



Task Order Request #TO24-007 - 200 South Bus Stop Comm & Fiber

Status	Open	Assignees	Carlie A Torres
Created Date	Nov 13, 2024	Issued Date	Nov 13, 2024
		Location	

TASK ORDER IDENTIFICATION

Contract No	24-03814		
Contractor Name	ROCKY MOUNTAIN SYSTEMS SERVICES	Contract Start Date	06/14/24
Account Code(s)	40-7407.63000.2001 Bus Stops - \$192,148.64 40-7407.65000.5008 Hardware - \$17,614.98 40-7407.68000.8002 Engineering - \$4,231.23 40-7407.68000.8003 PM for Design & Construction - \$76,837.19 40-7407.59000.9001 Unallocated Contingency - \$50,000.00		

THE PURPOSE OF THIS TASK ORDER IS TO SPECIFICALLY DEFINE THE SCOPE, SCHEDULE, LUMP SUM PRICE, AND OTHER TERMS APPLICABLE TO THE WORK IDENTIFIED HEREIN.

UTA AND THE CONTRACTOR HEREBY AGREE AS FOLLOWS:

1.0 SCOPE OF SERVICES

The contractor's scope letter and price estimate is hereby attached and incorporated into this Task Order [RMSS-52720 - 028 - 200 South Bus Comm Fiber Proposal.pdf](#)

2.0 SCHEDULE

The Substantial Completion Date for this Task is	06/30/25	The Final Acceptance Date for this Task is	06/30/25
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3.0 PRICING

The pricing agreement for this item is one of the following: Lump Sum + Provisional Sum (note: be sure to enter both amounts separately in the following fields)

Invoices will be billed on a monthly basis for completed work to date. The price for this item is in the amount of Lump Sum = \$290,832.04 Provisional Sum = \$50,000

Independent Cost Estimate (ICE) link, if applicable [24-007 200 S Bus Stop Com & Fiber_ICE.pdf](#)

This item is under UTA's simplified acquisition threshold (\$200,000) and requires no ICE. The cost was determined to be fair and reasonable based on a review No

of contractor quotes and the original contract rates

This item is greater Yes than UTA's simplified acquisition threshold (\$200,000) and thus requires an Independent Cost Estimate (ICE). I have reviewed and found the ICE within the appropriate range for approval

4.0 APPLICABILITY OF FEDERAL CLAUSES

Does this Task Order include federal assistance funds which requires the application of the Federal Clauses appended as Exhibit D to the Contract? No

If federal assistance funds are anticipated, the UTA Civil Rights group has set a Disadvantaged Business Enterprises (DBE) participation goal for this Task Order of N/A

IN WITNESS WHEREOF, THIS TASK ORDER HAS BEEN EXECUTED BY UTA AND CONTRACTOR OR ITS APPOINTED REPRESENTATIVE

UTAH TRANSIT AUTHORITY:

Required Signatures Explanation Project Manager \$0 - 24,999 Legal Review \$25k or greater Dir. of Capital Projects \$25k - 74,999 Chief Service Dev. Ofcr. \$75k - 199,999 Executive Director \$200,000+ Procurement/Contracts (for all)

Signature (Legal) By: Mike Bell Name: Mike Bell Date: 11/22/2024

PM Approval The costs associated with this item have been measured against the standard schedule of rates and the agreed contract pricing, (where applicable) and have been deemed consistent and appropriate for the proposed scope of work.

Signature (Project Manager) By: Dean Hansen Name: Dean Hansen Date: 11/22/2024

Signature (Contractor) By: Carlie Torres Name: Carlie Torres Date: 11/22/2024

Director Approval I have evaluated the content of this task order and the scope of work described in the task ordering agreement and have made the determination that this Task Order is within the scope of work contemplated and described by the contracting parties when they executed the original task ordering agreement.

Signature (Director)

Task Order Request #TO24-007 - 200 South Bus Stop Comm & Fiber

Project: SGR407 Bus Stop Enhancements

Signed by:
By: Jared Scarborough
91ABD751A0BD4BE
Name: Jared Scarborough
Date: 11/22/2024

Signature (Procurement)

By: _____
Name: _____
Date: _____

Signature (Chief Service Development Officer)

By: _____
David Hancock, Chief Service Development Officer
Date: _____

Signature (Executive Director)

By: _____
Jay Fox, Executive Director
Date: _____

COMPANY:

COMPANY:

ROCKY MOUNTAIN SYSTEMS SERVICES

Signature (Contractor)

DocuSigned by:
By: Anthony Ortolani
1587B142E149430
Name: Anthony Ortolani
Date: 11/20/2024



Date 30-Oct-2024

**On-Call Systems PTO 028 – 200 S Bus Stop Comm & Fiber
Scope of Work
Contract: 24-03814
UTA Project ID: SGR407**

Background

Salt Lake City is reconstructing the 200 South Corridor between 400 West and 900 East. As part of this project, UTA has agreed to provide fiber connectivity for Phase II bus shelters and final power connections for both Phase I and Phase II bus shelters along the 200 South Corridor. The bus stop reconstruction will be completed in two phases. While UTA will support both phases, this scope of work is limited to Phase II only. All other UTA obligations will be managed under a separate task order or contract.

List of Phase I limits and bus stop locations: (For reference only)

- 200 S & 200 E, NE corner
- 200 S & 400 E, SW corner
- 200 S & 500 E, SW corner
- 200 S & 700 E, NE corner
- 200 S & 900 E, NW mid
- 200 S & 300 E, SW corner
- 200 S & 400 E, NE corner
- 200 S & 600 E, SW corner
- 200 S & 700 E, SE corner
- 200 S & 300 E, NE corner
- 200 S & 500 E, NW corner
- 200 S & 600 W, NE corner
- 200 S & 800 E, SE corner

List of Phase II limits and bus stop locations: (Fiber connectivity and station power distribution are required)

- 200 S & 300 W, SW corner
- 200 S & 200 W, SW corner
- 200 S & 200 E, SW corner
- 200 S & State St, SE corner
- 200 S & 300 W, NE corner
- 200 S & Main, NW corner
- 200 S & W Temple, SW corner
- 200 S & 200 W, NE corner
- 200 S & Main, SW corner
- 200 S & State St, NE corner

Scope of Work

This Scope of Work entails the procurement, installation, and testing of fiber optic cables at Phase II bus stop locations along 200 South, with the goal of connecting all nodes to the FLHQ IT main center. The contractor is responsible for installing 48-strand single-mode fiber optic cables between the FLHQ IT main center and all bus stops within Phase II limits, utilizing existing spare UDOT fiber conduits to establish the fiber network. Additionally, the contractor is tasked with installing digital signs, NEMA boxes, and fiber distribution panels. The contractor must also establish power connections from the bus stop island junction box to the network equipment, bus stop lighting, and digital smart signs. It is important to note that SLC is responsible for installing conduits and power cables from the meter to the conduit stub on the bus stop island. If UTA opts to provide power to each piece of equipment individually with separate breakers, additional power cables may be needed from the meters to the bus stops. An additional power circuit breaker load panel might also be necessary at the bus stations. The attached exhibit includes electrical plans provided by SLC, which outline the layout of utility conduits and the incoming power





source.

Contractor Responsibilities:

Design

- Create and Provide High-Level design documents to be submitted to UDOT and UTA. This submittal must be submitted as soon as possible in order to obtain duct swap agreements with UDOT. Design should include:
 - Description of fiber cable and conduit sizes
 - Description of buffers
 - Description of fiber path through UDOT spare conduits
 - Description of junction and termination points
 - Description of conduit color

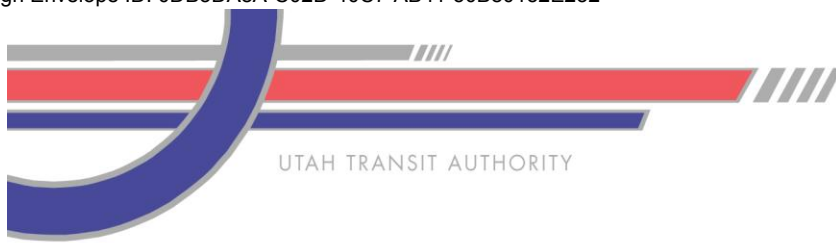
Materials (Contractor to determine actual amount or quantity in their proposal)

- 48-Strand single mode fiber optic cable
- Fiber distribution panels
- SM fiber patch jump cables
- Ethernet cables for digital signage
- Underground splice enclosure boxes
- Single mode type pig tails
- Fusion splice protection sleeves
- Power circuit breaker load panels
- Power circuit breakers
- AC receptacles
- Power line cables
- Mounting hardware

Construction

- Procure and install fiber cable as required to maintain the project
- Procure fiber distribution panels
- Contractor shall procure all necessary materials as required to maintain the project schedule
- Traffic coordination with Salt Lake City and UDOT to get access to all manholes/pull boxes
- Install 48-strand single mode fiber optic cable and establish all communication pathways from FLHQ to all bus stops within the Phase II limits
- Install a tracer wire within the conduits, ensuring it is securely fastened and properly positioned to facilitate the detection and tracking of the fiber
- The contractor should coordinate with the IT network department to determine the correct locations and quantities of fiber strands to be terminated
 - FLHQ: 48 strands
 - Bus stations between 300 W and State St along 200 S: 24 strands each
 - Bus station at 200 S & 200 E, SW: 48 strands
- Splice fibers
 - All necessary junction points or boxes





- Spares if necessary
- Label all strands of fiber optics that are in service
- Land fiber in NEMA communication boxes
- Install AC receptacles in the NEMA box for the network switch, digital sign, and structure power
- Install power circuit breaker load panel at the bus station, if required
- Run additional power cables from the meters to the bus station for each piece of equipment, if UTA prefers to provide power to each piece of equipment individually
 - Run additional spare wires for future use, if needed
- Install a power circuit breaker load panel at each bus station, if necessary
 - Install power breakers for the shelter lighting, digital sign, and network equipment
- Establish power lines from the bus station island junction box to stub-up conduit and final connections to supply power
 - To network equipment
 - To bus stop structure lighting
 - To smart digital sign
- Install the NEMA communication boxes provided by IT Department and the DIN rails at the Phase II bus stop locations
 - Coordinate with IT to figure out the right size and correct mounting locations
- Install Fiber Distribution Panels
 - Coordinate with IT to figure out the correct mounting location
- Install digital signs provided by the Network Department
 - Coordinate with network team to determine the appropriate mounting location
 - Connect Ethernet cables from the network switch to the digital sign
 - Label all active Ethernet cables
- Coordinate with UTA throughout the project
 - Test plan
 - Quality inspection and acceptance forms for each location
 - Coordinate with UTA's IT, Network, and Systems Engineering departments to secure approval from all relevant stakeholders for the installation of hardware at designated locations

Deliverables

- Fiber test documents
- Product submittals
- High-Level design documents

Scope of work for the UTA IT Network Department

- Procure network switches
- Install network switches
- Configure network switches
- Connect fiber jumper cables to the ethernet switch
- Label all patch cables that are in service if necessary
- Procure NEMA communication boxes and din rail





- Provide the contractor with detailed information to ensure the precise installation of hardware at the designated locations

Scope of work for the UTA IT Department

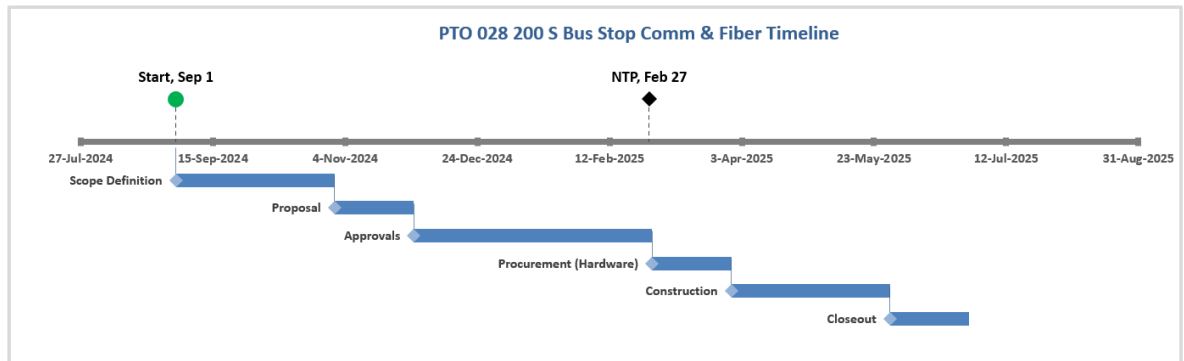
- Procure digital signs
- Procure mounting brackets for the digital signs
- Configure digital signs
- Provide the contractor with detailed information to ensure the precise installation of hardware at the designated locations

Capital Assets:

Forty-eight strand SMF cable, covering a total of 12,000 linear feet was identified as a primary capital asset essential for supporting the network infrastructure. The Contractor will supply UTA with part numbers, serial numbers, and unit cost for all capital assets created as part of this project.

Project Schedule

The timetable below provides the anticipated timeline for construction as outlined by UTA. Please note that this schedule is subject to change due to unforeseen circumstances. Contractors must include a detailed schedule with their proposal.



Task Schedule

Start	End	Duration	Label	Vert. Position	Vert. Line
9/1/2024	10/30/2024	60	Scope Definition	-18	-15
10/31/2024	11/29/2024	30	Proposal	-31	-15
11/30/2024	2/21/2025	90	Approvals	-44	-15
2/28/2025	3/29/2025	30	Procurement (Hardware)	-57	-15
3/30/2025	5/28/2025	60	Construction	-70	-15
5/29/2025	6/27/2025	30	Closeout	-83	-15

The rates and prices used to complete this task shall be in accordance with the rates as defined in the 24-03814 contract.

Please contact Dean Hansen at telephone number 801-687-3400 or via email at dhansen@rideuta.com if you have any questions.





Sincerely,

Dean Hansen

Digitally signed by Dean Hansen
DN: C=US, E=dhansen@rideuta.com,
O=Utah Transit Authority, OU="Systems
Engineering", CN=Dean Hansen
Date: 2024.10.31 08:32:38-06'00'

(Signature)

Dean Hansen
Manager- Systems Engineering
Utah Transit Authority

Stakeholder Review & Acknowledgement:

I have reviewed the attached Scope of Work document and approve its content as accurately reflecting the requirements of my department. I understand that this document outlines the specific work to be performed and serves as a basis for project planning and execution.

Department Name: Capital Design and Construction
Department Representative (Print Name & Job Title): ^{Signed by:} *Carlie Torres* / Project Manager 11/22/2024
Department Representative Signature and Date: *Carlie Torres*
FEDF759FAC8C485...

Department Name: IT Network Support
Department Representative (Print Name & Job Title): ^{DocuSigned by:} *Tom Smith* / Manager 11/14/2024
Department Representative Signature and Date: *Tom Smith*
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Department Name: IT
Department Representative (Print Name & Job Title): ^{DocuSigned by:} *Justin Palmer* / Manager 11/15/2024
Department Representative Signature and Date: *Justin Palmer*
3F7F7E67FFEE417...

Department Name: Customer Experience
Department Representative (Print Name & Job Title): ^{DocuSigned by:} *Chris Liberty* / Manager 11/15/2024
Department Representative Signature and Date: *Chris Liberty*
C16DD22271D54BC...

Department Name: SLC
Department Representative (Print Name & Job Title): ^{Signed by:} *Parker Bradley* / SLC's Project Manager 11/20/2024
Department Representative Signature and Date: *Parker Bradley*
C0E70B502A5647C...



SCHEDULE 6 - ELECTRICAL PHASE II								
Item	Specifications Reference Number Classification of Work	Units	UTA Power Quantity	SLC Power Quantity	SLC Fiber Quantity	UTA Fiber Quantity	EV Charging Quantity	Total
601	WIRING	L.S.	0.75	0.25	---	---	---	1
602	CONDUIT, PVC, 1 INCH DIAMETER, TRENCHED	L.F.	240	---	---	231	---	471
603	CONDUIT, PVC, 1-1/4 INCH DIAMETER, BORED	L.F.	---	---	19252	---	---	19252
604	CONDUIT, PVC, 2 INCH DIAMETER, BORED	L.F.	2223	---	---	2299	---	4522
605	CONDUIT, PVC, 3 INCH DIAMETER, BORED	L.F.	5553	2531	---	---	286	8370
606	JUNCTION BOX, TYPE II - ELECTRICAL	Each	18	4	---	---	2	24
607	JUNCTION BOX, TYPE II - FIBER	Each	---	---	8	17	---	25
608	METER/POWER PEDESTAL	Each	3	1	---	---	---	4

GENERAL NOTES:

- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED WITHIN THE RIGHT OF WAY AND BE COORDINATED WITH ENGINEER, ROCKY MOUNTAIN POWER, AND CITY ENGINEER. ELECTRICAL EQUIPMENT LOCATIONS SHALL BE STAKED IN THE FIELD PRIOR TO INSTALLATION.
- UNLESS OTHERWISE NOTED, THE WORK DESCRIBED ON THE PLANS SHALL INCLUDE PROVIDING ALL LABOR AND MATERIALS NECESSARY FOR COMPLETE AND OPERATIONAL ELECTRICAL SYSTEMS. FURNISH ALL REQUIRED ITEMS WHETHER SUCH ARE SPECIFICALLY SHOWN OR NOT.
- INFORMATION SHOWN ON THE DRAWINGS IS DIAGRAMMATIC ONLY AND SHALL NOT BE SCALED. OBTAIN AND VERIFY EXACT LOCATIONS, MEASUREMENTS, LEVELS, SPACE REQUIREMENTS, POTENTIAL CONFLICTS AMONG TRADES, ETC. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND FOR ADJUSTING THE WORK AS REQUIRED BY THE ACTUAL CONDITIONS OF THE PROJECT.
- INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH INFORMATION INDICATED ON THE DRAWINGS AND IN FULL ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE ALL CUTTING, CHANNELING, CHASING, DRILLING, AND OTHER OPERATIONS AS MAY BE REQUIRED FOR THE ELECTRICAL WORK. ALL PATCHING AND FINISHING SHALL BE DONE BY THE CONTRACTOR.
- SCHEDULE THE WORK TO CONFORM TO THE PROGRESS OF THE OTHER TRADES. COORDINATE ALL ELECTRICAL INSTALLATION AND ROUGH-IN AS REQUIRED.
- COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, REGULATIONS AND ORDINANCES, AND THE LATEST APPLICABLE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) OF THE NATIONAL FIRE PREVENTION ASSOCIATION AS INTERPRETED BY THE LOCAL INSPECTION AUTHORITY HAVING JURISDICTION.
- SECURE AND PAY FOR ALL PERMITS, FEES, TAXES, LICENSES AND INSPECTIONS IN CONNECTION WITH THE ELECTRICAL WORK INCLUDING ANY CONNECTION FEES OR SERVICE MODIFICATION COSTS BY LOCAL UTILITIES.
- INSTRUCTIONS SUCH AS "PROVIDE..." SHALL MEAN, "CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING COMPLETE IN EVERY RESPECT."
- MAINTAIN A COMPLETE SET OF ELECTRICAL DRAWINGS AT THE JOB SITE WITH ALL CHANGES OR VARIATIONS IN THE WORK MARKED IN AN OBVIOUS MANNER. A COMPLETE AS-BUILT SET OF DRAWINGS INCORPORATING ALL MARK-UPS OF THE WORK SHALL BE DELIVERED TO THE OWNER UPON THE COMPLETION OF THE PROJECT.
- POWER OUTAGES, WHEN NECESSARY, SHALL BE SCHEDULED SUFFICIENTLY IN ADVANCE WITH THE OWNER. POWER SHALL BE INTERRUPTED ONLY AT OWNER APPROVED TIMES.
- ALL MATERIALS SHALL BE NEW, SHALL BE SUITABLE FOR THE PURPOSE, AND SHALL BEAR THE UL LABEL. DAMAGED OR DEFECTIVE MATERIALS SHALL BE REPLACED.
- ENCLOSURES SHALL BE SUITABLE FOR THE ENVIRONMENT OF THE INSTALLATION.
- ALL FUTURE FIBER CONDUIT RUNS AS SHOWN ON PLANS IS TO BE CONFIRMED BY THE OWNER, SALT LAKE CITY (SLC) OR UTAH TRANSIT AUTHORITY (UTA). ALL EMPTY CONDUIT CONNECTIONS SHOWN TO EXISTING UDOT BOXES AND/OR MANHOLES ARE TO BE CONFIRMED BY BOTH THE OWNER OF THE CONDUIT AND UDOT TO ENSURE A FUNCTIONING FUTURE COMMUNICATIONS NETWORK.
- REFER TO UDOT SPECIFICATIONS REGARDING CONDUIT PROOFING AND MANDRELS WHEN USING A SPARE CONDUIT IN THE EXISTING UDOT FIBER BANK OR OTHERWISE. CONTRACTOR TO CONFIRM ANY USE OF EXISTING FIBER INFRASTRUCTURE WITH BOTH UTA AND UDOT PRIOR TO INSTALLATION. KEEP CONSISTENCY AMONG COLOR FOR SPARE WHEN FEASIBLE.
- LABEL ALL CONDUITS AND THEIR LOCATE WIRES PER THEIR OWNERSHIP.

LIGHTING AND ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
---	NEW HDPE BORE POWER CONDUIT TO A DEPTH OF 48". OWNED BY SALT LAKE CITY (SLC). SEE FEEDER SCHEDULE FOR SIZING.
---	NEW POWER CONDUIT TO A DEPTH OF 48". OWNED BY UTAH TRANSIT AUTHORITY (UTA). SEE FEEDER SCHEDULE FOR SIZING.
---	NEW HDPE BORE FIBER CONDUIT TO A DEPTH OF 48". OWNED BY SALT LAKE CITY (SLC). SEE FEEDER SCHEDULE FOR SIZING.
---	NEW HDPE BORE FIBER CONDUIT TO A DEPTH OF 48". OWNED BY UTAH TRANSIT AUTHORITY (UTA). SEE FEEDER SCHEDULE FOR SIZING.
Ⓜ	NEW NEMA 3R METER POWER PEDESTAL COMBINATION ALL-IN-ONE. SEE PLANS FOR OWNERSHIP.
Ⓜ _{UTA}	NEW CAST POLYMER CONCRETE TYPE TWO SPLICE BOX HOUSING POWER FEEDS AND OWNED AND MAINTAINED BY UTAH TRANSIT AUTHORITY. INSTALLED FLUSH TO GRADE OR SIDEWALK WITH HEAVY DUTY TRAFFIC RATED COVER. BOX SHALL READ "UTA ELECTRICAL" S2 = LARGE BOX (24"x13"x12"dp) ANSI TIER 22
Ⓜ _{SLC}	NEW CAST POLYMER CONCRETE TYPE TWO SPLICE BOX HOUSING POWER FEEDS AND OWNED AND MAINTAINED BY SALT LAKE CITY FOR FUTURE EV CHARGING STATION. INSTALLED FLUSH TO GRADE OR SIDEWALK WITH HEAVY DUTY TRAFFIC RATED COVER. BOX SHALL READ "SLC ELECTRICAL" S2 = LARGE BOX (24"x13"x12"dp) ANSI TIER 22
Ⓜ _{F-UTA}	NEW CAST POLYMER CONCRETE TYPE TWO SPLICE BOX FOR FUTURE FIBER. OWNED AND MAINTAINED BY UTAH TRANSIT AUTHORITY. INSTALLED FLUSH TO GRADE OR SIDEWALK WITH HEAVY DUTY TRAFFIC RATED COVER. BOX SHALL READ "UTA COMM" S2 = 24"x36"x36"dp ANSI TIER 22
Ⓜ _{F-SLC}	NEW CAST POLYMER CONCRETE TYPE TWO SPLICE BOX FOR FUTURE FIBER. OWNED AND MAINTAINED BY SALT LAKE CITY. INSTALLED FLUSH TO GRADE OR SIDEWALK WITH HEAVY DUTY TRAFFIC RATED COVER. BOX SHALL READ "SLC COMM" S2 = 24"x36"x36"dp ANSI TIER 22
Ⓜ	EXISTING UDOT OWNED TYPE THREE SPLICE BOX FOR FIBER CONNECTIONS.
8	STUB UP CONDUIT INTO BACK LEFT BUS SHELTER COLUMN FOR POWER AND FUTURE FIBER. THIS COLUMN SHALL ACT AS A RACEWAY FOR POWER CONDUCTORS TO THE LIGHT FIXTURES. SEE DETAIL #5 ON SHEET EP120 FOR MORE INFORMATION.
⚡	EXISTING SINGLE PHASE POLE MOUNTED TRANSFORMER BY ROCKY MOUNTAIN POWER. SEE ELECTRICAL PLANS FOR DETAILS.
⚡⚡⚡	EXISTING THREE PHASE POLE MOUNTED TRANSFORMER BY ROCKY MOUNTAIN POWER. SEE ELECTRICAL PLANS FOR DETAILS.
###-##	FEEDER IDENTIFICATION. REFER TO FEEDER SCHEDULE.
Ⓜ	IRRIGATION CONTROLLER. SEE IRRIGATION PLANS FOR DETAILS. COORDINATE EXACT LOCATION WITH GSBS LANDSCAPE ARCHITECTS.

PREPARER:



SALT LAKE CITY CORPORATION
PUBLIC SERVICES DEPARTMENT

ENGINEERING DIVISION
349 SOUTH 200 EAST, SUITE 100
SALT LAKE CITY, UT 84111-2836
TELEPHONE: 801-535-7961
FAX: 801-535-6993
WWW.SLCCGOV.COM

PREPARER CONSULTANTS:
CLAYTON & ASSOCIATES

LIGHTING DESIGN AND ENGINEERING

PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

200 SOUTH RECONSTRUCTION 400 W - 200 E

PHASE 2

100% DESIGN

PROJECT OWNER:
SALT LAKE CITY CORPORATION

451 SOUTH STATE STREET
SALT LAKE CITY, UT 84111-2836
WWW.SLCCGOV.COM

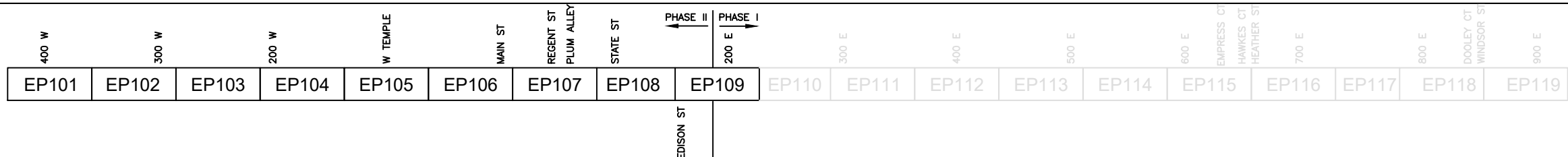
MARK	DATE	DESCRIPTION

PREPARER #: **N/A**
 CONTRACT #: **N/A**
 PROJECT #: **RDW20016**
 FILE #: **N/A**
 DRAWING FILE: **N/A**
 DRAWN BY: **J. EHNERT**
 CHECKED BY: **D. SANDERS**
 COPYRIGHT:

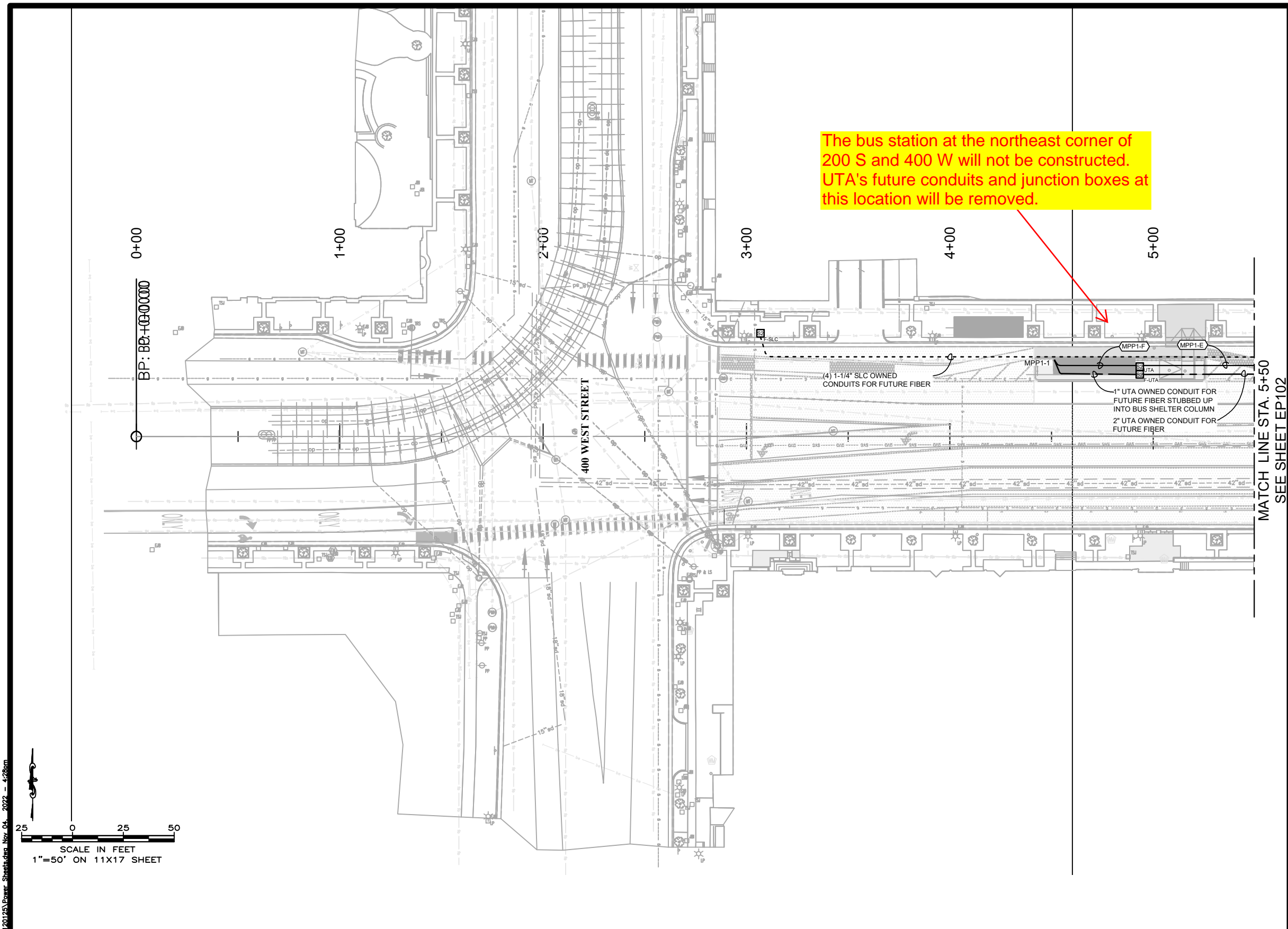
SHEET TITLE:
ELECTRICAL COVER SHEET

SHEET IDENTIFIER:
EP100

BINDING ORDER

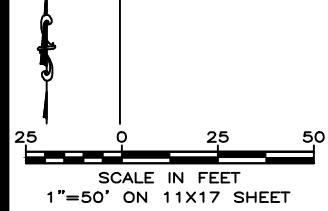


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The bus station at the northeast corner of 200 S and 400 W will not be constructed. UTA's future conduits and junction boxes at this location will be removed.

MATCH LINE STA. 5+50
SEE SHEET EP102



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400 W	300 W	200 W	W TEMPLE	MAIN ST	REGENT ST	PLUM ALLEY	STATE ST	PHASE II	PHASE I	200 E	300 E	400 E	500 E	600 E	EMPRESS CT	HAWKES CT	HEATHER ST	700 E	800 E	DOOLEY CT	WINDSOR ST	900 E
EP101	EP102	EP103	EP104	EP105	EP106	EP107	EP108	EP109	EP110	EP111	EP112	EP113	EP114	EP115	EP116	EP117	EP118	EP119				

PREPARER:



SALT LAKE CITY CORPORATION
PUBLIC SERVICES DEPARTMENT

ENGINEERING DIVISION
349 SOUTH 200 EAST, SUITE 100
SALT LAKE CITY, UT 84111-2836
TELEPHONE: 801-535-7961
FAX: 801-535-6093
WWW.SLCGOV.COM

PREPARER CONSULTANTS:
CLANTON & ASSOCIATES
LIGHTING DESIGN AND ENGINEERING

PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**200 SOUTH RECONSTRUCTION
400 W - 200 E**

PHASE 2

100% DESIGN

PROJECT OWNER:
SALT LAKE CITY CORPORATION
451 SOUTH STATE STREET
SALT LAKE CITY, UT 84111-2836
WWW.SLCGOV.COM

MARK	DATE	DESCRIPTION

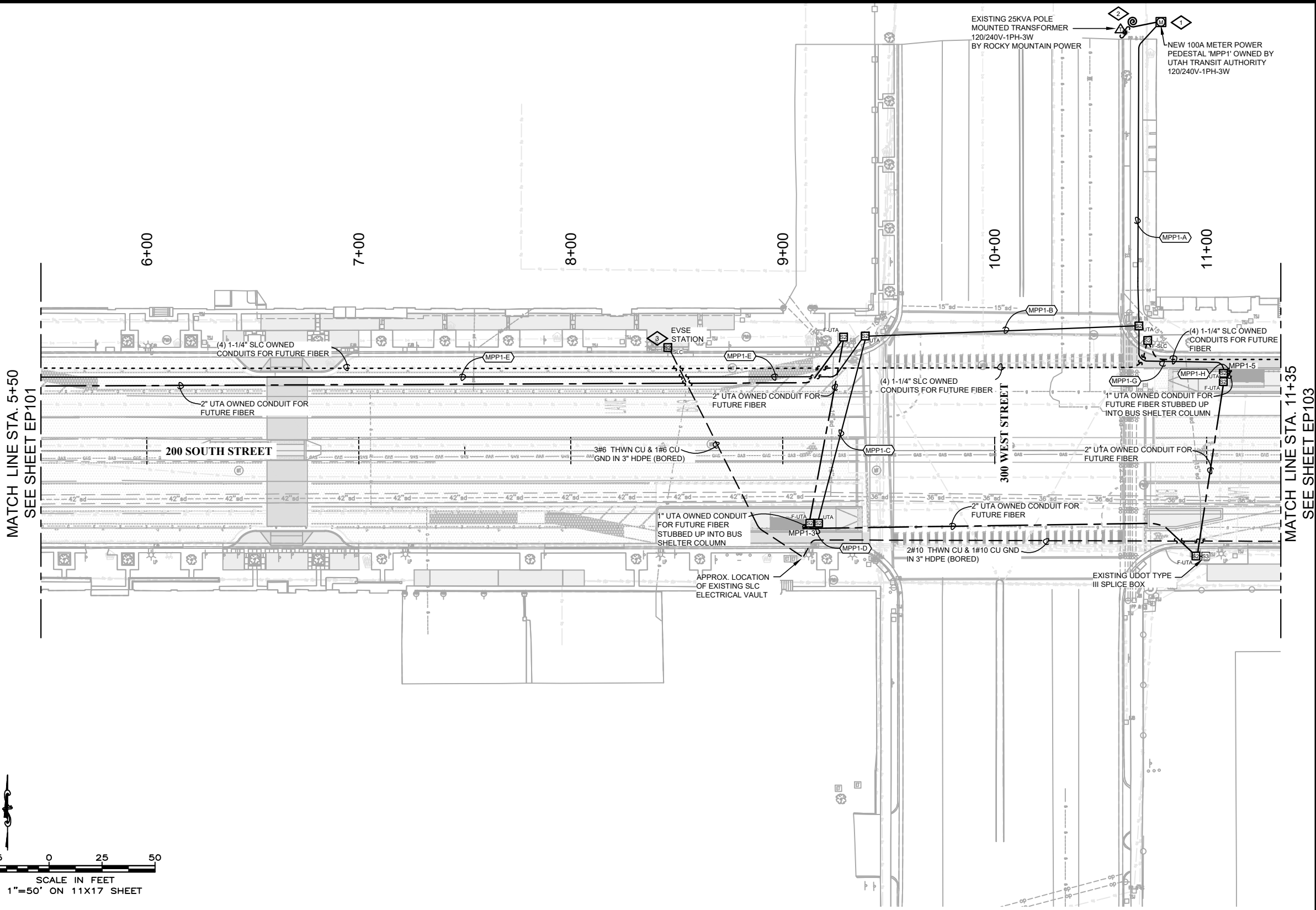
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CONTRACT #: N/A
PROJECT #: **RDW20016**
FILE #: N/A
DRAWING FILE: N/A
DRAWN BY: **J. EHNERT**
CHECKED BY: **D. SANDERS**
COPYRIGHT:

SHEET TITLE:
Power Plan

SHEET IDENTIFIER:
EP101

BINDING ORDER





- PLAN NOTES:
- 1 EXACT METER LOCATION TO BE COORDINATED WITH UTAH TRANSIT AUTHORITY.
 - 2 COIL ENOUGH CONDUCTOR AT THE BASE OF POLE TO REACH THE TRANSFORMER TERMINALS AT THE TOP OF THE POLE. FINAL ROUTING OF CONDUCTOR UP THE POLE AND CONNECTION TO THE TRANSFORMER TO BE MADE BY ROCKY MOUNTAIN POWER FORCES. SEE ONE-LINE AND FAULT CURRENT TABLE FOR SERVICE LATERAL WIRE SIZE AND CONDUIT SIZE.
 - 3 SLC OWNED SPLICE BOX FOR (1) FUTURE EVSE CHARGING STATION INSTALLATION FEEDING (2) PARKING SPOTS. ROUTE SPARE CONDUIT TO EXISTING VAULT ON SOUTH SIDE OF ROADWAY TO EXISTING SLC OWNED PANEL HOUSED WITHIN ELECTRICAL VAULT. PREPARE FOR (2) 40A/2P BREAKERS TO FEED THESE CHARGING STATIONS. ELECTRICAL ENGINEER SHALL CONFIRM PANEL CAPACITY WITH THIS ADDITIONAL LOAD PRIOR TO INSTALLATION AND CONNECTION.

PREPARER:

SALT LAKE CITY CORPORATION
PUBLIC SERVICES DEPARTMENT

ENGINEERING DIVISION
349 SOUTH 200 EAST, SUITE 100
SALT LAKE CITY, UT 84111-2836
TELEPHONE: 801-535-7961
FAX: 801-535-6093
WWW.SLCGOV.COM

PREPARER CONSULTANTS:
CLAYTON & ASSOCIATES
LIGHTING DESIGN AND ENGINEERING

PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

200 SOUTH RECONSTRUCTION 400 W - 200 E

PHASE 2

100% DESIGN

PROJECT OWNER:
SALT LAKE CITY CORPORATION

451 SOUTH STATE STREET
SALT LAKE CITY, UT 84111-2836
WWW.SLCGOV.COM

MARK	DATE	DESCRIPTION

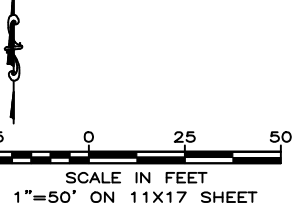
PREPARER #: N/A
CONTRACT #: N/A
PROJECT #: **RDW20016**
FILE #: N/A
DRAWING FILE: N/A
DRAWN BY: **J. EHNERT**
CHECKED BY: **D. SANDERS**
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SHEET TITLE:

SHEET IDENTIFIER:

EP102

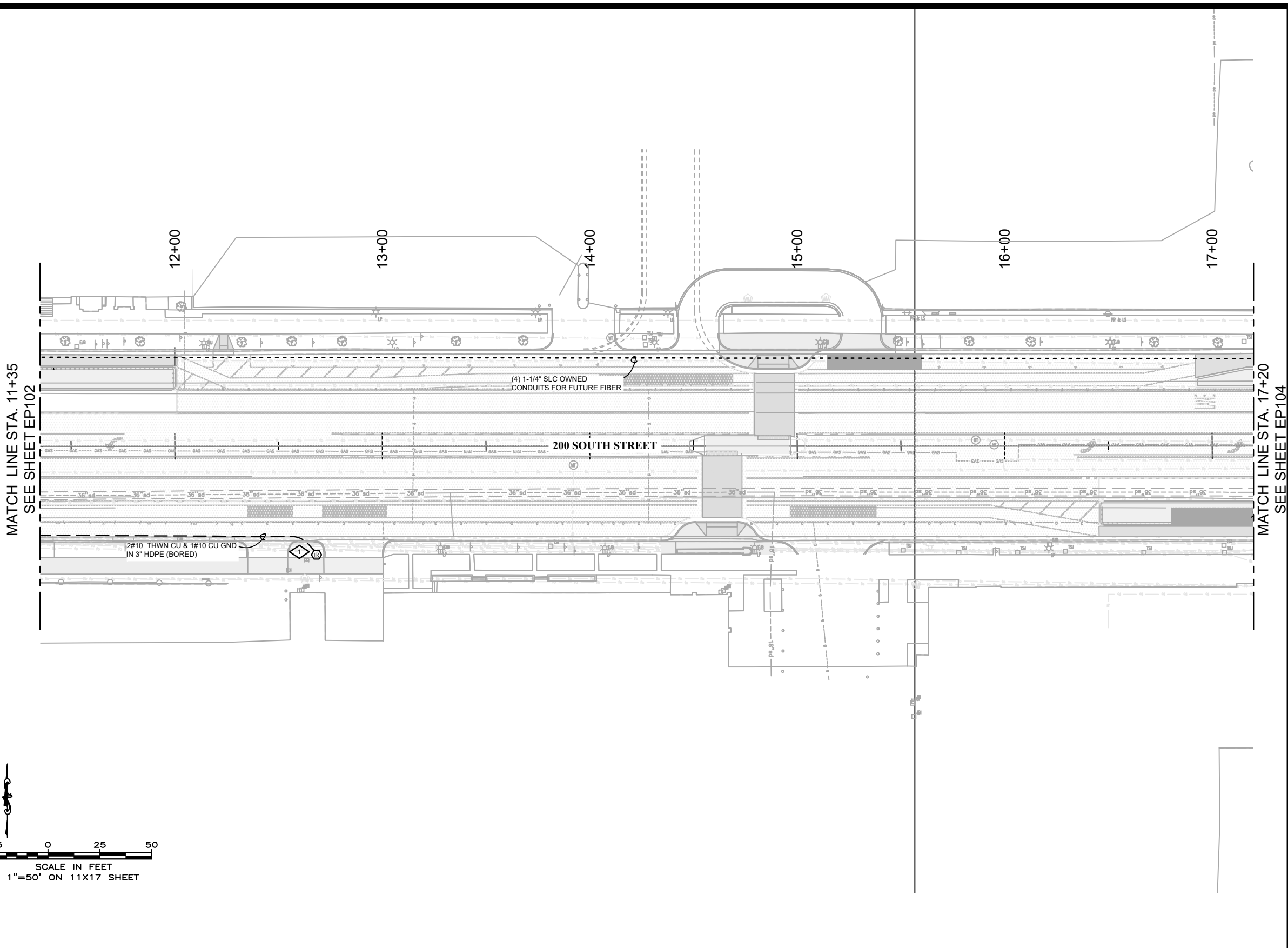
BINDING ORDER



400 W	300 W	200 W	W TEMPLE	MAIN ST	REGENT ST	PLUM ALLEY	STATE ST	PHASE II	PHASE I	200 E	300 E	400 E	500 E	600 E	EMPRESS CT	HAWKES CT	HEATHER ST	700 E	800 E	DOOLEY CT	WINDSOR ST	900 E
EP101	EP102	EP103	EP104	EP105	EP106	EP107	EP108	EDISON ST		EP109	EP110	EP111	EP112	EP113	EP114	EP115	EP116	EP117	EP118	EP119		

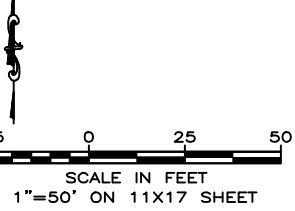


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MATCH LINE STA. 11+35
SEE SHEET EP102

MATCH LINE STA. 17+20
SEE SHEET EP104



IRRIGATION CONTROLLER TO BE FED FROM EXISTING SLC OWNED PANEL IN ELECTRICAL VAULT. ADD A 120V/1P CIRCUIT AT 135W FOR THIS ITEM. ELECTRICAL ENGINEER SHALL CONFIRM PANEL CAPACITY WITH THIS ADDITIONAL LOAD PRIOR TO INSTALLATION AND CONNECTION.

PREPARER:



SALT LAKE CITY CORPORATION
PUBLIC SERVICES DEPARTMENT

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PREPARER CONSULTANTS:
CLAYTON & ASSOCIATES
LIGHTING DESIGN AND ENGINEERING

PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**200 SOUTH RECONSTRUCTION
400 W - 200 E**

PHASE 2

100% DESIGN

PROJECT OWNER:
SALT LAKE CITY CORPORATION
451 SOUTH STATE STREET
SALT LAKE CITY, UT 84111-2836
WWW.SLCGOV.COM

MARK	DATE	DESCRIPTION

PREPARER #: N/A
CONTRACT #: N/A
PROJECT #: **RDW20016**
FILE #: N/A
DRAWING FILE: N/A
DRAWN BY: **J. EHNERT**
CHECKED BY: **D. SANDERS**
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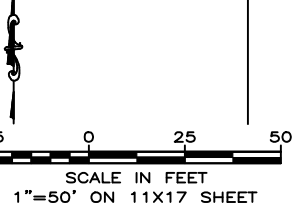
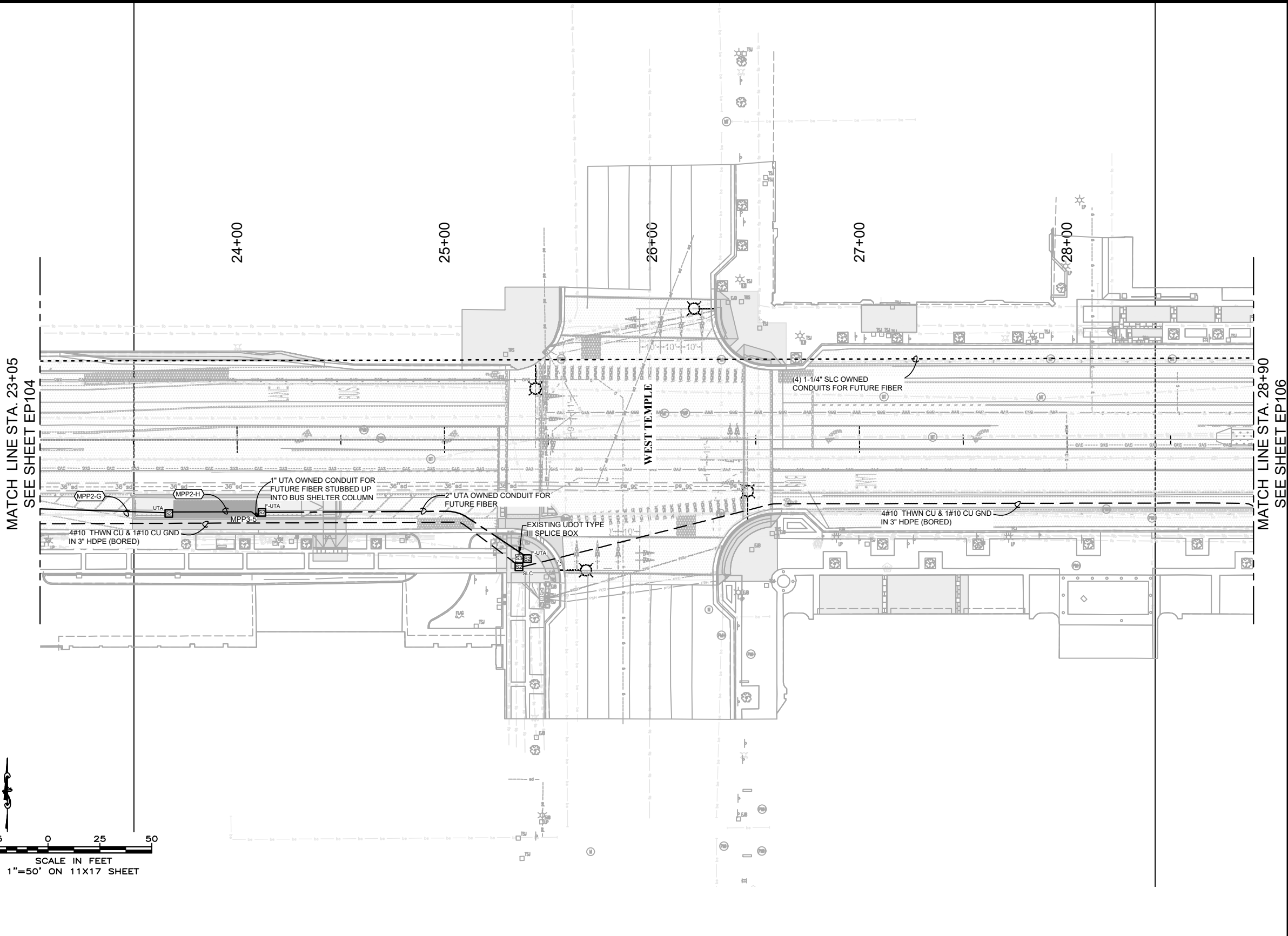
SHEET TITLE:

SHEET IDENTIFIER:
EP103
BINDING ORDER

400 W	300 W	200 W	W TEMPLE	MAIN ST	REGENT ST PLUM ALLEY	STATE ST	PHASE II	PHASE I	200 E	300 E	400 E	500 E	600 E	EMPRSS CT	HAWKES CT	HEATHER ST	700 E	800 E	DOOLEY CT	WINDSOR ST	900 E
EP101	EP102	EP103	EP104	EP105	EP106	EP107	EP108	EP109	EDISON ST	EP110	EP111	EP112	EP113	EP114	EP115	EP116	EP117	EP118	EP119		



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400 W	300 W	200 W	W TEMPLE	MAIN ST	REGENT ST	PLUM ALLEY	STATE ST	PHASE II	PHASE I	200 E	300 E	400 E	500 E	600 E	EMPRESS CT	HAWKES CT	HEATHER ST	700 E	800 E	DOOLEY CT	WINDSOR ST	900 E
EP101	EP102	EP103	EP104	EP105	EP106	EP107	EP108	EP109	EP110	EP111	EP112	EP113	EP114	EP115	EP116	EP117	EP118	EP119				

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PREPARER:



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PREPARER CONSULTANTS:
CLAYTON & ASSOCIATES
LIGHTING DESIGN AND ENGINEERING

PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**200 SOUTH RECONSTRUCTION
400 W - 200 E**

PHASE 2

100% DESIGN

PROJECT OWNER:
SALT LAKE CITY CORPORATION
451 SOUTH STATE STREET
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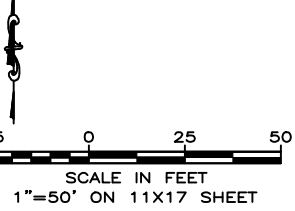
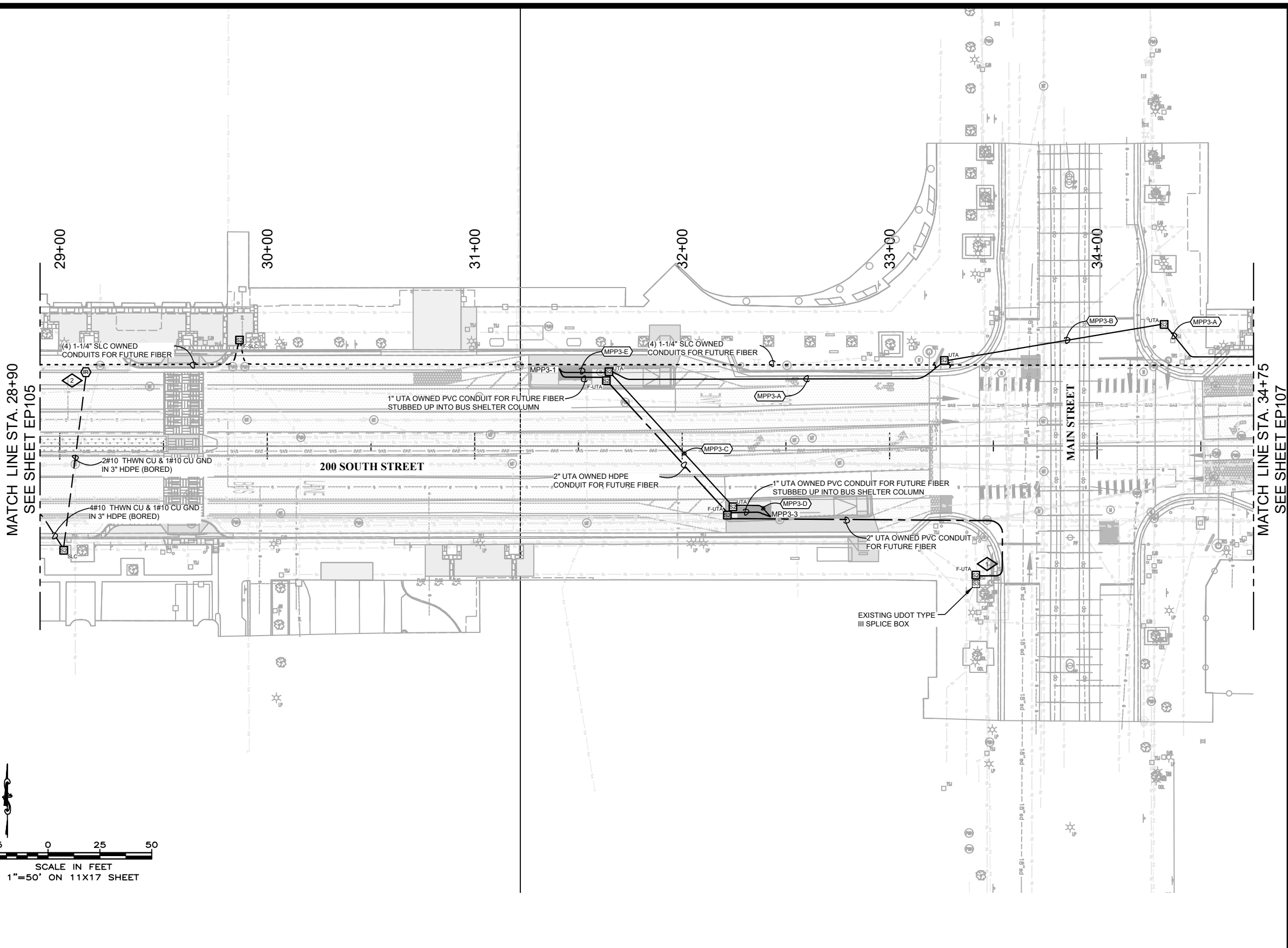
MARK	DATE	DESCRIPTION

PREPARER #: N/A
CONTRACT #: N/A
PROJECT #: **RDW20016**
FILE #: N/A
DRAWING FILE: N/A
DRAWN BY: **J. EHNERT**
CHECKED BY: **D. SANDERS**
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SHEET TITLE:
Power Plan

SHEET IDENTIFIER:
EP105
BINDING ORDER





400 W	300 W	200 W	W TEMPLE	MAIN ST	REGENT ST PLUM ALLEY	STATE ST	PHASE II	PHASE I	200 E	300 E	400 E	500 E	600 E	EMPRSS CT	HAWKES CT	HEATHER ST	700 E	800 E	DOOLEY CT	WINDSOR ST	900 E
EP101	EP102	EP103	EP104	EP105	EP106	EP107	EP108	EP109	EDISON ST	EP110	EP111	EP112	EP113	EP114	EP115	EP116	EP117	EP118	EP119		

PLAN NOTES:

- ALL FUTURE FIBER NETWORKS FOR BUS SHELTERS SHALL TIE INTO THIS CENTRAL SPlice BOX HUB FOR FINAL UDOT CONNECTIONS. USE THE IDENTIFIED SPARE CONDUIT IN EXISTING UDOT DUCT BANK FROM STATE STREET TO 400W, ADDING ADDITIONAL UTA SPlice BOXES WHERE NECESSARY TO ENSURE A FUNCTIONING COMMUNICATIONS SYSTEM. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH UDOT AND UTA TO DETERMINE THESE NECESSARY SPlice BOX LOCATIONS FOR THIS PHASE.
- IRRIGATION CONTROLLER TO BE FED FROM EXISTING SLC OWNED PANEL IN ELECTRICAL VAULT. ADD A 120V/1P CIRCUIT AT 135W FOR THIS ITEM. ELECTRICAL ENGINEER SHALL CONFIRM PANEL CAPACITY WITH THIS ADDITIONAL LOAD PRIOR TO INSTALLATION AND CONNECTION.

PREPARED BY:



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PREPARED BY CONSULTANTS:
CLAYTON & ASSOCIATES
LIGHTING DESIGN AND ENGINEERING

PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**200 SOUTH RECONSTRUCTION
400 W - 200 E**

PHASE 2

100% DESIGN

PROJECT OWNER:
SALT LAKE CITY CORPORATION

451 SOUTH STATE STREET
SALT LAKE CITY, UT 84111-2836
WWW.SLCGOV.COM

MARK	DATE	DESCRIPTION

PREPARED BY: N/A
CONTRACT #: N/A
PROJECT #: **RDW20016**
FILE #: N/A
DRAWING FILE: N/A
DRAWN BY: **J. EHNERT**
CHECKED BY: **D. SANDERS**
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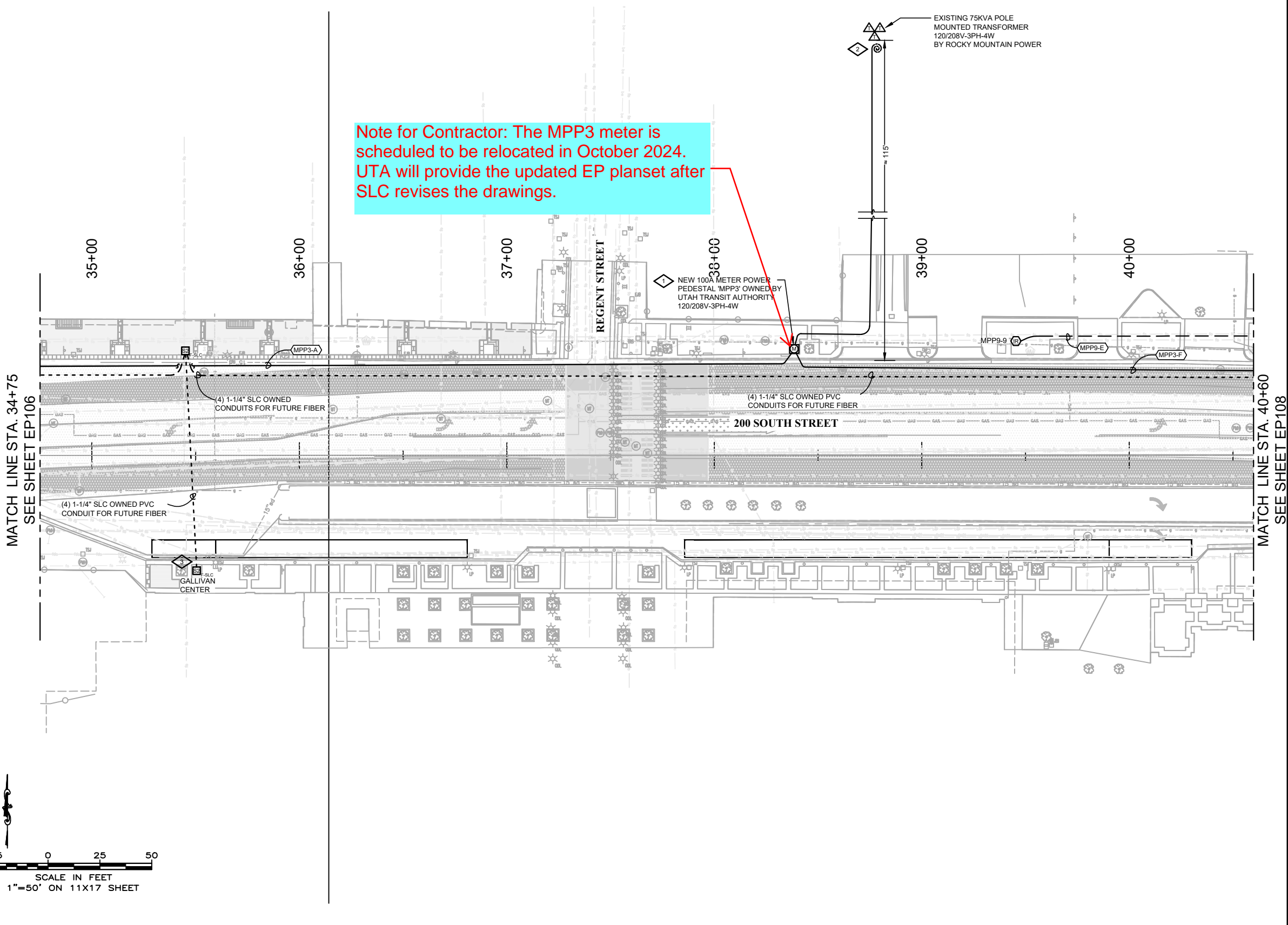
SHEET TITLE:
Power Plan

SHEET IDENTIFIER:
EP106

BINDING ORDER



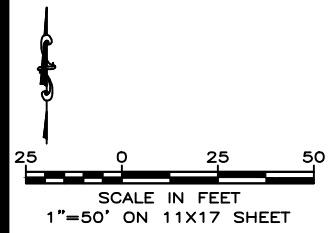
C:\pwworking\lsc\com-dwg\21-no-2020\06101201251\Power_Sheets.dwg, Nov 04, 2022, 4:32pm



Note for Contractor: The MPP3 meter is scheduled to be relocated in October 2024. UTA will provide the updated EP planset after SLC revises the drawings.

MATCH LINE STA. 34+75
SEE SHEET EP106

MATCH LINE STA. 40+60
SEE SHEET EP108



- PLAN NOTES:
- 1 EXACT METER LOCATION TO BE COORDINATED WITH UTAH TRANSIT AUTHORITY.
 - 2 COIL ENOUGH CONDUCTOR AT THE BASE OF POLE TO REACH THE TRANSFORMER TERMINALS AT THE TOP OF THE POLE. FINAL ROUTING OF CONDUCTOR UP THE POLE AND CONNECTION TO THE TRANSFORMER TO BE MADE BY ROCKY MOUNTAIN POWER FORCES. SEE ONE-LINE AND FAULT CURRENT TABLE FOR SERVICE LATERAL WIRE SIZE AND CONDUIT SIZE.
 - 3 CONFIRM EXACT LOCATION OF FIBER SPLICE BOX WITH SALT LAKE CITY.

PREPARER:

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LIGHTING DESIGN AND ENGINEERING

PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**200 SOUTH RECONSTRUCTION
400 W - 200 E**

PHASE 2

100% DESIGN

PROJECT OWNER:
SALT LAKE CITY CORPORATION
451 SOUTH STATE STREET
SALT LAKE CITY, UT 84111-2836
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PREPARER #:	N/A
CONTRACT #:	N/A
PROJECT #:	RDW20016
FILE #:	N/A
DRAWING FILE:	N/A
DRAWN BY:	J. EHNERT
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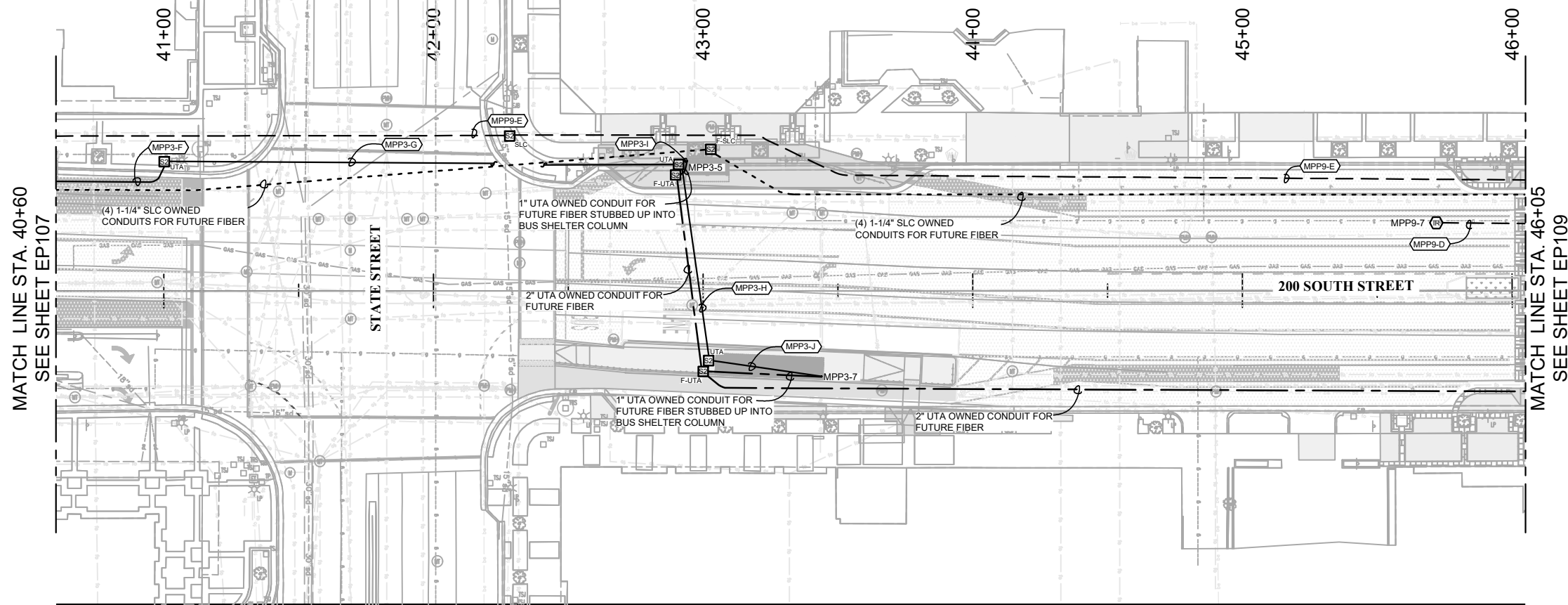
SHEET IDENTIFIER:
EP107

BINDING ORDER

400 W	300 W	200 W	W TEMPLE	MAIN ST	REGENT ST	PLUM ALLEY	STATE ST	PHASE II	PHASE I	200 E	300 E	400 E	500 E	600 E	EMPRSS CT	HAWKES CT	HEATHER ST	700 E	800 E	DOOLEY CT	WINDSOR ST	900 E
EP101	EP102	EP103	EP104	EP105	EP106	EP107	EP108	EP109	EP110	EP111	EP112	EP113	EP114	EP115	EP116	EP117	EP118	EP119				

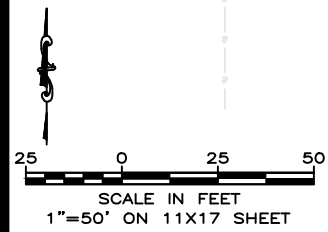


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MATCH LINE STA. 40+60
SEE SHEET EP107


MATCH LINE STA. 46+05
SEE SHEET EP109



400 W	300 W	200 W	W TEMPLE	MAIN ST	REGENT ST	PLUM ALLEY	STATE ST	PHASE II	PHASE I	200 E	300 E	400 E	500 E	600 E	EMPRESS CT	HAWKES CT	HEATHER ST	700 E	800 E	DOOLEY CT	WINDSOR ST	900 E	
EP101	EP102	EP103	EP104	EP105	EP106	EP107	EP108	EP109	EP110	EP111	EP112	EP113	EP114	EP115	EP116	EP117	EP118	EP119					

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PREPARER:



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PREPARER CONSULTANTS:

CLANTON & ASSOCIATES
LIGHTING DESIGN AND ENGINEERING

PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**200 SOUTH RECONSTRUCTION
400 W - 200 E**

PHASE 2

100% DESIGN

PROJECT OWNER:

SALT LAKE CITY CORPORATION

451 SOUTH STATE STREET
SALT LAKE CITY, UT 84111-2836
WWW.SLCCORV.COM

MARK	DATE	DESCRIPTION

PREPARER #: N/A
 CONTRACT #: N/A
 PROJECT #: **RDW20016**
 FILE #: N/A
 DRAWING FILE: N/A
 DRAWN BY: **J. EHNERT**
 CHECKED BY: **D. SANDERS**
 COPYRIGHT:

SHEET TITLE:

Power Plan

SHEET IDENTIFIER:

EP108

BINDING ORDER



PANEL "MPP1"
 120/240V-1PH-3W
 NEMA 3R METER POWER PEDESTAL W/ SPLIT BUS, SERVICE ENTRANCE RATED
 OWNER: UTA
 Minimum A.I.C. = 10,000 AMPS
 100 AMPS MAIN BREAKER

DESCRIPTION	Size	P	Ckt#	LEFT PHASE LOAD			RIGHT PHASE LOAD			Ckt#	Size	P	DESCRIPTION
				L1	L2	Ckt#	L1	L2	Ckt#				
FUTURE DIGITAL SIGNAGE	20	1	P1	350								SPACE ONLY	
FUTURE DIGITAL SIGNAGE	20	1	P3	350								SPACE ONLY	
FUTURE DIGITAL SIGNAGE	20	1	P5	350			300		P4	20	1	LCC1 MAINT. RECEPTACLE	
SPARE	20	1	P7				180		P6	15	1	LCC1 LIGHTING CONTROL CIRCUIT	
SPARE	20	1	P9				200		P8	20	1	LCC1 MAINT. RECEPTACLE	
SPACE ONLY			P11				100		P10	60		BOTTOM SECTION	
(BOTTOM SECTION IS ON/OFF CONTROL WITH BUILT-IN 60A 2-POLE CONTACTOR, FED FROM THE TOP SECTION BREAKER (KTH#P10/P12) (CONTACTOR COIL IS OPERATED BY 4-20mA CONTROL RELAY (ON/OFF CONTROL) WITH HOA SWITCH)													
BUS STOP LIGHTING	20	1	1	100					2	20	1	SPARE	
BUS STOP LIGHTING	20	1	3	100					4	20	1	SPARE	
BUS STOP LIGHTING	20	1	5	100					6	20	1	SPARE	
SPACE ONLY			7						8	20	1	SPARE	
SPACE ONLY			9						10			SPACE ONLY	
SPACE ONLY			11						12			SPACE ONLY	
				900	450		300	180					
				1200	630		Total Connected V.A.						
						1830	-Total Connected VA Both Phases						
						180 VA=Total Receptacle Load							
NOTE: ALL LIGHTING CONTROL CENTERS AND ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH "ARC-FLASH HAZARD WARNING" LABELS PER THE NATIONAL ELECTRIC CODE NEC 110.16 AND NFPA 70E, AND ALL OTHER LABELS REQUIRED BY NFPA 70.													
LOAD	CONNECTED	D.FACT	Est. KVA	AMPS									
LIGHTING	600 VA	1.25	0.75										
RECEPTACLES (1ST 10000)	180 VA	1.00	0.18										
RECEPTACLES (REMAINING)	VA	0.50	0.00										
MOTOR (LARGEST)	0 VA	1.25	0.00										
MOTORS (REMAINING)	0 VA	1.00	0.00										
ELECTRICAL HEATING	0 VA	1.25	0.00										
ELECTRICAL MSC	1050 VA	1.00	1.05										
TOTAL ESTIMATED LOAD	1830 VA		1.98	8									

PANEL "MPP2"
 208Y120V-3PH-4W
 NEMA 3R METER POWER PEDESTAL W/ SPLIT BUS, SERVICE ENTRANCE RATED
 OWNER: UTA
 Minimum A.I.C. = 22,000 AMPS
 100 AMPS MAIN BREAKER

DESCRIPTION	Size	P	Ckt#	LEFT PHASE LOAD			RIGHT PHASE LOAD			Ckt#	Size	P	DESCRIPTION
				A-PH	B-PH	C-PH	A-PH	B-PH	C-PH				
FUTURE DIGITAL SIGNAGE	20	1	P1	350								SPACE ONLY	
FUTURE DIGITAL SIGNAGE	20	1	P3	350			180		P4	20	1	LCC1 MAINT. RECEPTACLE	
FUTURE DIGITAL SIGNAGE	20	1	P5	350			300		P6	15	1	LCC1 LIGHTING CONTROL CIRCUIT	
SPARE	20	1	P7				100		P8	60		BOTTOM SECTION	
SPACE ONLY			P9				100		P10				
SPACE ONLY			P11				100		P12	3			
(BOTTOM SECTION IS ON/OFF CONTROL WITH BUILT-IN 60A 3-POLE CONTACTOR, FED FROM THE TOP SECTION BREAKER (KTH#P10/P12) (CONTACTOR COIL IS OPERATED BY 4-20mA CONTROL RELAY (ON/OFF CONTROL) WITH HOA SWITCH)													
BUS STOP LIGHTING	20	1	1	100					2	20	1	SPARE	
BUS STOP LIGHTING	20	1	3	100					4	20	1	SPARE	
BUS STOP LIGHTING	20	1	5	100			100		6			SPACE ONLY	
SPACE ONLY			7						8			SPACE ONLY	
SPACE ONLY			9						10			SPACE ONLY	
SPACE ONLY			11						12			SPACE ONLY	
				450	450	450	0	180	300				
				450	530	750	Total Connected V.A.						
						1830	-Total Connected VA All Phases						
						180 VA=Total Receptacle Load							
NOTE: ALL LIGHTING CONTROL CENTERS AND ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH "ARC-FLASH HAZARD WARNING" LABELS PER THE NATIONAL ELECTRIC CODE NEC 110.16 AND NFPA 70E, AND ALL OTHER LABELS REQUIRED BY NFPA 70.													
LOAD	CONNECTED	D.FACT	Est. KVA	AMPS									
LIGHTING	600 VA	1.25	0.75										
RECEPTACLES (1ST 10000)	180 VA	1.00	0.18										
RECEPTACLES (REMAINING)	VA	0.50	0.00										
MOTOR (LARGEST)	0 VA	1.25	0.00										
MOTORS (REMAINING)	0 VA	1.00	0.00										
ELECTRICAL HEATING	0 VA	1.25	0.00										
ELECTRICAL MSC	1050 VA	1.00	1.05										
TOTAL ESTIMATED LOAD	1830 VA		1.98	10									

PANEL "MPP3"
 208Y120V-3PH-4W
 NEMA 3R METER POWER PEDESTAL W/ SPLIT BUS, SERVICE ENTRANCE RATED
 OWNER: UTA
 Minimum A.I.C. = 10,000 AMPS
 100 AMPS MAIN BREAKER

DESCRIPTION	Size	P	Ckt#	LEFT PHASE LOAD			RIGHT PHASE LOAD			Ckt#	Size	P	DESCRIPTION
				A-PH	B-PH	C-PH	A-PH	B-PH	C-PH				
FUTURE DIGITAL SIGNAGE	20	1	P1	350								SPACE ONLY	
FUTURE DIGITAL SIGNAGE	20	1	P3	350			180		P4	20	1	LCC1 MAINT. RECEPTACLE	
FUTURE DIGITAL SIGNAGE	20	1	P5	350			300		P6	15	1	LCC1 LIGHTING CONTROL CIRCUIT	
FUTURE DIGITAL SIGNAGE	20	1	P7	350			200		P8	60		BOTTOM SECTION	
SPARE	20	1	P9				100		P10				
SPACE ONLY			P11				100		P12	3			
(BOTTOM SECTION IS ON/OFF CONTROL WITH BUILT-IN 60A 3-POLE CONTACTOR, FED FROM THE TOP SECTION BREAKER (KTH#P10/P12) (CONTACTOR COIL IS OPERATED BY 4-20mA CONTROL RELAY (ON/OFF CONTROL) WITH HOA SWITCH)													
BUS STOP LIGHTING	20	1	1	100					2	20	1	SPARE	
BUS STOP LIGHTING	20	1	3	100					4	20	1	SPARE	
BUS STOP LIGHTING	20	1	5	100			100		6	20	1	SPARE	
BUS STOP LIGHTING	20	1	7	100					8	20	1	SPARE	
SPACE ONLY			9						10			SPACE ONLY	
SPACE ONLY			11						12			SPACE ONLY	
				900	450	450	0	180	300				
				900	530	750	Total Connected V.A.						
						2280	-Total Connected VA All Phases						
						180 VA=Total Receptacle Load							
NOTE: ALL LIGHTING CONTROL CENTERS AND ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH "ARC-FLASH HAZARD WARNING" LABELS PER THE NATIONAL ELECTRIC CODE NEC 110.16 AND NFPA 70E, AND ALL OTHER LABELS REQUIRED BY NFPA 70.													
LOAD	CONNECTED	D.FACT	Est. KVA	AMPS									
LIGHTING	700 VA	1.25	0.88										
RECEPTACLES (1ST 10000)	180 VA	1.00	0.18										
RECEPTACLES (REMAINING)	VA	0.50	0.00										
MOTOR (LARGEST)	0 VA	1.25	0.00										
MOTORS (REMAINING)	0 VA	1.00	0.00										
ELECTRICAL HEATING	0 VA	1.25	0.00										
ELECTRICAL MSC	1400 VA	1.00	1.40										
TOTAL ESTIMATED LOAD	2280 VA		2.46	12									

PANEL "MPP4"
 120/240V-1PH-3W
 NEMA 3R METER POWER PEDESTAL W/ SPLIT BUS, SERVICE ENTRANCE RATED
 Minimum A.I.C. = 10,000 AMPS
 100 AMPS MAIN BREAKER

DESCRIPTION	Size	P	Ckt#	LEFT PHASE LOAD			RIGHT PHASE LOAD			Ckt#	Size	P	DESCRIPTION
				L1	L2	Ckt#	L1	L2	Ckt#				
IRRIGATION CONTROLLER	20	1	P1	200								SPACE ONLY	
SPARE	20	1	P3						P4			SPACE ONLY	
SPARE	20	1	P5				300		P6	15	1	LCC1 LIGHTING CONTROL CIRCUIT	
SPARE	20	1	P7				180		P8	20	1	LCC1 MAINT. RECEPTACLE	
SPACE ONLY			P9				100		P10	60		BOTTOM SECTION	
SPACE ONLY			P11				0		P12	2			
(BOTTOM SECTION IS ON/OFF CONTROL WITH BUILT-IN 60A 2-POLE CONTACTOR, FED FROM THE TOP SECTION BREAKER (KTH#P10/P12) (CONTACTOR COIL IS OPERATED BY 4-20mA CONTROL RELAY (ON/OFF CONTROL) WITH HOA SWITCH)													
BUS STOP LIGHTING	20	1	1	100					2	20	1	SPARE	
SPACE ONLY			3						4	20	1	SPARE	
SPACE ONLY			5						6			SPACE ONLY	
SPACE ONLY			7						8			SPACE ONLY	
SPACE ONLY			9						10			SPACE ONLY	
SPACE ONLY			11						12			SPACE ONLY	
				300	0		300	180					
				600	180		Total Connected V.A.						
						780	-Total Connected VA Both Phases						
						180 VA=Total Receptacle Load							
NOTE: ALL LIGHTING CONTROL CENTERS AND ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH "ARC-FLASH HAZARD WARNING" LABELS PER THE NATIONAL ELECTRIC CODE NEC 110.16 AND NFPA 70E, AND ALL OTHER LABELS REQUIRED BY NFPA 70.													
LOAD	CONNECTED	D.FACT	Est. KVA	AMPS									
LIGHTING	400 VA	1.25	0.50										
RECEPTACLES (1ST 10000)	180 VA	1.00	0.18										
RECEPTACLES (REMAINING)	VA	0.50	0.00										
MOTOR (LARGEST)	0 VA	1.25	0.00										
MOTORS (REMAINING)	0 VA	1.00	0.00										
ELECTRICAL HEATING	0 VA	1.25	0.00										
ELECTRICAL MSC	200 VA	1.00	0.20										
TOTAL ESTIMATED LOAD	780 VA		0.88	4									

PANEL "MPP5"
 120/240V-1PH-3W
 NEMA 3R METER POWER PEDESTAL W/ SPLIT BUS, SERVICE ENTRANCE RATED
 Minimum A.I.C. = 10,000 AMPS
 100 AMPS MAIN BREAKER

DESCRIPTION	Size	P	Ckt#	LEFT PHASE LOAD			RIGHT PHASE LOAD			Ckt#	Size	P	DESCRIPTION
				L1	L2	Ckt#	L1	L2	Ckt#				
SPARE	20	1	P1						P2			SPACE ONLY	
SPARE	20	1	P3						P4			SPACE ONLY	
SPARE	20	1	P5				300		P6	15	1	LCC1 LIGHTING CONTROL CIRCUIT	
SPARE	20	1	P7				180		P8	20	1	LCC1 MAINT. RECEPTACLE	
SPACE ONLY			P9				100		P10	60		BOTTOM SECTION	
SPACE ONLY			P11				100		P12	2			
(BOTTOM SECTION IS ON/OFF CONTROL WITH BUILT-IN 60A 2-POLE CONTACTOR, FED FROM THE TOP SECTION BREAKER (KTH#P10/P12) (CONTACTOR COIL IS OPERATED BY 4-20mA CONTROL RELAY (ON/OFF CONTROL) WITH HOA SWITCH)													
BUS STOP LIGHTING	20	1	1	100					2	20	1	SPARE	
BUS STOP LIGHTING	20	1	3	100					4	20	1	SPARE	
SPACE ONLY			5						6			SPACE ONLY	
SPACE ONLY			7						8			SPACE ONLY	
SPACE ONLY			9						10			SPACE ONLY	
SPACE ONLY			11						12			SPACE ONLY	
				100	100		300	180					
				400	280		Total Connected V.A.						
						680	-Total Connected VA Both Phases						
						180 VA=Total Receptacle Load							
NOTE: ALL LIGHTING CONTROL CENTERS AND ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH "ARC-FLASH HAZARD WARNING" LABELS PER THE NATIONAL ELECTRIC CODE NEC 110.16 AND NFPA 70E, AND ALL OTHER LABELS REQUIRED BY NFPA 70.													
LOAD	CONNECTED	D.FACT	Est. KVA	AMPS									
LIGHTING	500 VA	1.25	0.63										
RECEPTACLES (1ST 10000)	180 VA	1.00	0.18										
RECEPTACLES (REMAINING)	VA	0.50	0.00										
MOTOR (LARGEST)	0 VA	1.25	0.00										
MOTORS (REMAINING)	0 VA	1.00	0.00										
ELECTRICAL HEATING	0 VA	1.25	0.00										
ELECTRICAL MSC	0 VA	1.00	0.00										
TOTAL ESTIMATED LOAD	680 VA		0.51	4									

PANEL "MPP6"
 120/240V-1PH-3W
 NEMA 3R METER POWER PEDESTAL W/ SPLIT BUS, SERVICE ENTRANCE RATED
 Minimum A.I.C. = 10,000 AMPS
 100 AMPS MAIN BREAKER

DESCRIPTION	Size	P	Ckt#	LEFT PHASE LOAD			RIGHT PHASE LOAD			Ckt#	Size	P	DESCRIPTION
				L1	L2	Ckt#	L1	L2	Ckt#				
SPARE	20	1	P1						P2			SPACE ONLY	
SPARE	20	1	P3						P4			SPACE ONLY	
SPARE	20	1	P5				300		P6	15	1		



October 15th, 2024

RMSS-52720-028

Mr. Dean Hansen
Manager of Systems Engineering
2264 South 900 West
Salt Lake City, UT 84119

Reference: Utah Transit Authority – Systems On-Call Services

Subject: 200 South Bus Comm and Fiber

Dean,

Rocky Mountain Systems Services (RMSS) is pleased to provide a proposal for incorporating fiber connectivity for Phase II bus shelters along the 200 South Corridor between 400 West and 200 East.

Our lump sum price for this proposal is **\$290,832.04**

RMSS recommends that UTA include a provisional sum amount of **\$50,000.00** for potential material escalation and unidentified parts. This provisional sum is also intended to cover any conduit paths that are not adequately connected to completed fiber and power paths by Salt Lake City. Any unused amount of this provisional sum amount will be deducted from the contract upon substantial completion of the task order.

The grand total amount including the provisional sum amount is **\$340,832.04**

The Scope of Work covered in this proposal is as follows:

This Scope of Work entails the procurement, installation, and testing of fiber optic cables at ten (10) Phase II bus stop locations along 200 South, with the goal of connecting all nodes to the FLHQ IT main center.



Procurement

This Scope of Work assumes materials in the table below:

Generation Cable	Part #	Unit Cost	Quantity	Lead Time
48FOC. SMF-28 ULTRA FIBER, LOOSE TUBE, MINIXTEND	CORNING 048ZM4-T3F22A20	FT	12,000	4-5 Weeks
MICRODUCT - FUTUREPATH LOCATABLE W/ ORANGE HDPE - 0.020-in SHEATH, 1-WAY x 18/14 mm	DURALINE 10010083	FT	12,000	2-3 Weeks
CO MD 18/14MM STRAIGHT COUPLER	DURALINE 20001518	EA	12	2-3 Weeks
HT MD 18MM END CAP	DURALINE 20001485	EA	60	2-3 Weeks
FS				
Fiber Optical Splice Tray 24 Fusion for FHD Rack Mount Fiber Enclosure	FHD-FOSMF-24F #64246	EA	10	In Stock
FHD Blanking Fiber Adapter Panel	FHD-FAPB #35526	EA	10	In Stock
FHD Blanking Fiber Adapter Panel, 12 Fibers OS2 Single Mode 6x SC UPC Duplex (Blue)	FHD-FAP6SCDXSMF #35484	EA	10	In Stock
FHD High Density 1U Rack Mount Enclosure Unloaded	FHD-1UFMT-N #96427	EA	10	In Stock

RMSS and our electrical subcontractor will procure AC power distribution finished conduit, circuit cabling, and overcurrent devices required for power lighting and communication equipment at the ten bus stop locations.

RMSS is using underground splice enclosures purchased under a separate task order.

Construction

It is important to note that SLC is responsible for installing conduits and power cables from the meter to the conduit stub on the bus stop island. If UTA opts to provide power to each piece of equipment individually with separate breakers, additional wire will be needed from the meters to the bus stops. An additional power circuit breaker load panel might also be necessary at the bus stops.

RMSS will perform the following installation under the scope of this proposal:

- Installation of a single 18/14mm micro duct along the main duct bank
- Installation of 48-strand Single-Mode Fiber Optic Cable including tracer wire
- Installation of NEMA Boxes provided by others
- Installation of Fiber Distribution Panels at ten (10) station stop locations
- Splice Fibers at each bus stop location described in the table below, and provide any necessary spares:
- RMSS will terminate the following fibers at each location as described below:



Location	# Fiber Terms	Underground Splices
FLHQ	48	48
200 S & 300 W, SW corner	24	24
200 S & 300 W, NE corner	24	24
200 S & 200 W, NE corner	24	24
200 S & 200 W, SW corner	24	24
200 S & Main, NW corner	24	24
200 S & Main, SW corner	24	24
200 S & 200 E, SW corner	48	48
200 S & W Temple, SW corner	24	24
200 S & State St, NE corner	24	24
200 S & State St, SE corner	24	24

- Label all strands of fiber optics that are in service
- Install / mount and provide power to the following equipment:
 - Network Equipment
 - Bus Stop Lighting
 - Digital Smart Signs

Work will be performed at the following bus stop locations:

- 200 S & 300 W, SW corner
- 200 S & 300 W, NE corner
- 200 S & 200 W, NE corner
- 200 S & 200 W, SW corner
- 200 S & Main, NW corner
- 200 S & Main, SW corner
- 200 S & 200 E, SW corner
- 200 S & W Temple, SW corner
- 200 S & State St, NE corner
- 200 S & State St, SE corner

Coordination and deliverables

- Coordination:
 - Test plan
 - Quality inspection and acceptance
 - Coordinate with UTA to develop High level design for each location. Design to include:
 - Description of fiber cable and conduit sizes
 - Description of buffers
 - Description of fiber path through UDOT spare conduits
 - Description of junction and termination points
 - Description of conduit color
 - Traffic coordination with SLC and UDOT

- Deliverables:



SUBMITTAL ID	DELIVERABLE DESCRIPTION	REV LEVEL
SUB-PTO-028-001	Fiber test documents	N/A
SUB-PTO-028-002	Product submittals	N/A
SUB-PTO-028-003	High-Level design documents	IFC

Project Schedule

The project schedule shown below provides approximate durations of the Scope of Work. Please note that this schedule is subject to change due to unforeseen circumstances, delays in approvals and procurement.

PROJECT SCHEDULE											
	Notes	Dur (mo)									
			1	2	3	4	5	6	7	8	9
Scope Definition		1.5	1	0.5							
Proposal		1.0		1							
Approvals		3.0			1	1	1				
Procurement		1.0					1				
Construction		1.0						0.5	0.5		
Closeout		1.0							0.5	0.5	
Systems Testing		0.0									
Substantial Completion		0.0									
Final Completion		0.0									
Total Project Duration		9.0	1	1	1	1	1	1	1	1	1

Capital Assets

Forty-eight strand SMF cable, covering a total of 12,000 linear feet. The Contractor will supply UTA with part numbers, serial numbers, and unit cost for all capital assets created as part of this project.

Assumptions

1. UTA to get approval for RMSS use of UDOT spare conduit pathway within in their duct bank
2. RMSS reserves the right to recover costs that exceed the provisional sum amount for changes in material costs that occur while awaiting task order execution and issuance, or if additional duct bank connections are required if SLC does not connect all locations, to complete fiber and power paths.

Exclusions

1. The following scope to be provided by UTA IT Network Department
 - Procurement of network switches
 - Installation of network switches
 - Configuration of network switches
 - Connection of fiber jumper cables to the ethernet switch
 - Labeling of all patch cables that are in service if necessary
 - Procurement of NEMA communication boxes and din rail
 - Procurement of digital signs



- Procurement of mounting brackets for digital signs
 - Configuration of digital signs
 - Provide RMSS with detailed information to ensure the precise installation of hardware at the designated locations
2. Salt Lake City's scope is to install new conduit from the UDOT's Comm boxes to the UTA Bus shelters for every Bus platform

This proposal is valid for 60 days, unless extended in writing by RMSS.

If you need any additional information, please don't hesitate to contact us.

Sincerely,

Devin Bombalicky-Tingle

Digitally signed by Devin Bombalicky-Tingle
DN: C=US, E=dbombalickytingle@modralsystems.com,
O=Modern Railway Systems, CN=Devin Bombalicky-Tingle
Date: 2024.10.15 15:12:59-08'00'

Devin Bombalicky-Tingle
Field Engineer
Rocky Mountain Systems Services

cc:

Marshall Wilson – RMSS
Anthony Ortolani – RMSS
Josh LaFleur – RMSS
Doug Jones – RMSS

Our pricing is in U.S. Dollars, F.O.B. Salt Lake City UT, and excludes all allowances, taxes, tariffs, licenses, and permits

Attachments:

- 200 South Bus Shelter Fiber Plan
- 200 South Bus Shelter Fiber Connections

UTA - On Call

PTO 028 - 200 S Bus Stop Comm & Fiber

Task Order Estimate Summary



10/11/2024

Subcontractors	\$	163,285.90
Materials	\$	17,614.98
Administrative	\$	41,079.03
Design/Engineering	\$	4,231.23
Construction/Testing	\$	27,832.73
Other Costs and Fee	\$	36,788.17
Total:	\$	<u>290,832.04</u>
Provisional Sum	\$	50,000.00
Grand Total Including Provisional Sums	\$	340,832.04



October 15th, 2024

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DN: C=US, E=dbombalickytingle@modralsystems.com,
O=Modern Railway Systems, CN=Devin Bombalicky-Tingle
Date: 2024.10.15 15:12:59-08'00'

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**ROCKY MOUNTAIN
SYSTEMS SERVICES**

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