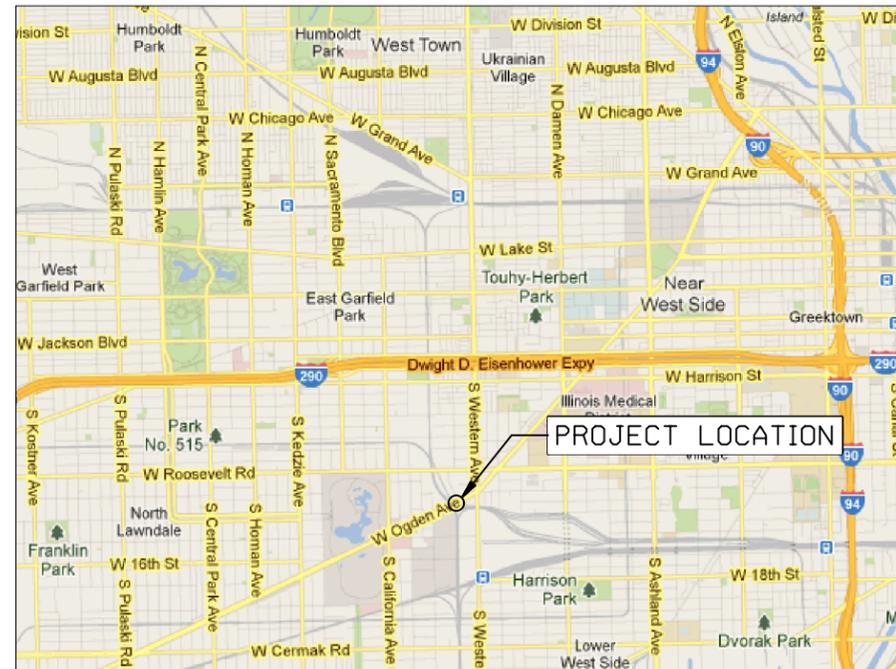
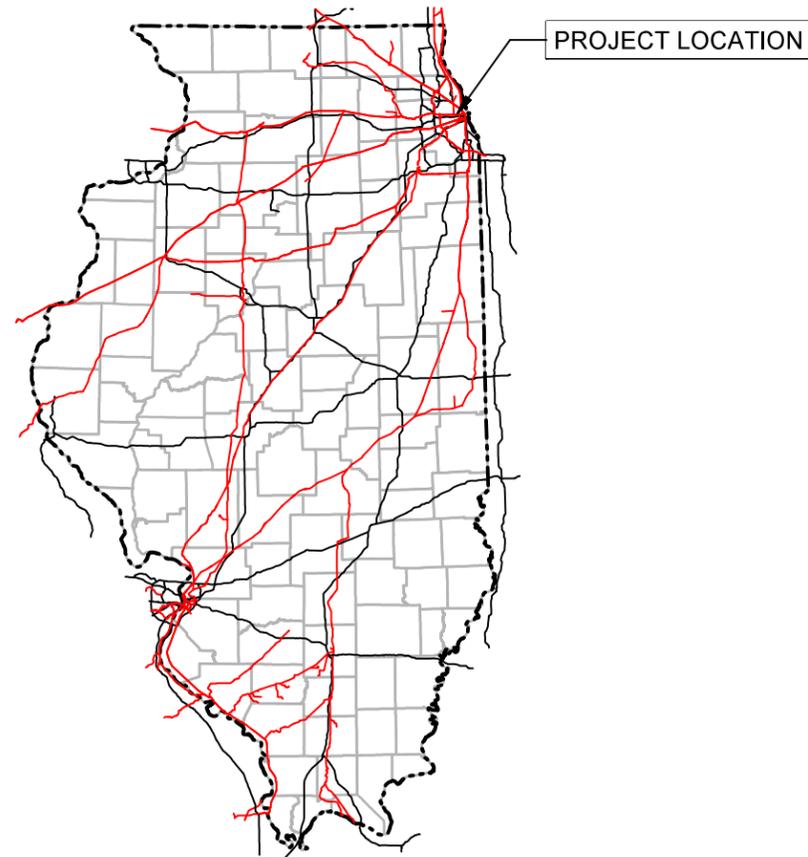




ENGINEERING DESIGN & CONSTRUCTION



**2401 W OGDEN AVE
CHICAGO, IL**

Project Location Map

MP 2.27 ROCKWELL SUB. UNION PACIFIC RAILROAD OGDEN AVENUE WEST BRIDGE REPLACEMENT

FINAL PLANS

**CREATE PROJECT#:
WAT-UP-XXB-003-B-FE**

WORK ORDER: 31876
PROJECT NUMBER: N/A
BUDGET REFERENCE: N/A

**LAST REVISED
May 28, 2021**



Hanson Professional Services Inc.
70 E. Lake Street, Suite 1120
Chicago, IL 60601
1-800-788-2450

PROJECT INDEX

PROJECT DESIGN

DESCRIPTION

G-001	COVER SHEET WITH VICINITY MAP
G-002	PROJECT INDEX & REVISION SHEET
G-003	GENERAL NOTES & PROJECT CONTACTS
G-004	ABBREVIATIONS & LEGEND
G-005	CONTROL POINTS & ROADWAY GEOMETRY
T-001	ROADWAY TYPICAL SECTION
T-002	ROADWAY TYPICAL SECTION
R-001	ROADWAY EX. CONDITIONS & REMOVAL PLAN
R-002	ROADWAY RESTORATION PLAN
R-003	ROADWAY PROPOSED PLAN
R-004	ROADWAY DETAILS
R-005	ROADWAY DETAILS
R-006	TRAFFIC CONTROL GENERAL NOTES
R-007	MOT - LANE CLOSURE TYPICAL
R-007a	MOT - PHASE 1 LANE CLOSURE PLAN
R-007b	MOT - PHASE 2 LANE CLOSURE PLAN
R-008	MOT - LANE CLOSURE TYPICAL
R-008a	MOT - PHASE 3 LANE CLOSURE PLAN
R-008b	MOT - PHASE 4 LANE CLOSURE PLAN
R-009	MOT - LANE CLOSURE TYPICAL
R-009a	MOT - PHASE 5 LANE CLOSURE PLAN
R-010	IDOT HIGHWAY STANDARD DETAILS
R-011	IDOT HIGHWAY STANDARD DETAILS
R-012	IDOT HIGHWAY STANDARD DETAILS
R-013	IDOT HIGHWAY STANDARD DETAILS
R-014	IDOT HIGHWAY STANDARD DETAILS
R-015	IDOT HIGHWAY STANDARD DETAILS
R-016	IDOT HIGHWAY STANDARD DETAILS
R-017	IDOT HIGHWAY STANDARD DETAILS
L-001	LIGHTING GENERAL NOTES
L-002	PROPOSED UNDERDECK LIGHTING PLAN
L-003	PROPOSED UNDERDECK LIGHTING PLAN
L-004	LIGHTING DETAILS
L-005	LIGHTING DETAILS
L-006	LIGHTING DETAILS
L-007	LIGHTING DETAILS
S1 TO S37	BRIDGE 2.27 STRUCTURAL PLANS (WEST BRIDGE)

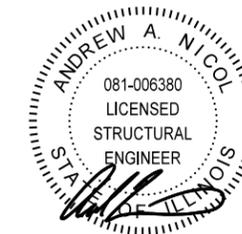
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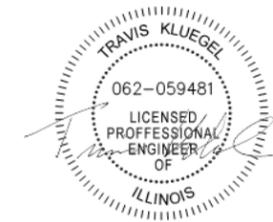
LOCATION

REMOVAL	R-001
RESTORATION	R-002, R-003
TRAFFIC CONTROL	R-006
LIGHTING	L-003
STRUCTURES	S3

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 5/26/2021



EXPIRATION DATE: 11-30-2022
 DATE: 05-28-2021
 (STRUCTURAL SHEETS S1-S37)



EXPIRATION DATE: 11-30-2021
 DATE: 05-28-2021
 (CIVIL SHEETS)



EXPIRATION DATE: 11-30-2021
 DATE: 05-28-2021
 (ELECTRICAL SHEETS)

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ISSUED FOR
CONSTRUCTION

REVISION	BY	DATE	DESCRIPTION



DRAWN BY:	WORK ORDER:
KP	31876
CHECKED BY:	PID:
TK	
DATE:	BUDGET REF:
05/28/21	
SCALE:	SHEET NUMBER
N.T.S	G-002

UNION PACIFIC RAILROAD	Director Structures Design
LOCATION & DESCRIPTION:	
MP 2.27 ROCKWELL SUBDIVISION OGDEN AVENUE WEST BRIDGE REPLACEMENT	
SHEET TITLE: PROJECT INDEX & REVISION SHEET	

GENERAL NOTES

- UPRR forces will perform all track work, with the exception of removal of existing tracks. UPRR will cut the existing rails and the contractor shall remove and dispose of all track material with the bridge removal work. The Contractor will be responsible for constructing proposed track bed up to the top of the sub-ballast layer. UPRR will furnish & install all ballast, ties, rail, and other track materials.
- Existing and new track within the project limits will be surfaced and lined by UPRR forces once all other work is complete.
- Contractors shall notify Service Alert, (800) 642-2444, UPRR Fiber Optics Hotline (800) 336-9193, and the Chicago Utility Alert Network (312) 744-7000 48 hours prior to any excavation. The USA Authorization Numbers shall be kept at the job site.
- No work whatsoever shall be commenced without first notifying the UPRR Engineer.
- The Contractor shall comply with all Federal, State, County, and City Laws and Ordinances and Regulations of the Department of Industrial Relations, OSHA, NPDES and Industrial Accident Commission related to the safety and character of the work, equipment and labor personnel.
- Contractor shall be responsible for coordinating with all Utility agencies.
- Contractor shall protect in place (by any means necessary) all existing utilities to remain unless otherwise specified herein, contractor shall be responsible for the complete repair at his expense, for any damage to existing utilities, structures, or other site features, as a result of his work.
- Prior to placing curbs, pavements, base, subbase, track, etc., all underground utilities shall be installed, backfill completed, and the Engineer notified by each of the utility companies having facilities within the work area, that the utility installation has satisfactorily passed acceptance tests.
- All existing underground utilities within the UPRR ROW, that are not to be re-used shall be abandoned in place. All existing pipelines to be abandoned in place shall be cement slurry filled and capped at least 3'-0" below top of proposed subgrade.
- Contractor shall verify locations and elevations of existing utilities whether known or unknown prior to beginning construction.
- Any underground structures such as cesspools, cisterns, mining shafts, tunnels, septic tanks, wells, and pipelines not located prior to construction shall be brought to the attention of the engineer for determination of appropriate action such as removal or treatment in a manner judged suitable to the engineer.
- Contractor shall coordinate location of all proposed utilities with UPRR to assure accuracy of utility connections and compliance with local codes.
- Any existing conditions found to be a variance with these drawings must be immediately reported to the Engineer.
- Contractor shall maintain and clean to the satisfaction of the Engineer, all access and service roads used during construction.
- Contractor shall perform all construction in such a manner as to protect adjacent existing buildings, and other site elements which are to remain in service.
- Contractor shall provide As-built Drawings for all improvements.
- No field changes will be permitted without direct written authorization from the UPRR Engineer or his representative.

- Contractor shall coordinate work which affects adjacent property owners. Any questions or agreements between adjacent property owners and contractor shall be made in writing. A copy of such agreement shall be provided to the UPRR Engineer or his representative.
- The contractor is responsible for preparing a Stormwater Pollution Prevention Plan (SWPPP) to comply with State regulations.
- Right-of-way lines shown on the plans were taken from existing UPRR right-of-way map and are approximate.
- Match lines for sheets are based on the existing Main Line stationing unless otherwise specified.
- Track laying, ballasting, and installation of road crossing panels will be done by UPRR unless otherwise stated.
- The contractor is responsible for the removal of all pavement markings that will be in conflict with the proposed work.
- Contractor shall comply with all IDOT specifications for construction of public improvements requirements.
- Contractor shall maintain at least one access to all affected business. If necessary, multiphase construction shall be utilized.
- All work must be coordinated with the UPRR to minimize track outage time and disruption of train service. The contractor shall submit for approval his proposed sequence of operations prior to the start of construction.
- Removal of existing viaduct lighting equipment will be performed by the City of Chicago, Department of Streets and Sanitation, Bureau of Electric. The contractor must schedule and coordinate this work with the city. All expenses or charges by the city related to this work will be incidental to this contract.
- The contractor shall take special care to avoid damage to the existing utilities under the public streets from excessive surface loads during construction activities. Video inspection of the existing sewer shall be performed before and after construction in accordance with the requirements of the City of Chicago Department of Water Management. Any damage to the existing utilities caused by work under this contract must be repaired or replaced at the contractor's expense.
- All frames and lids removed from abandoned sewers and appurtenances must be returned to the Chicago Department of Water Management, Sewer Section.
- In case of damage to the City of Chicago sewers, private and public drains, sewer structures and/or bench monuments, the contractor shall immediately contact the Department of Water Management at (312) 747-7892 or (312) 747-7893.
- Stockpiling of removed materials and/or construction debris on the job site will not be permitted and shall be removed from the job site each and every day and disposed of in accordance with article 202.03 of the Standard Specifications. Failure to comply with this requirement shall be considered a traffic control deficiency and will be subject to charges in accordance with the item Traffic Control Complete.
- The contractor must notify the Department of Streets and Sanitation at 312-746-4524 72 hours prior to the need for towing/relocation of vehicles. The City of Chicago will be responsible for removing parked vehicles located in the scheduled work area. Signs preventing parking will be posted by the commissioner or his staff 72 hours before the work is scheduled. Prior to posting signs the commissioner shall notify the Alderman's office of the resurfacing schedule. The police are to be present to issue tickets and supervise towing prior to the relocation of vehicles.
- In the event that the work to be performed on a street segment where parking has been prohibited will be postponed for 5 working days or more, the contractor must notify the commissioner to remove the "No Parking" signs and advise the commissioner when the work will resume for the commissioner or his staff to re-post the "No Parking" signs 48 hours prior to resumption of work.
- The contractor will not be allowed to set up a yard or field office on city or state property without written permission from IDOT or the City of Chicago.
- The contractor is to restore all unpaved areas damaged during construction operations to their original condition at no additional cost to the city or railroad.
- The contractor shall provide access to abutting property at all times during the construction of this project, except for periods of short duration.
- Dimensions: it shall be the contractor's responsibility to verify all dimensions and conditions existing in the field prior to ordering materials and beginning of construction.
- Station and offsets given for proposed catch basins are to the center of the lid. Adjust the base as necessary to connect to existing sewer.
- The Contractor is responsible for obtaining all permits (including payment of permit fees), bonds and insurance for permits required by the City of Chicago for construction of the project. This includes permits issued by the Department of Transportation, Department of Water Management, and others.
- The Contractor is responsible to coordinate work for the project. CDOT will complete water main replacement, lighting removal and some roadway work before Contractor begins. CDOT will also complete work after Contractor work is completed. Any new CDOT roadway work shall be protected by Contractor. Any damage of this new CDOT work must be repaired at the expense of the Contractor.
- The Contractor is responsible to coordinate with the CTA at least two (2) weeks prior to any sidewalk, lane, or street closures, or the removal of any Bus Stop signs so that the CTA can facilitate any necessary detours or bus stop relocations.
- The Contractor shall install posted clearance sign for proposed bridge. Contractor shall coordinate with the City of Chicago regarding the clearance to be posted, sign type and sign location. The furnishing and installation of vertical clearance signs is considered incidental to the project work.

PROJECT CONTACTS

CONTACT	PHONE NUMBER	UPRR
Curt Nystron	(515) 298-1131	Construction Field Manager
Adam Studts	(402) 544-3541	Structures Design Sr. Manager
Paul Pino	(402) 544-3582	Information Technology - Fiber
Stan Dulinski	(402) 544-0353	Real Estate - Utilities

PHONE NUMBER

- (800) 336-9193
- (888) 258-0808
- (888) 877-7267

GENERAL

- CALL UPRR BEFORE YOU DIG
- CALL BEFORE YOU DIG (NATIONAL DIRECTORY)
- UPRR Response Management Communications Center (RMCC)

DESIGN CRITERIA

- UPRR Standard Plans and Specifications
- Illinois Department of Transportation (IDOT) Standard Specifications for Road and Bridge Construction
- Chicago Department of Transportation (CDOT) Regulations for Openings, Construction and Repair in the Public Way

SURVEY NOTES

- Railroad stationing for project profiles and alignments is based on stations established for chord definition spiraled curves at the centerline of the existing UPRR Main Line unless otherwise noted.
- The contractor is responsible for the preservation of all survey control monuments. In the event monuments are damaged or destroyed by the contractor, the Engineer will replace the monument solely at the contractor's expense.

TRAFFIC NOTES

- All barricades, warning signs, lights, devices, etc. for the guidance of vehicle traffic and pedestrians must conform to the Manual on Uniform Traffic Control Devices (MUTCD), current edition, IDOT and CDOT standards.
- The contractor will ensure that all barricades, signs, lights, and other devices installed by him are operational every day, including Sundays and holidays. The contractor shall make twice daily inspections of barricades, signs, lights and other devices installed by him to ensure proper placement and functioning of warning devices. In the event of severe weather conditions, the contractor must furnish any additional personnel required to properly maintain all traffic control devices. The contractor shall provide a manned 24-hour / 7 day a week contact number to respond to requestrequests and emergencies related to the placement and maintenance of the traffic control devices throughout the project duration.
- The contractor is responsible for the prompt replacement and/or repair of all traffic control devices and appurtenances damaged or disturbed due to construction.

BENCHMARKS

City of Chicago Benchmark: BM #276
6.4 feet north of south line of W Congress Parkway and 47.1 feet east of east line of S Washtenaw Avenue. Elev. = 14.66 (CCD)

	DATUM
HORIZONTAL	Illinois East State Plane (1201) North American Datum of 1983 (NAD83)
VERTICAL	Chicago City Datum (CCD)

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ISSUED FOR
CONSTRUCTION

REVISION	BY	DATE	DESCRIPTION



Alfred Benesch & Company
35 W. Wacker Drive Suite 3300
Chicago, Illinois 60601
312-565-0450 Job No. 210070.11



DRAWN BY: KP	WORK ORDER: 31876
CHECKED BY: TK	PID:
DATE: 05/28/21	BUDGET REF:
SCALE: N.T.S	SHEET NUMBER G-003

UNION PACIFIC RAILROAD Director Structures Design

LOCATION & DESCRIPTION:
MP 2.27 ROCKWELL SUBDIVISION
OGDEN AVENUE WEST BRIDGE REPLACEMENT

SHEET TITLE:
GENERAL NOTES & PROJECT CONTACTS

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 5/26/2021

ABBREVIATIONS

MISCELLANEOUS

Ac.	Acres
Ave.	Avenue
Blvd.	Boulevard
Bldg.	Building
BNSF	BNSF Railway
C.Y.	Cubic Yards
Conc.	Concrete
Const.	Construct
°	Degree (s)
Dia.	Diameter
Dr.	Drive
Dwg.	Drawing
E	East
Elev.	Elevation
Exist.	Existing
'	Foot, Feet or Minute (s)
F.S.	Finished Surface
Horiz.	Horizontal
"	Inch, Inches or Second (s)
Inst.	Install
Inv.	Invert
Lt.	Left
L	Length
L.F.	Lineal Feet
Max.	Maximum
Min.	Minimum
N	North
NTS	Not to Scale
No.	Number
OH	Overhead
OHP	Overhead Power Line
PGL	Profile Grade Line
Prop.	Proposed
RR	Railroad
Rwy	Railway
R/W	Right of Way
Rt.	Right
S	South
S.F.	Square Feet
Sta.	Station
Std.	Standard
St.	Street
TT	Timetable
Twp.	Township
Typ.	Typical
UG	Underground
UPRR	Union Pacific Railroad
V	Velocity
Wt.	Weight
W	West
X-ing	Crossing

SIGNAL

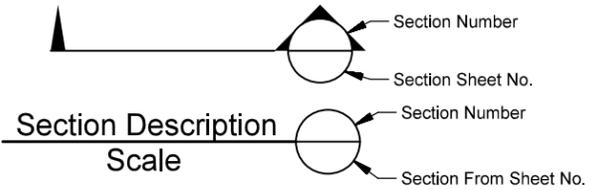
ABS	Automatic Block Signal
ATC	Automatic Train Control
CTC	Centralized Traffic Control
DED	Dragging Equipment Detector
DTC	Direct Traffic Control
ELTO	Electric Lock Turnout
HBD	Hot Box Detector
HTTO	Hand Throw Turnout
HWD	High Wide Detector
POTO	Power Operated Turnout
TWC	Track Warrant Control
WILD	Wheel Impact Load Detector

STRUCTURES

Bldg.	Building
Br.	Bridge
CB	Catch Basin
CPT	Concrete Pile Trestle - Ballast Deck
CIP	Cast Iron Pipe
CMP	Corrugated Metal Pipe
CMPA	Corrugated Metal Pipe Arch
CSP	Corrugated Steel Pipe
Culv.	Culvert
DI	Drop Inlet
DPGBD	Deck Plate Girder - Ballast Deck
DPGOD	Deck Plate Girder - Open Deck
EBW	East Backwall
F.L.	Flowline
F.F.	Finished Floor
GIP	Galvanized Iron Pipe
Hdwl	Headwall
NBW	North Backwall
PSCT	Prestressed Concrete Trestle
RCA	Reinforced Concrete Arch
RCB	Reinforced Concrete Box
RCP	Reinforced Concrete Pipe
SBW	South Backwall
SSP	Smooth Steel Pipe
SPTBD	Steel Pile Trestle - Ballast Deck
SPTOD	Steel Pile Trestle - Open Deck
SPP	Structural Plate Pipe
TPGBD	Through Plate Girder - Ballast Deck
TPGOD	Through Plate Girder - Open Deck
TPTBD	Timber Pile Trestle - Ballast Deck
TPTOD	Timber Pile Trestle - Open Deck
TTBD	Through Truss - Ballast Deck
TTOD	Through Truss - Open Deck
TWB	Treated Wood Box
VCP	Vitrified Clay Pipe
Viad.	Viaduct
WBW	West Backwall
WIP	Wrought Iron Pipe

TRACK

ATR	Above Top of Rail
Align.	Alignment
BBR	Below Base of Rail
Cntrs.	Centers
CWR	Continuous Welded Rail
DSPD	Double Switch Point Derail
EOT	End of Track
HH	Head Hardened
Jtd.	Jointed Rail
LH	Left Hand
ML	Main Line
MM	Mile Marker
MP	Mile Post
NSC	Not Sufficient Clearance
OTM	Other Track Material
PCC	Point of Compound Curve
PC	Point of Curve
PCS	Point of Curve to Spiral
POC	Point on Curve
PF	1/2" Point of Frog
PI	Point of Intersection
PITO	Point of Intersection of Turnout
PS	Point of Spiral
PSC	Point of Spiral to Curve
POS	Point on Spiral
PT	Point of Tangent
POT	Point on Tangent
Pt. Sw.	Point of Switch
PVC	Point of Vertical Curve
PVI	Point of Vertical Intersection
PVT	Point of Vertical Tangent
RH	Right Hand
SH	Second Hand
SSPD	Single Switch Point Derail
TC	Track Centers
T.F.	Track Feet
Trk.	Track
UXO	Universal Cross-Over
X-Over	Cross-Over



UTILITIES

AIR	Compressed Air
F/O	Fiber Optic Cable
G	Gas Pipeline
OHP	Overhead Power Line
SS	Sanitary Sewer
Overhead Signal Line	Overhead Signal Line
UGS	Underground Signal Line
Steam Line	Steam Line
S	Storm Sewer
T	Telephone
UGE	Underground Electric
W	Water Main
Underground Wire	Underground Wire
UD	Under Drain
Water Valve	Water Valve
Gas Buffalo Box	Gas Buffalo Box
Manhole	Manhole
Catch Basin	Catch Basin
Fire Hydrant	Fire Hydrant
Junction Box Electric	Junction Box Electric
Junction Box Telephone	Junction Box Telephone
Junction Box Water	Junction Box Water
Power Pole	Power Pole
Generator	Generator

TRACK

Existing Mainline	Existing Mainline
Existing Siding or Spur	Existing Siding or Spur
Proposed	Proposed
Remove	Remove
Shift	Shift
Relay	Relay
Future	Future
Foreign Railroad or Industry	Foreign Railroad or Industry
In Buildings or Under Structures	In Buildings or Under Structures
Turnout	Turnout
Wheel Stop	Wheel Stop
Bumping Post	Bumping Post
Earthen Bumper	Earthen Bumper
Inert Retarder	Inert Retarder
Dowty Retarder	Dowty Retarder
Derail	Derail
Switch Point Derail or Double Switch Point Derail	Switch Point Derail or Double Switch Point Derail

PROPERTY

Section Line	Section Line
Center Section Line	Center Section Line
Parcel or Easement Line	Parcel or Easement Line
Right of Way	Right of Way
Former Right of Way	Former Right of Way
Right of Way to be Acquired	Right of Way to be Acquired
Foreign Right of Way	Foreign Right of Way

SYMBOLS

ROAD CROSSING WARNING DEVICES

Crossbuck Sign	Crossbuck Sign
Flashing Light Warning Device	Flashing Light Warning Device
Flashing Light Warning Device with Gate	Flashing Light Warning Device with Gate
Cantilever Flashing Light Warning Device	Cantilever Flashing Light Warning Device
Cantilever Flashing Light Signal with Gate	Cantilever Flashing Light Signal with Gate

SIGNAL

Absolute Signal	Absolute Signal
Signal Bridge	Signal Bridge
Cantilever Signal	Cantilever Signal
ACS or CTC Signal	ACS or CTC Signal
Dwarf Signal	Dwarf Signal
Begin CTC	Begin CTC
Microwave Tower	Microwave Tower
AEI	AEI
Battery Box	Battery Box
Dragging Equipment Detector	Dragging Equipment Detector
Generator	Generator
Hot Box Detector	Hot Box Detector
Hot Air Blower	Hot Air Blower
Plastibeton	Plastibeton

STRUCTURES

Culvert	Culvert
Culvert with Headwalls	Culvert with Headwalls
Double Culvert	Double Culvert
Railroad Bridge	Railroad Bridge
Highway Overpass	Highway Overpass
Highway Underpass	Highway Underpass
Tunnel	Tunnel
Retaining Wall	Retaining Wall
Building	Building
Flag Pole	Flag Pole

LIGHTING

Light Pole	Light Pole
Light Tower	Light Tower

SIGNS

Sign	Sign
Yard Limit	Yard Limit
1 Mile to Yard Limit	1 Mile to Yard Limit
Whistle Post	Whistle Post
Flanger	Flanger
Station	Station
Reduce Speed	Reduce Speed
Resume Speed	Resume Speed

FENCES

Barbed Wire	Barbed Wire
Chain Link	Chain Link
Ornamental Fence	Ornamental Fence
Snow / Sand	Snow / Sand

ROADS

Paved Road	Paved Road
Unimproved Road	Unimproved Road
Interstate Highway	Interstate Highway
Federal Highway	Federal Highway
State Highway	State Highway
County Highway	County Highway

OTHER

Wetlands	Wetlands
River or Lake	River or Lake
Embankment	Embankment
Flow Line	Flow Line
Milepost	Milepost
Milemarker	Milemarker
Revision Number	Revision Number
Revision Cloud	Revision Cloud
Tree	Tree
Bush	Bush
Stump	Stump
Traffic Signal	Traffic Signal
E-T-01 Soil Boring	E-T-01 Soil Boring
CP-01 Control Point	CP-01 Control Point

CONSTRUCTION

Proposed Note (Work by Contractor)	Removal Note (Work by Contractor)
Proposed Note (Work by Others)	Removal Note (Work by Others)
Cut Lines	
Fill Lines	
Profile Grade Line	
Shift Note (Work by Contractor)	
Shift Note (Work by Others)	

Alfred Benesch & Company 35 W. Wacker Drive Suite 3300 Chicago, Illinois 60601 312-565-0450 Job No. 210070.11		DRAWN BY: KP	WORK ORDER: 31876	UNION PACIFIC RAILROAD Director Structures Design
		CHECKED BY: TK	PID:	
DATE: 05/28/21	BUDGET REF:	LOCATION & DESCRIPTION: MP 2.27 ROCKWELL SUBDIVISION OGDEN AVENUE WEST BRIDGE REPLACEMENT		
SCALE: N.T.S.	SHEET NUMBER: G-004	SHEET TITLE: ABBREVIATIONS & LEGEND		

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 5/26/2021

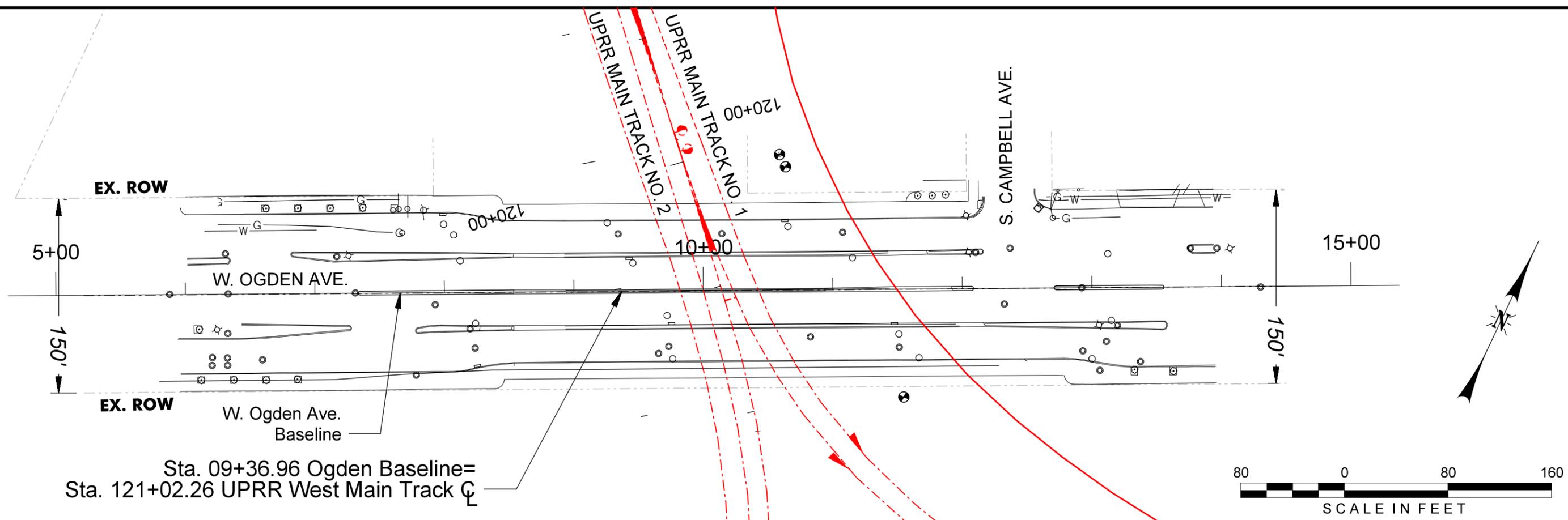
Control Points

Control Point No.	Northing	Easting	Elevation	Description
128	1892011.05	1160254.13	13.41	Set mag nail 13' north of centerline 16th street and 12' west of mailbox #'s 2403-2443
129	1891996.76	1159695.35	10.50	Set mag nail 13' north of centerline 16th street and +/- 150' west of railroad, opposite garage door #5.

EXISTING OGDEN BASELINE

STATION	Northing	Easting
5+50	1893402.46	1159392.03
14+00	1893771.35	1160157.81

NOTE: Control point information is for control points on 16th Street.



WARNING !
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 ON RAILROAD R-O-W
 CALL BEFORE YOU DIG
 1-800-336-9193

**ISSUED FOR
 CONSTRUCTION**

REVISION	BY	DATE	DESCRIPTION

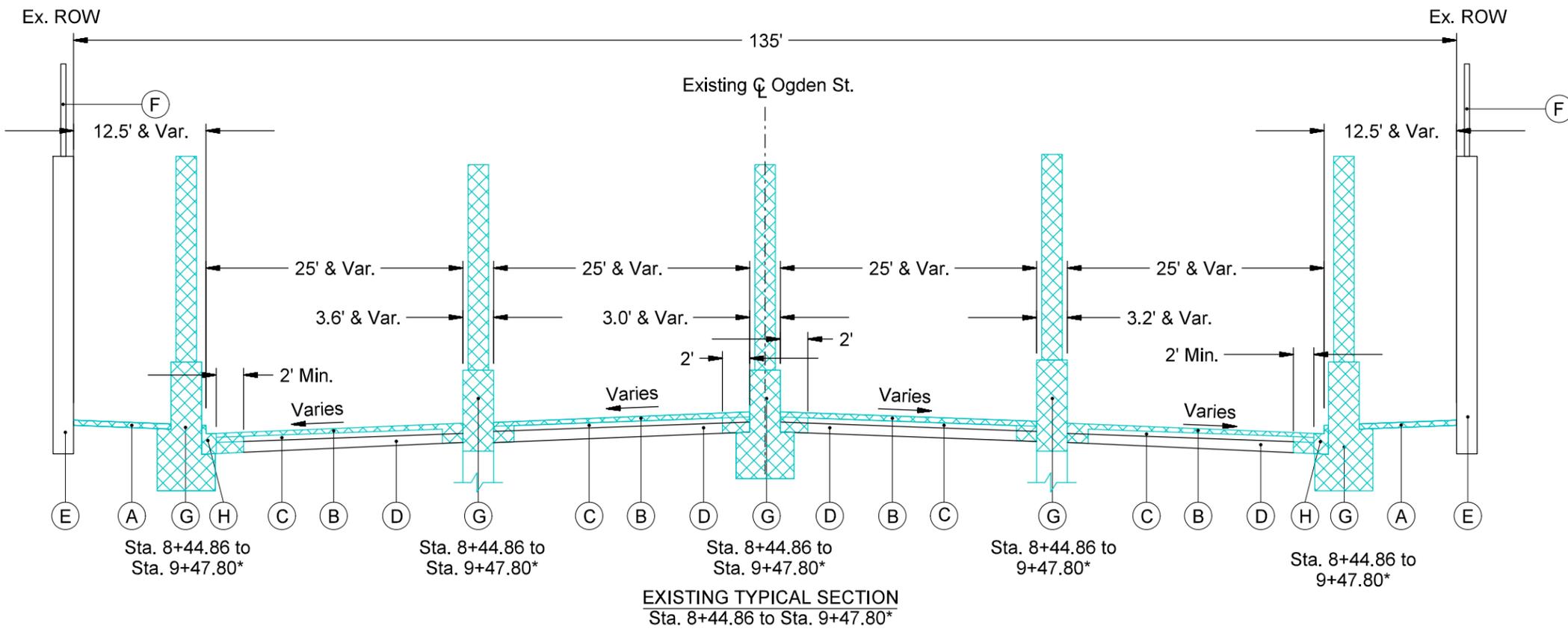
benesch
 Alfred Benesch & Company
 35 W. Wacker Drive Suite 3300
 Chicago, Illinois 60601
 312-565-0450 Job No. 210070.11



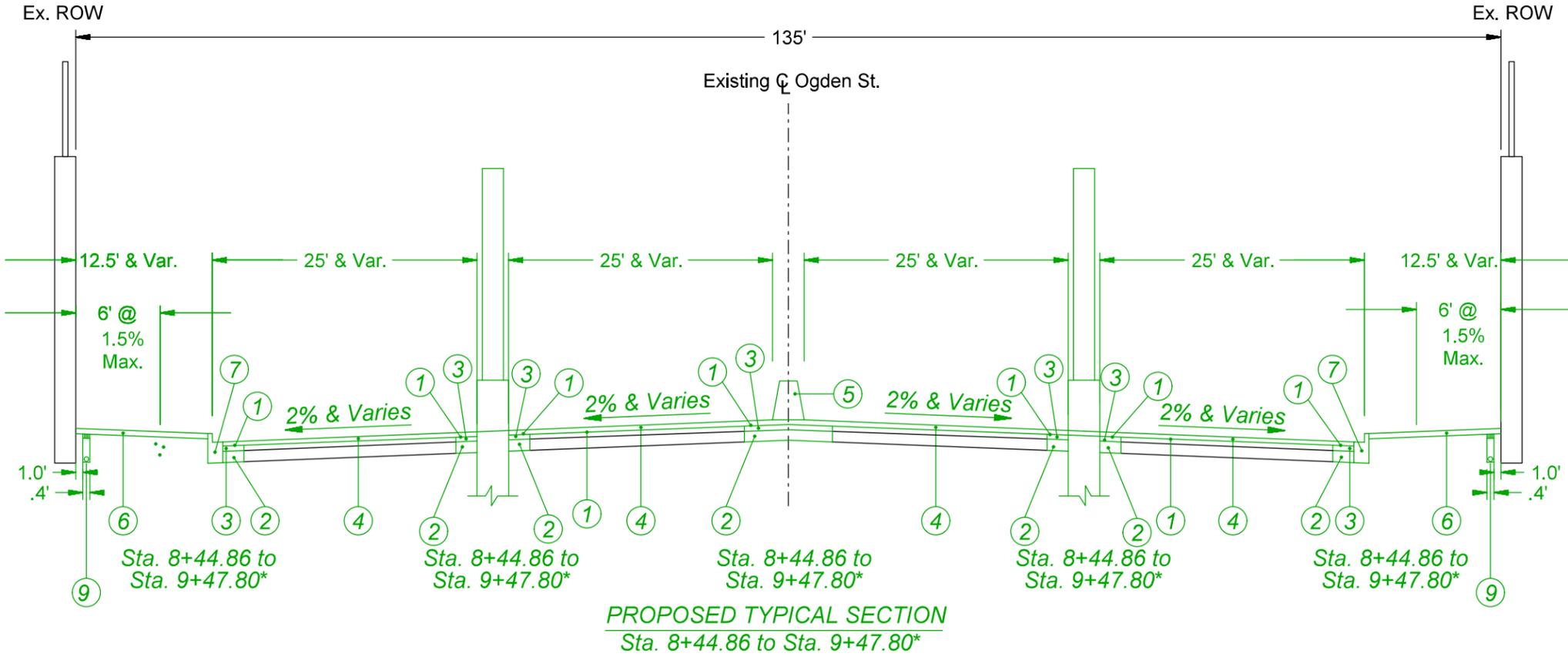
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CHECKED BY: TK	PID:
DATE: 05/28/21	BUDGET REF:
SCALE: 1"=80'	SHEET NUMBER G-005

UNION PACIFIC RAILROAD
 Director Structures Design
 LOCATION & DESCRIPTION:
 MP 2.27 ROCKWELL SUBDIVISION
 OGDEN AVENUE WEST BRIDGE REPLACEMENT
 SHEET TITLE:
 CONTROL POINTS & ROADWAY GEOMETRY

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 5/26/2021



- Existing Legend
- A. 5" P.C. Concrete Sidewalk
 - B. 2" HMA Surface Course
 - C. HMA Binder Course
 - D. P.C. Concrete Base Course
 - E. Retaining Wall
 - F. Fence
 - G. Bent
 - H. Curb & Gutter
- Removal



- Proposed Legend
1. Bituminous Materials (Prime Coat)
 2. 7" P.C. Concrete Base Course
 3. 2 1/4" Hot-Mix-Asphalt Binder Course, IL-19.0, N50
 4. 2" Hot-Mix-Asphalt Surface Course, Mix "D", N70
 5. Concrete Barrier, Double Face, 44" Height, IDOT 637006-04
 6. P.C. Concrete Sidewalk, 5"
 7. Curb & Gutter
 8. Pier
 9. Trench Drain

*Exact Limits of West and East Improvements to be Determined in the Field

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ON RAILROAD R-O-W
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**ISSUED FOR
CONSTRUCTION**

REVISION	BY	DATE	DESCRIPTION

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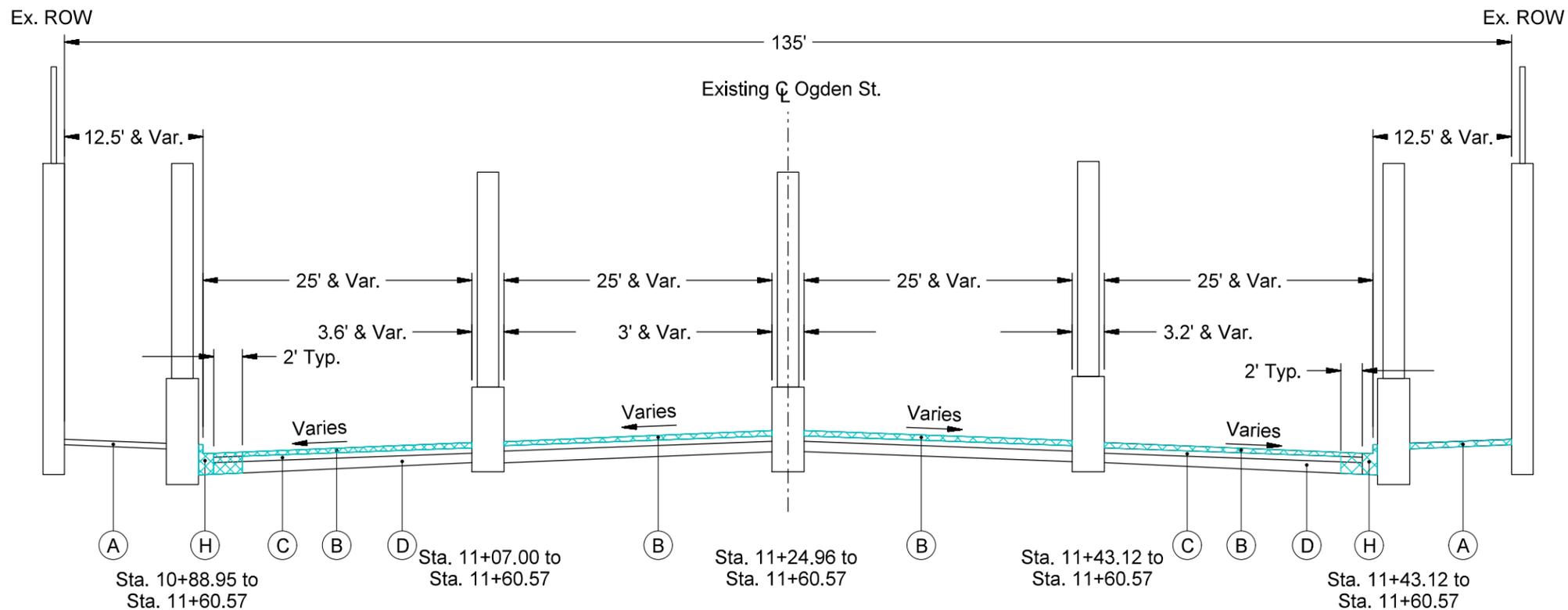
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CHECKED BY: TK	PID:
DATE: 05/28/21	BUDGET REF:
SCALE: N.T.S	SHEET NUMBER T-001

UNION PACIFIC RAILROAD Director Structures Design

LOCATION & DESCRIPTION:
MP 2.27 ROCKWELL SUBDIVISION
OGDEN AVENUE WEST BRIDGE REPLACEMENT

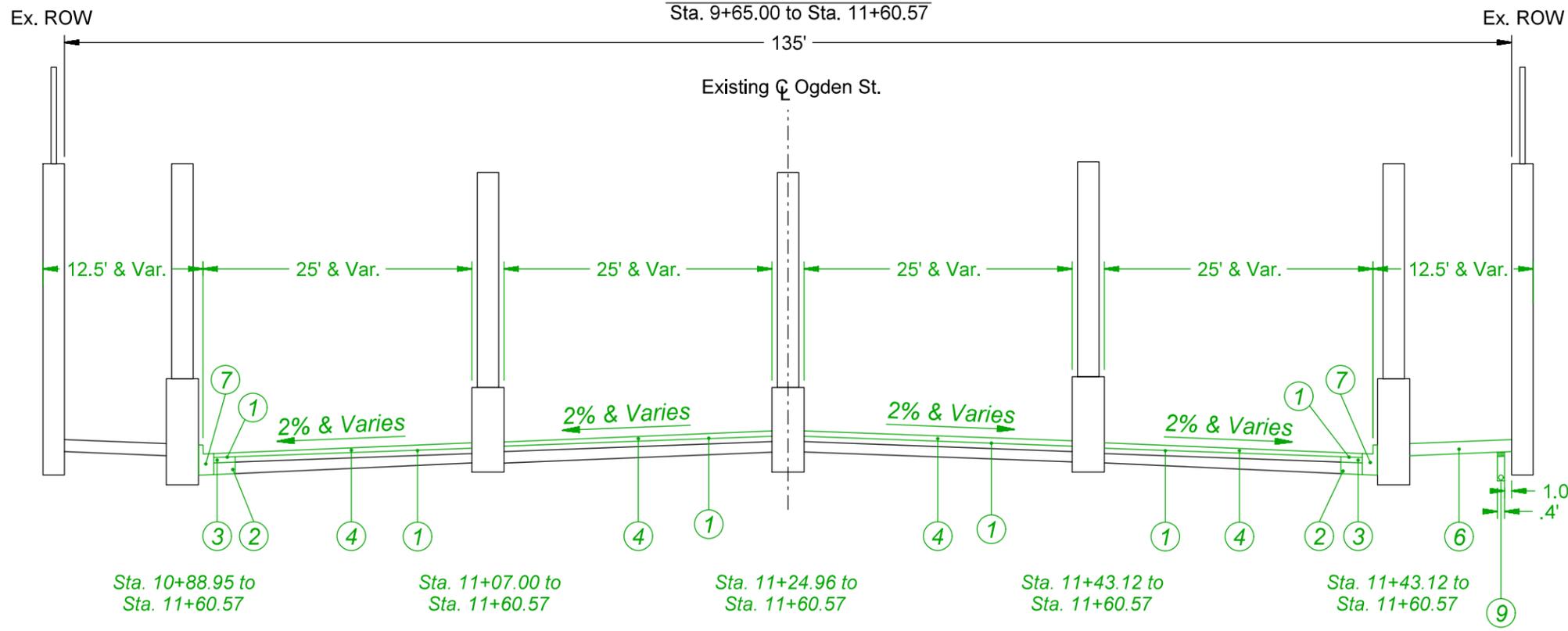
SHEET TITLE:
ROADWAY TYPICAL SECTION

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 5/26/2021



- Existing Legend**
- A. 5" P.C. Concrete Sidewalk
 - B. 2" HMA Surface Course
 - C. HMA Binder Course
 - D. P.C. Concrete Base Course
 - E. Retaining Wall
 - F. Fence
 - G. Bent
 - H. Curb & Gutter
- Removal

EXISTING TYPICAL SECTION
Sta. 9+65.00 to Sta. 11+60.57



- Proposed Legend**
1. Bituminous Materials (Prime Coat)
 2. 7" P.C. Concrete Base Course
 3. 2 1/4" Hot-Mix-Asphalt Binder Course, IL-19.0, N50
 4. 2" Hot-Mix-Asphalt Surface Course, Mix "D", N70
 5. Concrete Barrier, Double Face, 44" Height, IDOT 637006-04
 6. P.C. Concrete Sidewalk, 5"
 7. Curb & Gutter
 8. Bent
 9. Trench Drain

PROPOSED TYPICAL SECTION
Sta. 9+65.00 to Sta. 11+60.57

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CONSTRUCTION

REVISION	BY	DATE	DESCRIPTION



DRAWN BY: KP	WORK ORDER: 31876
CHECKED BY: TK	PID:
DATE: 05/28/21	BUDGET REF:
SCALE: N.T.S	SHEET NUMBER T-002

UNION PACIFIC RAILROAD	Director Structures Design
	LOCATION & DESCRIPTION: MP 2.27 ROCKWELL SUBDIVISION OGDEN AVENUE WEST BRIDGE REPLACEMENT
SHEET TITLE: ROADWAY TYPICAL SECTION	

DESCRIPTION	UNIT	QUANTITY
COMBINATION CURB AND GUTTER REMOVAL	FOOT	105
PAVEMENT REMOVAL	SQ YD	180
HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	917
SIDEWALK REMOVAL	SQ FT	2531
MEDIAN REMOVAL	SQ FT	1022
SAWCUT AND SEAL NEW JOINTS	FOOT	840

LEGEND

-  Full Depth Pavement Removal
-  Pavement Milling
-  Sidewalk Removal
-  Median and Pier Removal

Sidewalk Removal and Replacement
Sta. 8+45 to Sta. 10+89
See Restoration Plan For Details

Pavement Milling
Sta. 8+45 to Sta. 11+61 (TYP.)

Full Depth Pavement Removal
Sta. 8+45 to Sta. 11+61

Remove Bent & Pier Foundation
See Bridge Plans for Details (TYP.)

Exact Limits of West and East Improvements to be Determined in the Field

Curb & Gutter Removal
Sta. 8+45 to Sta. 11+61
See Restoration Plan for Detail

Median Removal
Sta. 8+45 to Sta. 8+54 (TYP.)

WEST IMPROVEMENTS

UPRR MAIN TRACK NO. 2
UPRR MAIN TRACK NO. 1

STA. 8+00

2-4" RCN HDPE
ComEd 3x3 Duct

Curb & Gutter Removal
Sta. 8+45 to Sta. 11+61
See Restoration Plan for Detail

Full Depth Pavement Removal
Sta. 8+45 to Sta. 11+61

EAST IMPROVEMENTS

W. OGDEN AVE.

Ogden Ave. Baseline

Approximate Limits of Excavation for Removal of Existing Bent (TYP.)

Sidewalk Removal and Replacement
Sta. 8+45 to Sta. 11+61
See Restoration Plan For Details



STA. 12+50

S. CAMPBELL AVE.

4" Gas Main

EX. ROW

12" Sewer

60" Sewer

12" Sewer

+44.86

+53.56

+53.72

+0.00

+24.96

+43.12

+60.57

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35 W. Wacker Drive Suite 3300
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312-565-0450 Job No. 210070.11



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DATE: 05/28/21	BUDGET REF:
SCALE: 1"=60'	SHEET NUMBER R-001

UNION PACIFIC RAILROAD Director Structures Design

LOCATION & DESCRIPTION:
MP 2.27 ROCKWELL SUBDIVISION
OGDEN AVENUE WEST BRIDGE REPLACEMENT

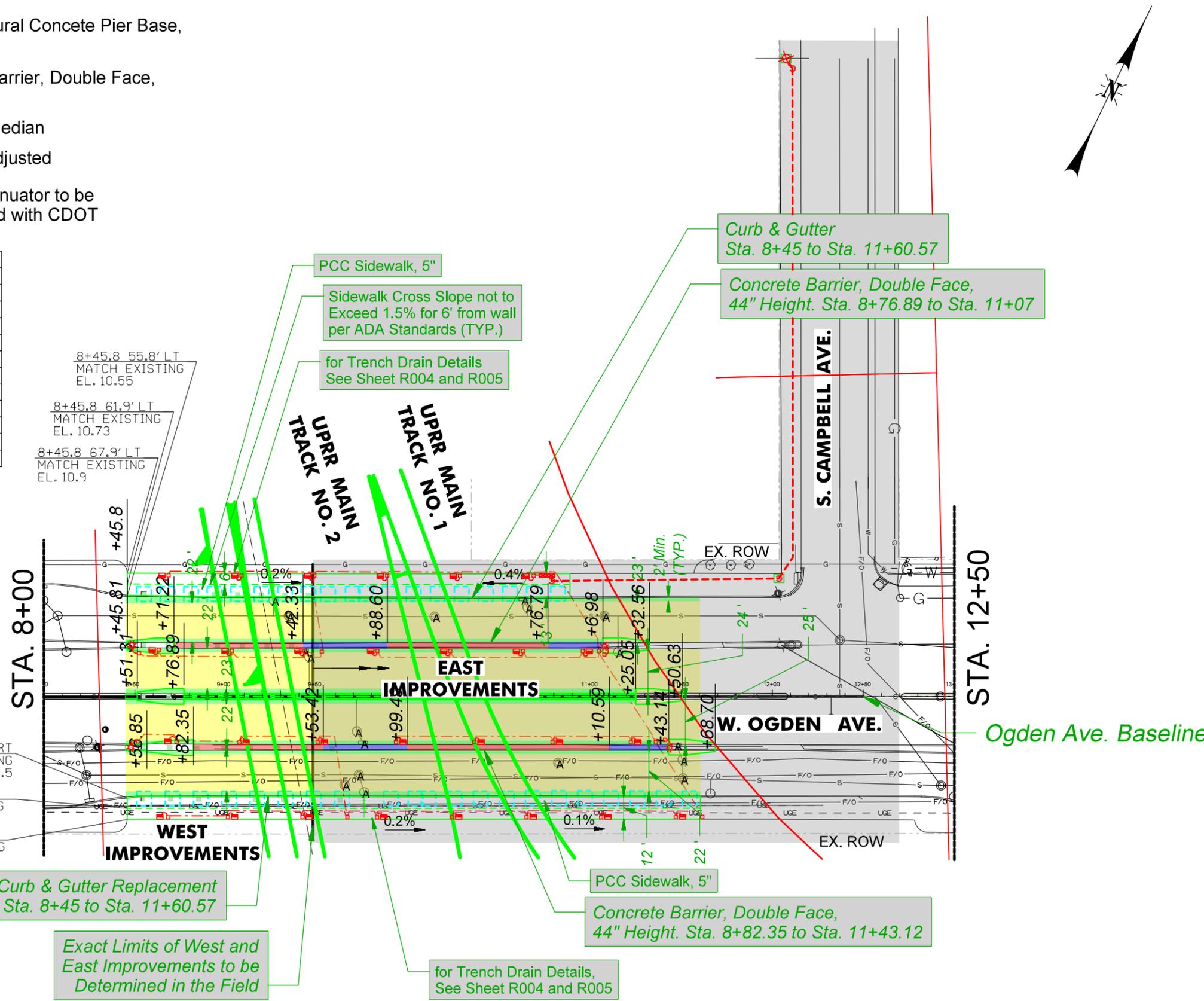
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ROADWAY EX. CONDITIONS AND REMOVAL PLAN

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 5/26/2021

LEGEND

- 2" Pavement Resurfacing
- Full Depth Pavement
- PCC Sidewalk, 5"
- Structural Pier, See Bridge Details
- Non-Structural Concrete Pier Base, See Details
- Concrete Barrier, Double Face, 44" Height
- Concrete Median
- Lid to be Adjusted
- Impact Attenuator to be Coordinated with CDOT

DESCRIPTION	UNIT	QUANTITY
PORTLAND CEMENT CONCRETE BASE COURSE 7"	SQ YD	180
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	23
HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50	TON	18
HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70	TON	103
BITUMINOUS MATERIALS (PRIME COAT)	POUND	2637
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	2531
CATCH BASINS TO BE ADJUSTED	EACH	3
MANHOLES TO BE ADJUSTED	EACH	1
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	105
CONCRETE BARRIER MEDIAN	SQ FT	1022
CONCRETE BARRIER, DOUBLE FACE, 44" HEIGHT	FOOT	75
IMPACT ATTENUATORS (SEVERE USE, NARROW), TEST LEVEL 2	EACH	3



NOTE:
 CONTRACTOR SHALL MODIFY EXISTING CONCRETE BENT BASE TO CREATE A SMOOTH VERTICAL FACE TRANSITION BETWEEN THE PROPOSED BENT AND THE EXISTING BASE AT WEST END OF THE PROPOSED BENT WORK. THIS WORK SHALL BE INCIDENTAL TO THE PROJECT.



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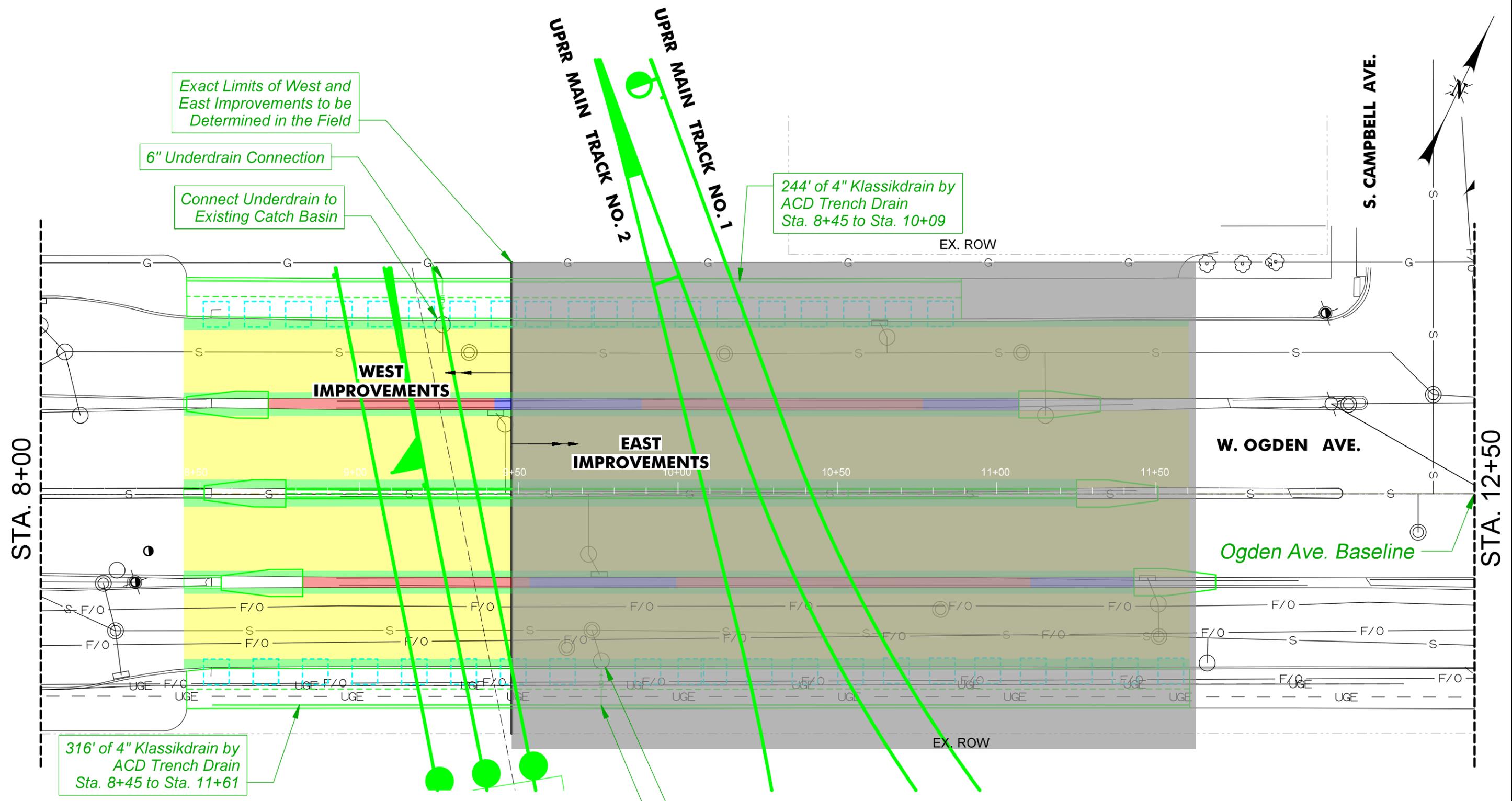


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CHECKED BY: TK	PID:
DATE: 05/28/21	BUDGET REF:
SCALE: 1"=60'	SHEET NUMBER R-002

UNION PACIFIC RAILROAD	Director Structures Design
LOCATION & DESCRIPTION: MP 2.27 ROCKWELL SUBDIVISION OGDEN AVENUE WEST BRIDGE REPLACEMENT	
SHEET TITLE: ROADWAY RESTORATION PLAN	

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 5/26/2021

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 5/26/2021



DESCRIPTION	UNIT	QUANTITY
PIPE UNDERDRAINS, TYPE 1, 6"	FOOT	11.8
TRENCH DRAIN	FOOT	105
UNDERDRAIN CONNECTION TO STRUCTURE	EACH	1



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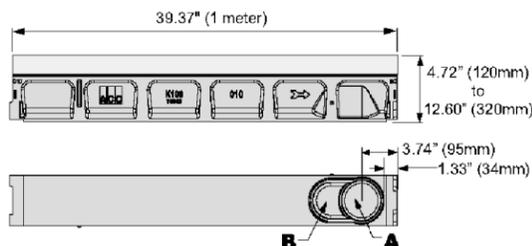
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DATE: 05/28/21	BUDGET REF:
SCALE: 1"=30'	SHEET NUMBER R-003

UNION PACIFIC RAILROAD
 Director Structures Design
 LOCATION & DESCRIPTION:
 MP 2.27 ROCKWELL SUBDIVISION
 OGDEN AVENUE WEST BRIDGE REPLACEMENT
 SHEET TITLE:
 ROADWAY PROPOSED PLAN

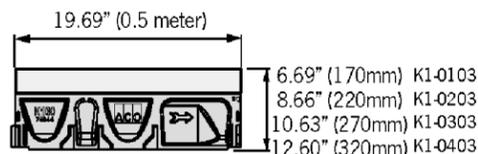
ACO DRAIN

KlassikDrain - K100 Galvanized steel edge rail channel system

One meter channel

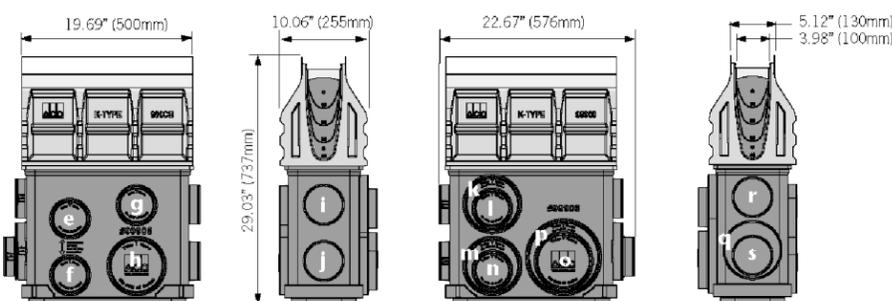


Half meter channel



Knock-outs included on every 5th channel

Type K901G In-line catch basin



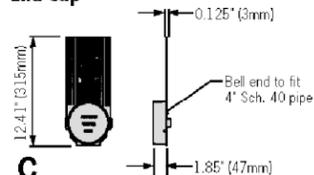
Total capacity = 10.49 gallons

Outlet flow rates

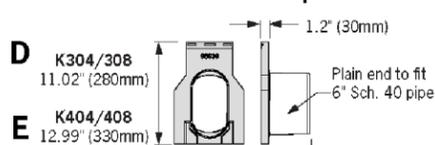
Outlet	Product	Outlet size (Sch. 40)	Invert Depth	GPM	CFS
a	Bottom outlet - K00	4" round	3.94"	108	0.24
b	Bottom outlet - K40	4" round	11.81"	187	0.42
c	Bottom outlet - K40	6" oval	3.94"	177	0.39
d	End outlet - K20	4" round	11.81"	306	0.68
e	End outlet - K40	4" round	7.87"	132	0.29
f	K1-308-6 6" outlet cap	4" round	11.81"	171	0.38
g	K1-408-6 6" outlet cap	6" oval	9.84"	233	0.52
h	Type K1-901G	6" oval	11.81"	264	0.59
i	Type K1-901G	4" round	19.30"	226	0.50
j	Type K1-901G	4" round	25.67"	265	0.59
k	Type K1-901G	4" round	25.30"	263	0.59
l	Type K1-901G	4" round	18.56"	222	0.49
m	Type K1-901G	6" round	25.85"	586	1.30
n	Type K1-901G	4" round	26.43"	269	0.60
o	Type K1-901G	4" round	19.36"	227	0.51
p	Type K1-901G	6" round	27.30"	604	1.35
q	Type K1-901G	6" round	19.99"	505	1.12
r	Type K1-901G	6" round	26.43"	593	1.32
s	Type K1-901G	8" round	27.30"	1051	2.34
t	Type K1-901G	4" round	27.17"	273	0.61
u	Type K1-901G	4" round	20.68"	235	0.52
v	Type K1-901G	4" round	18.99"	224	0.50
w	Type K1-901G	6" round	27.17"	6.02	1.34

Note: These are the pipe flow rates at the specified outlet, NOT channel flow rates. Catch basin flow rates are without trash bucket - using trash bucket reduces flow.

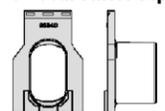
End Cap



6" Oval inlet cap



6" Oval outlet cap



ACO Specification Information

ACO DRAIN

KlassikDrain - K100 Galvanized steel edge rail channel system



Description	Part No.	Invert	Weight	
		Inches ²	Lbs.	
K1-00 Neutral channel - 39.37" (1m) ^D	74041	3.94	100	28.1
K1-1 Sloped channel - 39.37" (1m)	74001	4.13	105	28.1
K1-2 Sloped channel - 39.37" (1m)	74002	4.33	110	28.9
K1-3 Sloped channel - 39.37" (1m)	74003	4.53	115	29.7
K1-4 Sloped channel - 39.37" (1m)	74004	4.72	120	30.5
K1-5 Sloped channel - 39.37" (1m) ^D	74005	4.92	125	31.3
K1-6 Sloped channel - 39.37" (1m)	74006	5.12	130	32.1
K1-7 Sloped channel - 39.37" (1m)	74007	5.31	135	32.9
K1-8 Sloped channel - 39.37" (1m)	74008	5.51	140	33.7
K1-9 Sloped channel - 39.37" (1m)	74009	5.71	145	34.5
K1-10 Sloped channel - 39.37" (1m) ^D	74010	5.91	150	35.3
K1-11 Sloped channel - 39.37" (1m)	74011	6.10	155	36.1
K1-12 Sloped channel - 39.37" (1m)	74012	6.30	160	36.9
K1-13 Sloped channel - 39.37" (1m)	74013	6.50	165	37.7
K1-14 Sloped channel - 39.37" (1m)	74014	6.69	170	38.5
K1-15 Sloped channel - 39.37" (1m) ^D	74015	6.89	175	39.3
K1-16 Sloped channel - 39.37" (1m)	74016	7.09	180	40.1
K1-17 Sloped channel - 39.37" (1m)	74017	7.28	185	40.9
K1-18 Sloped channel - 39.37" (1m)	74018	7.48	190	41.7
K1-19 Sloped channel - 39.37" (1m)	74019	7.68	195	42.5
K1-20 Sloped channel - 39.37" (1m) ^D	74020	7.87	200	43.4
K1-21 Sloped channel - 39.37" (1m)	74021	8.07	205	44.2
K1-22 Sloped channel - 39.37" (1m)	74022	8.27	210	45.0
K1-23 Sloped channel - 39.37" (1m)	74023	8.46	215	45.8
K1-24 Sloped channel - 39.37" (1m)	74024	8.66	220	46.6
K1-25 Sloped channel - 39.37" (1m) ^D	74025	8.86	225	47.4
K1-26 Sloped channel - 39.37" (1m)	74026	9.06	230	48.2
K1-27 Sloped channel - 39.37" (1m)	74027	9.25	235	49.0

Description	Part No.	Invert	Weight	
		Inches ²	Lbs.	
K1-28 Sloped channel - 39.37" (1m)	74028	9.45	240	49.8
K1-29 Sloped channel - 39.37" (1m)	74029	9.65	245	50.6
K1-30 Sloped channel - 39.37" (1m) ^D	74030	9.84	250	51.4
K1-31 Sloped channel - 39.37" (1m)	74031	10.04	255	52.2
K1-32 Sloped channel - 39.37" (1m)	74032	10.24	260	53.0
K1-33 Sloped channel - 39.37" (1m)	74033	10.43	265	53.8
K1-34 Sloped channel - 39.37" (1m)	74034	10.63	270	54.6
K1-35 Sloped channel - 39.37" (1m) ^D	74035	10.83	275	55.4
K1-36 Sloped channel - 39.37" (1m)	74036	11.02	280	56.2
K1-37 Sloped channel - 39.37" (1m)	74037	11.22	285	57.0
K1-38 Sloped channel - 39.37" (1m)	74038	11.42	290	57.9
K1-39 Sloped channel - 39.37" (1m)	74039	11.61	295	58.7
K1-40 Sloped channel - 39.37" (1m) ^D	74040	11.81	300	59.5
K1-41 Sloped channel - 39.37" (1m)	74041	12.01	305	60.3
K1-42 Sloped channel - 39.37" (1m)	74042	12.21	310	61.1
K1-43 Sloped channel - 39.37" (1m)	74043	12.41	315	61.9
K1-44 Sloped channel - 39.37" (1m)	74044	12.61	320	62.7
K1-45 Sloped channel - 39.37" (1m)	74045	12.81	325	63.5
K1-46 Sloped channel - 39.37" (1m)	74046	13.01	330	64.3
K1-47 Sloped channel - 39.37" (1m)	74047	13.21	335	65.1
K1-48 Sloped channel - 39.37" (1m)	74048	13.41	340	65.9
K1-49 Sloped channel - 39.37" (1m)	74049	13.61	345	66.7
K1-50 Sloped channel - 39.37" (1m)	74050	13.81	350	67.5
K1-51 Sloped channel - 39.37" (1m)	74051	14.01	355	68.3
K1-52 Sloped channel - 39.37" (1m)	74052	14.21	360	69.1
K1-53 Sloped channel - 39.37" (1m)	74053	14.41	365	69.9
K1-54 Sloped channel - 39.37" (1m)	74054	14.61	370	70.7
K1-55 Sloped channel - 39.37" (1m)	74055	14.81	375	71.5
K1-56 Sloped channel - 39.37" (1m)	74056	15.01	380	72.3
K1-57 Sloped channel - 39.37" (1m)	74057	15.21	385	73.1
K1-58 Sloped channel - 39.37" (1m)	74058	15.41	390	73.9
K1-59 Sloped channel - 39.37" (1m)	74059	15.61	395	74.7
K1-60 Sloped channel - 39.37" (1m)	74060	15.81	400	75.5
K1-61 Sloped channel - 39.37" (1m)	74061	16.01	405	76.3
K1-62 Sloped channel - 39.37" (1m)	74062	16.21	410	77.1
K1-63 Sloped channel - 39.37" (1m)	74063	16.41	415	77.9
K1-64 Sloped channel - 39.37" (1m)	74064	16.61	420	78.7
K1-65 Sloped channel - 39.37" (1m)	74065	16.81	425	79.5
K1-66 Sloped channel - 39.37" (1m)	74066	17.01	430	80.3
K1-67 Sloped channel - 39.37" (1m)	74067	17.21	435	81.1
K1-68 Sloped channel - 39.37" (1m)	74068	17.41	440	81.9
K1-69 Sloped channel - 39.37" (1m)	74069	17.61	445	82.7
K1-70 Sloped channel - 39.37" (1m)	74070	17.81	450	83.5
K1-71 Sloped channel - 39.37" (1m)	74071	18.01	455	84.3
K1-72 Sloped channel - 39.37" (1m)	74072	18.21	460	85.1
K1-73 Sloped channel - 39.37" (1m)	74073	18.41	465	85.9
K1-74 Sloped channel - 39.37" (1m)	74074	18.61	470	86.7
K1-75 Sloped channel - 39.37" (1m)	74075	18.81	475	87.5
K1-76 Sloped channel - 39.37" (1m)	74076	19.01	480	88.3
K1-77 Sloped channel - 39.37" (1m)	74077	19.21	485	89.1
K1-78 Sloped channel - 39.37" (1m)	74078	19.41	490	89.9
K1-79 Sloped channel - 39.37" (1m)	74079	19.61	495	90.7
K1-80 Sloped channel - 39.37" (1m)	74080	19.81	500	91.5
K1-81 Sloped channel - 39.37" (1m)	74081	20.01	505	92.3
K1-82 Sloped channel - 39.37" (1m)	74082	20.21	510	93.1
K1-83 Sloped channel - 39.37" (1m)	74083	20.41	515	93.9
K1-84 Sloped channel - 39.37" (1m)	74084	20.61	520	94.7
K1-85 Sloped channel - 39.37" (1m)	74085	20.81	525	95.5
K1-86 Sloped channel - 39.37" (1m)	74086	21.01	530	96.3
K1-87 Sloped channel - 39.37" (1m)	74087	21.21	535	97.1
K1-88 Sloped channel - 39.37" (1m)	74088	21.41	540	97.9
K1-89 Sloped channel - 39.37" (1m)	74089	21.61	545	98.7
K1-90 Sloped channel - 39.37" (1m)	74090	21.81	550	99.5
K1-91 Sloped channel - 39.37" (1m)	74091	22.01	555	100.3
K1-92 Sloped channel - 39.37" (1m)	74092	22.21	560	101.1
K1-93 Sloped channel - 39.37" (1m)	74093	22.41	565	101.9
K1-94 Sloped channel - 39.37" (1m)	74094	22.61	570	102.7
K1-95 Sloped channel - 39.37" (1m)	74095	22.81	575	103.5
K1-96 Sloped channel - 39.37" (1m)	74096	23.01	580	104.3
K1-97 Sloped channel - 39.37" (1m)	74097	23.21	585	105.1
K1-98 Sloped channel - 39.37" (1m)	74098	23.41	590	105.9
K1-99 Sloped channel - 39.37" (1m)	74099	23.61	595	106.7
K1-100 Sloped channel - 39.37" (1m)	74100	23.81	600	107.5
K1-101 Sloped channel - 39.37" (1m)	74101	24.01	605	108.3
K1-102 Sloped channel - 39.37" (1m)	74102	24.21	610	109.1
K1-103 Sloped channel - 39.37" (1m)	74103	24.41	615	109.9
K1-104 Sloped channel - 39.37" (1m)	74104	24.61	620	110.7
K1-105 Sloped channel - 39.37" (1m)	74105	24.81	625	111.5
K1-106 Sloped channel - 39.37" (1m)	74106	25.01	630	112.3
K1-107 Sloped channel - 39.37" (1m)	74107	25.21	635	113.1
K1-108 Sloped channel - 39.37" (1m)	74108	25.41	640	113.9
K1-109 Sloped channel - 39.37" (1m)	74109	25.61	645	114.7
K1-110 Sloped channel - 39.37" (1m)	74110	25.81	650	115.5
K1-111 Sloped channel - 39.37" (1m)	74111	26.01	655	116.3
K1-112 Sloped channel - 39.37" (1m)	74112	26.21	660	117.1
K1-113 Sloped channel - 39.37" (1m)	74113	26.41	665	117.9
K1-114 Sloped channel - 39.37" (1m)	74114	26.61	670	118.7
K1-115 Sloped channel - 39.37" (1m)	74115	26.81	675	119.5
K1-116 Sloped channel - 39.37" (1m)	74116	27.01	680	120.3
K1-117 Sloped channel - 39.37" (1m)	74117	27.21	685	121.1
K1-118 Sloped channel - 39.37" (1m)	74118	27.41	690	121.9
K1-119 Sloped channel - 39.37" (1m)	74119	27.61	695	122.7
K1-120 Sloped channel - 39.37" (1m)	74120	27.81	700	123.5
K1-121 Sloped channel - 39.37" (1m)	74121	28.01	705	124.3
K1-122 Sloped channel - 39.37" (1m)	74122	28.21	710	125.1
K1-123 Sloped channel - 39.37" (1m)	74123	28.41	715	125.9
K1-124 Sloped channel - 39.37" (1m)	74124	28.61	720	126.7
K1-125 Sloped channel - 39.37" (1m)	74125	28.81	725	127.5
K1-126 Sloped channel - 39.37" (1m)	74126	29.01	730	128.3
K1-127 Sloped channel - 39.37" (1m)	74127	29.21	735	129.1
K1-128 Sloped channel - 39.37" (1m)	74128	29.41	740	129.9
K1-129 Sloped channel - 39.37" (1m)	74129	29.61	745	130.7
K1-130 Sloped channel - 39.37" (1m)	74130	29.81	750	131.5
K1-131 Sloped channel - 39.37" (1m)	74131	30.01	755	132.3
K1-132 Sloped channel - 39.37" (1m)	74132	30.21	760	133.1
K1-133 Sloped channel - 39.37" (1m)	74133	30.41	765	133.9
K1-134 Sloped channel - 39.37" (1m)	74134	30.61	770	134.7
K1-135 Sloped channel - 39.37" (1m)	74135	30.81	775	135.5
K1-136 Sloped channel - 39.37" (1m)	74136	31.01	780	136.3
K1-137 Sloped channel - 39.37" (1m)	74137	31.21	785	137.1
K1-138 Sloped channel - 39.37" (1m)	74138	31.41	790	137.9
K1-139 Sloped channel - 39.37" (1m)	74139	31.61	795	138.7
K1-140 Sloped channel - 39.37" (1m)	74140	31.81	800</	

ACO DRAIN

Type 435Q/436Q Slotted galvanized steel grate

Product Features

- Certified to EN 1433 Load Class E - 135,000 lbs - 2,788 psi
- Uses 'QuickLok' boltless locking system
- Suitable for use with K100, KS100, H100-8, H100-10, and H100K-3 channels
- Manufactured from 16 gauge galvanized steel
- Bicycle Tire Penetration Resistant to AS3996-2006



Specifications

General
The surface drainage system shall be ACO Drain K100, KS100, H100-8, H100-10, H100K-8 and H100KS-8 channels* complete with ACO Type 435Q/436Q Slotted galvanized steel grate with 'QuickLok' locking as manufactured by ACO, Inc. or similar approved.

Materials
The covers shall be manufactured from galvanized steel and have **minimum** properties as follows:

- **Independently certified to meet Load Class E to EN 1433 - 135,000 lbs - 2,788 psi**
- **16 gauge galvanized steel**
- **Intake area of 17.6 sq. in. (113.5 cm²) per half meter of grate**

The overall width of 4.84" (123mm) and overall length of 39.37" (1000mm) (Type 435) and 19.69" (500mm) (Type 436). Slots measure 1.75" (45mm) by 0.38" (10mm) and 1.17" (30mm) by 0.38" (10mm).

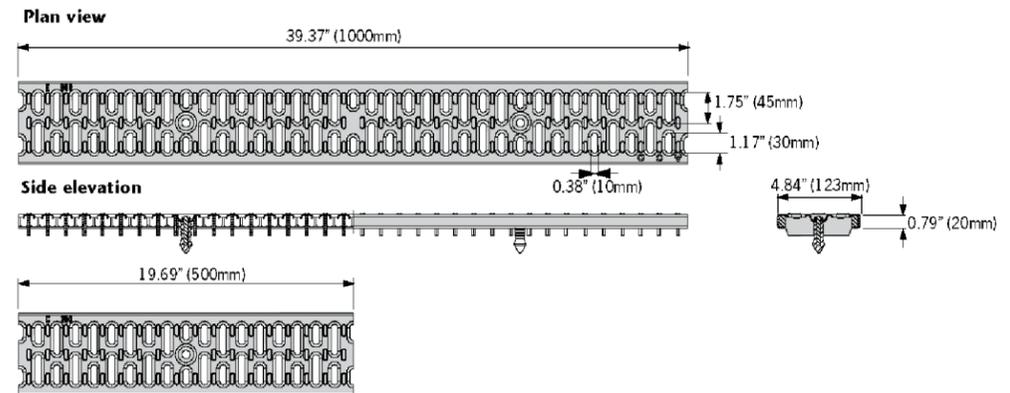
Installation
The trench drain system and grates shall be installed in accordance with the manufacturer's installation instructions and recommendations.

* delete as appropriate

ACO Specification Information

ACO DRAIN

Type 435Q/436Q Slotted galvanized steel grate



Description	Part No.	Length inches (mm)	Width inches (mm)	Weight lbs.
QuickLok grates				
Type 435Q Slotted galvanized grate	31550	39.37 (1000)	4.84 (123)	13.4
Type 436Q Slotted galvanized grate	31551	19.69 (500)	4.84 (123)	6.8
QuickLok locking bar	02899	-	-	0.2
QuickLok grate removal hook	01318	-	-	0.6

'QuickLok' locking mechanism

ACO 'QuickLok' is a patented boltless locking system, grates are removed and replaced with the minimum time and effort for ease of maintenance. The unique design provides a positive 'snap down' fit into the locking bar. A stud is fixed to the grate which 'locks' into the spring clip in the locking bar.

The 'QuickLok' stud is made from stainless steel and high density nylon, the locking bar and clip are stainless steel, for use in both general purpose and corrosive environments.

ACO, Inc.

Northeast Sales Office
9470 Pinecone Drive
Mentor, OH 44060
Tel: (440) 639-7230
Toll free: (800) 543-4764
Fax: (440) 285-7005

West Sales Office
825 W. Beechcraft St.
Casa Grande, AZ 85122
Tel: (520) 421-9988
Toll Free: (888) 490-9552
Fax: (520) 421-9899

Southeast Sales Office
4211 Pleasant Road
Fort Mill, SC 29708
Toll free: (800) 543-4764
Fax: (803) 802-1063

Follow us on
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Electronic Contact:
info@ACODrain.us
www.ACODrain.us



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UNION PACIFIC RAILROAD Director Structures Design

LOCATION & DESCRIPTION:
MP 2.27 ROCKWELL SUBDIVISION
OGDEN AVENUE WEST BRIDGE REPLACEMENT

SHEET TITLE:
ROADWAY DETAILS

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5/26/2021

TRAFFIC CONTROL GENERAL NOTES:

1. All signing must be in accordance with the latest applicable provisions of the State of Illinois "Standard Specifications for Road and Bridge Construction", the details in these plans must be in accordance with the latest edition of the IDOT Bureau of Design and Environment highway standards and the latest edition of the "Manual on Uniform Traffic Control Devices", in effect on the date of invitation for bids.
2. Longitudinal dimensions shown on these plans may be adjusted to fit field conditions as directed by the Commissioner.
3. The Contractor must be responsible for ensuring that all barricades, signs, lights and other devices installed by him/her are in place and operating 24 hours each day including Sundays and holidays during the time this construction is in effect.
4. All existing signing that is not applicable while the construction is in effect must be completely covered by the Contractor.
5. The sizes of all signs not specified in these plans must be as required by the Manual on Uniform Traffic Control Devices.
6. As a minimum, all amber flashing lights that are required must meet the requirements for Type A - low intensity flashing lights in article 702.04 of the standard specifications. All lights shall operate during hours of darkness. Only lights that have been approved by the Illinois Department of Transportation must be used.
7. The Contractor must maintain access to all private and commercial driveways during construction.
8. Sidewalk access must be maintained on one side of the street during all stages, except when there is a full closure. Any closed sidewalks must be appropriately barricaded. Use Standard 701801.
9. All walkways must be clearly identified and adequately protected from motor vehicle traffic and free of any obstructions and hazards such as holes, debris, mud, construction equipment, stored materials, etc.
10. Proposed maintenance of traffic signing must be covered or removed when not required during a specific stage of construction.

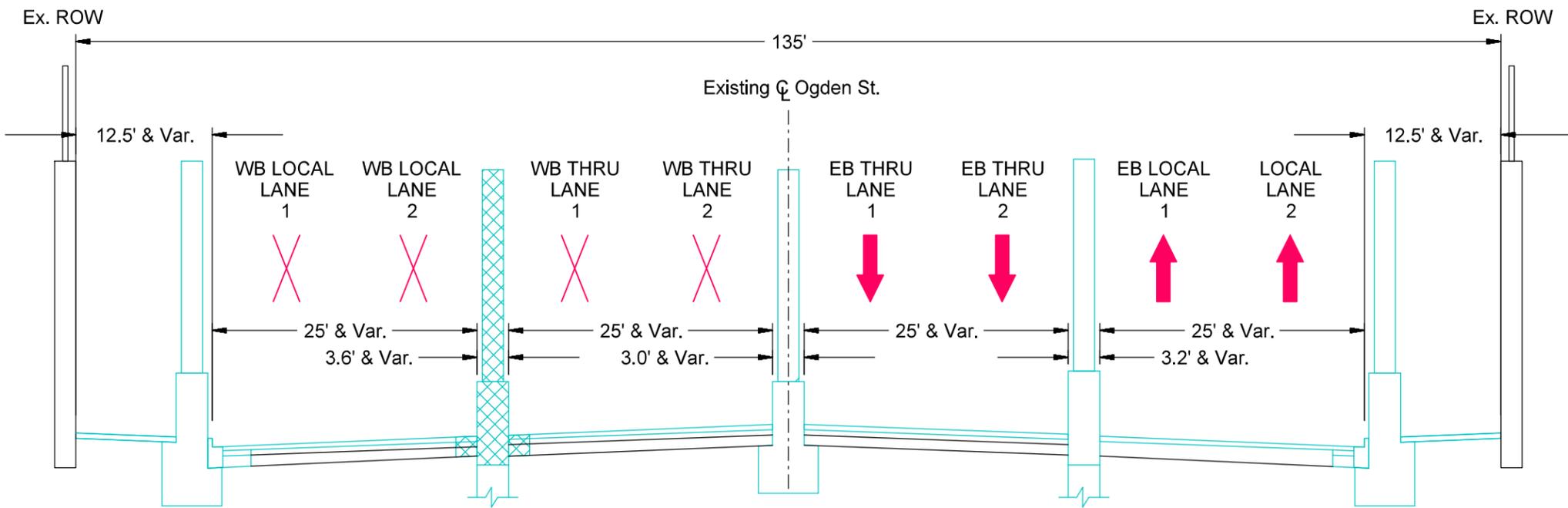
11. Changeable message signs to be provided at locations shown on plans or determined by the Commissioner.
12. The Contractor must conduct his/her work in such a manner that emergency vehicles will have access to the work area at all times.
13. The Contractor will be responsible for the proper location, installation, maintenance, relocation, and removal of all traffic control devices.
14. The Contractor is responsible for recording the existing pavement marking patterns and limits prior to existing striping removal.
15. All existing pavement markings removed or impacted within the project limits must be replaced in-kind and to CDOT rules and regulations.
16. Unwanted temporary pavement markings must be removed by the Contractor as ordered by the Commissioner.
17. The Contractor must notify CDOT-Permits 1 month prior to construction with dates and detour route to further coordinate.
18. The Contractor must notify CDOT 72 hours before commencing construction.
19. The Contractor is responsible for all no parking notifications required by traffic shifts.

BILL OF MATERIAL				
REQD.	UNIT	DESCRIPTION	STORE ITEM NO.	ORDERED BY
5000.0	FOOT	TEMPORARY PAVEMENT MARKING, LINE 4"		CONSTRUCTOR
8.0	EACH	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 2		↓
8.0	EACH	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 2		
16.0	EACH	BARRICADES, TYPE III WITH WARNING LIGHT		
32.0	EACH	DRUM WITH WARNING LIGHT or BARRICADES, TYPE I WITH EXTENDED LEGS AND WARNING LIGHT		
1800.0	SQ FOOT	PAVEMENT MARKING REMOVAL - WATER BLASTING		
1.0	L SUM	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)		
12.0	EACH	BARRICADES, TYPE III		

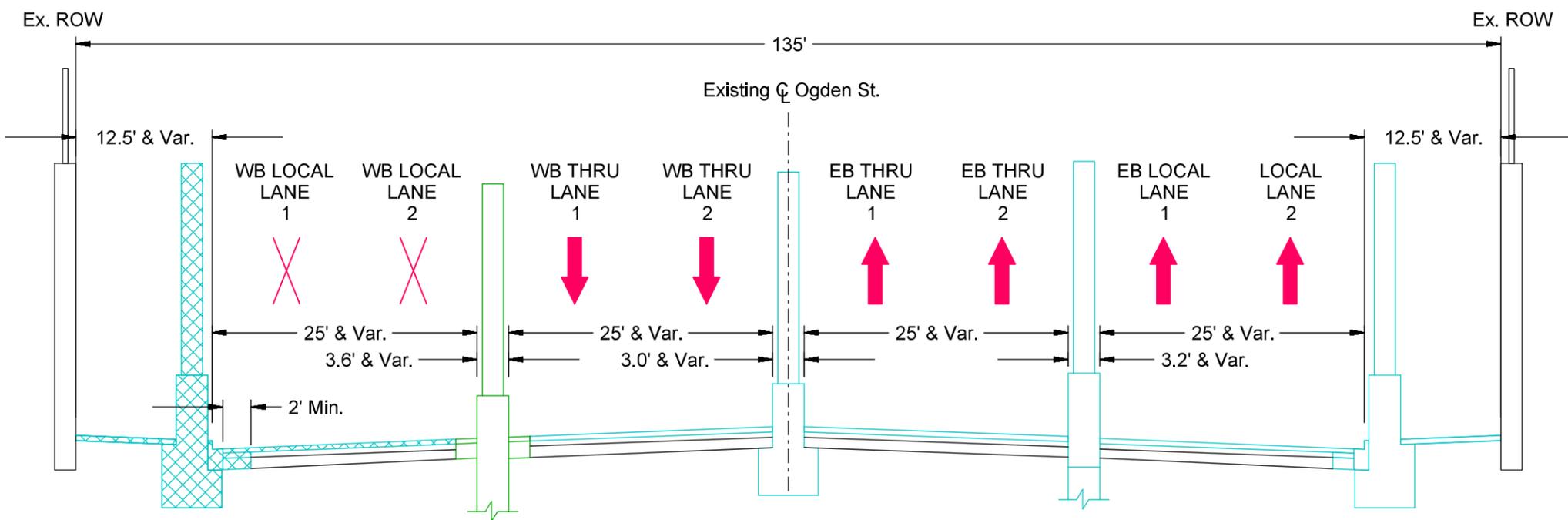
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 5/26/2021

<p>WARNING ! FIBER OPTIC CABLE ON RAILROAD R-O-W CALL BEFORE YOU DIG 1-800-336-9193</p>	<p style="font-size: 2em; color: red; letter-spacing: 0.5em;">ISSUED FOR CONSTRUCTION</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REVISION</th> <th>BY</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REVISION	BY	DATE	DESCRIPTION																	 <p style="font-size: 0.8em;">Alfred Benesch & Company 35 W. Wacker Drive Suite 3300 Chicago, Illinois 60601 312-565-0450 Job No. 210070.11</p>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: 0.8em;">DRAWN BY: KP</td> <td style="font-size: 0.8em;">WORK ORDER: 31876</td> </tr> <tr> <td style="font-size: 0.8em;">CHECKED BY: TK</td> <td style="font-size: 0.8em;">PID:</td> </tr> <tr> <td style="font-size: 0.8em;">DATE: 05/28/21</td> <td style="font-size: 0.8em;">BUDGET REF:</td> </tr> <tr> <td style="font-size: 0.8em;">SCALE: N.T.S</td> <td style="font-size: 0.8em;">SHEET NUMBER R-006</td> </tr> </table>	DRAWN BY: KP	WORK ORDER: 31876	CHECKED BY: TK	PID:	DATE: 05/28/21	BUDGET REF:	SCALE: N.T.S	SHEET NUMBER R-006	<p>UNION PACIFIC RAILROAD Director Structures Design</p> <p style="font-size: 0.8em;">LOCATION & DESCRIPTION: MP 2.27 ROCKWELL SUBDIVISION OGDEN AVENUE WEST BRIDGE REPLACEMENT</p> <p style="font-size: 0.8em;">SHEET TITLE: TRAFFIC CONTROL GENERAL NOTES</p>
REVISION	BY	DATE	DESCRIPTION																															
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MOT TYPICAL SECTION
PHASE 1 - WB PIER REMOVAL



MOT TYPICAL SECTION
PHASE 2 - WB PIER WORK

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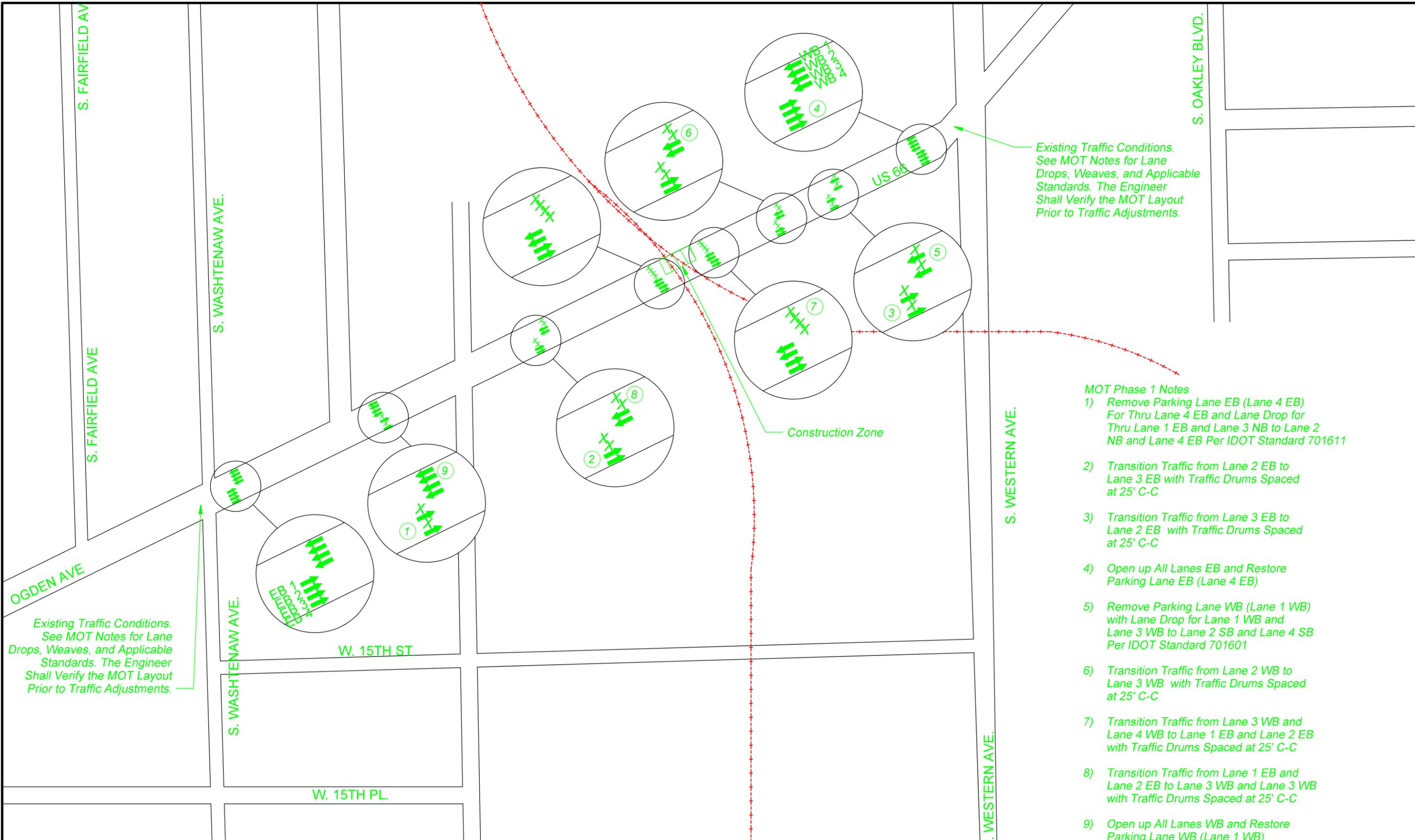
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UNION PACIFIC RAILROAD Director Structures Design
 LOCATION & DESCRIPTION:
 MP 2.27 ROCKWELL SUBDIVISION
 OGDEN AVENUE WEST BRIDGE REPLACEMENT
 SHEET TITLE:
 MOT- LANE CLOSURE TYPICAL

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 5/26/2021



Existing Traffic Conditions.
 See MOT Notes for Lane
 Drops, Weaves, and Applicable
 Standards. The Engineer
 Shall Verify the MOT Layout
 Prior to Traffic Adjustments.

Existing Traffic Conditions.
 See MOT Notes for Lane
 Drops, Weaves, and Applicable
 Standards. The Engineer
 Shall Verify the MOT Layout
 Prior to Traffic Adjustments.

- MOT Phase 1 Notes
- 1) Remove Parking Lane EB (Lane 4 EB) For Thru Lane 4 EB and Lane Drop for Thru Lane 1 EB and Lane 3 NB to Lane 2 NB and Lane 4 EB Per IDOT Standard 701611
 - 2) Transition Traffic from Lane 2 EB to Lane 3 EB with Traffic Drums Spaced at 25' C-C
 - 3) Transition Traffic from Lane 3 EB to Lane 2 EB with Traffic Drums Spaced at 25' C-C
 - 4) Open up All Lanes EB and Restore Parking Lane EB (Lane 4 EB)
 - 5) Remove Parking Lane WB (Lane 1 WB) with Lane Drop for Lane 1 WB and Lane 3 WB to Lane 2 SB and Lane 4 SB Per IDOT Standard 701601
 - 6) Transition Traffic from Lane 2 WB to Lane 3 WB with Traffic Drums Spaced at 25' C-C
 - 7) Transition Traffic from Lane 3 WB and Lane 4 WB to Lane 1 EB and Lane 2 EB with Traffic Drums Spaced at 25' C-C
 - 8) Transition Traffic from Lane 1 EB and Lane 2 EB to Lane 3 WB and Lane 3 WB with Traffic Drums Spaced at 25' C-C
 - 9) Open up All Lanes WB and Restore Parking Lane WB (Lane 1 WB)

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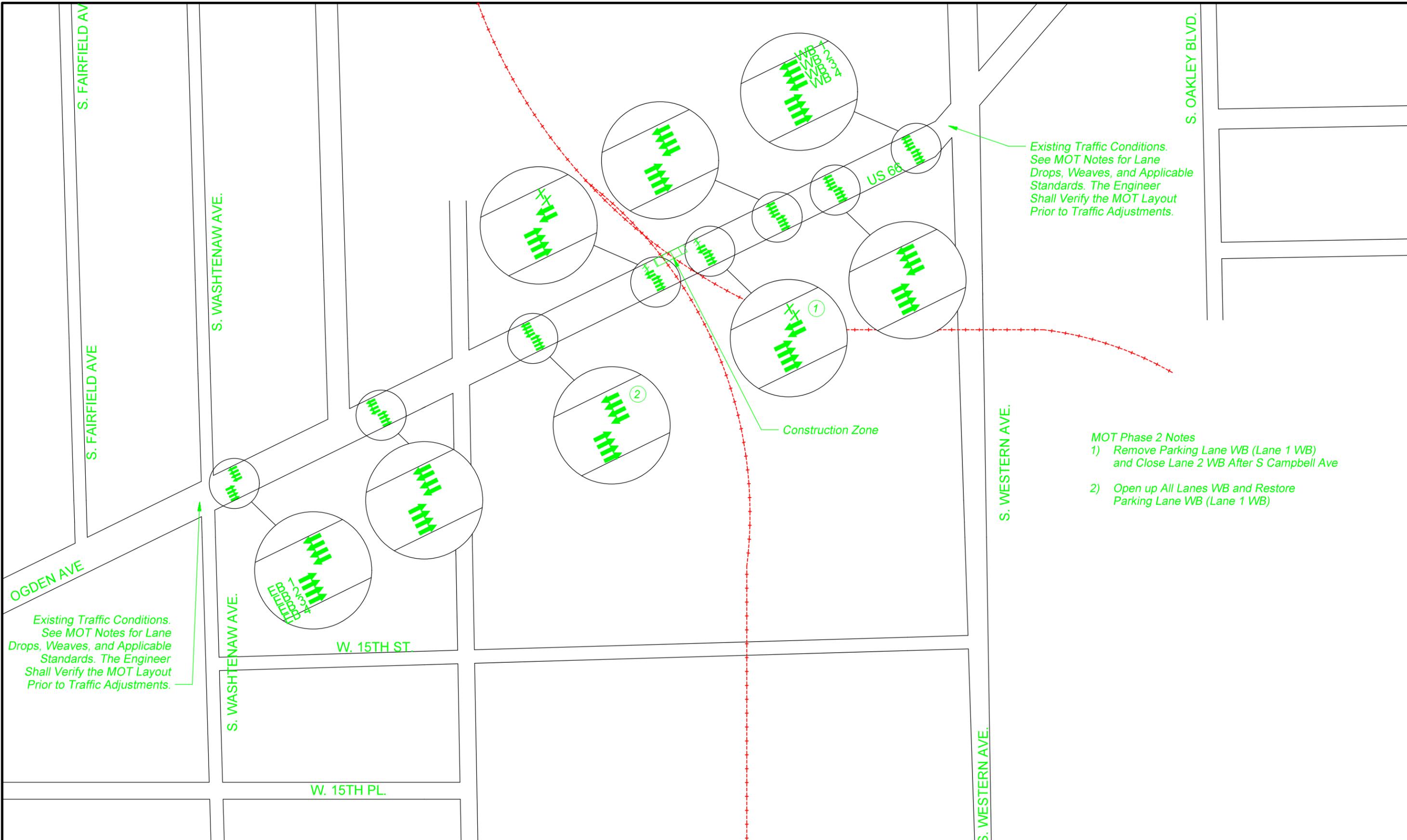
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UNION PACIFIC RAILROAD Director Structures Design

LOCATION & DESCRIPTION:
 MP 2.27 ROCKWELL SUBDIVISION
 OGDEN AVENUE WEST BRIDGE REPLACEMENT

SHEET TITLE:
 MOT- PHASE 1 LANE CLOSURE PLAN

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Existing Traffic Conditions.
 See MOT Notes for Lane Drops, Weaves, and Applicable Standards. The Engineer Shall Verify the MOT Layout Prior to Traffic Adjustments.

Existing Traffic Conditions.
 See MOT Notes for Lane Drops, Weaves, and Applicable Standards. The Engineer Shall Verify the MOT Layout Prior to Traffic Adjustments.

- MOT Phase 2 Notes
- 1) Remove Parking Lane WB (Lane 1 WB) and Close Lane 2 WB After S Campbell Ave
 - 2) Open up All Lanes WB and Restore Parking Lane WB (Lane 1 WB)

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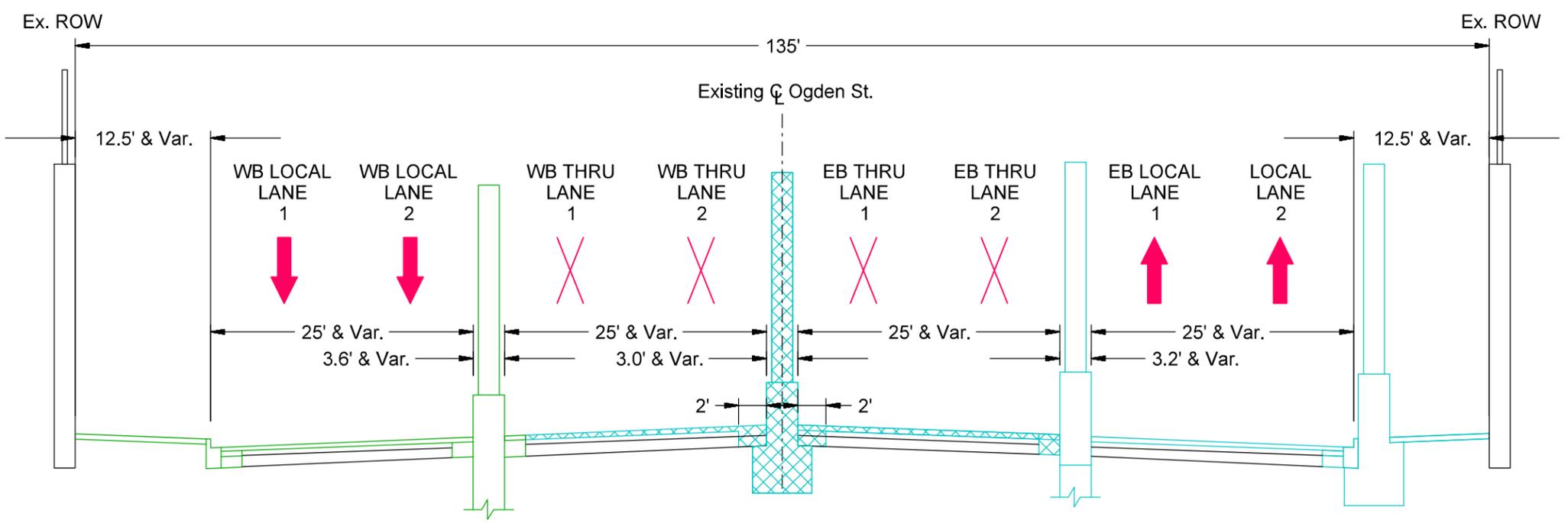
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UNION PACIFIC RAILROAD Director Structures Design

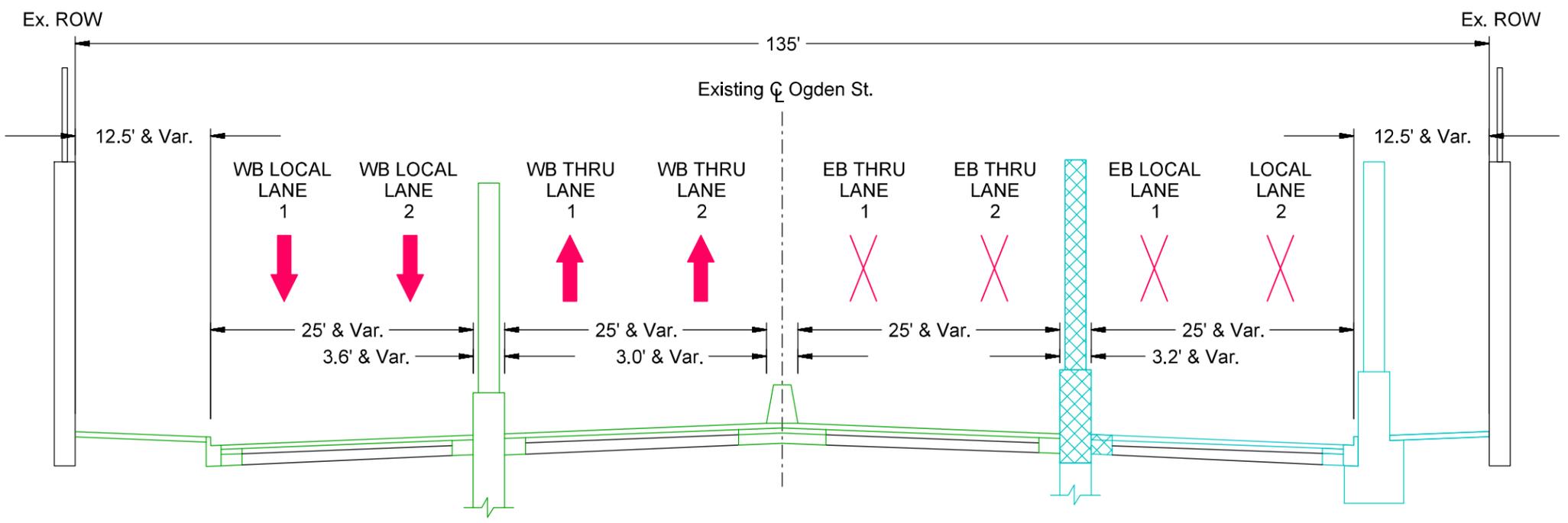
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 MP 2.27 ROCKWELL SUBDIVISION
 OGDEN AVENUE WEST BRIDGE REPLACEMENT

SHEET TITLE:
 MOT- PHASE 2 LANE CLOSURE PLAN

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 5/26/2021



MOT TYPICAL SECTION
 PHASE 3 - MIDDLE PIER WORK



MOT TYPICAL SECTION
 PHASE 4 - EB PIER REMOVAL

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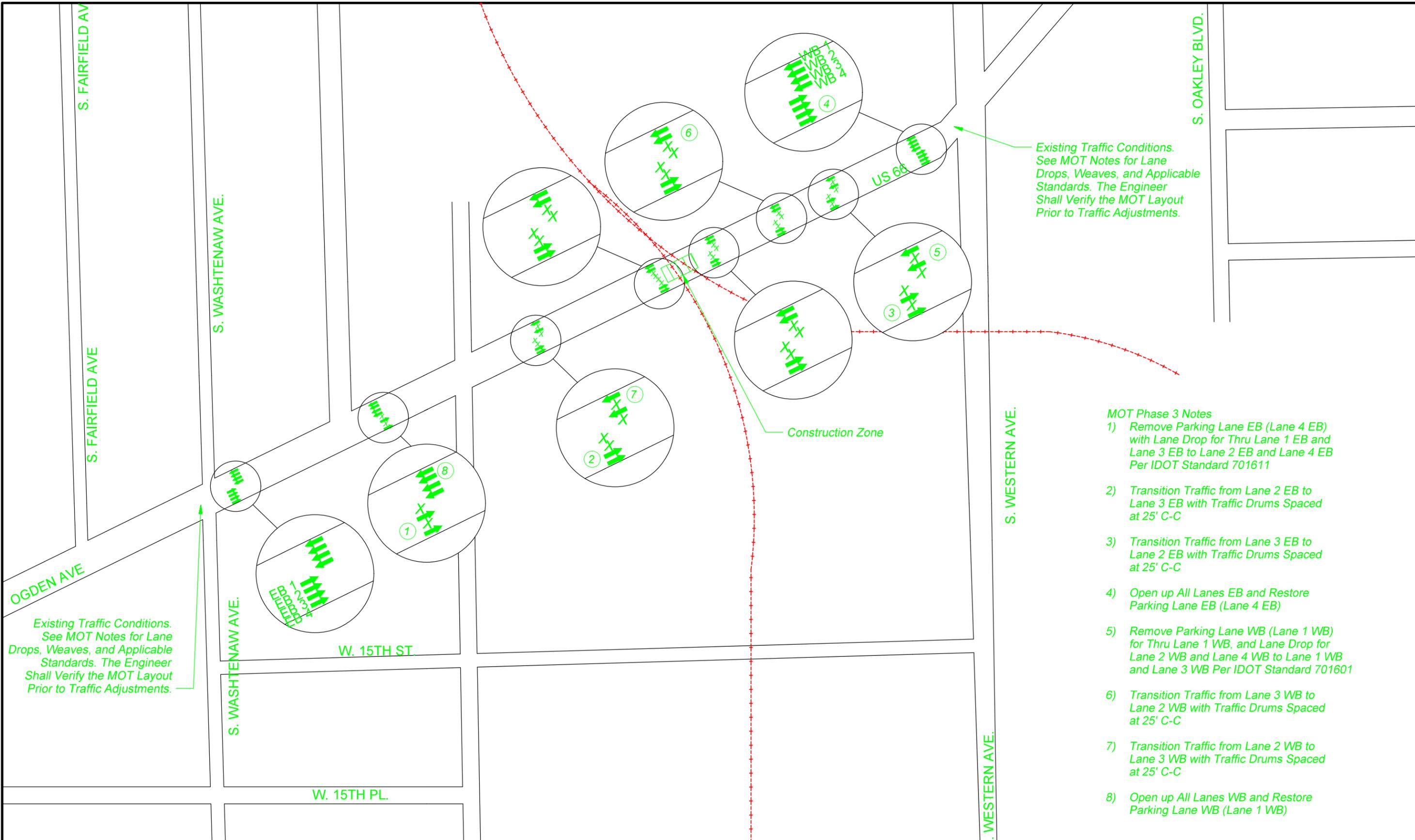
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UNION PACIFIC RAILROAD Director Structures Design

LOCATION & DESCRIPTION:
 MP 2.27 ROCKWELL SUBDIVISION
 OGDEN AVENUE WEST BRIDGE REPLACEMENT

SHEET TITLE:
 MOT- LANE CLOSURE TYPICAL

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Existing Traffic Conditions.
 See MOT Notes for Lane
 Drops, Weaves, and Applicable
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Existing Traffic Conditions.
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Construction Zone

- MOT Phase 3 Notes**
- 1) Remove Parking Lane EB (Lane 4 EB) with Lane Drop for Thru Lane 1 EB and Lane 3 EB to Lane 2 EB and Lane 4 EB Per IDOT Standard 701611
 - 2) Transition Traffic from Lane 2 EB to Lane 3 EB with Traffic Drums Spaced at 25' C-C
 - 3) Transition Traffic from Lane 3 EB to Lane 2 EB with Traffic Drums Spaced at 25' C-C
 - 4) Open up All Lanes EB and Restore Parking Lane EB (Lane 4 EB)
 - 5) Remove Parking Lane WB (Lane 1 WB) for Thru Lane 1 WB, and Lane Drop for Lane 2 WB and Lane 4 WB to Lane 1 WB and Lane 3 WB Per IDOT Standard 701601
 - 6) Transition Traffic from Lane 3 WB to Lane 2 WB with Traffic Drums Spaced at 25' C-C
 - 7) Transition Traffic from Lane 2 WB to Lane 3 WB with Traffic Drums Spaced at 25' C-C
 - 8) Open up All Lanes WB and Restore Parking Lane WB (Lane 1 WB)

WARNING !
FIBER OPTIC CABLE
ON RAILROAD R-O-W
 CALL BEFORE YOU DIG
 1-800-336-9193

**ISSUED FOR
 CONSTRUCTION**

REVISION	BY	DATE	DESCRIPTION

benesch
 Alfred Benesch & Company
 35 W. Wacker Drive Suite 3300
 Chicago, Illinois 60601
 312-565-0450 Job No. 210070.11



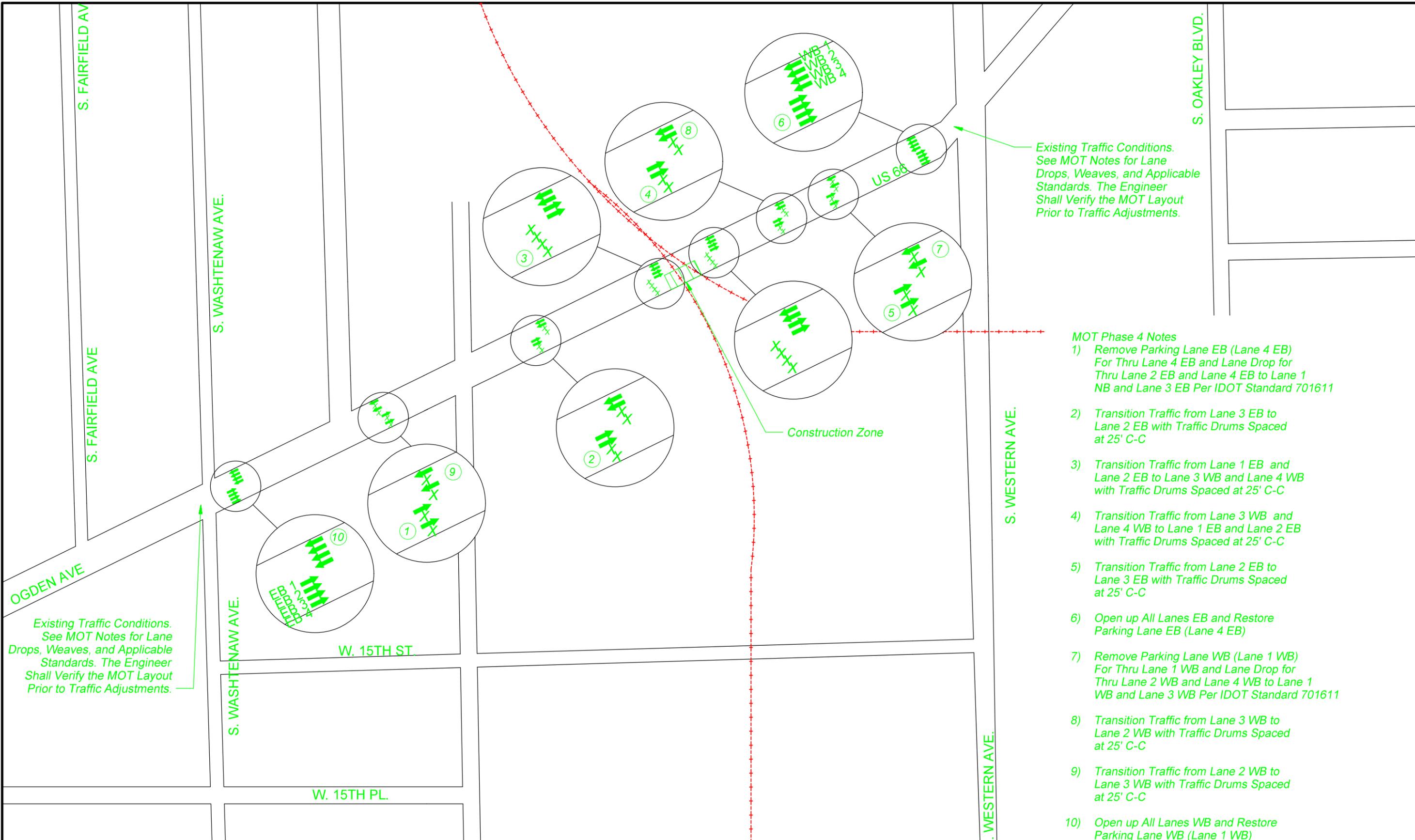
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UNION PACIFIC RAILROAD Director Structures Design

LOCATION & DESCRIPTION:
 MP 2.27 ROCKWELL SUBDIVISION
 OGDEN AVENUE WEST BRIDGE REPLACEMENT

SHEET TITLE:
 MOT- PHASE 3 LANE CLOSURE PLAN

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 5/26/2021



Existing Traffic Conditions.
 See MOT Notes for Lane
 Drops, Weaves, and Applicable
 Standards. The Engineer
 Shall Verify the MOT Layout
 Prior to Traffic Adjustments.

Existing Traffic Conditions.
 See MOT Notes for Lane
 Drops, Weaves, and Applicable
 Standards. The Engineer
 Shall Verify the MOT Layout
 Prior to Traffic Adjustments.

- MOT Phase 4 Notes
- 1) Remove Parking Lane EB (Lane 4 EB) For Thru Lane 4 EB and Lane Drop for Thru Lane 2 EB and Lane 4 EB to Lane 1 NB and Lane 3 EB Per IDOT Standard 701611
 - 2) Transition Traffic from Lane 3 EB to Lane 2 EB with Traffic Drums Spaced at 25' C-C
 - 3) Transition Traffic from Lane 1 EB and Lane 2 EB to Lane 3 WB and Lane 4 WB with Traffic Drums Spaced at 25' C-C
 - 4) Transition Traffic from Lane 3 WB and Lane 4 WB to Lane 1 EB and Lane 2 EB with Traffic Drums Spaced at 25' C-C
 - 5) Transition Traffic from Lane 2 EB to Lane 3 EB with Traffic Drums Spaced at 25' C-C
 - 6) Open up All Lanes EB and Restore Parking Lane EB (Lane 4 EB)
 - 7) Remove Parking Lane WB (Lane 1 WB) For Thru Lane 1 WB and Lane Drop for Thru Lane 2 WB and Lane 4 WB to Lane 1 WB and Lane 3 WB Per IDOT Standard 701611
 - 8) Transition Traffic from Lane 3 WB to Lane 2 WB with Traffic Drums Spaced at 25' C-C
 - 9) Transition Traffic from Lane 2 WB to Lane 3 WB with Traffic Drums Spaced at 25' C-C
 - 10) Open up All Lanes WB and Restore Parking Lane WB (Lane 1 WB)

WARNING !
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 1-800-336-9193

ISSUED FOR
 CONSTRUCTION

REVISION	BY	DATE	DESCRIPTION

Alfred Benesch & Company
 35 W. Wacker Drive Suite 3300
 Chicago, Illinois 60601
 312-565-0450 Job No. 210070.11



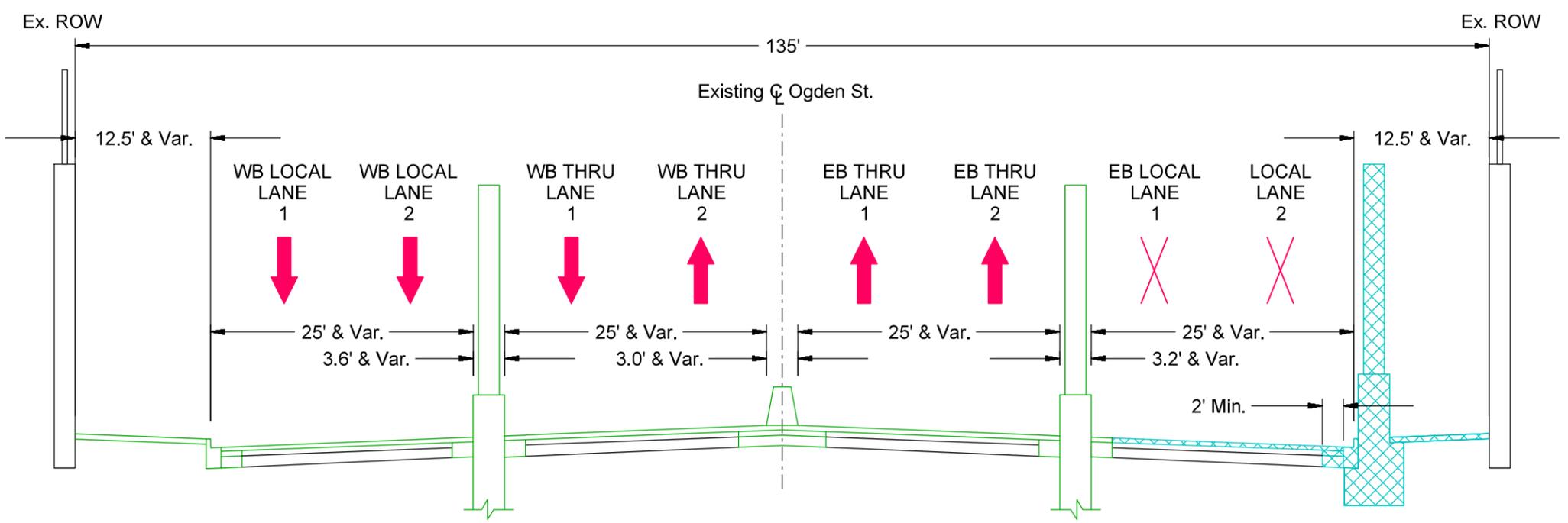
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SCALE: N.T.S	SHEET NUMBER R-008b

UNION PACIFIC RAILROAD
 Director Structures Design

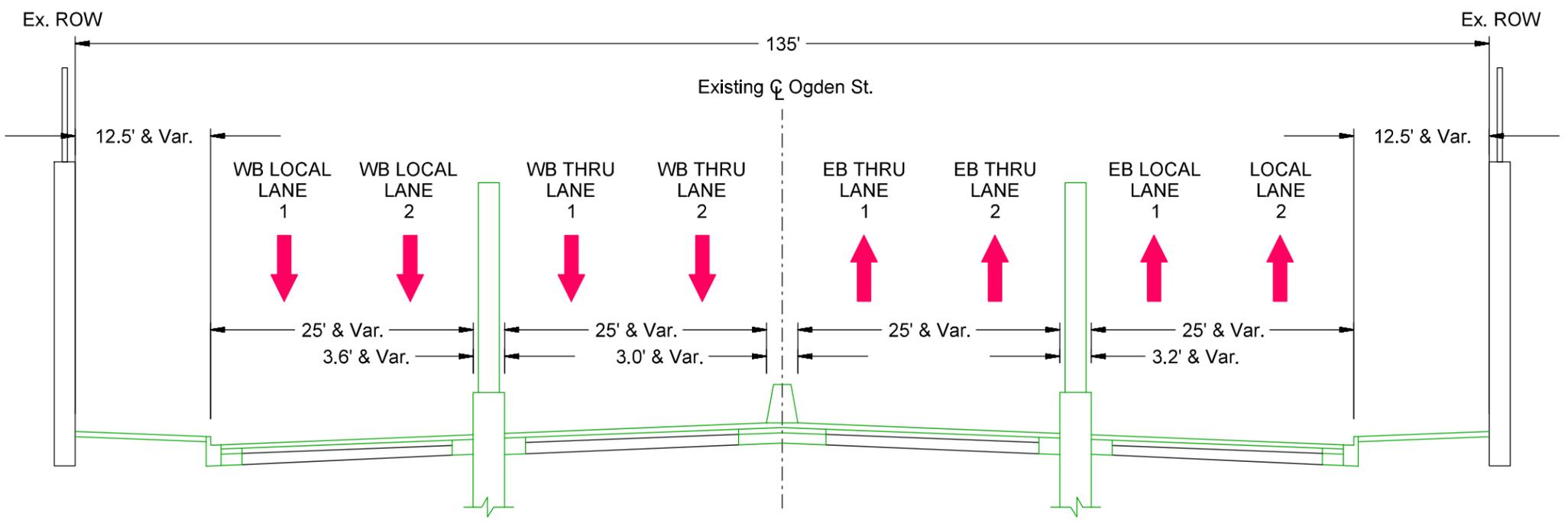
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 MP 2.27 ROCKWELL SUBDIVISION
 OGDEN AVENUE WEST BRIDGE REPLACEMENT

SHEET TITLE:
 MOT- PHASE 4 LANE CLOSURE PLAN

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 5/26/2021



MOT TYPICAL SECTION
PHASE 5 - EB PIER WORK



MOT TYPICAL SECTION
PHASE 6 - FULL OPEN

WARNING !
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ISSUED FOR
CONSTRUCTION

REVISION	BY	DATE	DESCRIPTION

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 Chicago, Illinois 60601
 312-565-0450 Job No. 210070.11



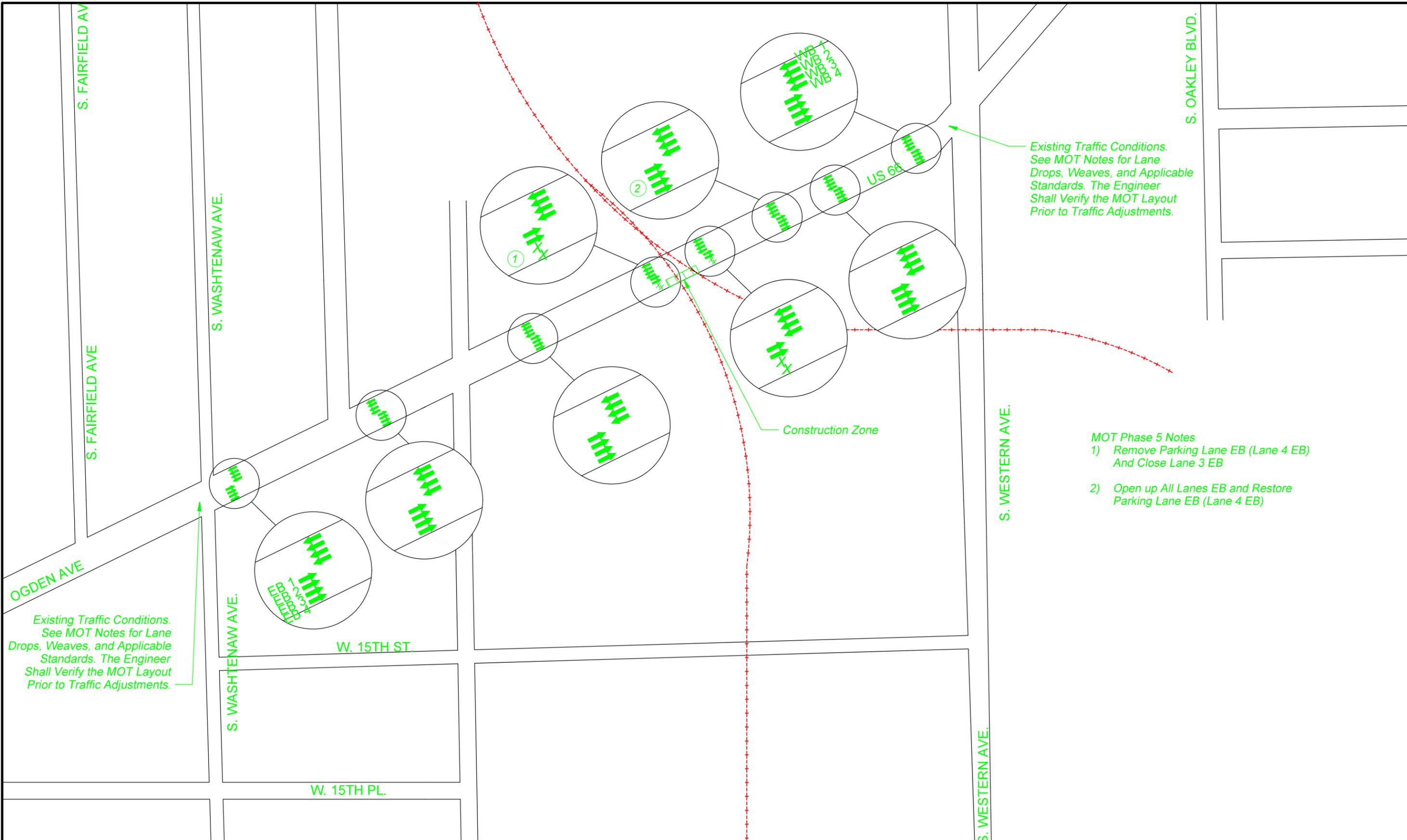
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UNION PACIFIC RAILROAD Director Structures Design

LOCATION & DESCRIPTION:
MP 2.27 ROCKWELL SUBDIVISION
OGDEN AVENUE WEST BRIDGE REPLACEMENT

SHEET TITLE:
MOT- LANE CLOSURE TYPICAL

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 5/26/2021



Existing Traffic Conditions.
 See MOT Notes for Lane
 Drops, Weaves, and Applicable
 Standards. The Engineer
 Shall Verify the MOT Layout
 Prior to Traffic Adjustments.

Existing Traffic Conditions.
 See MOT Notes for Lane
 Drops, Weaves, and Applicable
 Standards. The Engineer
 Shall Verify the MOT Layout
 Prior to Traffic Adjustments.

- MOT Phase 5 Notes
- 1) Remove Parking Lane EB (Lane 4 EB)
 And Close Lane 3 EB
 - 2) Open up All Lanes EB and Restore
 Parking Lane EB (Lane 4 EB)

WARNING !
FIBER OPTIC CABLE
ON RAILROAD R-O-W
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 1-800-336-9193

**ISSUED FOR
 CONSTRUCTION**

REVISION	BY	DATE	DESCRIPTION

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 312-565-0450 Job No. 210070.11



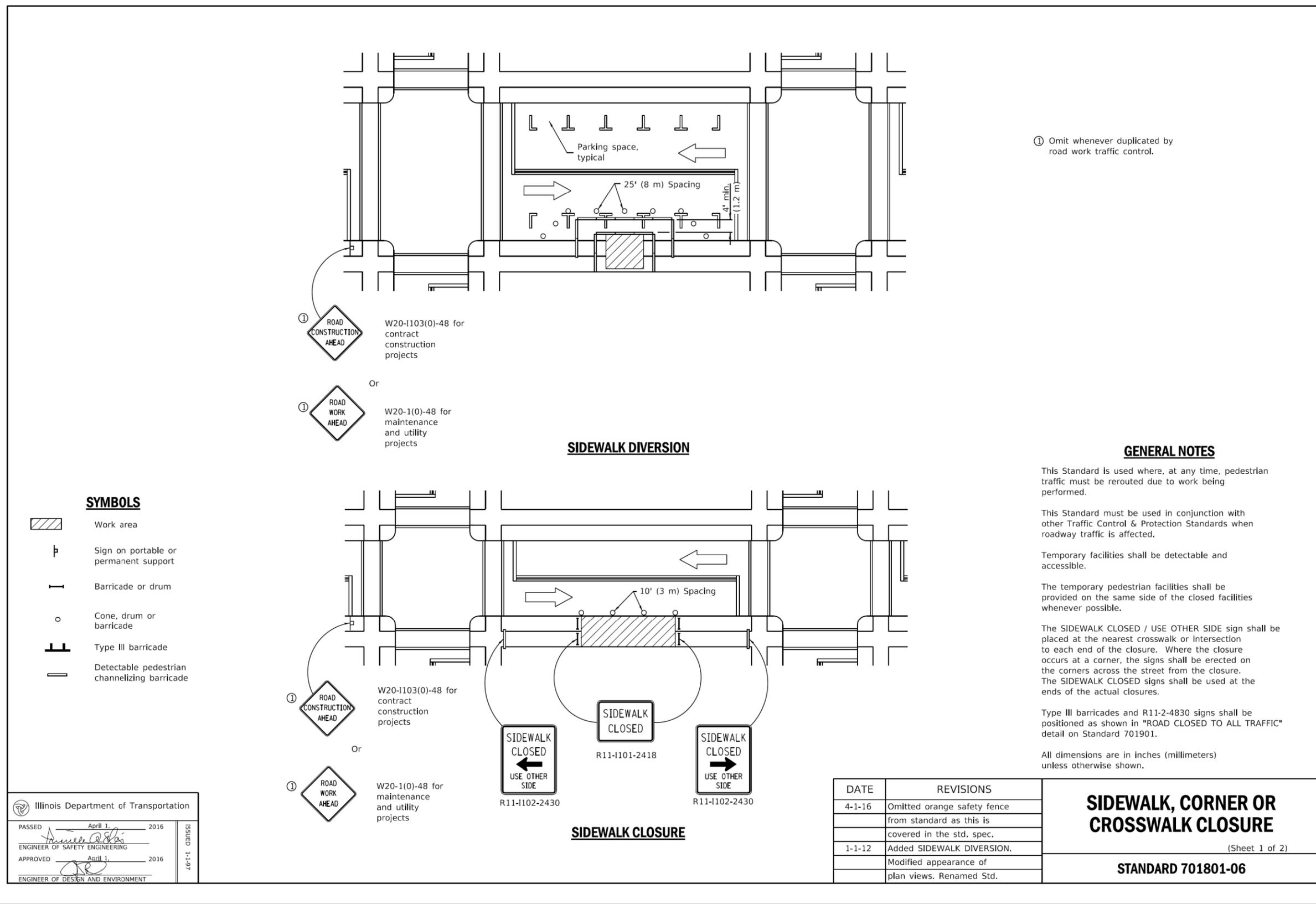
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SCALE: N.T.S	SHEET NUMBER R-009a

UNION PACIFIC RAILROAD Director Structures Design

LOCATION & DESCRIPTION:
 MP 2.27 ROCKWELL SUBDIVISION
 OGDEN AVENUE WEST BRIDGE REPLACEMENT

SHEET TITLE:
 MOT- PHASE 5 LANE CLOSURE PLAN

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 5/26/2021



Illinois Department of Transportation
 PASSED April 1, 2016
 ENGINEER OF SAFETY ENGINEERING
 APPROVED April 1, 2016
 ENGINEER OF DESIGN AND ENVIRONMENT
 ISSUED 1-1-97

DATE	REVISIONS
4-1-16	Omitted orange safety fence from standard as this is covered in the std. spec.
1-1-12	Added SIDEWALK DIVERSION. Modified appearance of plan views. Renamed Std.

SIDEWALK, CORNER OR CROSSWALK CLOSURE
 (Sheet 1 of 2)
STANDARD 701801-06

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 SHEET NUMBER: R-010

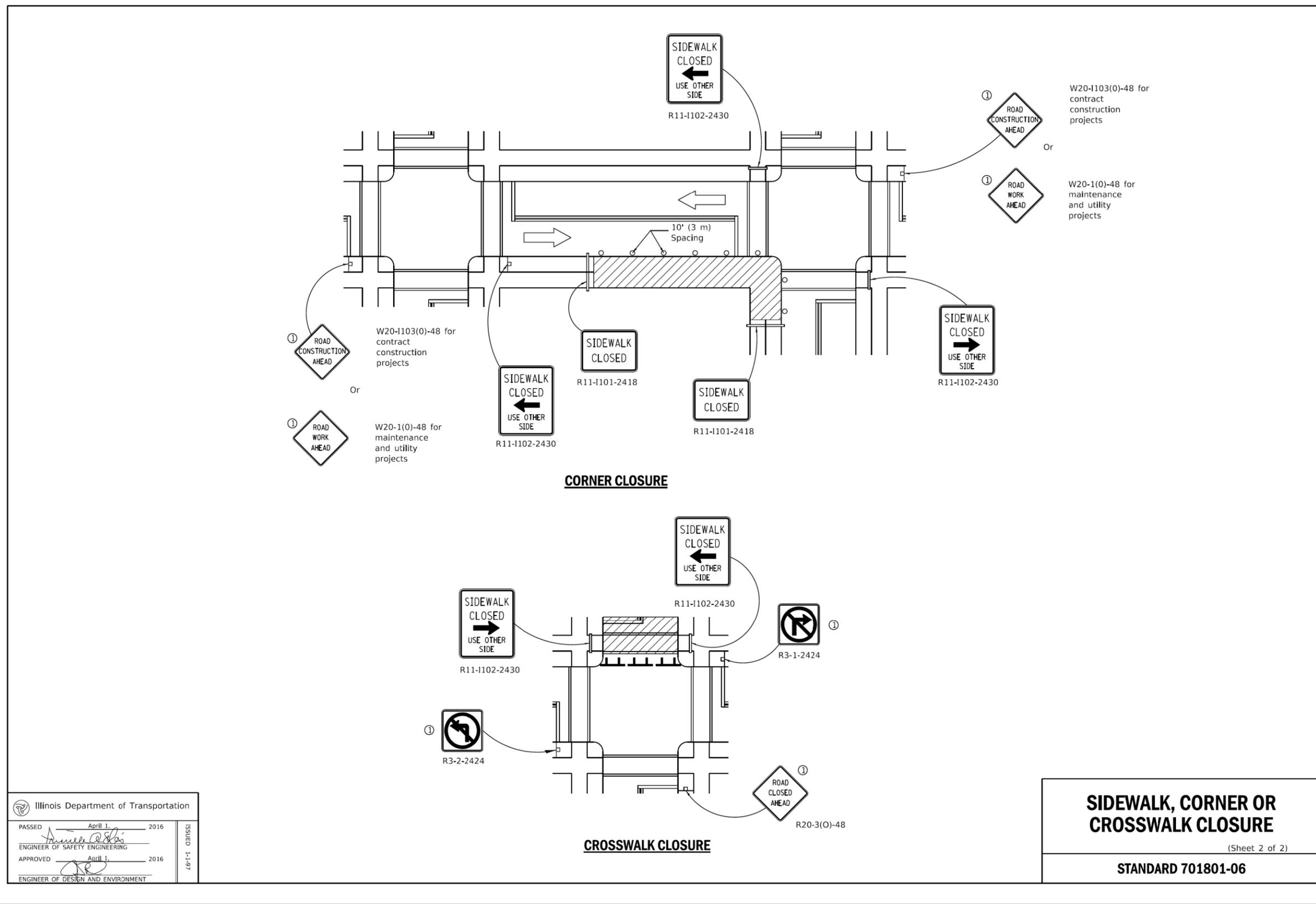
UNION PACIFIC RAILROAD

Director Structures Design

LOCATION & DESCRIPTION:
 MP 2.27 ROCKWELL SUBDIVISION
 OGDEN AVENUE WEST BRIDGE REPLACEMENT

SHEET TITLE: IDOT HIGHWAY STANDARD DETAILS

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 5/26/2021



Illinois Department of Transportation
 PASSED April 1, 2016
 ENGINEER OF SAFETY ENGINEERING
 APPROVED April 1, 2016
 ENGINEER OF DESIGN AND ENVIRONMENT

SIDEWALK, CORNER OR CROSSWALK CLOSURE
 (Sheet 2 of 2)
STANDARD 701801-06

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 CONSTRUCTION

REVISION	BY	DATE	DESCRIPTION

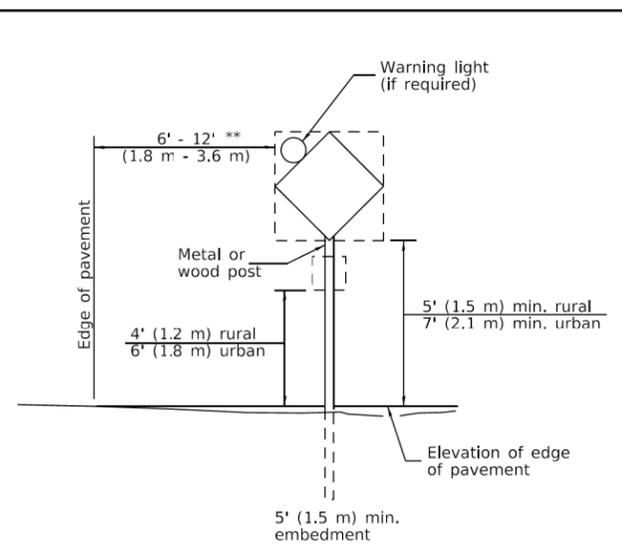
benesch
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 35 W. Wacker Drive Suite 3300
 Chicago, Illinois 60601
 312-565-0450 Job No. 210070.11



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 SCALE: N.T.S.
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 SHEET NUMBER: R-011

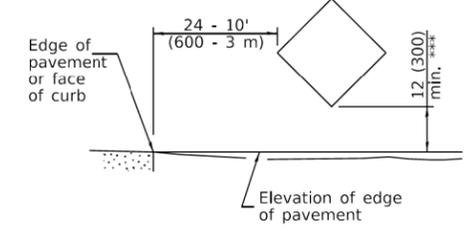
UNION PACIFIC RAILROAD
 Director Structures Design
 LOCATION & DESCRIPTION:
 MP 2.27 ROCKWELL SUBDIVISION
 OGDEN AVENUE WEST BRIDGE REPLACEMENT
 SHEET TITLE:
 IDOT HIGHWAY STANDARD DETAILS

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 5/26/2021



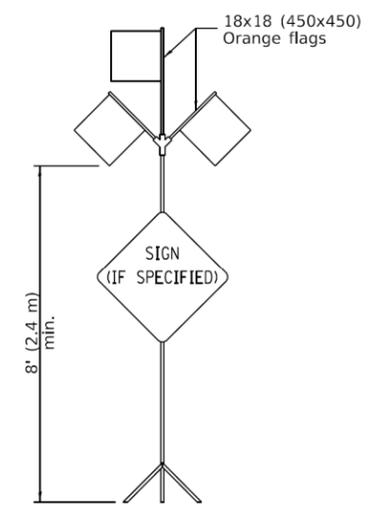
POST MOUNTED SIGNS

** When curb or paved shoulder are present this dimension shall be 24 (600) to the face of curb or 6' (1.8 m) to the outside edge of the paved shoulder.



SIGNS ON TEMPORARY SUPPORTS

*** When work operations exceed four days, this dimension shall be 5' (1.5 m) min. If located behind other devices, the height shall be sufficient to be seen completely above the devices.



HIGH LEVEL WARNING DEVICE

ROAD CONSTRUCTION NEXT X MILES G20-1104(0)-6036	END CONSTRUCTION G20-1105(0)-6024
--	--------------------------------------

This signing is required for all projects 2 miles (3200 m) or more in length.

ROAD CONSTRUCTION NEXT X MILES sign shall be placed 500' (150 m) in advance of project limits.

END CONSTRUCTION sign shall be erected at the end of the job unless another job is within 2 miles (3200 m).

Dual sign displays shall be utilized on multi-lane highways.

WORK LIMIT SIGNING

WORK ZONE W21-III5(0)-3618
SPEED LIMIT XX R2-1-3648
PHOTO ENFORCED R10-1108p-3618 ****
\$XXX FINE MINIMUM R2-1106p-3618

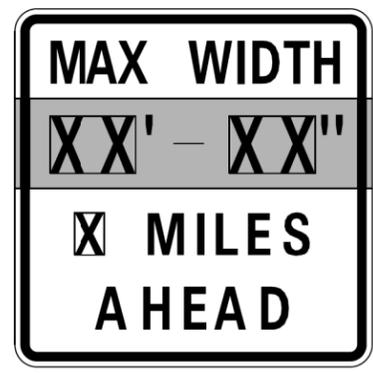
Sign assembly as shown on Standards or as allowed by District Operations.

END WORK ZONE SPEED LIMIT G20-1103-6036
--

This sign shall be used when the above sign assembly is used.

HIGHWAY CONSTRUCTION SPEED ZONE SIGNS

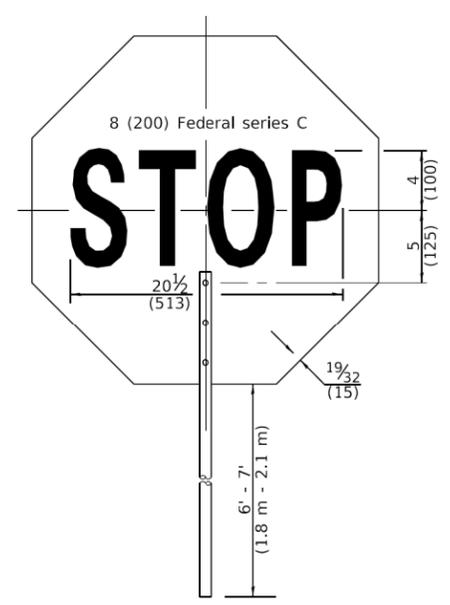
**** R10-1108p shall only be used along roadways under the jurisdiction of the State.



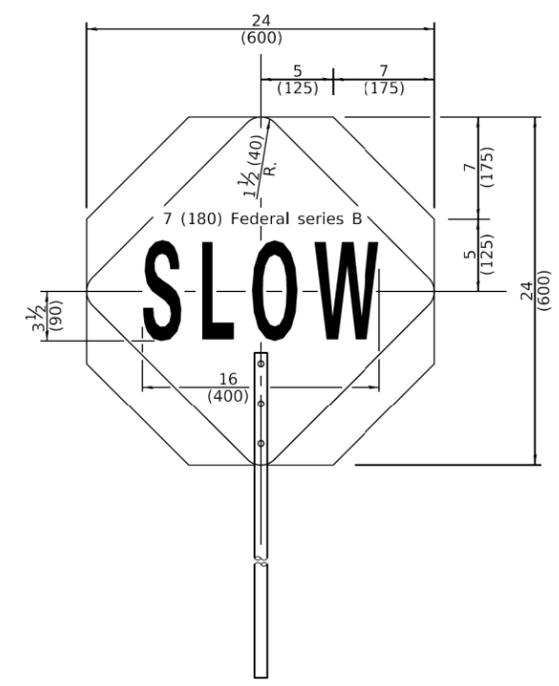
W12-1103-4848

WIDTH RESTRICTION SIGN

XX'-XX" width and X miles are variable.



FRONT SIDE



REVERSE SIDE

FLAGGER TRAFFIC CONTROL SIGN

Illinois Department of Transportation	
APPROVED January 1, 2019 <i>[Signature]</i> ENGINEER OF SAFETY PROG. AND ENGINEERING	ISSUED 1-1-13
APPROVED January 1, 2019 <i>[Signature]</i> ENGINEER OF DESIGN AND ENVIRONMENT	

TRAFFIC CONTROL DEVICES

(Sheet 2 of 3)

STANDARD 701901-08

WARNING !
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CALL BEFORE YOU DIG
1-800-336-9193

ISSUED FOR CONSTRUCTION

REVISION	BY	DATE	DESCRIPTION

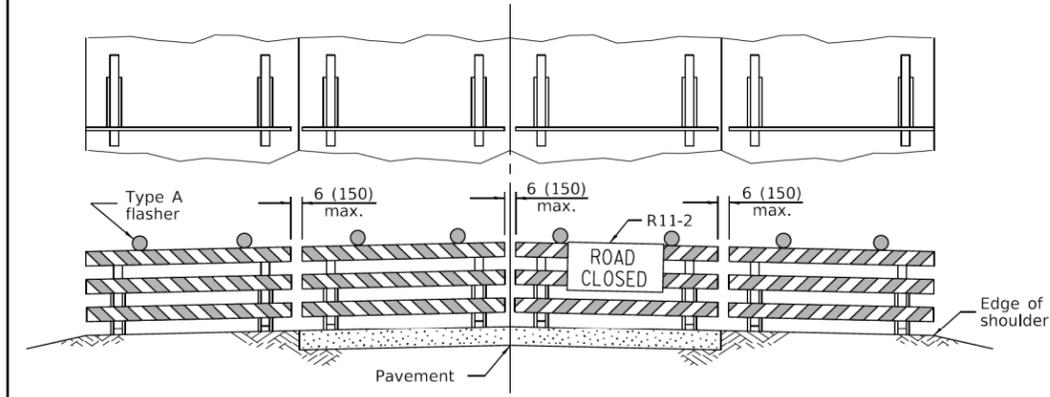
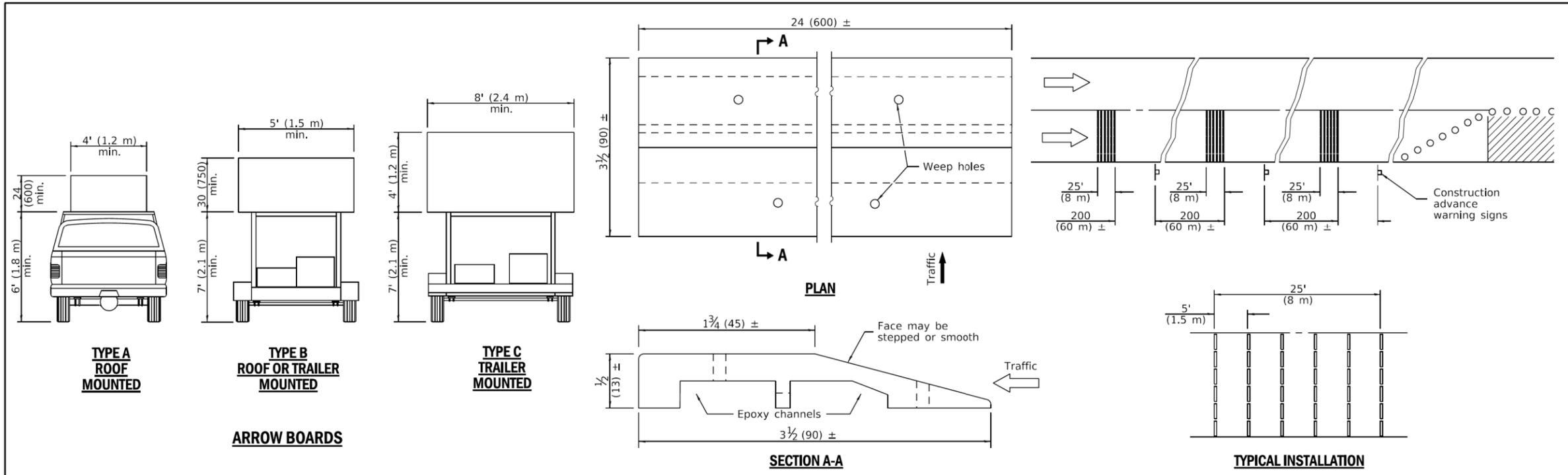
benesch
Alfred Benesch & Company
35 W. Wacker Drive Suite 3300
Chicago, Illinois 60601
312-565-0450 Job No. 210070.11



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SCALE: N.T.S	SHEET NUMBER: R-013

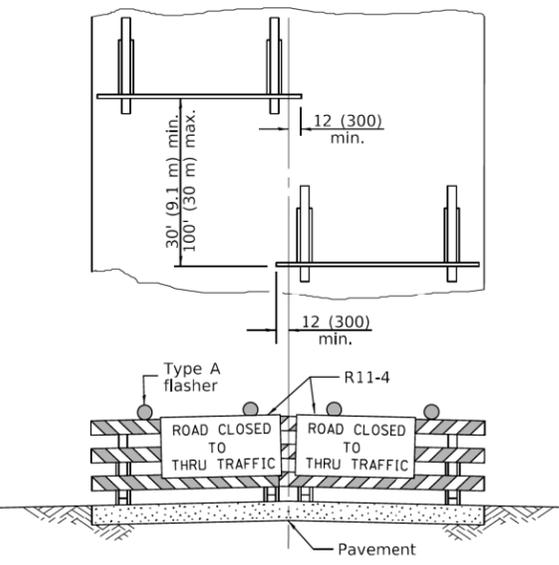
UNION PACIFIC RAILROAD	Director Structures Design
LOCATION & DESCRIPTION: MP 2.27 ROCKWELL SUBDIVISION OGDEN AVENUE WEST BRIDGE REPLACEMENT	
SHEET TITLE: IDOT HIGHWAY STANDARD DETAILS	

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 5/26/2021



ROAD CLOSED TO ALL TRAFFIC

ReflectORIZED striping may be omitted on the back side of the barricades. If a Type III barricade with an attached sign panel which meets NCHRP 350 is not available, the sign may be mounted on an NCHRP 350 temporary sign support directly in front of the barricade.



ROAD CLOSED TO THRU TRAFFIC

ReflectORIZED striping shall appear on both sides of the barricades. If a Type III barricade with an attached sign panel which meets NCHRP 350 is not available, the signs may be mounted on NCHRP 350 temporary sign supports directly in front of the barricade.

TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD

TRAFFIC CONTROL DEVICES

(Sheet 3 of 3)

STANDARD 701901-08

Illinois Department of Transportation

APPROVED: January 1, 2019
 ENGINEER OF SAFETY PROG. AND ENGINEERING

APPROVED: January 1, 2019
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED: 1-1-13

WARNING !
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ISSUED FOR
 CONSTRUCTION

REVISION	BY	DATE	DESCRIPTION

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 Chicago, Illinois 60601
 312-565-0450 Job No. 210070.11



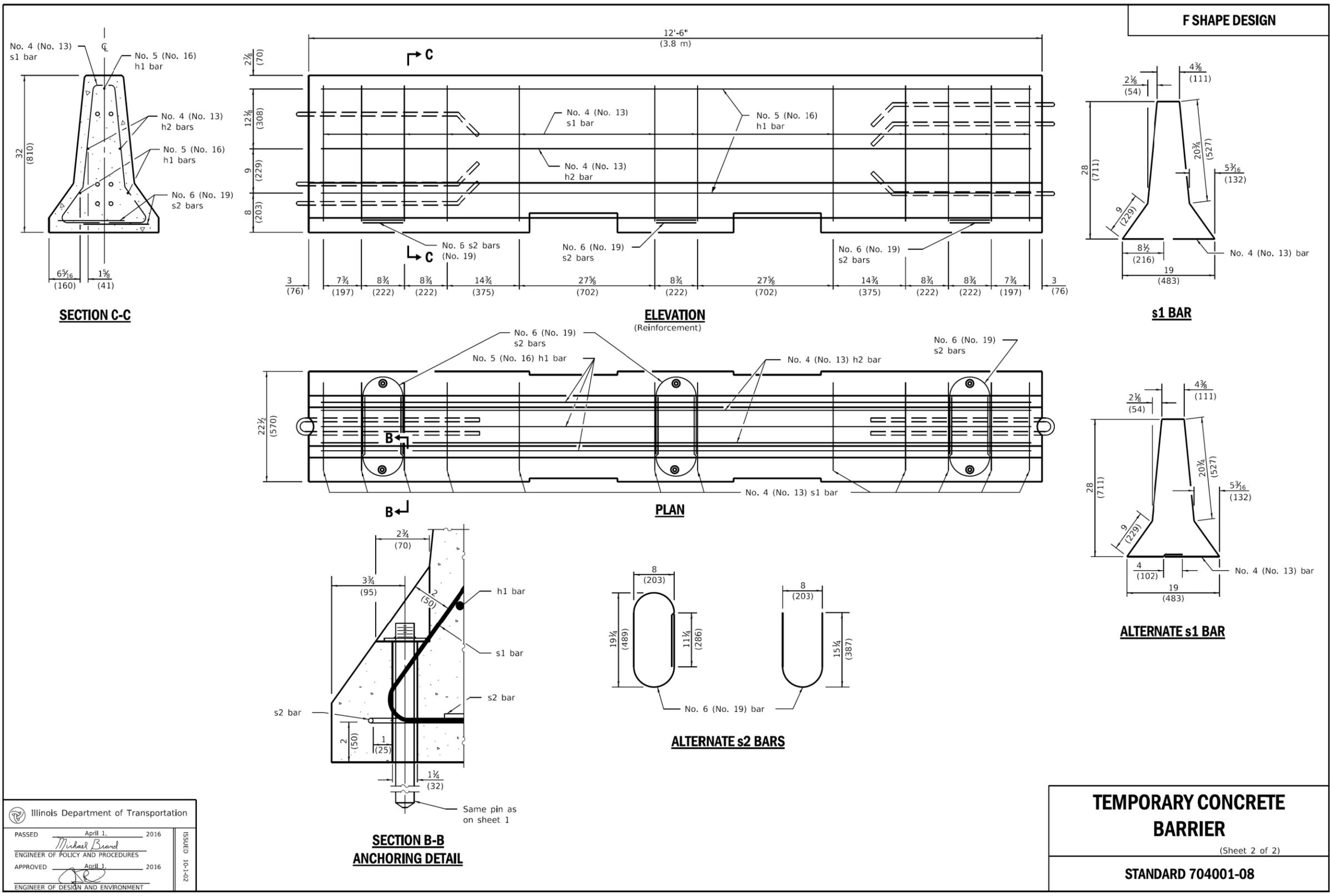
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SCALE: N.T.S	SHEET NUMBER R-014

UNION PACIFIC RAILROAD Director Structures Design

LOCATION & DESCRIPTION:
 MP 2.27 ROCKWELL SUBDIVISION
 OGDEN AVENUE WEST BRIDGE REPLACEMENT

SHEET TITLE:
 IDOT HIGHWAY STANDARD DETAILS

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 Date: 5/26/2016



Illinois Department of Transportation
 PASSED April 1, 2016
 Michael Brand
 ENGINEER OF POLICY AND PROCEDURES
 APPROVED April 1, 2016
 ENGINEER OF DESIGN AND ENVIRONMENT

WARNING !
FIBER OPTIC CABLE
ON RAILROAD R-O-W
 CALL BEFORE YOU DIG
 1-800-336-9193

ISSUED FOR
CONSTRUCTION

REVISION	BY	DATE	DESCRIPTION

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 35 W. Wacker Drive Suite 3300
 Chicago, Illinois 60601
 312-565-0450 Job No. 210070.11



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 CHECKED BY: TK
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 SCALE: N.T.S.
 WORK ORDER: 31876
 PID:
 BUDGET REF:
 SHEET NUMBER: R-017

UNION PACIFIC RAILROAD
 Director Structures Design
 LOCATION & DESCRIPTION:
 MP 2.27 ROCKWELL SUBDIVISION
 OGDEN AVENUE WEST BRIDGE REPLACEMENT
 SHEET TITLE:
 IDOT HIGHWAY STANDARD DETAILS

GENERAL UTILITY NOTES :

COMED :
 USE EXTREME CAUTION NEAR ComEd FACILITIES. HAND DIG WHILE CROSSING 69/138/345 kv TRANSMISSION LINE. ComEd TRANSMISSION SHALL BE NOTIFIED 2 BUSINESS DAYS PRIOR TO THE START OF THE WORK. TO SCHEDULE AN ON SITE INSPECTOR DURING CONSTRUCTION, CONTACT LESLIE PASCHAL AT (630) 437-4767.

NO DIRECTIONAL BORING WITHIN 5 FEET OF COMED CONDUITS. CITY CONTRACTORS ARE REQUESTED TO TAKE EXTRA PRECAUTIONS WHEN WORKING NEAR COMED OVERHEAD WIRES. THESE WIRES ARE NOT INSULATED. COMED REQUESTS THAT THE CITY DIRECTIONAL BORE CONTRACTORS PROTECT ALL EXISTING COMED MANHOLES & CONDUITS WHEN CROSSING, ADJACENT TO OR IN THE NEAR VICINITY, BY DIGGING TEST HOLES TO ASSURE COMED FACILITIES ARE NOT DAMAGED, DURING THE DIRECTIONAL BORE PROCESS, & HAND DIG WITHIN 5 FT OR CROSSING FACILITIES. IF NEEDED CONTACT MICHELLE HO, 331-481-9108 WITH A 6-WEEK NOTICE.

CHICAGO DEPARTMENT OF WATER MANAGEMENT :
 WATER MAINS AND SERVICES:

THE MINIMUM VERTICAL CLEARANCE (EDGE-TO-EDGE) FROM WATER MAINS AND SERVICES IS 18- INCHES. FOR GRID MAINS (WATER MAINS LESS THAN 16- INCHES) AND WATER STRUCTURES (VALVE BASINS, SERVICE CONTROL VALVES, ETC.) THE MINIMUM HORIZONTAL CLEARANCE (EDGE-TO-EDGE) IS THREE (3) FEET. FOR FEEDER MAINS (WATER MAINS 16- INCHES AND LARGER), THE MINIMUM HORIZONTAL CLEARANCE (EDGE-TO-EDGE) IS FIVE (5) FEET. ALL LIGHT POLE FOUNDATIONS MUST MAINTAIN A MINIMUM OF FIVE (5) FEET HORIZONTAL CLEARANCE (EDGE-TO-EDGE) TO ALL EXISTING WATER FACILITIES.

DIRECTIONAL DRILLING IS APPROVED TO A MAXIMUM DEPTH OF 33- INCHES. ALL SERVICE CONTROL VALVE AND METER VAULT LOCATIONS MUST BE VERIFIED PRIOR TO CONSTRUCTION AND 3- FEET OF HORIZONTAL SEPARATION MUST BE MAINTAINED. SHOULD FIELD CONDITIONS REQUIRE ADDITIONAL ENGINEERING SERVICES OR RELOCATION, THEN CDOT SHALL SUBMIT FUNDING AND/OR RFI FOR DWM APPROVAL PRIOR TO INSTALLATION.

FIRE HYDRANTS :

IN NO CASE SHALL THE INSTALLATION OF ANY PROPOSED FACILITY BE CLOSER THAN FIVE (5) FEET FROM A FIRE HYDRANT OR FIRE HYDRANT LEAD. EXTREME CAUTION IS TO BE TAKEN TO ENSURE THAT NO FACILITY OWNED AND MAINTAINED BY THIS DEPARTMENT (DWM) IS DAMAGED DURING CONSTRUCTION. IF DAMAGE OCCURS TO ANY FACILITIES, THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE COST OF REPAIRING OR REPLACING THE FACILITIES.

DEPARTMENT OF WATER MANAGEMENT (DWM) SEWER REQUIREMENTS FOR EXISTING FACILITIES PROTECTION, AUGUST 2016.

FOR ALL GENERAL CLEARANCE REQUIREMENTS (NON-WATER): UPON PROJECT COMPLETION, RESIDENT ENGINEERS MUST CONTACT THE DWM SEWER EVALUATION SECTION AT 312-747-4680 TO SCHEDULE A FIELD MEETING FOR PROJECT ACCEPTANCE. DWM REQUIRES A MINIMUM HORIZONTAL CLEARANCE OF 1D (INNER DIAMETER OF THE SEWER) + 4' CENTER-TO-CENTER OR 4 FEET EDGE-TO-EDGE, WHICHEVER IS LARGER, AND A MINIMUM VERTICAL CLEARANCE OF 18" EDGE-TO-EDGE. IF EITHER OF THESE CONDITIONS ARE NOT MET, THE SEWER MUST BE REPLACED OR LINED.

ONLY FOR PARALLEL UTILITY INSTALLATIONS IN THE PARKWAY: UPON PROJECT COMPLETION, RESIDENT ENGINEERS MUST CONTACT THE DWM SEWER EVALUATION SECTION AT 312-747-4680 TO SCHEDULE A FIELD MEETING FOR PROJECT ACCEPTANCE. PRIVATE SEWER DRAINS (W/BASEMENTS) TYPICALLY HAVE APPROXIMATELY 5 FEET OF COVER. DUE TO POTENTIAL VERTICAL CONFLICTS IN THE PARKWAY, THE CONTRACTOR MUST TELEVISION ALL PRIVATE DRAINS AFTER CONSTRUCTION. A COPY OF THE DVD MUST BE PRESENTED TO THE DWM SEWER INSPECTOR FOR PROJECT ACCEPTANCE.

THE FOLLOWING NOTE MUST BE DISPLAYED ON THE CONSTRUCTION PLANS: THE PROPOSED WORK ENCROACHES UPON MINIMUM CITY SEWER CLEARANCE REQUIREMENTS. EXTREME CAUTION IS REQUIRED DURING CONSTRUCTION. THE CITY SEWER MUST BE TELEVISIONED BEFORE AND AFTER CONSTRUCTION TO ASSESS ITS CONDITION. CONTACT THE DWM SEWER EVALUATION SECTION TWO BUSINESS DAYS PRIOR TO CONSTRUCTION AT (312) 747-4680 TO COORDINATE THE WORK. IF SEWER DAMAGE OCCURS, THE CONTRACTOR AND/OR OWNER WILL BE RESPONSIBLE FOR THE COST OF REPAIRING, LINING OR REPLACING THE DAMAGED FACILITIES.

PEOPLES GAS :
 PEOPLES GAS FACILITIES ARE PRESENT WITHIN CONSTRUCTION. USE EXTREME CAUTION NEAR ALL GAS FACILITIES DURING CONSTRUCTION AND RELATED EXCAVATION ACTIVITIES. HAND EXCAVATION IS REQUIRED TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF GAS MAIN(S) PRIOR TO CROSSING AND WORKING WITHIN 3' OF ALL GAS FACILITIES. A MINIMUM OF 3' HORIZONTAL EDGE-TO-EDGE CLEARANCE IS REQUIRED FOR GAS MAINS WITH DIAMETERS OF 16" OR SMALLER, & 5' EDGE-TO-EDGE CLEARANCE FOR GAS MAINS WITH DIAMETERS 18" AND LARGER. MAINTAIN A MINIMUM OF 1.5' EDGE-TO-EDGE VERTICAL CLEARANCE ON GAS MAINS 16" OR LESS IN DIAMETER, AND 2' EDGE-TO-EDGE VERTICAL CLEARANCE ON 18" AND LARGER DIAMETER GAS MAINS. CONTACT DIGGER 312-744-7000 FOR LOCATES 48 HOURS PRIOR TO START OF CONSTRUCTION.

THE USE OF CONCRETE, FLOW FILL, OR THE LIKE IS PROHIBITED WITHIN 24" OF ALL GAS FACILITIES, NOR SHALL IT ENCASE ANY GAS FACILITY. A BUFFER OF 24" SAND IS TO BE USED BETWEEN FLOW FILL AND ALL GAS FACILITIES. A MINIMUM OF 6" FA-02 OR FM-02 SAND SHALL BE USED WHEN BACKFILLING OTHER MATERIALS AROUND ANY EXPOSED GAS FACILITY. CONTRACTOR EXPOSING GAS FACILITY IS RESPONSIBLE FOR PROVIDING THE SAND. ANY DAMAGES TO PEOPLES GAS FACILITIES SHALL BE THE RESPONSIBILITY OF THE INSTALLING UTILITY AND THEIR CONTRACTOR(S).

SERVICE MAY BE EFFECTED. USE EXTREME CAUTION NEAR ALL GAS FACILITIES HAND EXCAVATION IS REQUIRED TO LOCATE AND EXPOSE GAS FACILITIES PRIOR TO CROSSING AND WORKING WITHIN 3' OF ALL GAS FACILITIES. CONTACT DIGGER FOR LOCATES 48 HOURS PRIOR TO START OF CONSTRUCTION. PEOPLES GAS FACILITIES ARE PRESENT WITHIN AREA OF CONSTRUCTION. DIRECTIONAL DRILLING IS CONSIDERED A HIGH RISK EXCAVATION AS DETERMINED BY PHMSA AND NTSB; AS SUCH SPECIAL CONSIDERATIONS SHALL TAKE PLACE NEAR NATURAL GAS DISTRIBUTION LINES. USE EXTREME CAUTION NEAR ALL GAS FACILITIES DURING CONSTRUCTION AND RELATED EXCAVATION ACTIVITIES. HAND DIG OR NON-INVASIVE EXCAVATION IS REQUIRED TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF GAS FACILITIES PRIOR TO CROSSING AND WORKING WITHIN 3' OF ALL GAS FACILITIES. A MINIMUM OF 3' HORIZONTAL EDGE-TO-EDGE CLEARANCE IS REQUIRED FOR GAS MAINS WITH DIAMETERS OF 16" OR SMALLER, & 5FT EDGE-TO-EDGE CLEARANCE FOR GAS MAINS WITH DIAMETERS 18" AND LARGER. MAINTAIN A MINIMUM OF 1.5' EDGE-TO-EDGE VERTICAL CLEARANCE ON GAS MAINS 16" OR LESS IN DIAMETER, AND 2' EDGE-TO-EDGE VERTICAL CLEARANCE ON 18" AND LARGER DIAMETER GAS MAINS. CONTRACTOR MUST OBSERVE BORE HEAD WHILE CROSSING GAS FACILITIES AND VERIFY THAT MINIMUM VERTICAL CLEARANCE IS OBTAINED. LOCATIONS OF EXISTING GAS FACILITIES MUST BE VERIFIED AT SUFFICIENT INTERVALS, OR A MAX OF DISTANCE OF 50', WHEN PARALLELING TO ENSURE SEPARATION IS MAINTAINED. CONTACT SYSTEM INTEGRITY OPERATIONS SUPERVISOR, A MINIMUM OF 5 BUSINESS DAYS PRIOR TO EXCAVATION TO SET UP ON-SITE INSPECTION. CONTACT DIGGER 312-744-7000 FOR LOCATES 48 HOURS PRIOR TO START OF CONSTRUCTION AND SPECIFY EXCAVATION TYPE.

- North Shop: North of Chicago Ave/Ashland Ave /North Ave
Robert Goral, 773 647-0537
- Central Shop: South of Chicago Ave/ Ashland Ave / North Ave to
North of 87th St / Ashland Ave / Chicago River / Cermak Rd
Dave Marquez, 773-858-1825
- South Shop: South of 87th St / Ashland Ave / Chicago River / Cermak Rd
Jacob Weber, 312-806-0559

THE USE OF CONCRETE, FLOW FILL, OR THE LIKE IS PROHIBITED WITHIN 24" OF ALL GAS FACILITIES, NOR SHALL IT ENCASE ANY GAS FACILITY. A BUFFER OF 24" SAND IS TO BE USED BETWEEN FLOW FILL AND ALL GAS FACILITIES. A MINIMUM OF 6" FA-02 OR FM-02 SAND SHALL BE USED WHEN BACKFILLING OTHER MATERIALS AROUND ANY EXPOSED GAS FACILITY. CONTRACTOR EXPOSING GAS FACILITY IS RESPONSIBLE FOR PROVIDING THE SAND. ANY DAMAGES TO PEOPLES GAS FACILITIES SHALL BE THE RESPONSIBILITY OF THE INSTALLING UTILITY AND THEIR CONTRACTOR(S). CALL 866-556-6002 IMMEDIATELY FOR ANY DAMAGES TO THE GAS FACILITIES. ALL GAS FACILITIES ARE TO BE MAINTAINED. THIS PROJECT WILL BE PLACED ON PEOPLES GAS WATCH & PROTECT.

BUREAU OF FORESTRY :
 TREE PROTECTION MEASURES:
 AT A MINIMUM, NEED TO INCLUDE ORANGE SNOW FENCE TO BE INSTALLED ALONG BACK OF THE CURB-LINE, 10 FEET FROM THE BACK OF THE CURB-LINE AND AT A DISTANCE OF 5 FEET FROM EITHER SIDE OF THE TREE. IF TRIMMING IS REQUIRED FOR LINE INSTALLATION, IT WILL BE DONE BY AN INSURED TREE SERVICE COMPANY. TRIMMING WILL BE DONE IN ACCORDANCE TO AMERICAN NATIONAL STANDARDS INSTITUTE GUIDELINES, LEAVING THE FORM AND STRUCTURE OF THE TREES INTACT.

TUNNELING SPECIFICATIONS (EACH SIDE OF TREE)

TREE SIZE*	TUNNEL/TRENCH DISTANCE
< 10"	5 FEET
10" TO 19"	10 FEET
> 19"	15 FEET

* DBH = DIAMETER AT BREAST HEIGHT (4.5')

- STAY OUT OF THE DRIP LINE
- STOP TRENCHING WHEN ROOTS OF (2) INCHES OR LARGER ARE ENCOUNTERED.

CTA BUS ROUTES :
 PLEASE NOTIFY CTA AT LEAST (2) TWO WEEKS PRIOR TO ANY SIDEWALK, LANE, OR STREET CLOSURES, OR THE REMOVAL OF ANY BUS STOP SIGNS SO THAT CTA CAN FACILITATE ANY NECESSARY DETOURS OR BUS STOP RELOCATIONS.

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 5/26/2021

WARNING !
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 1-800-336-9193

ISSUED FOR
CONSTRUCTION

REVISION	BY	DATE	DESCRIPTION



Alfred Benesch & Company
 35 W. Wacker Drive Suite 3300
 Chicago, Illinois 60601
 312-565-0450 Job No. 210070.11



DRAWN BY: RS	WORK ORDER: 31876
CHECKED BY: GT	PID:
DATE: 05/28/21	BUDGET REF:
SCALE: N.T.S.	SHEET NUMBER L-001

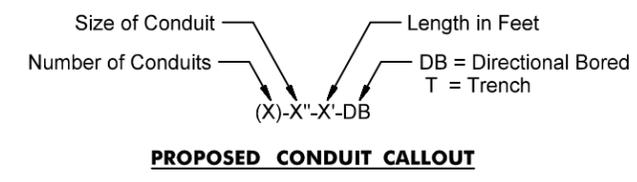
UNION PACIFIC RAILROAD	Director Structures Design
	LOCATION & DESCRIPTION: MP 2.27 ROCKWELL SUBDIVISION OGDEN AVENUE WEST BRIDGE REPLACEMENT
	SHEET TITLE: LIGHTING GENERAL NOTES

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 5/26/2021



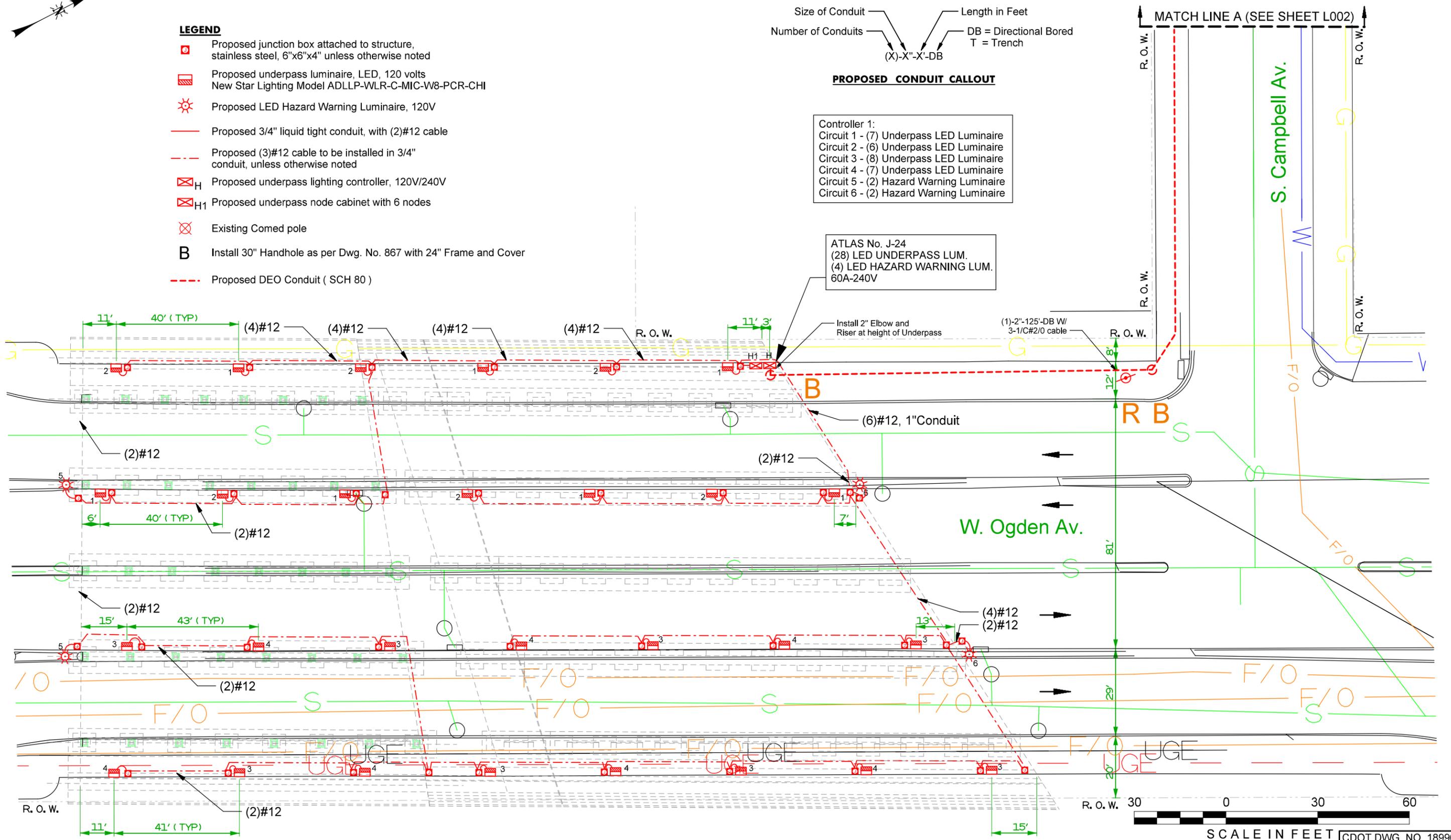
LEGEND

-  Proposed junction box attached to structure, stainless steel, 6"x6"x4" unless otherwise noted
-  Proposed underpass luminaire, LED, 120 volts New Star Lighting Model ADLLP-WLR-C-MIC-W8-PCR-CHI
-  Proposed LED Hazard Warning Luminaire, 120V
-  Proposed 3/4" liquid tight conduit, with (2)#12 cable
-  Proposed (3)#12 cable to be installed in 3/4" conduit, unless otherwise noted
-  Proposed underpass lighting controller, 120V/240V
-  Proposed underpass node cabinet with 6 nodes
-  Existing Comed pole
-  Install 30" Handhole as per Dwg. No. 867 with 24" Frame and Cover
-  Proposed DEO Conduit (SCH 80)



- Controller 1:
 Circuit 1 - (7) Underpass LED Luminaire
 Circuit 2 - (6) Underpass LED Luminaire
 Circuit 3 - (8) Underpass LED Luminaire
 Circuit 4 - (7) Underpass LED Luminaire
 Circuit 5 - (2) Hazard Warning Luminaire
 Circuit 6 - (2) Hazard Warning Luminaire

ATLAS No. J-24
 (28) LED UNDERPASS LUM.
 (4) LED HAZARD WARNING LUM.
 60A-240V



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REVISION	BY	DATE	DESCRIPTION



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 Chicago, Illinois 60601
 312-565-0450 Job No. 210070.11



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DATE: 05/28/21	BUDGET REF:
SCALE: 1"=30'	SHEET NUMBER L-002

UNION PACIFIC RAILROAD Director Structures Design

LOCATION & DESCRIPTION:
 MP 2.27 ROCKWELL SUBDIVISION
 OGDEN AVENUE WEST BRIDGE REPLACEMENT

SHEET TITLE:
 PROPOSED UNDERDECK LIGHTING PLAN

CDOT DWG. NO. 18996



LEGEND

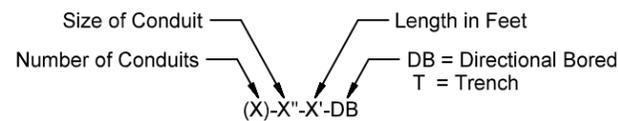
- Proposed junction box attached to structure, stainless steel, 6"x6"x4" unless otherwise noted
- Proposed underpass luminaire, LED, 120 volts New Star Lighting Model ADLLP-WLR-C-MIC-W8-PCR-CHI
- Proposed LED Hazard Warning Luminaire, 120V
- Proposed 3/4" liquid tight conduit, with (2)#12 cable
- Proposed (3)#12 cable to be installed in 3/4" conduit, unless otherwise noted
- Proposed underpass lighting controller, 120V/240V
- Proposed underpass node cabinet with 6 nodes
- Existing Comed pole
- B** Install 30" Handhole as per Dwg. No. 867 with 24" Frame and Cover
- Proposed DEO Conduit (SCH 80)
- R** Remove Embedded pole

Electrical Notes:

1. All electrical work shall conform with all national, state, and local codes.
2. No luminaires, conduit, junction boxes, or any appurtanances shall be mounted to the bridge superstructure without prior approval from Union Pacific Railroad.
3. Contractor shall field verify exact locations, quantities, and type of utilities in the area prior to commencement of any work.
4. Coordinate all electrical installation work with civil, structural drawings, construction phases schedule and City of Chicago Department of Transportation, Division Electrical Operations.
5. Coordinate installation and connection of new electrical service and underpass lighting controller with ComEd and City of Chicago Department of Transportation, Division Electrical Operations. The Underpass Controller and Cabinet shall be grounded with #8 wire on 1/2" GRS conduit.
6. See electrical detail drawings for typical standard underpass lighting details and underpass lighting controller.
7. Luminaires shall be mounted by expansion anchors to the face of the pier cap as high as possible. All conduits to be fastened securely at 5' intervals with beam clamps.
8. Luminaires mounted over roadway to be pivoted at an angle of 45 deg from vertical and luminaires mounted over sidewalk to be pivoted at an angle of 35 deg from vertical.
9. Refer to civil plans for pavement removal / replacement quantities.

Electrical Demolition Notes:

1. Removal and maintenance of underdeck lighting shall be incidental to the pay item "Electric Underdeck Lighting".
2. Temporary lighting design shall be submitted and approved to the engineer prior to construction. The approved design shall then be installed prior to stage construction.
3. The lighting on the east side of the bridge is not part of the scope and thus the lighting not shown in the proposed plans shall be retained. Contractor shall field verify the removal of associated conduits and cables thus to retain the east side lighting.

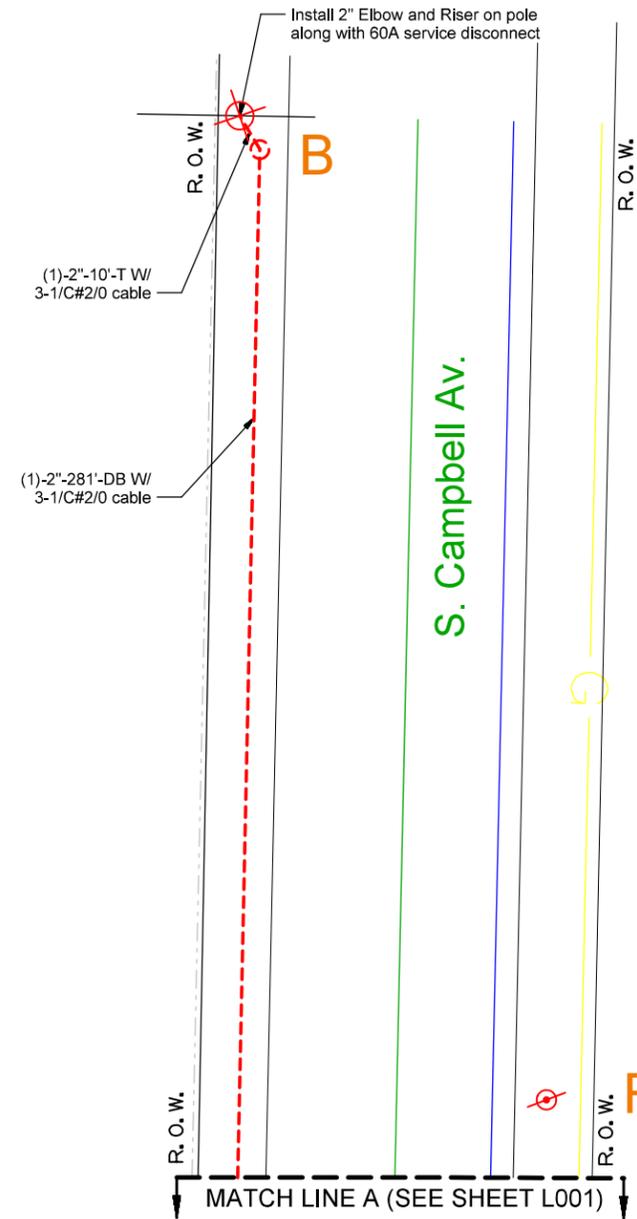


PROPOSED CONDUIT CALLOUT

BILL OF MATERIALS

Items listed below are included with the Pay Item "Electric Underdeck Lighting".

Description	Unit	Quantity
Electric Cable In Conduit, 1/C No. 2/0	Lin Ft	1383'
Flexible Liquid-Tight Conduit, 3/4"	Lin Ft	150'
Internal Control Node	Each	6
Underpass Luminaire, LED, 120 Volts	Each	28
LED Hazard Warning Lum., 120 Volts	Each	2
Underpass Lighting Controller	Each	1
Underpass Lighting Node Cabinet	Each	1
Handhole 30" x 36" W/ 24" Frame and cover	Each	3
Remove Existing Lighting System	L Sum	1
Temporary Lighting System	L Sum	1
Duct / DRBR, 2", SCH 80	Lin Ft	406'
PVC Conduit in Trench, 2", SCH 80	Lin Ft	10'
Service Disconnect Cabinet	Each	1
Elbow and Riser, 2"	Each	2
Attached conduit, 3/4". galvanized rigid steel	Lin Ft	1300'
Attached conduit, 1". galvanized rigid steel	Lin Ft	50'
Cable in conduit, 1C#12	Lin Ft	3500'
Junction Box, 6"x4"x4"	Each	35'
Remove Embedded poles	Each	2



CDOT DWG. NO. 18996

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 5/26/2021

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REVISION	BY	DATE	DESCRIPTION

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 Chicago, Illinois 60601
 312-565-0450 Job No. 210070.11



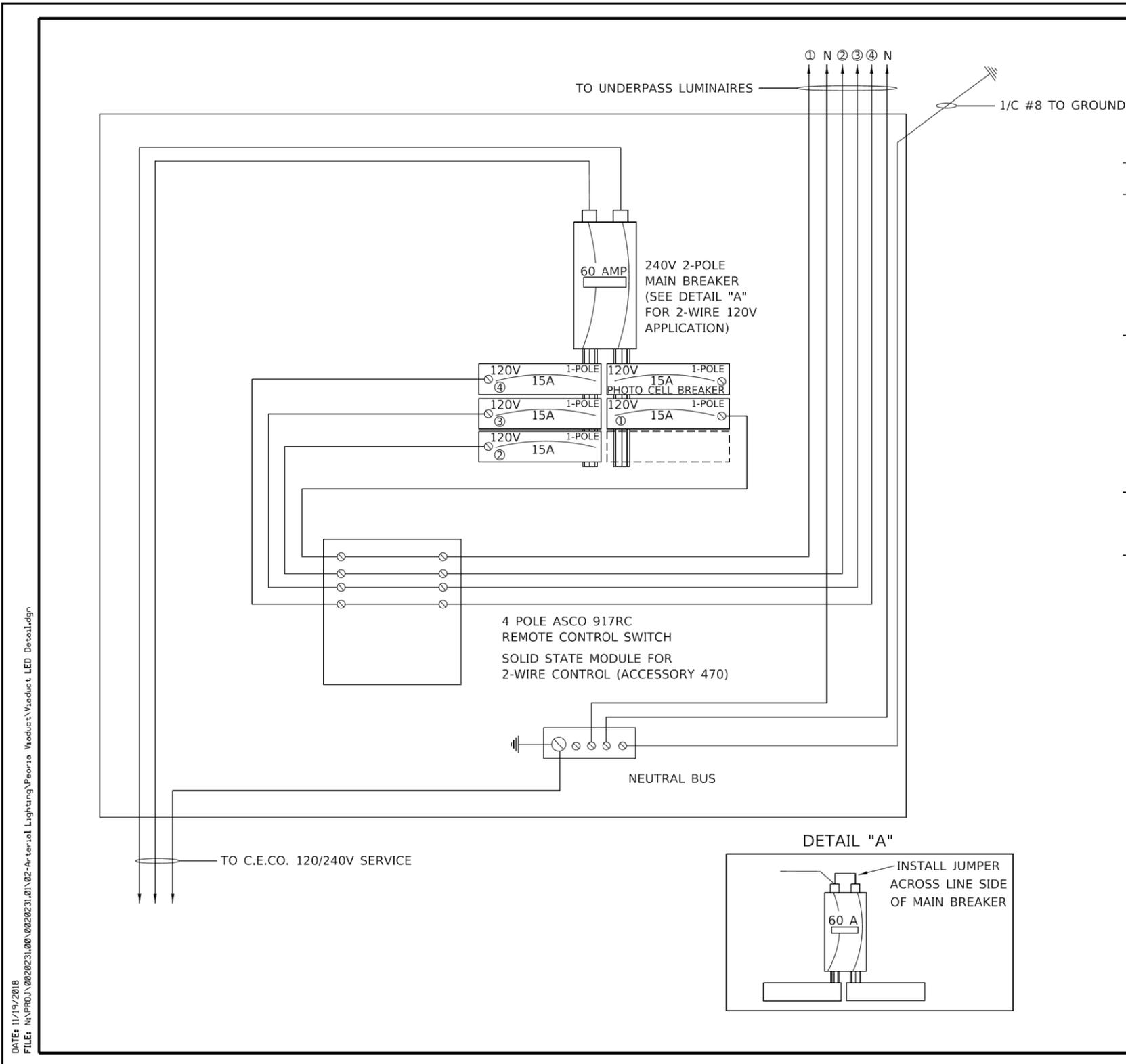
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SCALE: 1"=30'	SHEET NUMBER L-003

UNION PACIFIC RAILROAD Director Structures Design

LOCATION & DESCRIPTION:
 MP 2.27 ROCKWELL SUBDIVISION
 OGDEN AVENUE WEST BRIDGE REPLACEMENT

SHEET TITLE:
 PROPOSED UNDERDECK LGHTING PLAN

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- FOR 2-WIRE 120V APPLICATION, SEE DETAIL "A".
- SERVICE CABINET TO BE TYPE 304 STAINLESS STEEL NEMA 4X ENCLOSURE; 20"X16"X6"; WITH REMOVABLE, PAINTED STEEL BACK PANEL, PIANO HINGE AND TWO OIL-TIGHT QUARTER TURN LATCHES (TOP & BOTTOM) WITH PADLOCKING HASP IN CENTER. CABINER SHALL BE EQUAL TO HENNESSY PRODUCTS "SPECLINE" OR MORRIS KURTZON "LCP-20166".
- LOAD CENTER SHALL PROVIDE 2P-60AMP MAIN BREAKER AND (8) CIRCUITS SUITABLE FOR WESTINGHOUSE TYPE B.A. BRANCH BREAKERS. LOAD CENTER SHALL PROVIDE FIVE (5) 15 AMP BREAKERS IN PLACE. ALL REMAINING LIVE BUS SHALL BE SUITABLY PROTECTED IN A MANNER WHICH ALLOWS FUTURE INSTALLATION OF INDIVIDUAL CIRCUIT BREAKERS WITHOUT AFFECTING PROTECTION OF REMAINING BUS.
- CONTACTOR TO BE 4 POLE ASCO-917 REMOTE CONTROL SWITCH WITH OPTION 47-D (2-WIRE CONTROL)
- THE SERVICE CABINET SHALL BE COMPLETELY ASSEMBLED AND READY FOR FIELD INSTALLATION. ALL ASSEMBLY SHALL BE DONE IN A UNION SHOP WHICH HAS A MINIMUM OF TEN (10) YEARS EXPERIENCE BUILDING PANELS FOR USE IN THE CITY OF CHICAGO.

A	DATE	REVISION
SERVICE CABINET LAYOUT FOR CONSTANT POWER UNDER PASS LIGHTING CONTROLLER 120 / 240 VOLTS		
CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING - ELECTRICAL SECTION		
DRAFTSMAN/ENGINEER : M. STANGEL		DWG. NO. XXX
SUP. ENGINEER/PM : O. LETAMENDI		
PROFESSIONAL ENGINEER : J. VONDRA		
ENGINEER OF ELECTRICITY:		
DEPUTY COMMISSIONER:		
SIZE: 11'	17'	SCALE: NONE
		DATE: 11/19/2018

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ISSUED FOR
 CONSTRUCTION

REVISION	BY	DATE	DESCRIPTION

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 312-565-0450 Job No. 210070.11



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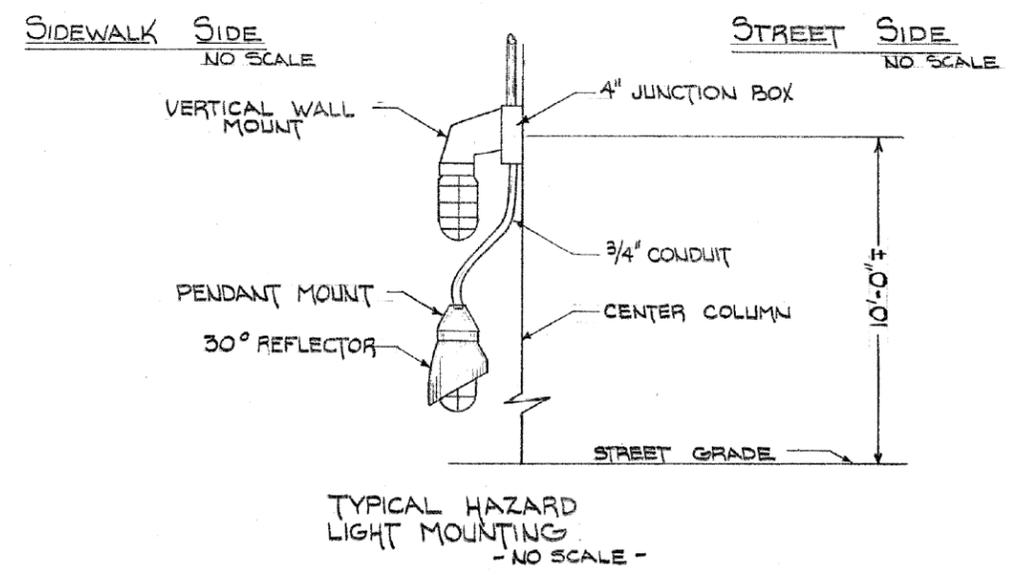
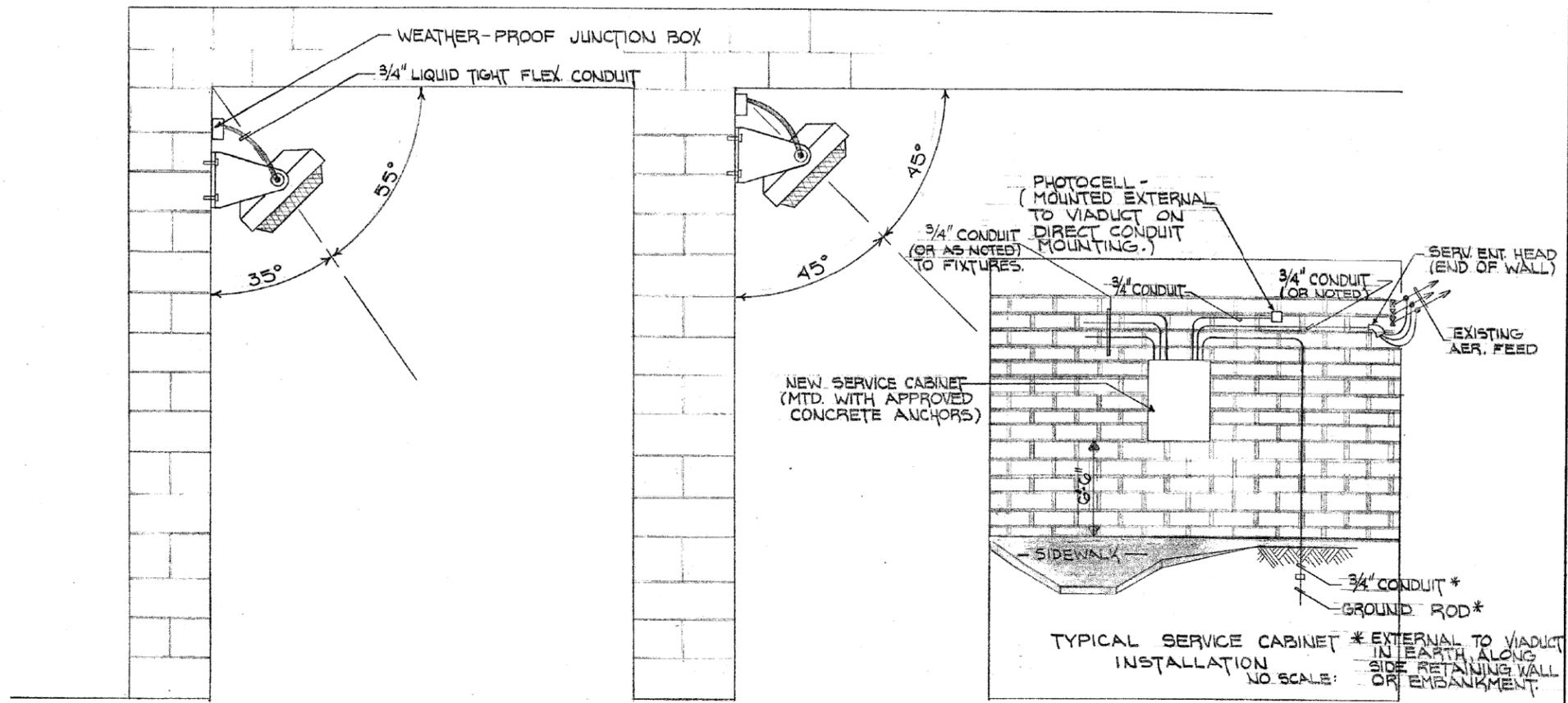
UNION PACIFIC RAILROAD

Director Structures Design

LOCATION & DESCRIPTION:
 MP 2.27 ROCKWELL SUBDIVISION
 OGDEN AVENUE WEST BRIDGE REPLACEMENT

SHEET TITLE: LIGHTING DETAILS

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 5/26/2021



DATE	REVISION

**VIADUCT LIGHTING
TYPICAL DETAILS**

CITY OF CHICAGO
 DEPT. OF STREETS AND SANITATION
 BUREAU OF ELECTRICITY
 DIVISION OF ELECTRICAL ENGINEERING

DRAFTSMAN: R. CARTER
 CHIEF DRAFTSMAN: C. RESPINO
 ENGINEER: R. Q. POOL

SUPERVISING ENGINEER: ELEC. DESIGN ENGR
 DWG. NO. 869

ENGINEER OF ELECTRICITY: A. Dabelsky
 GEN'L. SUPT. OF ELECTRICITY

DEPUTY COMMISSIONER: [Signature]

SIZE: 16" x 21" SCALE: NONE DATE: 8-1-91

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ON RAILROAD R-O-W**
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 1-800-336-9193

**ISSUED FOR
CONSTRUCTION**

REVISION	BY	DATE	DESCRIPTION

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 35 W. Wacker Drive Suite 3300
 Chicago, Illinois 60601
 312-565-0450 Job No. 210070.11



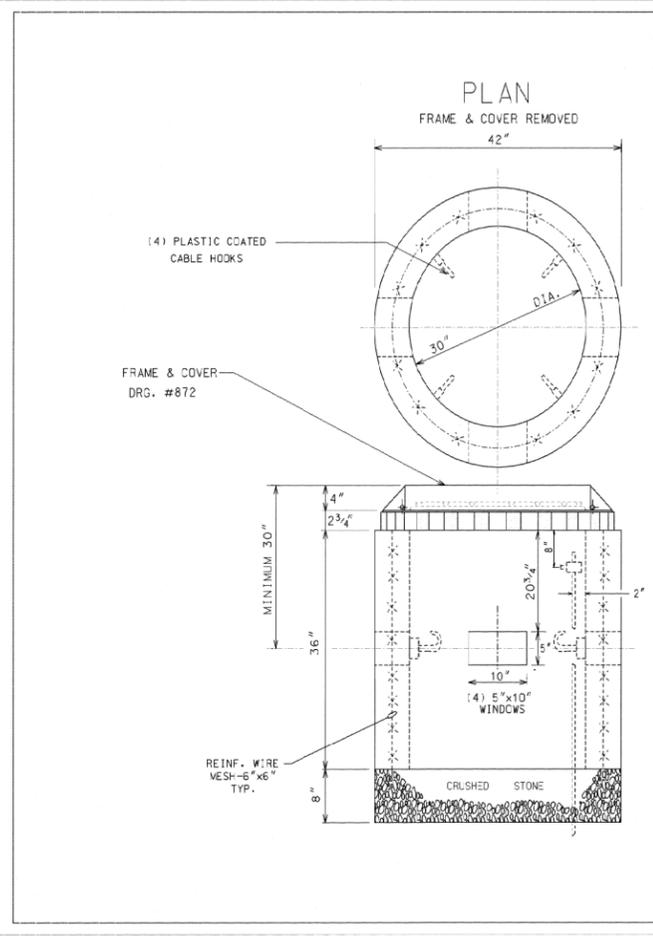
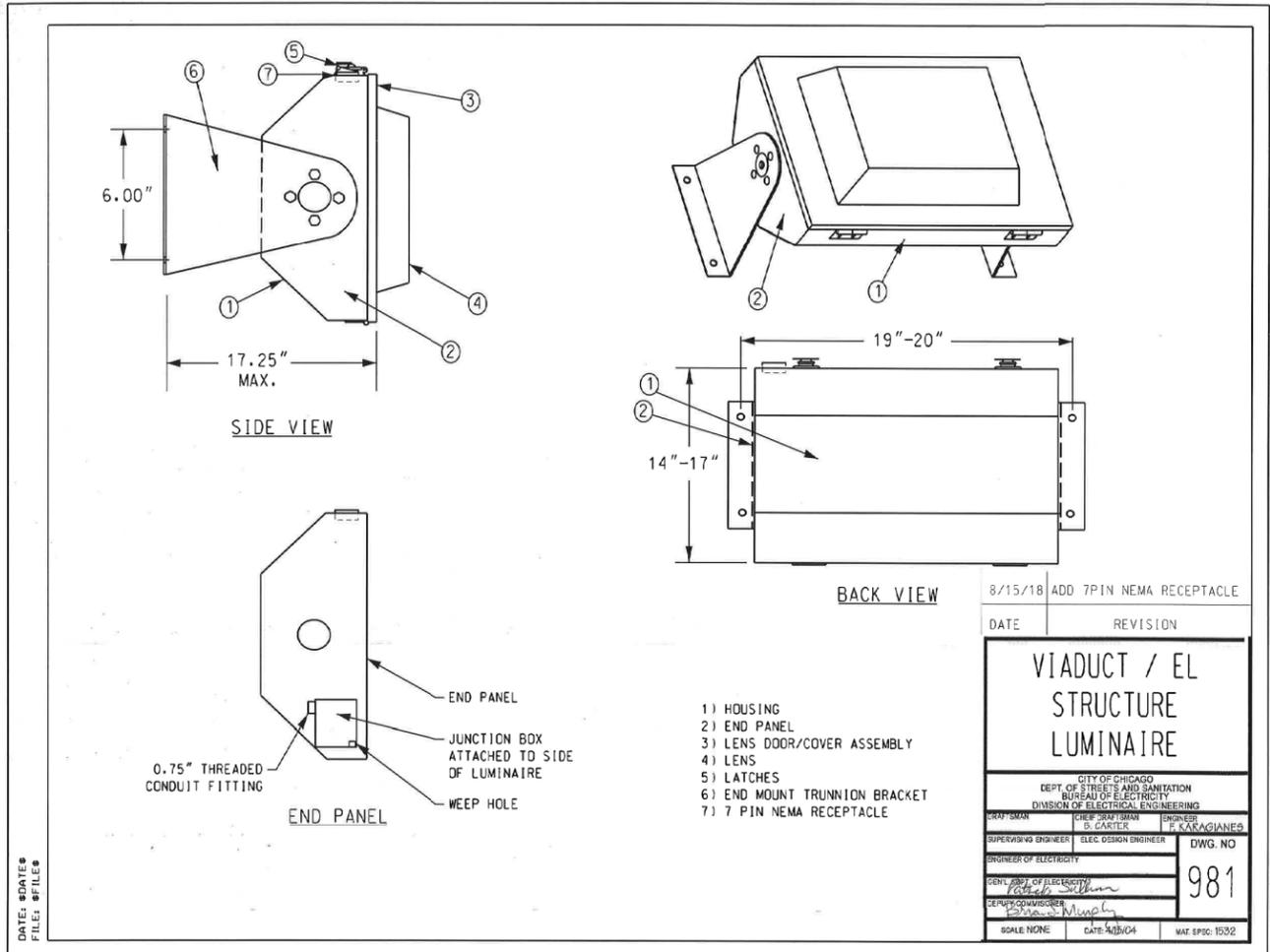
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DATE: 05/28/21	BUDGET REF:
SCALE: N.T.S.	SHEET NUMBER: L-005

UNION PACIFIC RAILROAD
 Director Structures Design

LOCATION & DESCRIPTION:
 MP 2.27 ROCKWELL SUBDIVISION
 OGDEN AVENUE WEST BRIDGE REPLACEMENT

SHEET TITLE:
 LIGHTING DETAILS

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 5/26/2021



COMPLETE COMMODITY CODE NO. 05-6610-5310M

CODE NO.	MATERIALS	SIZE	QUAN.
(1) 05-6610-5310	PRE-CAST HANDHOLE	30"X36"	1
(2) 05-9075-5470	STONE 3/4" CRUSHED	BAG	5
(2) 05-5082-5330	SOND TUBE	30"	1
(2) 05-5082-5342	SOND TUBE	42"	1
(2) 05-3267-2940	CONC. REDI-MIX	CU. YD.	1/2
(2) 57-0770-0000	6" X 6" MESH	36"X10'	1
05-1452-9720	BRICK		24
02-4299-5524	FRAME MANHOLE	24"	1
02-4574-5040	COVER, MANHOLE	24"	1
09-7796-9312	GROUND ROD	3/4"X12'	1
09-2630-3240	GROUND CLAMP		1

- (1) PRE-CAST HANDHOLE SHALL INCLUDE CABLE HOOKS AND CONDUIT KNOCKOUTS.
 (2) THESE ITEMS ARE FOR POURED-IN-PLACE HANDHOLES ONLY.

CONSTRUCTION NOTES:

- 8" BED OF STONE FOR DRAINAGE.
- ALL METALLIC CONDUITS ENTERING HANDHOLE SHALL EXTEND MINIMUM 1" & MAXIMUM 3" INSIDE INNER WALL AND BE EQUIPPED WITH AN APPROVED TYPE OF THREADED GROUNDING BUSHING.

NO.	DATE	REVISION	BY
1	05/28/21	ISSUED FOR CONSTRUCTION	GT

30" DIA. CONCRETE HANDHOLE
 CITY OF CHICAGO
 DWG. NO. 981
 SHEET NO. 867
 DATE: 12-18-95

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ISSUED FOR CONSTRUCTION

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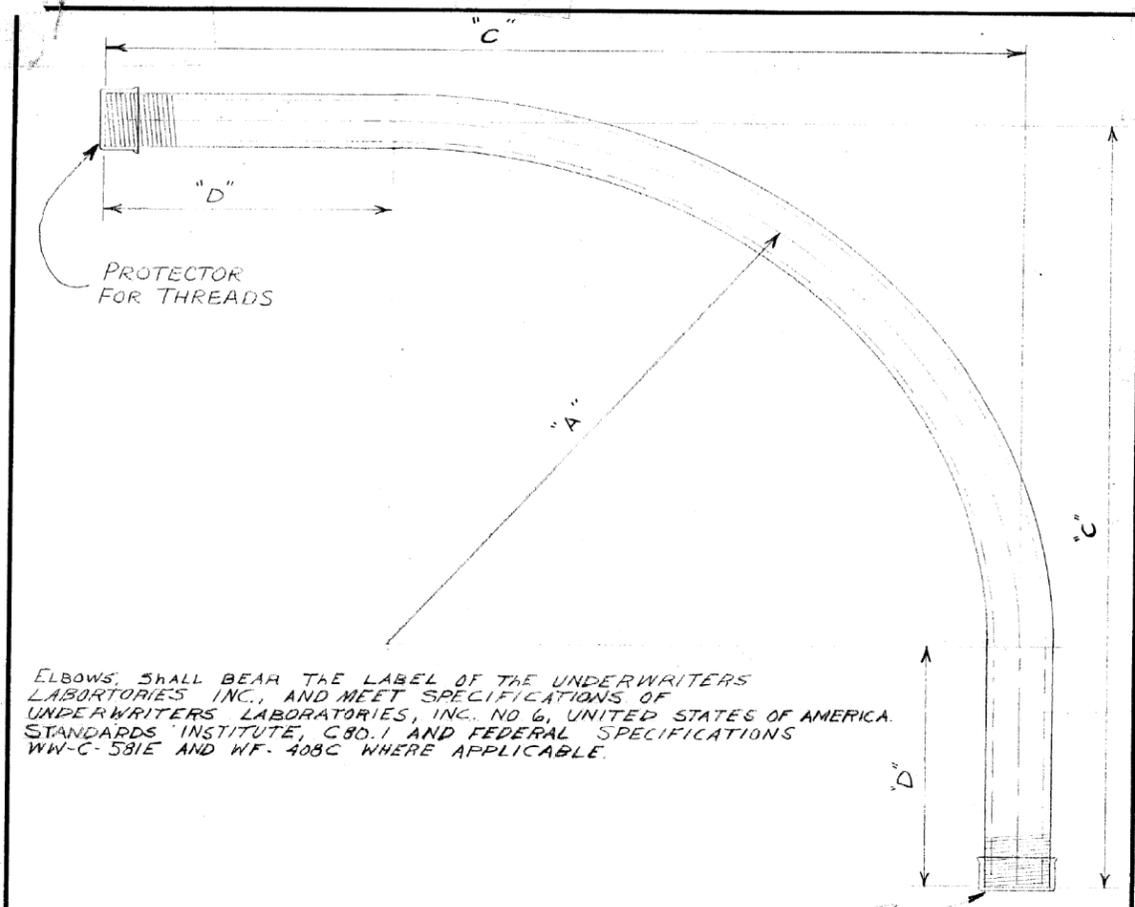
benesch
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 35 W. Wacker Drive Suite 3300
 Chicago, Illinois 60601
 312-565-0450 Job No. 210070.11



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SCALE: N.T.S.	SHEET NUMBER: L-006

UNION PACIFIC RAILROAD
 Director Structures Design
 LOCATION & DESCRIPTION:
 MP 2.27 ROCKWELL SUBDIVISION
 OGDEN AVENUE WEST BRIDGE REPLACEMENT
 SHEET TITLE:
 LIGHTING DETAILS

Color: table:UPRR.tbl
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 5/26/2021



ELBOWS SHALL BEAR THE LABEL OF THE UNDERWRITERS LABORATORIES INC., AND MEET SPECIFICATIONS OF UNDERWRITERS LABORATORIES, INC. NO 6, UNITED STATES OF AMERICA. STANDARDS INSTITUTE, C80.1 AND FEDERAL SPECIFICATIONS WW-C-581E AND WF-408C WHERE APPLICABLE.

NOTE:
 TWO THREAD PROTECTORS TO BE FURNISHED ON EACH ELBOW, PROTECTOR TO COVER A MINIMUM OF TEN THREADS.

REAM BOTH ENDS TO REMOVE BURRS

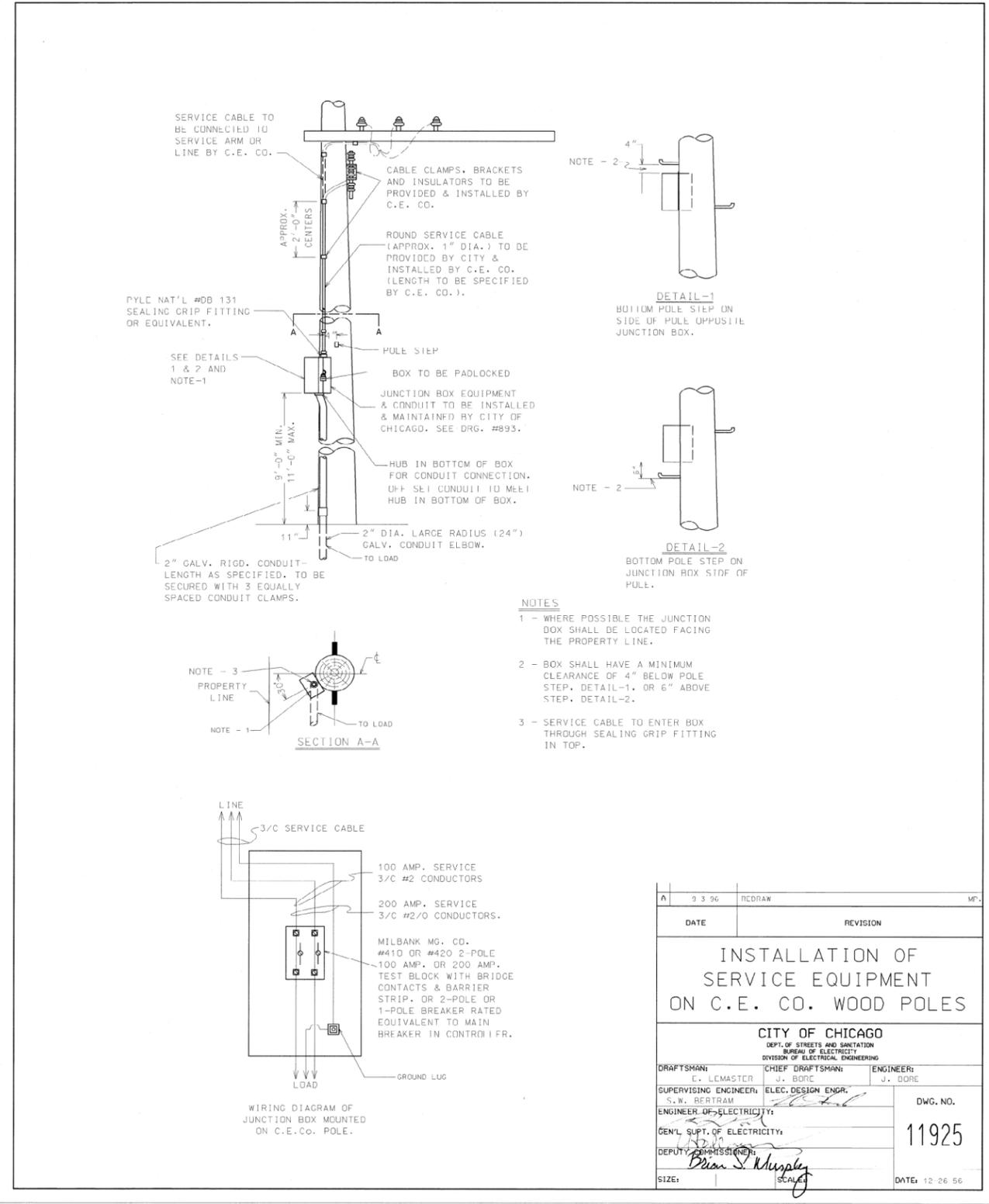
TABLE OF DIMENSIONS				
CONDUIT SIZE	DIMENSIONS			COMMODITY CODE
	"A"	"C"	"D"	
1 1/4"	24"	35"	11"	09-4001-0510
1 1/2"	24"	35"	11"	09-4001-0520
2"	24"	35"	11"	09-4001-4126
2 1/2"	24"	35"	11"	09-4001-4128
3"	24"	35"	11"	09-4001-4230
4"	24"	35"	11"	09-4001-0000

B SPECIFICATIONS REVISED
A REVISED DIMENSIONS ON 3" #4 CONDUIT, L.P.
ELBOW, CONDUIT, RIGID GALVANIZED STEEL, LARGE RADIUS

CITY OF CHICAGO
 DEPT. OF STREETS AND SANITATION
 BUREAU OF ELECTRICITY
 DIVISION OF ELECTRICAL ENGINEERING

REVISION
 A 7-22-71
 B 4-3-73
 C
 D
 E
 F
 G

DRAWN: LON BURDY
 CHECKED: M.S.
 ENGINEER: M. SHINE
 DRG. NO. 11825
 DEPUTY COMM. DATE 6-2-71
 SIZE 8 1/2" X 14" SCALE: 3/16"



DATE	REVISION

INSTALLATION OF SERVICE EQUIPMENT ON C.E. CO. WOOD POLES

CITY OF CHICAGO
 DEPT. OF STREETS AND SANITATION
 BUREAU OF ELECTRICITY
 DIVISION OF ELECTRICAL ENGINEERING

DRAFTSMAN: E. LCMACSTER
 SUPERVISING ENGINEER: S.W. BERTRAM
 ENGINEER OF ELECTRICITY: [Signature]
 GEN'L Supt. OF ELECTRICITY: [Signature]
 DEPUTY COMMISSIONER: Brian S. Murphy

CHIEF DRAFTSMAN: J. BORE
 ELEC. DESIGN ENGR.: [Signature]

ENGINEER: J. DORE

DWG. NO. 11925
 DATE: 12-26-56

WARNING!
 FIBER OPTIC CABLE ON RAILROAD R-O-W
 CALL BEFORE YOU DIG
 1-800-336-9193

ISSUED FOR CONSTRUCTION

REVISION	BY	DATE	DESCRIPTION

benesch
 Alfred Benesch & Company
 35 W. Wacker Drive Suite 3300
 Chicago, Illinois 60601
 312-565-0450 Job No. 210070.11



DRAWN BY: RS	WORK ORDER: 31876
CHECKED BY: GT	PID:
DATE: 05/28/21	BUDGET REF:
SCALE: N.T.S.	SHEET NUMBER: L-007

UNION PACIFIC RAILROAD
 Director Structures Design

LOCATION & DESCRIPTION:
 MP 2.27 ROCKWELL SUBDIVISION
 OGDEN AVENUE WEST BRIDGE REPLACEMENT

SHEET TITLE:
 LIGHTING DETAILS

TO CANAL ST. (CHICAGO)
(TIMETABLE SOUTH)

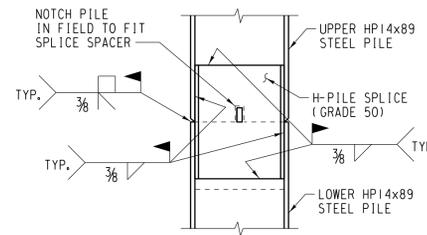
TO KEDZIE (CHICAGO)
(TIMETABLE NORTH)

TABLE OF WORKING POINTS (WP)

LOCATION	NORTHING	EASTING
BENT #1	1893628.98	1159668.79
BENT #2	1893583.23	1159702.97
BENT #3	1893537.54	1159737.11
BENT #4	1893491.79	1159771.29

- NOTES:
- PILE LAYOUT STATIONING SHOWN IS BASED ON MAIN TRACK NO. 1.
 - LOCATION OF EXISTING FOUNDATIONS ARE ASSUMED. CONTRACTOR TO VERIFY EXTENTS OF EXISTING FOUNDATIONS BEFORE ORDER OF MATERIALS.
 - SEE SHEET S15 FOR PILE BEARING PLATE DETAIL.
 - CONTRACTOR TO SUBMIT NORTHING AND EASTING FOR EACH PILE LOCATION TO UPRR FOR APPROVAL PRIOR TO PILE DRIVING.

NOTE A:
CONTRACTOR SHALL DESIGN, AND SUBMIT TO THE RAILROAD FOR APPROVAL, DETAILS OF THE TEMPORARY SHORING SYSTEM. SEE SPECIFICATIONS.
ADDITIONALLY, THE CONTRACTOR WILL NEED TO SUBMIT SHORING TO OUC FOR REVIEW AND APPROVAL, AS APPLICABLE.



- INSTALLATION INSTRUCTIONS:
- (NOTE: SPLICE IS SHOWN INSTALLED ON UPPER PILE SECTION FIRST. ALTERNATIVELY, SPLICE MAY BE INSTALLED ON BOTTOM SECTION FIRST.)
- NOTCH THE END OF H-PILE SECTION TO RECEIVE SPLICE FIRST (NOTCH TO ACCOMMODATE THE SPLICE SPACER BAR).
 - FIT SPLICE OVER NOTCHED END OF H-PILE AND FILLET WELD SPLICE END TO PILE WEB AS SHOWN.
 - PLACE THE UPPER H-PILE SECTION INTO POSITION ONTO THE LOWER SECTION.
 - COMPLETE FILLET WELD ALONG SPLICE EDGES.
 - WELD FLANGE JOINT BETWEEN UPPER AND LOWER PILE SECTIONS.

PILE SPlice DETAIL
SCALE: 1"=1'-0"

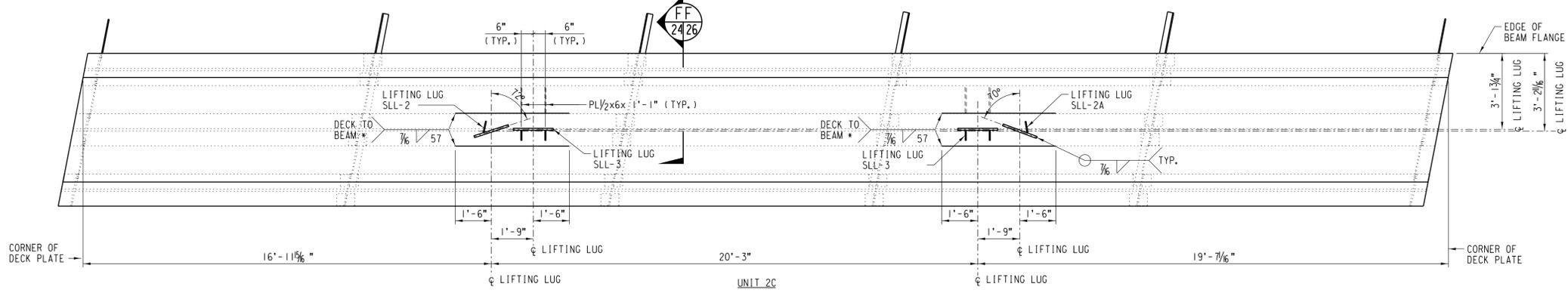
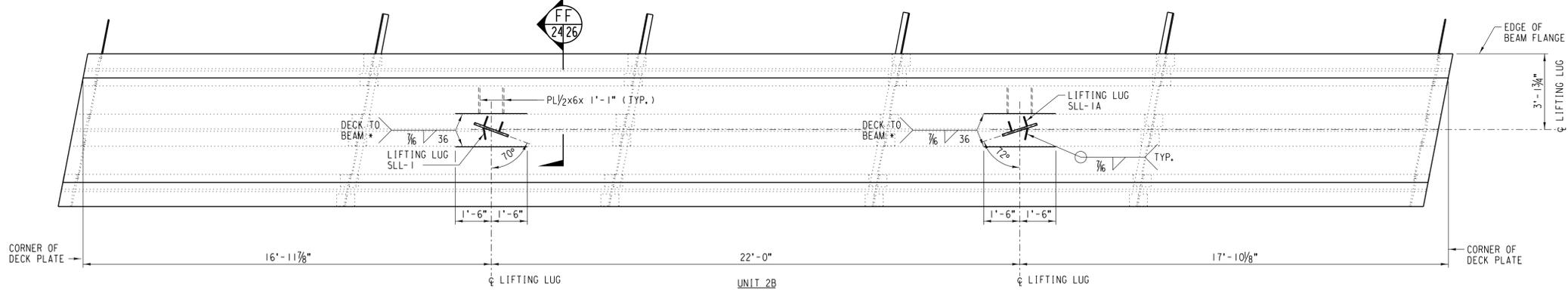
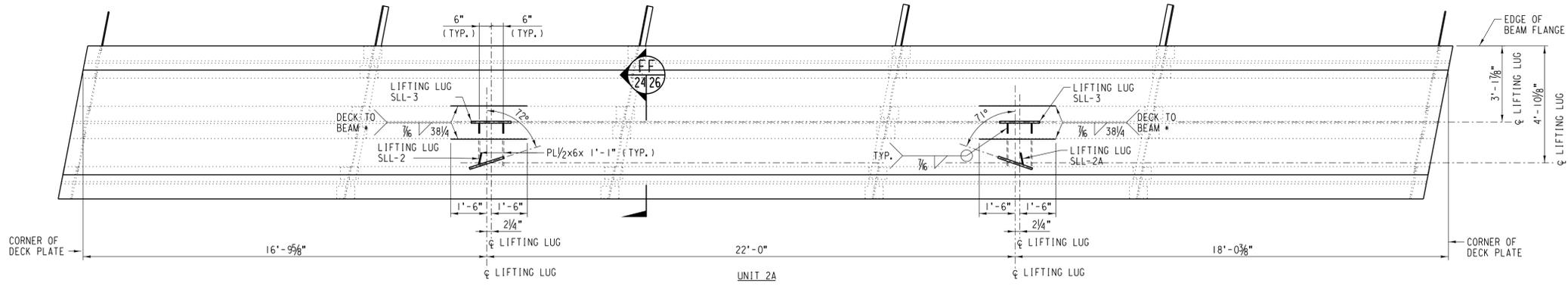
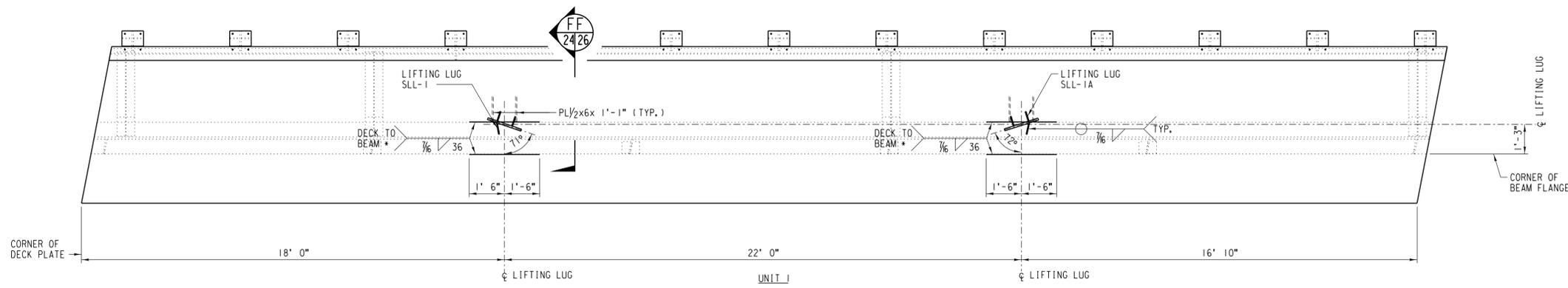
PILE LAYOUT
SCALE: 1/8"=1'-0"

NO.	DATE	REVISIONS
COMPLETION STATUS:		
FINAL		05/28/2021
STATUS		DATE
 Hanson Professional Services Inc.		
APPROVED FOR UNION PACIFIC RAILROAD BY:		
ANDREW NICOL		05/28/2021
CONSULTANT ENGINEER		DATE
PROJECT ID:	WORK ORDER:	C# NUMBER:
	31876	122537
LATITUDE: 41.86361		LONGITUDE: -87.68920

	DESIGNED BY: MRK/AAN	UNION PACIFIC RAILROAD Office of Director Structures Design
	DRAWN BY: CDP/AAN	
UPRR ENGINEER: ADS/DEH	LOCATION & DESCRIPTION: NSRR BRIDGE OVER OGDEN AVE. UPRR ROCKWELL SUBDIVISION 3 SPAN BMBD x 171' REPLACING 6 SPAN TROUGH x 141'	
SHEET NO.: S5 of S37	SHEET TITLE: PILE LAYOUT AND DETAILS	

FILE NAME: f:\work\piles\piles.dwg; PLOT DATE: 5/27/2021 12:09:37 PM

FILE NAME: s:\m\hanson\p-rail\fy-combined\sch-p-r-01\documents\142100002\10070_11\fig\refer\fig_docs\4871\figs\415_09.dgn (2:27:48) rsk\ogden_west.dgn



LIFTING LUG LAYOUT
SCALE: 3/8" = 1'-0"

* LOCALIZED DECK TO BEAM WELD IS IN LIEU OF NORMAL 7/16" FILLET WELD

NOTE:
FOR STRUCTURAL STEEL NOTES,
SEE SHEET NO. S3.

NO.	DATE	REVISIONS
COMPLETION STATUS:		
FINAL		05/28/2021
STATUS		DATE
APPROVED FOR UNION PACIFIC RAILROAD BY:		
ANDREW NICOL		05/28/2021
CONSULTANT ENGINEER		DATE
PROJECT ID:	WORK ORDER:	C/E NUMBER:
	31876	122537
LATITUDE: 41.86361		LONGITUDE: -87.68920



DESIGNED BY:
MRK/AAN
DRAWN BY:
CDP/AAN
UPRR ENGINEER:
ADS/DEH
SHEET NO.:
S24 of S37

UNION PACIFIC RAILROAD
Office of Director Structures Design
LOCATION & DESCRIPTION:
NSRR BRIDGE OVER OGDEN AVE. UPRR ROCKWELL SUBDIVISION
3 SPAN BMBD x 171'
REPLACING 6 SPAN TROUGHS x 141'
SHEET TITLE:
STEEL BEAM SPAN LIFTING LUG LAYOUT (SHEET 1 OF 2)

STEEL BEAM SPAN MATERIAL LIST - SHOP ASSEMBLY

UNIT	W40x362 BEAM (EA.)	DIAPHRAGM					BRACKET SB-1 (EA.)	I-W24x55 CURB LENGTH	I - 5/8" DECK PLATE			HANDRAIL					FENCE				LIFTING LUG					A325 BOLT						
		SPL-10 (EA.)	SD-10 (EA.)	END STIFFENER PLATE 3/4" x 7 1/2" (EA.)	CONNECTION PLATE 3/4" x 7 1/2" (EA.)	PL 3/4 x 6 x 0'-9" (EA.)			2-HSS 1,900x0.145 LENGTH	POST SHP-1 (EA.)	POST SHP-2 (EA.)	END ANGLE ASSEMBLY SEA-1 (EA.)	PL 1/2 x 8 x 1'-11 5/8" (EA.)	PL 1/2 x 3/2 x 1'-11 5/8" (EA.)	CURB STIFFENER PLATE 1/2" x 3" (EA.)	3/4" FENCE BRACKET PLATE (EA.)	FENCE BRACKET FLANGE 1/2 x 7 3/4 x 0'-11" (EA.)	FENCE BRACKET STIFFENER 1/2 x 5 x 0'-6" (EA.)	SLL-1 (EA.)	SLL-1A (EA.)	SLL-2 (EA.)	SLL-2A (EA.)	SLL-3 (EA.)	PL 1/2 x 6 x 1'-1" (EA.)	5/8" DIA. x 1 3/4" BOLT (EA.)	5/8" DIA. x 2" BOLT (EA.)	3/4" DIA. x 1 3/4" BOLT (EA.)	3/4" DIA. x 3" BOLT (EA.)	7/8" DIA. x 2 3/4" BOLT (EA.)	7/8" DIA. x 4" BOLT (EA.)		
1	1	-	-	2	4	4	4	56'-11 3/8"	78 5/8"	58'-1 1/4"	-	-	-	-	-	-	13	13	13	26	1	1	-	-	-	4	-	-	-	48	-	16
2A	3	6	24	12	24	24	-	-	52"	57'-8 7/8"	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	340	96		
2B	3	6	24	12	24	24	-	-	52"	57'-8 7/8"	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	340	96		
2C	3	6	24	12	24	24	-	-	52"	57'-8 7/8"	-	-	-	-	-	-	-	-	-	-	-	1	1	2	4	-	-	-	340	96		
3	2	4	16	6	12	12	4	56'-11 3/8"	71 5/8"	57'-11 5/8"	56'-10"	2	7	1 *	2	7	-	-	-	-	-	-	-	-	2	4	21	12	4*	48	204	48

NOTE:
* = OCCURS AT SPANS 1 & 3 ONLY.

STEEL BEAM SPAN MATERIAL LIST - FIELD ASSEMBLY

SPAN	DECK PLATE			A325 BOLT 7/8" DIA. x 2 3/4" BOLT (EA.)	ANCHOR ROD SAR-2 (EA.)	BEARING PAD			SOLE PLATE						
	PL 5/8 x 36 x 8'-8 1/2" (EA.)	PL 5/8 x 36 x 10'-0" (EA.)	7/8" DIA. x 2 3/4" BOLT (EA.)			SBP-10 (EA.)	SBP-11 (EA.)	SBP-12 (EA.)	SSP-10E (EA.)	SSP-10F (EA.)	SSP-11E (EA.)	SSP-11F (EA.)	SSP-12E (EA.)	SSP-12F (EA.)	SSP-13E (EA.)
1	14	28	544	36	2	14	2	1	1	7	7	1	1	-	
2	14	28	544	36	2	14	2	1	1	7	7	-	1	1	
3	14	28	544	36	2	14	2	1	1	7	7	-	1	1	

STEEL BEAM SPAN - SHIPPING DATA

UNIT	OVERALL WIDTH	SHIPPING CLEARANCE		SHIPPING WEIGHT	
		LEFT	RIGHT	(LB)	(TON)
1	7'-3 1/2"	3'-4"	3'-11 1/2"	36,280	18.2
2	8'-0"	3'-2 1/4"	4'-9 3/4"	73,080	36.6
3	9'-0 5/8"	4'-10 1/2"	4'-2 1/8"	57,820	29

NOTES:
1. UNIT 3 IS SHIPPED WITH HANDRAIL ATTACHED
2. SHIPPING CLEARANCE LEFT AND RIGHT ARE FROM CG
3. CG = CENTER OF GRAVITY

LIFTING WEIGHT - ASSEMBLED SPAN

SPAN	BEAM SIZE	LIFTING WEIGHT	
		(LB)	(TON)
ALL	W40x362	649,940	325

NOTE:
WEIGHT INCLUDES UNITS, SOLE PLATES AND FIELD INSTALLED DECK PLATES

GIRDER STRESS TABLE

SPAN LENGTH (L)	BEAM	SHEAR					MOMENT							LIVE LOAD + IMPACT DEFLECTION				
		LIVE LOAD		IMPACT	TOTAL	WEB AREA (Aw)		DEAD LOAD	LIVE LOAD		IMPACT	TOTAL	SECTION MODULUS (S)		ALLOWABLE	MOMENT OF INERTIA (I)		
		E 80 (K)	ALTERNATE (K)			REQUIRED (IN ²)	PROVIDED GROSS (IN ²)		E 80 (K-ft)	ALTERNATE (K-ft)			REQUIRED (IN ³)	PROVIDED GROSS (IN ³)		REQUIRED (IN ⁴)	PROVIDED GROSS (IN ⁴)	
56'-10"	W40x362	37	94	-	49	180	10.3	45.5	511	1,147	-	601	2,259	988	1,420	1.05	32,188	33,167

NOTES:
L - LONGITUDINAL DIMENSION, OUT TO OUT OF GIRDERS.

NO.	DATE	REVISIONS
COMPLETION STATUS:		
FINAL		05/28/2021
STATUS		DATE
		
APPROVED FOR UNION PACIFIC RAILROAD BY:		
ANDREW NICOL CONSULTANT ENGINEER		05/28/2021 DATE
PROJECT ID:	WORK ORDER: 31876	C/E NUMBER: 122537
LATITUDE: 41.86361		LONGITUDE: -87.68920



DSNCHK BY: MRK/AAN	UNION PACIFIC RAILROAD Office of Director Structures Design
DRAWNCHK BY: CDP/AAN	
UPRR ENGINEER: ADS/DEH	
SHT NO: S27 of S37	
LOCATION & DESCRIPTION: NSRR BRIDGE OVER OGDEN AVE. UPRR ROCKWELL SUBDIVISION 3 SPAN BMBD x 171' REPLACING 6 SPAN TROUGHS x 141'	
SHEET TITLE: STEEL BEAM SPAN MATERIAL LISTS	

FILE NAME: s:\w\enrich-pr-bent-fy-combtechs\pr-01\documents\16210000x2\10070_11\fig\refer\fig_docs\pr\figs\w40\w40pdr_west.dgn (2:27:14) refer: fig_docs\pr\figs\w40\w40pdr_west.dgn

