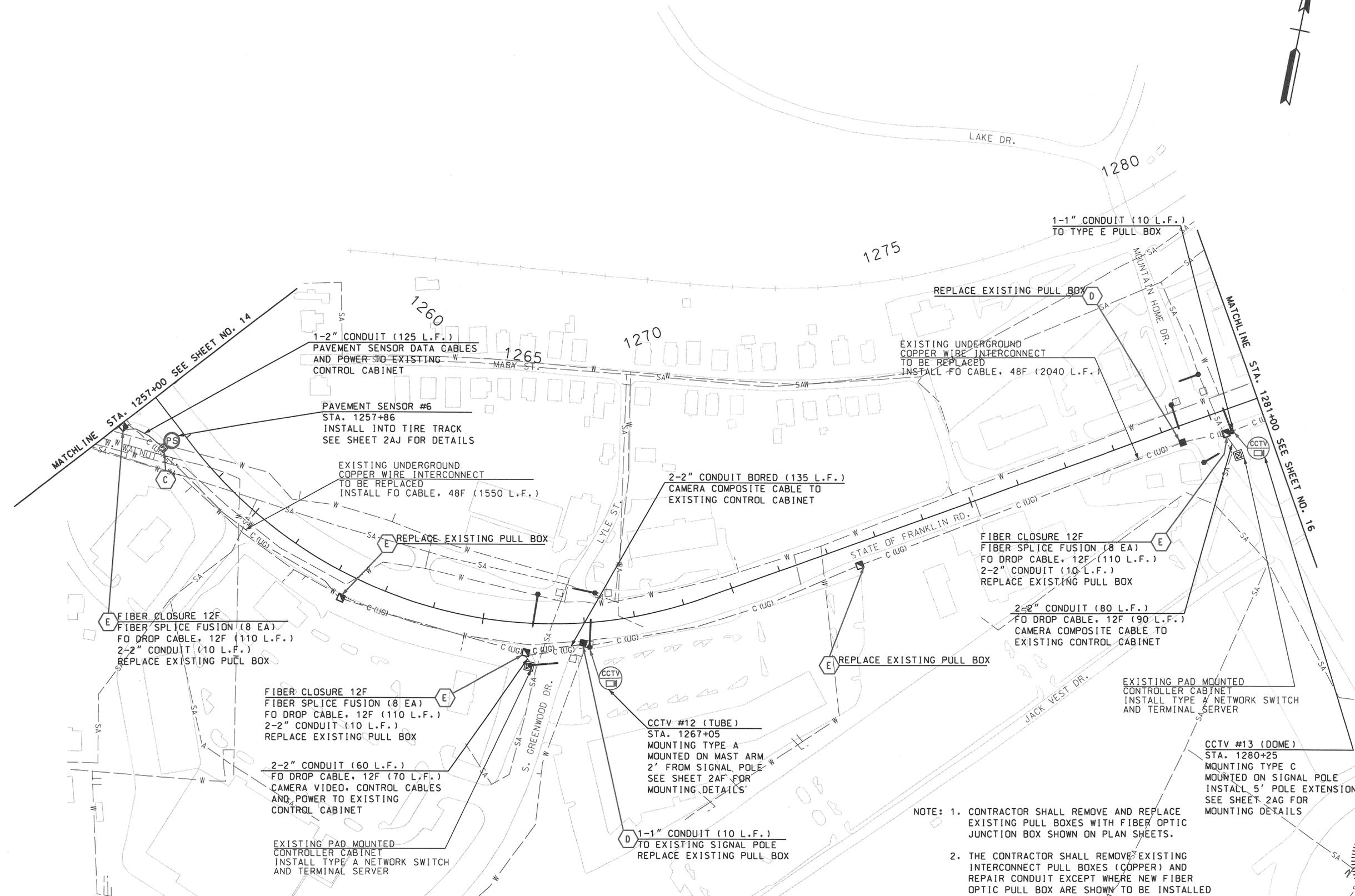
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PROPOSED
LAYOUT

15
SCALE: 1" = 100'
PROJECT: 26575.03
DATE: 2/10



1-2" CONDUIT (125 L.F.)
PAVEMENT SENSOR DATA CABLES
AND POWER TO EXISTING
CONTROL CABINET

PAVEMENT SENSOR #6
STA. 1257+86
INSTALL INTO TIRE TRACK
SEE SHEET 2AJ FOR DETAILS

EXISTING UNDERGROUND
COPPER WIRE INTERCONNECT
TO BE REPLACED
INSTALL FO CABLE, 48F (1550 L.F.)

REPLACE EXISTING PULL BOX

FIBER CLOSURE 12F
FIBER SPLICE FUSION (8 EA)
FO DROP CABLE, 12F (110 L.F.)
2-2" CONDUIT (10 L.F.)
REPLACE EXISTING PULL BOX

FIBER CLOSURE 12F
FIBER SPLICE FUSION (8 EA)
FO DROP CABLE, 12F (110 L.F.)
2-2" CONDUIT (10 L.F.)
REPLACE EXISTING PULL BOX

2-2" CONDUIT (60 L.F.)
FO DROP CABLE, 12F (70 L.F.)
CAMERA VIDEO, CONTROL CABLES
AND POWER TO EXISTING
CONTROL CABINET

EXISTING PAD MOUNTED
CONTROLLER CABINET
INSTALL TYPE A NETWORK SWITCH
AND TERMINAL SERVER

2-2" CONDUIT BORED (135 L.F.)
CAMERA COMPOSITE CABLE TO
EXISTING CONTROL CABINET

CCTV #12 (TUBE)
STA. 1267+05
MOUNTING TYPE A
MOUNTED ON MAST ARM
2' FROM SIGNAL POLE
SEE SHEET 2AF FOR
MOUNTING DETAILS

1-1" CONDUIT (10 L.F.)
TO EXISTING SIGNAL POLE
REPLACE EXISTING PULL BOX

EXISTING UNDERGROUND
COPPER WIRE INTERCONNECT
TO BE REPLACED
INSTALL FO CABLE, 48F (2040 L.F.)

REPLACE EXISTING PULL BOX

FIBER CLOSURE 12F
FIBER SPLICE FUSION (8 EA)
FO DROP CABLE, 12F (110 L.F.)
2-2" CONDUIT (10 L.F.)
REPLACE EXISTING PULL BOX

2-2" CONDUIT (80 L.F.)
FO DROP CABLE, 12F (90 L.F.)
CAMERA COMPOSITE CABLE TO
EXISTING CONTROL CABINET

REPLACE EXISTING PULL BOX

EXISTING PAD MOUNTED
CONTROLLER CABINET
INSTALL TYPE A NETWORK SWITCH
AND TERMINAL SERVER

CCTV #13 (DOME)
STA. 1280+25
MOUNTING TYPE C
MOUNTED ON SIGNAL POLE
INSTALL 5' POLE EXTENSION
SEE SHEET 2AG FOR
MOUNTING DETAILS

- NOTE: 1. CONTRACTOR SHALL REMOVE AND REPLACE EXISTING PULL BOXES WITH FIBER OPTIC JUNCTION BOX SHOWN ON PLAN SHEETS.
2. THE CONTRACTOR SHALL REMOVE EXISTING INTERCONNECT PULL BOXES (COPPER) AND REPAIR CONDUIT EXCEPT WHERE NEW FIBER OPTIC PULL BOX ARE SHOWN TO BE INSTALLED ON PLANS. PULL BOXES NEAR TRAFFIC SIGNALS SHALL BE REMOVED ON A CASE BY CASE BASIS.



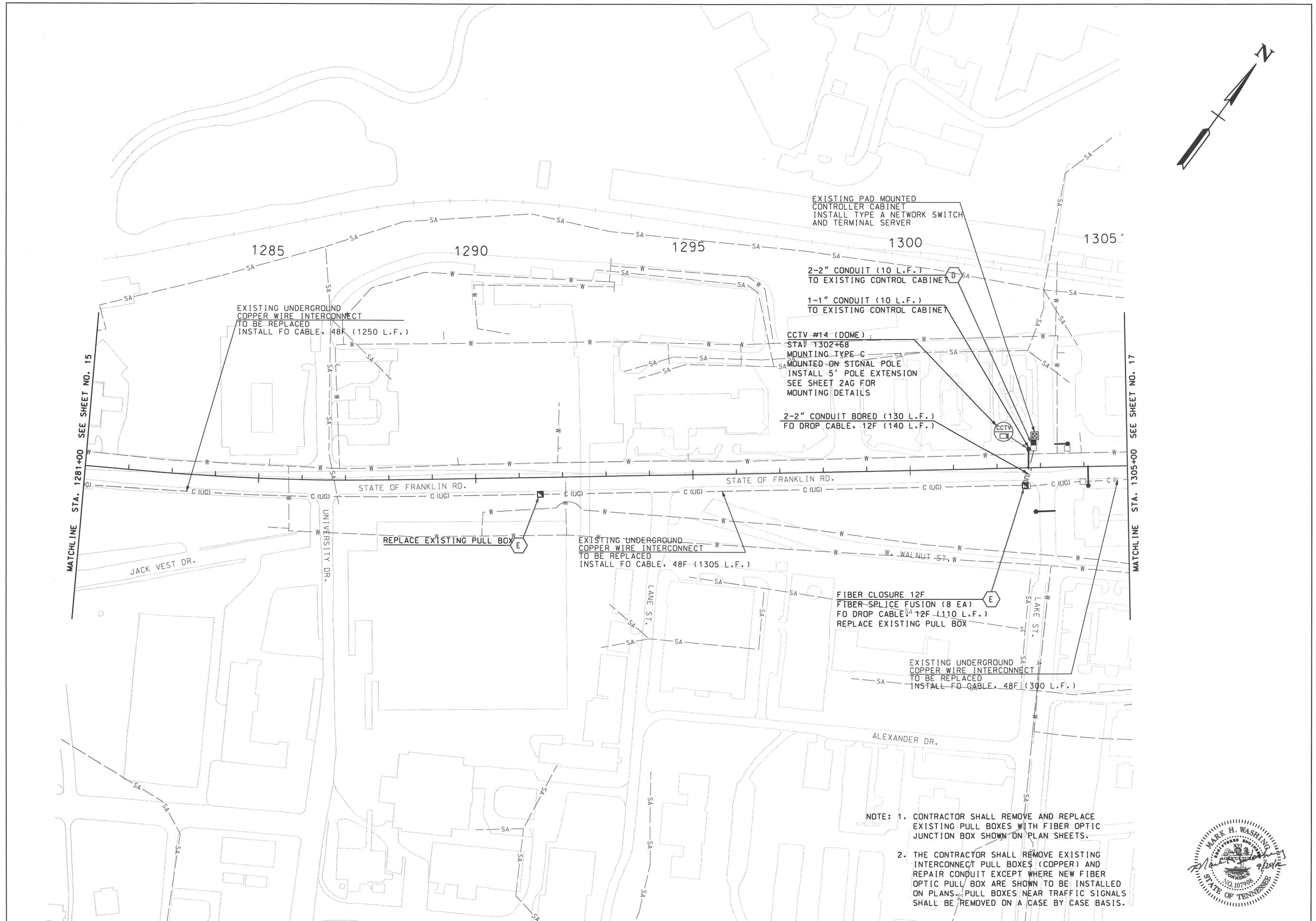
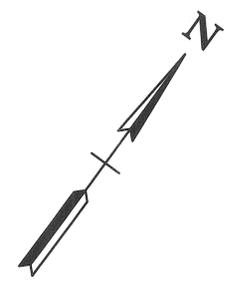


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MATCHLINE STA. 1281+00 SEE SHEET NO. 15

MATCHLINE STA. 1305+00 SEE SHEET NO. 17

EXISTING PAD MOUNTED
CONTROLLER CABINET
INSTALL TYPE A NETWORK SWITCH
AND TERMINAL SERVER

2-2" CONDUIT (10 L.F.)
TO EXISTING CONTROL CABINET

1-1" CONDUIT (10 L.F.)
TO EXISTING CONTROL CABINET

CCTV #14 (DOME)
STA. 1302+68
MOUNTING TYPE C
MOUNTED ON SIGNAL POLE
INSTALL 5' POLE EXTENSION
SEE SHEET 2AG FOR
MOUNTING DETAILS

2-2" CONDUIT BORED (130 L.F.)
FO DROP CABLE, 12F (140 L.F.)

EXISTING UNDERGROUND
COPPER WIRE INTERCONNECT
TO BE REPLACED
INSTALL FO CABLE, 48F (1250 L.F.)

REPLACE EXISTING PULL BOX

EXISTING UNDERGROUND
COPPER WIRE INTERCONNECT
TO BE REPLACED
INSTALL FO CABLE, 48F (1305 L.F.)

FIBER CLOSURE 12F
FIBER SPLICE FUSION (8 EA)
FO DROP CABLE, 12F (110 L.F.)
REPLACE EXISTING PULL BOX

EXISTING UNDERGROUND
COPPER WIRE INTERCONNECT
TO BE REPLACED
INSTALL FO CABLE, 48F (300 L.F.)

- NOTE: 1. CONTRACTOR SHALL REMOVE AND REPLACE
EXISTING PULL BOXES WITH FIBER OPTIC
JUNCTION BOX SHOWN ON PLAN SHEETS.
2. THE CONTRACTOR SHALL REMOVE EXISTING
INTERCONNECT PULL BOXES (COPPER) AND
REPAIR CONDUIT EXCEPT WHERE NEW FIBER
OPTIC PULL BOX ARE SHOWN TO BE INSTALLED
ON PLANS. PULL BOXES NEAR TRAFFIC SIGNALS
SHALL BE REMOVED ON A CASE BY CASE BASIS.



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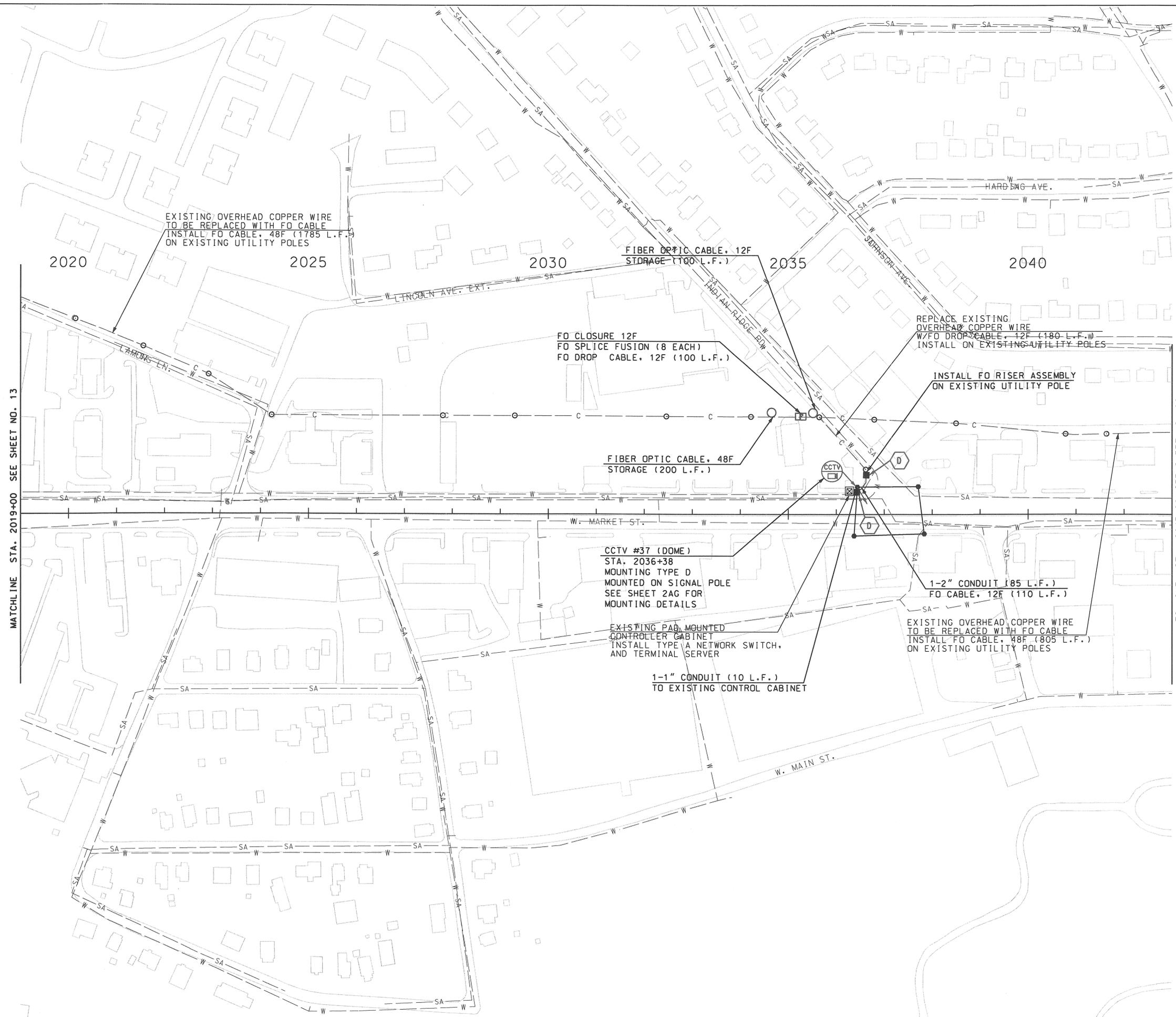
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SCALE: 1" = 100'
PROJECT: 28576.03
DATE: 2/10



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MATCHLINE STA. 2019+00 SEE SHEET NO. 13

MATCHLINE STA. 2043+00 SEE SHEET NO. 22

EXISTING OVERHEAD COPPER WIRE
TO BE REPLACED WITH FO CABLE
INSTALL FO CABLE, 48F (1785 L.F.)
ON EXISTING UTILITY POLES

FIBER OPTIC CABLE, 12F
STORAGE (100 L.F.)

FO CLOSURE 12F
FO SPLICE FUSION (8 EACH)
FO DROP CABLE, 12F (100 L.F.)

REPLACE EXISTING
OVERHEAD COPPER WIRE
W/FO DROP CABLE, 12F (180 L.F.W)
INSTALL ON EXISTING UTILITY POLES

INSTALL FO RISER ASSEMBLY
ON EXISTING UTILITY POLE

FIBER OPTIC CABLE, 48F
STORAGE (200 L.F.)

CCTV #37 (DOME)
STA. 2036+38
MOUNTING TYPE D
MOUNTED ON SIGNAL POLE
SEE SHEET 2AG FOR
MOUNTING DETAILS

1-2" CONDUIT (85 L.F.)
FO CABLE, 12F (110 L.F.)

EXISTING PAD MOUNTED
CONTROLLER CABINET
INSTALL TYPE A NETWORK SWITCH,
AND TERMINAL SERVER

EXISTING OVERHEAD COPPER WIRE
TO BE REPLACED WITH FO CABLE
INSTALL FO CABLE, 48F (805 L.F.)
ON EXISTING UTILITY POLES

1-1" CONDUIT (10 L.F.)
TO EXISTING CONTROL CABINET



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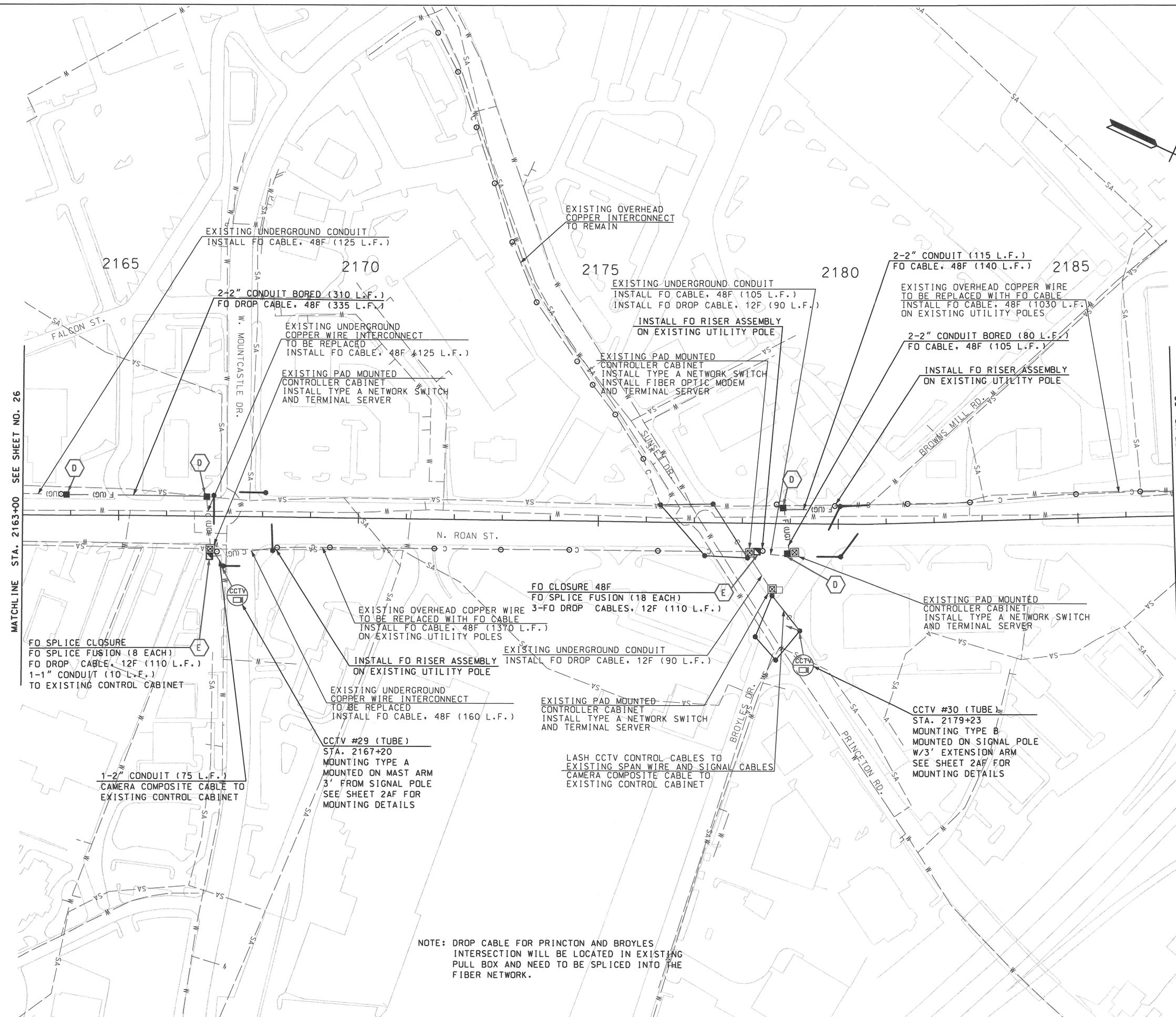
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PROPOSED
LAYOUT

27
SCALE: 1" = 100'
PROJECT: 26575.03
DATE: 2010



MATCHLINE STA. 2163+00 SEE SHEET NO. 26

MATCHLINE STA. 2187+00 SEE SHEET NO. 28

EXISTING OVERHEAD
COPPER INTERCONNECT
TO REMAIN

EXISTING UNDERGROUND CONDUIT
INSTALL FO CABLE, 48F (125 L.F.)

EXISTING UNDERGROUND CONDUIT
INSTALL FO CABLE, 48F (105 L.F.)
INSTALL FO DROP CABLE, 12F (90 L.F.)

2-2" CONDUIT (115 L.F.)
FO CABLE, 48F (140 L.F.)

EXISTING OVERHEAD COPPER WIRE
TO BE REPLACED WITH FO CABLE
INSTALL FO CABLE, 48F (1030 L.F.)
ON EXISTING UTILITY POLES

2-2" CONDUIT BORED (310 L.F.)
FO DROP CABLE, 48F (335 L.F.)

EXISTING UNDERGROUND
COPPER WIRE INTERCONNECT
TO BE REPLACED
INSTALL FO CABLE, 48F (125 L.F.)

INSTALL FO RISER ASSEMBLY
ON EXISTING UTILITY POLE

2-2" CONDUIT BORED (80 L.F.)
FO CABLE, 48F (105 L.F.)

INSTALL FO RISER ASSEMBLY
ON EXISTING UTILITY POLE

EXISTING PAD MOUNTED
CONTROLLER CABINET
INSTALL TYPE A NETWORK SWITCH
AND TERMINAL SERVER

EXISTING PAD MOUNTED
CONTROLLER CABINET
INSTALL TYPE A NETWORK SWITCH
AND TERMINAL SERVER

FO SPLICE CLOSURE
FO SPLICE FUSION (8 EACH)
FO DROP CABLE, 12F (110 L.F.)
1-1" CONDUIT (10 L.F.)
TO EXISTING CONTROL CABINET

EXISTING OVERHEAD COPPER WIRE
TO BE REPLACED WITH FO CABLE
INSTALL FO CABLE, 48F (1370 L.F.)
ON EXISTING UTILITY POLES

FO CLOSURE 48F
FO SPLICE FUSION (18 EACH)
3-FO DROP CABLES, 12F (110 L.F.)

EXISTING PAD MOUNTED
CONTROLLER CABINET
INSTALL TYPE A NETWORK SWITCH
AND TERMINAL SERVER

INSTALL FO RISER ASSEMBLY
ON EXISTING UTILITY POLE

EXISTING UNDERGROUND CONDUIT
INSTALL FO DROP CABLE, 12F (90 L.F.)

EXISTING UNDERGROUND
COPPER WIRE INTERCONNECT
TO BE REPLACED
INSTALL FO CABLE, 48F (160 L.F.)

EXISTING PAD MOUNTED
CONTROLLER CABINET
INSTALL TYPE A NETWORK SWITCH
AND TERMINAL SERVER

1-2" CONDUIT (75 L.F.)
CAMERA COMPOSITE CABLE TO
EXISTING CONTROL CABINET

CCTV #29 (TUBE)
STA. 2167+20
MOUNTING TYPE A
MOUNTED ON MAST ARM
3' FROM SIGNAL POLE
SEE SHEET 2A FOR
MOUNTING DETAILS

LASH CCTV CONTROL CABLES TO
EXISTING SPAN WIRE AND SIGNAL CABLES
CAMERA COMPOSITE CABLE TO
EXISTING CONTROL CABINET

CCTV #30 (TUBE)
STA. 2179+23
MOUNTING TYPE B
MOUNTED ON SIGNAL POLE
W/3' EXTENSION ARM
SEE SHEET 2A FOR
MOUNTING DETAILS

NOTE: DROP CABLE FOR PRINCTON AND BROYLES
INTERSECTION WILL BE LOCATED IN EXISTING
PULL BOX AND NEED TO BE SPLICED INTO THE
FIBER NETWORK.





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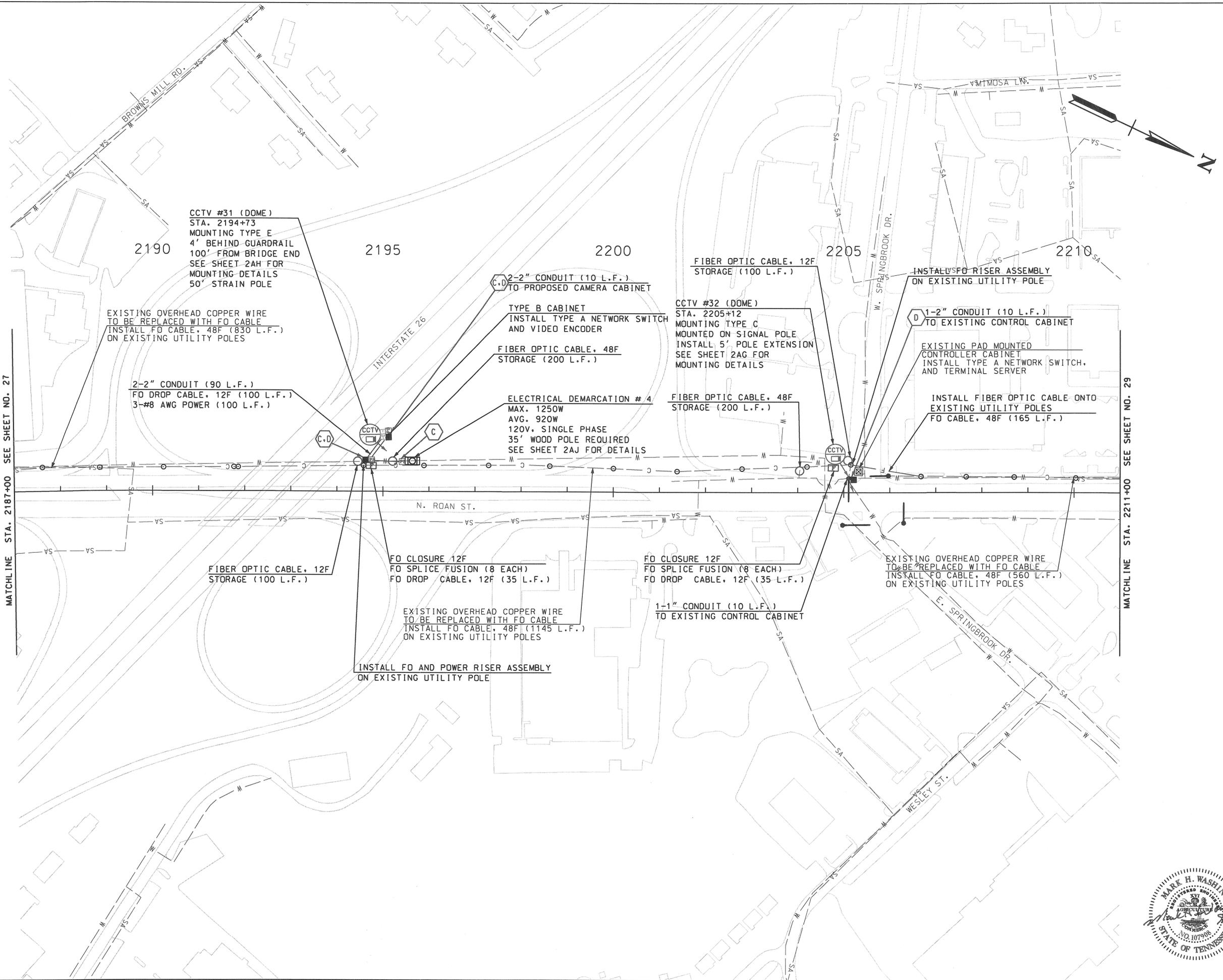
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PROPOSED
LAYOUT

28
SCALE: 1" = 100'
PROJECT: 26875.03
DATE: 2/10





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PROPOSED
LAYOUT

31
SCALE: 1"=100'
PROJECT: 26275.03
DATE: 2010





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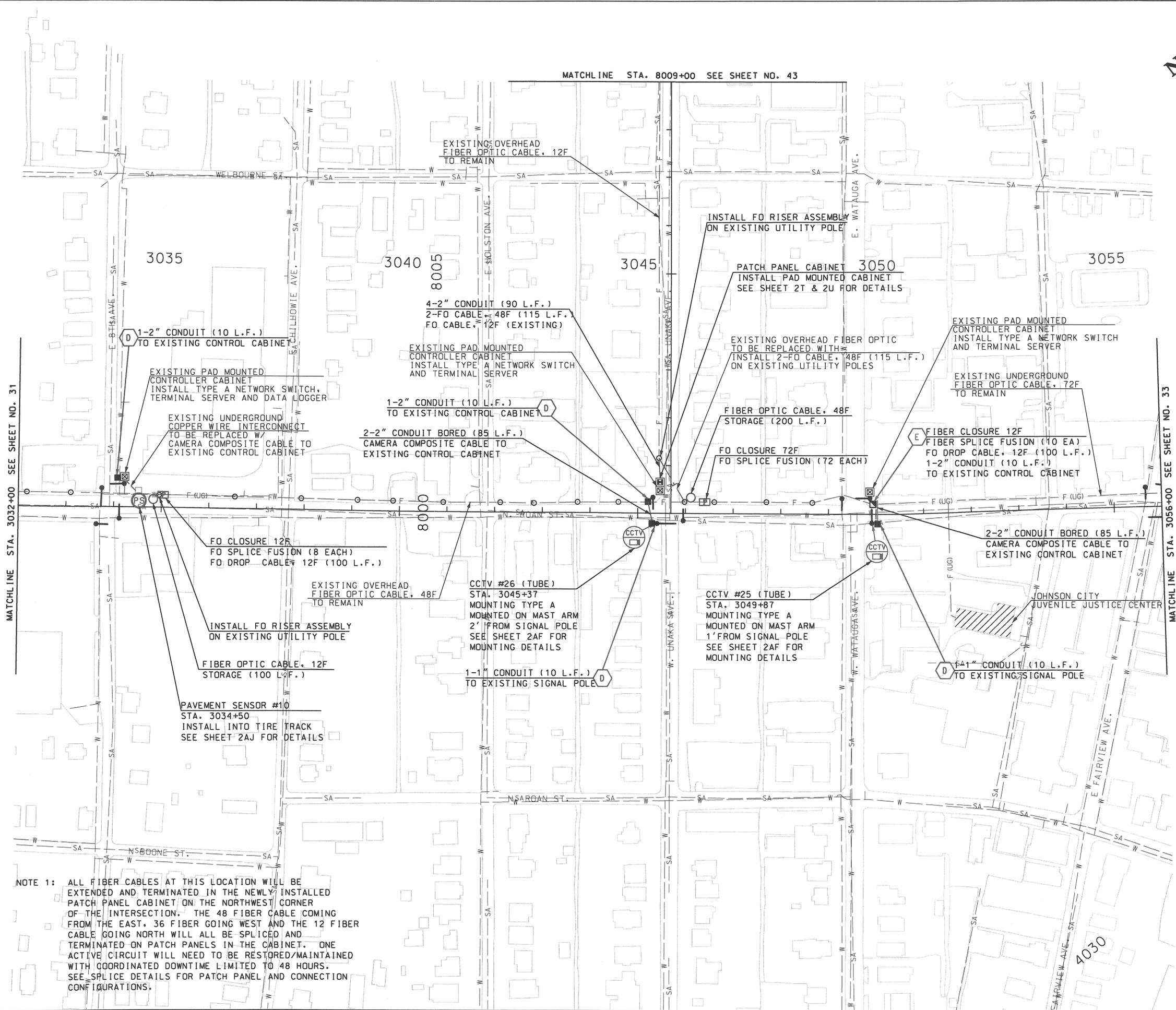
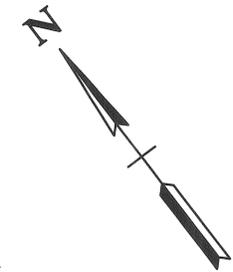
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PROPOSED
LAYOUT

32
SCALE: 1" = 100'
PROJECT: 28676.03
DATE: 2/10



NOTE 1: ALL FIBER CABLES AT THIS LOCATION WILL BE EXTENDED AND TERMINATED IN THE NEWLY INSTALLED PATCH PANEL CABINET ON THE NORTHWEST CORNER OF THE INTERSECTION. THE 48 FIBER CABLE COMING FROM THE EAST, 36 FIBER GOING WEST AND THE 12 FIBER CABLE GOING NORTH WILL ALL BE SPLICED AND TERMINATED ON PATCH PANELS IN THE CABINET. ONE ACTIVE CIRCUIT WILL NEED TO BE RESTORED/MAINTAINED WITH COORDINATED DOWNTIME LIMITED TO 48 HOURS. SEE SPLICE DETAILS FOR PATCH PANEL AND CONNECTION CONFIGURATIONS.





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PROPOSED
LAYOUT

34
SCALE: 1" = 100'
PROJECT: 26676.03
DATE: 2/10





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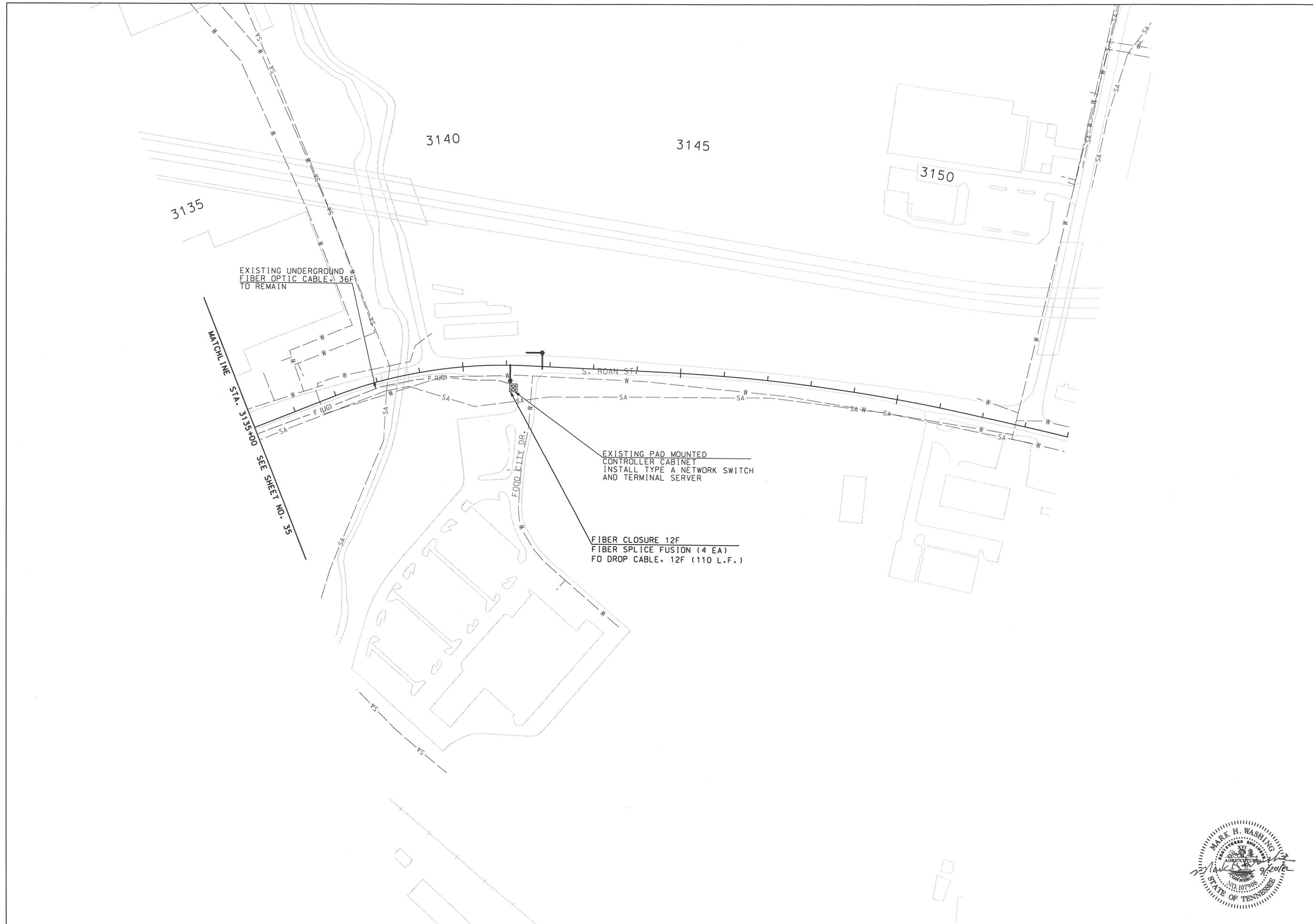
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PROPOSED
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36
SCALE: 1" = 100'
PROJECT: 28575.03
DATE: 2010





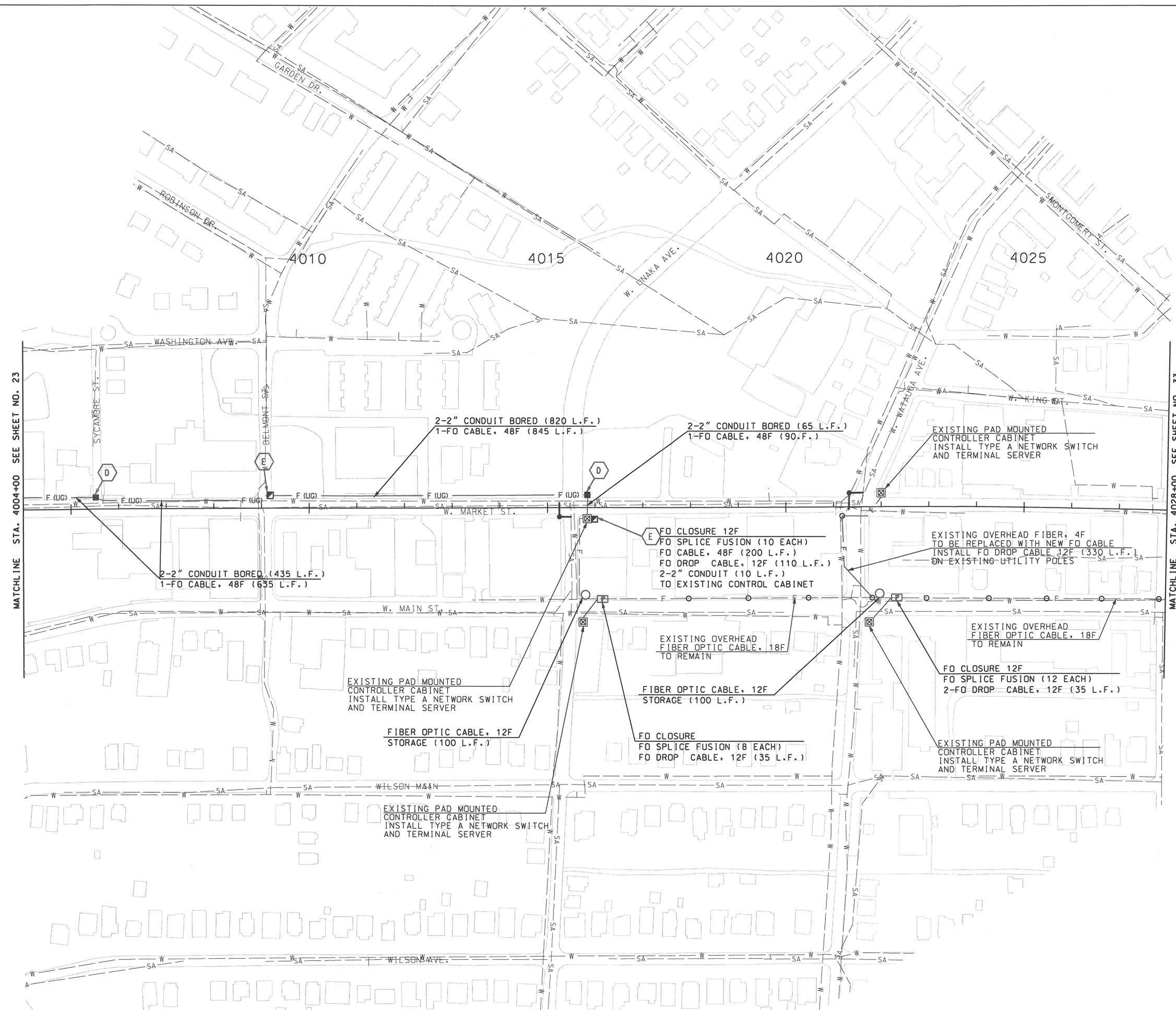
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MATCHLINE STA. 4004+00 SEE SHEET NO. 23

MATCHLINE STA. 4028+00 SEE SHEET NO. 33



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PROPOSED
LAYOUT

38
SCALE: 1" = 100'
PROJECT: 24575.03
DATE: 2010





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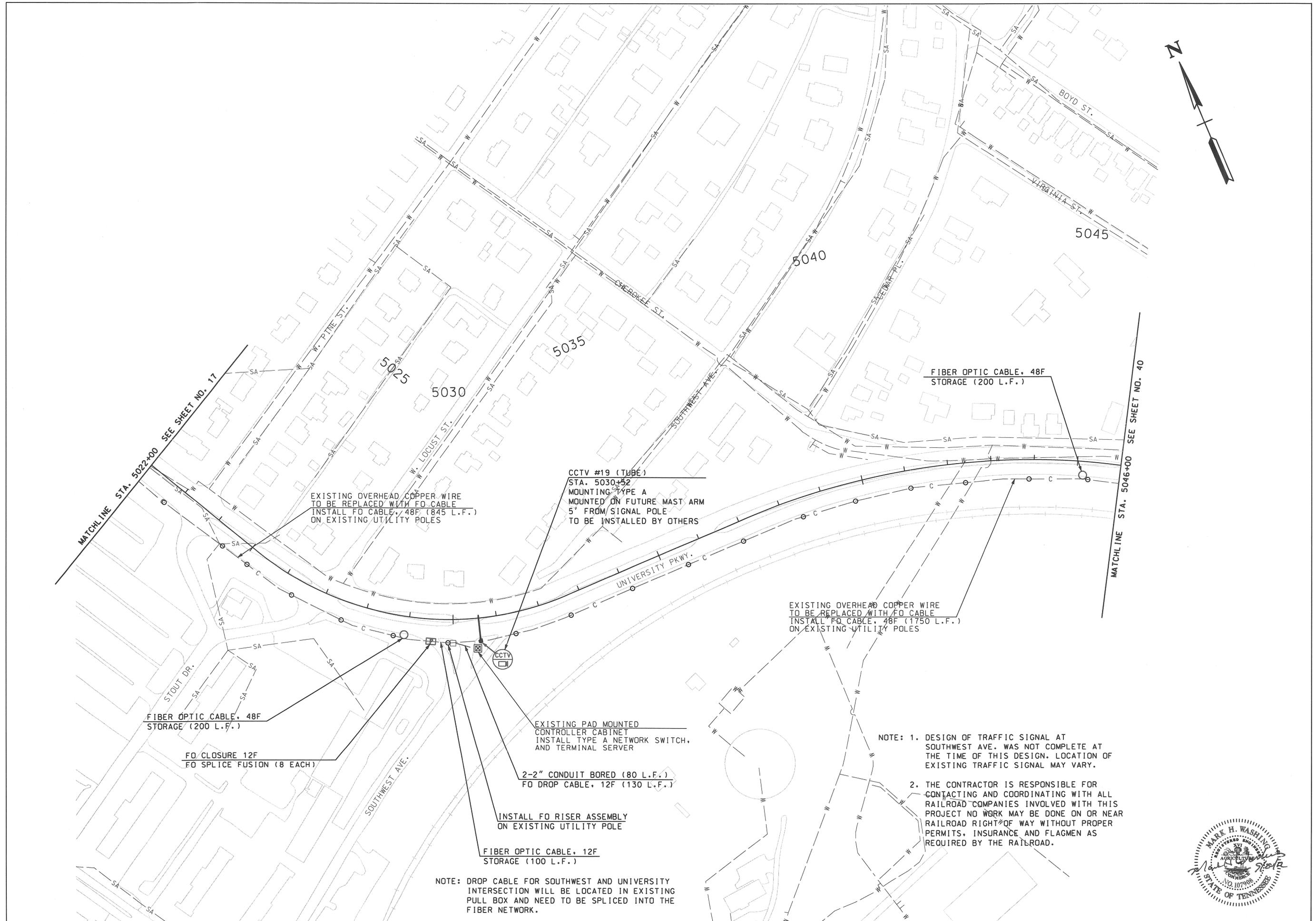
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PROPOSED
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SCALE: 1"=100'
PROJECT: 26575.03
DATE: 2010





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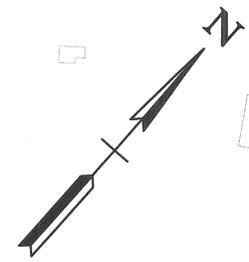
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PROPOSED
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41
SCALE: 1" = 100'
PROJECT: 28576.03
DATE: 2/10



MATCHLINE STA. 5070+00 SEE SHEET NO. 40

MATCHLINE STA. 5094+00 SEE SHEET NO. 35

2-2" CONDUIT (1370 L.F.)
1-FO CABLE, 48F (1570 L.F.)

2-2" CONDUIT (675 L.F.)
1-FO CABLE, 48F (875 L.F.)

2-2" CONDUIT BORED (410 L.F.)
1-FO CABLE, 48F (410 L.F.)





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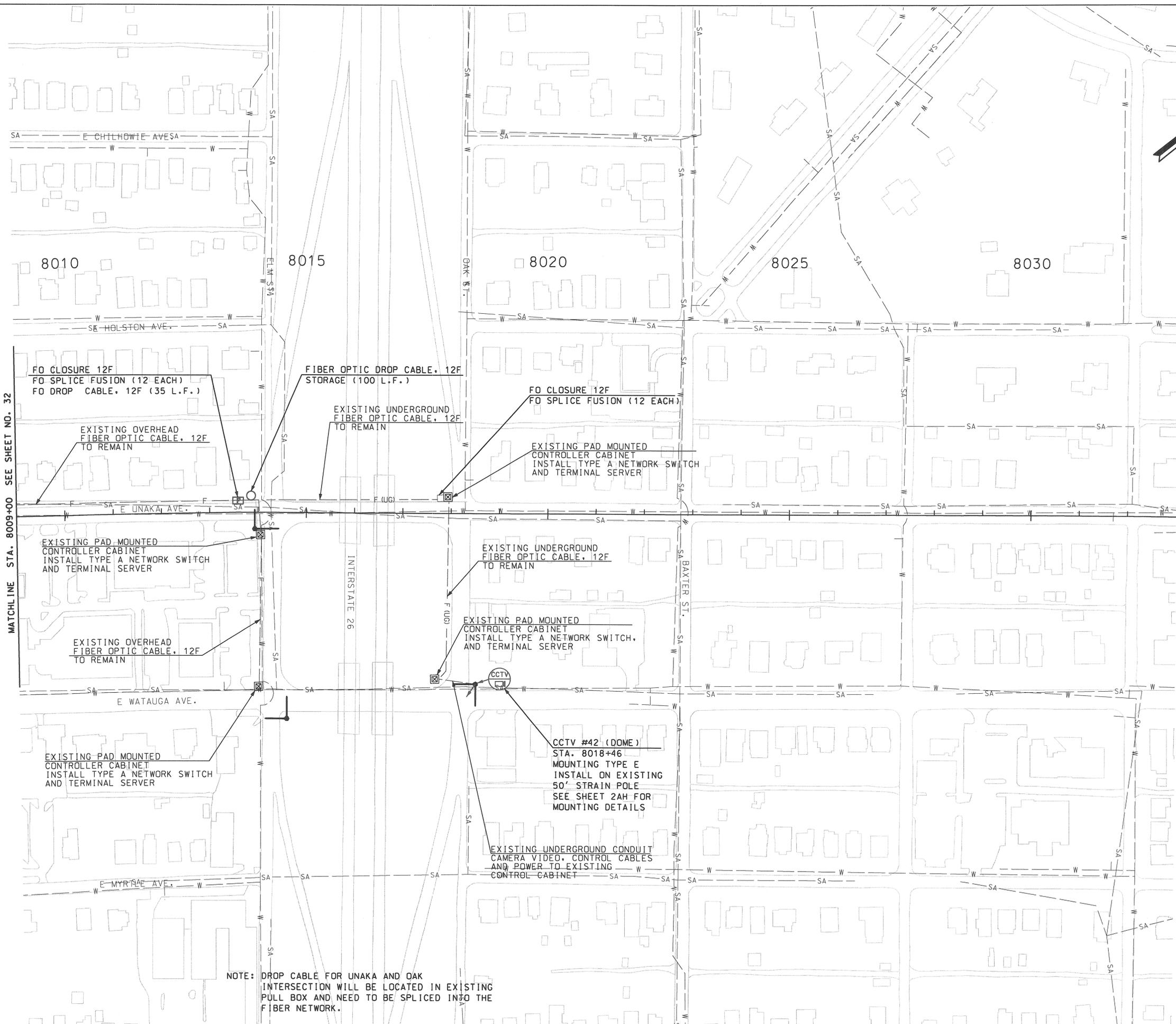
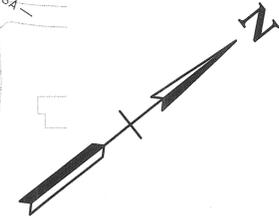
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SCALE: 1"=100'
PROJECT: 24575.03
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NOTE: DROP CABLE FOR UNAKA AND OAK INTERSECTION WILL BE LOCATED IN EXISTING PULL BOX AND NEED TO BE SPLICED INTO THE FIBER NETWORK.





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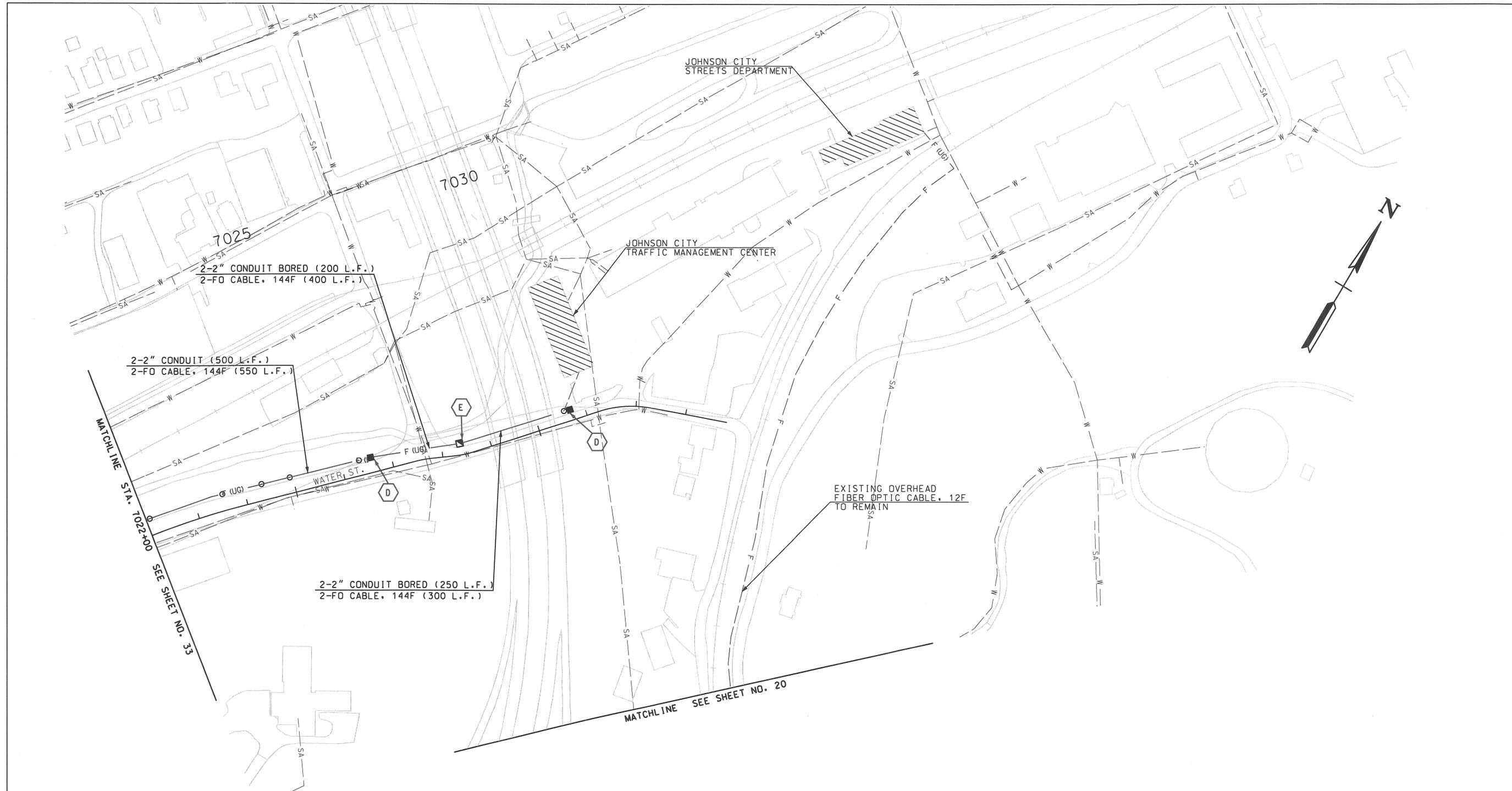
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NOTE: 1. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING AND COORDINATING WITH ALL RAILROAD COMPANIES INVOLVED WITH THIS PROJECT NO WORK MAY BE DONE ON OR NEAR RAILROAD RIGHT OF WAY WITHOUT PROPER PERMITS, INSURANCE AND FLAGMEN AS REQUIRED BY THE RAILROAD.



