

PLAN LEGEND

RAILROAD TRACK LINE	=====
ROAD CENTERLINE	-----
EX SANITARY LINE	-----SAN-----
PR SANITARY LINE	-----SAN-----
EX STORM LINE	-----SS-----
PR STORM LINE	-----SS-----
EX WATER LINE	-----W-----
PR WATER LINE	-----W-----
EX GAS LINE	-----G-----
PR GAS LINE	-----G-----
OH ELECTRIC LINE	-----OHE-----
EX FIBEROPTIC LINE	-----FO-----
EX TELEPHONE LINE	-----UGT-----

SYMBOLS

- EX SANITARY MANHOLE
- EX STORM MANHOLE
- EX STORM CATCHBASIN
- EX WATER CURBSTOP
- EX WATER VALVE
- EX. WATER HYDRANT
- EX. ELECTRIC MANHOLE
- EX. POWERPOLE
- PROPOSED WATER HYDRANT
- PROPOSED WATER VALVE
- PROPOSED CATCH BASIN
- PROPOSED STORM MANHOLE
- PROPOSED FLARED END SECTION
- PROPOSED SANITARY MANHOLE

DESIGN DESIGNATION

R-VALUE	10	ENTR. 18.00	140,000
ADT (CURRENT YEAR)	2020	=	500
ADT (FUTURE YEAR)	2040	=	650
FUNCTIONAL CLASSIFICATION		=	LOCAL ROADS
NO. OF TRAFIC LANES		=	2
NO. OF PARKING LANES		=	0
D (DIRECTIONAL DISTR.)		=	50/50
T (HEAVY COMMERCIAL)		=	N/A
PROJ. SOIL FACTOR		=	N/A
SHOULDER WIDTH		=	NA
DESIGN LOADING		=	10-TON
DESIGN SPEED	30	MPH	
BASED ON STOPPING SIGHT DISTANCE			
HEIGHT OF EYE	3.5'	HEIGHT OF OBJECT	2.0'
DESIGN SPEED NOT ACHIEVED AT:			
STA.	12+53	TO STA.	12+77
		MPH	10
URBAN CLASSIFICATION: LOCAL STREET			
TRAFFIC LANES: 2			
RIVERWEST DRIVE - SHARED USE PATH			
DESIGN SPEED	20	MPH	
BASED ON STOPPING SIGHT DISTANCE			
HEIGHT OF EYE	4.5'	HEIGHT OF OBJECT	0.0'

MINNESOTA DEPARTMENT OF TRANSPORTATION CITY OF DULUTH

DEPARTMENT OF PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION

CONSTRUCTION PLAN FOR RIVERWEST DRIVE:

GRADING, BITUMINOUS PAVEMENT, CONCRETE CURB & GUTTER,
ADA, UTILITIES, & SIGNALS

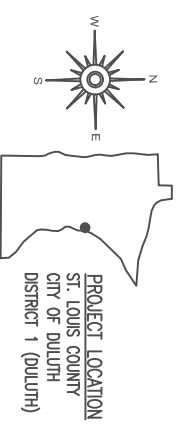
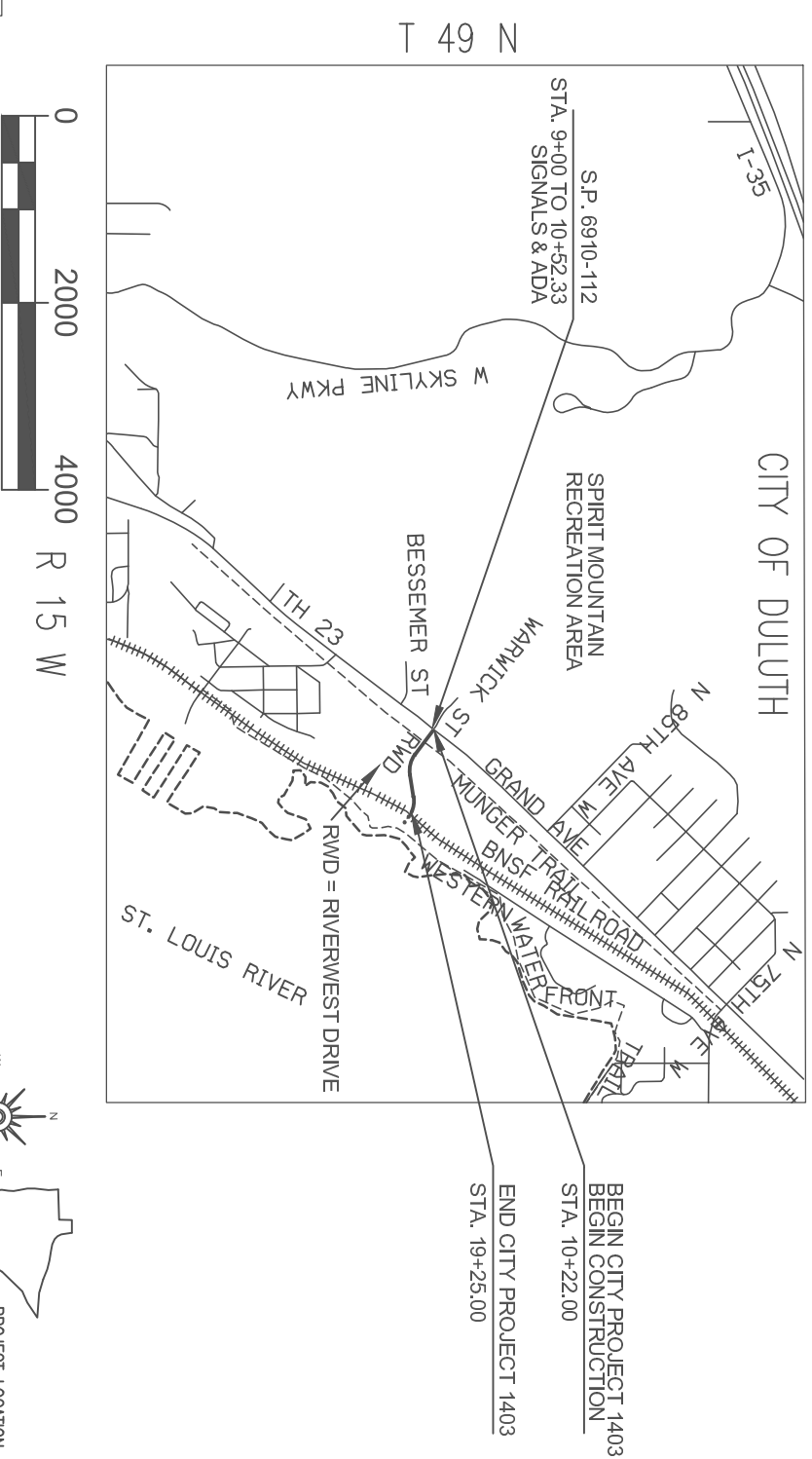
S.P. 6910-112 - LOCATED AT TH 23 (GRAND AVENUE) AND RIVERWEST DRIVE

CITY PROJ. NO 1403 - LOCATED ON RIVERWEST DRIVE FROM TH 23 (GRAND AVENUE)
TO TERMINUS AT BNSF RAIL LINE

CITY PROJ. NO. 1403			
GROSS LENGTH	903.00	FEET	0.171
BRIDGES-LENGTH	NA	FEET	NA
EXCEPTIONS-LENGTH	NA	FEET	NA
NET LENGTH	903.00	FEET	0.171
		MILES	

SECTION 23

S.P. 6910-112			
GROSS LENGTH	NA	FEET	NA
BRIDGES-LENGTH	NA	FEET	NA
EXCEPTIONS-LENGTH	NA	FEET	NA
NET LENGTH	NA	FEET	NA
		MILES	



AGREEMENT NO. 1046012
CITY OF DULUTH
SP 6910-112 (TH 23=185)
STATE FUNDS
DISTRICT 1 (DULUTH)

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY LEVEL D.
THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF C/ASCE 36-02,
ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION
AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

STATE FUNDS

GOVERNING SPECIFICATIONS
THE 2018 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION
"STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.
THE CITY OF DULUTH PUBLIC WORKS AND UTILITIES DEPARTMENT
ENGINEERING DIVISION 2019 EDITION STANDARD CONSTRUCTION SPECIFICATION
SHALL APPLY.
ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MUTCD,
INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE
LAYOUTS.

SHEET NO.	INDEX	DESCRIPTION
1		TITLE SHEET
2		CONSTRUCTION NOTES
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7-16		CONSTRUCTION CHARTS
17-18		TYPICAL SECTIONS
19-42		STANDARD PLAN SHEETS
43-58		CITY OF DULUTH STANDARD DETAILS
59-64		CONSTRUCTION DETAILS
65-66		RIVERWEST DRIVE PLAN & PROFILE
67-70		SANITARY SEWER PLAN & PROFILE, DETAILS
71-72		WATER MAIN & GAS PLAN & PROFILE
73-79		STORM SEWER PLAN & PROFILE, DETAILS
80-85		EROSION & SEDIMENT CONTROL
86-87		TRAFFIC CONTROL
88-89		PAVEMENT MARKING & SIGNING
90-96		LANDSCAPING PLANS
97-113		SIGNAL PLANS
114-134		GROSS SECTIONS

THIS PLAN SHEET CONTAINS 134 SHEETS.

I HEREBY CERTIFY THAT SHEETS WERE PREPARED BY ME OR UNDER MY
DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

JAMES A. WATTERS

PROJECT ENGINEER (TYPED OR PRINTED NAME)

PROJECT ENGINEER DATE 4/1/21 LIC. NO. 53557

DocuSigned by:

Lari Peterson

4/1/2021

PROJECT ENGINEER OF TRANSPORTATION DATE

DocuSigned by:

Eric R Stauffer

4/1/2021

PROJECT ENGINEER OF UTILITIES DATE

DocuSigned by:

Cindy Wright

4/1/2021

CITY ENGINEER DATE

Julie Groetsch

Digitally signed by Julie Groetsch
Date: 2021.04.09 12:00:54 -0500'

OFFICE OF LAND FOR DIRECTOR OF
MANAGEMENT APPROVAL LAND MANAGEMENT DATE

Tom Styrbicki Digitally signed by Tom Styrbicki
Date: 2021.04.09 12:08:46 -0500'

APPROVED STATE DESIGN ENGINEER DATE

CITY OF DULUTH PROJECT NO. 6910-112 (TH 23=185) SHEET NO. 1 OF 134

WARNING: NATURAL GAS PIPELINE

WARNING:
LOCATION OF UNDERGROUND UTILITIES TO BE VERIFIED BY
CONTRACTOR. CALL BEFORE DIGGING. GOPHER STATE ONE CALL
1-800-252-1166 REQUIRED BY LAW



ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
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MSA PROJECT NO. 00616134

CITY OF DULUTH PROJECT NO. 1403

STATE PROJECT NO. 6910-112 (TH 23=185)

SHEET NO. 1 OF 134