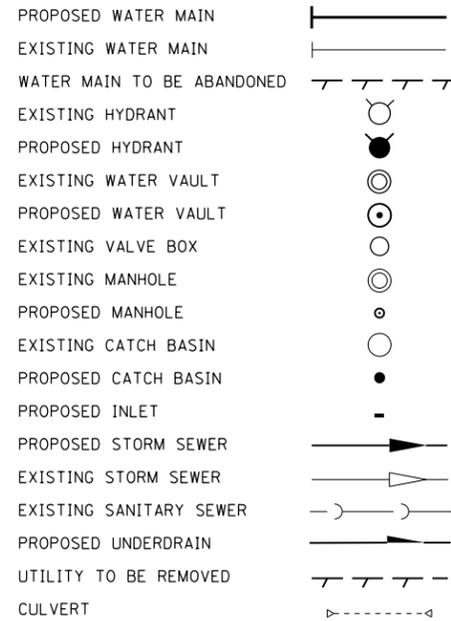


**WATER MAIN LEGEND**



**WATER MAIN NOTES:**

- THE CONTRACTOR SHALL MAKE CONNECTIONS TO EXISTING WATER MAINS UTILIZING A MJ SLEEVE WITH RESTRAINED JOINTS UNLESS NOTED OTHERWISE.
- PRESSURE TESTING AND DISINFECTION OF NEW WATER MAINS SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. EXISTING WATER MAINS SHALL REMAIN IN SERVICE UNTIL NEW WATER MAINS PASS ALL TESTS AND APPROVAL IS GIVEN BY THE ENGINEER AND THE VILLAGE OF ORLAND PARK.
- NEW WATERMAIN SHALL BE ENCASED IN POLYETHYLENE WRAP IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- WATER MAINS AND SERVICES SHALL HAVE A MINIMUM BURY DEPTH OF FIVE (5) FEET AND SIX (6) INCHES BELOW FINISHED GROUND SURFACE.
- EXISTING WATER MAINS TO BE ABANDONED SHALL BE FILLED WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM).
- THE CONTRACTOR SHALL REMOVE ALL VALVES, CASTINGS, OR HYDRANTS FROM THE WATER MAINS TO BE ABANDONED. EXISTING BASINS OR VAULTS SHALL BE ABANDONED IN PLACE AND FILLED WITH SAND. WHEN REQUESTED BY THE VILLAGE OF ORLAND PARK, THE CONTRACTOR SHALL SALVAGE AND DELIVER TO THE VILLAGE ANY EXISTING VALVES, CASTINGS, OR HYDRANTS FROM THE ABANDONED WATER MAIN. ALL OTHER PIPE AND APPURTENANCES REMOVED FROM THE ABANDONED WATER MAIN SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
- ALL WATER MAINS SHALL BE LAID AT LEAST TEN (10) FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWER. THE DISTANCE SHALL BE MEASURED FROM THE OUTSIDE OF PIPE TO OUTSIDE OF PIPE. ALL SEWERS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL CLEARANCE OF 18-INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES, SUCH AS WATER MAINS, SEWERS, GAS LINES, PIPELINES, ETC. SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST AVAILABLE INFORMATION AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. HOWEVER, THE ENGINEER AND THE OWNER DO NOT ASSUME RESPONSIBILITY IN THE EVENT THAT DURING CONSTRUCTION, UTILITIES OTHER THAN THOSE SHOWN MAY BE ENCOUNTERED, AND THAT THE ACTUAL LOCATION OF THOSE WHICH ARE SHOWN MAY BE DIFFERENT FROM THE LOCATION AS SHOWN ON THE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL UTILITY COMPANIES AND LOCATE THEIR FACILITIES PRIOR TO ANY WORK.
- RECORD DRAWINGS FOR THE NEW WATER MAINS SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE VILLAGE OF ORLAND PARK UPON THE PROJECT COMPLETION. ANY VARIATIONS FROM THE CONTRACT DOCUMENTS SHALL BE INDICATED ON THE RECORD DRAWINGS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AND OPERATOR OF THE DAMAGED UTILITY. THIS WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE COMMENCEMENT OF WORK BEGINS. WHERE NEW WORK MEETS EXISTING FEATURES TO REMAIN, FIELD CHECK ALL DIMENSIONS AND ELEVATIONS BEFORE PROCEEDING WITH CONSTRUCTION.
- SURFACE FEATURES THAT ARE DISTURBED DUE TO THE CONSTRUCTION OF WATER MAINS, WHICH ARE NOT INCLUDED AS PART OF THE ROADWAY IMPROVEMENTS, SHALL BE RESTORED AND BE CONSIDERED INCIDENTAL TO THE WATER MAIN WORK. RESTORATION THAT IS INCIDENTAL TO THE WATER MAIN WORK SHALL BE INCLUDED IN THE UNIT COSTS FOR THE WATER MAIN WORK WITH NO ADDITIONAL COMPENSATION ALLOWED. RESTORATION OF SURFACE FEATURES SHALL INCLUDE, BUT NOT BE LIMITED TO, SODDING, SEEDING, REMOVAL AND RESTORATION OF PAVEMENT, REMOVAL AND RESTORATION OF SIDEWALK, REMOVAL AND RESTORATION OF CURB AND GUTTER, AND ANY OTHER ITEM THAT MUST BE DISTURBED TO INSTALL WATER MAIN AS INDICATED IN THE PROJECT DOCUMENTS. RESTORATION WORK ITEMS THAT ARE CONSIDERED INCIDENTAL TO WATER MAIN WORK SHALL BE PERFORMED PER THE REQUIREMENTS OF PROJECT DOCUMENTS.
- ALL WATER MAIN INSTALLED UNDER PAVED ROADWAY SHALL BE DUCTILE IRON PIPE WITH RESTRAINED TYPE JOINTS. WATER MAIN THAT IS NOT INSTALLED UNDER PAVED ROADWAY SHALL ONLY BE RESTAINED AT BENDS AND FITTINGS AS INDICATED IN THE PROJECT DOCUMENTS.

**WATER MAIN SCHEDULE**

SHEET	STA	HYD (EACH)	TEE (EACH)	WATER MAIN CONNECT. (EACH)	GATE VALVE IN VAULT (EACH)	BEND (EACH)	PRESSURE CONNECTION (EACH)	REMOVE VALVE & VAULT (EACH)	FILLING VAULT (EACH)	FHYD TO BE RELOCATED/ (EACH)	FLOWABLE FILL (CYD)	20" CASING (LF)
WT-02	181+10	595' - 12"		1-12"								
WT-02	181+13					1-12"x45"						
WT-02	181+21				1-12"							
WT-02	181+26					1-12"x45"						
WT-02	181+97	35' - 12"	1	1-12"x12"	1-12"						3.6	
WT-02	183+70	7'-6"	1	1-12"x6"								
WT-02	186+50	6'-6"	1	1-12"x6"								
WT-03	188+40	600' - 12"			1-12"							
WT-03	189+30	70' - 12"		1-12"x8"	1-8"							
WT-03	190+75	4'-6"	1	1-12"x6"								
WT-03	191+24	129' - 12"		1-12"x12"			1					110
WT-03	191+35	456' - 12"			1-12"							
WT-04	193+60	3' - 6"	1	1-12"x6"								
WT-04	196+09											
WT-04	196+18							1	1			
WT-04	196+24									1-REM		
WT-04	197+12	4'-6"	1	1-12"x6"								
WT-04	197+45					1-12"x45"						
WT-04	197+49				1-12"						3.8	
WT-04	197+60			1-12"								
WT-05	221+51	140' - 12"								1-REL		
WT-05	221+60						1					
WT-06	223+50	600' - 12"	1	1-12"x6"								
WT-19	225+50	20'-6"	1	1-8"x6"						1-REM		
WT-06	225+70	163.5' - 8"		1-12"x8"								
WT-19	225+70			1-8"	1-8"	7-8"x45"						
WT-06	227+15	17' - 6"	1	1-12"x6"								
WT-07	230+75	600' - 12"	1	1-12"x6"								
WT-07	233+22	5' - 8"			1-8"							
WT-07	233+24	21' - 8"		1-12"x8"	1-8"	1-8"x45"						
WT-08	234+05	51' - 12"	1	1-12"x6"								
WT-08	234+10	37' - 8"			1-8"	1-8"x90"		1				
WT-08	234+15				1-12"							
WT-08	234+24					1-12"x45"				1		
WT-08	234+35				1-8"							
WT-08	234+39					1-12"x45"						
WT-08	234+45			1-12"								
WT-08	234+46	554' - 12"		1-12"x12"	1-12"							
WT-08	235+61			1-12"		1-12"x45"					5.2	
WT-08	235+63				1-12"	1-12"x45"						
WT-08	235+65	46' - 12"		1-12"x12"		1-12"x45"				1-REM		
WT-08	235+71	6'-6"	1	1-12"x6"								
WT-08	236+00				1-12"							
WT-08	239+00	4'-6"	1	1-12"x6"								
WT-09	242+04	600' - 12"			1-6"	2-6"x45"						
WT-09	242+08	17' - 6"		1-12"x6"	1-6"					1-REM		
WT-09	242+17		1	1-12"x6"								
WT-09	245+69			1-8"		2-8"x45"			1	1-REM		
WT-09	245+86	24.5' - 8"		1-12"x8"		2-8"x45"						
WT-09	245+80	4'-6"	1	1-12"x6"	1-8"							
WT-10	248+07	600' - 12"			1-8"	2-8"x45"					7.0	
WT-10	248+18	34.5' - 8"		1-12"x8"	1-8"							
WT-10	248+22	4'-6"	1	1-12"x6"								
WT-14	249+05	295' - 12"			1-12"					1-REM		

CONTINUED...

**WATER MAIN NOTES (CONT.):**

- FLOWABLE FILL: QUANTITY IS FOR ABANDONED PIPE FILLING ONLY. ANY FLOWABLE FILL USED IN ABANDONING VAULTS IS PART OF THAT PAY ITEM.
- THE CONTRACTOR SHALL VERIFY PROPOSED SURFACE GRADES FOR FINAL ROADWAY IMPROVEMENTS SUCH THAT MINIMUM COVER REQUIREMENTS OVER WATER MAIN WILL BE MAINTAINED AT PROJECT COMPLETION.
- CONTRACTOR SHALL VERIFY CLEARANCES FROM SIDEWALKS AND PAVEMENT FOR FIRE HYDRANTS PRIOR TO INSTALLATION. FIRE HYDRANTS MUST HAVE 2' OF CLEARANCE FROM FACE OF CURBS AND A MINIMUM OF 6" FROM SIDEWALK TO CLOSEST PART. FIRE HYDRANTS MAY BE PLACED IMMEDIATELY AGAINST THE ROW WHERE PRACTICAL.

SHEET	STA	D.I.P. (LF)	FHYD (EACH)	TEE (EACH)	WATER MAIN CONNECT. (EACH)	GATE VALVE IN VAULT (EACH)	BEND (EACH)	PRESSURE CONNECTION (EACH)	REMOVE VALVE & VAULT (EACH)	FILLING VAULT (EACH)	FHYD TO BE RELOCATED/ (EACH)	FLOWABLE FILL (CYD)	20" CASING (LF)
WT-14	249+43					1-12"							
WT-14	249+57					1-12"							
WT-14	249+60			1-12"x12"		1-12"							
WT-10	249+60	110' - 12"		1-12"x12"						1			
WT-10	249+70					1-12"							
WT-14	249+74	4'-6"	1	1-12"x6"									
WT-10	250+50	4'-6"	1	1-12"x6"									
WT-14	250+71				1-12"		1-12"x45"						
WT-14	250+73	8.5' - 12"		1-12"x12"		1-12"	2-12"x45"				1-REM	8.4	
WT-10	250+98	29' - 8"		1-12"x8"		1-8"	1-8"x45"						
WT-10	251+13				1-8"								
WT-15	253+25	600' - 12"	1	1-12"x6"									
WT-11	253+82	600' - 12"	1	1-12"x6"									
WT-15	254+00				1-12"		1-12"x45"			1	1-REM		
WT-15	254+02	8.5' - 12"		1-12"x12"		1-12"	1-12"x45"						
WT-15	254+73				1-12"		1-12"x45"			1			
WT-15	254+75	8.5' - 12"		1-12"x12"		1-12"	1-12"x45"				1-REM		
WT-15	256+35	4' - 6"	1	1-12"x6"									
WT-15	256+80	8.5' - 12"		1-12"x12"		1-12"	1-12"x45"						
WT-15	256+82				1-12"		1-12"x45"					17.5	
WT-11	257+01					1-12"							
WT-11	257+07	10' - 6"	1	1-12"x6"									
WT-16	258+75	8.5' - 8"		1-12"x12"		1-12"	1-12"x45"				1-REM		
WT-16	258+77				1-12"		1-12"x45"						
WT-16	259+96		1	1-12"x6"						1			
WT-12	260+33	600' - 12"	1	1-12"x6"									
WT-16	262+58	8.5' - 12"		1-12"x12"		1-12"	1-12"x45"						
WT-16	262+60	600' - 12"			1-12"		1-12"x45"			1	1-REM		
WT-16	263+15					1-12"						17.5	
WT-16	263+20	4' - 6"	1	1-12"x6"									
WT-12	263+34	4' - 6"	1	1-12"x6"									
WT-12	263+39					1-12"							
WT-12	263+44	110' - 12"		1-12"x12"									
WT-16	263+44			1-12"x12"		1-12"							
WT-17	264+76		1	1-12"x6"									
WT-17	264+80	262' - 8"		1-12"x8"	1-8"	1-8"							
WT-17	265+76	4' - 8"	1	1-8"x6"									
WT-13	265+34	32' - 6"		1-12"x6"	1-6"	1-6"							
WT-13	265+45	306' - 12"									1	1-REM	
WT-17	267+00				1-12"		2-12"x45"				1-REM		
WT-13	267+04	8' - 6"	1	1-12"x6"									
WT-17	267+07										1-REL	10.5	
WT-13	267+08				1-12"							5.1	
TOTAL		49'-6" 585'-8" 8339.5'-12"	28			2-6" 7-8" 21-12"		2	2	13	13-REM 2-REL	82	110

**WATER MAIN SUMMARY**

PAY CODE	DESCRIPTION	UNIT	QUANTITY
56103000	DUCTILE IRON WATER MAIN 6"	LFT	89
56103100	DUCTILE IRON WATER MAIN 8"	LFT	589
56103300	DUCTILE IRON WATER MAIN 12"	LFT	8340
	GATE VALVE 6" WITH VAULT 4' DIAMETER	EA	2
	GATE VALVE 8" WITH VAULT 4' DIAMETER	EA	8
	GATE VALVE 12" WITH VAULT 4' DIAMETER	EA	20
56400400	FIRE HYDRANT TO BE RELOCATED	EA	2
56400500	FIRE HYDRANT TO BE REMOVED	EA	13
56400820	FIRE HYDRANT WITH 6" AUX VALVE & VALVE BOX	EA	27
60500405	FILLING VAULT	EA	13
X0325003	REMOVE VALVE & VAULT	EA	2
X5610651	CONTROLLED LOW STRENGTH MATERIAL (FLOWABLE FILL)	CYD	82
Z0045100	PRESSURE CONNECTION	EA	2
Z0067700	STEEL CASING 20"	LFT	110
	2" OR LARGER WATER SERVICE W/B-BOX (UNDER 30')	EA	1



FILE NAME = D160M61-SHT-WATER01.dgn  
SHT.PLAN

USER NAME = Anthony.Plutz	DESIGNED - DF	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - DF	REVISED -
PLOT DATE = 3/14/2013	CHECKED - TDW	REVISED -
	DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**WATER MAIN LEGEND, NOTES, AND SCHEDULE**

SCALE: NO SCALE SHEET 1 OF 21 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 232
<b>WT-01A</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				