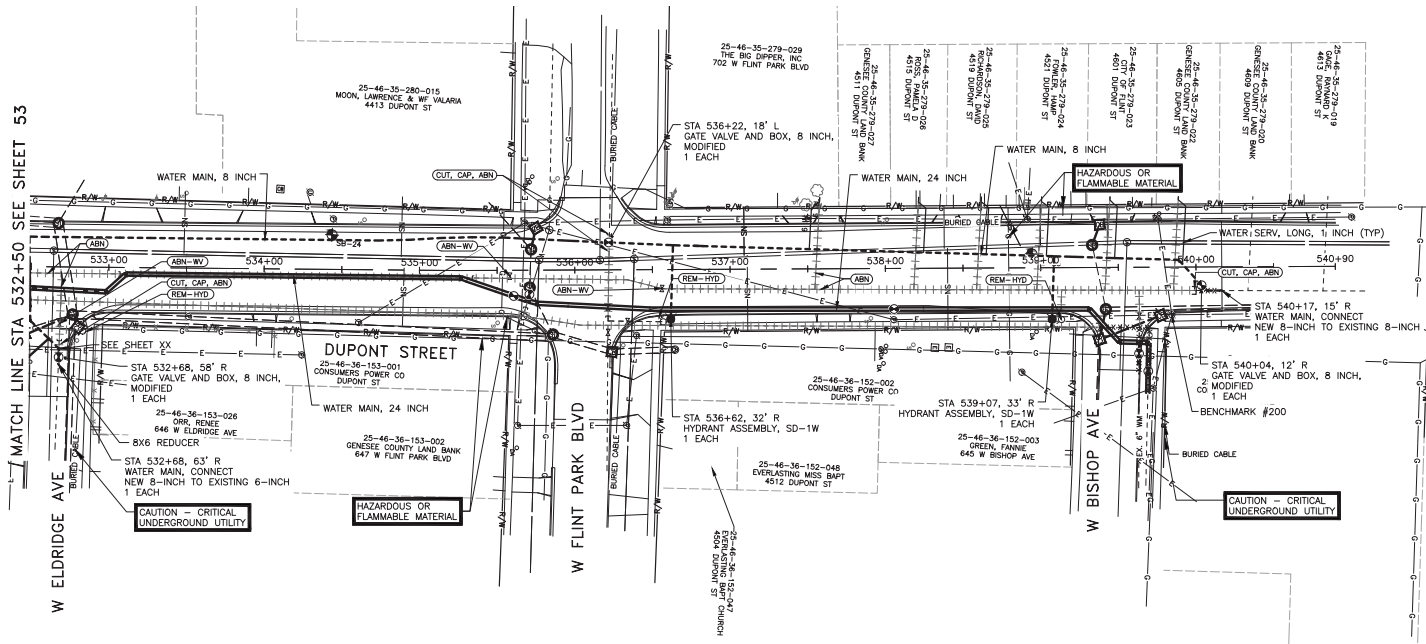
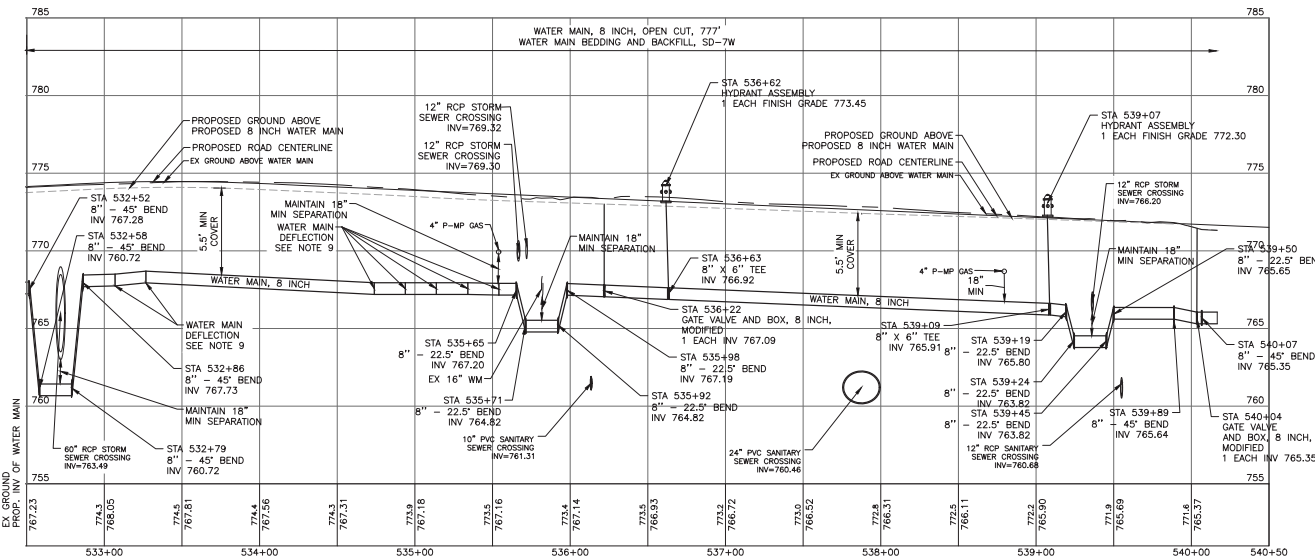
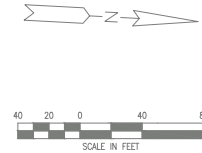


MATCH LINE STA 532+50 SEE SHEET 53



BENCHMARK #200  
DESCRIPTION: FOUND RAILROAD SPIKE IN POWER POLE  
LOCATED IN SOUTHEAST FACE OF POWER POLE AT THE NORTHEAST CORNER OF BISHOP AND DUPONT ST.  
NORTHING: 568050.275  
EASTING: 13297001.600  
ELEVATION: 772.401



### QUANTITIES THIS SHEET

ITEM	QUANTITY	UNIT
Gate Valve and Box, 6 inch, Modified	3	EA
Hydrant, Rem, Modified	3	EA
Hydrant Assembly, SD-1W	1	EA
Water Main, 6 inch, Cut and Plug, Modified	1	EA
Water Main, 8 inch, Cut and Plug, Modified	3	EA
Water Main, 8 inch, Open Cut	777	FT
Water Main Bedding and Backfill, SD-7W	777	FT
Water Main, Connect New 8 inch to Existing 6 inch	1	EA
Water Main, Connect New 8 inch to Existing 8 inch	1	EA
Water Serv, Long, 1 inch	6	EA
Water Structure, Abandon	3	EA

- NOTES:
1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST CITY OF FLINT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
  2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" COPORATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE COPORATIONS AND COPPER LINES UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
  3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
  4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
  5. A MINIMUM OF 5.5- FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
  6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
  7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD-7W.
  8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
  9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, 1/2 INCH, OPEN CUT.

SEE NEXT SHEET FOR 24" WATER MAIN INFORMATION



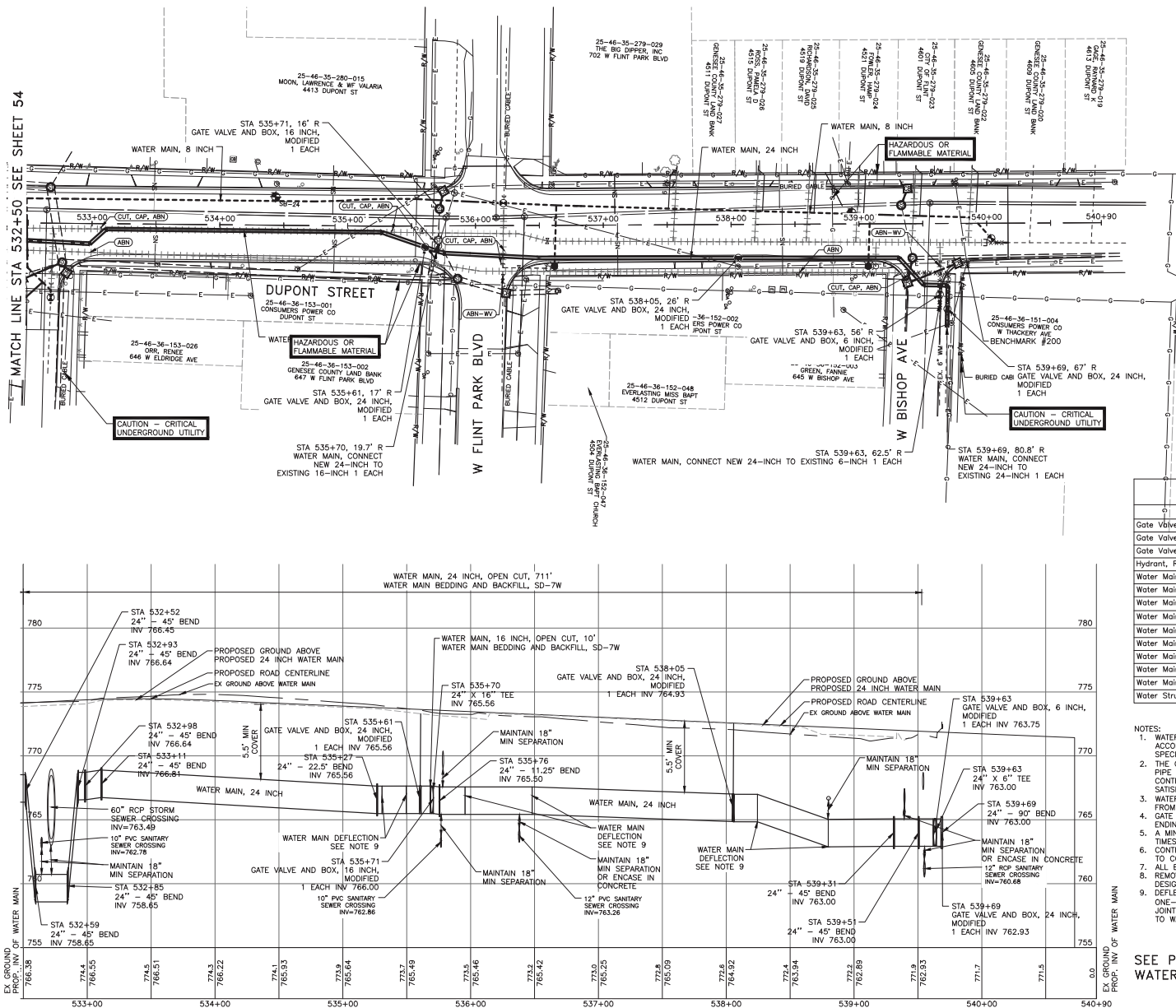
CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
DUPONT STREET - NORTH  
DUPONT NORTH WM 8-INCH P&P SHEET 5

ISSUED FOR: DATE: BY:  
2 PLANS 10/25/18 JUS  
FINAL REV 2/27/19 JUS  
FINAL PLANS 4/19/19 JUS

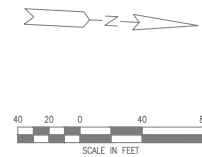
JOB NO.  
COF1065.01F

SHEET  
57

PROJECT MANAGER: C:\V\W\JN200906\JN200906.DWG - 45 DUPONT NORTH WM 24-INCH P&P SHEET 5 - PLOTTED 4/10/2019 12:18 PM BY RUGGLES, TMOYH



BENCHMARK 200  
DESCRIPTION: FOUND RAILROAD SPIKE IN POWER  
POLE  
LOCATED IN SOUTHEAST FACE OF POWER POLE  
AT THE NORTHEAST CORNER OF BISHOP AND  
DUPONT ST.  
NORTHING: 568050.275  
EASTING: 13297001.600  
ELEVATION: 772.401



### QUANTITIES THIS SHEET

ITEM	QUANTITY	UNIT
Gate Valve and Box, 24 inch, Modified	3	EA
Gate Valve and Box, 16 inch, Modified	1	EA
Gate Valve and Box, 6 inch, Modified	1	EA
Hydrant, Rem, Modified	1	EA
Water Main, 8 inch, Cut and Plug, Modified	5	EA
Water Main, 16 inch, Cut and Plug, Modified	1	EA
Water Main, 6 inch, Open Cut	15	FT
Water Main, 16 inch, Open Cut	10	FT
Water Main, 24 inch, Open Cut	746	FT
Water Main Bedding and Backfill, SD-7W	771	FT
Water Main, Connect New 24 inch to Existing 24 inch	1	EA
Water Main, Connect New 24 inch to Existing 16 inch	1	EA
Water Main, Connect New 24 inch to Existing 6 inch	1	EA
Water Structure, Abandon	2	EA

- NOTES:
1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST CITY OF FLINT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
  2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" COPORATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE COPORATIONS AND COPPER LINES UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
  3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
  4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
  5. A MINIMUM OF 5.5'-FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
  6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
  7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD-7W.
  8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
  9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, 1/2 INCH, OPEN CUT.

SEE PREVIOUS SHEET FOR 8" WATER MAIN INFORMATION



JOB NO. JN200906

BY

DATE

REVISION

DESCRIPTION

1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
DUPONT STREET - NORTH  
DUPONT NORTH WM 24-INCH P&P SHEET 5

ISSUED FOR: DATE: BY:  
2 PLANS 10/25/18 JLS  
FINAL REV 2/27/19 JLS  
FINAL PLANS 4/19/19 JLS

JOB NO.  
COF1065.01F

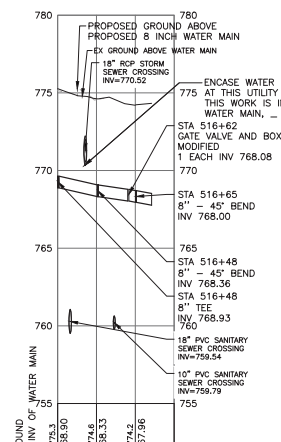
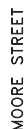
SHEET  
58

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WADE TRIM

155 S. Saginaw Street, Suite 201  
Flint, MI 48502  
www.wadetrims.com

PROJECT MANAGER: -



- NOTES:
1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH STANDARD ANS C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST CITY OF STAMPAWA STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTS SHALL BE OBSERVED AND MONITORED BY FLINT.
  2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" CORPORATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL PROVIDE 2" CORPORATIONS ON ALL 12" AND 18" WATER MAINS TO A SATISFACTORY TEST AND INSTALL COPED THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
  3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL SEPARATION FROM SANITARY DRAINAGE OR STORM SEWER.
  4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A 5.5- FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
  5. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO THE CONTRACTOR.
  6. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD-7W.
  7. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY MARK EXISTING HYDRANTS WITH A RED X AND A 12" OUT OF SERVICE SIGN.
  8. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT; IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO THE MAIN.

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
DUPONT STREET - NORTH  
DUPONT NORTH WM 8-INCH SIDE PROFILES

ISSUED FOR:	DATE:	BY:
GI PLANS	10/25/18	JJS
FINAL REVIEW	2/25/19	JJS
FINAL PLANS	4/19/19	JJS

JOB NO.  
COF1065.01F

SHEET

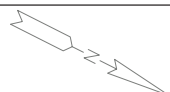
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REV#	DATE	DESCRIPTION	BY



Know what's **below**.  
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JOB NO. JN200906

[illegible]

UNIVERSITY AVE

POB: STA: 400+39.7

12" RCP ST

BURIED CABLE CB-5368

SS-5387

WATER MAIN, 8 INCH

WATER MAIN, 24 INCH

ST-5396

CB-24390

CB-29

CB-30

ST-5391

SS-5416 (A01-1)

HAZARDOUS OR FLAMMABLE MATERIAL

DUPONT STREET

CURB AND GUTTER CONC, DET F4

10' MULTI-USE PATH

BENCHMARK #205

BURIED CABLE

401+00

402+00

403+00

404+00

EX 6" FIRE SUPPRESSION LINE

MATCH LINE STA 403+50 SEE SHEET 64

DUPONT ST. NON-LEGAL ALIGNMENT



CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
DUPONT STREET - SOUTH  
DUPONT SOUTH PLAN AND REMOVAL SHEET 1

NOTES:

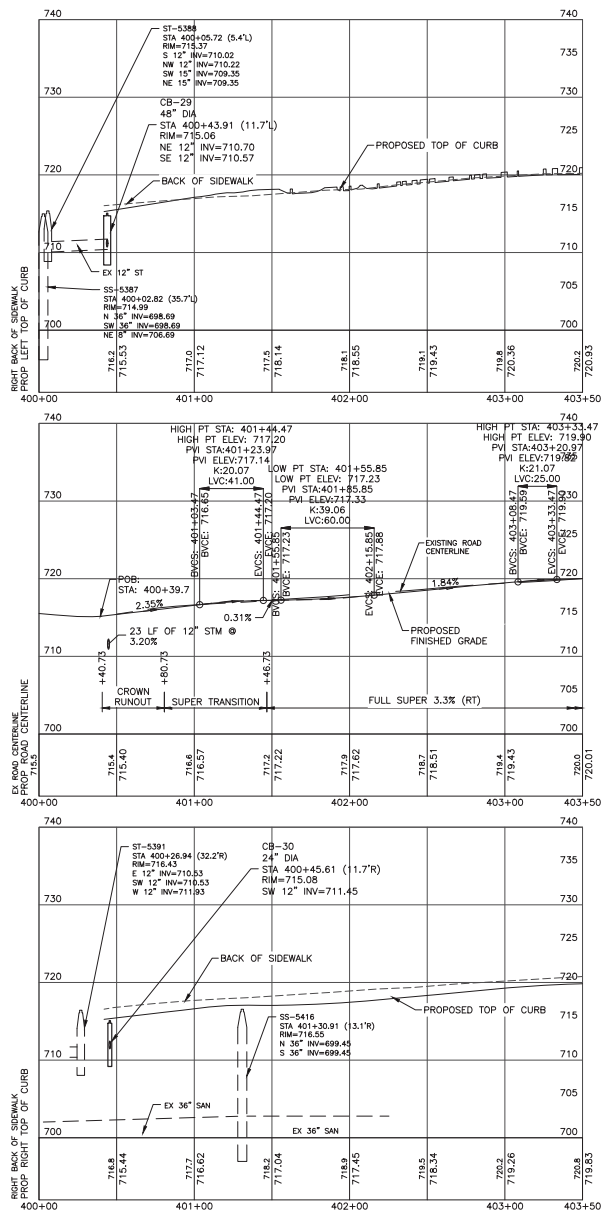
- WHERE STRUCTURE ADJ-1, ADJ-2, ADJ-3, ADJ-5 AND ADJ-6 ARE INDICATED ON THE PLANS, NUMBERS 1, 2, 3, 5 AND 6 CORRESPOND TO CITY OF FLINT CASTING DETAIL NUMBER OF 1, CF-1, CF-2, CF-3, CF-5, CF-6 RESPECTIVELY. THE STRUCTURES ARE TO BE ADJUSTED TO FINAL GRADE WITH NEW STRUCTURE FRAMES AND COVERS AS INDICATED ON THE LEGEND SHEET AND THE CITY OF FLINT CASTING DETAILS SHEET. CASTINGS OF 1, CF-2, CF-6 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE 'B'". CASTINGS OF CF-3 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE 'K'". CASTING OF CF-5 IS PAID FOR AS "DR STRUCTURE COVER, TYPE 'G'". ALL OTHER STRUCTURE COVER TYPES WILL REFER TO MDOT STANDARD PLANS.
- EXISTING STORM STRUCTURES THAT ARE TO BE TAPPED WITH A PROPOSED STORM SEWER ARE INDICATED IN THE STRUCTURE TABLE AS ST-###. THE "ST" INDICATES STRUCTURE TAP AND THE NUMBER (###) INDICATES THE EXISTING STORM STRUCTURE WHICH IS BEING TAPPED.
- WHERE PIPES ARE DESIGNATED FOR REMOVAL, THEY ARE TO BE REMOVED TO AN EXISTING STRUCTURE WHICH WILL REMAIN IN PLACE. THE PIPE OPENING IN THE STRUCTURE SHALL BE REPAIRED/BULK HEADED WITH BRICK AND MORTAR AS APPROVED BY THE ENGINEER.
- MDOT SOIL EROSION CONTROL MEASURE 29 IS INDICATED IN THE TOP PORTION OF THE SHEET FOR EXISTING STORM STRUCTURES WHICH ARE TO BE PROTECTED. SOIL EROSION CONTROL MEASURE 29 SHALL ALSO BE APPLIED TO EACH PROPOSED STORM CATCH BASIN WHICH IS INDICATED IN THE STRUCTURE TABLE AS CB-##.
- WHERE CATCH BASIN RIM ELEVATIONS ARE INDICATED ON THESE PLANS, THE ELEVATION LISTED REPRESENTS THE EDGE OF PAVEMENT ELEVATION.
- FOR ADDITIONAL CURB RADIUS INFORMATION AND DETAILED INTERSECTION GRADING, REFER TO THE DETAILED INTERSECTION GRADING SHEETS.



PROJECT MANAGER: Jeremy Schretz  
FIELD BOOK INFORMATION: -  
C:\PW\WORK\2\DOCS\2527\_CSP-PLTS-PROF-E-1.DWG - PROF 1 - PLOTTED 4/18/2019 12:30 PM BY RUGGLES, TIMOTHY

NOTES:

1. PORTIONS OF THE PROPOSED WATER MAINS HAVE BEEN SHOWN IN PROFILE VIEW WHERE CROSSING THE PROPOSED STORM SEWER. THE PROPOSED HYDRAULIC LEADS AND WATER MAIN CROSSINGS OF PROPOSED STORM SEWERS AT EACH SIDE STREET CONNECTION TO THE EXISTING STORM SEWERS HAVE BEEN SHOWN IN PLAN VIEW. FOR THE PROPOSED WATER MAIN CONSTRUCTION SHEETS FOR ADDITIONAL INFORMATION ON WATER MAIN CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE EXISTING WATER MAIN RECORDS. THE CONTRACTOR MAINTAINS A MINIMUM OF 18" VERTICAL CLEARANCE AT EACH CROSSING OF THE PROPOSED STORM SEWER. (THIS REQUIRES THE ADJUSTMENT OF THE PROPOSED WATER MAINS TO THE EXISTING SEWER DEPTHS LOCATIONS FROM WHICH IT IS PROPOSED ON THESE PLANS. THE CONTRACTOR SHALL COORDINATE THESE ADJUSTMENTS WITH THE PROJECT ENGINEER.
2. THE EXACT LOCATION AND DEPTH OF EXISTING WATER MAINS ARE UNKNOWN AND THEIR CROSSING OF THE PROPOSED STORM SEWERS HAVE NOT BEEN SHOWN ON THESE PROFILES.
3. EXISTING PRIVATE UTILITY LOCATIONS AND DEPTHS ARE UNKNOWN. WHERE POSSIBLE A NOTE HAS BEEN ADDED TO THE PROFILE SHEETS TO POINT OUT THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPOSED STRUCTURE. IF A CONFLICT BETWEEN ANY EXISTING UTILITY AND A PROPOSED UTILITY IS FOUND DURING CONSTRUCTION THE CONTRACTOR SHALL COORDINATE ANY REQUIRED ADJUSTMENTS WITH THE PROJECT ENGINEER.



JOB NO. JN200906



Know what's **below**.  
**Call** before you dig.

[illegible]

555 S. Saginaw Street, Suite 201  
Flint, MI 48502  
810.235.2555  
[www.wisefit.com](http://www.wisefit.com)

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
DUPONT STREET - SOUTH  
DUPONT SOUTH PROFILE

ISSUED FOR:	DATE:	BY:
GI PLANS	10/25/18	JJS
FINAL REVIEW	2/25/19	JJS
FINAL PLANS	4/19/19	JJS

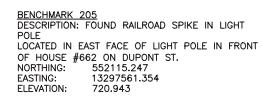
JOB NO.  
COE1065 01F

SHEET

61

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**PROJECT MANAGER:** Jeremy Schrot



NOTES:

1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH ASTM A600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST CITY OF PLANT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE CORROSIONS AFTER THE TESTS UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
4. THE VENTS AT THE JOINTS SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
5. A MINIMUM OF 5.5'-FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL LOCATIONS.
6. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL 10-7W.
8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, \_INCH, OPEN CUT.



<u>QUANTITIES THIS SHEET</u>			
		JN 200906	
		CAT 0003	
ITEM		QUANTITY	UNIT
Gate Valve and Box, 8 inch, Modified		2	EA
Water Main Bedding and Backfill, SD--7W		330	FT
Water Main, 8 inch, Open Cut		330	FT
Water Main, 6 inch, Cut and Plug, Modified		3	EA
Water Main, Connect New 8 inch to Existing 6 inch		2	EA
Water Main, Rem		30	FT
Water Serv, 1 inch		4	EA

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
DUPONT STREET - SOUTH  
DUPONT SOUTH WM 8-INCH P&P SHEET 1

ISSUED FOR:	DATE:	BY:
GI PLANS	10/25/18	JJS
FINAL REVIEW	2/25/19	JJS
FINAL PLANS	4/19/19	JJS

JOB NO.  
COF1065.01F

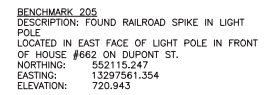
SHEET

62



Know what's **below**.  
**Call** before you dig.

JOB NO. JN200906



- NOTES:
1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST CITY OF CHICAGO STANDARDS FOR WATER MAINS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
  2. THE CONTRACTOR SHALL INSTALL AS A MINIMUM, 2" COPPER LINES TO THE PRESSURE MAIN WATER MAINS FOR TESTING AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE COPPER LINES AND COPPER LINES UPON A SATISFACTORY TEST. THE CONTRACTOR SHALL BE RESPONSIBLE TO FINAL ACCEPTANCE.
  3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
  4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH OF LEAD FOR END TO END TESTING.
  5. A MINIMUM OF 5.5- FEET OF COVER SHALL BE ACHIEVED OVER A WATER MAIN AT ALL TIMES.
  6. CONTRACTOR SHALL VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
  7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL.
  8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS.
  9. CONTRACTOR SHALL CLEARLY DEMARK WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
  10. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT; IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, UNCH, OPEN CUT.



QUANTITIES THIS SHEET			
		JN 200906	
		CAT 0003	
ITEM		QUANTITY	UNIT
Gate Valve and Box, 24 inch, Modified		1	EA
Water Main Bedding and Backfill, SD-7W		265	FT
Water Main, 24 inch, Open Cut		265	FT
Water Main, 16 inch, Cut and Plug, Modified		1	EA
Water Main, Connect New 24 inch to Existing 16 inch		1	EA
Water Main, Rem		20	FT
Water Structure, Abandon		2	EA

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
DUPONT STREET - SOUTH  
DUPONT SOUTH WM 24-INCH P&P SHEET 1

ISSUED FOR:	DATE:	BY:
GI PLANS	10/25/18	JJS
FINAL REVIEW	2/25/19	JJS
FINAL PLANS	4/19/19	JJS

JOB NO.  
COF1065.01F

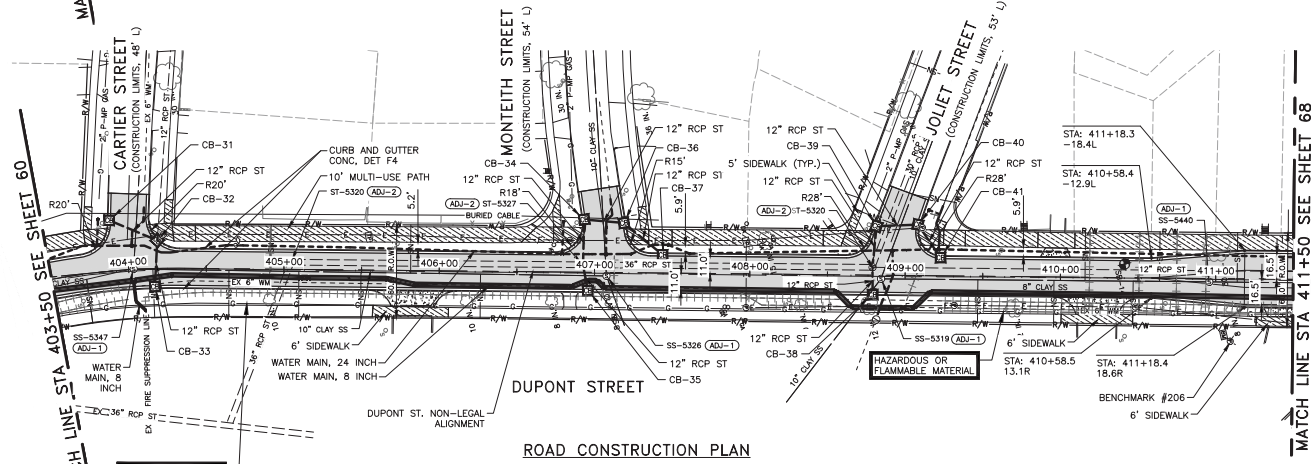
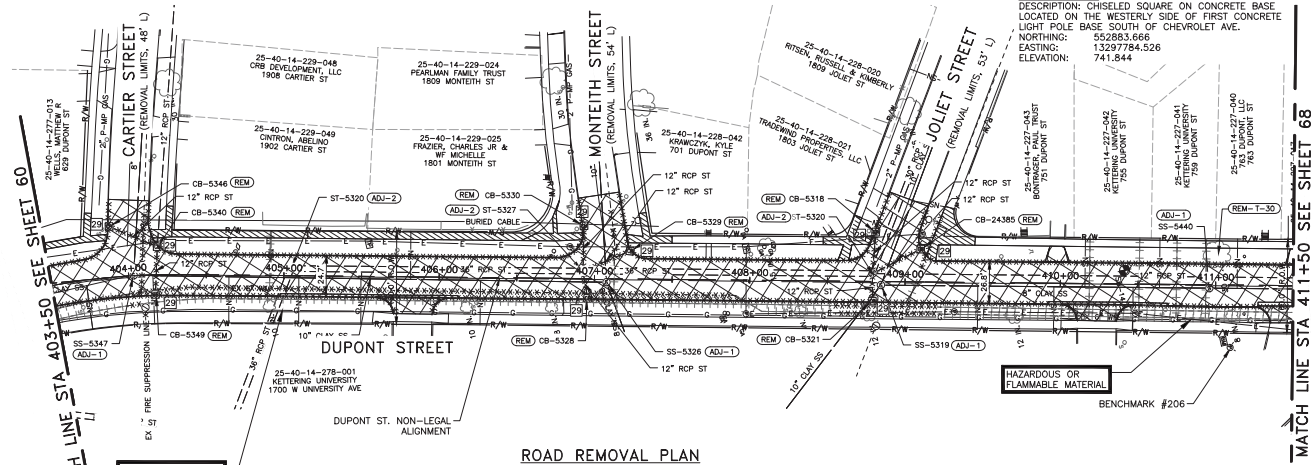
SHEET

63

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MAINLINE QUANTITIES - THIS SHEET			
ITEM	JUN 200906		UNIT
	CAT	QUANTITY	
Dr Structure, Rem	9	EA	
Sewer, Rem, Less than 24 inch	224	FT	
Sidewalk, Rem	453	SYD	
Pavt, Rem, Modified	3023	SYD	
Tree Rem, 19 inch to 36 inch	1	EA	
Embankment, CIP	81	CYD	
Excavation, Earth	1600	CYD	
Aggregate Base, 6 inch	669	SYD	
Aggregate Base, 12 inch	2473	SYD	
Sewer, CL E, 12 inch, Tr Det B	266	FT	
Sewer Bulkhead, 12 inch	2	EA	
Dr Structure Cover, Adj, Case 1	7	EA	
Dr Structure Cover, Type B	7	EA	
Dr Structure Cover, type K	11	EA	
Dr Structure, 24 inch dia	6	EA	
Dr Structure, 48 inch dia	5	EA	
Dr Structure, Adj, Adj Depth	3	FT	
Dr Structure, Tap, 12 inch	4	EA	
Underdrain, Subbase, 6 inch	1635	FT	
Hand Patching	20	TON	
HMA, 3E1	601	TON	
HMA, 4E1	401	TON	
HMA, 5E1	301	TON	
HMA Approach	85	TON	
Driveway, Nonreinf Conc, 6 inch	106	SYD	
Curb and Gutter, Conc, Det F4	1688	FT	
Curb Ramp Opening, Conc	60	FT	
Sidewalk Ramp, Conc, 6 inch	988	SFT	
Sidewalk, Conc, 4 inch	6290	SFT	
Sidewalk, Conc, 6 inch	597	SFT	
Detectable Warning Surface, Modified	50	FT	
Tru Establishment, Performance	1778	SYD	

DRIVEWAY QUANTITIES - THIS SHEET						
STA	SIDE	HOUSE #	PAVT, REM, MAINT (SYD)	DRIVEWAY, NONREIN CONC, 6 INCH (SYD)	DRIVEWAY, NONREIN CONC, 9 INCH (SYD)	AGGREGATE BASE, 6 INCH (SYD)
405+83	R	1700	37	40	0	40
409+98	L	751	14	10	0	10
410+24	R	1700	37	41	0	41
411+45	R	1700	32	15	0	15

PROPOSED DRAINAGE STRUCTURES							
STR NO	STATION	OFFSET	SIZE	RIM	COVER TYPE	PIPE DIRECTION, SIZE, AND INVERT	DISTANCE TO DOWN STREAM STR
CB-31	403+90.29	32.7" L	24"	720.78	K	NE 12" 717.58	33.62' CB-32
CB-33	404+16.60	11.7" R	24"	720.22	K	W 12" 717.60	29.79' CB-32
CB-32	404+18.85	18.0' L	48"	720.50	K	SW 12" 717.42 E 12" 717.42 W 12" 717.42	
ST-5327	406+92.53	4.8' L				W 12" 718.89 E 12" 718.54	
CB-34	406+93.06	34.0' L	48"	722.81	K	E 12" 719.10 N 12" 719.10	29.20' ST-5327
CB-35	406+95.82	11.7" R	24"	722.66	K	W 12" 718.68	16.83' ST-5327
CB-36	407+18.62	32.0' L	48"	723.29	K	S 12" 719.40 NE 12" 719.90	25.64' CB-34

PROPOSED DRAINAGE STRUCTURES							
STR NO	STATION	OFFSET	SIZE	RM	COVER TYPE	PIPE, SIZE, DIRECTION, SLOPE, AND INVERT	DISTANCE TO DOWN STREAM STRUCTURE
CB-37	407+43.75	11.7' L	24"	724.12	K	SW 12" 720.50	32.31' CB-36
ST-5320	408+78.96	5.0' L				W 12" 725.05 E 12" 724.25	
CB-38	408+79.22	12.5' R	24"	729.30	K	W 12" 724.39	17.57' ST-5320
CB-39	408+81.28	31.5' L	48"	729.28	K	E 12" 725.26 N 12" 725.26	26.59' ST-5320
CB-40	409+07.91	32.8' L	48"	729.64	K	E 12" 724.95 S 12" 725.45	26.66' CB-39
CB-41	409+22.73	11.7' L	24"	731.00	K	W 12" 726.80	25.80' CB-40

## NOTES

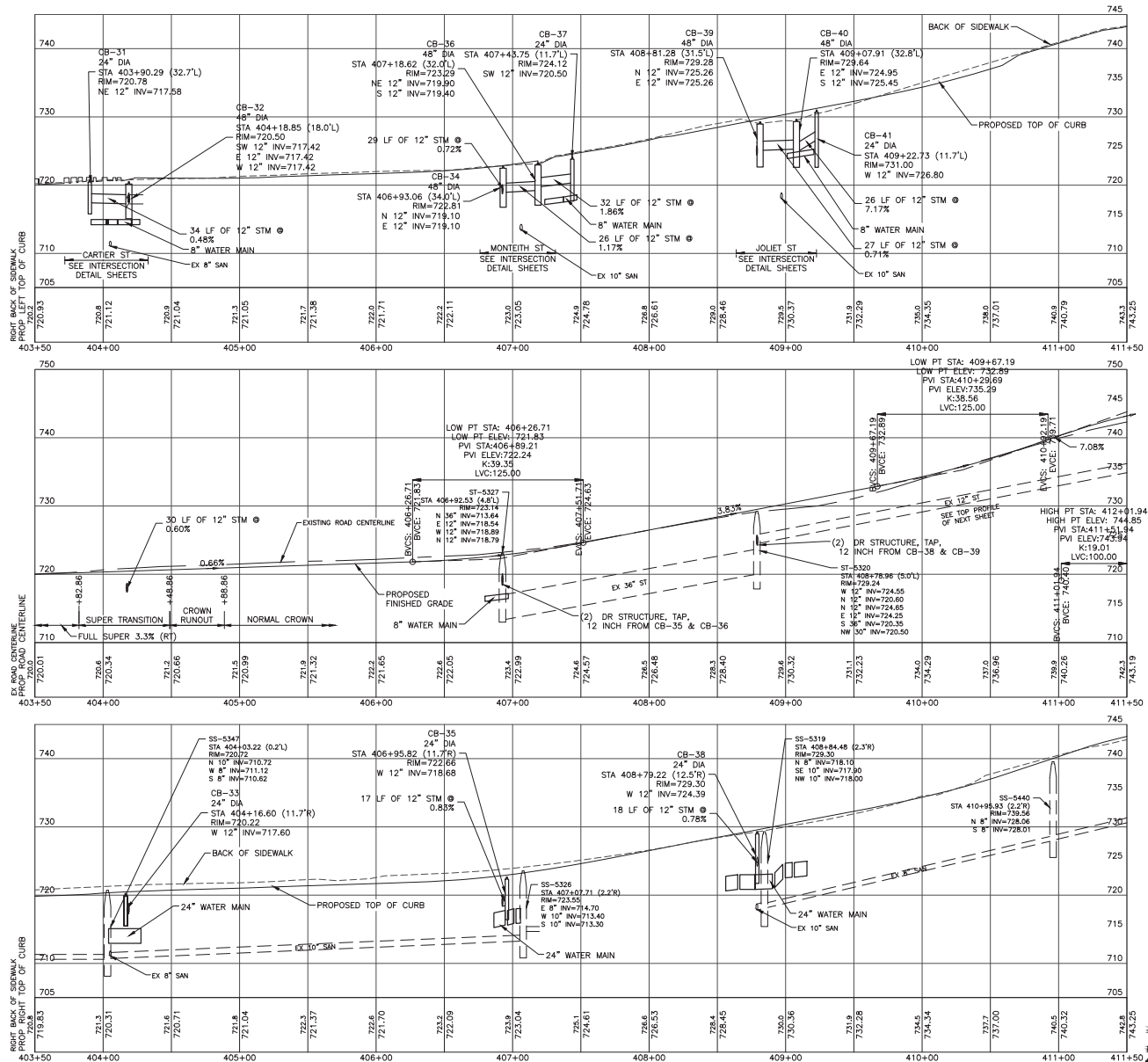
1. WHERE STRUCTURE ADJ-1, ADJ-2, ADJ-3, ADJ-5 AND ADJ-6 ARE INDICATED ON THE PLANS, NUMBERS 1, 2, 3, 5 AND 6 CORRESPOND TO CITY OF FLINT CASTING DETAIL NUMBERS CF-1, CF-2, CF-3, CF-4, CF-5, CF-6 RESPECTIVELY. THE STRUCTURES ARE TO BE ADJUSTED TO FINAL GRADE. THE STRUCTURE FRAMES AND COVERS AS INDICATED ON THE LEGEND SHEET AND THE CITY OF FLINT CASTING DETAILS SHEET. CASTINGS CF-1, CF-2, CF-6 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE B". CASTINGS CF-3 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE C". CASTING CF-5 IS PAID FOR AS "DR STRUCTURE COVER, TYPE G". ALL OTHER STRUCTURE COVER TYPES WILL REFER TO MDOT STANDARD PLANS.
2. EXISTING STORM STRUCTURES THAT ARE TO BE TAPPED WITH A PROPOSED STORM SEWER ARE INDICATED IN THE STRUCTURE TABLE AS ST-###. THE "ST" INDICATES STRUCTURE TAP AND THE NUMBER (###) INDICATES THE EXISTING STORM STRUCTURE WHICH IS BEING TAPPED.
3. WHERE PIPES ARE DESIGNATED FOR REMOVAL, THEY ARE TO BE REMOVED TO AN EXISTING STRUCTURE WHICH WILL REMAIN IN PLACE. THE PIPE OPENING IN THE STRUCTURE SHALL BE REPAIRED/BULK HEADED WITH BRICK AND MORTAR AS APPROVED BY THE ENGINEER.
4. MUD SOIL EROSION CONTROL MEASURE 29 IS INDICATED IN THE TOP PORTION OF THE SHEET FOR EXISTING STORM STRUCTURES WHICH ARE TO BE PROTECTED. SOIL EROSION CONTROL MEASURE 29 SHALL ALSO BE APPLIED TO EACH PROPOSED STORM CATCH BASIN WHICH IS INDICATED IN THE STRUCTURE TABLE AS CB-##.
5. WHERE CATCH BASIN RIM ELEVATIONS ARE INDICATED ON THESE PLANS, THE ELEVATION LISTED REPRESENTS THE EDGE OF PAVEMENT ELEVATION.
6. FOR ADDITIONAL CURB RADIUS INFORMATION AND DETAILED INTERSECTION GRADING, REFER TO THE DETAILED INTERSECTION GRADING SHEETS.



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- NOTES:
- PORTIONS OF THE PROPOSED WATER MAINS HAVE BEEN SHOWN IN PROFILE VIEW WHERE CROSSING THE PROPOSED STORM SEWER. THE PROPOSED HYDRANT LEADS AND WATER MAIN CROSSINGS OF PROPOSED STORM SEWERS AT EACH SIDE STREET CONNECTION TO THE EXISTING WATER MAINS HAVE NOT BEEN SHOWN ON THESE PROFILES. SEE THE WATER MAIN CONSTRUCTION SHEETS FOR ADDITIONAL INFORMATION ON WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE PROPOSED WATER MAIN AT A DEPTH THAT MAINTAINS A MINIMUM OF 18" VERTICAL CLEARANCE AT EACH CROSSING OF THE PROPOSED STORM SEWER. IF THIS REQUIRES THE ADJUSTMENT OF PROPOSED WATER MAIN OR STORM SEWER DEPTHS OR LOCATIONS FROM WHAT IS PROPOSED ON THESE PLANS, THE CONTRACTOR SHALL COORDINATE THESE ADJUSTMENTS WITH THE PROJECT ENGINEER.
  - THE EXACT LOCATION AND DEPTH OF EXISTING WATER MAINS ARE UNKNOWN AND THEIR CROSSING OF THE PROPOSED STORM SEWERS HAVE NOT BEEN SHOWN ON THESE PROFILES.
  - EXISTING PRIVATE UTILITY LOCATIONS AND DEPTHS ARE UNKNOWN. WHERE POSSIBLE A NOTE HAS BEEN ADDED TO THE PROFILE SHEETS TO POINT OUT THAT THERE MAY BE A UTILITY CROSSING IN THE AREA OF A PROPOSED STRUCTURE. IF A CONFLICT BETWEEN ANY EXISTING UTILITY AND A PROPOSED UTILITY IS FOUND DURING CONSTRUCTION THE CONTRACTOR SHALL COORDINATE ANY REQUIRED ADJUSTMENTS WITH THE PROJECT ENGINEER.



JOB NO. JN200906

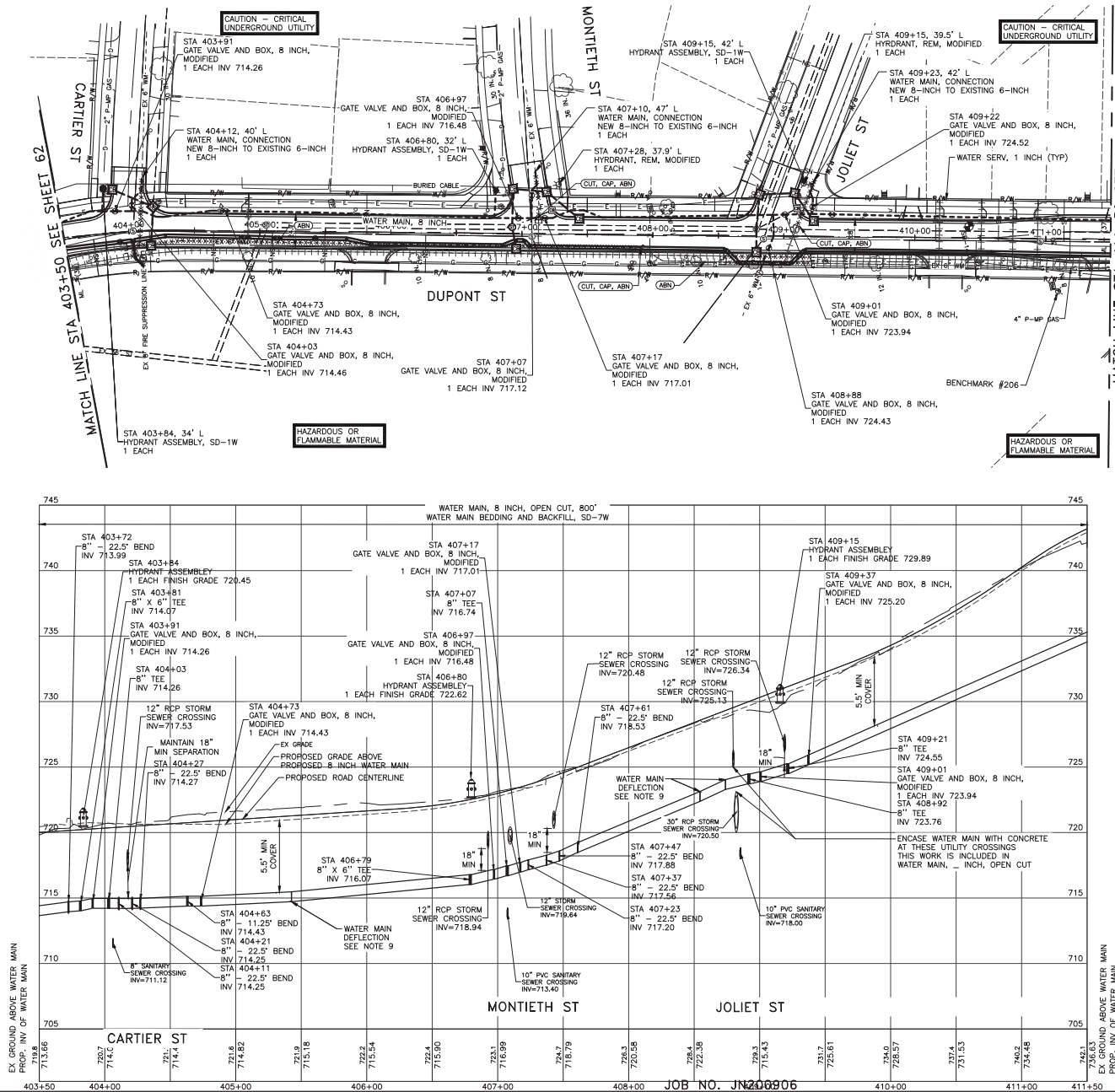
Know what's below.  
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**WADE TRIM**  
 500 S. Saginaw Street, Suite 201  
 Flint, MI 48902  
 www.wadetrimsouth.com

**CITY OF FLINT**  
 1101 SOUTH SAGINAW STREET  
 FLINT, MI 48902  
 DUPONT STREET - SOUTH  
 DUPONT SOUTH PROFILE 2

ISSUED FOR: DATE: BY:  
 FOR PLANS: 10/25/19 JLS  
 FINAL REVIEW: 2/25/19 JLS  
 FINAL PLANS: 4/18/19 JLS

JOB NO. C0F1065.01F  
 SHEET 65



BENCHMARK #206  
 DESCRIPTION: CHISELED SQUARE ON CONCRETE BASE  
 LOCATED ON THE WESTERLY SIDE OF FIRST CONCRETE  
 LIGHT POLE BASE, SOUTH OF CHEVROLET AVE.  
 NORTHING: 552863.666  
 EASTING: 13297784.526  
 ELEVATION: 741.844

- NOTES:
1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST THE CITY OF FLINT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
  2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" CORPORATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE CORPORATIONS AND COPPER LINES UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
  3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
  4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
  5. A MINIMUM OF 5.5- FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
  6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
  7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL, SD-7W.
  8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
  9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, \_INCH, OPEN CUT.

# QUANTITIES THIS SHEET

ITEM	JN 200906	CAT 0003	QUANTITY	UNIT
Gate Valve and Box, 8 inch, Modified			3	EA
Hydrant Assembly, SD-1W			3	EA
Hydrant, Rem, Modified			2	EA
Water Main Bedding and Backfill, SD-7W			870	FT
Water Main, 8 inch, Open Cut			870	FT
Water Main, 6 inch, Cut and Plug, Modified			3	EA
Water Main, Connect New 8 inch to Existing 6 inch			115	FT
Water Main, Rem			5	EA
Water Serv, 1 inch				

CITY OF FLINT  
 1101 SOUTH SAGINAW STREET  
 FLINT, MI 48502  
 DUPONT STREET - SOUTH  
 DUPONT SOUTH WM 8-INCH P&P SHEET 2

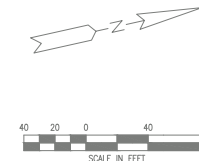
ISSUED FOR: DATE: 6/1  
 10 PLANS 10/23/18  
 FINAL REVIEW 2/25/19 JLS  
 FINAL PLANS 4/15/19 JLS

JOB NO. COF1065.01F

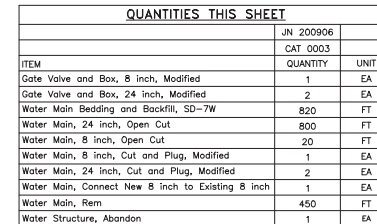
SHEET

66





1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST CITY OF CHICAGO STANDARD SPECIFICATIONS FOR WATER MAINS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FIELD.
2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" CORROSION RESISTANT PRESSURE RATED COPPER OR GALVANIZED STEEL PIPE AND FOR BLOW-OFF PURPOSES, THE CONTRACTOR SHALL REMOVE THE CORROSIONS AND COPPER LINES UPON A SATISFACTORY TEST OF THE COPPER LINES. CORROSION SHALL BE REMOVED.
3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR SEWER TOWER.
4. LEAKY VALVES AT ALL EXISTING WATER MAINS HAVE ONE PIPE LAMP ADDED PRIOR TO ENDING WITH A HYDRANT.
5. A MINIMUM OF 5.5'-FEET OF COVER SHALL BE ACHIEVED OVER ALL EXISTING WATER MAINS PRIOR TO THE INSTALLATION OF THE NEW WATER MAIN.
6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF CHICAGO DETAIL 50-7W.
8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL REMOVALLY RELOCATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN TO MORE THAN ONE-HALF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAINS, OPEN ENDS.



67



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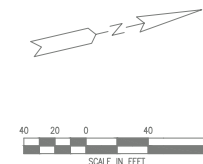
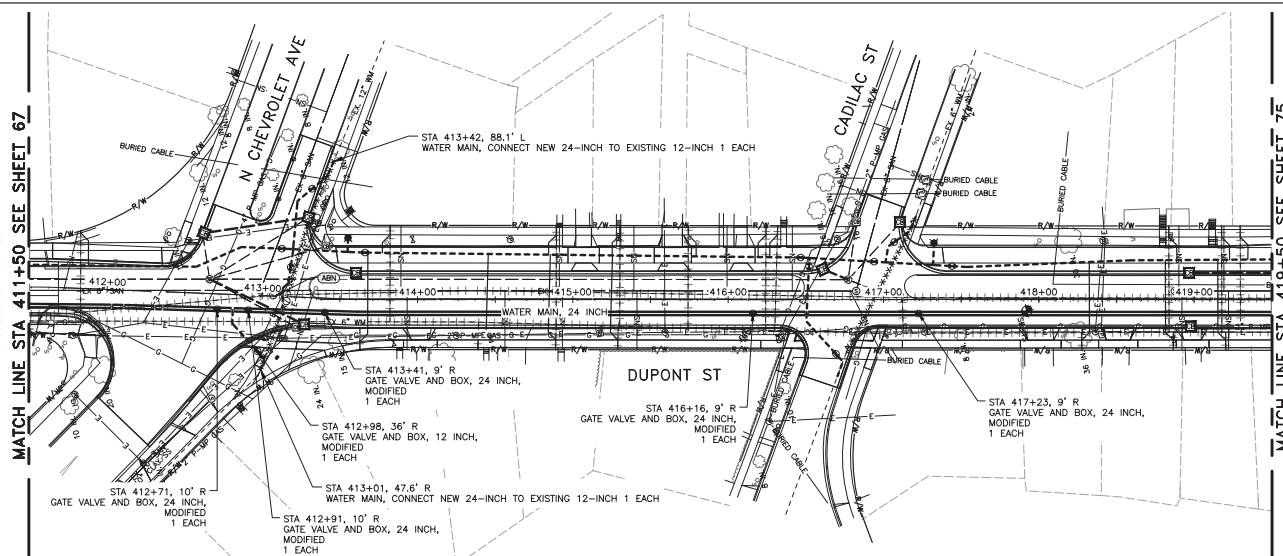




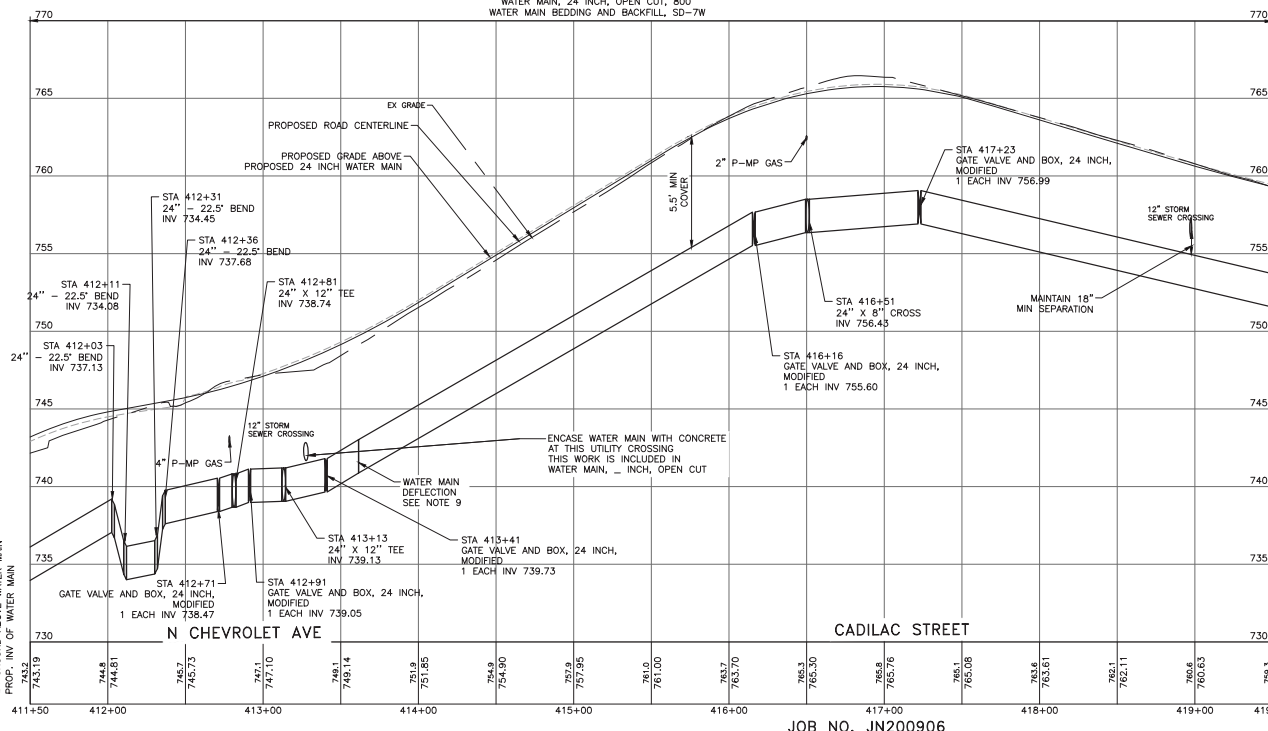








- NOTES:
1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST CITY OF CHICAGO STANDARDS FOR CHLORINATION OF WATER MAINS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
  2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" CORPORATION COUPLERS, PRESSURE TIGHT, 15' MINIMUM LENGTH, 15' MINIMUM SEPARATION, AND FOR BLOW-OFF PURPOSES, THE CONTRACTOR SHALL REMOVE THE CORPORATIONS AND COPPER LINES UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
  3. ALL EXISTING MAINS SHALL HAVE LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
  4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED TO THE END OF LINE TO ALLOW FOR REMOVAL.
  5. A MINIMUM OF 5.0' FREE WATER COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
  6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATION PRIOR TO CONNECTION.
  7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL 50-7W.
  8. EXISTING HYDRANTS AS INDICATED ON THE PLANS.
  9. CONTRACTOR SHALL CLEARLY DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
  10. EXISTING WATER MAINS AS NOTED ON THE PLANS, DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, OPEN CUT.



QUANTITIES THIS SHEET			
ITEM	CAT	JN 200906	UNIT
		0003	
		QUANTITY	
Gate Valve and Box, 12 inch, Modified		2	EA
Gate Valve and Box, 24 inch, Modified		5	EA
Water Main Bedding and Backfill, 50-7W		325	FT
Water Main, 24 inch, Open Cut		800	FT
Water Main, 12 inch, Open Cut		125	FT
Water Main, 12 inch, Cut and Plug, Modified		2	EA
Water Main, 24 inch, Cut and Plug, Modified		2	EA
Water Main, Connect New 12 inch to Existing 12 inch		2	EA
Water Main, Rem		120	FT
Water Structure, Abandon		1	EA

PROJECT MANAGER: Jeremy Schrot  
FIELD BOOK INFORMATION:--  
58 DUPONT SOUTH WM 24-INCH P&P SHEET 3 - PLOTTED 4/18/2019 12:52 PM BY RUGGLES, TIMOTHY

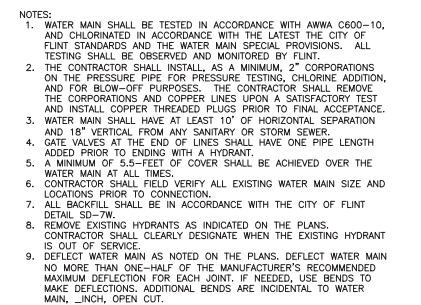
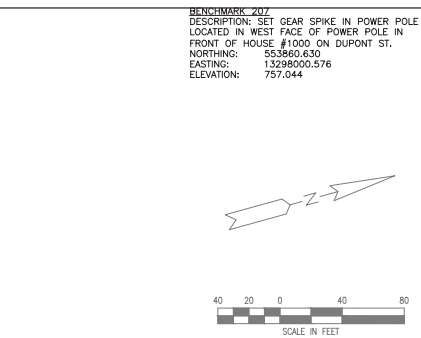












<u>QUANTITIES THIS SHEET</u>			
		JN 200906	
		CAT. 0003	
ITEM		QUANTITY	UNIT
Gate Valve and Box, 12 inch, Modified		1	EA
Gate Valve and Box, 24 inch, Modified		4	EA
Water Main Bedding and Backfill, 5D-7W		880	FT
Water Main, 24 inch, Open Cut		800	FT
Water Main, 12 inch, Open Cut		80	FT
Water Main, Connect New 12 inch to Existing 12 inch		2	EA
Water Main, Rem		20	FT
Water Structure, Abandon		2	EA

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
DUPONT STREET - SOUTH  
DUPONT SOUTH WM 24-INCH P&P SHEET 4

ISSUED FOR:	DATE:	BY:
GI PLANS	10/25/18	JJS
FINAL REVIEW	2/25/19	JJS
FINAL PLANS	4/19/19	JJS

JOB NO.  
COF1065.01F

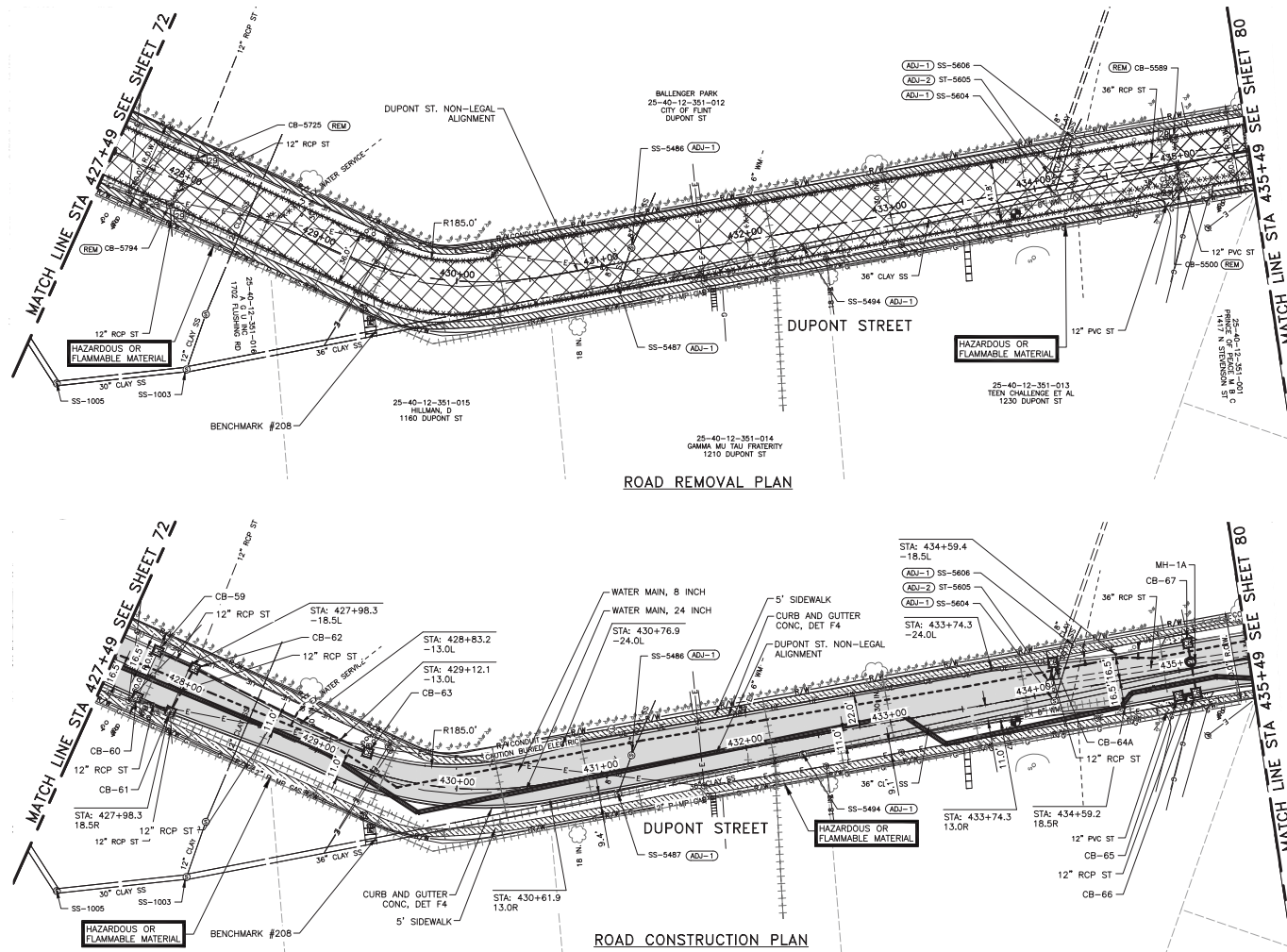
SHEET  
75

Page 10 of 10

PROJECT MANAGER: Jeremy Schrad  
 FILE NO.: W:\WORK\100852527\CRP-PLTS-WATERMAIN PHASE 2.DWG - 62 DUPONT SOUTH 24-INCH P&P SHEET 4 - PLOTTED 4/18/2019 1:02 PM BY RUGGLES, TIMOTHY



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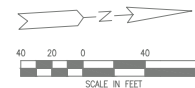
DRIVEWAY QUANTITIES - THIS SHEET					
STA	SIDE	HOUSE #	PAVT. REM. MODIFIED (SYD)	DRIVEWAY, NONREINF. CONC. 6 INCH (SYD)	AGGREGATE BASE, 6 INCH (SYD)
435+05	R	1230	40	16	0
435+06	L	CITY OF FLINT	11	11	0

NOTES:

- WHERE STRUCTURE ADJ-1, ADJ-2, ADJ-3, ADJ-5 AND ADJ-6 ARE INDICATED ON THE PLANS, NUMBERS 1, 2, 3, 5 AND 6 CORRESPOND TO CITY OF FLINT CASTING DETAIL NUMBERS CF-1, CF-2, CF-3, CF-5, CF-6 RESPECTIVELY. THE STRUCTURES ARE TO BE ADJUSTED TO FINAL GRADE WITH NEW STRUCTURE FRAMES AND COVERS AS INDICATED ON THE LEGEND SHEET AND THE CITY OF FLINT CASTING DETAILS SHEET. CASTINGS CF-1, CF-2, CF-3, CF-5 AND CF-6 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE B". CASTINGS CF-4 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE K". CASTING CF-5 IS PAID FOR AS "DR STRUCTURE COVER, TYPE G". ALL OTHER STRUCTURE COVER TYPES WILL REFER TO MOOT STANDARD PLANS.
- EXISTING STORM STRUCTURES THAT ARE TO BE TAPPED WITH A PROPOSED STORM SEWER ARE INDICATED IN THE STRUCTURE TABLE AS ST-###. THE "ST" INDICATES STRUCTURE TAP AND THE NUMBER (###) INDICATES THE EXISTING STORM STRUCTURE WHICH IS BEING TAPPED.
- WHERE PIPES ARE DESIGNATED FOR REMOVAL, THEY ARE TO BE REMOVED TO AN EXISTING STRUCTURE WHICH WILL REMAIN IN PLACE. THE PIPE OPENING IN THE STRUCTURE SHALL BE REPAIRED/BULK HEADED WITH BRICK AND MORTAR AS APPROVED BY THE ENGINEER.
- MOOT SOIL EROSION CONTROL MEASURE 29 IS INDICATED IN THE TOP PORTION OF THE SHEET FOR EXISTING STORM STRUCTURES WHICH ARE TO BE PROTECTED. SOIL EROSION CONTROL MEASURE 29 SHALL ALSO BE APPLIED TO EACH PROPOSED STORM CATCH BASIN WHICH IS INDICATED IN THE STRUCTURE TABLE AS CB-##.
- WHERE CATCH BASIN RIM ELEVATIONS ARE INDICATED ON THESE PLANS, THE ELEVATION LISTED REPRESENTS THE EDGE OF PAVEMENT ELEVATION.
- FOR ADDITIONAL CURB RADIUS INFORMATION AND DETAILED INTERSECTION GRADING, REFER TO THE DETAILED INTERSECTION GRADING SHEETS.

JOB NO. JN200906

BENCHMARK 208  
DESCRIPTION: CHISELED SQUARE ON CONCRETE STEP  
LOCATED ON TOP OF THE NORTHERLY CORNER OF THE  
SECOND STEP TO PHI-DELTA-THETA  
NORTHING: 554650.732  
EASTING: 13298277.074  
ELEVATION: 746.545



MAINLINE QUANTITIES - THIS SHEET		
ITEM	QUANTITY	UNIT
Dr Structure, Rem	4	EA
Sewer, Rem, Less than 24 inch	70	FT
Sidewalk, Rem	830	SYD
Pavt, Rem, Modified	3607	SYD
Embankment, CIP	197	CYD
Excavation, Earth	1500	CYD
Aggregate Base, 6 inch	560	SYD
Aggregate Base, 12 inch	3199	SYD
Sewer, CL E, 12 inch, Tr Det B	306	FT
Dr Structure Cover, Adj, Case 1	6	EA
Dr Structure Cover, Type B	7	EA
Dr Structure Cover, Type K	9	EA
Dr Structure, 24 inch dia	5	EA
Dr Structure, 48 inch dia	3	EA
Dr Structure, 60 inch dia	2	EA
Dr Structure, Adj, Add Depth	3	FT
Dr Structure, Tap, 12 inch	1	EA
Underdrain, Subbase, 6 inch	1600	FT
Hand Patching	20	TON
HMA, 3E1	552	TON
HMA, 4E1	368	TON
HMA, 5E1	276	TON
Driveway, Nonreinf Conc, 6 inch	27	SYD
Curb and Gutter, Conc, Det F4	1600	FT
Sidewalk, Conc, 4 inch	8023	SFT
Sidewalk, Conc, 6 inch	337	SFT
Turf Establishment, Performance	1778	SYD

PROPOSED DRAINAGE STRUCTURES								
STR NO	STATION	OFFSET	SIZE	RIM	COVER TYPE	PIPE DIRECTION, SIZE, AND INVERT	DISTANCE TO DOWN STREAM STR	
CB-59	427+73.67	17.2' L	24"	742.68	K	NE 12" 739.40	27.82'	CB-62
CB-60	427+73.67	17.2' R	24"	742.66	K	NE 12" 738.83	24.78'	CB-61
CB-61	427+98.45	17.2' R	48"	742.70	K	SW 12" 738.71 NW 12" 738.91 E 12" 738.71		
CB-62	428+01.49	16.8' L	48"	742.71	K	SW 12" 739.30 SE 12" 739.16 NE 12" 739.30	34.16'	CB-61
CB-63	429+33.88	11.7' L	24"	744.28	K	SW 12" 740.00	131.41'	CB-62
ST-5605	434+11.88	7.0' L				W 12" 744.15		
CB-64A	434+16.30	20.3' L	24"	748.29	K	E 12" 744.30	14.01'	ST-5605
CB-65	434+96.83	17.2' R	60"	747.97	K	N 12" 745.42		
MH-1A	435+09.06	4.3' L	60"	748.39	B	W 12" 743.50 E 12" 743.50	21.94'	CB-66
CB-67	435+09.06	17.2' L	24"	748.55	K	E 12" 744.00		
CB-66	435+09.06	17.2' R	48"	748.00	K	S 12" 745.00 W 12" 744.00	12.22'	CB-65

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
DUPONT STREET - SOUTH  
DUPONT SOUTH PLAN AND REMOVAL SHEET 5

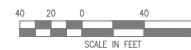
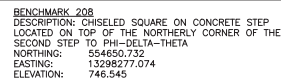
ISSUED FOR: DATE: BY:  
G. PLANS: 10/25/18 JUS  
FINAL REVIEW: 2/20/19 JUS  
FINAL PLANS: 4/19/19 JUS

JOB NO.  
C0F1065.01F

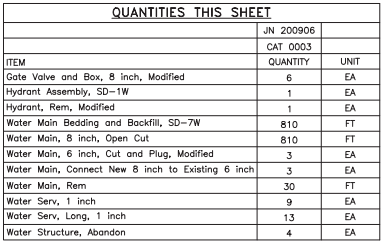
SHEET







- NOTES:
1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, CHLORINATE IN ACCORDANCE WITH THE LATEST CITY OF FLINT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
  2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" CORROSION OR PROTECTIVE COATING TO ALL EXISTING WATER MAINS. ADDITION, AND FOR BLOW-OFF PURPOSES, THE CONTRACTOR SHALL REMOVE THE CORROSIONS AND COPPER LINES UPON A SATISFACTORY TEST FOR CORROSION. COPPER LINES SHALL BE REPLACED TO FINAL ACCEPTANCE.
  3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
  4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ABOVE THE GROUND SURFACE. VALVES TO AVOID ACCEPTANCE OF A MINIMUM OF 5.5-FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
  5. THE CONTRACTOR SHALL VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
  6. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD-7W.
  7. REMOVE TESTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY DENOTATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
  8. ALL EXISTING WATER MAIN AS NOTED ON THE PLANS, DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTIONS FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, "INCH, OPEN CUT.



**811**  
now what's below.  
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CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
DUPONT STREET - SOUTH  
DUPONT SOUTH WM 8-INCH P&P SHEET

ISSUED FOR:	DATE:	BY:
GI PLANS	10/25/18	JJS
FINAL REVIEW	2/25/19	JJS
FINAL PLANS	4/19/19	JJS

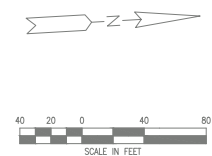
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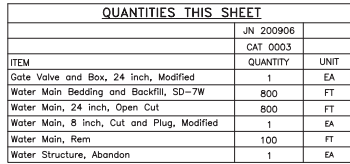
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- NOTES:
1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST CITY OF FLINT STANDARDS FOR CHLORINATION. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
  2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" CORPORATION STANDPIPE PRESSURE MEASUREMENTS AT EACH END OF MAIN, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE CORPORATIONS AND COPPER LINES UPON A SATISFACTORY TEST OF THE COPPER LINES. BREADED FLANGES PRIOR TO FINAL ACCEPTANCE.
  3. WATER MAIN SHALL HAVE AT LEAST 12" OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
  4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ABOVE GROUND TO ALLOW FOR PROPER OPERATION.
  5. A MINIMUM OF 5.5-FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
  6. CONTRACTOR SHALL VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
  7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT SPECIFICATIONS.
  8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY DEMARK WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
  9. CONTRACTOR SHALL AS NOTED ON THE PLANS, DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, INCH, OPEN CUT.



SHEET  
79

PROJECT MANAGER: Jeremy Schrot  
C:\PW\_WORK2\0852527\CRP-PLT



Know what's below.  
Call before you dig.

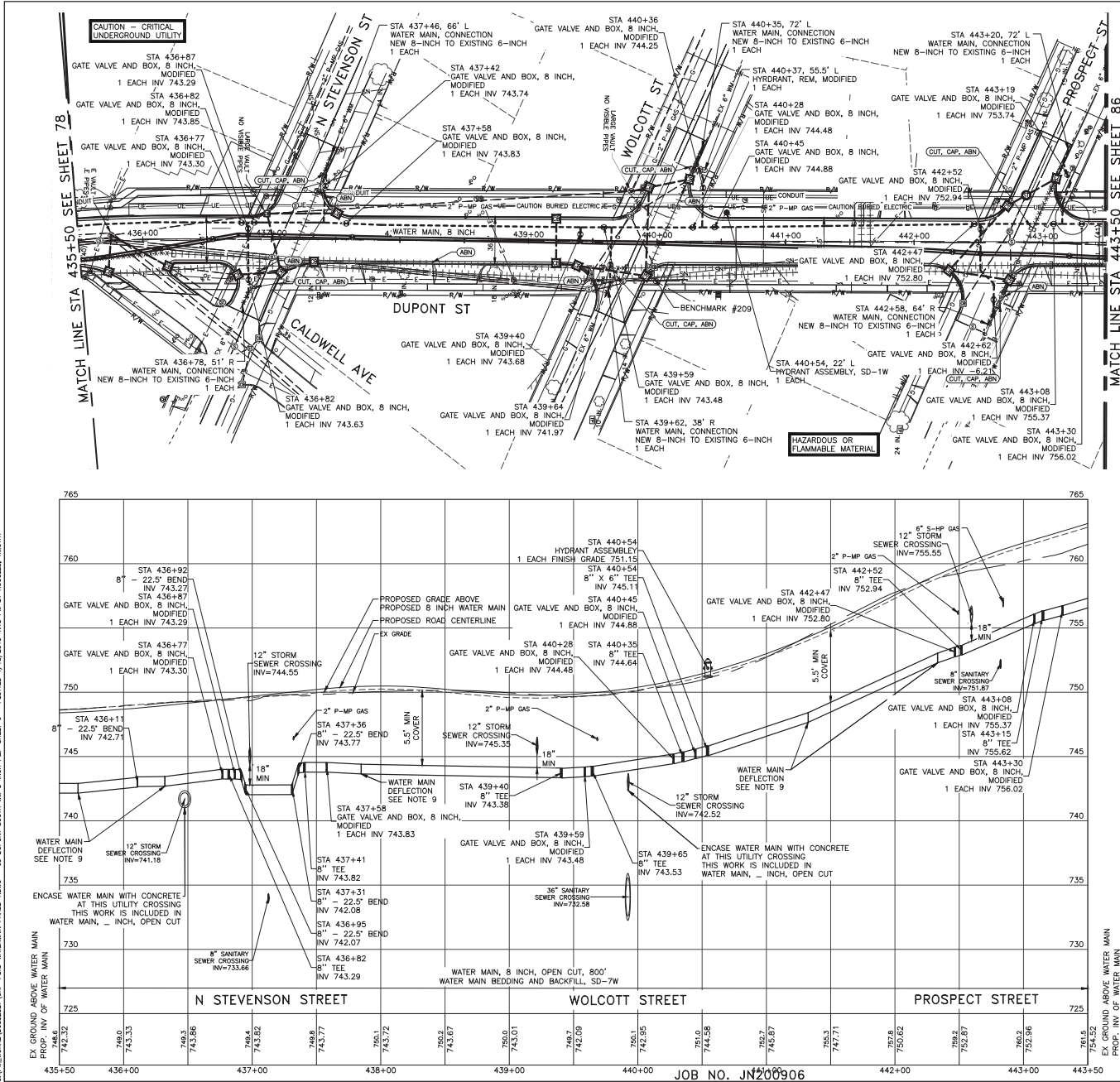




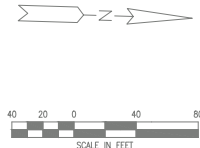




PROJECT MANAGER: JERRY SCHULTZ  
CITY OF FLINT, MI 48902  
FIELD BOOK INFORMATION: JN 200906  
DATE: 1/11/2019 1:18 PM BY: RUGGLES, TIMOTHY



BENCHMARK #209  
DESCRIPTION: SET GEAR SPIKE IN POWER POLE  
LOCATED WEST FACE OF POWER POLE AT NORTHEAST  
QUADRANT OF DUPONT ST. AND WOLCOTT ST.  
NORTHING: 555703.885  
EASTING: 13298210.141  
ELEVATION: 750.547



- NOTES:
1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST CITY OF FLINT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
  2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" COPPER LINES ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE COPPER LINES AND COPPER LINES UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
  3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
  4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
  5. A MINIMUM OF 5.5'-FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
  6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
  7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD-7W.
  8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
  9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, 1/2 INCH, OPEN CUT.

QUANTITIES THIS SHEET		
ITEM	QUANTITY	UNIT
Gate Valve and Box, 8 inch, Modified	18	EA
Hydrant Assembly, SD-1W	1	EA
Hydrant, Rem, Modified	1	EA
Water Main Bedding and Backfill, SD-7W	1000	FT
Water Main, 8 inch, Open Cut	1000	FT
Water Main, 6 inch, Cut and Plug, Modified	6	EA
Water Main, 8 inch, Cut and Plug, Modified	2	EA
Water Main, Connect New 8 inch to Existing 6 inch	6	EA
Water Main, Rem	200	FT
Water Serv, 1 inch	2	EA
Water Serv, Long, 1 inch	2	EA
Water Structure, Abandon	6	EA

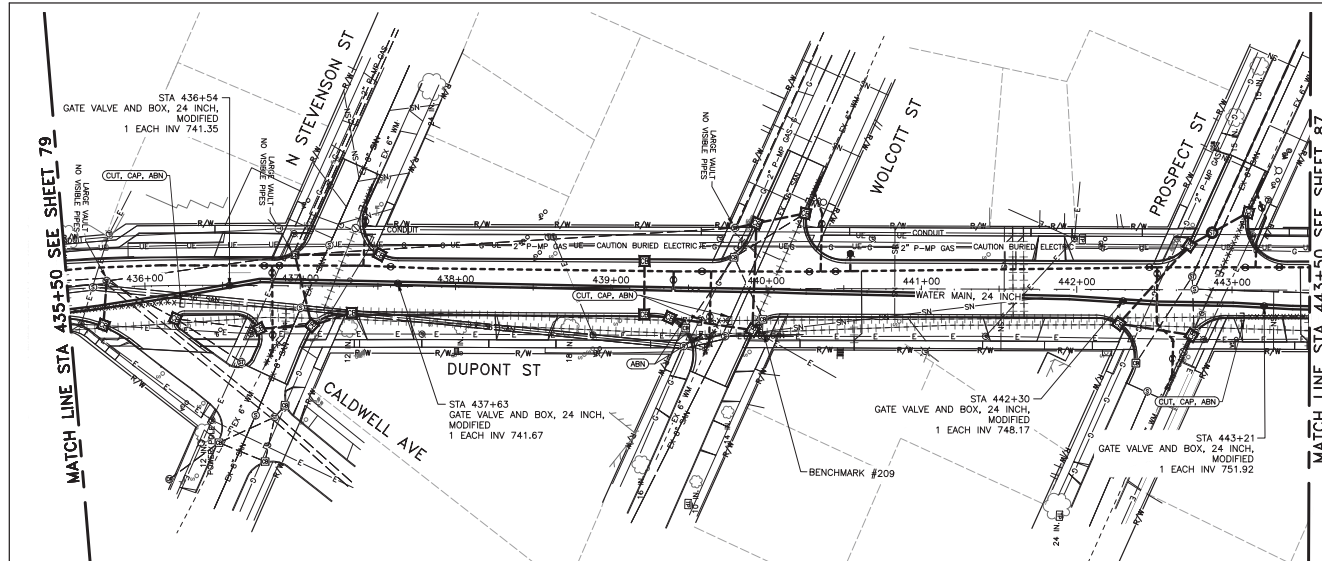
CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48902  
DUPONT STREET - SOUTH  
DUPONT SOUTH WM 8-INCH P&P SHEET 6

ISSUED FOR: DATE: 1/11/2019  
BY: JN 200906  
FINAL REVIEW: 2/25/19  
FINAL PLANS: 4/12/19

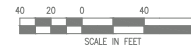
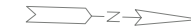
JOB NO: C0F1065.01F

82

FIELD BOOK INFORMATION: PROJECT MANAGER: JERRY S. SLOAN, CIVIL ENGINEER, JN20090627, 27-1-18, 121 PM BY: RAGGLES, TIMOTHY



BENCHMARK #209  
DESCRIPTION: SET GEAR SPIKE IN POWER POLE  
LOCATED WEST FACE OF POWER POLE AT NORTHEAST  
QUADRANT OF DUPONT ST. AND WOLCOTT ST.  
NORTHING: 855703.982  
EASTING: 13298210.141  
ELEVATION: 750.547

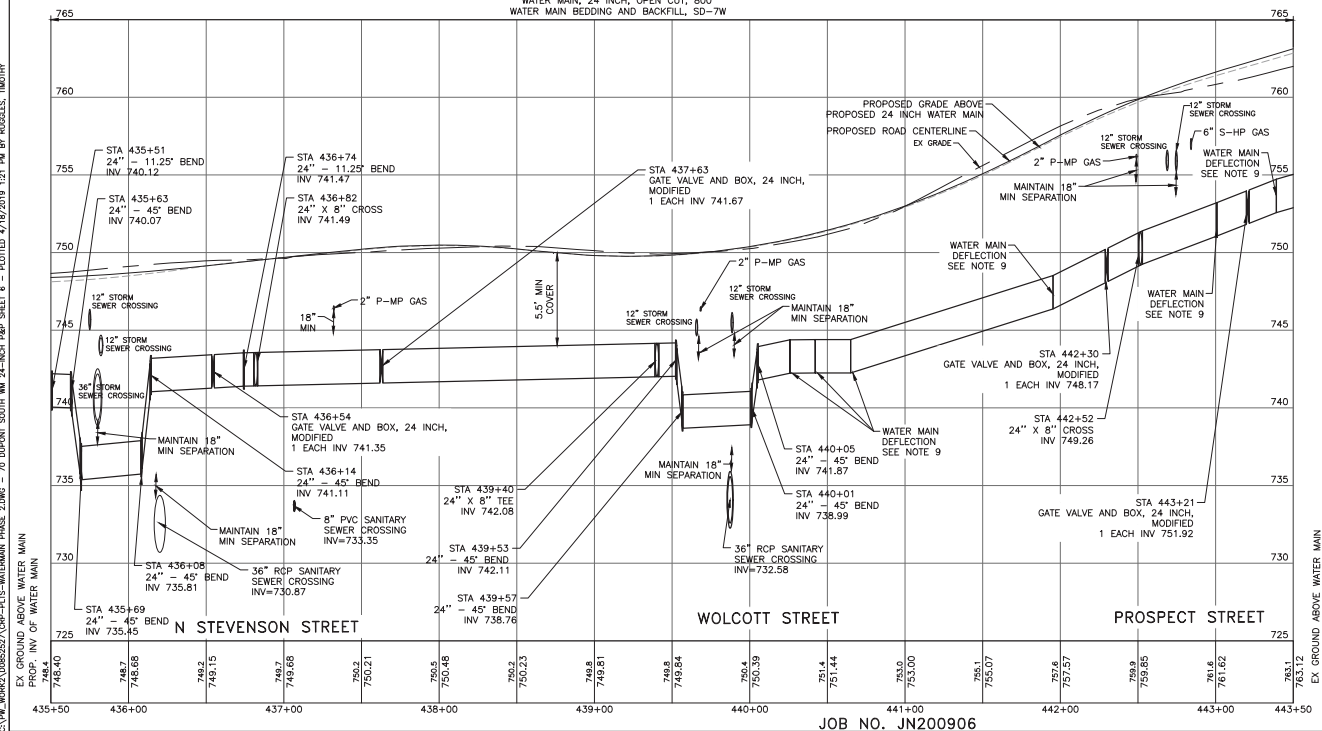


- NOTES:
1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST THE CITY OF FLINT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
  2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" CORPORATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE CORPORATIONS AND COPPER LINES UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
  3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
  4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
  5. A MINIMUM OF 5.5- FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
  6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
  7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD-7W.
  8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
  9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, 1/2 INCH, OPEN CUT.



CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
DUPONT STREET - SOUTH  
DUPONT SOUTH WM 24-INCH P&P SHEET 6

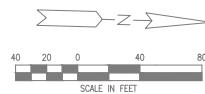
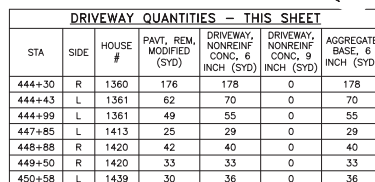
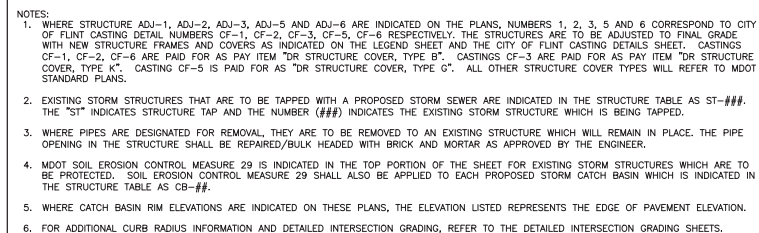
QUANTITIES THIS SHEET		
ITEM	JN 200906 CAT 0003 QUANTITY	UNIT
Gate Valve and Box, 24 inch, Modified	4	EA
Water Main Bedding and Backfill, SD-7W	800	FT
Water Main, 24 inch, Open Cut	800	FT
Water Main, 24 inch, Cut and Plug, Modified	4	EA
Water Main, Rem	125	FT
Water Structure, Abandon	3	EA



Know what's below.  
Call before you dig.

ISSUED FOR: DATE: BY:  
21 PLANS 10/25/18 JLS  
24 FINAL REVIEW 2/27/19 JLS  
24 FINAL PLANS 4/19/19 JLS  
JOB NO. COF1065.01F  
SHEET 83  
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MAINLINE QUANTITIES - THIS SHEET			
		UN 200906	
		CAT 0001	
ITEM	QUANTITY	UNIT	
Dr Structure, Rem	5	EA	
Sewer, Rem, Less than 24 inch	133	FT	
Sidewalk, Rem	790	SYD	
Pavt, Rem, Modified	5043	SYD	
Embankment, CIP	188	CYD	
Excavation, Earth	1600	CYD	
Aggregate Base, 6 inch	1149	SYD	
Aggregate Base, 12 inch	4090	SYD	
Sewer, CL E, 12 inch, Tr Det B	315	FT	
Sewer Bulkhead, 12 inch	1	EA	
Dr Structure Cover, Adj, Case 1	6	EA	
Dr Structure Cover, Type B	6	EA	
Dr Structure Cover, Type K	10	EA	
Dr Structure, 24 inch dia	4	EA	
Dr Structure, 48 inch dia	6	EA	
Dr Structure, Adj, Add Depth	3	FT	
Dr Structure, Tap, 12 inch	3	EA	
Underdrain, Subbase, 6 inch	1675	FT	
Hand Patching	20	TON	
HMA, 3E1	633	TON	
HMA, 4E1	422	TON	
HMA, 5E1	317	TON	
HMA Approach	370	TON	
Driveway, Nonreinf Conc, 6 inch	442	SYD	
Curb and Gutter, Conc, Det F4	2120	FT	
Curb Ramp Opening, Conc	95	FT	
Sidewalk Ramp, Conc, 6 inch	1196	SFT	
Sidewalk, Conc, 4 inch	3384	SFT	
Sidewalk, Conc, 6 inch	1480	SFT	
Detectable Warning Surface, Modified	95	FT	
Truff Establishment, Performance	1778	SYD	

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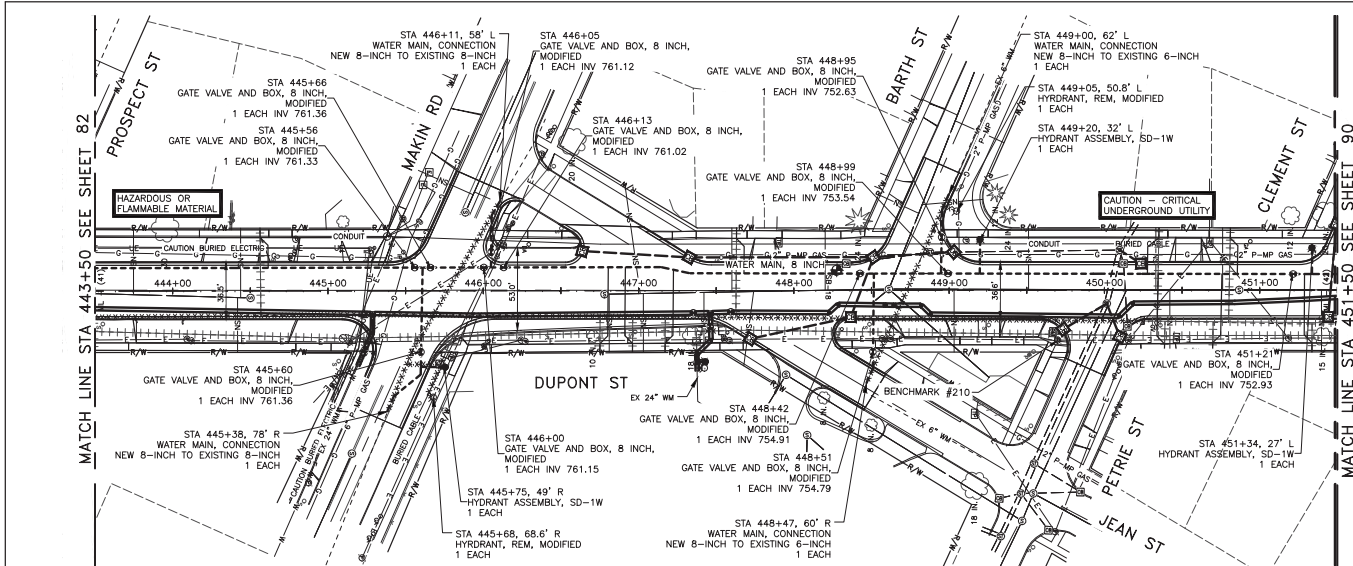
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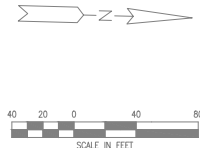




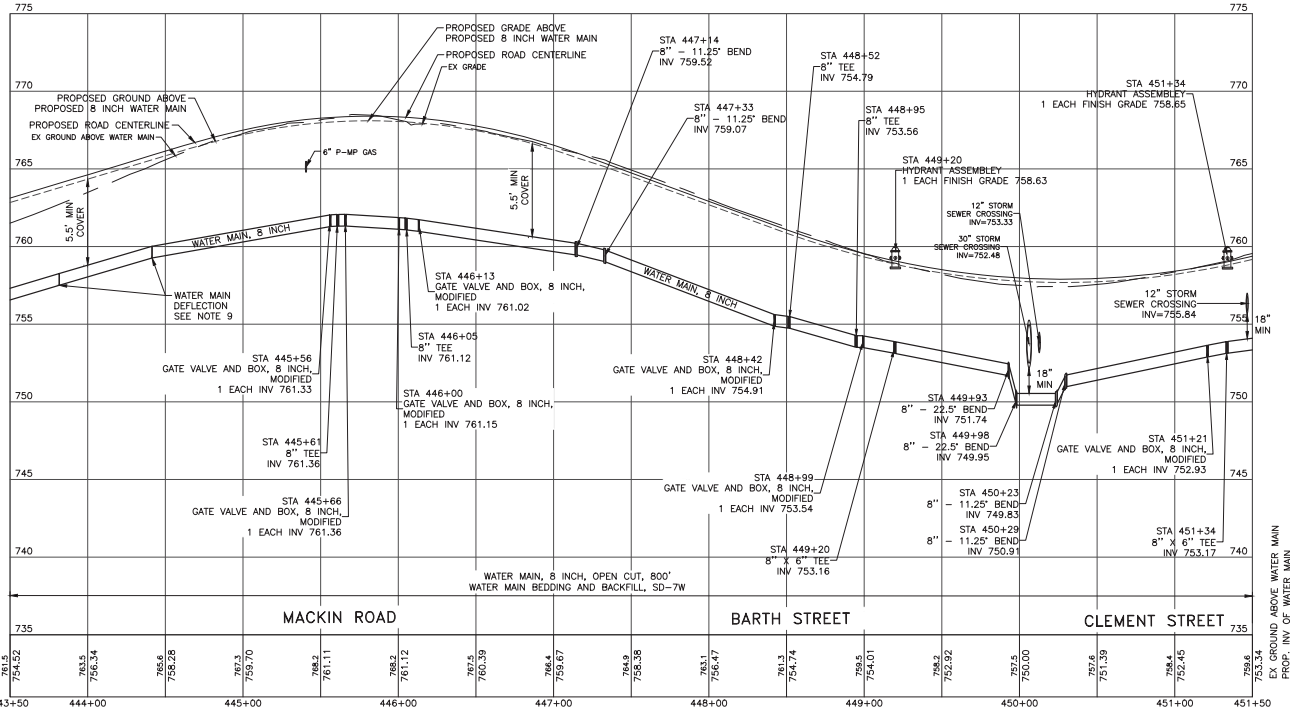
PROJECT MANAGER: Jeremy Schmitt  
CITY OF FLINT, MI  
FIELD BOOK INFORMATION:  
CITY OF FLINT, MI  
DATE: 1/17/2019 1:28 PM BY: RUGGIERI, TIMOTHY  
JOB NO. JN200906  
JOB NO. JN200906



BENCHMARK #210  
DESCRIPTION: FOUND RAILROAD SPIKE IN POWER POLE  
LOCATED IN WEST FACE OF POWER POLE IN SOUTHEAST  
QUADRANT OF DUPONT ST. AND PETRIE ST.  
NORTHING: 556674.375  
EASTING: 13298184.986  
ELEVATION: 759.276



- NOTES:
1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST CITY OF FLINT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
  2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" COPORATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE COPORATIONS AND COPPER LINES UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
  3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
  4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
  5. A MINIMUM OF 5.5'-FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
  6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
  7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD-7W.
  8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
  9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, \_INCH, OPEN CUT.



QUANTITIES THIS SHEET		
ITEM	QUANTITY	UNIT
Gate Valve and Box, 8 inch, Modified	11	EA
Hydrant Assembly, SD-1W	3	EA
Hydrant, Rem, Modified	2	EA
Water Main Bedding and Backfill, SD-7W	1020	FT
Water Main, 8 inch, Open Cut	1020	FT
Water Main, Connect New 8 inch to Existing 6 inch	2	EA
Water Main, Connect New 8 inch to Existing 8 inch	2	EA
Water Main, Rem	900	FT
Water Serv, 1 inch	4	EA
Water Serv, Long, 1 inch	6	EA

BY

DATE

REV

DESCRIPTION

811

Know what's below.  
Call before you dig.

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
DUPONT STREET - SOUTH  
DUPONT SOUTH WM 8-INCH P&P SHEET 7

JOB NO. JN200906

DATE: 1/17/2019 1:28 PM

BY: RUGGIERI, TIMOTHY

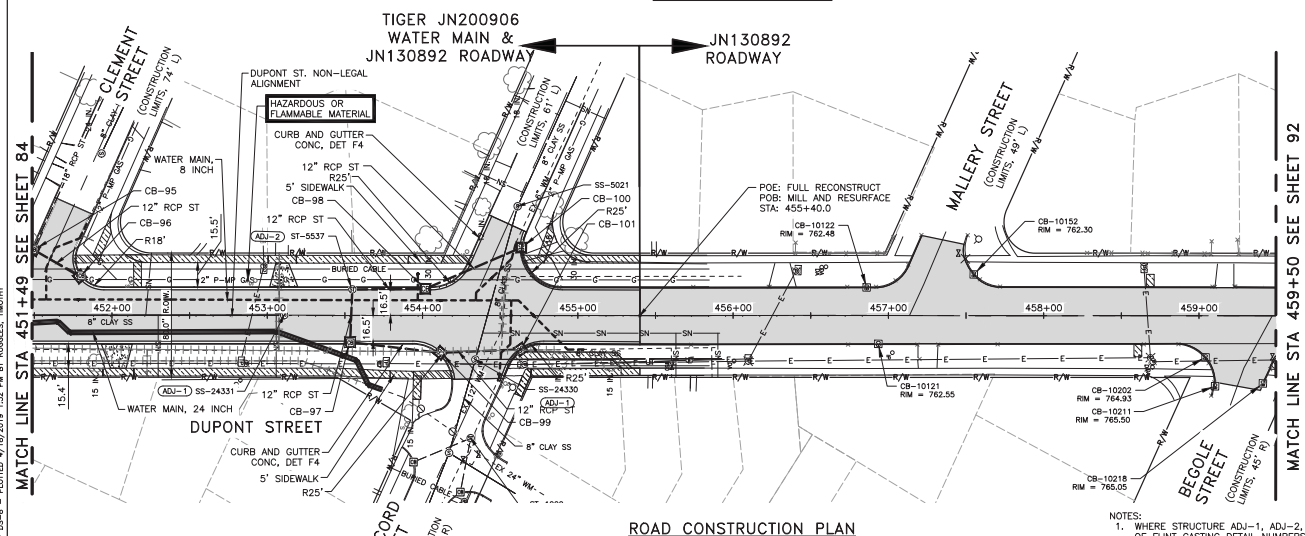
FINAL REVIEW: 2/25/19 4:15 PM

FINAL PLANS: 4/12/19 4:15 PM

86

811





MAINLINE QUANTITIES – THIS SHEET			
		JN 200906	
		CAT 0001	
ITEM		QUANTITY	UNIT
Dr Structure, Rem		3	EA
Sewer, Rem, Less than 24 inch		70	FT
Sidewalk, Rem		327	SYD
Pavt, Rem, Modified		1869	SYD
Embankment, CIP		80	CYD
Excavation, Earth		700	CYD
Aggregate Base, 6 inch		314	SYD
Aggregate Base, 12 inch		1632	SYD
Dr Structure Cover, Adj, Case 1		3	EA
Dr Structure Cover, Type B		3	EA
Dr Structure Cover, Type K		7	EA
Dr Structure, 24 inch dia		3	EA
Dr Structure, 48 inch dia		3	EA
Dr Structure, 60 inch dia		1	EA
Dr Structure, Adj, Add Depth		3	FT
Dr Structure, Top, 12 inch		2	EA
Underdrain, Subbase, 6 inch		672	FT
Cold Milling HMA Surface		1890	SYD
Hand Patching		10	TON
HMA, 3E1		239	TON
HMA, 4E1		159	TON
HMA, 5E1		340	TON
HMA Approach		170	TON
Driveway, Nonreinf Conc, 6 inch		48	SYD
Curb and Gutter, Conc, Det F4		800	FT
Curb Ramp Opening, Conc		25	FT
Sidewalk Ramp, Conc, 6 inch		478	SFT
Sidewalk, Conc, 4 inch		2224	SFT
Sidewalk, Conc, 6 inch		191	SFT
Detectable Warning Surface, Modified		75	FT
Turf Establishment, Performance		293	SYD

DRIVEWAY QUANTITIES - THIS SHEET						
STA	SIDE	HOUSE #	PAVT, REM, MODIFIED (SYD)	DRIVEWAY, NONREINF CONC, 6 INCH (SYD)	DRIVEWAY, NONREINF CONC, 9 INCH (SYD)	AGGREGATE BASE, 6 INCH (SYD)
452+07	R	1448	19	26	0	26
453+13	L	1459	18	22	0	22

PROPOSED DRAINAGE STRUCTURES							
STR NO	STATION	OFFSET	SIZE	RIM	COVER TYPE	PIPE DIRECTION, SIZE, AND INVERT	DISTANCE TO DOWN STREAM S
CB-95	451+49.50	42.4' L	60"	759.24	K	E 12" 756.00 NE 12" 755.50	34.43' CB-96
CB-96	451+79.28	25.1' L	24"	759.55	K	SW 12" 755.80	
CB-97	453+53.38	17.2' R	48"	763.83	K	W 12" 759.50 N 12" 759.70	33.97' ST-5537
ST-5537	453+54.77	16.7' L				E 12" 759.20 N 12" 759.30	
CB-98	454+01.81	17.2' L	48"	764.77	K	NW 12" 759.80 S 12" 759.80	47.04' ST-5537
CB-99	454+11.54	24.1' R	48"	764.81	K	N 12" 761.35 S 12" 761.35	58.57' CB-97
CB-101	454+63.34	21.8' R	24"	764.91	K	S 12" 761.91	51.85' CB-99
CB-100	454+63.65	43.7' L	24"	764.46	K	SE 12" 760.40	67.29' CB-98

NOTES:

- NOTES:
1. STRUCTURE ADJ-1, ADJ-2, ADJ-3, ADJ-4 AND ADJ-6 ARE INDICATED ON THE PLANS, NUMBERS 1, 2, 3, 5 AND 6 CORRESPOND TO CITY OF FLINT CASTING DETAIL NUMBERS CF-1, CF-2, CF-3, CF-4, CF-5, CF-6 RESPECTIVELY. THE STRUCTURES ARE TO BE ADJUSTED TO FINAL GRADE WITH NEW STRUCTURE FRAMES AND COVERS AS INDICATED ON THE LEGEND SHEET AND THE CITY OF FLINT CASTING DETAILS SHEET. CASTINGS CO-1, CO-2, CO-3, CO-4, CO-5 ARE PAID FOR AS PAY ITEM "FOR STRUCTURE TYPE B". CASTINGS CF-3 ARE PAID FOR AS PAY ITEM "FOR STRUCTURE COVER, TYPE K". CASTING CF-5 IS PAID FOR AS "DR STRUCTURE COVER, TYPE G". ALL OTHER STRUCTURE COVER TYPES WILL REFER TO MDOT STANDARD PLANS.
  2. EXISTING STORM STRUCTURES THAT ARE TO BE TAPPED WITH A PROPOSED STORM SEWER ARE INDICATED IN THE STRUCTURE TABLE AS ST-###. THE "ST" INDICATES STRUCTURE TAP AND THE NUMBER (###) INDICATES THE EXISTING STORM STRUCTURE WHICH IS BEING TAPPED.
  3. WHERE PIPES ARE DESIGNATED FOR REMOVAL, THEY ARE TO BE REMOVED TO AN EXISTING STRUCTURE WHICH WILL REMAIN IN PLACE. THE PIPE OPENING IN THE STRUCTURE SHALL BE REPAIRED/BULK HEADED WITH BRICK AND MORTAR AS APPROVED BY THE ENGINEER.
  4. MDOT SOIL EROSION CONTROL MEASURE 29 IS INDICATED IN THE TOP PORTION OF THE SHEET FOR EXISTING STORM STRUCTURES WHICH ARE TO BE PROTECTED. SOIL EROSION CONTROL MEASURE 29 SHALL ALSO BE APPLIED TO EACH PROPOSED STORM CATCH BASIN WHICH IS INDICATED IN THE STRUCTURE TABLE AS CB-##.
  5. WHERE CATCH BASIN RIM ELEVATIONS ARE INDICATED ON THESE PLANS, THE ELEVATION LISTED REPRESENTS THE EDGE OF PAVEMENT ELEVATION.
  6. FOR ADDITIONAL CURB RADIUS INFORMATION AND DETAILED INTERSECTION GRADING, REFER TO THE DETAILED INTERSECTION GRADING SHEETS.

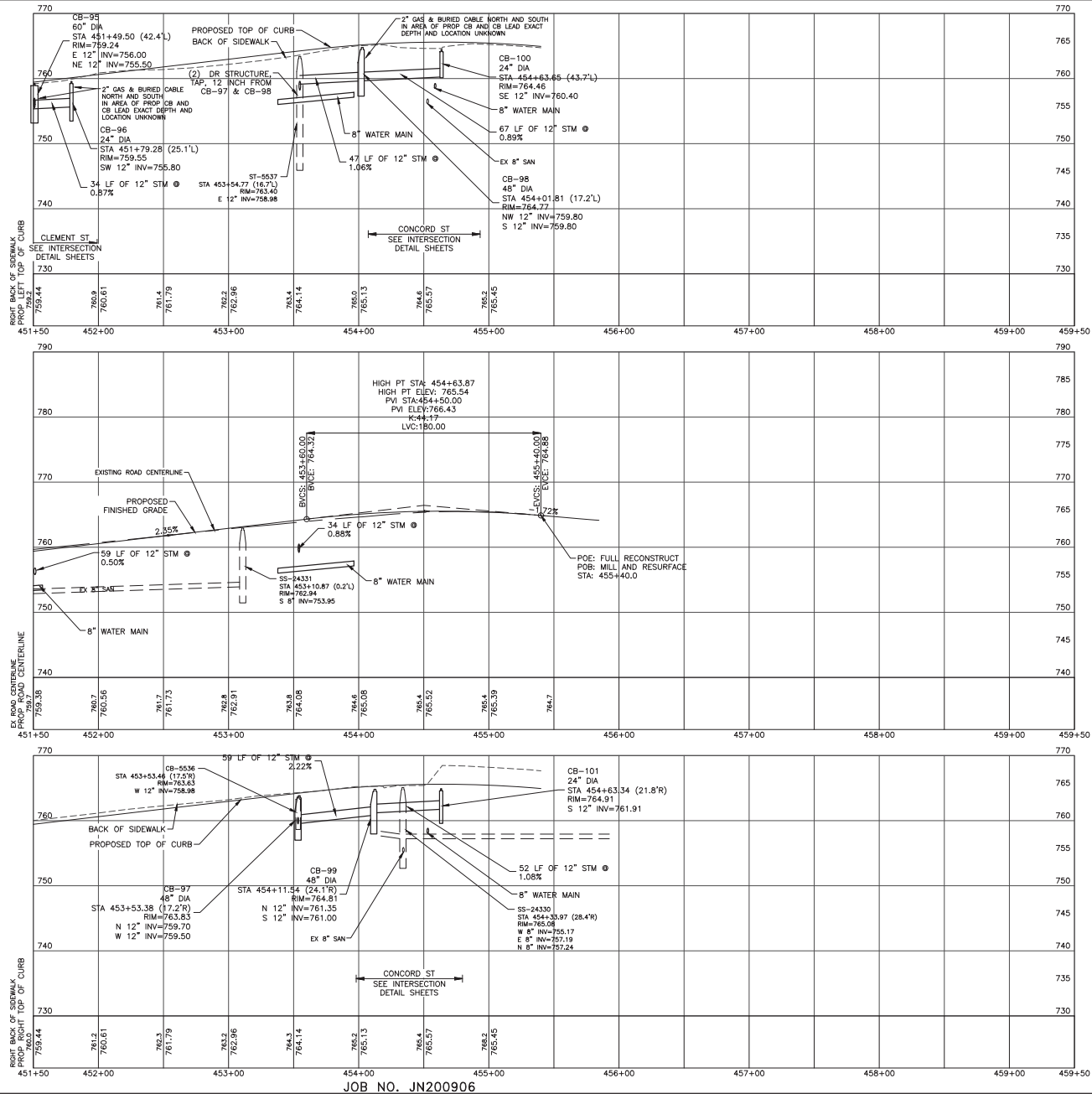


Know what's **below**.  
Call before you dig.

JOB NO. JN200906



- NOTES:
- PORTIONS OF THE PROPOSED WATER MAINS HAVE BEEN SHOWN IN PROFILE VIEW WHERE CROSSING THE PROPOSED STORM SEWER. THE PROPOSED HYDRANT LEADS AND WATER MAIN CROSSINGS OF PROPOSED STORM SEWERS AT EACH SIDE STREET CONNECTION TO THE EXISTING WATER MAINS HAVE NOT BEEN SHOWN ON THESE PROFILES. SEE THE WATER MAIN CONSTRUCTION SHEETS FOR ADDITIONAL INFORMATION ON WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE PROPOSED WATER MAIN AT A DEPTH THAT MAINTAINS A MINIMUM OF 18" VERTICAL CLEARANCE AT EACH CROSSING OF THE PROPOSED STORM SEWER. IF THIS REQUIRES THE ADJUSTMENT OF PROPOSED WATER MAIN OR STORM SEWER DEPTHS OR LOCATIONS FROM WHAT IS PROPOSED ON THESE PLANS, THE CONTRACTOR SHALL COORDINATE THESE ADJUSTMENTS WITH THE PROJECT ENGINEER.
  - THE EXACT LOCATION AND DEPTH OF EXISTING WATER MAINS ARE UNKNOWN AND THEIR CROSSING OF THE PROPOSED STORM SEWERS HAVE NOT BEEN SHOWN ON THESE PROFILES.
  - EXISTING PRIVATE UTILITY LOCATIONS AND DEPTHS ARE UNKNOWN. WHERE POSSIBLE A NOTE HAS BEEN ADDED TO THE PROFILE SHEETS TO POINT OUT THAT THERE MAY BE A UTILITY CROSSING IN THE AREA OF A PROPOSED STRUCTURE. IF A CONFLICT BETWEEN ANY EXISTING UTILITY AND A PROPOSED UTILITY IS FOUND DURING CONSTRUCTION THE CONTRACTOR SHALL COORDINATE ANY REQUIRED ADJUSTMENTS WITH THE PROJECT ENGINEER.



JOB NO. JN200906

REV	DATE	DESCRIPTION	BY

500 S. Saginaw Street, Suite 201  
Flint, MI 48502  
www.wade-trim.com

**WADE TRIM**

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
DUPONT STREET - SOUTH  
DUPONT SOUTH PROFILE 8

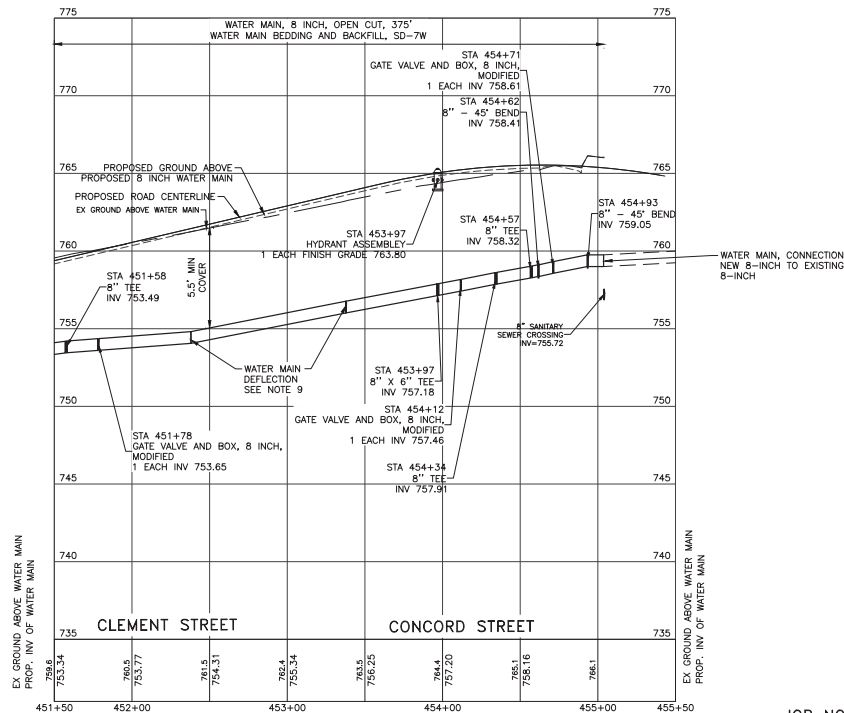
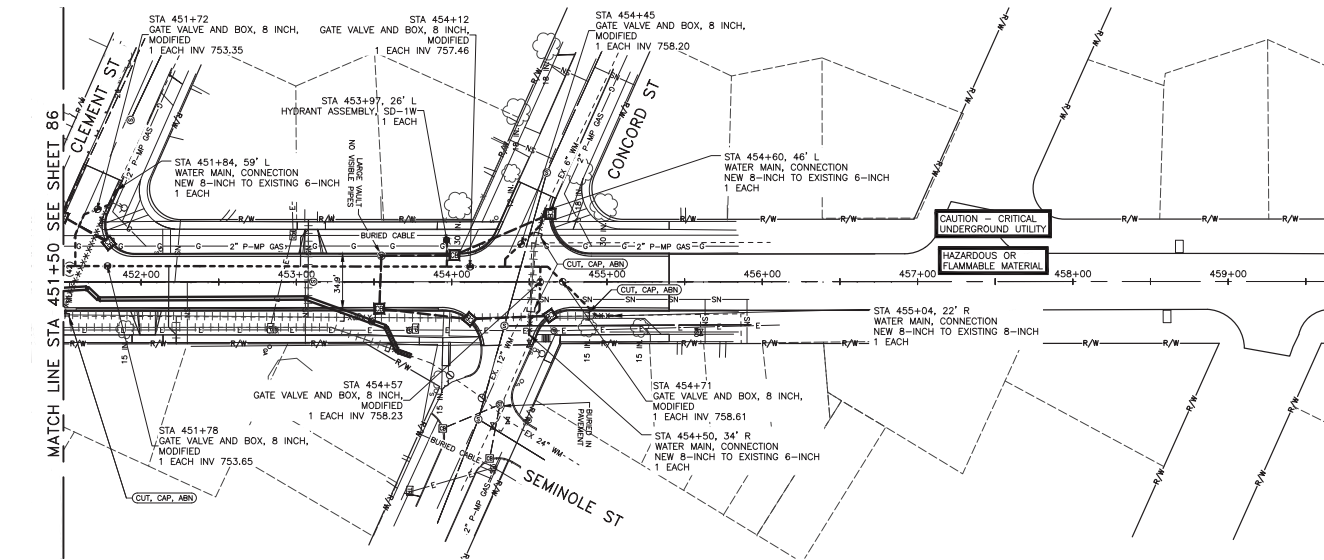
ISSUED FOR: DATE: BY:  
COF1065.01F 12/23/18  
FINAL REVIEW 2/25/19 JLS  
FINAL PLANS 4/18/19 JLS

JOB NO.  
COF1065.01F

SHEET  
89



PROJECT MANAGER: JERRY SCHULZ  
CITY OF FLINT, MI 48502  
77 DUPONT STREET - WATER MAIN PHASE 1B - PLOTTED 1/11/2019 1:36 PM BY: RUGGLES, TIMOTHY



- NOTES:
1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST THE CITY OF FLINT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
  2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" CORPORATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE CORPORATIONS AND COPPER LINES UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
  3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
  4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
  5. A MINIMUM OF 5.5-FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
  6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
  7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL, SD-7W.
  8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
  9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, \_INCH, OPEN CUT.

QUANTITIES THIS SHEET		
ITEM	CAT 0003	UNIT
Gate Valve and Box, 8 inch, Modified	6	EA
Hydrant Assembly, SD-1W	1	EA
Water Main Bedding and Backfill, SD-7W	445	FT
Water Main, 8 inch, Open Cut	445	FT
Water Main, 6 inch, Cut and Plug, Modified	3	EA
Water Main, 8 inch, Cut and Plug, Modified	1	EA
Water Main, Connect New 8 inch to Existing 6 inch	3	EA
Water Main, Connect New 8 inch to Existing 8 inch	1	EA
Water Main, Rem	60	FT
Water Serv, 1 inch	1	EA
Water Serv, Long, 1 inch	1	EA

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
DUPONT STREET - SOUTH  
DUPONT SOUTH WM 8-INCH P&P SHEET 8

ISSUED FOR: DATE: 01/11/2019  
BY: JN200906  
FINAL REVIEW: 2/25/19  
FINAL PLANS: 4/12/19

JOB NO.  
C0F1065.01F  
SHEET

90

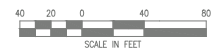


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EX GROUND ABOVE WATER MAIN  
PROP. INV OF WATER MAIN



- | QUANTITIES THIS SHEET                               |                                   |                                       |   |
|---|-----------------------------------|---------------------------------------|---|
| ITEM  | JN 200906<br>CAT 0003<br>QUANTITY | UNIT                                  |   |
|   |                                   | Gate Valve and Box, 24 inch, Modified | 1 |
| Water Main Bedding and Backfill, SD-7W              | 245                               | FT                                    |   |
| Water Main, 24 inch, Open Cut                       | 245                               | FT                                    |   |
| Water Main, 24 inch, Cut and Plug, Modified         | 3                                 | EA                                    |   |
| Water Main, Connect New 24 inch to Existing 24 inch | 1                                 | EA                                    |   |
| Water Main, Rem                                     | 10                                | FT                                    |   |



ISSUED FOR:	DATE:	BY:
GI PLANS	10/25/18	JJS
FINAL REVIEW	2/25/19	JJS
FINAL PLANS	4/19/19	JJS

SHEET

91

[illegible]

**WAIDE  
TRIM**

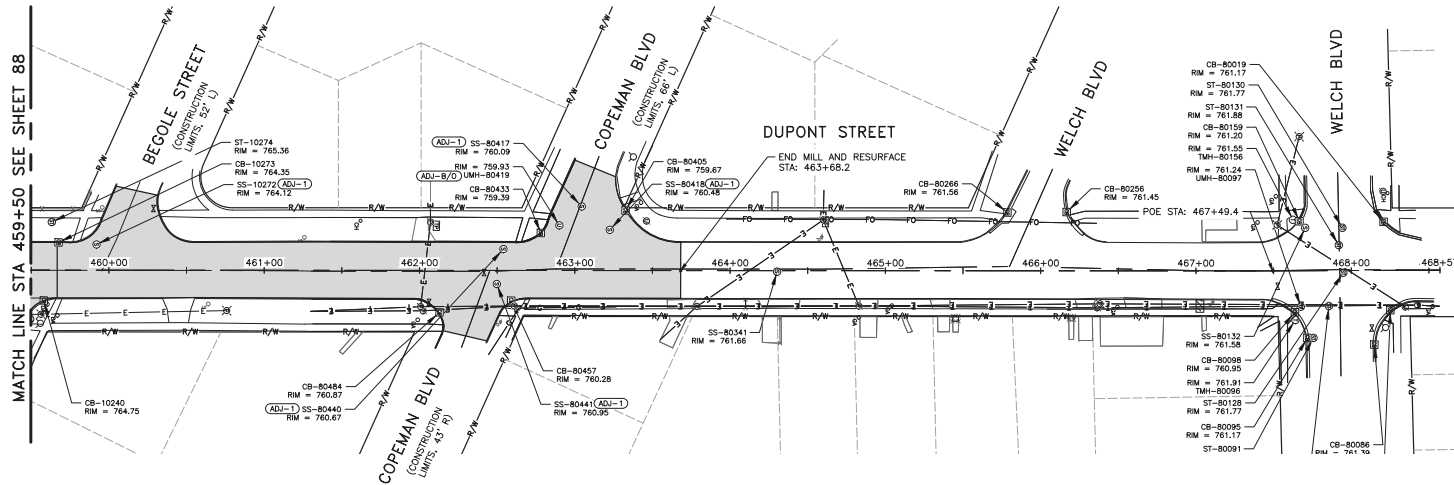
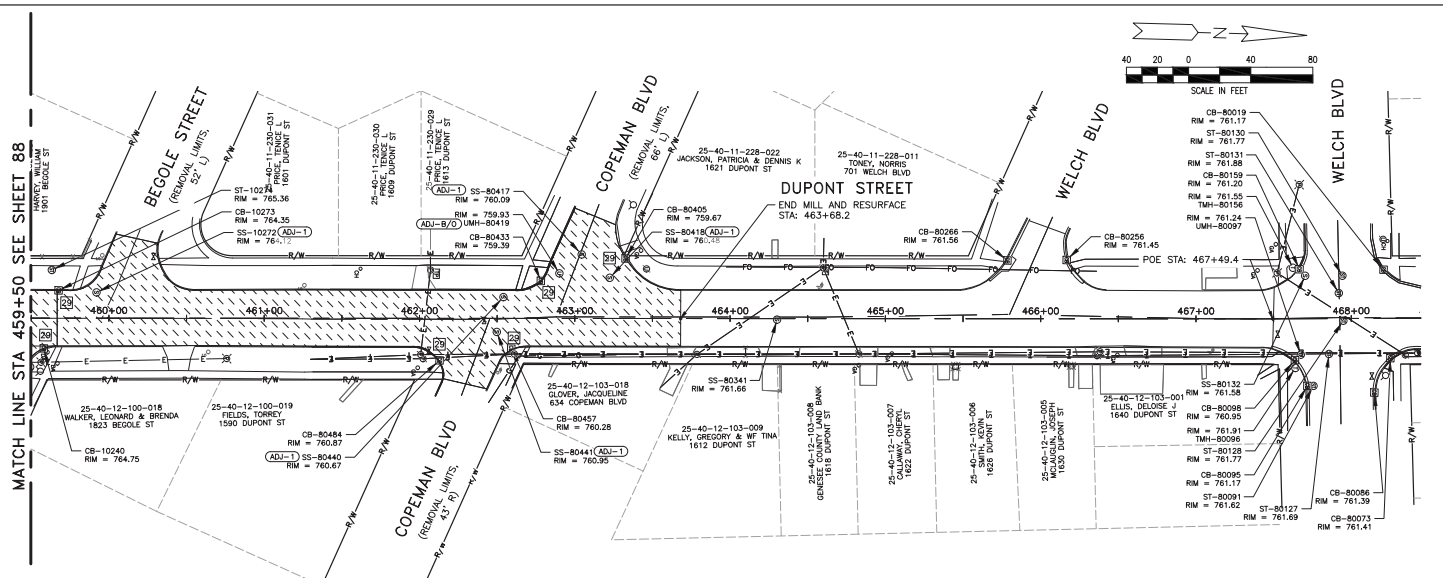
555 S. Saginaw Street, Suite 201  
Flint, MI 48902  
810.235.2555  
[www.waide-trim.com](http://www.waide-trim.com)

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PROJECT MANAGER: Jeremy Schrot  
 \P\WORK\2\0852527\CRP-PLTS-PLAN-1.DWG - DS-9 - PLOTTED 4/18/2019 1:40 PM BY RUGGLES, TIMOTHY



JOB NO. JN200906



NOTES:

1. WHERE STRUCTURE DETAIL NUMBERS ADJ-2, ADJ-3, ADJ-5 AND ADJ-6 ARE INDICATED ON THE PLANS, NUMBERS 1, 2, 3, 5 AND 6 CORRESPOND TO CITY OF FLINT CASTING DETAIL NUMBERS CF-1, CF-2, CF-3, CF-5, CF-6 RESPECTIVELY. THE STRUCTURES ARE TO BE ADJUSTED TO FINAL GRADE WITH NEW STRUCTURE DETAILS AND COVERS AS INDICATED ON THE LEGEND SHEET AND THE CITY OF FLINT CASTING DETAILS SHEET. CASTINGS OF TYPE CF-2, CF-5 AND CF-6 ARE PAID FOR AS PAY ITEM "FOR STRUCTURE COVER, TYPE B". CASTINGS OF TYPE CF-1 AND CF-3 ARE PAID FOR AS PAY ITEM "FOR STRUCTURE COVER, TYPE K". CASTING OF TYPE CF-5 IS PAID FOR AS "DR STRUCTURE COVER, TYPE C". ALL OTHER STRUCTURE COVER TYPES WILL REFER TO MOST STANDARD PLANS.
2. MOOT SOIL EROSION CONTROL MEASURE 29 IS INDICATED IN THE TOP PORTION OF THE SHEET FOR EXISTING STORM STRUCTURES WHICH ARE TO BE PROTECTED. SOIL EROSION CONTROL MEASURE 29 SHALL ALSO BE APPLIED TO EACH PROPOSED STORM CATCH BASIN WHICH IS INDICATED IN THE STRUCTURE TABLE AS CB-##.

MAINLINE QUANTITIES – THIS SHEET		
	JN 200906	
ITEM	CAT 0001	
	QUANTITY	UNIT
Dr Structure Cover, Adj, Case 1	5	EA
Dr Structure Cover, Type B	5	EA
Cold Milling HMA Surface	2100	SYD
Hand Patching	5	TON
HMA, 5E1	180	TON
HMA Approach	57	TON

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
DUPONT STREET - SOUTH  
DUPONT SOUTH PLAN AND REMOVAL SHEET 9

ISSUED FOR:	DATE:	BY:
GI PLANS	10/25/18	JJS
FINAL REVIEW	2/25/19	JJS
FINAL PLANS	4/19/19	JJS

JOB NO.  
COF1065.01F

92

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ISSUED FOR: DATE: BY:  
CF PLANS 10/25/18 JLS  
FINAL REVIEW 2/25/19 JLS  
FINAL PLANS 4/15/19 JLS

JOB NO.  
COF1065.01F

SHEET  
93

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
DUPONT STREET - SOUTH  
DUPONT SOUTH WM INTERSECTIONS I



505 S. Saginaw Street, Suite 201  
Flint, MI 48502  
www.wadetrims.com

REV	DATE	DESCRIPTION	BY

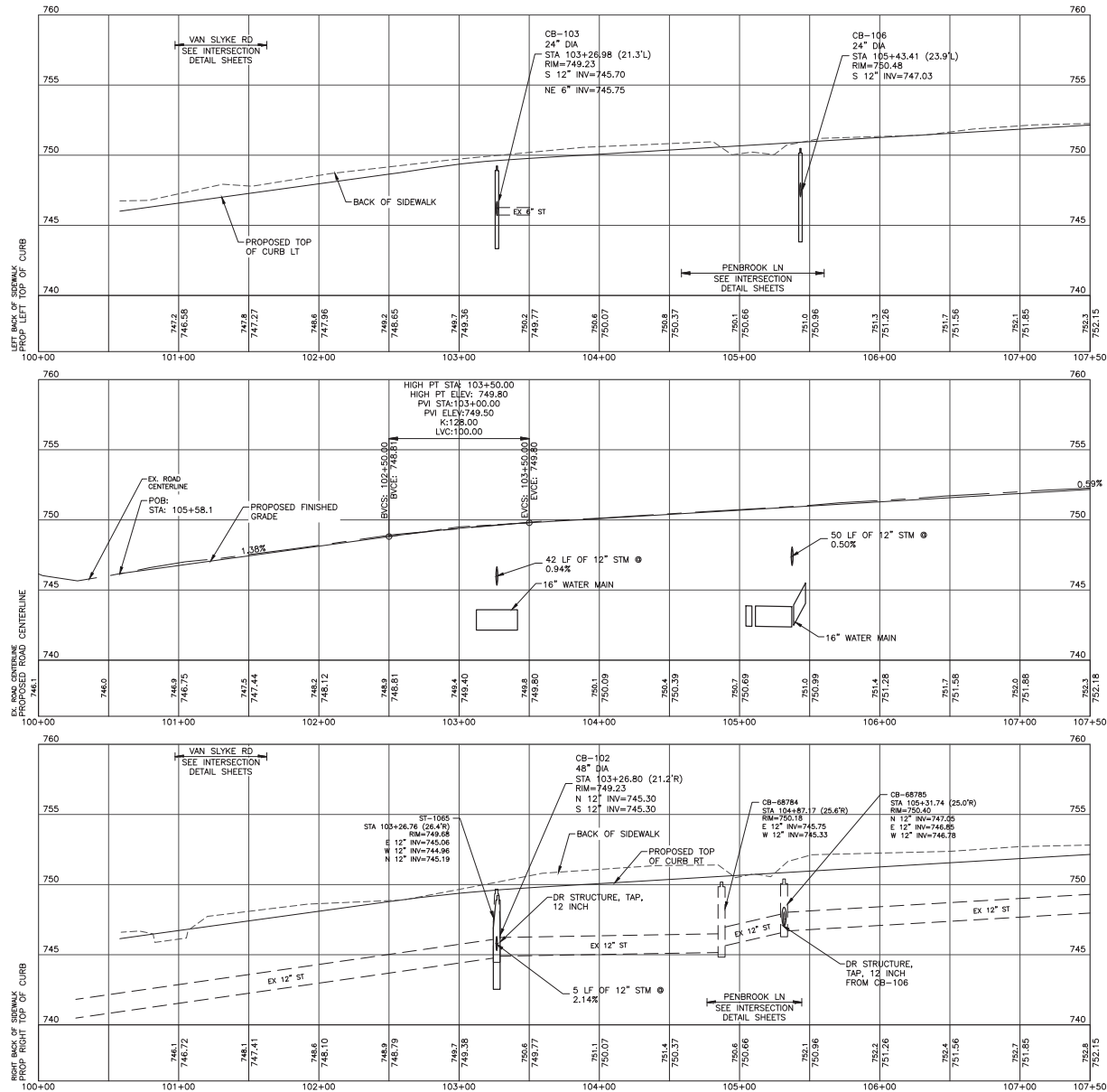
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DRIVEWAY QUANTITIES - THIS SHEET						
STA	SIDE	HOUSE #	PAVT. REM. MODIFIED (SYD)	DRIVEWAY, NONREINF CONC. 6 INCH (SYD)	DRIVEWAY, NONREINF CONC. 9 INCH (SYD)	AGGREGATE BASE, 6 INCH (SYD)
100+80	L	1960	52	0	49	49
101+69	L	1960	47	0	51	51



Know what's below.  
Call before you dig.

- NOTES:
1. PORTIONS OF THE PROPOSED WATER MAIN HAS BEEN SHOWN IN PROFILE VIEW WHERE CROSSING THE PROPOSED STORM SEWER. THE PROPOSED HYDRANT LEADS AND WATER MAIN CROSSINGS OF PROPOSED STORM SEWERS AT EACH SIDE STREET CONNECTION TO THE EXISTING WATER MAINS HAVE NOT BEEN SHOWN ON THESE PROFILES. SEE THE WATER MAIN CONSTRUCTION SHEETS FOR ADDITIONAL INFORMATION ON WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE PROPOSED WATER MAIN AT A DEPTH THAT MAINTAINS A MINIMUM OF 18" VERTICAL CLEARANCE AT EACH CROSSING OF THE PROPOSED STORM SEWER. IF THIS REQUIRES THE ADJUSTMENT OF PROPOSED WATER MAIN OR STORM SEWER DEPTHS OR LOCATIONS FROM WHAT IS PROPOSED ON THESE PLANS, THE CONTRACTOR SHALL COORDINATE THESE ADJUSTMENTS WITH THE PROJECT ENGINEER.
  2. THE EXACT LOCATION AND DEPTH OF EXISTING WATER MAINS ARE UNKNOWN AND THEIR CROSSING OF THE PROPOSED STORM SEWERS HAVE NOT BEEN SHOWN ON THESE PROFILES.
  3. EXISTING PRIVATE UTILITY LOCATIONS AND DEPTHS ARE UNKNOWN. WHERE POSSIBLE A NOTE HAS BEEN ADDED TO THE PROFILE SHEETS TO POINT OUT THAT THERE MAY BE A UTILITY CROSSING IN THE AREA OF A PROPOSED STRUCTURE. IF A CONFLICT BETWEEN ANY EXISTING UTILITY AND A PROPOSED UTILITY IS FOUND DURING CONSTRUCTION THE CONTRACTOR SHALL COORDINATE ANY REQUIRED ADJUSTMENTS WITH THE PROJECT ENGINEER.



JOB NO. JN201292

REV	DATE	DESCRIPTION	BY

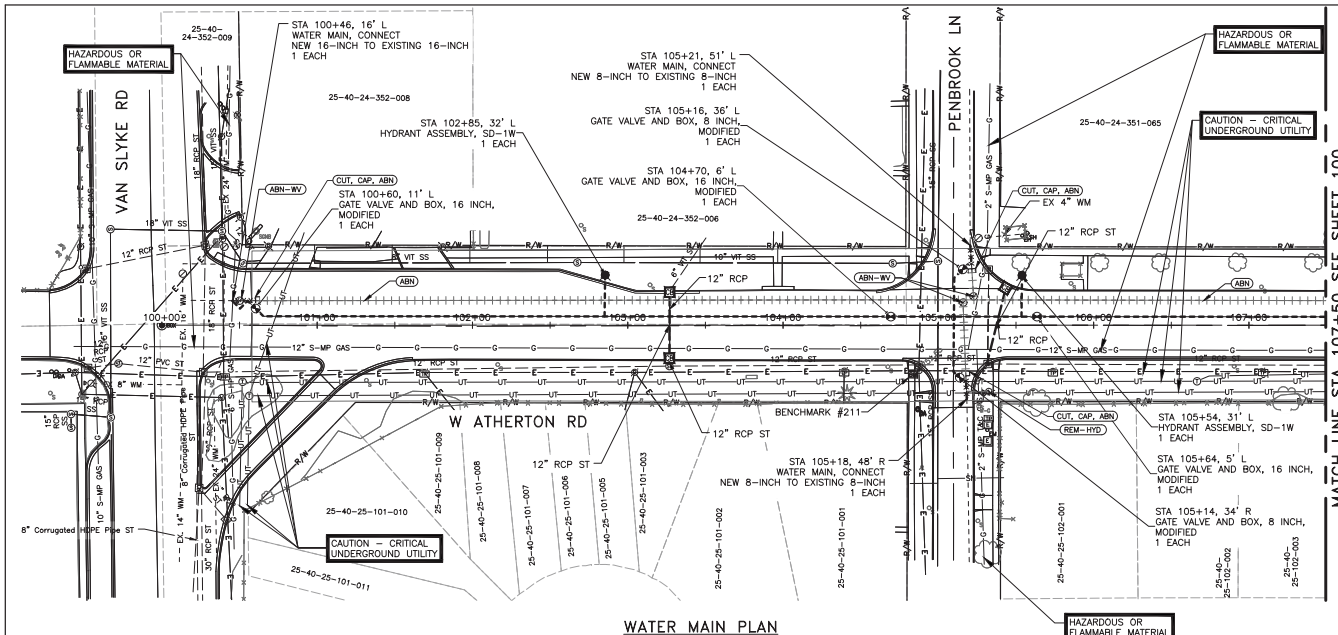
811  
Wade Trim

1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON PROFILE 1

ISSUED FOR:	DATE:	BY:
811 PLANS	10/23/19	JLS
FINAL REVIEW	2/25/19	JLS
FINAL PLANS	4/19/19	JLS

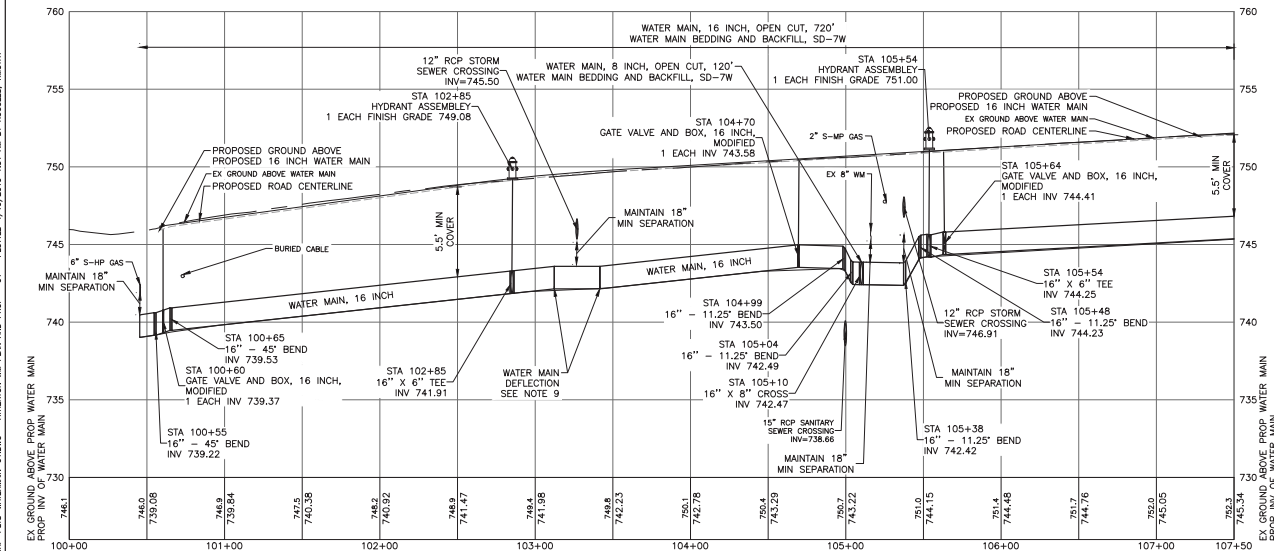


FIELD BOOK INFORMATION -  
PROJECT MANAGER: JERRY, SLOAN  
CITY OF FLINT, MI 48502  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON WM PLAN & PROFILE SHEET 1



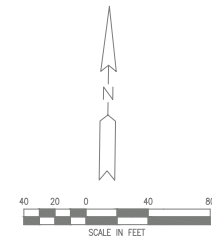
WATER MAIN PLAN

JOB NO. JN201292



WATER MAIN PROFILE

BENCHMARK 211  
DESCRIPTION: SET GEAR SPIKE IN POWER POLE  
LOCATED IN NORTH FACE OF POWER POLE AT  
SOUTHWEST CORNER OF PENBROOK LN. AND ATHERTON  
RD.  
NORTHING: 543030.65  
EASTING: 13298671.965  
ELEVATION: 751.648



QUANTITIES THIS SHEET			
ITEM	QUANTITY	UNIT	
Gate Valve and Box, 8 inch, Modified	2	EA	
Gate Valve and Box, 16 inch, Modified	3	EA	
Hydrant Assembly, SD-1W	2	EA	
Hydrant, Rem, Modified	1	EA	
Water Main Bedding and Backfill, SD-7W	840	FT	
Water Main, 8 inch, Open Cut	120	FT	
Water Main, 16 inch, Open Cut	720	FT	
Water Main, 8 inch, Cut and Plug, Modified	2	EA	
Water Main, 16 inch, Cut and Plug, Modified	1	EA	
Water Main, Connect New 8 inch to Existing 8 inch	2	EA	
Water Main, Connect New 16 inch to Existing 16 inch	1	EA	
Water Main, Rem	50	FT	
Water Structure, Abandon	3	EA	

- NOTES:
1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST CITY OF FLINT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
  2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" COPERATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE COPERATIONS AND COPPER LINES UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
  3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
  4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
  5. A MINIMUM OF 5.5- FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
  6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
  7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD-7W.
  8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
  9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, 1/2 INCH, OPEN CUT.



Know what's below.  
Call before you dig.

REV#	DATE	DESCRIPTION	BY



CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON WM PLAN & PROFILE SHEET 1

ISSUED FOR: DATE: BY:  
G. PLANS: 10/25/18 JLS  
FINAL REVIEW: 2/25/19 JLS  
FINAL PLANS: 4/19/19 JLS

JOB NO.  
COF1065.01F

SHEET  
97

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PROJECT MANAGER: Jeremy Schrot  
\\BW-WORK\2\00852518\766-61 re

3. EXISTING PRIVATE UTILITY LOCATIONS AND DEPTHS ARE UNKNOWN. WHERE POSSIBLE A NOTE HAS BEEN ADDED TO THE PROFILE SHEETS TO POINT OUT THAT THERE MAY BE A UTILITY CROSSING IN THE AREA OF A PROPOSED STRUCTURE. IF A CONFLICT BETWEEN ANY EXISTING UTILITY AND A PROPOSED UTILITY IS FOUND DURING CONSTRUCTION THE CONTRACTOR SHALL COORDINATE ANY REQUIRED ADJUSTMENTS WITH THE PROJECT ENGINEER.



JOB NO. JN201292

[illegible]

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Flint, MI 48502  
810.236.2555  
www.walshflint.com

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON PROFILE 2

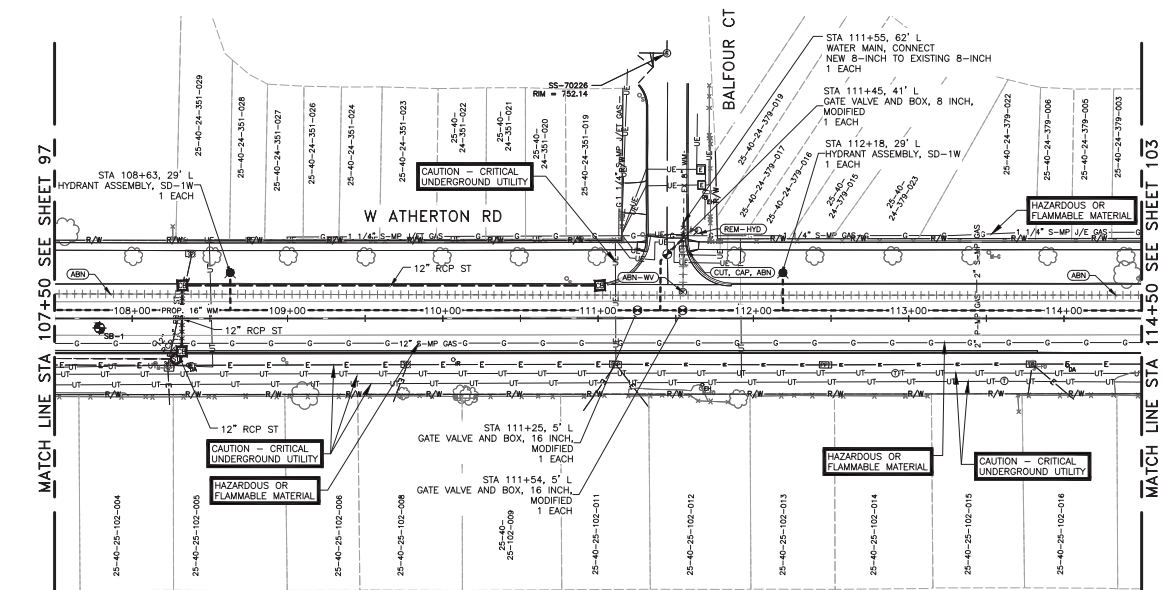
ISSUED FOR:	DATE:	BY:
GI PLANS	10/25/18	JL
FINAL REVIEW	2/25/19	JL
FINAL PLANS	4/19/19	JL

JOB NO.  
COE1065 01F

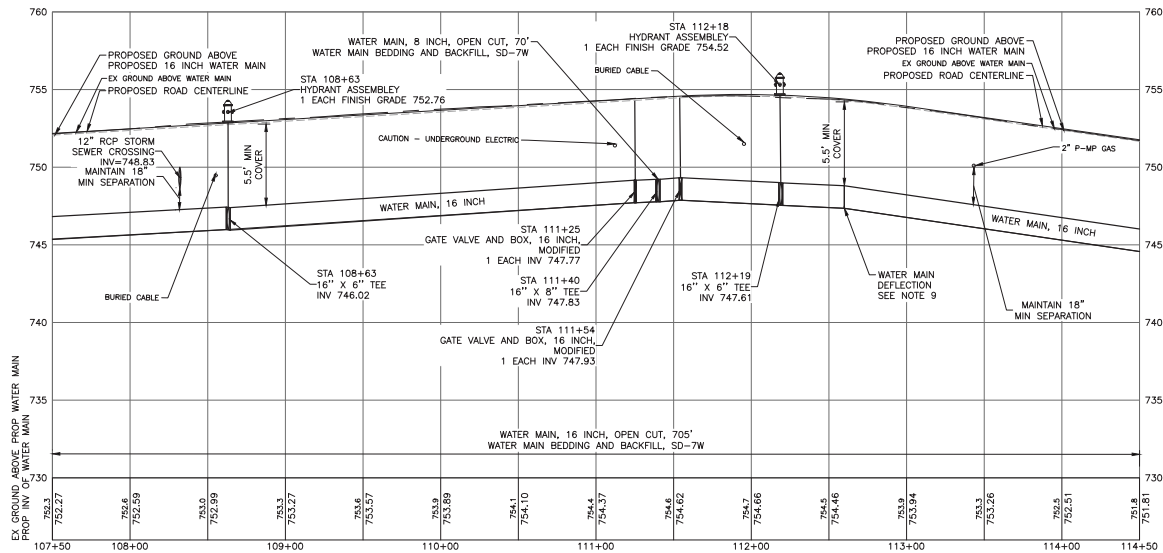
SHEET

99

PROJECT MANAGER: JERRY S. SLOAN  
CITY OF FLINT, MI 48502  
FIELD BOOK INFORMATION: - ATHERTON WM PLAN AND PROF - 02 - PLOTTED 4/19/2019 2:01 AM BY: RUGGLES, TIMOTHY



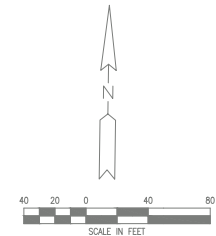
WATER MAIN PLAN



WATER MAIN PROFILE

JOB NO. JN201292

BENCHMARK 211  
DESCRIPTION: SET GEAR SPIKE IN POWER POLE  
LOCATED IN NORTH FACE OF POWER POLE AT  
SOUTHWEST CORNER OF PENBROOK LN. AND ATHERTON  
RD.  
NORTHING: 543030.65  
EASTING: 13298671.965  
ELEVATION: 751.648



QUANTITIES THIS SHEET		
	JN 201292	
	CAT 0003	
ITEM	QUANTITY	UNIT
Gate Valve and Box, 8 inch, Modified	1	EA
Gate Valve and Box, 16 inch, Modified	2	EA
Hydrant Assembly, SD-1W	2	EA
Water Main Bedding and Backfill, SD-7W	775	FT
Water Main, 8 inch, Open Cut	70	FT
Water Main, 16 inch, Open Cut	705	FT
Water Main, 8 inch, Cut and Plug, Modified	65	EA
Water Main, Connect New 8 inch to Existing 8 inch	1	EA
Water Main, Rem	15	FT
Water Structure, Abandon	1	EA

- NOTES:
1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST THE CITY OF FLINT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
  2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" COPRICATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE COPRICATIONS AND COPPER LINES UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
  3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
  4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
  5. A MINIMUM OF 5.5- FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
  6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
  7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD-7W.
  8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
  9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, 1/2 INCH, OPEN CUT.

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON WM PLAN & PROFILE SHEET 2

ISSUED FOR: DATE: BY:  
21 PLANS 10/25/18 JLS  
FINAL REVISED 2/25/19 JLS  
FINAL PLANS 4/19/19 JLS

JOB NO.  
COF1065.01F

SHEET

100



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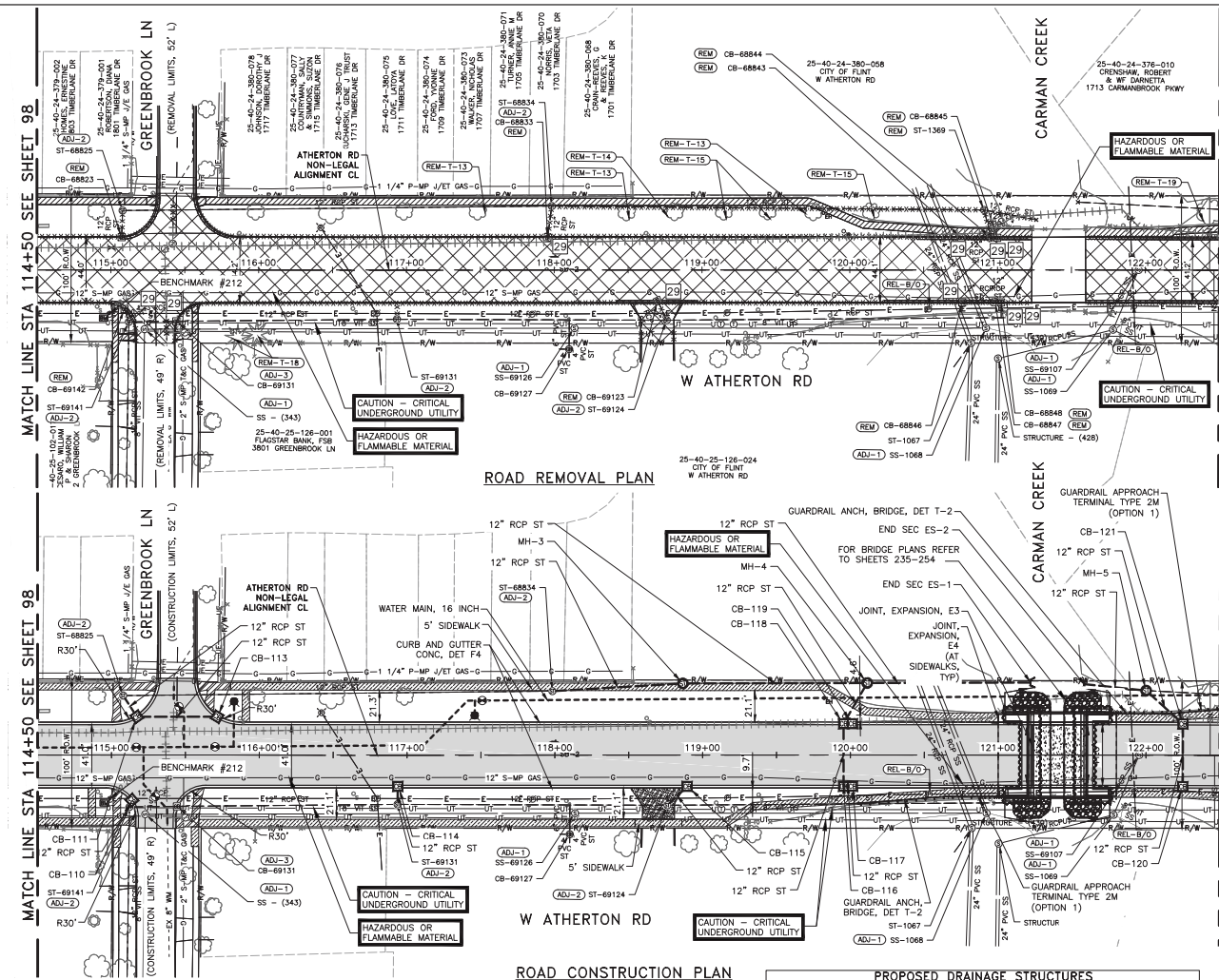


MATCH LINE STA 114+50 SEE SHEET 98

MATCH LINE STA 114+50 SEE SHEET 98

MATCH LINE STA 122+50 SEE SHEET 104

MATCH LINE STA 122+50 SEE SHEET 104



ROAD REMOVAL PLAN

ROAD CONSTRUCTION PLAN

BENCHMARK 212  
DESCRIPTION: SET HEAR SPIKE IN LIGHT POLE  
LOCATED IN NORTH FACE OF LIGHT POLE AT  
SOUTHWEST CORNER OF GREENBROOK AND  
ATHERTON RD.  
NORTHING: 543044.424  
EASTING: 13299683.32  
ELEVATION: 752.205

NOTES:  
NOTES ON SHEET 98 AND 104  
APPLY TO THIS SHEET ALSO.

DRIVEWAY QUANTITIES - THIS SHEET					
STA	SIDE	HOUSE #	PAVT. REM. MODIFIED (SYD)	DRIVEWAY, NONREINF CONC. 6 INCH (SYD)	DRIVEWAY, NONREINF CONC. 9 INCH (SYD)
118+70	R		74	0	59

PROPOSED DRAINAGE STRUCTURES							
STR NO	STATION	OFFSET	SIZE	RIM	COVER TYPE	PIPE DIRECTION, SIZE, AND INVERT	DISTANCE TO DOWN STREAM STR
ST-69141	115+12.15	35.2'	R			N 12" 746.43	4.91'
CB-110	115+13.79	30.6'	R	48"	750.59	K S 12" 746.50	ST-69141
ST-69131	116+93.54	33.4'	R			E 12" 742.86 N 12" 743.00	12.17'
CB-114	116+93.76	21.2'	R	24"	746.97	K S 12" 743.10	ST-69131
ST-69124	118+76.14	34.0'	R			W 12" 739.24 E 12" 738.74 NE 12" 739.30	18.51'
CB-115	118+89.54	21.2'	R	24"	742.47	K SW 12" 739.40	ST-69124

MAINLINE QUANTITIES - THIS SHEET

ITEM	QUANTITY	UNIT
Dr Structure, Rem	11	EA
Sewer, Rem, Less Than 24 inch	430	FT
Sidewalk, Rem	459	SYD
Pavt, Rem, Modified	3956	SYD
Tree Rem, 6 inch to 18 inch	9	EA
Tree Rem, 19 inch to 36 inch	1	EA
Clearing	0.2	ACRE
Embankment, Cip	90	CYD
Excavation, Earth	1487	CYD
Aggregate Base, 6 inch	581	SYD
Aggregate Base, 12 inch	4409	SYD
Culv End Sect, 12 inch	2	EA
Sewer, CI E, 12 inch, Tr Det B	130	FT
Sewer, CI A, 12 inch, Tr Det B	440	FT
Sewer Bulkhead, 12 inch	2	EA
Dr Structure Cover, Adj, Case 1	11	EA
Dr Structure Cover, Type B	13	EA
Dr Structure Cover, Type K	12	EA
Dr Structure, 24 inch dia	4	EA
Dr Structure, 48 inch dia	7	EA
Dr Structure, 60 inch dia	2	EA
Dr Structure, Adj, Add Depth	1	FT
Dr Structure, Top, 12 inch	5	EA
Underdrain, Subgrade, 6 inch	1600	FT
Hand Patching	1	TON
Hma, 3E1	633	TON
Hma, 4E1	422	TON
Hma, 5E1	317	TON
Hma Approach	90	TON
Driveway, Nonreinf Conc, 9 inch	59	SYD
Curb And Gutter, Conc, Det F4	1567	FT
Detectable Warning Surface	41	FT
Curb Ramp Opening, Conc	56	FT
Sidewalk Ramp, Conc, 6 inch	759	SFT
Sidewalk, Conc, 4 inch	7591	SFT
Turf Establishment, Performance	3138	SYD
Riprap, Plain	14	SYD
Guardrail Approach Terminal, Type 2M (Option 1)	2	EA
Conc Pavt, Bridge Approach, Reinf	152	SYD
Joint, Expansion, E3	56	FT
Joint, Expansion, E4	23	FT

PROPOSED DRAINAGE STRUCTURES

STR NO	STATION	OFFSET	SIZE	RIM	COVER TYPE	PIPE DIRECTION, SIZE, AND INVERT	DISTANCE TO DOWN STREAM STR
ST-68825	115+07.93	40.2'	L			SE 12" 745.94 E 12" 745.61	17.03'
CB-111	115+17.17	25.9'	L	48"	750.44	K NW 12" 746.10 E 12" 746.10	ST-68825
CB-113	115+71.54	25.9'	L	24"	749.27	K W 12" 746.50	54.38'
ST-68834	117+98.32	43.2'	L			W 12" 740.88 E 12" 740.88 E 12" 740.88	88.50'
MH-3	118+86.66	48.4'	L	48"	744.02	B W 12" 739.99 E 12" 739.99	124.73'
CB-116	119+95.37	21.2'	R	48"	741.74	K N 12" 737.50 E 12" 737.50	42.40'
CB-118	119+95.37	21.2'	L	48"	741.74	K S 12" 737.29 NE 12" 734.76 E 12" 736.42	31.87'
CB-117	120+01.37	21.2'	R	24"	741.75	K W 12" 737.80	6.00'
CB-119	120+01.37	21.2'	L	24"	741.75	K W 12" 736.72	6.00'
MH-4	120+11.39	48.8'	L	60"	742.04	B SW 12" 734.60 E 12" 734.60 W 12" 738.74	110.65'
ES-1	121+22.03	49.0'	L			W 12" 734.00	
ES-2	121+58.03	48.0'	L			E 12" 734.00	
MH-5	122+00.00	43.7'	L	60"	740.42	B W 12" 735.30 SE 12" 736.50	42.34'
CB-121	122+24.98	21.2'	L	48"	744.91	K S 12" 739.57 NW 12" 737.17	33.58'
CB-120	122+24.98	21.2'	R	48"	744.91	K N 12" 740.00	42.40'

JOB NO. JN201292

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON PLAN AND REMOVAL SHEET 3

ISSUED FOR: DATE: BY:  
G. PLANS: 10/25/18 JUS  
FINAL REVIEW: 2/25/19 JUS  
FINAL PLANS: 4/19/19 JUS

JOB NO.  
COF1065.01F

SHEET

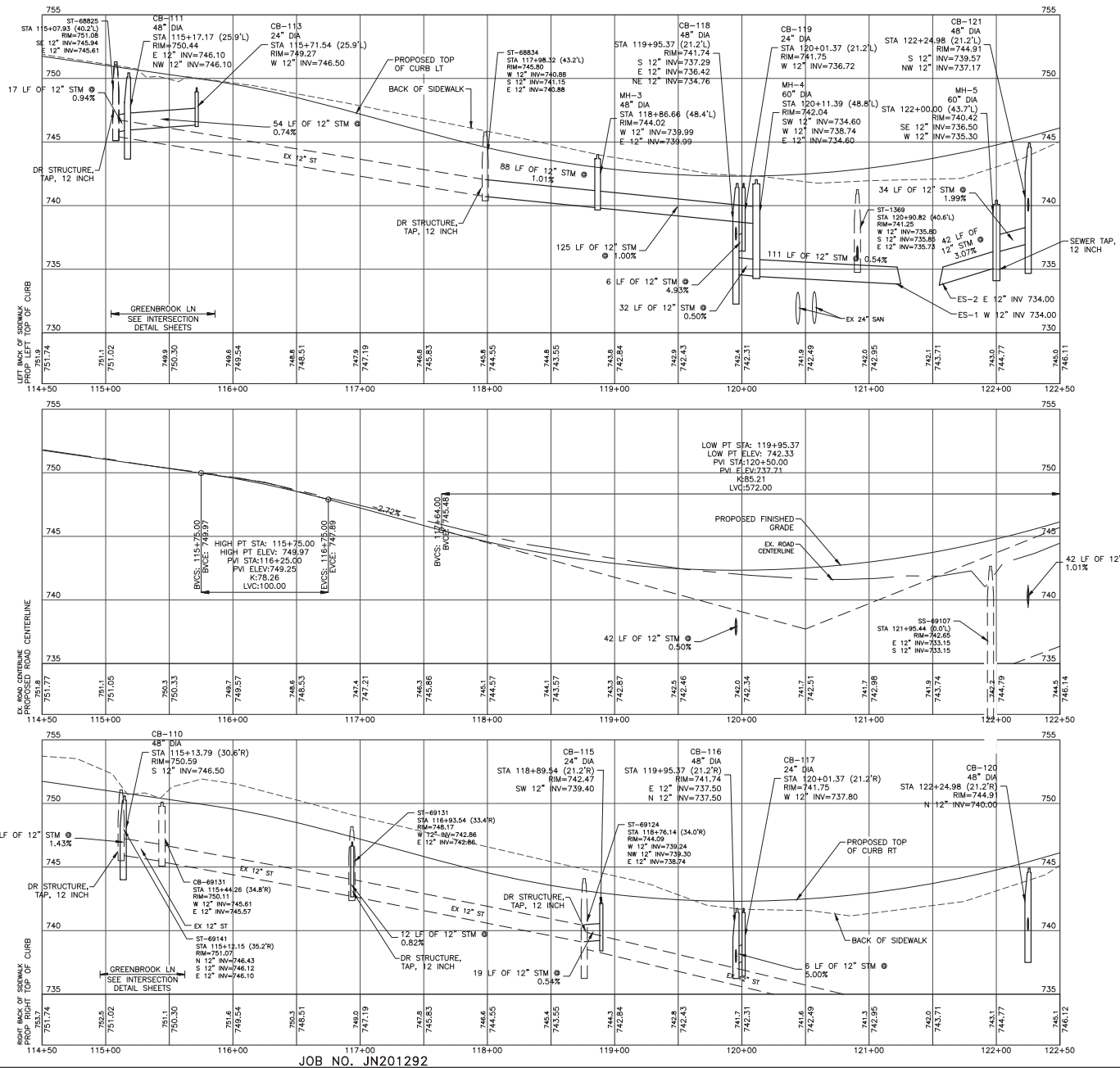
101

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Know what's below.  
Call before you dig.

- NOTES:
1. PORTIONS OF THE PROPOSED WATER MAIN HAS BEEN SHOWN IN PROFILE VIEW WHERE CROSSING THE PROPOSED STORM SEWER. THE PROPOSED HYDRANT LEADS AND WATER MAIN CROSSINGS OF PROPOSED STORM SEWERS AT EACH SIDE STREET CONNECTION TO THE EXISTING WATER MAINS HAVE NOT BEEN SHOWN ON THESE PROFILES. SEE THE WATER MAIN CONSTRUCTION SHEETS FOR ADDITIONAL INFORMATION ON WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE PROPOSED WATER MAIN AT A DEPTH THAT MAINTAINS A MINIMUM OF 18" VERTICAL CLEARANCE AT EACH CROSSING OF THE PROPOSED STORM SEWER. IF THIS REQUIRES THE ADJUSTMENT OF PROPOSED WATER MAIN OR STORM SEWER DEPTHS OR LOCATIONS FROM WHAT IS PROPOSED ON THESE PLANS, THE CONTRACTOR SHALL COORDINATE THESE ADJUSTMENTS WITH THE PROJECT ENGINEER.
  2. THE EXACT LOCATION AND DEPTH OF EXISTING WATER MAINS ARE UNKNOWN AND THEIR CROSSING OF THE PROPOSED STORM SEWERS HAVE NOT BEEN SHOWN ON THESE PROFILES.
  3. EXISTING PRIVATE UTILITY LOCATIONS AND DEPTHS ARE UNKNOWN. WHERE POSSIBLE A NOTE HAS BEEN ADDED TO THE PROFILE SHEETS TO POINT OUT THAT THERE MAY BE A UTILITY CROSSING IN THE AREA OF A PROPOSED STRUCTURE. IF A CONFLICT BETWEEN ANY EXISTING UTILITY AND A PROPOSED UTILITY IS FOUND DURING CONSTRUCTION THE CONTRACTOR SHALL COORDINATE ANY REQUIRED ADJUSTMENTS WITH THE PROJECT ENGINEER.



ISSUED FOR: DATE: BY:  
 100% PLAN: 10/25/18 JLS  
 FINAL REVIEW: 2/25/19 JLS  
 FINAL PLANS: 4/19/19 JLS

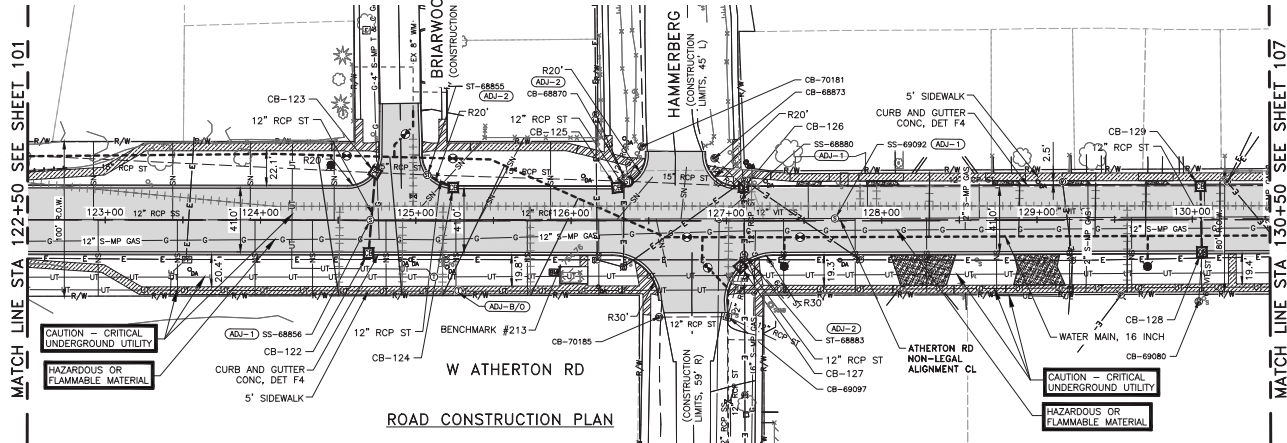
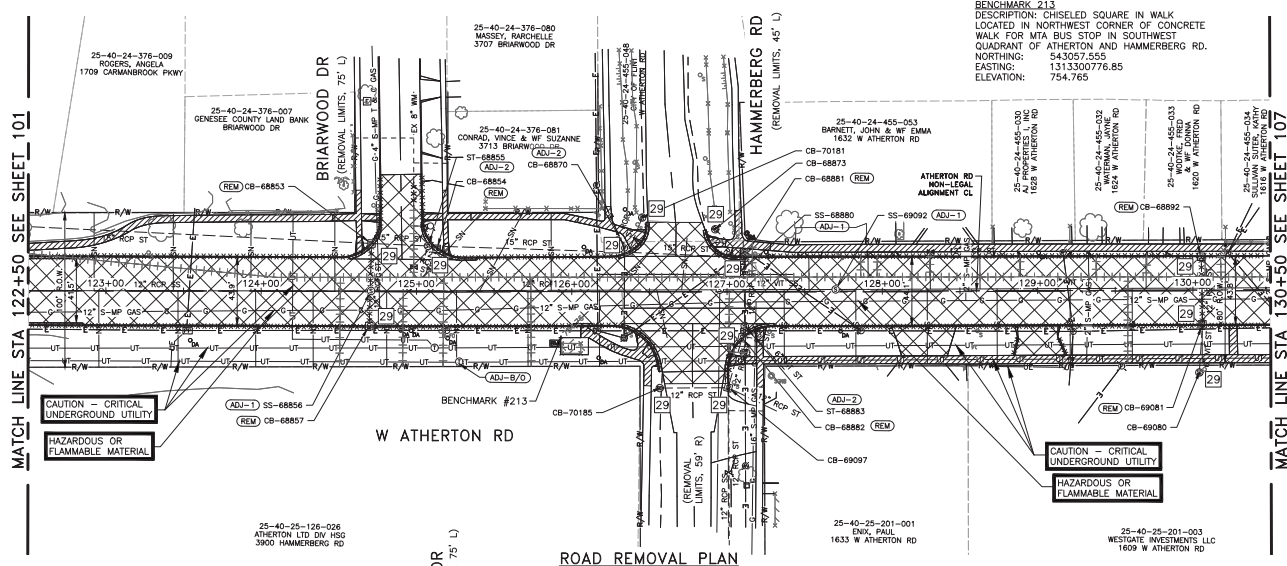
JOB NO. 1065.01F  
 SHEET 102

**CITY OF FLINT**  
**1101 SOUTH SAGINAW STREET**  
**FLINT, MI 48802**  
**ATHERTON ROAD**  
**ATHERTON PROFILE 3**

Wade Trim  
 505 S. Saginaw Street, Suite 201  
 Flint, MI 48802  
 www.wadetrim.com





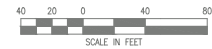


STA	SIDE	HOUSE #	PAVT, REM, MODIFIED (SYD)	DRIVEWAY, NONREINF CONC, 6 INCH (SYD)	DRIVEWAY, NONREINF CONC, 9 INCH (SYD)	AGGREGATE BASE, 6 INCH (SYD)
127+54	L	1632	4	4	0	4
128+00	L	1632	6	6	0	6
128+25	R	1633	74	0	77	77
128+80	L	1628	5	5	0	5
129+00	R	1609	60	0	62	62
129+28	L	1624	4	4	0	4
129+76	L	1620	4	3	0	3

#### NOTES:

- WHERE STRUCTURE ADJ-1, ADJ-2, ADJ-3, ADJ-5 AND ADJ-6 ARE INDICATED ON THE PLANS, NUMBERS 1, 2, 3, 5 AND 6 CORRESPOND TO CITY OF FLINT CASTING DETAIL NUMBERS CF-1, CF-2, CF-3, CF-5, CF-6 RESPECTIVELY. THE STRUCTURES ARE TO BE ADJUSTED TO FINAL GRADE WITH NEW STRUCTURE FRAMES AND COVERS AS INDICATED ON THE LEGEND SHEET AND THE CITY OF FLINT CASTING DETAILS SHEET. CASTINGS CF-1, CF-2, CF-3, CF-5 AND CF-6 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE B". CASTINGS CF-4 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE A". CASTING CF-5 IS PAID FOR AS "DR STRUCTURE COVER, TYPE G". ALL OTHER STRUCTURE COVER TYPES WILL REFER TO MDOT STANDARD PLANS.
- EXISTING STORM STRUCTURES THAT ARE TO BE TAPPED WITH A PROPOSED STORM SEWER ARE INDICATED IN THE STRUCTURE TABLE AS ST-###. THE "ST" INDICATES STRUCTURE TAP AND THE NUMBER (###) INDICATES THE EXISTING STORM STRUCTURE WHICH IS BEING TAPPED.
- WHERE PIPES ARE DESIGNATED FOR REMOVAL, THEY ARE TO BE REMOVED TO AN EXISTING STRUCTURE WHICH WILL REMAIN IN PLACE. THE PIPE OPENING IN THE STRUCTURE SHALL BE REPAIRED/BULK HEADED WITH BRICK AND MORTAR AS APPROVED BY THE ENGINEER.
- MDOT SOIL EROSION CONTROL MEASURE 29 IS INDICATED IN THE TOP PORTION OF THE SHEET FOR EXISTING STORM STRUCTURES WHICH ARE TO BE PROTECTED. SOIL EROSION CONTROL MEASURE 29 SHALL ALSO BE APPLIED TO EACH PROPOSED STORM CATCH BASIN WHICH IS INDICATED IN THE STRUCTURE TABLE AS CB-##.
- WHERE CATCH BASIN RIM ELEVATIONS ARE INDICATED ON THESE PLANS, THE ELEVATION LISTED REPRESENTS THE EDGE OF PAVEMENT ELEVATION.
- FOR ADDITIONAL CURB RADIUS INFORMATION AND DETAILED INTERSECTION GRADING, REFER TO THE DETAILED INTERSECTION GRADING SHEETS.

JOB NO. JN201292



ITEM	CAT 0001	QUANTITY	UNIT
Dr Structure, Rem	JN 201292	7	EA
Sewer, Rem, Less Than 24 inch		108	FT
Sidewalk, Rem		708	SYD
Pavt, Rem, Modified		4435	SYD
Embankment, Cip		90	CYD
Excavation, Earth		1415	CYD
Aggregate Base, 6 inch		729	SYD
Aggregate Base, 12 inch		4583	SYD
Sewer, CI A, 12 inch, Tr Det B		126	FT
Sewer Bulkhead, 12 inch		1	EA
Dr Structure Cover, Adj, Case 1		5	EA
Dr Structure Cover, Type B		5	EA
Dr Structure Cover, Type K		8	EA
Dr Structure, 24 inch dia		4	EA
Dr Structure, 48 inch dia		4	EA
Dr Structure, Adj, Add Depth		1	FT
Dr Structure, Tab, 12 inch		3	EA
Underdrain, Subgrade, 6 inch		1600	FT
Hand Patching		1	TON
Hma, 3E1		663	TON
Hma, 4E1		442	TON
Hma, 5E1		331	TON
Hma Approach		161	TON
Driveway, Nonreinf Conc, 6 inch		22	SYD
Driveway, Nonreinf Conc, 9 inch		139	SYD
Curb And Gutter, Conc, Det F4		1705	FT
Detectable Warning Surface		103	FT
Curb Ramp Opening, Conc		132	FT
Sidewalk Ramp, Conc, 6 inch		2791	SFT
Sidewalk, Conc, 4 inch		5831	SFT
Turf Establishment, Performance		2921	SYD

STR NO	STATION	OFFSET	SIZE	RIM	COVER TYPE	PIPE DIRECTION, SIZE, AND INVERT	DISTANCE TO DOWN STREAM STR
CB-122	124+69.64	21.1' R	24"	752.68	K	N 12" 748.00	51.94' CB-123
CB-123	124+73.80	30.6' L	48"	752.86	K	E 15" 745.66 W 15" 745.51 S 12" 747.61	319.91'
ST-68855	125+07.34	29.3' L				E 15" 748.92 W 15" 746.92 SE 12" 749.00	33.57' CB-123
CB-124	125+24.14	21.2' L	24"	753.48	K	NW 12" 749.10	18.64' ST-68855
CB-125	126+29.63	21.3' L	48"	754.04	K	NE 12" 748.85	8.02' ST-68870
ST-68870	126+36.54	25.4' L				E 15" 747.40 W 15" 747.40 SW 12" 748.74	129.26' ST-68855
CB-127	127+09.04	29.6' R	24"	753.92	K	N 12" 749.95 S 12" 749.89	7.90' ST-68883 2.64' CB-128
CB-126	127+11.12	21.6' L	48"	754.39	K	E 12" 748.04 W 15" 747.81 NW 12" 749.81 S 12" 748.04	74.56' ST-68870 2.89' CB-128
ST-68883	127+11.26	22.0' R				S 12" 749.89	2.25'
CB-129	130+05.33	21.2' L	48"	755.63	K	E 12" 750.94 W 12" 750.94 S 12" 750.99	294.21' CB-128
CB-128	130+06.11	21.3' R	24"	755.63	K	N 12" 751.40	42.43' CB-129



CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON PLAN AND REMOVAL SHEET 4

ISSUED FOR: DATE: BY:  
G: PLAN: 10/25/18 JLS  
FINAL REVIEW: 2/25/19 JLS  
FINAL PLANS: 4/19/19 JLS

JOB NO.  
COF1065.01F

SHEET

104

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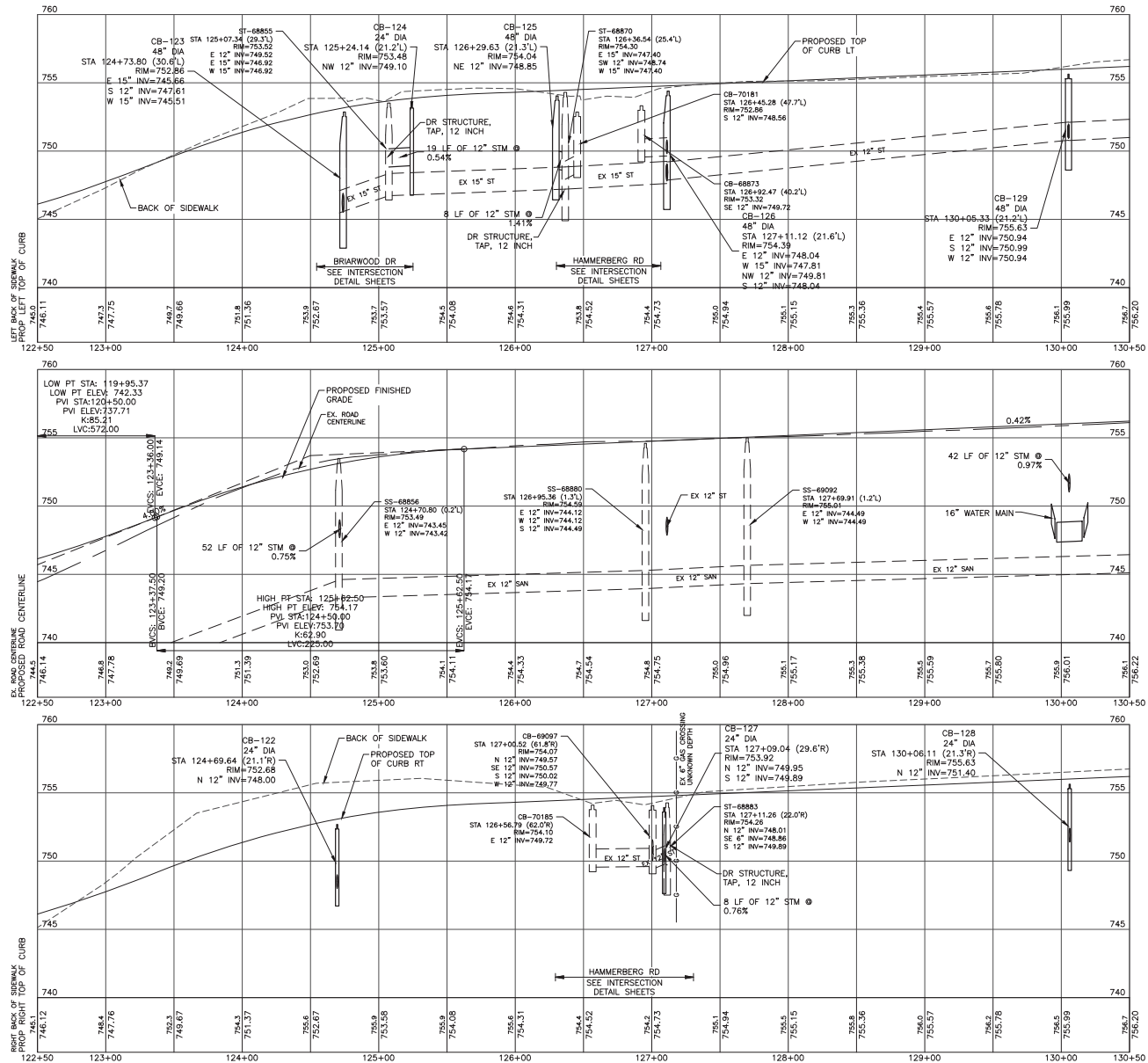


PROJECT MANAGER: Jeremy Schmitt  
CITY OF FLINT, MI 48901  
FIELD BOOK INFORMATION: 4/19/2017 2:18 PM BY RIGGLES, TIMOTHY

- NOTES:
- PORTIONS OF THE PROPOSED WATER MAIN HAS BEEN SHOWN IN PROFILE VIEW WHERE CROSSING THE PROPOSED STORM SEWER. THE PROPOSED HYDRANT LEADS AND WATER MAIN CROSSINGS OF PROPOSED STORM SEWERS AT EACH SIDE STREET CONNECTION TO THE EXISTING WATER MAINS HAVE NOT BEEN SHOWN ON THESE PROFILES. SEE THE WATER MAIN CONSTRUCTION SHEETS FOR ADDITIONAL INFORMATION ON WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE PROPOSED WATER MAIN AT A DEPTH THAT MAINTAINS A MINIMUM OF 18" VERTICAL CLEARANCE AT EACH CROSSING OF THE PROPOSED STORM SEWER. IF THIS REQUIRES THE ADJUSTMENT OF PROPOSED WATER MAIN OR STORM SEWER DEPTHS OR LOCATIONS FROM WHAT IS PROPOSED ON THESE PLANS, THE CONTRACTOR SHALL COORDINATE THESE ADJUSTMENTS WITH THE PROJECT ENGINEER.
  - THE EXACT LOCATION AND DEPTH OF EXISTING WATER MAINS ARE UNKNOWN AND THEIR CROSSING OF THE PROPOSED STORM SEWERS HAVE NOT BEEN SHOWN ON THESE PROFILES.
  - EXISTING PRIVATE UTILITY LOCATIONS AND DEPTHS ARE UNKNOWN. WHERE POSSIBLE A NOTE HAS BEEN ADDED TO THE PROFILE SHEETS TO POINT OUT THAT THERE MAY BE A UTILITY CROSSING IN THE AREA OF A PROPOSED STRUCTURE. IF A CONFLICT BETWEEN ANY EXISTING UTILITY AND A PROPOSED UTILITY IS FOUND DURING CONSTRUCTION THE CONTRACTOR SHALL COORDINATE ANY REQUIRED ADJUSTMENTS WITH THE PROJECT ENGINEER.



Know what's below.  
Call before you dig.



JOB NO. JN201292

NO.	DESCRIPTION	REV.	DATE

100 S. Saginaw Street, Suite 201  
Flint, MI 48902  
www.wade-trim.com

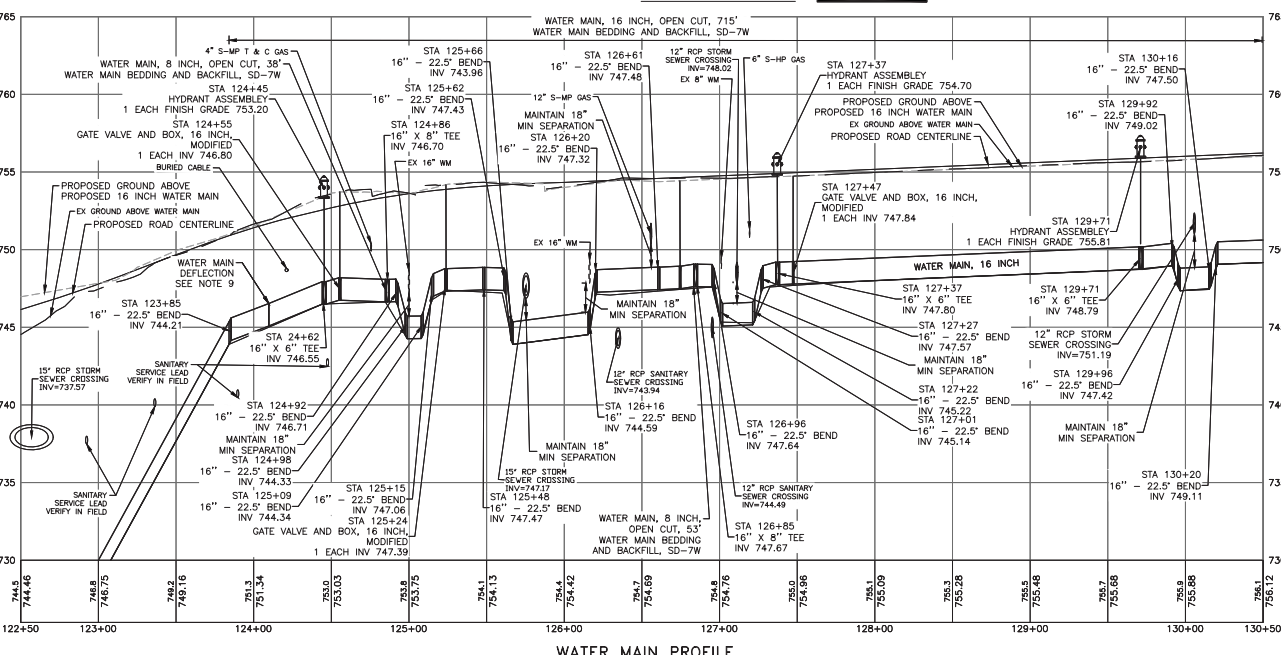
**WADE TRIM**

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48902  
ATHERTON ROAD  
ATHERTON PROFILE 4

ISSUED FOR: DATE: BY:  
SHEET NO. 105  
FINAL REVIEW 2/25/19 JLS  
FINAL PLANS 4/19/19 JLS

JOB NO. JN201292  
SHEET 105

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NOTES:

1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH ASTM A680-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST CITY OF PLANO STANDARDS AND THE WATER MAIN TESTING SPECIAL PROVISIONS. ALL TESTS SHALL BE OBSERVED AND MONITORED BY THE CONTRACTOR.
2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" CORPORATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL PROVIDE THE CONTRACTOR WITH THE CITY OF PLANO APPROVED SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL SEPARATION FROM SANITARY OR STORM SEWER.
4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
5. A MINIMUM OF 5.5- FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO ANY CONSTRUCTION.
7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF PLANO DETAIL 50-7W.
8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY MARK EXISTING HYDRANTS WHEN THEY ARE OUT OF THE GROUND.
9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO THE BENDS NOTED ON THE PLANS.

ISSUED FOR:	DATE:	BY:
GI PLANS	10/25/18	JJS
FINAL REVIEW	2/25/19	JJS
FINAL PLANS	4/19/19	JJS

JOB NO.  
COE1065 01F

106

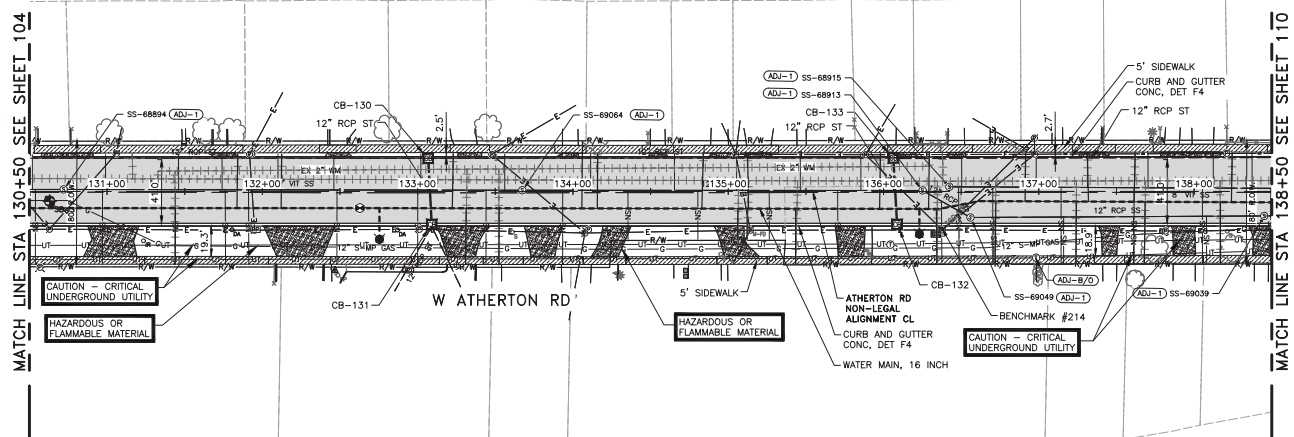
106

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Know what's **below**.  
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106



### PROPOSED DRAINAGE STRUCTURES

PROPOSED DRAINAGE STRUCTURES							
STR NO	STATION	OFFSET	SIZE	RIM	COVER TYPE	PIPE, DIRECTION, SIZE, AND INVERT	DISTANCE TO DOWN STREAM S/S
CB-130	133+06.79	21.3' L	48"	756.89	K	E 12" 752.41 W 12" 752.41 S 12" 752.50	301.46' CB-129
CB-131	133+09.05	21.3' R	24"	756.90	K	N 12" 753.08 S 12" 753.21	42.64' CB-130 3.93'
CB-133	136+06.30	21.6' L	48"	759.25	K	E 12" 753.57 W 12" 753.57 S 12" 753.75	106.02'
CB-132	136+08.70	21.3' R	24"	759.26	K	N 12" 754.70	42.93' CB-133

A graphic scale bar labeled "SCALE IN FEET" with markings at 0, 20, 40, and 80 feet. The bar is divided into alternating black and white segments.

		JN 201292	
		CAT 0001	
ITEM	QUANTITY	UNIT	
Dr Structure, Rem	4	EA	
Sewer, Rem, Less Than 24 inch	86	FT	
Sidewalk, Rem	875	SYD	
Pavt, Rem, Modified	4395	SYD	
Embankment, Cip	90	CYD	
Excavation, Earth	1482	CYD	
Aggregate Base, 6 inch	1021	SYD	
Aggregate Base, 12 inch	4180	SYD	
Sewer, CI A, 12 inch, Tr Det B	343	FT	
Dr Structure Cover, Adj, Case 1	6	EA	
Dr Structure Cover, Type B	6	EA	
Dr Structure Cover, Type K	4	EA	
Dr Structure, 24 inch dia	2	EA	
Dr Structure, 48 inch dia	2	EA	
Dr Structure, Adj, Add Depth	1	FT	
Underdrain, Subgrade, 6 inch	1600	FT	
Hand Patching	1	TON	
Hma, 3E1	663	TON	
Hma, 4E1	442	TON	
Hma, 5E1	331	TON	
Driveway, Nonreinl Conc, 6 inch	133	SYD	
Driveway, Nonreinl Conc, 9 inch	354	SYD	
Curb And Gutter, Conc, Det F4	1600	FT	
Sidewalk Ramp, Conc, 6 inch	2446	SFT	
Sidewalk, Conc, 4 inch	5550	SFT	
Turf Establishment, Performance	2104	SYD	

DRIVEWAY QUANTITIES – THIS SHEET						
STA	SIDE	HOUSE #	PAVT. REM. MODIFIED (SYD)	DRIVEWAY, NONREINFC CONC, 6 INCH (SYD)	DRIVEWAY, NONREINFC CONC, 9 INCH (SYD)	AGGREGATE BASE, 6 INCH (SYD)
130+62	L	1616	4	3	0	3
130+80	R	1610	6	5	0	5
131+04	R	1609	63	0	65	65
131+74	L	1610	5	4	0	4
132+24	R	1601	79	0	81	81
132+48	L	1520	5	4	0	4
133+29	R	1601	51	0	53	53
133+34	L	1524	5	4	0	4
133+80	R	1517	41	0	42	42
133+97	L	1518	4	3	0	3
134+27	R	1515	35	0	36	36
134+50	L	1514	4	3	0	3
134+96	L	1510	4	3	0	3
135+01	R	1515	37	0	39	39
135+20	L	1502	5	4	0	4
135+78	R		37	0	38	38
136+14	L	1426	4	4	0	4
136+46	L	1418	4	3	0	3
137+34	L	1414	6	6	0	6
137+45	R	1413	22	22	0	22
137+93	R	1409	30	30	0	30
137+97	L	1410	13	12	0	12
138+42	R	1405	24	24	0	24

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON PLAN AND REMOVAL SHEET 5

ISSUED FOR:	DATE:	BY:
GI PLANS	10/25/18	JJS
FINAL REVIEW	2/25/19	JJS
FINAL PLANS	4/19/19	JJS

JOB NO.  
COF1065.01F

107

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PROJECT MANAGER: Jeremy Schrat  
 \PW\_WORK2\0852518\CRP-PLTS-PLAN-05.DWG - A-5 - PLOTTED 4/19/2019 2:25 AM BY RUGGLES, TIMOTHY



Know what's **below**.  
**Call** before you dig

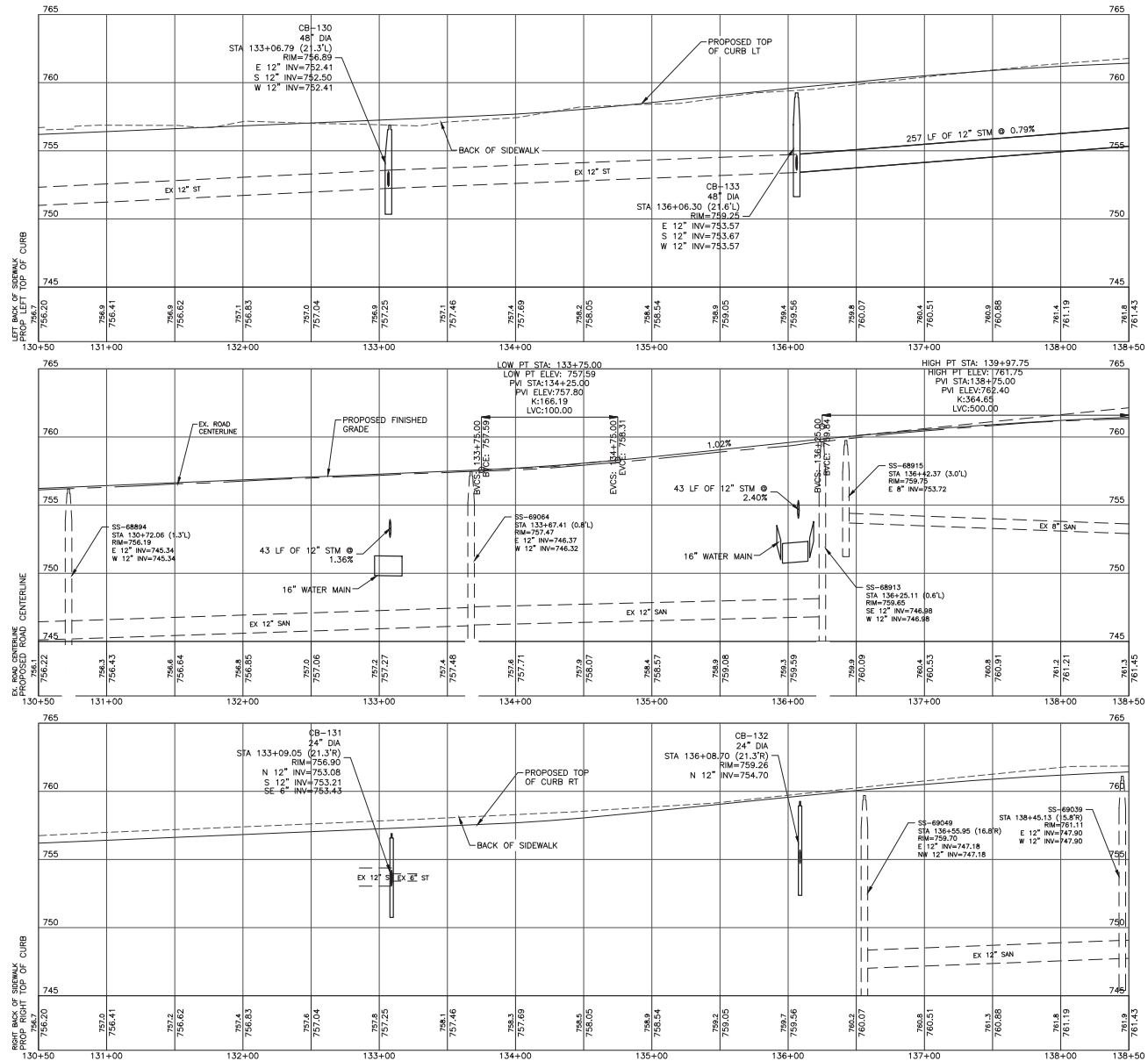
JOB NO. JN201292

PROJECT MANAGER: Jeremy Schmitt  
CITY OF FLINT, MI 48902  
FLINT, MI 48902  
DATE: 4/19/2019 2:29 PM BY: JRM/ML



Know what's below.  
Call before you dig.

- NOTES:
1. PORTIONS OF THE PROPOSED WATER MAIN HAS BEEN SHOWN IN PROFILE VIEW WHERE CROSSING THE PROPOSED STORM SEWER. THE PROPOSED HYDRANT LEADS AND WATER MAIN CROSSINGS OF PROPOSED STORM SEWERS AT EACH SIDE STREET CONNECTION TO THE EXISTING WATER MAINS HAVE NOT BEEN SHOWN ON THESE PROFILES. SEE THE WATER MAIN CONSTRUCTION SHEETS FOR ADDITIONAL INFORMATION ON WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE PROPOSED WATER MAIN AT A DEPTH THAT MAINTAINS A MINIMUM OF 18" VERTICAL CLEARANCE AT EACH CROSSING OF THE PROPOSED STORM SEWER. IF THIS REQUIRES THE ADJUSTMENT OF PROPOSED WATER MAIN OR STORM SEWER DEPTHS OR LOCATIONS FROM WHAT IS PROPOSED ON THESE PLANS, THE CONTRACTOR SHALL COORDINATE THESE ADJUSTMENTS WITH THE PROJECT ENGINEER.
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JOB NO. JN201292

REV	DATE	DESCRIPTION	BY

100% Design Sheet, Scale 3"=1'

WADE TRIM

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CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48902  
ATHERTON ROAD  
ATHERTON PROFILE 5

ISSUED FOR: DATE: 4/19/2019	BY: JRM
2D PLANS: 10/25/18	BY: JRM
FINAL REVIEW: 2/25/19	BY: JRM
FINAL PLANS: 4/19/19	BY: JRM

JOB NO. JN201292  
SHEET 108



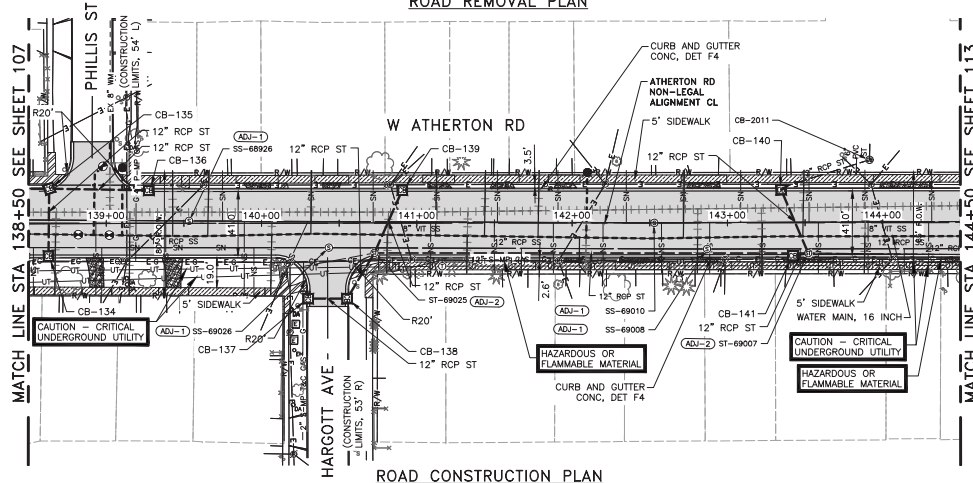
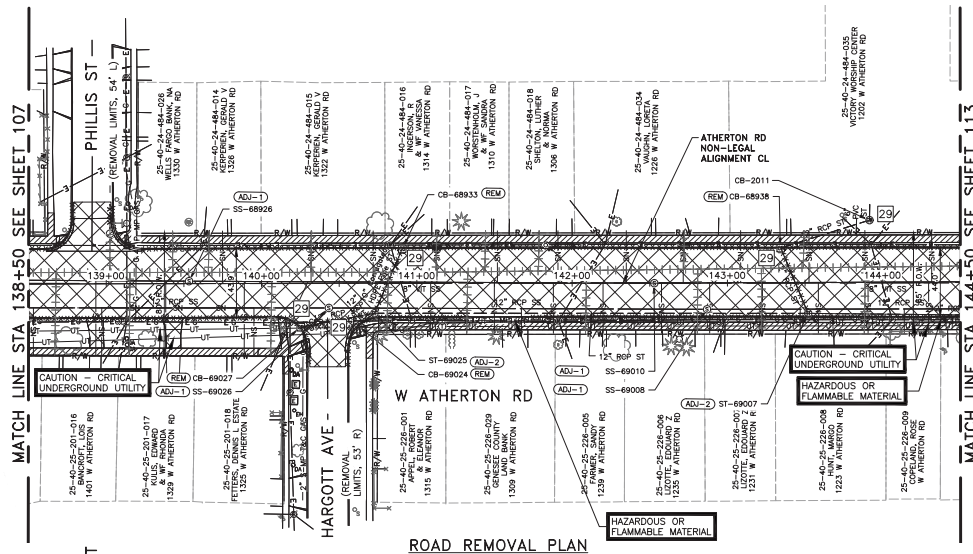




Know what's below.  
Call before you dig.

#### NOTES:

- WHERE STRUCTURE ADJ-1, ADJ-2, ADJ-3, ADJ-5 AND ADJ-6 ARE INDICATED ON THE PLANS, NUMBERS 1, 2, 3, 5 AND 6 CORRESPOND TO CITY OF FLINT CASTING DETAIL NUMBERS CF-1, CF-2, CF-3, CF-5, CF-6 RESPECTIVELY. THE STRUCTURES ARE TO BE ADJUSTED TO FINAL GRADE WITH NEW STRUCTURE FRAMES AND COVERS AS INDICATED ON THE LEGEND SHEET AND THE CITY OF FLINT CASTING DETAILS SHEET. CASTINGS CF-1, CF-2, CF-3, CF-5 AND CF-6 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE B". CASTINGS CF-4 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE K". CASTING CF-5 IS PAID FOR AS "DR STRUCTURE COVER, TYPE C". ALL OTHER STRUCTURE COVER TYPES WILL REFER TO MDOT STANDARD PLANS.
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- MDOT SOIL EROSION CONTROL MEASURE 29 IS INDICATED IN THE TOP PORTION OF THE SHEET FOR EXISTING STORM STRUCTURES WHICH ARE TO BE PROTECTED. SOIL EROSION CONTROL MEASURE 29 SHALL ALSO BE APPLIED TO EACH PROPOSED STORM CATCH BASIN WHICH IS INDICATED IN THE STRUCTURE TABLE AS CB-##.
- WHERE CATCH BASIN RIM ELEVATIONS ARE INDICATED ON THESE PLANS, THE ELEVATION LISTED REPRESENTS THE EDGE OF PAVEMENT ELEVATION.
- FOR ADDITIONAL CURB RADIUS INFORMATION AND DETAILED INTERSECTION GRADING, REFER TO THE DETAILED INTERSECTION GRADING SHEETS.



STR NO	STATION	OFFSET	SIZE	RIM	COVER TYPE	PIPE DIRECTION, SIZE, AND INVERT	DISTANCE TO DOWN STREAM STR
CB-134	138+62.85	21.3' R	24"	761.09	K	N 12" 757.30	43.41' CB-135
CB-135	138+63.23	22.2' L	48"	761.00	K	E 12" 757.00 W 12" 755.60 S 12" 757.00	256.93' CB-133
CB-136	139+27.37	21.2' L	24"	761.27	K	W 12" 757.35	64.15' CB-135

ITEM	QUANTITY	UNIT
Dr Structure, Rem	4	EA
Sewer, Rem, Less Than 24 inch	149	FT
Sidewalk, Rem	363	SYD
Pavt, Rem, Modified	3195	SYD
Embankment, Clip	90	CYD
Excavation, Earth	1633	CYD
Aggregate Base, 6 inch	541	SYD
Aggregate Base, 12 inch	3297	SYD
Sewer, CI E, 12 inch, Tr Det B	70	FT
Sewer, CI A, 12 inch, Tr Det B	200	FT
Sewer Bulkhead, 12 inch	3	EA
Dr Structure Cover, Adj, Case 1	6	EA
Dr Structure Cover, Type B	6	EA
Dr Structure Cover, Type K	8	EA
Dr Structure, 24 inch dia	6	EA
Dr Structure, 48 inch dia	2	EA
Dr Structure, Adj, Add Depth	1	FT
Dr Structure, Tap, 12 inch	4	EA
Underdrain, Subgrade, 6 inch	1600	FT
Hand Patching	1	TON
Hma, 3E1	497	TON
Hma, 4E1	332	TON
Hma, 5E1	249	TON
Hma Approach	64	TON
Driveway, Nonreinf Conc, 6 inch	109	SYD
Driveway, Nonreinf Conc, 9 inch	13	SYD
Curb And Gutter, Conc, Det F4	1260	FT
Detectable Warning Surface	42	FT
Curb Ramp Opening, Conc	56	FT
Sidewalk Ramp, Conc, 6 inch	2271	SFT
Sidewalk, Conc, 4 inch	3786	SFT
Turf Establishment, Performance	1089	SYD

STA	SIDE	HOUSE #	PAVT, REM, MODIFIED (SYD)	DRIVEWAY, NONREINF CONC, 9 INCH (SYD)	DRIVEWAY, NONREINF CONC, 6 INCH (SYD)	AGGREGATE BASE, 6 INCH (SYD)
138+92	R	1401	20	20	0	20
139+42	R	1329	22	22	0	22
139+97	L	1326	5	6	0	6
140+45	L	1322	4	4	0	4
141+15	L	1314	4	5	0	5
141+55	L	1310	4	5	0	5
141+63	R	1309	6	5	0	5
141+95	L	1306	4	5	0	5
142+01	R	1239	4	3	0	3
142+42	R	1235	9	8	0	8
142+85	L	1226	6	8	0	8
142+87	R	1231	7	6	0	6
143+54	R	1223	12	10	0	10
144+12	L	1202	10	0	13	13
144+44	R	1211	4	3	0	3

STR NO	STATION	OFFSET	SIZE	RIM	COVER TYPE	PIPE DIRECTION, SIZE, AND INVERT	DISTANCE TO DOWN STREAM STR
CB-137	140+29.99	48.5' R	24"	760.80	K	E 12" 758.27	25.05' CB-138
CB-138	140+55.05	48.6' R	48"	760.94	K	W 12" 758.15 NE 12" 758.15	34.28' ST-69025
ST-69025	140+72.70	19.2' R				SW 12" 757.98 E 12" 757.98 NE 12" 757.68	44.25' ST-69025
CB-139	140+90.64	21.3' L	24"	761.20	K	SW 12" 757.95	44.33' ST-69007
CB-140	143+34.61	21.3' L	24"	760.38	K	SE 12" 757.81	9.92' ST-69007
CB-141	143+42.19	21.3' R	24"	760.39	K	E 12" 756.39	221.30' CB-143
ST-69007	143+51.97	19.5' R				E 12" 756.33 NW 12" 756.94 W 12" 756.33	

JOB NO. JN201292

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON PLAN AND REMOVAL SHEET 6

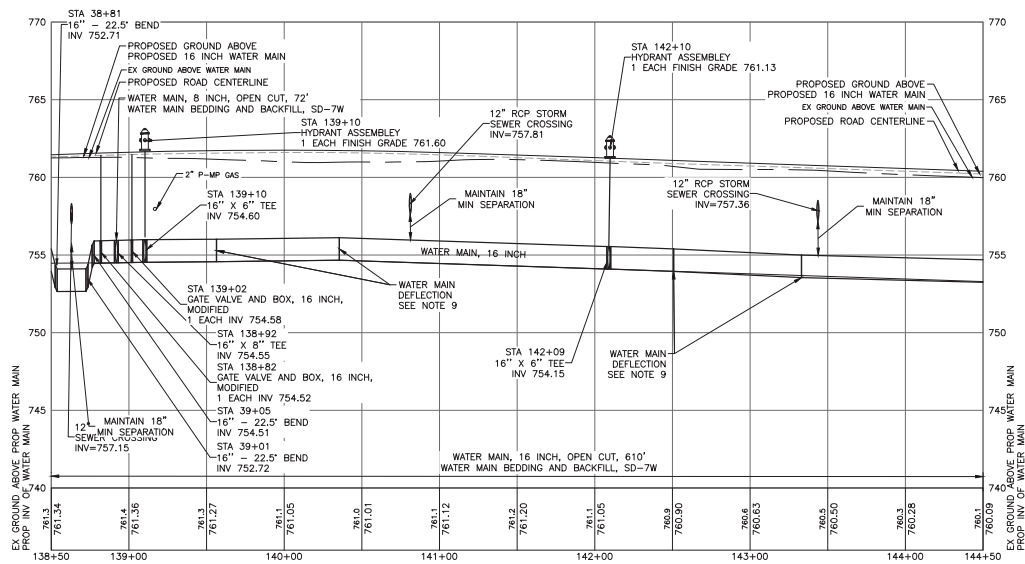
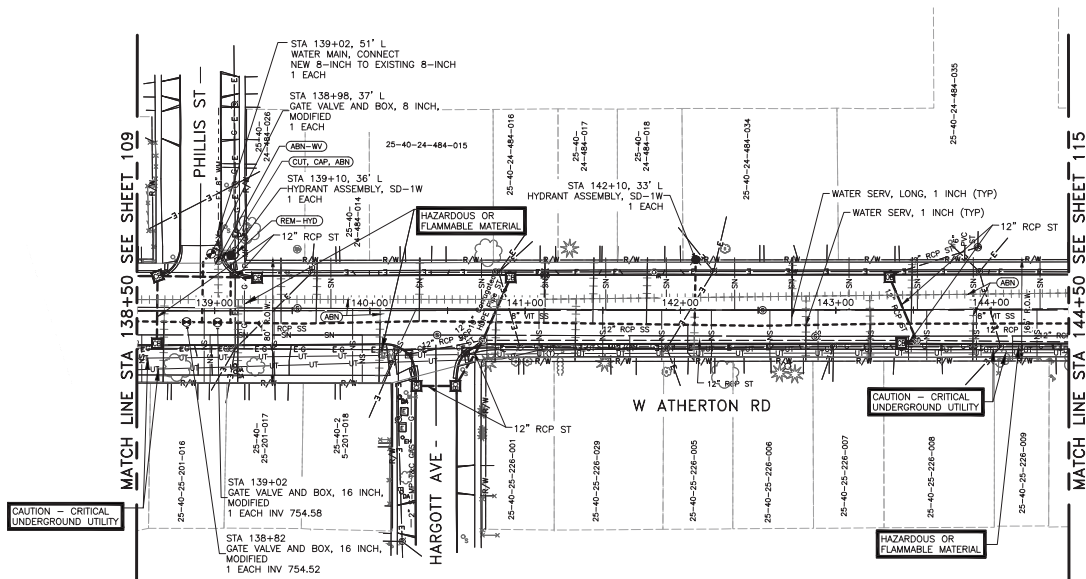
ISSUED FOR: DATE: BY:  
21 PLANS 10/25/18 JUS  
FINAL REVIEW 2/25/19 JUS  
FINAL PLANS 4/19/19 JUS

JOB NO.  
C0F1065.01F

SHEET

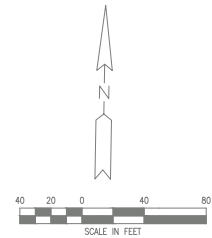
110





JOB NO. JN201292

**BENCHMARK 214**  
DESCRIPTION: SET GEAR SPIKE IN POWER POLE  
LOCATED IN NORTH FACE OF POWER POLE  
ACROSS FROM HOUSE #1418 ON ATHERTON RD.  
NORTHING: 543079.420  
EASTING: 13301821.530  
ELEVATION: 760.897



QUANTITIES THIS SHEET			
		JN 201292	
		CAT 0003	
ITEM		QUANTITY	UNIT
Gate Valve and Box, 8 inch, Modified		1	EA
Gate Valve and Box, 16 inch, Modified		2	EA
Hydrant Assembly, SD-1W		1	EA
Hydrant, Rem, Modified		1	EA
Water Main Bedding and Backfill, SD-7W		682	FT
Water Main, 8 inch, Open Cut		72	FT
Water Main, 16 inch, Open Cut		610	FT
Water Main, 8 inch, Cut and Plug, Modified		1	EA
Water Main, Connect New 8 inch to Existing 8 inch		1	EA
Water Main, Rem		17	FT
Water Serv, 1 inch		6	EA
Water Serv, Long, 1 inch		8	EA
Water Structure, Abandon		1	EA

- NOTES:
1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE CITY OF CLINT, ILLINOIS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY THE PRESSURE.
  2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" CORPORATIONS ON THE FIRELINE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL ALSO INSTALL 2" CORPORATIONS AND COPPER PLUGS UPON THE SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
  3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL SEPARATION FROM SANITARY SEWER STORM SEWER AND OTHER UTILITIES.
  4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
  5. A MINIMUM OF 5.5'-FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
  6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
  7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF CLINT DETAIL 50-7W.
  8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY IDENTIFY WHERE THE EXISTING HYDRANT WAS REMOVED.
  9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH SIZE REQUIRED. DEFLECTIONS TO EXCEED DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, INCH, OPEN CUT.

1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON WM PLAN & PROFILE SHEET 6

USED FOR:	DATE:	BY:
PLANS	10/25/18	JJS
AL REVIEW	2/25/19	JJS
AL PLANS	4/19/19	JJS

COF1065.01F

112

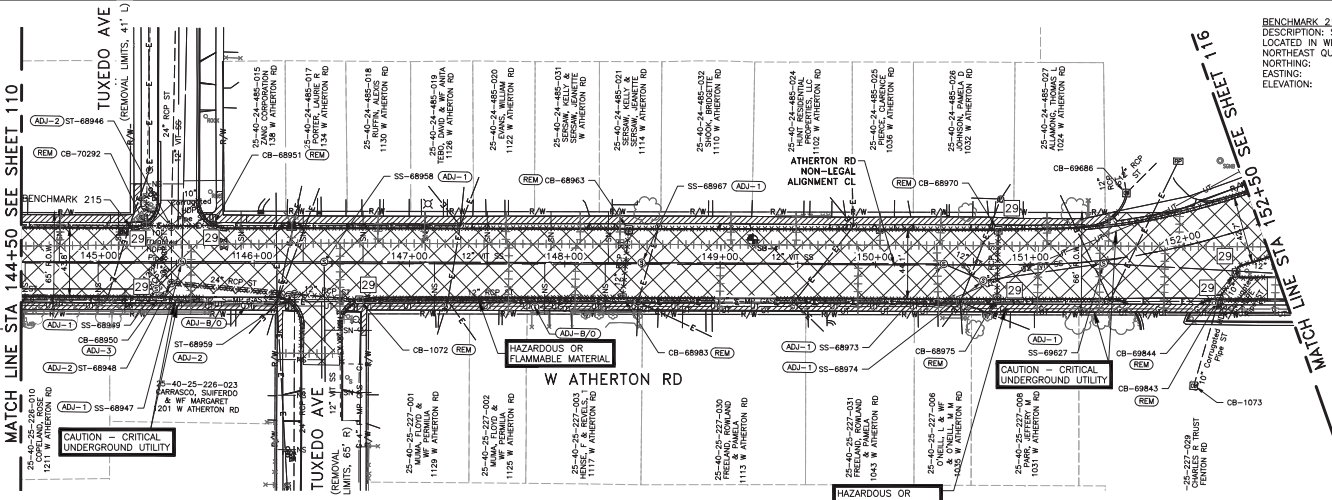
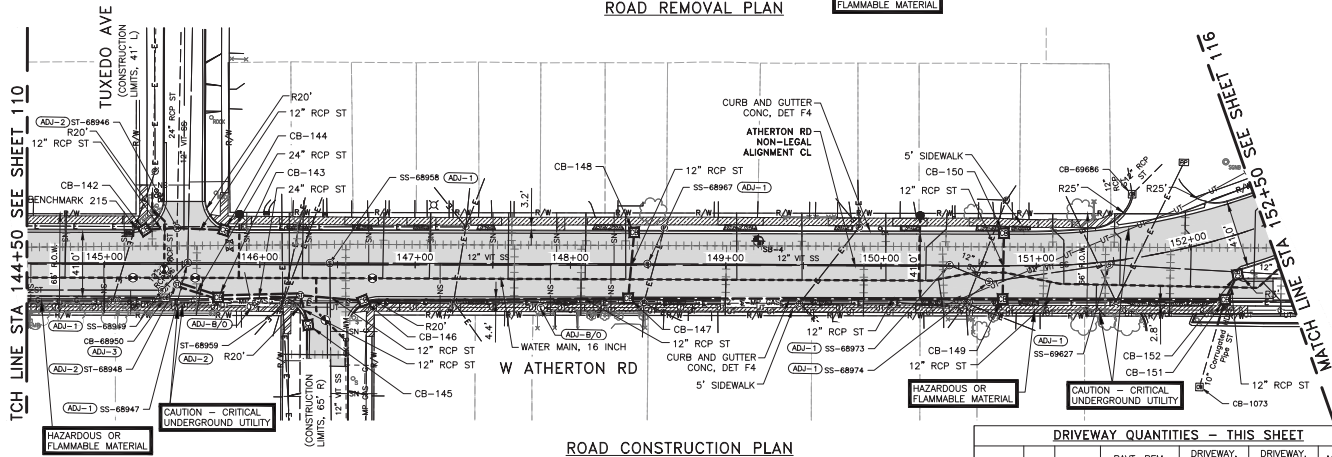
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Know what's below.  
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JOB NO. JN201292



BENCHMARK 215  
DESCRIPTION: SET GEAR SPIKE IN POWER POLE  
LOCATED IN WEST FACE OF POWER POLE AT  
NORTHEAST QUADRANT OF DUPONT AND WOLCOTT ST.  
NORTHING: 543142.161  
EASTING: 13302702.83  
ELEVATION: 760.500



MAINLINE QUANTITIES - THIS SHEET		
ITEM	QUANTITY	UNIT
Dr Structure, Rem	9	EA
Sewer, Rem, Less Than 24 inch	741	FT
Sewer, Rem, 24 inch to 48 inch	80	FT
Sidewalk, Rem	812	SYD
Pavt, Rem, Modified	4252	SYD
Embankment, Clip	90	CYD
Excavation, Earth	1443	CYD
Aggregate Base, 6 inch	697	SYD
Aggregate Base, 12 inch	4436	SYD
Sewer, Cl A, 12 inch, Tr Det B	202	FT
Sewer, Cl B, 24 inch, Tr Det B	80	FT
Dr Structure Cover, Adj, Case 1	11	EA
Dr Structure Cover, Type B	10	EA
Dr Structure Cover, Type K	12	EA
Dr Structure, 24 inch dia	5	EA
Dr Structure, 48 inch dia	6	EA
Dr Structure, Adj, Add Depth	1	FT
Dr Structure, Tap, 12 inch	6	EA
Underdrain, Subgrade, 6 inch	1600	FT
Hand Patching	1	TON
Hma, 3E1	681	TON
Hma, 4E1	454	TON
Hma, 5E1	341	TON
Hma Approach	63	TON
Driveway, Nonrein Conc, 6 inch	129	SYD
Driveway, Nonrein Conc, 9 inch	25	SYD
Curb And Gutter, Conc, Det F4	1630	FT
Detectable Warning Surface	54	FT
Curb Ramp Opening, Conc	84	FT
Sidewalk Ramp, Conc, 6 inch	2263	SFT
Sidewalk, Conc, 4 inch	5228	SFT
Turf Establishment, Performance	1090	SYD

PROPOSED DRAINAGE STRUCTURES									
STR NO	STATION	OFFSET	SIZE	RIM	COVER TYPE	PIPE DIRECTION, SIZE, AND INVERT	DISTANCE TO DOWN STREAM STR		
CB-142	145+25.78	22.2' L	24"	759.62	K	E 12" 756.10	20.88'	ST-68946	
ST-68946	145+46.63	23.4' L				S 24" 754.83 N 24" 754.73 E 12" 755.83 W 12" 755.88			
ST-68948	145+46.79	12.8' R				E 24" 754.90 N 24" 754.90 E 24" 754.99	36.19'	ST-68946	
CB-143	145+73.26	21.2' R	48"	759.72	K	W 12" 755.56 W 24" 755.04 E 24" 755.04	27.76'	ST-68948	
CB-144	145+77.11	22.1' L	24"	759.60	K	W 12" 756.10	30.51'	ST-68946	
ST-68959	146+26.05	19.8' R				W 24" 755.01 E 12" 755.99 S 12" 756.30 W 24" 755.31	79.56'	ST-68948	
CB-145	146+31.10	38.8' R	24"	760.08	K	N 12" 756.50	19.71'	ST-68959	
CB-146	146+66.69	23.2' R	48"	759.88	K	W 12" 756.08 E 12" 756.08	40.78'	ST-68959	
CB-147	148+37.24	21.3' R	48"	760.74	K	N 12" 757.00 W 12" 756.90 E 12" 756.90	170.57'	CB-146	
CB-148	148+41.00	21.3' L	24"	760.76	K	S 12" 757.30	42.67'	CB-147	
CB-149	150+78.32	21.3' R	48"	762.03	K	E 12" 758.10 W 12" 758.10 N 12" 758.10	241.08'	CB-147	
CB-150	150+79.10	21.3' L	24"	762.05	K	S 12" 758.40	42.51'	CB-149	
CB-151	152+13.12	38.3' R	48"	762.80	K	NE 12" 758.90 W 12" 758.90 S 12" 760.00	143.31'	CB-149	
CB-152	152+24.37	24.9' R	48"	763.08	K	SW 12" 759.00	17.99'	CB-151	

DRIVEWAY QUANTITIES - THIS SHEET						
STA	SIDE	HOUSE #	PAVT, REM, MODIFIED (SYD)	DRIVEWAY, NONREIN CONC, 6 INCH (SYD)	DRIVEWAY, NONREIN CONC, 9 INCH (SYD)	AGGREGATE BASE, 6 INCH (SYD)
146+24	L	1134	4	4	0	4
146+66	L	1130	3	3	0	3
147+04	L	1126	3	3	0	3
147+41	R	1125	4	3	0	3
147+46	L	1122	3	3	0	3
147+97	R	1117	5	4	0	4
148+24	L	1114	6	4	0	6
148+66	R	1113	4	4	0	4
149+09	L	1110	7	7	0	7
149+62	R	1043	4	4	0	4
149+75	L	1102	3	3	0	3
150+18	L	1036	4	4	0	4
150+32	R	1035	4	4	0	4
150+68	L	1032	5	5	0	5
150+89	L	1024	3	3	0	3
150+95	R	1031	4	4	0	4
151+80	R	23	0	0	16	16
151+89	L		38	0	46	46

- NOTES:
- WHERE STRUCTURE ADJ-1, ADJ-2, ADJ-3, ADJ-4 AND ADJ-5 ARE INDICATED ON THE PLANS, NUMBERS 1, 2, 3, 4 AND 5 CORRESPOND TO CITY OF FLINT CASTING DETAIL NUMBERS CF-1, CF-2, CF-3, CF-4, CF-5, CF-6 RESPECTIVELY. THE STRUCTURES ARE TO BE ADJUSTED TO FINAL GRADE WITH NEW STRUCTURE FRAMES AND COVERS AS INDICATED ON THE LEGEND SHEET AND THE CITY OF FLINT CASTING DETAIL SHEET. CASTINGS CF-1, CF-2, CF-3, CF-4 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE B". CASTINGS CF-5, CF-6 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE K". CASTING CF-5 IS PAID FOR AS "DR STRUCTURE COVER, TYPE C". ALL OTHER STRUCTURE COVER TYPES WILL REFER TO MOOT STANDARD PLANS.
  - EXISTING STORM STRUCTURES THAT ARE TO BE TAPPED WITH A PROPOSED STORM SEWER ARE INDICATED IN THE STRUCTURE TABLE AS ST-###. THE "ST" INDICATES STRUCTURE TAP AND THE NUMBER (###) INDICATES THE EXISTING STORM STRUCTURE WHICH IS BEING TAPPED.
  - WHERE PIPES ARE DESIGNED FOR REMOVAL, THEY ARE TO BE REMOVED TO AN EXISTING STRUCTURE WHICH WILL REMAIN IN PLACE. THE PIPE OPENING IN THE STRUCTURE SHALL BE REPAIRED/BULK HEADED WITH BRICK AND MORTAR AS APPROVED BY THE ENGINEER.
  - MOOT SOIL EROSION CONTROL MEASURE 29 IS INDICATED IN THE TOP PORTION OF THE SHEET FOR EXISTING STORM STRUCTURES WHICH ARE TO BE PROTECTED. SOIL EROSION CONTROL MEASURE 29 SHALL ALSO BE APPLIED TO EACH PROPOSED STORM CATCH BASIN WHICH IS INDICATED IN THE STRUCTURE TABLE AS CB-##.
  - WHERE CATCH BASIN RIM ELEVATIONS ARE INDICATED ON THESE PLANS, THE ELEVATION LISTED REPRESENTS THE EDGE OF PAVEMENT ELEVATION.
  - FOR ADDITIONAL CURB RADIUS INFORMATION AND DETAILED INTERSECTION GRADING, REFER TO THE DETAILED INTERSECTION GRADING SHEETS.

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CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON PLAN AND REMOVAL SHEET 7

ISSUED FOR: DATE: BY:  
G. PLANS: 10/25/18 JLS  
FINAL REVIEW: 2/25/19 JLS  
FINAL PLANS: 4/19/19 JLS

JOB NO.  
C0F1065.01F

SHEET  
113



JOB NO. JN201292



DRIVEWAY QUANTITIES - THIS SHEET					
STA	SIDE	HOUSE #	PAVT. REM. MODIFIED (SYD)	DRIVEWAY, NONREINFC CONC, 6 INCH (SYD)	DRIVEWAY, NONREINFC CONC, 9 INCH (SYD)
155+32	R	3805	9	0	9
155+85	R	953	4	10	0
155+97	R	949	4	0	0
156+51	R	941	6	8	0
156+98	L		35	0	47
157+50	R	933	6	7	0
157+82	L		22	0	38
158+87	R	925	8	9	0
159+09	L	916	5	9	0

### ROAD CONSTRUCTION PLAN

- NOTES:
- WHERE STRUCTURE ADJ-1, ADJ-2, ADJ-3, ADJ-5 AND ADJ-6 ARE INDICATED ON THE PLANS, NUMBERS 1, 2, 3, 5 AND 6 CORRESPOND TO CITY OF FLINT CASTING DETAIL NUMBERS CF-1, CF-2, CF-3, CF-5, CF-6 RESPECTIVELY. THE STRUCTURES ARE TO BE ADJUSTED TO FINAL GRADE WITH NEW STRUCTURE FRAMES AND COVERS AS INDICATED ON THE LEGEND SHEET AND THE CITY OF FLINT CASTING DETAILS SHEET. CASTINGS CF-1, CF-2, CF-6 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE B". CASTINGS CF-3 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE K". CASTING CF-5 IS PAID FOR AS "DR STRUCTURE COVER, TYPE C". ALL OTHER STRUCTURE COVER TYPES WILL REFER TO MDOT STANDARD PLANS.
  - EXISTING STORM STRUCTURES THAT ARE TO BE TAPPED WITH A PROPOSED STORM SEWER ARE INDICATED IN THE STRUCTURE TABLE AS ST-###. THE "ST" INDICATES STRUCTURE TAP AND THE NUMBER (###) INDICATES THE EXISTING STORM STRUCTURE WHICH IS BEING TAPPED.
  - WHERE PIPES ARE DESIGNATED FOR REMOVAL, THEY ARE TO BE REMOVED TO AN EXISTING STRUCTURE WHICH WILL REMAIN IN PLACE. THE PIPE OPENING IN THE STRUCTURE SHALL BE REPAIRED/BULK HEADED WITH BRICK AND MORTAR AS APPROVED BY THE ENGINEER.
  - MDOT SOIL EROSION CONTROL MEASURE 29 IS INDICATED IN THE TOP PORTION OF THE SHEET FOR EXISTING STORM STRUCTURES WHICH ARE TO BE PROTECTED. SOIL EROSION CONTROL MEASURE 29 SHALL ALSO BE APPLIED TO EACH PROPOSED STORM CATCH BASIN WHICH IS INDICATED IN THE STRUCTURE TABLE AS CB-##.
  - WHERE CATCH BASIN RIM ELEVATIONS ARE INDICATED ON THESE PLANS, THE ELEVATION LISTED REPRESENTS THE EDGE OF PAVEMENT ELEVATION.
  - FOR ADDITIONAL CURB RADIUS INFORMATION AND DETAILED INTERSECTION GRADING, REFER TO THE DETAILED INTERSECTION GRADING SHEETS.

JOB NO. JN201292



Know what's below.  
Call before you dig.



MAINLINE QUANTITIES - THIS SHEET		
	JN 201292	
	CAT 0001	
ITEM	QUANTITY	UNIT
Dr Structure, Rem	8	EA
Sewer, Rem, Less Than 24 Inch	171	FT
Sidewalk, Rem	899	SYD
Pavt, Rem, Modified	3809	SYD
Embankment, Clip	79	CYD
Excavation, Earth	1244	CYD
Aggregate Base, 6 inch	558	SYD
Aggregate Base, 12 inch	3989	SYD
Sewer, CI E, 12 inch, Tr Det B	62	FT
Sewer, CI A, 12 inch, Tr Det B	457	FT
Sewer Bulkhead, 12 inch	3	EA
Dr Structure Cover, Adj, Case 1	8	EA
Dr Structure Cover, Type B	7	EA
Dr Structure Cover, Type K	10	EA
Dr Structure, 24 inch dia	7	EA
Dr Structure, 48 inch dia	2	EA
Dr Structure, Adj, Add Depth	1	FT
Dr Structure, Tap, 12 inch	7	EA
Underdrain, Subgrade, 6 inch	1400	FT
Hand Patching	1	TON
Hma, 3C1	579	TON
Hma, 4E1	386	TON
Hma, 5E1	290	TON
Hma Approach	136	TON
Driveway, Nonreinf Conc, 6 inch	43	SYD
Driveway, Nonreinf Conc, 9 inch	94	SYD
Curb And Gutter, Conc, Det F4	1425	FT
Detectable Warning Surface	81	FT
Curb Ramp Opening, Conc	104	FT
Sidewalk Ramp, Conc, 6 inch	3353	SFT
Sidewalk, Conc, 4 inch	5204	SFT
Turf Establishment, Performance	848	SYD

### PROPOSED DRAINAGE STRUCTURES

STR NO	STATION	OFFSET	SIZE	RIM	COVER TYPE	PIPE DIRECTION, SIZE, AND INVERT	DISTANCE TO DOWN STREAM STR
CB-153	154+10.01	32.2' L	24"	764.23	K	SE 12" 757.80	29.50' ST-69629
ST-69629	154+13.57	3.0' L				S 30" 757.46 E 24" 758.16 NW 12" 757.56	
CB-154	154+48.33	28.1' L	24"	764.21	K	S 12" 761.14	34.99' ST-69631
ST-69631	154+55.09	6.2' R				W 24" 758.31 S 12" 759.64 N 12" 760.95 E 18" 758.22	40.91' ST-69629
CB-155	154+56.31	22.5' R	24"	764.03	K	N 12" 759.90	16.33' ST-69631
ST-69642	155+63.24	5.7' R		764.01		W 18" 758.40 SE 12" 760.08 NE 12" 760.03 E 18" 758.70	108.15' ST-69631
ST-69643	155+80.58	16.7' R				NW 12" 760.38 E 12" 760.48	20.53' ST-69642
CB-156	155+97.84	21.2' R	24"	763.95	K	W 12" 760.60	17.85' ST-69643
CB-157	155+97.84	21.2' L	24"	763.95	K	SW 12" 760.30	43.82' ST-69642
ST-69646	157+40.29	5.2' R				W 18" 759.11 SE 12" 760.77 N 12" 760.63 E 18" 759.16	177.06' ST-69642
CB-158	157+50.59	21.3' L	48"	764.39	K	S 12" 760.90 E 12" 760.90	28.37' ST-69646
CB-159	157+67.33	21.5' R	48"	764.45	K	NW 12" 760.90 E 12" 760.90	31.58' ST-69646
CB-160	159+15.28	21.3' R	24"	764.98	K	W 12" 761.80	147.95' CB-159
CB-161	159+21.53	21.3' L	24"	765.00	K	W 12" 761.80	170.94' CB-158



CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON PLAN AND REMOVAL SHEET B

ISSUED FOR: DATE: BY:  
21 PLANS 10/25/18 JLS  
FINAL REVIEW 2/25/19 JLS  
FINAL PLANS 4/19/19 JLS

JOB NO. COF1065.01F  
SHEET

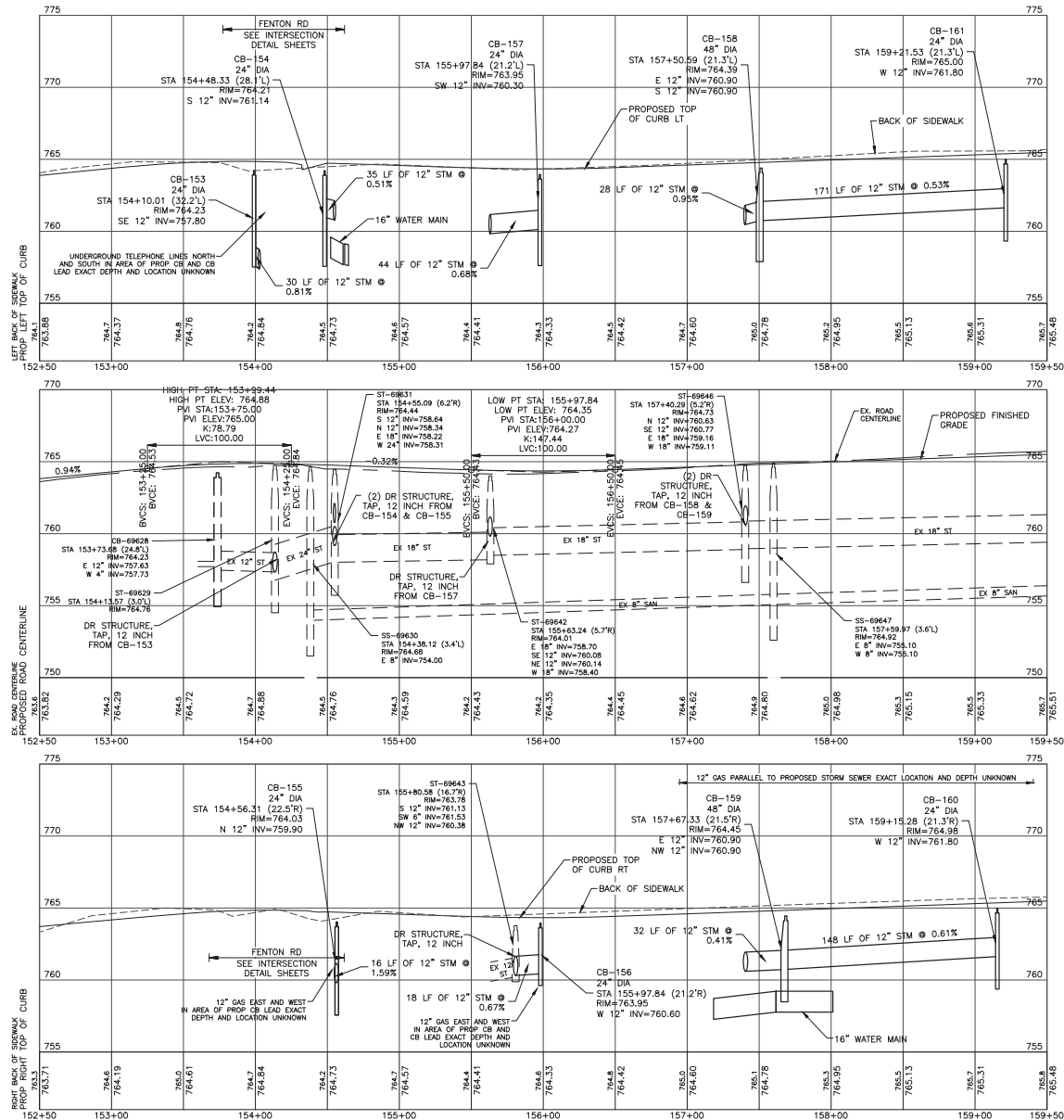


PROJECT MANAGER: Jeremy Schmitt  
CITY OF FLINT, MI 48902  
DATE: 4/19/2019 1:50 PM BY: RUGGLES, TIMOTHY



Know what's below.  
Call before you dig.

- NOTES:
- PORTIONS OF THE PROPOSED WATER MAIN HAS BEEN SHOWN IN PROFILE VIEW WHERE CROSSING THE PROPOSED STORM SEWER. THE PROPOSED HYDRANT LEADS AND WATER MAIN CROSSINGS OF PROPOSED STORM SEWERS AT EACH SIDE STREET CONNECTION TO THE EXISTING WATER MAINS HAVE NOT BEEN SHOWN ON THESE PROFILES. SEE THE WATER MAIN CONSTRUCTION SHEETS FOR ADDITIONAL INFORMATION ON WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE PROPOSED WATER MAIN AT A DEPTH THAT MAINTAINS A MINIMUM OF 18" VERTICAL CLEARANCE AT EACH CROSSING OF THE PROPOSED STORM SEWER. IF THIS REQUIRES THE ADJUSTMENT OF PROPOSED WATER MAIN OR STORM SEWER DEPTHS OR LOCATIONS FROM WHAT IS PROPOSED ON THESE PLANS, THE CONTRACTOR SHALL COORDINATE THESE ADJUSTMENTS WITH THE PROJECT ENGINEER.
  - THE EXACT LOCATION AND DEPTH OF EXISTING WATER MAINS ARE UNKNOWN AND THEIR CROSSING OF THE PROPOSED STORM SEWERS HAVE NOT BEEN SHOWN ON THESE PROFILES.
  - EXISTING PRIVATE UTILITY LOCATIONS AND DEPTHS ARE UNKNOWN. WHERE POSSIBLE A NOTE HAS BEEN ADDED TO THE PROFILE SHEETS TO POINT OUT THAT THERE MAY BE A UTILITY CROSSING IN THE AREA OF A PROPOSED STRUCTURE. IF A CONFLICT BETWEEN ANY EXISTING UTILITY AND A PROPOSED UTILITY IS FOUND DURING CONSTRUCTION THE CONTRACTOR SHALL COORDINATE ANY REQUIRED ADJUSTMENTS WITH THE PROJECT ENGINEER.



JOB NO. JN201292

REV	DATE	DESCRIPTION

500 S. Saginaw Street, Suite 201  
Flint, MI 48902  
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CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48902  
ATHERTON ROAD  
ATHERTON PROFILE B

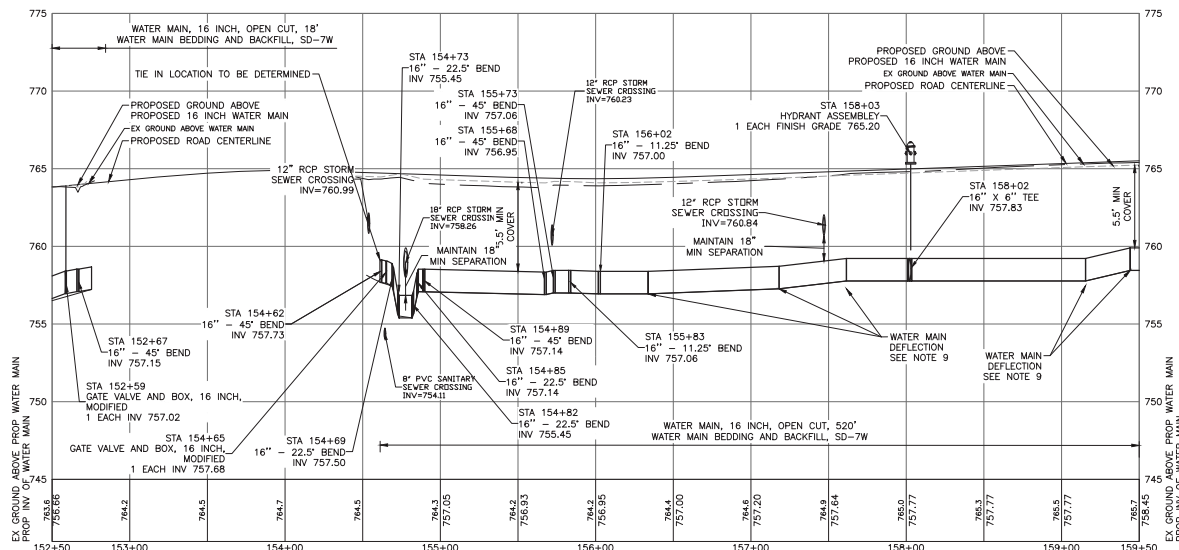
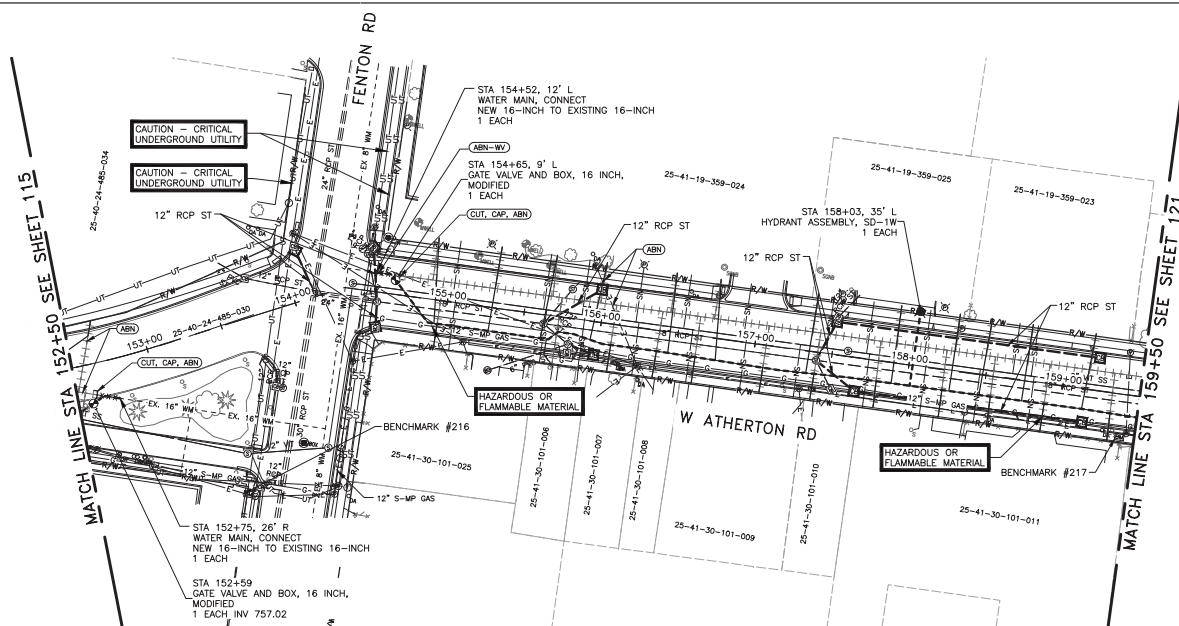
ISSUED FOR: DATE: BY:  
S. PLANS 10/25/18  
FINAL REVIEW 2/25/19 JLS  
FINAL PLANS 4/19/19 JLS

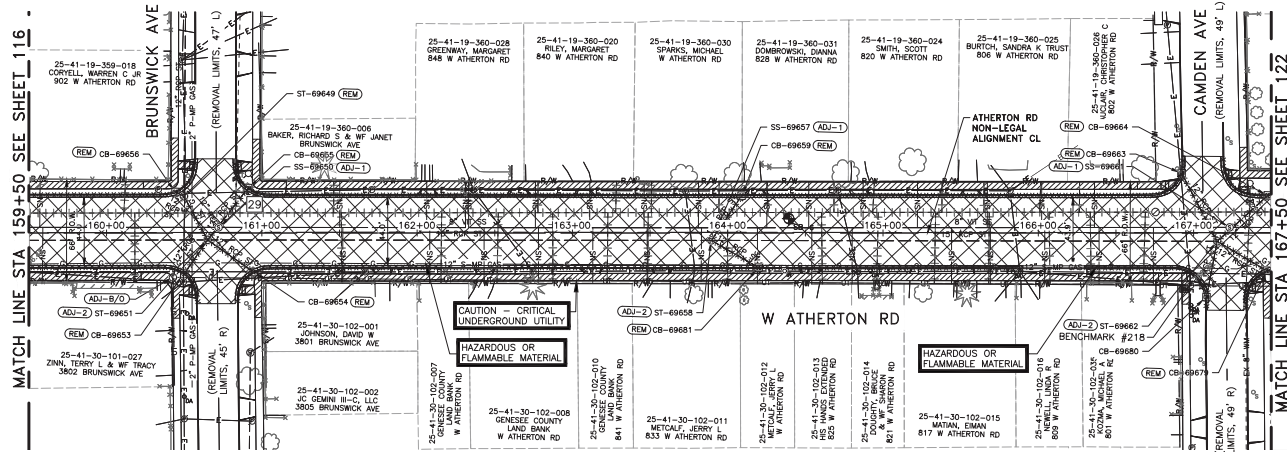
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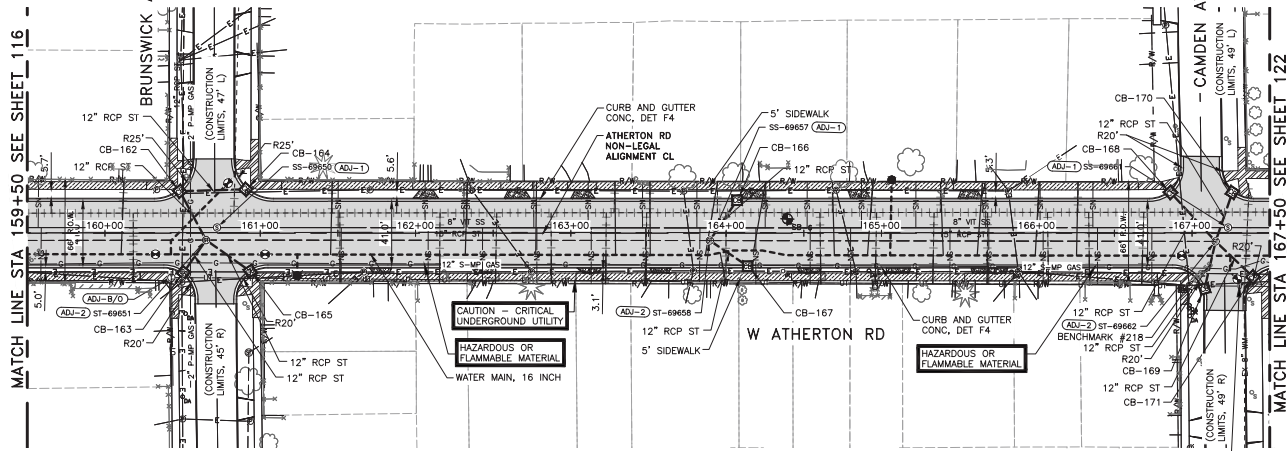
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ROAD REMOVAL PLAN



ROAD CONSTRUCTION PLAN

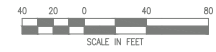
STA	SIDE	HOUSE #	PAVT. REM. MODIFIED (SYD)	DRIVEWAY, NONREINF CONC, 6 INCH (SYD)	DRIVEWAY, NONREINF CONC, 9 INCH (SYD)	AGGREGATE BASE, 6 INCH (SYD)
161+76	R		4	5	0	5
162+07	L	848	4	8	0	8
162+43	R		4	4	0	4
162+65	L	848	5	9	0	9
163+08	L	848	4	7	0	7
163+12	R	841	4	4	0	4
163+57	R	833	4	4	0	4
164+17	L	828	4	8	0	8
164+52	R	825	4	5	0	5
164+84	L	820	4	7	0	7
165+11	R	821	5	5	0	5
165+57	L	806	4	7	0	7
165+71	R	817	8	8	0	8
165+95	R	809	5	6	0	6

NOTES:

- WHERE STRUCTURE ADJ-1, ADJ-2, ADJ-3, ADJ-5 AND ADJ-6 ARE INDICATED ON THE PLANS, NUMBERS 1, 2, 3, 5 AND 6 CORRESPOND TO CITY OF FLINT CASTING DETAIL NUMBERS CF-1, CF-2, CF-3, CF-5, CF-6 RESPECTIVELY. THE STRUCTURES ARE TO BE ADJUSTED TO FINAL GRADE WITH NEW STRUCTURE FRAMES AND COVERS AS INDICATED ON THE LEGEND SHEET AND THE CITY OF FLINT CASTING DETAILS SHEET. CASTINGS CF-1, CF-2, CF-3, CF-5 AND CF-6 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE B". CASTINGS CF-4 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE K". CASTING CF-5 IS PAID FOR AS "DR STRUCTURE COVER, TYPE G". ALL OTHER STRUCTURE COVER TYPES WILL REFER TO MOOT STANDARD PLANS.
- EXISTING STORM STRUCTURES THAT ARE TO BE TAPPED WITH A PROPOSED STORM SEWER ARE INDICATED IN THE STRUCTURE TABLE AS ST-###. THE "ST" INDICATES STRUCTURE TAP AND THE NUMBER (###) INDICATES THE EXISTING STORM STRUCTURE WHICH IS BEING TAPPED.
- WHERE PIPES ARE DESIGNATED FOR REMOVAL, THEY ARE TO BE REMOVED TO AN EXISTING STRUCTURE WHICH WILL REMAIN IN PLACE. THE PIPE OPENING IN THE STRUCTURE SHALL BE REPAIRED/BULK HEADED WITH BRICK AND MORTAR AS APPROVED BY THE ENGINEER.
- MOOT SOIL EROSION CONTROL MEASURE 29 IS INDICATED IN THE PORTION OF THE SHEET FOR EXISTING STORM STRUCTURES WHICH ARE TO BE PROTECTED. SOIL EROSION CONTROL MEASURE 29 SHALL ALSO BE APPLIED TO EACH PROPOSED STORM CATCH BASIN WHICH IS INDICATED IN THE STRUCTURE TABLE AS CB-##.
- WHERE CATCH BASIN RIM ELEVATIONS ARE INDICATED ON THESE PLANS, THE ELEVATION LISTED REPRESENTS THE EDGE OF PAVEMENT ELEVATION.
- FOR ADDITIONAL CURB RADIUS INFORMATION AND DETAILED INTERSECTION GRADING, REFER TO THE DETAILED INTERSECTION GRADING SHEETS.

JOB NO. JN201292

BENCHMARK #218  
DESCRIPTION: FOUND RAILROAD SPIKE IN POWER POLE  
LOCATED IN WEST FACE OF POWER POLE IN  
SOUTHEAST QUADRANT OF DUPONT ST AND PETRIE ST.  
NORTHING: 543244.114  
EASTING: 13304859.700  
ELEVATION: 768.549



MAINLINE QUANTITIES - THIS SHEET

ITEM	QUANTITY	UNIT
Dr Structure, Rem	11	EA
Sewer, Rem, Less Than 24 inch	345	FT
Sidewalk, Rem	877	SYD
Pavt, Rem, Modified	4316	SYD
Embankment, Clip	90	CYD
Excavation, Earth	1420	CYD
Aggregate Base, 6 inch	635	SYD
Aggregate Base, 12 inch	4559	SYD
Sewer, Cl E, 12 inch, Tr Det B	200	FT
Sewer, Cl A, 12 inch, Tr Det B	140	FT
Sewer Bulkhead, 12 inch	4	EA
Dr Structure Cover, Adj, Case 1	6	EA
Dr Structure Cover, Type B	6	EA
Dr Structure Cover, Type K	10	EA
Dr Structure, 24 inch dia	9	EA
Dr Structure, 48 inch dia	1	EA
Dr Structure, Adj, Add Depth	1	FT
Dr Structure, Tap, 12 inch	9	EA
Underdrain, Subgrade, 6 inch	1600	FT
Hand Patching	1	TON
Hma, 3E1	663	TON
Hma, 4E1	442	TON
Hma, 5E1	331	TON
Hma Approach	148	TON
Driveway, Nonreinf Conc, 6 inch	87	SYD
Curb And Gutter, Conc, Det F4	1645	FT
Detectable Warning Surface	71	FT
Curb Ramp Opening, Conc	99	FT
Sidewalk Ramp, Conc, 6 inch	2811	SFT
Sidewalk, Conc, 4 inch	5405	SFT
Turf Establishment, Performance	1455	SYD

PROPOSED DRAINAGE STRUCTURES

STR NO	STATION	OFFSET	SIZE	RIM	COVER TYPE	PIPE DIRECTION, SIZE, AND INVERT	DISTANCE TO DOWN STREAM STR
CB-162	160+48.18	27.0' R	24"	765.18	K	SE 12" 761.10 E 12" 761.35	35.74' ST-69651
CB-163	160+50.58	25.4' R	24"	765.20	K	NE 12" 761.75	25.49' ST-69651
ST-69651	160+65.12	4.5' R				W 18" 759.86 E 15" 760.27 SE 12" 761.00 NW 12" 760.85 S 12" 761.59	324.83' ST-69646
CB-164	160+90.67	28.2' L	48"	765.03	K	W 12" 761.10	42.50' CB-162
CB-165	160+93.52	24.5' R	24"	765.28	K	NW 12" 761.30	34.77' ST-69651
ST-69658	163+89.47	4.8' R				W 15" 761.32 E 15" 761.32 SE 12" 762.92 NE 12" 762.92	324.35' ST-69651
CB-166	164+07.03	21.3' L	24"	766.71	K	SW 12" 763.20	31.39' ST-69658
CB-167	164+13.88	21.3' R	24"	766.74	K	NW 12" 763.20	29.46' ST-69658
CB-168	166+86.13	26.2' L	24"	766.79	K	SE 12" 763.60	42.91' ST-69662
CB-169	167+08.07	35.8' R	24"	767.28	K	N 12" 764.00	31.25' ST-69662
ST-69662	167+15.19	5.3' R				W 15" 762.48 NW 12" 763.19 N 12" 763.19 SE 12" 763.86 S 12" 763.81	325.72' ST-69658
CB-170	167+25.96	26.2' L	24"	767.07	K	S 12" 764.10	33.36' ST-69662
CB-171	167+39.24	28.2' R	24"	767.16	K	NW 12" 764.10	33.15' ST-69662

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON PLAN AND REMOVAL SHEET 9

ISSUED FOR: DATE: BY:  
G. PLANS: 10/25/18 JUS  
FINAL REVIEW: 2/25/19 JUS  
FINAL PLANS: 4/19/19 JUS

JOB NO.  
C0F1065.01F

SHEET

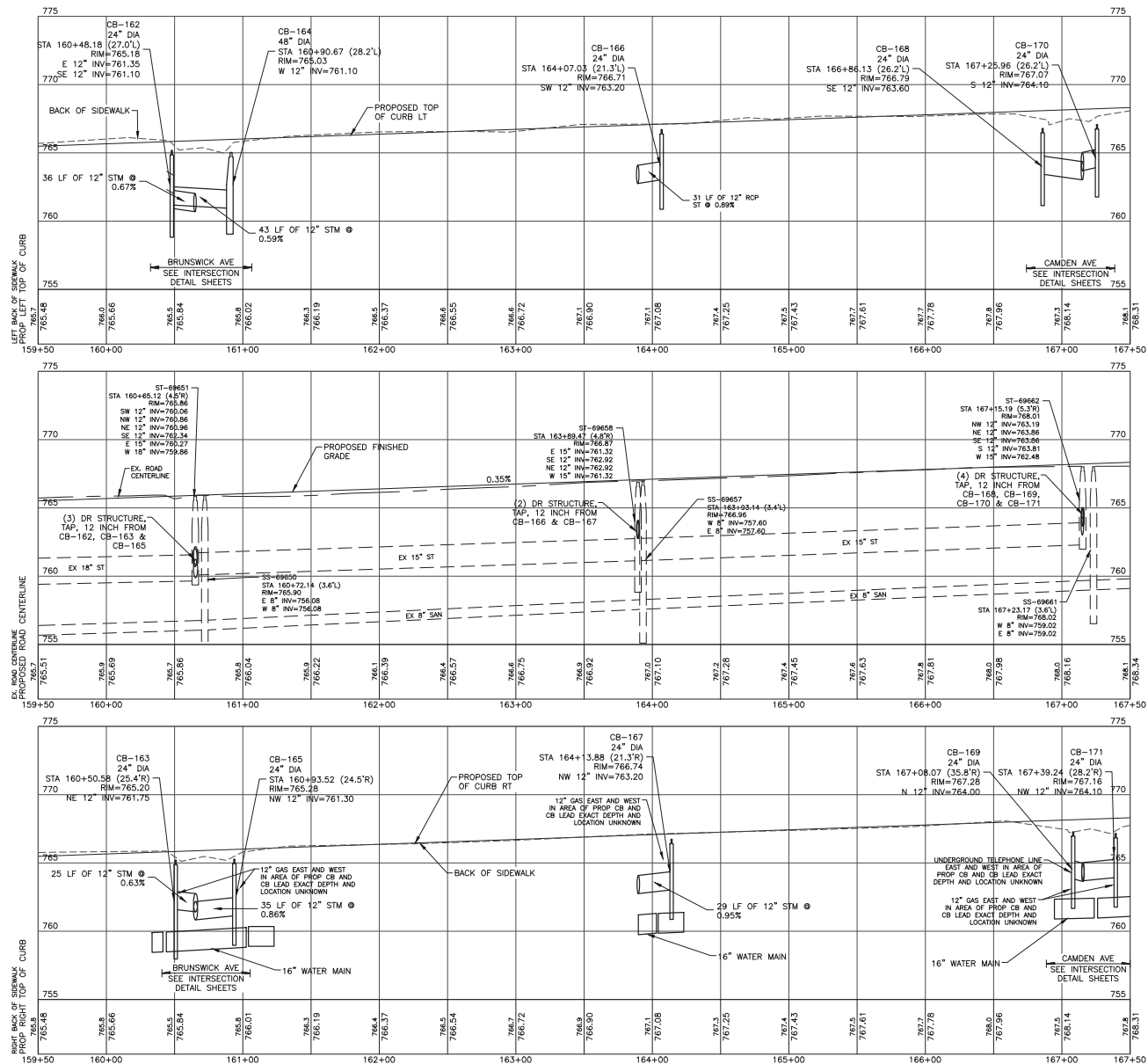
PROJECT MANAGER: Jeremy Schrot  
FIELD BOOK INFORMATION: -  
PROF 9 - PLOTTED 4/19/2019 12:40 AM BY RUGGLES, TIMOTHY  
C:\PW\_WORK2\00852518\CRP-PLTS-PROFILE.DWG

NOTES:

1. PORTIONS OF THE PROPOSED WATER MAIN HAVE BEEN SHOWN IN PROFILE VIEW WHERE CROSSING THE PROPOSED STORM SEWER. THE PROPOSED HYDRAULIC LEADS AND WATER MAIN CROSSINGS AT PROPOSED STORM SEWERS AT EACH SIDE STREET CONNECTION TO THE EXISTING WATER MAINS HAVE NOT BEEN SHOWN ON THESE PROFILES. SEE THE CONTRACTOR'S CONSTRUCTION SCHEDULE FOR ADDITIONAL INFORMATION. IN WATER MAIN CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE PROPOSED WATER MAIN AT A DEPTH THAT MAINTAINS A MINIMUM OF 8' VERTICAL CLEARANCE AT EACH CROSSING OF THE PROPOSED STORM SEWER. IF THIS REQUIRES THE ADJUSTMENT OF PROPOSED WATER MAIN OR STORM SEWER DEPTHS OR LOCATIONS TO MAINTAIN THE PROPOSED MINIMUM CLEARANCE, THE CONTRACTOR SHALL COORDINATE THESE ADJUSTMENTS WITH THE PROJECT ENGINEER.
2. THE EXACT LOCATION AND DEPTH OF EXISTING WATER MAINS ARE UNKNOWN AND THEIR CROSSING OF THE PROPOSED STORM SEWERS HAVE NOT BEEN SHOWN ON THESE PROFILES
3. EXISTING PRIVATE UTILITY LOCATIONS AND DEPTHS ARE UNKNOWN. WHERE POSSIBLE A NOTE HAS BEEN ADDED TO THE PROFILE SHEETS TO INDICATE THEIR DEPTHS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPOSED STRUCTURE. IF A CONFLICT BETWEEN ANY EXISTING UTILITY AND A PROPOSED UTILITY IS FOUND DURING CONSTRUCTION THE CONTRACTOR SHALL COORDINATE ANY REQUIRED ADJUSTMENTS WITH THE PROJECT ENGINEER.



Know what's below.  
Call before you dig.



JOB NO. JN201292

[illegible]

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON PROFILE 9

ISSUED FOR:	DATE:	BY:
GI PLANS	10/25/18	JJS
FINAL REVIEW	2/25/19	JJS
FINAL PLANS	4/19/19	JJS

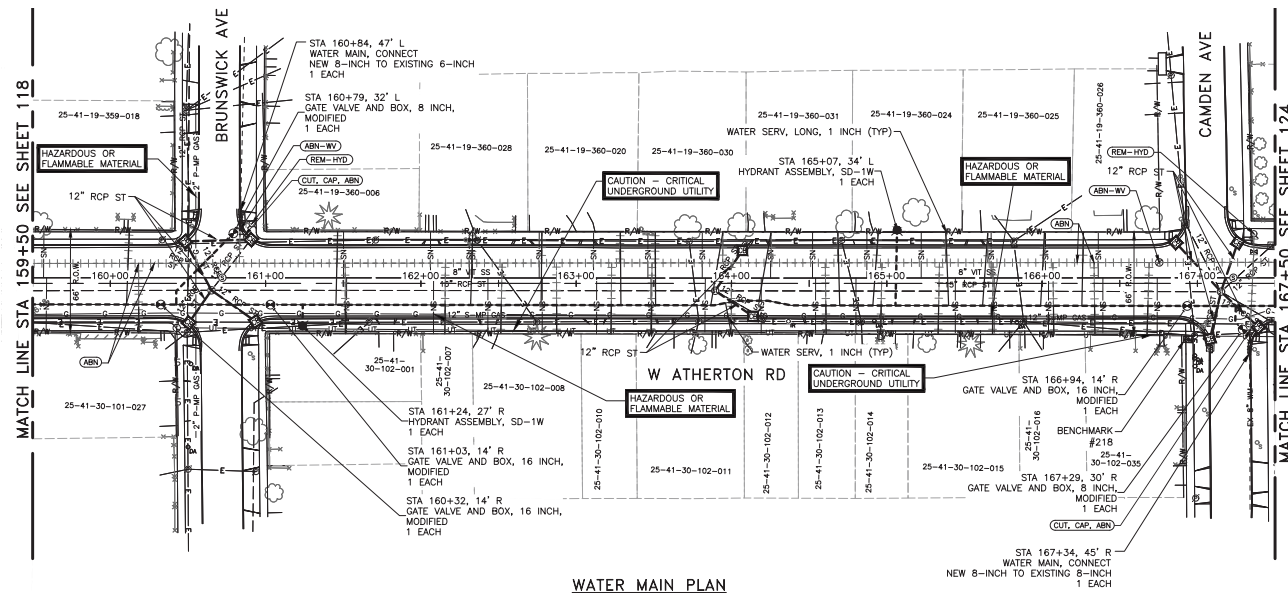
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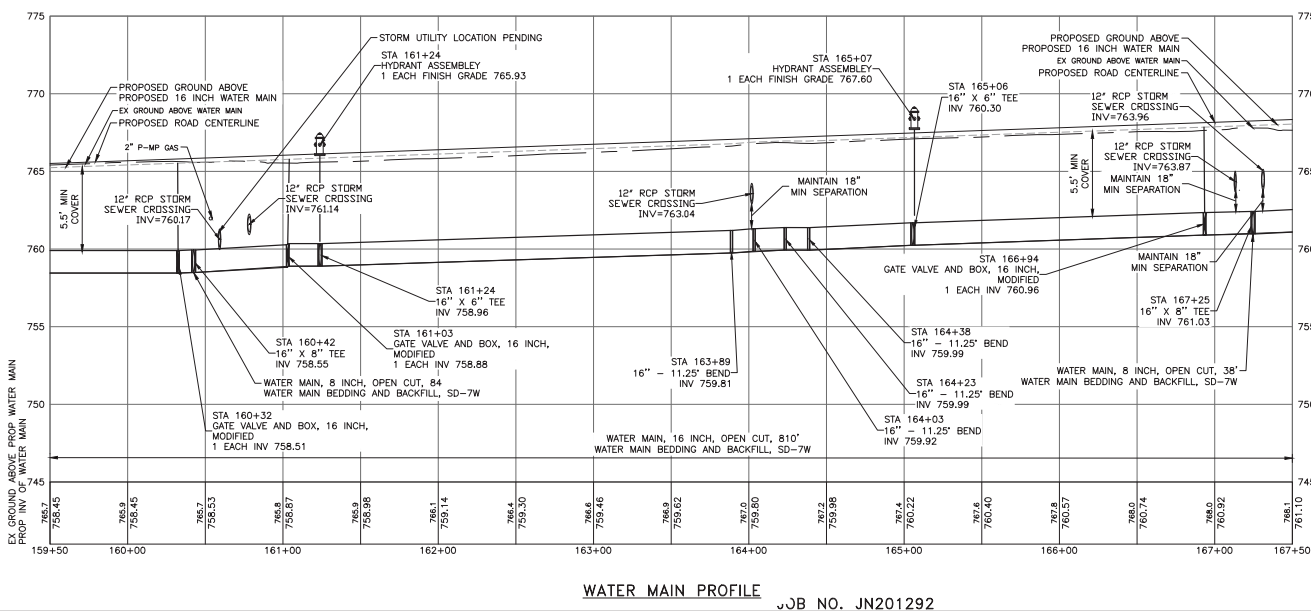
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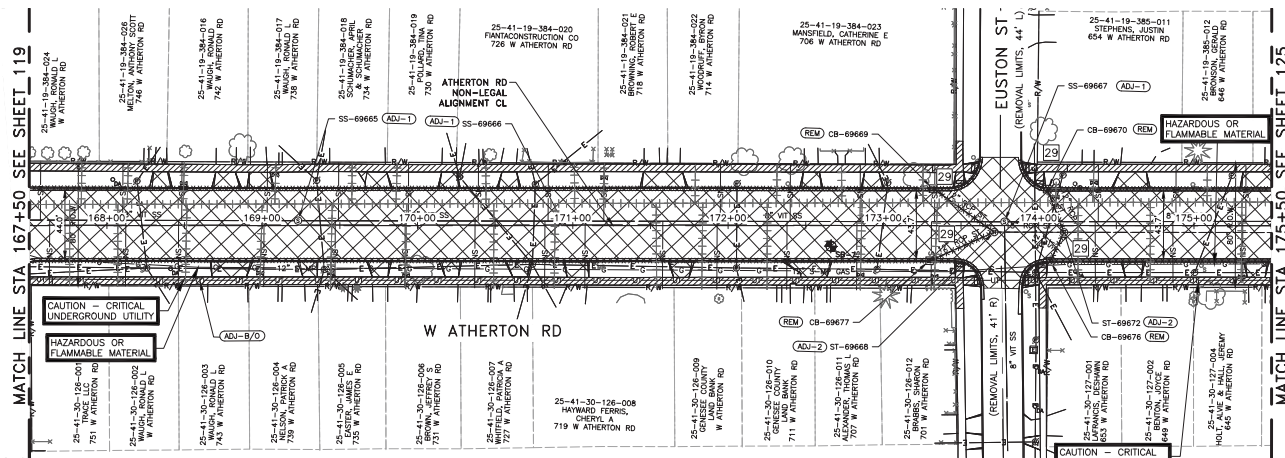




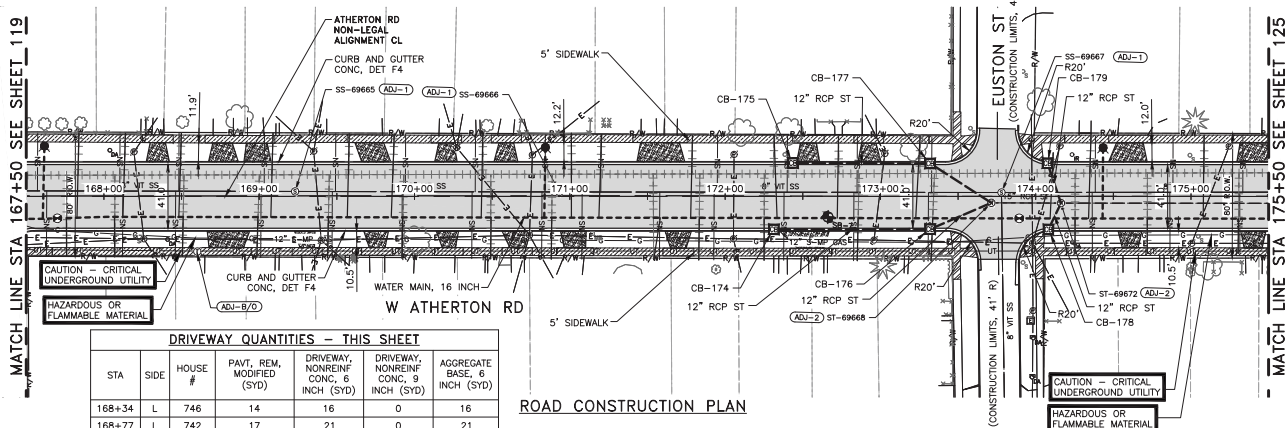
QUANTITIES THIS SHEET		JN 201292
		CAT 0003
ITEM	QUANTITY	UNIT
Gate Valve and Box, 8 inch, Modified	1	E
Gate Valve and Box, 16 inch, Modified	3	E
Hydrant Assembly, SD-1W	2	E
Hydrant, Rem, Modified	2	E
Water Main Bedding and Backfill, SD-7W	932	F
Water Main, 8 inch, Open Cut	122	F
Water Main, 16 inch, Open Cut	810	F
Water Main, 6 inch, Cut and Plug, Modified	1	E
Water Main, 8 inch, Cut and Plug, Modified	1	E
Water Main, Connect New 8 inch to Existing 6 inch	1	E
Water Main, Connect New 8 inch to Existing 8 inch	1	E
Water Main, Rem	33	F
Water Serv, 1 inch	15	E
Water Serv, Long, 1 inch	14	E
Water Structure, Abandon	2	E



- NOTES:
1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST THE CITY OF FLINT STANDARDS AND THE WATER MAIN TESTING PROVISIONS. THE TESTING SHALL BE SUPERVISED AND MONITORED BY FLINT.
  2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" CORPORATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OUT PURPOSES. THE CONTRACTOR SHALL ALSO INSTALL 1/2" NPT VALVES FOR TESTING AND CHLORINE ADDITION. SATISFACTORY TEST AND INSTALL CORP. THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
  3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL SEPARATION SANITARY SEWER AND STORM SEWER.
  4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
  5. A MINIMUM OF 5.5- FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
  6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
  7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD-ZW.
  8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY IDENTIFY WHENEVER THE EXISTING HYDRANT IS OUT OF SERVICE.
  9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BRIMS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN. DO NOT OPEN CUT.



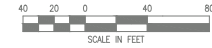
## ROAD REMOVAL PLAN



## ROAD CONSTRUCTION PLAN

NOTES:

1. WHERE STRUCTURE ADJ-1, ADJ-2, ADJ-3, ADJ-5 AND ADJ-6 ARE INDICATED ON THE PLANS, NUMBERS 1, 2, 3, 5 AND 6 CORRESPOND TO CITY OF FLINT CASTING DRAIN TABLES ADJ-1, ADJ-2, CF-3, CF-5, CF-6 RESPECTIVELY. THE STRUCTURES ARE TO BE ADJUSTED TO FINAL GRADE. STRUCTURE FRAMES AND ADJ-6 ARE INDICATED ON THE LEGEND SHEET AND THE CITY OF FLINT CASTING DRAIN TABLES SHEET. CASTINGS CF-1, CF-2, CF-6 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE B". CASTINGS CF-3 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE C". CASTING CF-5 IS PAID FOR AS "DR STRUCTURE COVER, TYPE G". ALL OTHER STRUCTURE COVER TYPES WILL REFER TO MDOT STANDARD PLANS.
2. EXISTING STORM STRUCTURES THAT ARE TO BE TAPPED WITH A PROPOSED STORM SEWER ARE INDICATED IN THE STRUCTURE TABLE AS ST-###. THE "ST" INDICATES STRUCTURE TAP AND THE NUMBER (###) INDICATES THE EXISTING STORM STRUCTURE WHICH IS BEING TAPPED.
3. WHERE PIPES ARE DESIGNATED FOR REMOVAL, THEY ARE TO BE REMOVED TO AN EXISTING STRUCTURE WHICH WILL REMAIN IN PLACE. THE PIPE OPENING IN THE STRUCTURE SHALL BE REPAIRED/BULK HEADED WITH BRICK AND MORTAR AS APPROVED BY THE ENGINEER.
4. MDOT SOIL EROSION CONTROL MEASURE 29 IS INDICATED IN THE TOP PORTION OF THE SHEET FOR EXISTING STORM STRUCTURES WHICH ARE TO BE PROTECTED. SOIL EROSION CONTROL MEASURE 29 SHALL ALSO BE APPLIED TO EACH PROPOSED STORM CATCH BASIN WHICH IS INDICATED IN THE STRUCTURE TABLE AS CB-##.
5. WHERE CATCH BASIN RIM ELEVATIONS ARE INDICATED ON THESE PLANS, THE ELEVATION LISTED REPRESENTS THE EDGE OF PAVEMENT ELEVATION.
6. FOR ADDITIONAL CURB RADIUS INFORMATION AND DETAILED INTERSECTION GRADING, REFER TO THE DETAILED INTERSECTION GRADING SHEETS.



MAINLINE QUANTITIES - THIS SHEET			
ITEM	201292	QUANTITY	UNIT
	CAT 0001		
Dr Structure, Rem		4	EA
Sewer, Rem, Less Than 24 inch		128	FT
Sidewalk, Rem		889	SYD
Pavt, Rem, Modified		4403	SYD
Embankment, Cip		90	CYD
Excavation, Earth		1459	SYD
Aggregate Base, 6 inch		962	SYD
Aggregate Base, 12 inch		4331	SYD
Sewer, CI E, 12 inch, Tr Det B		223	FT
Sewer, CI A, 12 inch, Tr Det B		101	FT
Sewer Bulkhead, 12 inch		1	EA
Dr Structure Cover, Adj, Cose 1		5	EA
Dr Structure Cover, Type B		5	EA
Dr Structure Cover, Type K		6	EA
Dr Structure, 24 inch dia		2	EA
Dr Structure, 48 inch dia		4	EA
Dr Structure, Adj, Add Depth		1	FT
Dr Structure, Tap, 12 inch		4	EA
Underdrain, Subgrade, 6 inch		1600	FT
Hand Patching		1	TON
Hma, 3E1		663	TON
Hma, 4E1		442	TON
Hma, 5E1		332	TON
Hma Approach		61	TON
Driveway, Nonrein Conc, 6 inch		422	SYD
Curb And Gutter, Conc, Det F4		1620	FT
Detectable Warning Surface		53	FT
Cur Ramp Opening, Conc		76	FT
Sidewalk Ramp, Conc, 6 inch		268	SYD
Sidewalk, Conc, 4 inch		2189	SYD
Turf Establishment, Performance		2189	SYD

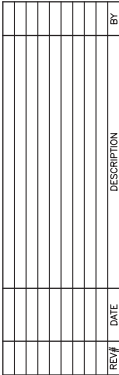
PROPOSED DRAINAGE STRUCTURES							DISTANCE TO DOWNSTREAM STRUCT
STR NO	STATION	OFFSET	SIZE	RIM	COVER TYPE	PIPE, DIRECTION, SIZE, AND INVERT	STREAM STR
CB-174	172+31.39	21.3' R	48"	767.93	K	E 12" 764.57	100.63' CB-176
CB-175	172+43.68	21.5' L	48"	767.88	K	E 12" 764.52	88.34' CB-177
CB-176	173+32.02	21.1' R	48"	767.69	K	NE 12" 764.07 W 12" 764.07	42.87' ST-69668
CB-177	173+32.02	21.2' L	48"	767.69	K	W 12" 764.09 SE 12" 764.09	46.84' ST-69668
ST-69668	173+71.40	4.2' R				E 15" 763.85	44.88' ST-69672
						NW 12" 763.85	
						SW 12" 763.85	
CB-179	174+07.59	21.3' L	24"	767.82	K	S 12" 764.30	27.09' ST-69672
CB-178	174+08.16	21.3' R	24"	767.82	K	NE 12" 764.10	18.80' ST-69672
ST-69672	174+16.28	4.3' R				W 15" 763.73	293.97' ST-69674
						E 15" 763.67	
						N 12" 764.01 SW 12" 763.93	



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NOTES:

1. PORTIONS OF THE PROPOSED WATER MAIN HAS BEEN SHOWN IN PROFILE VIEW WHERE CROSSING THE PROPOSED STORM SEWER. THE PROPOSED HYDRAULIC AND WATER MAIN CROSSINGS OF PROPOSED STORM SEWERS AT EACH SIDE STREET CONNECTION TO THE EXISTING STORM SEWERS HAVE BEEN SHOWN IN PLAN VIEW. THE EXISTING WATER MAIN CONSTRUCTION SHEETS FOR ADDITIONAL INFORMATION ON WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTING WATER MAIN AT A DEPTH THAT MAINTAINS A MINIMUM OF 18" VERTICAL CLEARANCE AT EACH CROSSING OF THE PROPOSED STORM SEWER. (IF THIS REQUIRES THE ADJUSTMENT OF THE PROPOSED WATER MAIN DEPTH, THE CONTRACTOR SHALL OBTAIN PERMITS FROM WHATEVER AGENCIES HAVE JURISDICTION OVER THE WATER MAINS. THE CONTRACTOR SHALL COORDINATE THESE ADJUSTMENTS WITH THE PROJECT ENGINEER.
2. THE EXACT LOCATION AND DEPTH OF EXISTING WATER MAINS ARE UNKNOWN AND THEIR CROSSING OF THE PROPOSED STORM SEWERS HAVE NOT BEEN SHOWN ON THESE PROFILES
3. EXISTING PRIVATE UTILITY LOCATIONS AND DEPTHS ARE UNKNOWN. WHERE POSSIBLE A NOTE HAS BEEN ADDED TO THE PROFILE SHEETS TO POINT OUT THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTING UTILITY LOCATIONS AND DEPTHS OF A PROPOSED STRUCTURE. IF A CONFLICT BETWEEN ANY EXISTING UTILITY AND A PROPOSED UTILITY IS FOUND DURING CONSTRUCTION THE CONTRACTOR SHALL COORDINATE ANY REQUIRED ADJUSTMENTS WITH THE PROJECT ENGINEER.



CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON PROFILE 10

ISSUED FOR:	DATE:	BY:
GI PLANS	10/25/18	JJS
FINAL REVIEW	2/25/19	JJS
FINAL PLANS	4/19/19	JJS

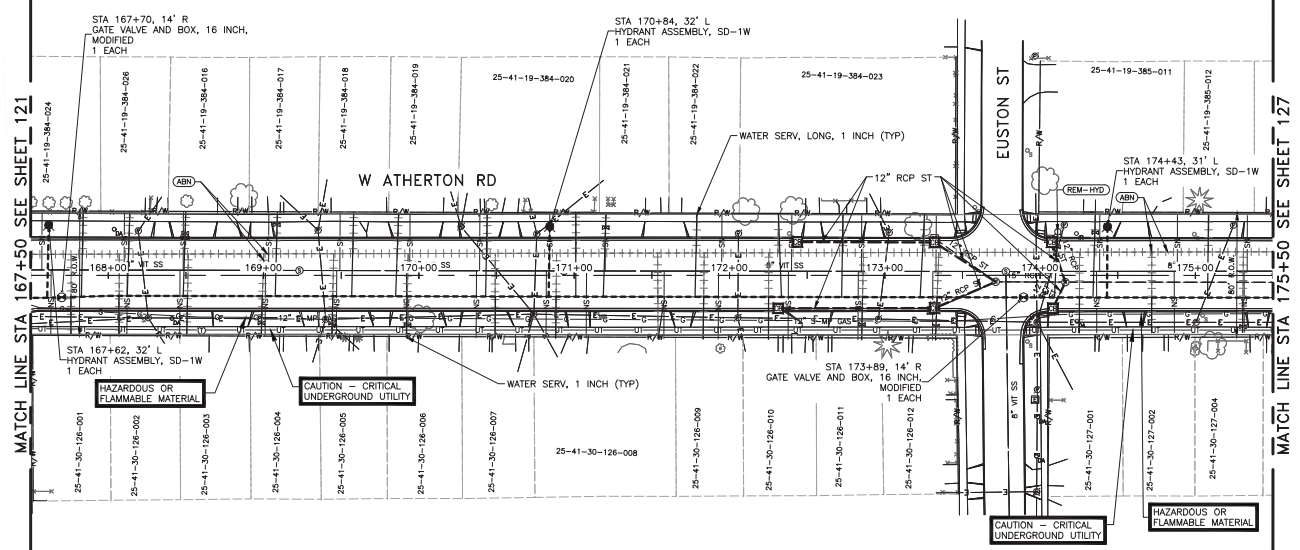
JOB NO.  
COF1065.01F

SHEET

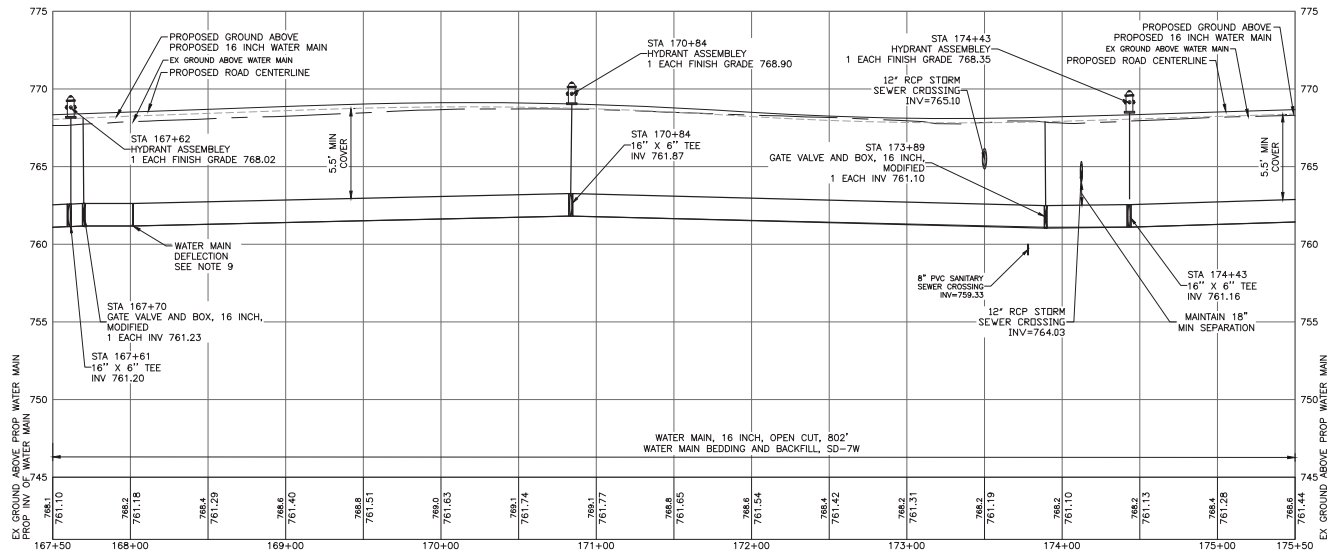
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PROJECT MANAGER: JERRY S. SLOAN  
CITY OF FLINT, MI 48502  
FIELD BOOK INFORMATION: - 108 ATERHORN WM PLAN & PROFILE SHEET 10 - PLOTTED 4/19/2019 12:52 AM BY RUGGLES, T.MURPHY



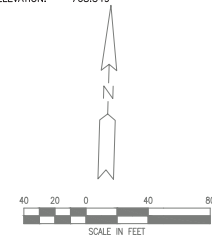
WATER MAIN PLAN



WATER MAIN PROFILE

JOB NO. JN201292

BENCHMARK 218  
DESCRIPTION: FOUND RAILROAD SPIKE IN POWER POLE  
LOCATED IN WEST FACE OF POWER POLE IN  
SOUTHEAST QUADRANT OF DUPONT ST. AND  
PETRIE ST.  
NORTHING: 543244.114  
EASTING: 1330489.703  
ELEVATION: 768.549



QUANTITIES THIS SHEET		
ITEM	QUANTITY	UNIT
Gate Valve and Box, 16 inch, Modified	2	EA
Hydrant Assembly, SD-1W	3	EA
Hydrant, Rem, Modified	1	EA
Water Main Bedding and Backfill, SD-7W	802	FT
Water Main, 16 inch, Open Cut	802	FT
Water Serv, 1 inch	16	EA
Water Serv, Long, 1 inch	15	EA

- NOTES:
1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST CITY OF FLINT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
  2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" COPRATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE COPRATIONS AND COPPER LINES UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
  3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
  4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
  5. A MINIMUM OF 5.5- FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
  6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
  7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD-7W.
  8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
  9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, 1/2 INCH, OPEN CUT.



WADE TRIM

155 N. Saginaw Street, Suite 201  
Flint, MI 48502  
www.wadetrims.com

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON WM PLAN & PROFILE SHEET 10

ISSUED FOR: DATE: BY:  
21 PLANS 10/25/18 JLS  
FINAL REVISED 2/25/19 JLS  
FINAL PLANS 4/19/19 JLS

JOB NO.  
COF1065.01F

SHEET  
124

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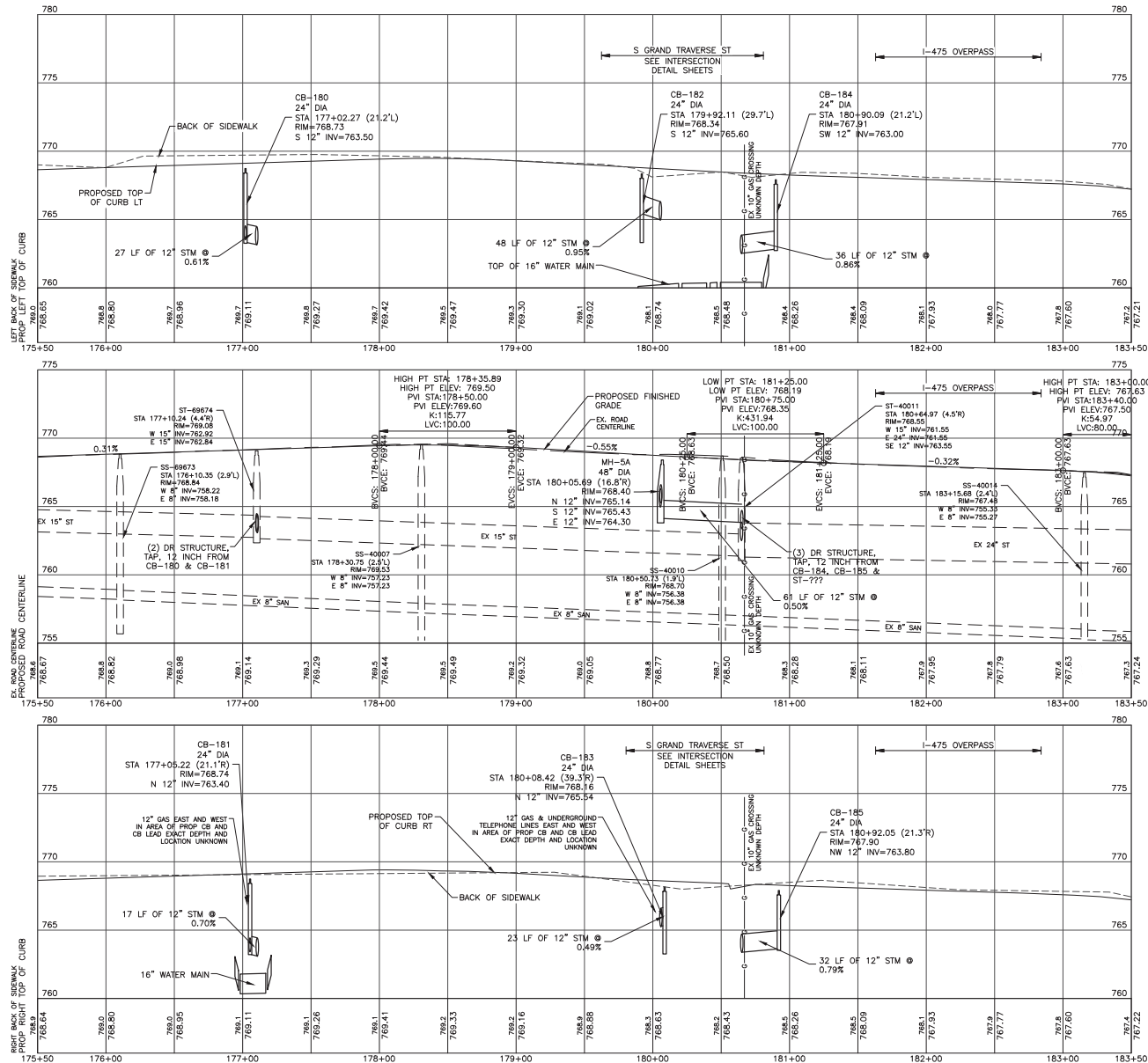




- NOTES:
1. PORTIONS OF THE PROPOSED WATER MAIN HAS BEEN SHOWN IN PROFILE VIEW WHERE CROSSING THE PROPOSED STORM SEWER. THE PROPOSED HYDRANT LEADS AND WATER MAIN CROSSINGS OF PROPOSED STORM SEWERS AT EACH SIDE STREET CONNECTION TO THE EXISTING WATER MAINS HAVE NOT BEEN SHOWN ON THESE PROFILES. SEE THE WATER MAIN CONSTRUCTION SHEETS FOR ADDITIONAL INFORMATION ON WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE PROPOSED WATER MAIN AT A DEPTH THAT MAINTAINS A MINIMUM OF 18" VERTICAL CLEARANCE AT EACH CROSSING OF THE PROPOSED STORM SEWER. IF THIS REQUIRES THE ADJUSTMENT OF PROPOSED WATER MAIN OR STORM SEWER DEPTHS OR LOCATIONS FROM WHAT IS SHOWN ON THESE PLANS, THE CONTRACTOR SHALL COORDINATE THESE ADJUSTMENTS WITH THE PROJECT ENGINEER.
  2. THE EXACT LOCATION AND DEPTH OF EXISTING WATER MAINS ARE UNKNOWN AND THEIR CROSSING OF THE PROPOSED STORM SEWERS HAVE NOT BEEN SHOWN ON THESE PROFILES.
  3. EXISTING PRIVATE UTILITY LOCATIONS AND DEPTHS ARE UNKNOWN. WHERE POSSIBLE A NOTE HAS BEEN ADDED TO THE PROFILE SHEETS TO POINT OUT THAT THERE MAY BE A UTILITY CROSSING IN THE AREA OF A PROPOSED STRUCTURE. IF A CONFLICT BETWEEN ANY EXISTING UTILITY AND A PROPOSED UTILITY IS FOUND DURING CONSTRUCTION THE CONTRACTOR SHALL COORDINATE ANY REQUIRED ADJUSTMENTS WITH THE PROJECT ENGINEER.



Know what's below.  
Call before you dig.



JOB NO. JN201292

REV	DATE	DESCRIPTION	BY

ISSUED FOR: DATE: BY:  
20 PLANS 10/25/18 JF  
FINAL REVIEW 2/25/19 JLS  
FINAL PLANS 4/18/19 JLS

WADE TRIM  
100 S. Saginaw Street, Suite 201  
Flint, MI 48602  
www.wadetrims.com

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48602  
ATHERTON ROAD  
ATTENTION PROFILE 11

ISSUED FOR: DATE: BY:  
20 PLANS 10/25/18 JF  
FINAL REVIEW 2/25/19 JLS  
FINAL PLANS 4/18/19 JLS

JOB NO.  
COC1065.01F

SHEET  
126

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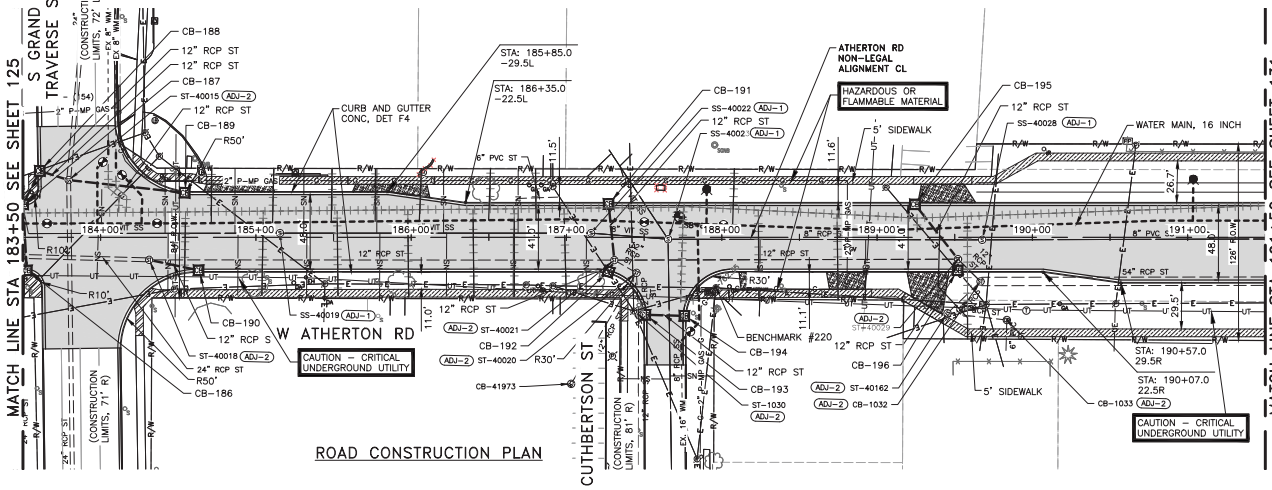
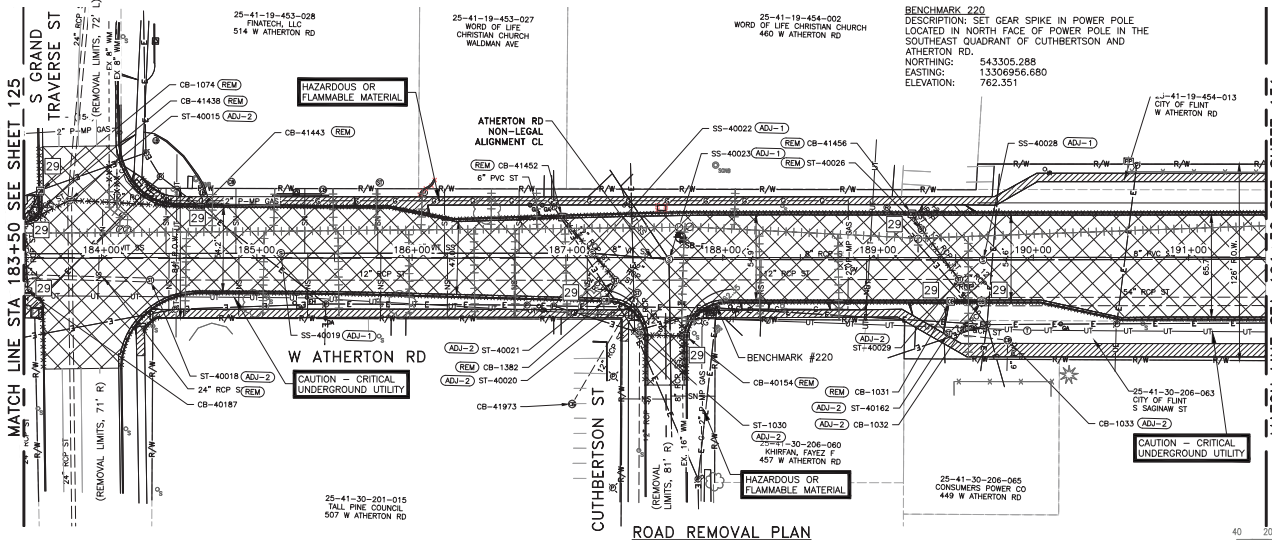
Know what's below.  
 Call before you dig.

STA	SIDE	HOUSE #	PAVT. REM. MODIFIED (SYD)	DRIVEWAY, NONREINF CONC, 6 INCH (SYD)	DRIVEWAY, NONREINF CONC, 9 INCH (SYD)	AGGREGATE BASE, 6 INCH (SYD)
184+88	L	514	0	0	23	23
185+88	L	514	0	0	30	30
188+21	R	457	9	0	23	23
188+81	R	457	12	0	29	29
189+31	R	449	35	0	55	55
189+44	L	460	16	0	42	42

#### NOTES:

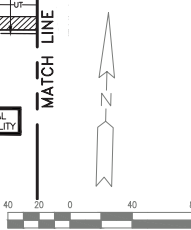
- WHERE STRUCTURE ADJ-1, ADJ-2, ADJ-3, ADJ-5 AND ADJ-6 ARE INDICATED ON THE PLANS, NUMBERS 1, 2, 3, 5 AND 6 CORRESPOND TO CITY OF FLINT CASTING DETAIL NUMBERS CF-1, CF-2, CF-3, CF-5, CF-6 RESPECTIVELY. THE STRUCTURES ARE TO BE ADJUSTED TO FINAL GRADE WITH NEW STRUCTURE FRAMES AND COVERS AS INDICATED ON THE LEGEND SHEET AND THE CITY OF FLINT CASTING DETAILS SHEET. CASTINGS CF-1, CF-2, CF-5 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE B". CASTINGS CF-3 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE K". CASTING CF-6 IS PAID FOR AS "DR STRUCTURE COVER, TYPE G". ALL OTHER STRUCTURE COVER TYPES WILL REFER TO MDOT STANDARD PLANS.
- EXISTING STORM STRUCTURES THAT ARE TO BE TAPPED WITH A PROPOSED STORM SEWER ARE INDICATED IN THE STRUCTURE TABLE AS ST-###. THE "ST" INDICATES STRUCTURE TYPE AND THE NUMBER (###) INDICATES THE EXISTING STORM STRUCTURE WHICH IS BEING TAPPED.
- WHERE PIPES ARE DESIGNATED FOR REMOVAL, THEY ARE TO BE REMOVED TO AN EXISTING STRUCTURE WHICH WILL REMAIN IN PLACE. THE PIPE OPENING IN THE STRUCTURE SHALL BE REPAIRED/BULK HEADED WITH BRICK AND MORTAR AS APPROVED BY THE ENGINEER.
- MDOT SOIL EROSION CONTROL MEASURE 29 IS INDICATED IN THE TOP PORTION OF THE SHEET FOR EXISTING STORM STRUCTURES WHICH ARE TO BE PROTECTED. SOIL EROSION CONTROL MEASURE 29 SHALL ALSO BE APPLIED TO EACH PROPOSED STORM CATCH BASIN WHICH IS INDICATED IN THE STRUCTURE TABLE AS CB-##.
- WHERE CATCH BASIN RIM ELEVATIONS ARE INDICATED ON THESE PLANS, THE ELEVATION LISTED REPRESENTS THE EDGE OF PAVEMENT ELEVATION.
- FOR ADDITIONAL CURB RADIUS INFORMATION AND DETAILED INTERSECTION GRADING, REFER TO THE DETAILED INTERSECTION GRADING SHEETS.

JOB NO. JN201292



MATCH LINE STA 183+50 SEE SHEET 125  
 MATCH LINE STA 191+50 SEE SHEET 131

MATCH LINE STA 183+50 SEE SHEET 125  
 MATCH LINE STA 191+50 SEE SHEET 131



ITEM	QUANTITY	UNIT
Dr Structure, Rem	10	EA
Sewer, Rem, Less Than 24 inch	322	FT
Sidewalk, Rem	968	SYD
Pavt, Rem, Modified	5656	SYD
Embankment, Cip	90	CYD
Excavation, Earth	1179	CYD
Aggregate Base, 6 inch	749	SYD
Aggregate Base, 12 inch	5253	SYD
Sewer, Cl E, 12 inch, Tr Det B	140	FT
Sewer, Cl A, 12 inch, Tr Det B	210	FT
Sewer Bulkhead, 12 inch	5	EA
Dr Structure Cover, Adj, Case 1	13	EA
Dr Structure Cover, Type B	13	EA
Dr Structure Cover, Type K	10	EA
Dr Structure, 24 inch dia	7	EA
Dr Structure, 48 inch dia	3	EA
Dr Structure, Adj, Add Depth	1	FT
Dr Structure, Tap, 12 inch	8	EA
Underdrin, Subgrade, 6 inch	1600	FT
Hand Patching	1	TON
Hma, 3E1	709	TON
Hma, 4E1	473	TON
Hma, 5E1	354	TON
Hma Approach	318	TON
Driveway, Nonreinf Conc, 9 inch	202	SYD
Curb And Gutter, Conc, Det F4	1640	FT
Detectable Warning Surface	75	FT
Curb Ramp Opening, Conc	91	FT
Sidewalk Ramp, Conc, 6 inch	2286	SFT
Sidewalk, Conc, 4 inch	5557	SFT
Turf Establishment, Performance	2899	SYD

STR NO	STATION	OFFSET	SIZE	RIM	COVER TYPE	PIPE DIRECTION, SIZE, AND INVERT	DISTANCE TO DOWN STREAM STR
CB-187	183+50.13	21.2' L	48"	766.83	K	S 12" 763.80 NE 12" 763.00	24.02' CB-188
CB-186	183+52.48	21.3' R	24"	766.81	K	N 12" 764.02	42.56' CB-187
CB-188	183+60.81	42.8' L	48"	766.93	K	SW 12" 762.80 E 12" 762.80	19.55' ST-40015
ST-40015	183+79.45	36.9' L				W 12" 762.70 N 24" 752.33 E 12" 757.51	228.68'
CB-189	184+54.19	28.7' L	48"	764.93	K	W 12" 759.00	75.19' ST-40015
ST-40018	184+31.23	14.5' R				W 24" 760.90 E 24" 759.87 E 12" 761.60	299.58' ST-40021
CB-190	184+63.09	21.2' R	24"	764.90	K	W 12" 761.75	32.56' ST-40018
CB-192	187+27.12	22.1' R	24"	761.33	K	NE 12" 757.80	8.29' ST-40021
CB-191	187+27.12	21.5' L	24"	761.30	K	S 12" 757.50	36.36' ST-40021
ST-40021	187+30.82	14.7' R				W 24" 755.33 E 12" 755.32 SW 12" 757.68 N 12" 757.30 SE 12" 756.60	221.30' ST-40029
ST-1030	187+46.44	49.7' R				E 12" 757.42 N 12" 757.32	26.92' ST-40020
CB-193	187+50.77	49.9' R	48"	761.12	K	E 12" 757.47 W 12" 757.47	4.33' ST-1030
CB-194	187+75.92	50.6' R	24"	761.00	K	W 12" 757.70	25.15' CB-193
CB-195	189+24.39	21.2' L	24"	759.91	K	SE 12" 755.80	44.89' ST-40029
CB-196	189+51.92	21.2' R	24"	759.67	K	N 12" 755.50	7.20' ST-40029
ST-40029	189+52.11	14.1' R				W 12" 753.78 SE 12" 753.78 NW 12" 755.58 S 12" 755.36	20.40' ST-1032

CITY OF FLINT  
 1101 SOUTH SAGINAW STREET  
 FLINT, MI 48502  
 ATHERTON ROAD  
 ATHERTON PLAN AND REMOVAL SHEET 12

ISSUED FOR: DATE: BY:  
 G. PLANS: 10/25/18 JJS  
 FINAL REVIEW: 2/25/19 JJS  
 FINAL PLANS: 4/19/19 JJS

JOB NO.  
 C0F1065.01F

SHEET





NOTES:

1. PORTIONS OF THE PROPOSED WATER MAIN HAS BEEN SHOWN IN PROFILE VIEW WHERE CROSSING THE PROPOSED STORM SEWER. THE EXISTING PROPOSED STORM SEWER SHALL BE SHOWN IN PROFILE VIEW OF THE PROPOSED STORM SEWERS AT EACH SIDE STREET CONNECTION TO THE EXISTING WATER MAINS HAVE NOT BEEN SHOWN ON THESE PROFILES. SEE THE EXISTING WATER MAINS AND STORM SEWERS PROFILES FOR THE EXISTING WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE PROPOSED WATER MAIN AT A DEPTH THAT MAINTAINS A MINIMUM OF 18" VERTICAL CLEARANCE AT EACH CROSSING OF THE PROPOSED STORM SEWER. IF THIS REQUIRES THE ADJUSTMENT OF PROPOSED WATER MAIN OR STORM SEWER DEPTHS OR LOCATIONS FROM THE PROPOSED WATER MAIN AND STORM SEWER PROFILES, THE CONTRACTOR SHALL COORDINATE THESE ADJUSTMENTS WITH THE PROJECT ENGINEER.
2. THE EXACT LOCATION AND DEPTH OF EXISTING WATER MAINS ARE UNKNOWN AND THEIR CROSSING OF THE PROPOSED STORM SEWERS HAVE NOT BEEN SHOWN ON THESE PROFILES
3. EXISTING PRIVATE UTILITY LOCATIONS AND DEPTHS ARE UNKNOWN. WHERE POSSIBLE A NOTE HAS BEEN ADDED TO THE PROFILE SHEETS TO INDICATE THE DEPTH OF EXISTING PRIVATE UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE DEPTHS OF EXISTING PRIVATE UTILITY LOCATIONS AND THE PROPOSED UTILITY IS FOUND DURING CONSTRUCTION OF THE PROJECT. THE CONTRACTOR SHALL COORDINATE ANY REQUIRED ADJUSTMENTS WITH THE PROJECT ENGINEER.



WADE  
TRIM

1101 CITY OF FLINT  
SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON PROFILE 12

ISSUED FOR:	DATE:	BY:
GI PLANS	10/25/18	JJS
FINAL REVIEW	2/25/19	JJS
FINAL PLANS	4/19/19	JJS

JOB NO.  
COF1065.01F

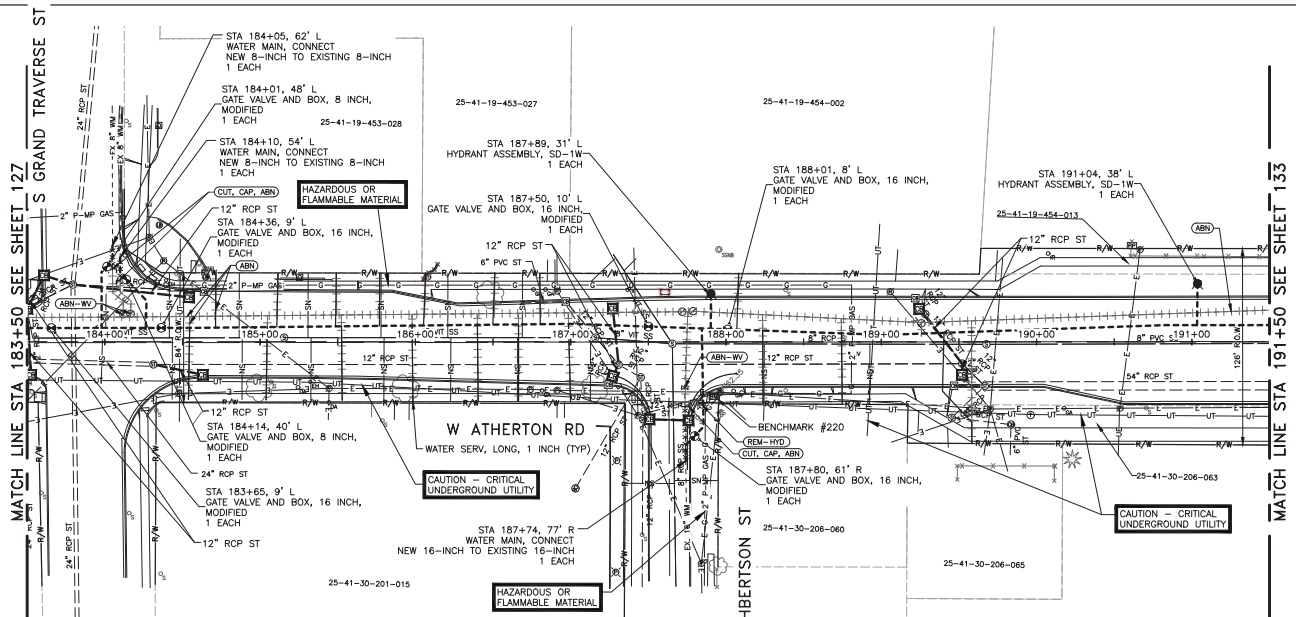
SHEET

129

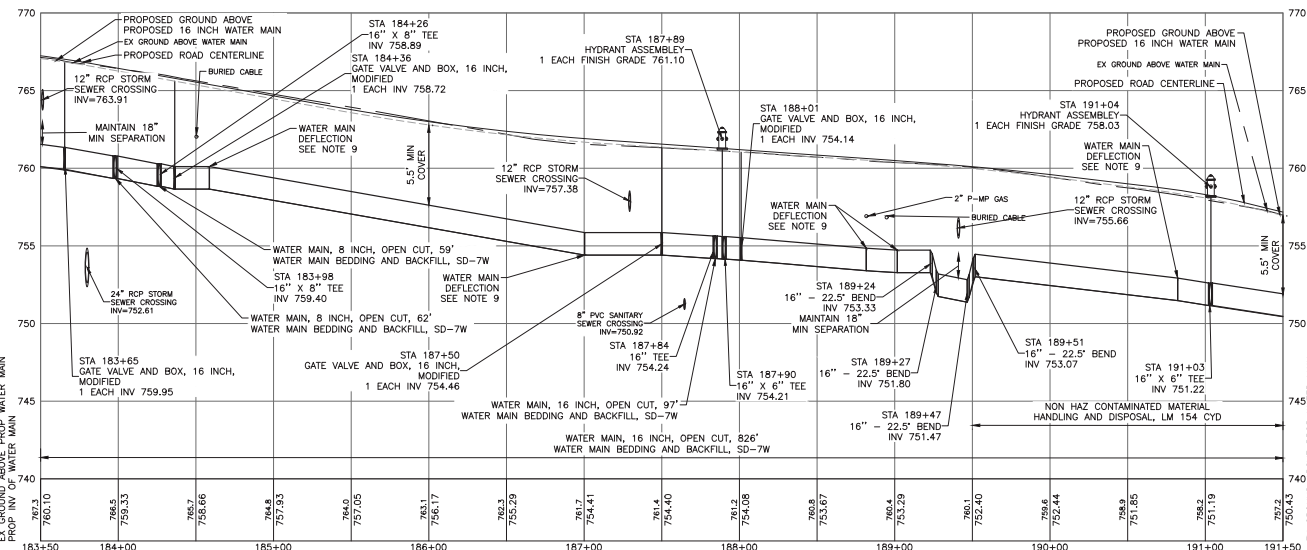
Wanda Telen Corp. Inc.

JOB NO. JN201292

PROJECT MANAGER: JERRY S. SLOAN  
CITY OF FLINT, MI 48502  
FLINT WATER DEPARTMENT  
114 ATERHORN ST. FLINT, MI 48502  
4/19/2018 10:11 AM BY: JERRY S. SLOAN



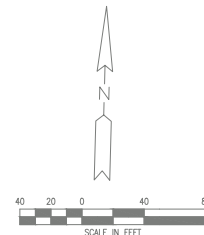
WATER MAIN PLAN



WATER MAIN PROFILE

JOB NO. JN201292

BENCHMARK 220  
DESCRIPTION: SET GEAR SPIKE IN POWER POLE  
LOCATED IN NORTH FACE OF POWER POLE IN  
THE SOUTHEAST QUADRANT OF CULBERTSON AND  
ATHERTON  
EASTING: 543305.288  
NORTHING: 13306956.684  
ELEVATION: 762.351



QUANTITIES THIS SHEET		
ITEM	JN 201292	
	CAT 0003	
ITEM	QUANTITY	UNIT
Cole Valve and Box, 8 inch, Modified	2	EA
Cole Valve and Box, 16 inch, Modified	5	EA
Hydrant Assembly, SD-1W	2	EA
Hydrant, Rem, Modified	1	EA
Water Main Bedding and Backfill, SD-7W	1044	FT
Water Main, 8 inch, Open Cut	121	FT
Water Main, 16 inch, Open Cut	923	FT
Water Main, 8 inch, Cut and Plug, Modified	2	EA
Water Main, 16 inch, Cut and Plug, Modified	1	EA
Water Main, Connect New 8 inch to Existing 8 inch	2	EA
Water Main, Connect New 16 inch to Existing 16 inch	1	EA
Water Main, Rem	50	FT
Water Serv, Long, 1 inch	18	EA
Water Structure, Abandon	3	EA

- NOTES:
1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST CITY OF FLINT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
  2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" COPPER TIES ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE COPPER TIES AND COPPER LINES UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
  3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
  4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
  5. A MINIMUM OF 5.5- FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
  6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
  7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD-7W.
  8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
  9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, 12" INCH, OPEN CUT.



Know what's below.  
Call before you dig.

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON WM PLAN & PROFILE SHEET 12

ISSUED FOR: DATE: BY:  
21 PLANS 10/25/18 JLS  
FINAL REVISED 2/25/19 JLS  
FINAL PLANS 4/19/19 JLS

JOB NO.  
COF1065.01F

SHEET

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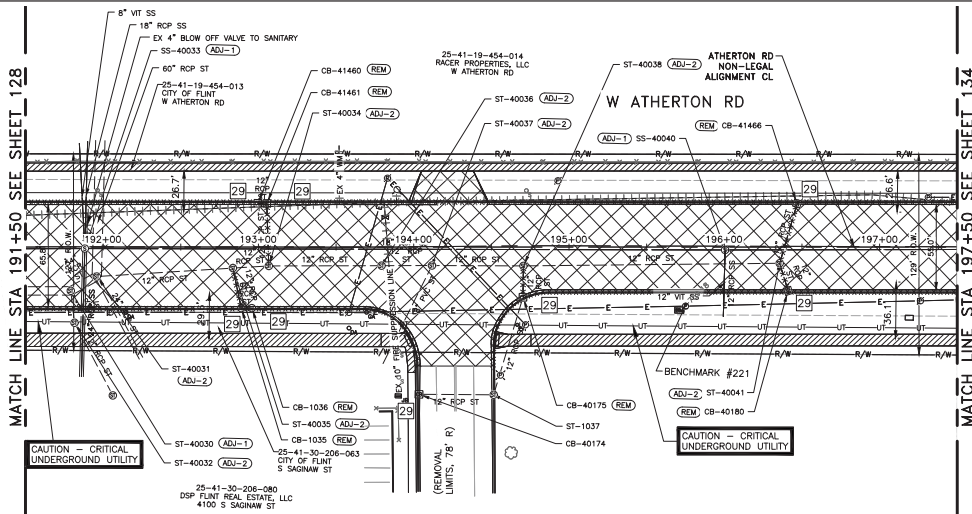
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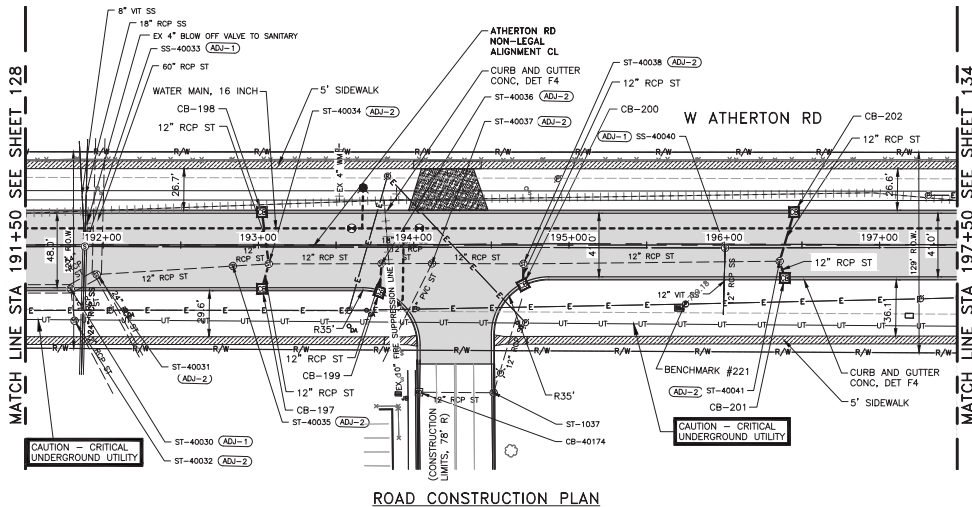
Know what's below.  
Call before you dig.

DRIVEWAY QUANTITIES - THIS SHEET					
STA	SIDE	HOUSE #	PAVT, REM, MODIFIED (SYD)	DRIVEWAY, NONREINF CONC, 6 INCH (SYD)	DRIVEWAY, NONREINF CONC, 9 INCH (SYD)
194+23	L		91	0	125

### ROAD REMOVAL PLAN



### ROAD CONSTRUCTION PLAN

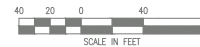


#### NOTES:

- WHERE STRUCTURE ADJ-1, ADJ-2, ADJ-3, ADJ-5 AND ADJ-6 ARE INDICATED ON THE PLANS, NUMBERS 1, 2, 3, 5 AND 6 CORRESPOND TO CITY OF FLINT CASTING DETAIL NUMBERS CF-1, CF-2, CF-3, CF-5, CF-6 RESPECTIVELY. THE STRUCTURES ARE TO BE ADJUSTED TO FINAL GRADE WITH NEW STRUCTURE FRAMES AND COVERS AS INDICATED ON THE LEGEND SHEET AND THE CITY OF FLINT CASTING DETAILS SHEET. CASTINGS CF-1, CF-2, CF-3, CF-5 AND CF-6 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE B". CASTINGS CF-4 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE K". CASTING CF-5 IS PAID FOR AS "DR STRUCTURE COVER, TYPE G". ALL OTHER STRUCTURE COVER TYPES WILL REFER TO MDOT STANDARD PLANS.
- EXISTING STORM STRUCTURES THAT ARE TO BE TAPPED WITH A PROPOSED STORM SEWER ARE INDICATED IN THE STRUCTURE TABLE AS ST-###. THE "ST" INDICATES STRUCTURE TAP AND THE NUMBER (###) INDICATES THE EXISTING STORM STRUCTURE WHICH IS BEING TAPPED.
- WHERE PIPES ARE DESIGNATED FOR REMOVAL, THEY ARE TO BE REMOVED TO AN EXISTING STRUCTURE WHICH WILL REMAIN IN PLACE. THE PIPE OPENING IN THE STRUCTURE SHALL BE REPAIRED/BULK HEADED WITH BRICK AND MORTAR AS APPROVED BY THE ENGINEER.
- MOOT SOIL EROSION CONTROL MEASURE 29 IS INDICATED IN THE TOP PORTION OF THE SHEET FOR EXISTING STORM STRUCTURES WHICH ARE TO BE PROTECTED. SOIL EROSION CONTROL MEASURE 29 SHALL ALSO BE APPLIED TO EACH PROPOSED STORM CATCH BASIN WHICH IS INDICATED IN THE STRUCTURE TABLE AS CB-##.
- WHERE CATCH BASIN RIM ELEVATIONS ARE INDICATED ON THESE PLANS, THE ELEVATION LISTED REPRESENTS THE EDGE OF PAVEMENT ELEVATION.
- FOR ADDITIONAL CURB RADIUS INFORMATION AND DETAILED INTERSECTION GRADING, REFER TO THE DETAILED INTERSECTION GRADING SHEETS.

JOB NO. JN201292

BENCHMARK 221  
DESCRIPTION: SET GEAR SPIKE IN POWER POLE  
LOCATED IN NORTH FACE OF POWER POLE, SOUTH  
SIDE OF ATHERTON, ±380' WEST OF SAGINAW ST.  
NORTHING: 543320.552  
EASTING: 13307735.47  
ELEVATION: 759.179



### MAINLINE QUANTITIES - THIS SHEET

ITEM	QUANTITY	UNIT
Dr Structure, Rem	7	EA
Sewer, Rem, Less Than 24 inch	155	FT
Sidewalk, Rem	842	SYD
Pavt, Rem, Modified	4384	SYD
Embankment, Clip	67	CYD
Excavation, Earth	865	CYD
Aggregate Base, 6 inch	528	SYD
Aggregate Base, 12 inch	3690	SYD
Sewer, Cl E, 12 inch, Tr Det B	55	FT
Sewer, Cl A, 12 inch, Tr Det B	83	FT
Dr Structure Cover, Adj, Case 1	11	EA
Dr Structure Cover, Type B	11	EA
Dr Structure Cover, Type K	6	EA
Dr Structure, 24 inch dia	5	EA
Dr Structure, 48 inch dia	1	EA
Dr Structure, Adj, Add Depth	1	FT
Dr Structure, Tap, 12 inch	6	EA
Underdrain, Subgrade, 6 inch	1200	FT
Hand Patching	1	TON
Hma, 3E1	536	TON
Hma, 4E1	358	TON
Hma, 5E1	268	TON
Hma Approach	131	TON
Driveway, Nonreinf Conc, 9 inch	125	SYD
Curb And Gutter, Conc, Det F4	1210	FT
Detectable Warning Surface	14	FT
Curb Ramp Opening, Conc	18	FT
Sidewalk Ramp, Conc, 6 inch	392	SFT
Sidewalk, Conc, 4 inch	5414	SFT
Turf Establishment, Performance	3940	SYD

### PROPOSED DRAINAGE STRUCTURES

STR NO	STATION	OFFSET	SIZE	RIM	COVER TYPE	PIPE DIRECTION, SIZE, AND INVERT	DISTANCE TO DOWN STREAM STR
CB-198	193+02.28	21.2' L	24"	754.99	K	S 12" 751.40	33.63' ST-40034
CB-197	193+02.28	28.2' R	24"	754.85	K	N 12" 749.50	16.64' ST-40034
ST-40034	193+06.67	12.1' R				E 12" 748.97 W 12" 748.81 S 12" 749.25 N 12" 751.20	
CB-199	193+78.16	30.3' R	24"	755.36	K	N 12" 751.20	18.29' ST-40036
ST-40036	193+79.27	12.0' R				S 12" 750.80 W 12" 749.58 E 12" 749.62	72.61' ST-40034
CB-200	194+70.45	25.6' R	48"	756.49	K	N 12" 752.90	13.52' ST-40038
ST-40038	194+70.62	12.1' R				E 12" 750.60 W 12" 750.54 S 12" 752.65	58.89' ST-40037
ST-40041	196+35.64	10.4' R				W 12" 754.00 N 12" 754.76 S 12" 754.78	165.02' ST-40041
CB-201	196+38.97	21.2' R	24"	758.44	K	N 12" 754.90	11.32' ST-40041
CB-202	196+44.93	21.3' L	24"	758.51	K	S 12" 755.00	33.01' ST-40041

CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON PLAN AND REMOVAL SHEET 13

ISSUED FOR: DATE: BY:  
21 PLANS 10/25/18 JLS  
FINAL REVIEW 2/25/19 JLS  
FINAL PLANS 4/19/19 JLS

JOB NO.  
C0F1065.01F

SHEET  
131

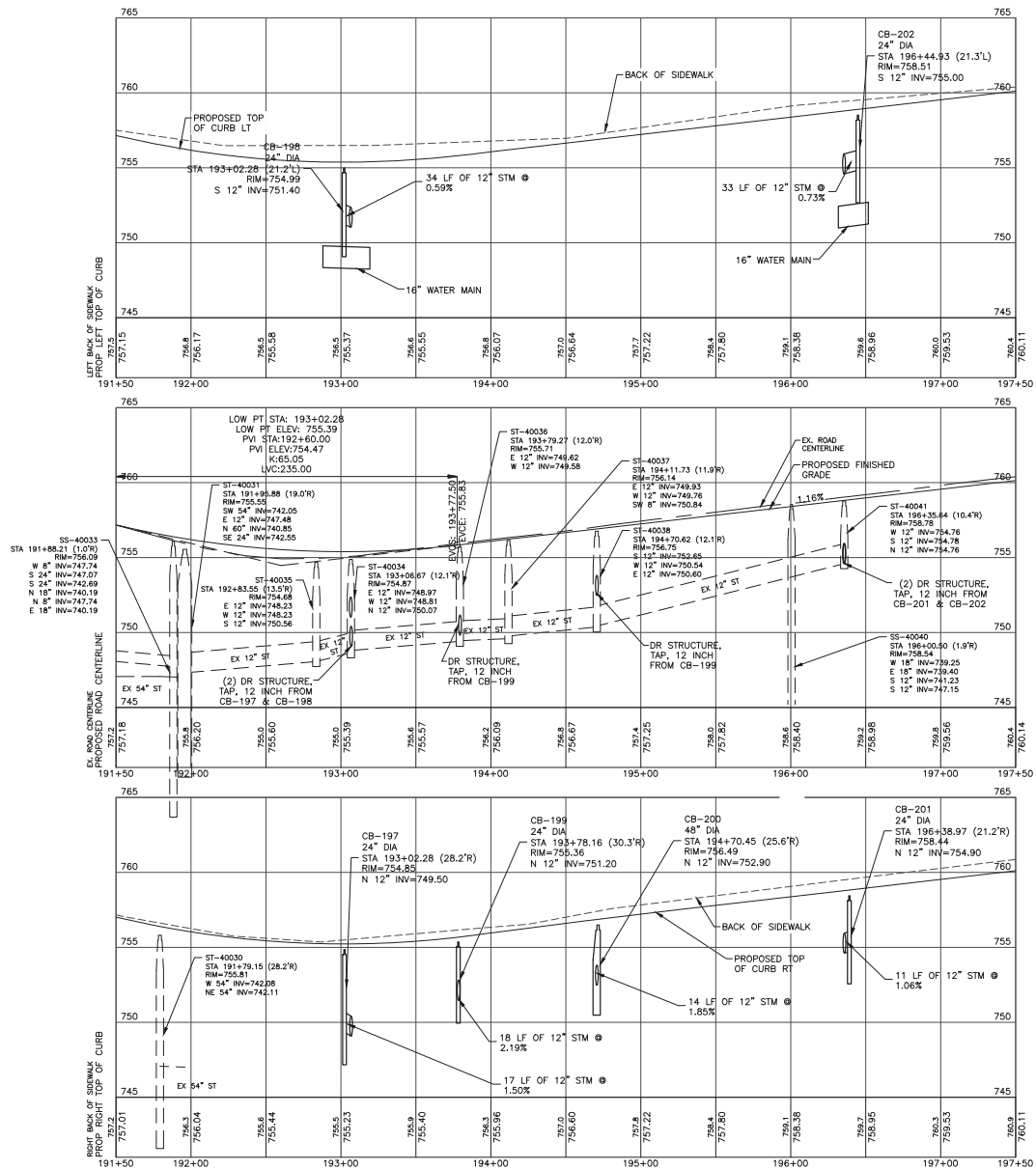


PROJECT MANAGER: Jeremy Schmitt  
CITY OF FLINT, MI 48502  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
4/18/2019 11:18 AM BY: JMM/LSW



Know what's below.  
Call before you dig.

- NOTES:
- PORTIONS OF THE PROPOSED WATER MAIN HAS BEEN SHOWN IN PROFILE VIEW WHERE CROSSING THE PROPOSED STORM SEWER. THE PROPOSED HYDRANT LEADS AND WATER MAIN CROSSINGS OF PROPOSED STORM SEWERS AT EACH SIDE STREET CONNECTION TO THE EXISTING WATER MAINS HAVE NOT BEEN SHOWN ON THESE PROFILES. SEE THE WATER MAIN CONSTRUCTION SHEETS FOR ADDITIONAL INFORMATION ON WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE PROPOSED WATER MAIN AT A DEPTH THAT MAINTAINS A MINIMUM OF 18" VERTICAL CLEARANCE AT EACH CROSSING OF THE PROPOSED STORM SEWER. IF THIS REQUIRES THE ADJUSTMENT OF PROPOSED WATER MAIN OR STORM SEWER DEPTHS OR LOCATIONS FROM WHAT IS PROPOSED ON THESE PLANS, THE CONTRACTOR SHALL COORDINATE THESE ADJUSTMENTS WITH THE PROJECT ENGINEER.
  - THE EXACT LOCATION AND DEPTH OF EXISTING WATER MAINS ARE UNKNOWN AND THEIR CROSSING OF THE PROPOSED STORM SEWERS HAVE NOT BEEN SHOWN ON THESE PROFILES.
  - EXISTING PRIVATE UTILITY LOCATIONS AND DEPTHS ARE UNKNOWN. WHERE POSSIBLE A NOTE HAS BEEN ADDED TO THE PROFILE SHEETS TO POINT OUT THAT THERE MAY BE A UTILITY CROSSING IN THE AREA OF A PROPOSED STRUCTURE. IF A CONFLICT BETWEEN ANY EXISTING UTILITY AND A PROPOSED UTILITY IS FOUND DURING CONSTRUCTION THE CONTRACTOR SHALL COORDINATE ANY REQUIRED ADJUSTMENTS WITH THE PROJECT ENGINEER.



JOB NO. JN201292

REV	DATE	DESCRIPTION	BY

ISSUED FOR: DATE: BY:  
CITY OF FLINT, MI 48502  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
4/18/2019 11:18 AM BY: JMM/LSW



CITY OF FLINT  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
ATHERTON ROAD  
ATHERTON PROFILE 13

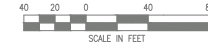
ISSUED FOR: DATE: BY:  
CITY OF FLINT, MI 48502  
1101 SOUTH SAGINAW STREET  
FLINT, MI 48502  
4/18/2019 11:18 AM BY: JMM/LSW

JOB NO. COF1065.01F  
SHEET

132

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NOTES:

1. WATER MAIN SHALL BE LAYED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST AWWA C600-10 FLUORIDE STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS, ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" CORPORATION ON THE PRESSURE PIPING FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OUT PURPOSES. THE CONTRACTOR SHALL REMOVE THE CORPORATION AND COPPER LUGS UPON COMPLETION OF THE SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL SEPARATION FROM SANITARY SEWER MAINS.
4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
5. A MINIMUM 90-5 FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD-W7.
8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY MARK EXISTING WATER MAINS WITH EXISTING HYDRANT S.
9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH HYDRANT. IF NEEDED, ALLOWING TO MAKE DEFLECTIONS, ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, \_INCH, OPEN CUT.









