Purchasing Division
Finance Department

Room 120
411 West First Street
Duluth, Minnesota 55802

218-730-5340
purchasing@duluthmn.gov

Addendum # 2
Solicitation # 20-99322
Second Street Reconstruction

This addendum serves to notify all bidders of the following changes to the solicitation documents:

1. *The following bid item is added to the solicitation:*

Chart	Line No.	Item No.	Item	Units	Estimated Quantity
P	206	2506.502	CASTING ASSEMBLY	EACH	23

Sheet 7 of the Plans (SEQ) is replaced with the attached Sheet 7.
Sheets 21 and 22 of the Plans (Chart P) are replaced with the attached Sheet 21 and 22

The bid item Casting Assembly is included for furnishing and installing manhole casting assemblies for structures that are measured and paid for by the unit Linear Foot. Furnishing and installing manhole casting assemblies is considered incidental for structures that are measured and paid by the unit Each.

2. *The following bid item is added to the solicitation:*

Chart	Line No.	Item No.	Item	Units	Estimated Quantity
E	207	2301.508	SUPPLEMENTAL PAVEMENT REINFORCEMENT	LB	3,493

Sheet 7 of the Plans (SEQ) is replaced with the attached Sheet 7.
Sheet 11 of the Plans (Chart E) is replaced with the attached Sheet 11

Addendum 2 adds the bid item for Supplemental Pavement Reinforcement to the bid documents. Supplemental Pavement Reinforcement is required at Plan Locations and shall be provided by the Contractor in accordance with MnDOT Standard Plate 1070M.

3. *Bid bonds must be submitted electronically either through BidExpress (SurePath or Surety 2000) or emailed to purchasing@duluthmn.gov. Do not mail bid bonds or attempt to drop them off in person as City Hall offices are closed. If emailing bid bonds, reference solicitation 20-99322 in the subject of the email.*

Please acknowledge receipt of this Addendum by checking the acknowledgment box within the www.bidexpress.com solicitation.

Posted**: April 6, 2020**

STATEMENT OF ESTIMATED QUANTITIES

CHART	LINE NO.	ITEM NO.	ITEM	UNITS	TOTAL PROJECT	CITY PROJECT 1851						DULUTH ENERGY		CONSTRUCTION NOTES
					ESTIMATED QUANTITY	ROADWAY	SANITARY SEWER	WATER	STORM SEWER	TRAFFIC	GAS	HOT WATER	STEAM	
	185	2573.501	STABILIZED CONSTRUCTION EXIT	LUMP SUM	1	1								
Q	186	2573.502	STORM DRAIN INLET PROTECTION	EACH	80	80								
Q	187	2573.503	SEDIMENT CONTROL LOG TYPE STRAW	LIN FT	620	620								
Q	188	2573.503	SILT FENCE TYPE HI	LIN FT	125	125								
R	189	2573.618	SALVAGE LANDSCAPE MULCH	SQ FT	2440	2440								
R	190	2574.505	SOILBED PREPARATION	ACRE	1.19	1.19								
R	191	2574.505	SUBSOILING	ACRE	1.19	1.19								
D	192	2574.507	BOULEVARD TOPSOIL BORROW (CV)	CU YD	734	734								
R	193	2574.508	FERTILIZER TYPE 3	POUND	238	238								
Q	194	2575.504	RAPID STABILIZATION METHOD 4	SY	120	120								
R	195	2575.504	EROSION CONTROL BLANKET CATEGORY 3N	SQ YD	950	950								
R	196	2575.504	SODDING TYPE SALT TOLERANT	SQ YD	3120	3120								
R	197	2575.505	SEEDING	ACRE	0.50	0.50								
R	198	2575.508	SEED MIXTURE 25-151	POUND	60	60								
R	199	2575.508	HYDRAULIC STABILIZED FIBER MATRIX	POUND	685	685								
S	200	2582.503	4" SOLID LINE MULTI COMP	LIN FT	3590	3590								
S	201	2582.503	4" BROKEN LINE MULTI COMP	LIN FT	2405	2405								
S	202	2582.503	4" DOUBLE SOLID LINE MULTI COMP	LIN FT	45	45								
S	203	2582.503	24" SOLID LINE MULTI COMP	LIN FT	90	90								
S	204	2582.518	CROSSWALK MULTI COMP GR IN	SQ FT	465	465								
M.2	205	2504.603	8" DIPS HDPE WATER MAIN SDR 11	LIN FT	342			342						
P	206	2506.502	CASTING ASSEMBLY	EACH	23				23					
E	207	2301.508	SUPPLEMENTAL PAVEMENT REINFORCEMENT	LB	3493	3493								

NO.	DATE	REVISION	BY
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DESIGNED BY: ----
CHECKED BY: ----
PLOT DATE: 4/6/2020 11:33 AM, G:\00\00616\00616148\CADD\Construction Documents\00616148 - SEQ.dwg

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MARCH 14, 2020 (Date) 46075 (License No.)
JASON DIPIAZZA, P.E.

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E. SECOND STREET RECONSTRUCTION
CITY OF DULUTH
CITY PROJECT NUMBER 1851

SEQ

PROJECT NO. 00616148

E — STREET PAVEMENT & BASE AGGREGATE — E

LOCATION	SPEC. 2211	SPEC. 2301				SPEC. 2360		SPEC. 2131	REMARKS
	AGGREGATE BASE (CV) CLASS 5	CONCRETE PAVEMENT 8"	CONCRETE PAVEMENT 8" HIGH-EARLY	CONCRETE PAVEMENT LUGS	SUPPLEMENTAL PAVEMENT REINFORCEMENT	SP 9.5 WEARING COURSE SPWEA340C (4") [1]	SP 9.5 NON-WEARING COURSE SPNWA330B (2")	WATER	
	CU YD	SQ YD	SQ YD	LF	LB	TON	TON	MGAL	
PHASE 1									
STA 213+25 TO 9TH AVE.	200					110	60	20	
9TH AVE. INTERSECTION	360	400		60	554	170	90	30	
9TH AVE. TO 10TH AVE.	10					290	150	10	
10TH AVE. INTERSECTION	130		620	60	1784	10	10	10	
10TH AVE. TO 11TH AVE.	420					210	110	30	
11TH AVE. INTERSECTION	60	240		20		10	10	10	
11TH AVE. TO 12TH AVE.	550					290	150	40	
PHASE 1 TOTALS	**1730**	**640**	**620**	**150**	**2338**	**1090**	**580**	**150**	
PHASE 2									
6TH AVE. TO 7TH AVE.	520					290	150	40	
7TH AVE. INTERSECTION	200	410		100	601	70	40	20	
7TH AVE. TO 8TH AVE.	530					290	150	40	
8TH AVE. INTERSECTION	190	390		100	554	70	40	20	
8TH AVE. TO STA 213+25	350					190	100	30	
PHASE 2 TOTALS	**1790**	**800**	**0**	**200**	**1155**	**910**	**480**	**150**	
CHART TOTALS:	**3520**	**1440**	**620**	**350**	**3493**	**2000**	**1060**	**300**	

[1] CONSTRUCT THE WEARING COURSE IN (2) 2-INCH LAYERS

F — PERFORATED PVC PIPE DRAIN — F

STATION	STATION	LOCATION	SPEC. 2502 4" PERF PVC PIPE DRAIN [1]	SPEC. 2506 STORM SEWER STORM OUTLET	REMARKS
			LIN FT	[1]	
PHASE 1					
213+25	213+90	LT	65	CB 9.1	CAP AT 213+25 FOR CONNECTION DURING PHASE 2 (INCIDENTAL)
213+25	214+25	RT	100	CB 9.3	CAP AT 213+25 FOR CONNECTION DURING PHASE 2 (INCIDENTAL)
213+90	214+10	LT	20	CB 9.2	
214+10	214+76	LT	65	CB 9.6	
214+76	215+05	LT	30	STMH 9.2	
214+25	214+45	RT	20	CB 9.4	
214+45	214+72	RT	25	STMH 9.1	
214+78	218+88	RT	410	CB 10.3	
215+05	215+33	LT	25	CB 9.11	
215+33	218+24	LT	290	CB 10.1	
218+08	219+68	RT	70	CB 10.4	
218+24	218+44	LT	20	CB 10.2	
218+44	219+08	LT	65	CB 10.2	

F — PERFORATED PVC PIPE DRAIN (CONTINUED) — F

STATION	STATION	LOCATION	SPEC. 2502 4" PERF PVC PIPE DRAIN [1]	SPEC. 2506 STORM SEWER STORM OUTLET	REMARKS
			LIN FT	[1]	
PHASE 1					
218+88	219+08	RT	20	CB 10.4	
219+08	219+68	LT	70	CB 10.5	
219+75	220+55	LT	80	CB 10.6	
219+75	220+35	RT	60	CB 10.7	
220+35	220+55	RT	20	CB 10.8	
220+55	220+88	LT	35	CB 10.9	
220+55	222+90	RT	235	CB 10.8	
220+88	222+90	LT	205	CB 10.9	
10TH AVE INTERSECTION		-	110	EXIST PIPE	REMOVE AND REPLACE EXISTING 4" PVC PERF PIPE DRAIN
222+90	223+60	LT	70	CB 11.1	
222+90	223+80	RT	90	CB 11.3	
223+60	223+80	LT	20	CB 11.2	
223+80	224+84	LT	105	CB 11.5	
223+80	224+84	RT	105	CB 11.4	
224+84	225+04	RT	20	CB 11.6	
224+84	225+22	LT	35	CB 11.7	
225+04	228+86	RT	385	CAP AT 12TH	CAP AT 12TH INTERSECTION
225+22	226+80	LT	160	CB 11.8	
226+80	227+00	LT	20	CB 11.9	
227+00	228+86	LT	195	CAP AT 12TH	CAP AT 12TH INTERSECTION
PHASE 1 TOTAL			**3245**		
PHASE 2					
201+50	204+70	LT	320	CB 6.4	CAP AT 6TH AVE E INTERSECTION
201+50	203+45	RT	195	CB 6.2	CAP AT 6TH AVE E INTERSECTION
203+45	203+65	RT	20	CB 6.3	
203+65	205+11	RT	155	CB 6.7	
204+70	204+90	LT	20	CB 6.5	
204+90	205+10	LT	20	CB 6.6	
205+10	205+58	LT	50	CB 7.1	
205+58	205+97	LT	40	CB 7.5	
205+79	207+75	LT	200	CB 7.6	
205+11	207+75	RT	265	CB 7.7	
207+75	209+15	RT	140	CB 8.1	
207+75	209+30	LT	155	CB 8.2	
209+30	209+50	LT	20	CB 8.3	
209+15	209+76	RT	60	CB 8.4	
209+50	210+10	LT	60	CB 8.6	
209+76	210+06	RT	30	STMH 8.1	
210+06	210+38	RT	35	STMH 8.3	
210+10	213+25	LT	315	STUB	TIE INTO STUB FROM PHASE 1 CONSTRUCTION
210+38	213+25	RT	285	STUB	TIE INTO STUB FROM PHASE 1 CONSTRUCTION
PHASE 2 TOTAL			**2385**		
CHART TOTALS:			**5630**		

[1] GEOTEXTILE FABRIC, COARSE FILTER AGGREGATE, AND STORM SEWER CONNECTIONS ARE INCIDENTAL TO THIS BID ITEM

NO.	DATE	REVISION	BY

PROJECT DATE: .
DRAWN BY: ----
DESIGNED BY: ----
CHECKED BY: ----

PLOT DATE: 4/6/2020 11:13 AM, G:\00\00616\00616148\CADD\Construction Documents\00616148 - Construction Charts.dwg

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E. SECOND STREET RECONSTRUCTION
CITY OF DULUTH
CITY PROJECT NUMBER 1851

CONSTRUCTION CHART

PROJECT NO. 00616148

P

STORM SEWER

P

STRUCTURE	STATION	LOCATION OFFSET	DOWNSTREAM STRUCTURE	DESIGN G	SPEC. 2506 CONSTRUCT DRAINAGE STRUCTURE DESIGN F	DESIGN 60-4020	DESIGN 72-4020	DESIGN 6 X 6	SPECIAL NO. 1 [3]	SPECIAL NO. 2 [4]	SPEC. 2506 ADJUST FRAME AND RING CASTING	[5] CONCRETE ENCASED CASTING COLLAR	CASTING ASSEMBLY [2] [7]		2451 [6] FURNISH GRANULAR BACKFILL	SPEC 2105 TRENCH EXCAVATION CLASS R	CONNECT TO EXISTING STORM SEWER STRUCTURE	CONNECT TO EXISTING STORM SEWER	SPEC. 2503 DES 3006 RC PIPE SEWER 12 IN.	15 IN.	18 IN.	24 IN.	30 IN.	33 IN.	36 IN.	42 IN.	48 IN.	RC PIPE-ARCH SEWER CL IIA DES 3006 51 IN SPAN	58 IN SPAN	PVC PIPE SEWER 15 IN.	REMARKS
				EACH	LIN FT	LIN FT	LIN FT	EACH	EACH	EACH	EACH	EACH	EACH	TYPE	CU YD	CU YD	EACH	EACH	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	
PHASE 1																														
CB 9.1	213+90.00	18.00' LT	CB 9.2	1										2					20											
CB 9.2	214+10.00	18.00' LT	CB 9.6	1										2	15				66											
CB 9.7	214+95.86	35.00' LT	CB 9.6	1										3B	5				30											
CB 9.8	214+95.15	57.00' LT	CB 9.7	1										3B					22											
CB 9.6	214+76.00	12.00' LT	STMH 9.2		9.63								1	3B	15						29									3' SUMP
CB 9.3	214+25.00	18.00' RT	CB 9.4	1										2					20											
CB 9.4	214+45.00	18.00' RT	STMH 9.1	1										2					27											
CB 9.5	214.78.00	12.24' RT	STMH 9.1	1										3B					7											
STMH 9.1	214+72.00	17.00' RT	STMH 9.3		10.28								1	1*	20				36											3' SUMP
CB 9.9	215+28.09	57.00' LT	CB 9.10	1										3B					22											
CB 9.10	215+27.86	35.00' LT	CB 9.11	1										3B					22											
CB 9.11	215+33.00	13.71' LT	STMH 9.2	1										3B	10				28											
EX BRICK ARCH	215+04.82	55.00' LT	STMH 9.2															1								44				
STMH 9.2	215+05.15	11.00' LT	STMH 9.3				13.14						1	1	30	20											31			
STMH 9.3	215+05.18	17.00' RT	STMH 9.4				13.12						1	1	150	100											113			
STMH 9.4	215+04.48	131.90 RT	EX BRICK ARCH					1				1		1				1												CAST IN PLACE STRUCTURE
CB 10.1	218+24.00	18.00' LT	CB 10.2	1										2					20											
CB 10.2	218+44.00	18.00' LT	STMH 10.1	1										2					7											
STMH 10.1	218+44.00	11.00' LT	STMH 10.2		5.55							1	1	1					64											
STUB	219+05.94	42.48' LT	CB 10.5															1											25	
CB 10.5	219+08.00	18.00' LT	STMH 10.2	1										3						7										
STMH 10.2	219+08.00	11.00' LT	CB 10.4		7.14							1	1	1						29										
CB 10.3	218+88.00	18.00' RT	CB 10.4	1										2					20											
CB 10.4	219+08.00	18.00' RT	STMH 10.4		7.38								1	2							65									
CB0470447	219+64.85	32.15' LT	EX 10.1								1			EX																
CB0470444	219+93.00	32.15' LT	EX 10.1								1			EX																
EX 10.1	219+72.47	42.76' LT	STMH 10.3									1		EX			1													ST0470305
STMH 10.3	219+72.48	21.00' LT	STMH 10.4					1						1															40	
CB 10.9	220+88.00	12.00' LT	CB 10.6	1										2B					33											
STUB	220+62.50	33.00' LT	CB 10.6																22											
CB 10.6	220+55.00	12.00' LT	CB 10.8	1										2B						24										
CB 10.8	220+55.00	12.00' RT	CB 10.7		7.26								1	2B							20									
CB 10.7	220+35.00	12.00' RT	STMH 10.4		7.86								1	2B							63									
STMH 10.4	219+72.51	18.00' RT	EX RCP					1						1				1												
CB 11.1	223+60.00	12.00' LT	CB 11.2	1										2B					20											
CB 11.3	223+80.00	12.00' RT	CB 11.2	1										2B					24											
CB 11.2	223+80.00	12.00' LT	STMH 11.1	1										2B	25				60											
EX 11.1	224+39.95	34.60' LT	STMH 11.1									1		EX			1													ST0470265
STMH 11.1	224+39.72	7.00' LT	SSS 11A			7.85							1	1					10											
			STMH 11.2																						8					
SSS 11A	224+50.00	7.00' LT	SSS 11B						1					1		25														
SSS 11B	224+50.00	1.00' RT	STMH 11.2											1					10											
STMH 11.2	224+39.71	1.00' RT	EX 36" PIPE			8.34							1	1	10			1						21						
CB 11.9	227+00.00	18.00' LT	CB 11.8	1										3					20											
CB 11.8	226+80.00	18.00' LT	STMH 11.5	1										3					13											
STMH 11.5	226+80.00	5.50' LT	STMH 11.4		5.64								1	1	60				196											
CB 11.7	225+22.00	18.00' LT	CB 11.5	1										2					38											
CB 11.5	224+84.00	12.00' LT	STMH 11.4	1										3B					7											
CB 11.6	225+04.00	12.00' RT	CB 11.4	1										3B					20											
CB 11.4	224+84.00	12.00' RT	STMH 11.4	1										3B					18											
STMH 11.4	224+84.00	5.50' LT	SSS 7A		6.33								1	1						34										
CB0470036	224+58.00	35.85 LT	EX 11.1								1			EX																
CB0470412	224+33.00	35.85 LT	EX 11.1								1			EX																
PHASE 1 TOTALS				25	67.07	16.19	26.26	3	0	1	4	5	13		340	145	2	5	902	94	177	0	28	28	29	44	144	0	40	25	

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CONSTRUCTION CHART

STORM SEWER (CONTINUED)

STRUCTURE	STATION	LOCATION OFFSET	DOWNSTREAM STRUCTURE	SPEC. 2506 CONSTRUCT DRAINAGE STRUCTURE DESIGN G	DESIGN F	DESIGN 60-4020	DESIGN 72-4020	DESIGN 6 X 6	SPECIAL NO. 1 [3]	SPECIAL NO. 2 [4]	ADJUST FRAME AND RING CASTING	[5] CONCRETE ENCASED CASTING COLLAR	CASTING ASSEMBLY [2] [7]		2451 FURNISH GRANULAR BACKFILL	SPEC 2105 UTILITY TRENCH EXCAVATION CLASS R	CONNECT TO EXISTING STORM SEWER STRUCTURE	CONNECT TO EXISTING STORM SEWER	SPEC. 2503 DES 3006 RC PIPE SEWER 12 IN.	15 IN.	18 IN.	24 IN.	30 IN.	33 IN.	36 IN.	42 IN.	48 IN.	RC PIPE-ARCH SEWER CL IIA DES 3006 51 IN SPAN	59 IN SPAN	PVC PIPE SEWER 15 IN.	REMARKS
				EACH	LIN FT	LIN FT	LIN FT	EACH	EACH	EACH	EACH	EACH	EACH	TYPE	CU YD	CU YD	EACH	EACH	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	
PHASE 2																														
STMH 6.2	201+50.00	5.00' RT	STMH 6.3													25		1			175									CONNECT TO PIPE BY OTHERS
CB 6.2	203+45.00	18.00' RT	CB 6.3	1										3		10			20											
CB 6.3	203+65.00	18.00' RT	STMH 6.3	1										3		5			13											
STMH 6.3	203+65.00	5.00' RT	STMH 6.4		5.81							1	1	1		15					146									
CB 6.7	205+11.00	18.00' RT	STMH 6.4	1										3					13											
STMH 6.4	205+11.00	5.00' RT	STMH 7.1		7.20							1	1	1		10						84								
CB6.4	204+70.00	18.00' LT	CB 6.5	1										3					20											
CB 6.5	204+90.00	18.00' LT	CB 6.6	1										3					20											
CB 6.6	205+10.00	18.00' LT	CB 7.1	1										3						50										
CB 7.1	205+60.08	17.16' LT	CB 7.5	1										3B							35									
CB 7.3	205+61.85	55.00' LT	CB 7.2	1										3B					20											
CB 7.2	205+61.73	35.00' LT	CB 7.4	1										3B						32										
CB 7.4	205+93.73	35.00' LT	CB 7.5	1										3B							16									
CB 7.5	205+94.47	18.96' LT	STMH 7.1	1										3B								24								
STMH 7.1	205+94.83	5.00' RT	STMH 7.2		5.89								1	1								101								
STMH 7.2	206+96.00	5.00' RT	STMH 7.3		7.54							1	1	1								8								
			SSS 7A																5											
SSS 7A	206+96.00	4.00' LT	SSS 7B						1			1		1																
SSS 7B	207+04.00	4.00' LT	STMH 7.3									1		1					5											
STMH 7.3	207+04.00	5.00' RT	STMH 7.4		7.61							1	1	1	20							49								
CB 7.6	207+75.00	18.00' LT	STMH 7.4		7.69								1	3	25				28											
CB 7.7	207+75.00	18.00' RT	STMH 7.4	1										3	10				30											
STMH 7.4	207+52.63	1.55 LT	TUNNEL				11.7					1	1	1																EXISTING TUNNEL OPENING, SEE DETAIL - FIELD VERIFY DEPTH PRIOR TO ORDERING
CB 8.1	209+15.00	18.00' RT	CB 8.4	1										3	45	5			61											
CB 8.4	209+76.00	18.00' RT	STMH 8.1		7.97								1	3	25	10			30											
CB 8.5	210+10.00	12.12' RT	STMH 8.1	1										3B					6											
STMH 8.1	210+06.00	17.00' RT	STMH 8.3		11.7								1	1*	25	10			32											3' SUMP
CB 8.2	209+30.00	18.00' LT	CB 8.3	1										3					20											
CB 8.3	209+50.00	18.00' LT	CB 8.6	1										3		10			60											
CB 8.8	210+60.74	35.00' LT	CB 8.7	1										3B					32											SHALLOW STRUCTURE
CB 8.7	210+28.74	35.00' LT	CB 8.6	1										3B					30											SHALLOW STRUCTURE
CB 8.6	210+10.00	12.00' LT	STMH 8.2		8.26								1	3B		10					29									3' SUMP
EX 8.1	210+38.80	29.74' LT	STMH 8.2								1			EX	10		1					24								ST0470275
STMH 8.2	210+38.44	6.00' LT	STMH 8.3					1						1	10	10											23			
STMH 8.3	210+38.41	16.50' RT	EX BRICK ARCH					1						1	70			1												CAST IN PLACE STRUCTURE
UNDISTRIBUTED ROCK EXCAVATION																40														
PHASE 2 TOTALS				**18**	**69.67**	**0**	**11.7**	**2**	**1**	**0**	**1**	**7**	**10**		**240**	**160**	**1**	**2**	**445**	**82**	**401**	**266**	**24**	**0**	**0**	**0**	**0**	**23**	**0**	**0**	
CHART TOTALS				**43**	**137**	**17**	**38**	**5**	**1**	**1**	**5**	**12**	**23**		**580**	**305**	**3**	**7**	**1347**	**176**	**578**	**266**	**52**	**28**	**29**	**44**	**144**	**23**	**40**	**25**	

[1] MATERIAL CONSIDERED INCIDENTAL TO RESPECTIVE BID ITEM.

[2] (1) CASTING PER CITY OF DULUTH STANDARD DETAIL STRM-1.
(1*) STORM MANHOLE NON-PAVED AREAS PER CITY OF DULUTH STANDARD DETAIL STRM-5.
(2) CASTING PER CITY OF DULUTH STANDARD DETAIL STRM-2 (INLET WITH CURB BOX), STATION, OFFSET AND RIM MEASURED TO CENTER OF STRUCTURE
(2B) CASTING PER CITY OF DULUTH STANDARD DETAIL STRM-2B (INLET WITH CURB BOX - BICYCLE SAFE), STATION, OFFSET AND RIM MEASURED TO CENTER OF STRUCTURE
(3) CASTING PER CITY OF DULUTH STANDARD DETAIL STRM-3 (INLET W/ NO CURB BOX), STATION, OFFSET AND RIM MEASURED TO CENTER OF STRUCTURE
(3B) CASTING PER CITY OF DULUTH STANDARD DETAIL STRM-3B (INLET W/ NO CURB BOX - BICYCLE SAFE), STATION, OFFSET AND RIM MEASURED TO CENTER OF STRUCTURE

[3] SEE "SEDIMENT STRUCTURE 7TH" DETAIL FOR STORM SEDIMENT STRUCTURE INFORMATION

[4] SEE "SEDIMENT STRUCTURE 11TH" DETAIL FOR STORM SEDIMENT STRUCTURE INFORMATION

[5] CONCRETE ENCASED CASTING COLLAR FOR STORM MH IN ROADWAY, WALKS, & DRIVES PER CITY OF DULUTH STANDARD DETAIL STRM-5A.

[6] PAY HEIGHT = (RIM - INVERT) - CASTING HEIGHT = BASE
ASSUMED CASTING HEIGHT =0.67' ASSUMED BASE HEIGHT =0.7'

[7] FURNISHING AND INSTALLING CASTING ASSEMBLY IS CONSIDERED INCIDENTAL TO CONSTRUCT DRAINAGE STRUCTURE ITEMS THAT ARE MEASURED AND PAID BY THE UNIT EACH.

NO.	DATE	REVISION	BY

PROJECT DATE: .
DRAWN BY: ---
DESIGNED BY: ---
CHECKED BY: ---
PLOT DATE: 4/6/2020 10:20 AM, G:\00\00616\00616148\CADD\Construction Documents\00616148 - Construction Charts.dwg

I HEREBY CERTIFY THAT THIS PLAN, REPORT, OR SPECIFICATION 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.
MARCH 14, 2020 Date
46075 License No.
JASON DIPIAZZA, P.E.

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E. SECOND STREET RECONSTRUCTION
CITY OF DULUTH
CITY PROJECT NUMBER 1851

CONSTRUCTION CHART