

CITY OF DULUTH

7th Avenue East Flood Damage Reconstruction CONSTRUCTION PLANS FOR: EXISTING STREET REPAIR BITUMINOUS SURFACING, AGGREGATE BASE, CURB & GUTTER AND SIDEWALK.

GROSS LENGTH	1000 FEET	0.190 MILES
BRIDGE LENGTH	0.00 FEET	0.000 MILES
EXCEPTION LENGTH	0.00 FEET	0.000 MILES
NET LENGTH	1000 FEET	0.190 MILES

LOCATED ON : 7th AVENUE EAST BETWEEN 4th STREET AND ONE BLOCK BELOW 1st STREET

SPECIFICATIONS:

THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION".

THE 2011 WITH 2012 AMENDMENTS EDITION OF THE CITY OF DULUTH PUBLIC WORKS AND UTILITIES DEPARTMENT STANDARD CONSTRUCTION SPECIFICATIONS AND SUPPLEMENTS OR ADDENDUMS SHALL APPLY.
AVAILABLE AT: http://www.duluthmn.gov/engineering/spec_book/

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MN MUTCD, INCLUDING THE FIELD MANUAL DATED FEBRUARY 2011.
AVAILABLE AT: <http://www.dot.state.mn.us/trafficeng/pub/fieldmanual2011/>

THE 2360 PLANT MIXED ASPHALT PAVEMENT COMBINED 2360/2350 SPECIFICATION FOR 2012 CONSTRUCTION SEASON SHALL APPLY.
AVAILABLE AT: http://www.dot.state.mn.us/stateaid/sa_electronic_proposal.html

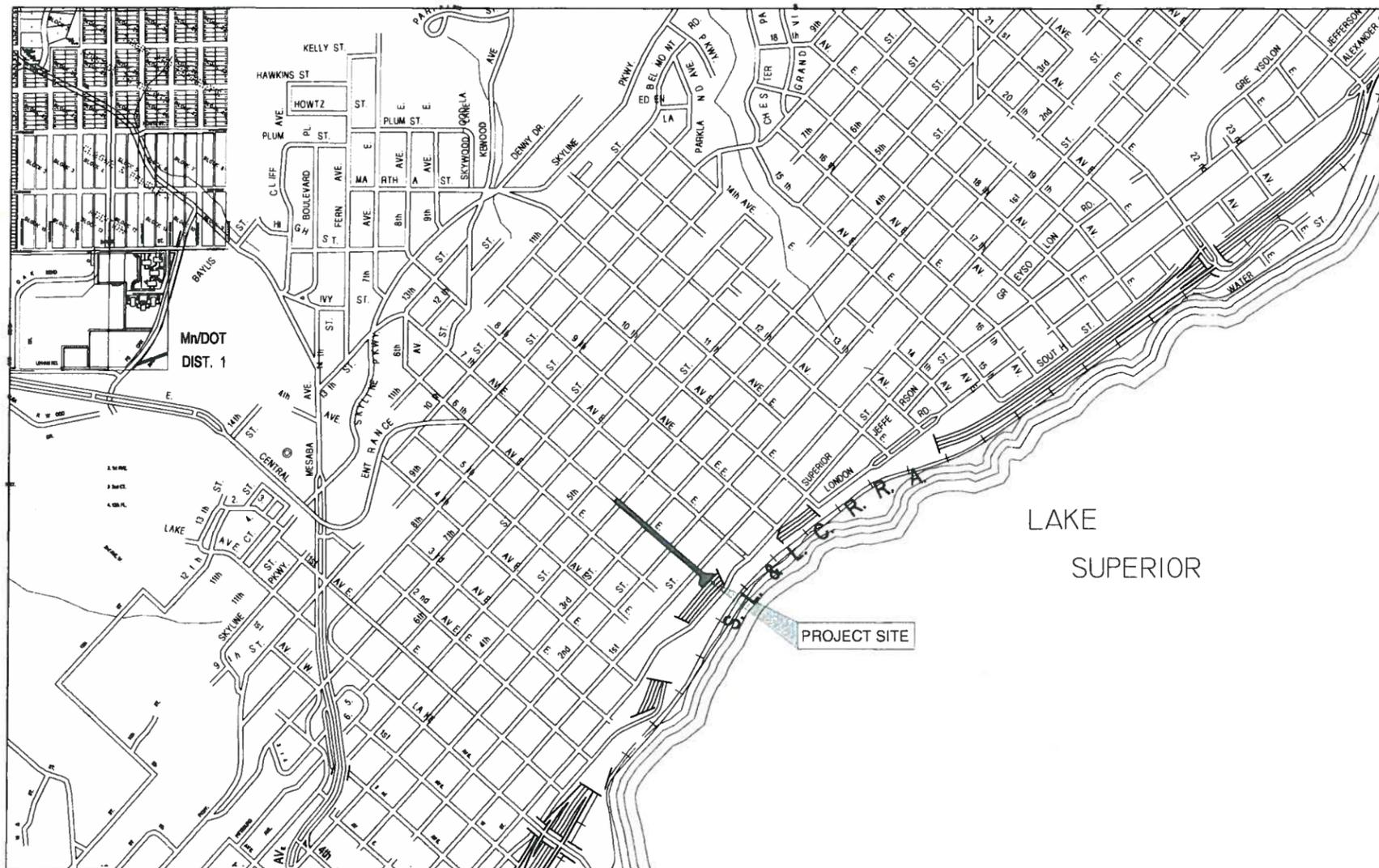
PLAN SYMBOLS

- COUNTY LINE
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- NEW RIGHT OF WAY LINE
- PRESENT RIGHT OF WAY LINE
- PROPERTY LINE
- CENTER LINE
- RETAINING WALL
- DRAIN TILE
- BOX CULVERT
- GUARD RAIL
- FENCE
- HEDGE

- BRUSH
- BUILDING
- DECIDUOUS TREE
- CONIFEROUS TREE
- MONUMENT (STONE, CONC., OR METAL)
- SMALL SIGN
- FIRE NUMBER & SUPPORT

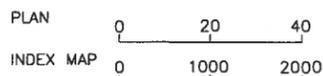
UTILITY SYMBOLS

- POWER POLE
- TELEPHONE POLE
- ANCHOR
- STREET LIGHT
- PEDESTAL (TELEPHONE CABLE TERMINAL)
- SIGNAL
- WATER MAIN
- CONDUIT
- TELEPHONE CABLE IN CONDUIT
- ELECTRIC CABLE IN CONDUIT
- EX. TELEPHONE MANHOLE/VAULT
- EX. ELECTRIC MANHOLE
- EX. STORM MANHOLE
- EX. SANITARY MANHOLE
- WATER & GAS MANHOLE
- STEAM HANDHOLE
- EX. HANDHOLE
- EX. CATCH BASIN
- PROPOSED CATCH BASIN
- PROPOSED MANHOLE
- PROPOSED TELEPHONE VAULT
- FIRE HYDRANT
- NEW SANITARY SEWER
- NEW STORM SEWER
- PVC PERFORATED PIPE
- BURIED TELEPHONE CABLE
- BURIED ELECTRIC CABLE
- STORM SEWER
- SANITARY SEWER
- GAS MAIN
- WATER & GAS VALVE (NEW)



INDEX MAP

SCALES



PROJECT LOCATION
ST. LOUIS COUNTY
CITY OF DULUTH
S1/2 OF SECTION 23
T 50 NORTH, R 14 WEST

BENCHMARKS
TOP OF HYDRANT SOUTHEAST
CORNER OF SEVENTH AVENUE
EAST & SECOND STREET.
ELEVATION = 725.37

EXCEPTIONS
N/A

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL "D". THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF C/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

GOPHER STATE ONE CALL
TWIN CITY AREA 454-0002
MN TOLL FREE 1-800-252-1166

CONTRACTOR TO NOTIFY 911 PERSONNEL PRIOR TO ALL ROAD CLOSURES.

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES (SEQ) / CONSTRUCTION NOTES
3	TYPICAL SECTION / DETAILS
4	EXISTING CONDITIONS / REMOVALS
5	CONSTRUCTION PLAN

THIS PLAN SET CONTAINS 5 SHEETS

APPROVALS

I HEREBY CERTIFY THAT THIS PLAN WAS 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.

Douglas Kerfeld
PROJECT ENGINEER (TYPED OR PRINTED NAME)
Douglas Kerfeld 8/30/12 49195
PROJECT ENGINEER DATE REG. NO.

CITY APPROVAL

[Signature] 8/31/12
APPROVED CHIEF ENGINEER OF TRANSPORTATION DATE

[Signature] 8/31/12
APPROVED CHIEF ENGINEER OF UTILITIES DATE

[Signature] 8/31/12
APPROVED CITY ENGINEER DATE

I HEREBY CERTIFY THAT THIS PLAN WAS 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.		8/30/2012			
<u>Douglas Kerfeld</u>	DOUGLAS J. KERFELD	DATE	2		
	PRINTED NAME	REG. NO.	NO	DATE	REVISION
		49195	3		

TITLE SHEET
7th Avenue East Flood Damage Reconstruction

NO	DATE	REVISION	BY	JOB NO.	E-1940	DATE	AUGUST 2012	CITY OF DULUTH PROJ. NO.	1166
4									
5									
6									

SHEET NO. 1 OF 5

ENGINEERS SURVEYORS PLANNERS
SALO ENGINEERING, INC.
4560 Norway Pines Place - Duluth, Minnesota 55811 - 218/727-8796

LINE NO.	NOTE NO.	SPEC. NO.	ITEM DESCRIPTION	UNIT OF MEASURE	TOTAL QUANTITY
1		2021.501	MOBILIZATION	LUMP SUM	1
2		2104.501	REMOVE CURB AND GUTTER	LIN FT	324
3		2104.503	REMOVE CONCRETE SIDEWALK	SQ FT	361
4		2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	862
5		2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	661
6		2104.523	SALVAGE CASTING	EACH	5
7	1	2104.601	REMOVE MISCELLANEOUS DEBRIS	LUMP SUM	1
8	2	2105.501	COMMON EXCAVATION (P)	CU YD	575
9	3	2105.521	GRANULAR BORROW (CV)	CU YD	50
10		2105.522	SELECT GRANULAR BORROW MOD 7% (CV)	CU YD	290
11		2105.604	GEOTEXTILE FABRIC TYPE V	SQ YD	733
12		2211.503	AGGREGATE BASE (CV), CLASS 5	CU YD	205
13		2360.501	TYPE SP 9.5 WEARING COURSE MIX (2,C)	TON	80
14		2360.502	TYPE SP 12.5 NON WEARING COURSE MIX (2,C)	TON	105
15	4	2501.602	CLEAN INLET STRUCTURE	EACH	1
16	5	2503.601	CLEAN STORM SEWER	LUMP SUM	1
17	6	2506.522	ADJUST FRAME & RING CASTING	EACH	5
18	7	2521.501	4" CONCRETE WALK	SQ FT	361
19		2531.501	CONCRETE CURB AND GUTTER DESIGN B624	LIN FT	324
20	8	2563.601	TRAFFIC CONTROL	LUMP SUM	1
21	9	2573.602	STORM DRAIN INLET PROTECTION	EACH	10
22	10	2543.540	FILTER LOG TYPE ROCK LOG	LIN FT	60
23		2575.505	SODDING TYPE LAWN	SQ YD	24

CONSTRUCTION NOTES:

- ITEM TO BE USED TO CLEAN & REMOVE FLOOD DEBRIS ON EXISTING ROADWAY SURFACE THAT WILL NOT BE RECONSTRUCTED.
- BASED ON A 2' DEEP EXCAVATION AT PAVEMENT REMOVAL AREAS.
- ITEM TO BE USED TO FILL WASHOUT AREAS OUTSIDE ROAD SURFACE.
- ITEM TO BE USED TO CLEAN STRUCTURE AT STA: 0+27 ~ 14' LEFT ALL MATERIAL TO BE HAULED OFF SITE AND DISPOSED OF PROPERLY.
- ITEM TO BE USED TO CLEAN STORM SEWER PIPE BETWEEN STRUCTURE AT 0+27 ~ 14' L AND NEXT DOWN STREAM STRUCTURE. APPROXIMATELY 37 LF. ALL MATERIAL TO BE HAULED OFF SITE AND DISPOSED OF PROPERLY.
- ITEM TO BE USED TO ADJUST CASTINGS WITHIN PAVEMENT AND CURB & GUTTER REMOVAL AREAS.
- AGGREGATE BASE, CLASS 5 BASE MATERIAL TO BE INCIDENTAL TO ITEM
- CONTRACTOR TO PROVIDE TRAFFIC CONTROL INCLUDING, BUT NOT LIMITED TO ADVANCED WARNING TO CONSTRUCTION AREAS, DETOUR WHEN ROADWAY BE CLOSED TO TRAFFIC, AND ANY OTHER CONTROL DEVICES TO MEET MN MUTCD FIELD MANUAL REQUIREMENTS.
- ITEM TO BE USED ON ALL INLET STRUCTURES WITHIN THE PROJECT AS WELL AS NEXT DOWN STREAM INLET STRUCTURE.
- ITEM TO BE USED AS DIRECTED BY ENGINEER TO CONTROL SEDIMENT & STORM WATER DURING CONSTRUCTION.

City of Duluth Proj. No.

1166

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8/30/2012

DATE

49195

REG. NO.

NO.	DATE	REVISION	BY
2			
3			

DOUGLAS J. KERFELD
PRINTED NAME

SEQ / CONSTRUCTION NOTES
7th Avenue East Flood Damage Reconstruction

NO.	DATE	REVISION	BY
4			
5			
6			

SHEET NO. 2 OF 5

JOB NO. E-1940

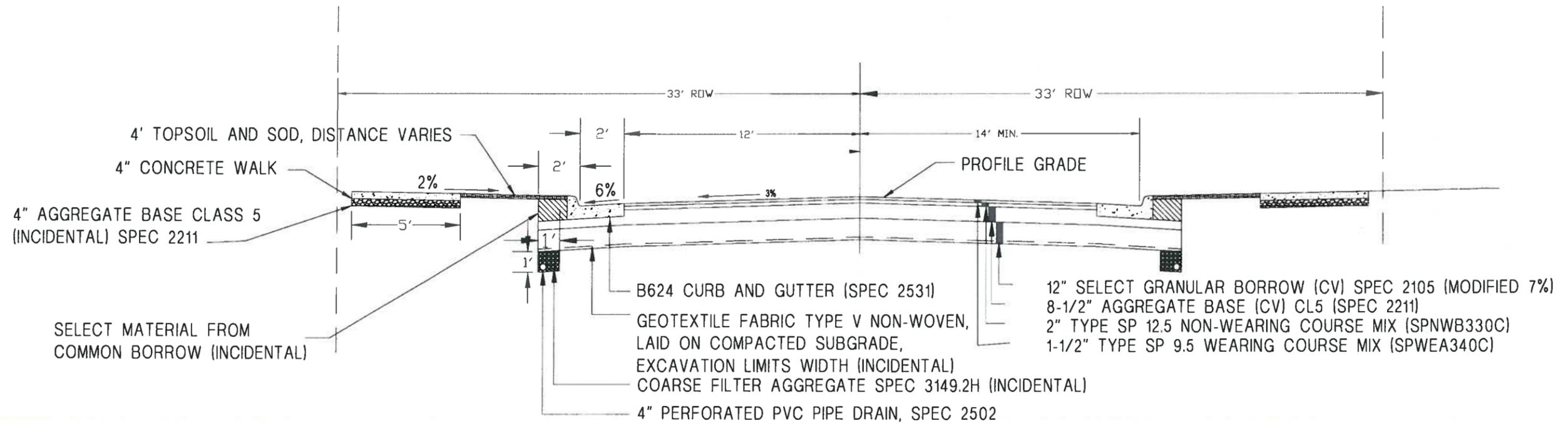
DATE AUGUST 2012



ENGINEERS SURVEYORS PLANNERS

SALO ENGINEERING, INC.

4500 Norway Pines Place - Duluth, Minnesota 55811 - 218/727-8796



TYPICAL SECTION
URBAN STREET WITH SIDEWALKS

THESE STANDARD PLATES AS APPROVED BY THE FHWA SHALL APPLY

PLATE NO.	STANDARD PLATES
4020J	MANHOLE OR CATCH BASIN COVER
4129G	FRAME CASTING NO. 802A
4154B	GRATE CASTING FOR CATCH BASINS
7100H	CONCRETE CURB & GUTTER B624
9102D	TURF ESTABLISHMENT AREAS
	NOT APPROVED BY FHWA
	CITY OF DULUTH PLATES
STR-5	DRIVEWAY AND ALLEY ENTRANCE
STR-6	CONCRETE RETAINING WALL
STR-8	STREET RESTORATION OVER TRENCH
STRM-1	STORM MANHOLE CASTING
STRM-2	CATCH BASIN/CURB BOX CASTING
STRM-3	CATCH BASIN CASTING
STRM-4	FABRIC WRAPPED CATCH BASIN CASTING
STRM-5	FABRIC WRAPPED MANHOLE CASTING

BASIS FOR PLANNED QUANTITIES	
PLANT MIXED BITUMINOUS SURFACE	
TYPE SP 12.5 BITUMINOUS MIXTURE	120 LBS./S.Y./1"
TYPE SP 9.5 BITUMINOUS MIXTURE	120 LBS./S.Y./1"

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Douglas J. Kerfeld
DOUGLAS J. KERFELD
PRINTED NAME

08/30/2012	1			
DATE	2			
49195	3			
REG. NO.	NO	DATE	REVISION	BY

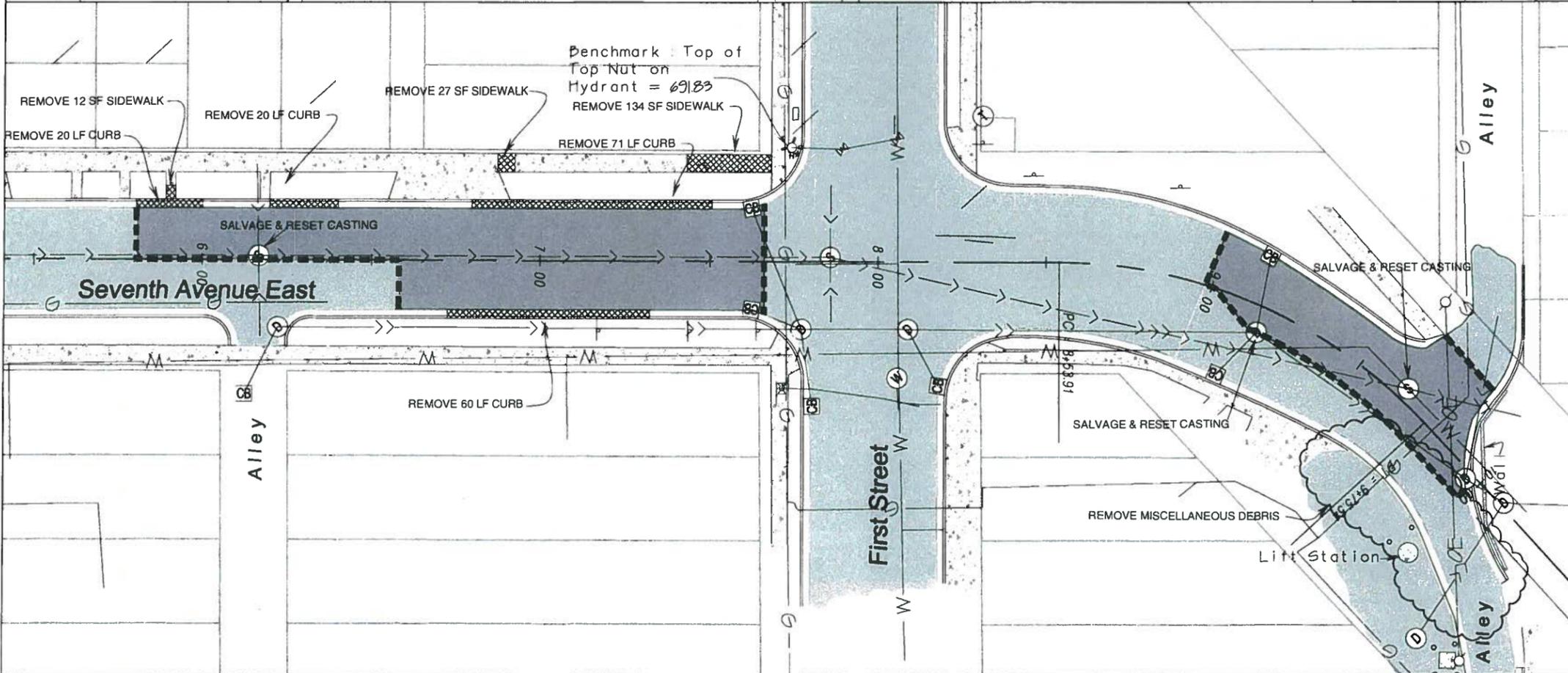
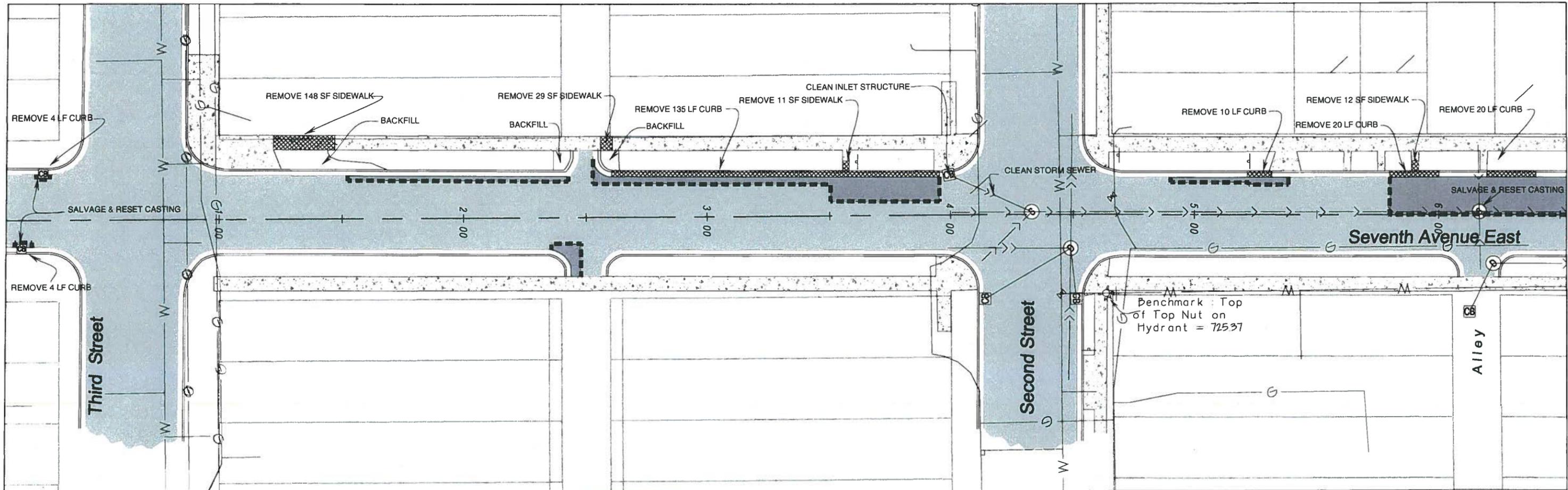
TYPICAL SECTION / DETAILS
7th Avenue East Flood Damage Reconstruction

4				
5				
6				
NO	DATE	REVISION	BY	JOB NO. E- 1940

SHEET NO. 3 OF 5
DATE AUG 2012

City of Duluth Proj. No. 1166

ENGINEERS • SURVEYORS • PLANNERS
SALO ENGINEERING, INC.
4560 Norway Pines Place - Duluth, Minnesota 55811 • 218/727-8796



SCALE

0 20' 40'

ROADWAY REMOVALS LEGEND

(S) (D) (CB)	UTILITY SURFACE STRUCTURES
	EXISTING BITUMINOUS
	REMOVE BITUMINOUS
	EXISTING CONCRETE
	REMOVE CONCRETE
	EXISTING CURB
	REMOVE CURB
	SAWCUT & CONSTRUCTION LIMIT

PROPERTY & RIGHT OF WAY LINES SHOWN ON PLANS ARE APPROXIMATE AND BASED OFF OF GIS INFORMATION. NO FIELD DATA WAS COLLECTED TO VERIFY PROPERTY LINES LOCATIONS.

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DOUGLAS J. KERFELD <small>PRINTED NAME</small>		DATE	2	NO	DATE	REVISION	BY
		49195	3				
REG. NO.		NO	DATE	REVISION	BY		

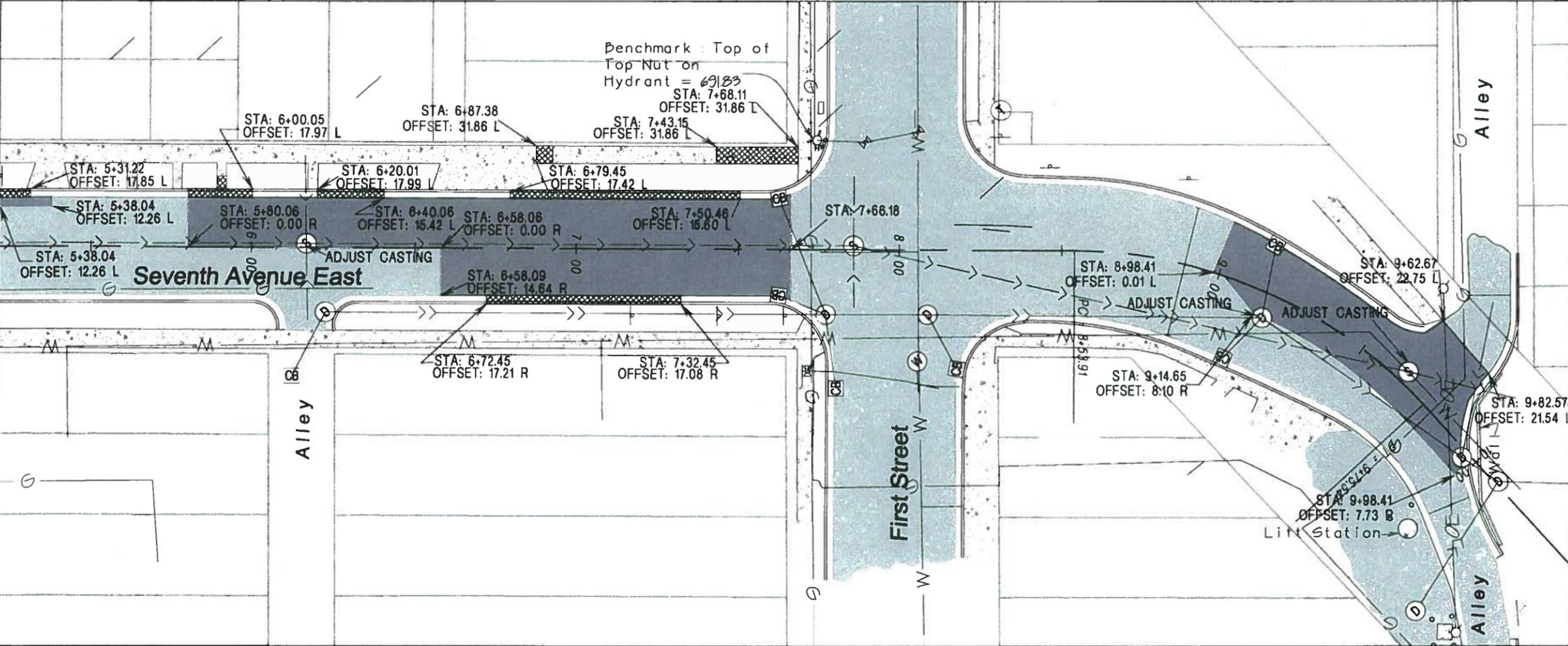
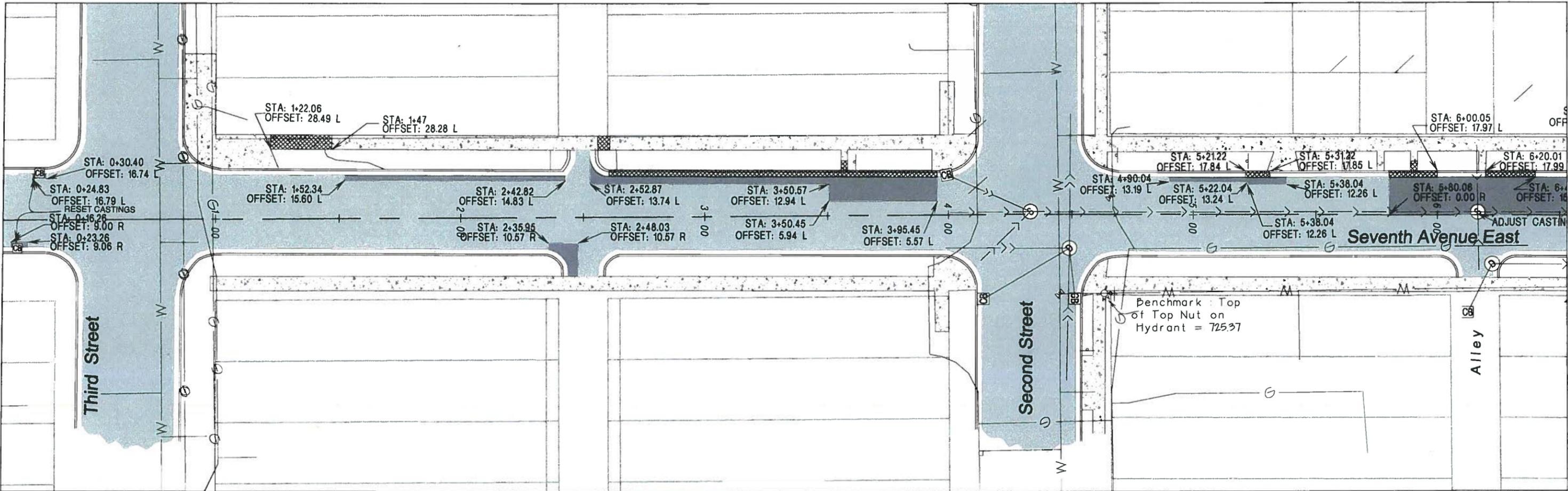
7th Avenue East Flood Damage Reconstruction
EXISTING CONDITIONS / REMOVALS

4							
5							
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NO	DATE	REVISION	BY	JOB NO.	E-1940	DATE	AUGUST 2012

City of Duluth Proj. No. 1166

SHEET NO. 4 OF 5

ENGINEERS • SURVEYORS • PLANNERS
SALO ENGINEERING, INC.
4560 Norway Pine Place - Duluth, Minnesota 55811 - 218/727-8796



SCALE

0 20' 40'

ROADWAY REMOVALS LEGEND

- S D CB UTILITY SURFACE STRUCTURES
- EXISTING BITUMINOUS
- PROPOSED BITUMINOUS
- EXISTING CONCRETE
- PROPOSED 4" CONCRETE SIDEWALK
- EXISTING CURB
- PROPOSED B624 CONCRETE CURB & GUTTER

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Douglas J. Kerfeld
 DOUGLAS J. KERFELD
 PRINTED NAME

08/30/2012	1						
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49195	3						
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**7th Avenue East Flood Damage Reconstruction
 CONSTRUCTION PLAN**

4							
5							
6							
NO	DATE	REVISION	BY	JOB NO.	E-1940	DATE	AUGUST 2012

SHEET NO. 5 OF 5

City of Duluth Proj. No. 1166

ENGINEERS • SURVEYORS • PLANNERS

SALO ENGINEERING, INC.

4560 Norway Pines Place - Duluth, Minnesota 55811 - 218/727-8796