

2021 Redbook Rev 1.3 Change Log

Section	Page	Paragraph	Rev 1.2	Rev 1.3
1.1	18	1.29	Added	<p>...The City has the right to terminate the Contract in whole or in part for the City's convenience and without cause. Notification of termination by the City for convenience shall be delivered to the Contractor, specifying the extent of termination and the effective date. Upon receipt of such notice, the Contractor shall immediately, in accordance with direction from the City, proceed with performance of the following regardless of delay in determining or adjusting amounts due under this Section:</p> <p>(a) cease operations as specified in the notice and deliver to the City the originals or legible copies of all Drawings, Specifications, reports and other data, records and materials in the Contractor's custody and control pertaining to the portion of the Work for which the Contractor was terminated;</p> <p>(b) enter into no additional subcontracts, except as necessary to complete continuing Work and approved by the City;</p> <p>(c) terminate, on favorable and negotiable terms, all subcontracts to the extent they relate to the Work terminated;</p> <p>(d) complete the performance of Work not terminated; and</p> <p>(e) take actions that may be necessary or that the City may direct, for the protection and preservation of the terminated Work and of materials, and equipment in transit or stored.</p> <p>Upon such termination, the City shall pay the Contractor, as its sole remedy, including a reasonable allowance for</p>
1.1	18	1.33	Added	<p>1.33 MDOT Standard Specifications for Construction Pay Items from the current Michigan Department of Transportation Standard Specifications for Construction when utilized in the Bid Form will be as specified, constructed and measured and paid for at the Contract Unit Price per the current MDOT Standard Specifications for Construction unless otherwise modified by the City's Standard Construction Specifications or project Special Provisions.</p>
Various Sections		d	Pay Items	<p>Pay Items changes listed below in the Pay Item Index have also been updated in their various Sections and not listed separately as changes in this Change Log. When a Section is not listed in this portion of the Change Log, only Pay Item names have been modified.</p>
2.5	2	c.5	Existing Underground Structures. The Contractor shall provide and install adequate supports and protection for all sewer and water pipes or other underground structures extending into or crossing the trench.	Existing Underground Structures and Utilities . The Contractor shall provide and install adequate supports and protection for all sewer and water pipes or other underground structures and utilities extending into or crossing the trench.
2.5	2	c.5.B	B. Where sewers, water mains, cables or conduits and all other underground structures are within the influence of the Contractor's trench opening, the Contractor shall so carry on their work at all times as not to cause damage to the structure or structures.	B. Where sewers, water mains, cables or conduits and all other underground structures and utilities are within the influence of the Contractor's trench opening, the Contractor shall so carry on their work at all times as not to cause damage to the structures or utilities .
2.5	2	c.5.C	Added	<p>C. Where crossing underneath transmission water mains (24 inch and larger), a structural support plan is required at all times a transmission water main joint or more than 5 feet of transmission main is exposed below the spring line of the pipe, unless otherwise approved by the Engineer. Structural support plan shall be signed and sealed by a professional engineer and allow no more than 0.01' of deflection of the transmission watermain.</p>
2.5	2	c.5.C,D,E,F,G,H	Moved	<p>c.5.C moved to c.5.D c.5.D moved to c.5.E c.5.E moved to c.5.F c.5.F moved to c.5.G c.5.G moved to c.5.H c.5.H moved to c.5.I</p>

2.5	2	c.5.C	C. Where structures such as underground irrigation, snowmelt systems, private communications and/or electrical systems are within the influence of the Contractor's trench opening, the Contractor shall so carry on their work at all times as not to cause damage to the structure or structures.	D. Where utilities such as underground irrigation, snowmelt systems, private communications and/or electrical systems are within the influence of the Contractor's trench opening, the Contractor shall so carry on their work at all times as not to cause damage to the structures or utilities, except in the case of emergency repairs.
2.7	1	c.5.C	4. The space between the carrier pipe and the casing pipe shall be completely filled with dry sand, pea stone, or flowable fill.	4. The space between the carrier pipe and the casing pipe shall be filled with dry sand, pea stone, or flowable fill to sufficiently support carrier pipe material type and in accordance with any permit requirements.
4.1	2	b.2.F	Added	F. PE Pipe conforming to the current ASTM F714. (1) The use of HDPE Pipe shall only be permitted by the City Engineer's Office on a project by project basis for insertion renewal of existing laterals and said approval shall be prior to bids being received and the Drawings or Special Provisions shall so state.
4.1	3	b.4.F	Added	F. PE Pipe. (Laterals Only) Joints for PE laterals shall be heat fused in accordance with ASTM D2657 or mechanical joint in accordance ASTM D3212 with elastomeric seal meeting ASTM C1173.
4.1	4	c.3.C	The depth of the lateral, below grade, at the right of way or easement line shall be no greater than 9.5 feet, unless otherwise shown on the Drawings, or approved by the Engineer.	The depth of the lateral, below grade, at the right of way or easement line shall be set at 9.5 feet to the invert , unless otherwise shown on the Drawings and approved by the Engineer.
4.1	4	c.3.C.1	(1) If the lateral being constructed is to be constructed all the way to the structure which it will serve, the final connection is to be made by a licensed plumber in possession of a valid connection permit. No lateral is to be constructed any closer than 5 feet to the structure it is to serve without the above requirements being met.	(1) If the lateral being constructed is to be constructed all the way to the structure which it will serve, the final connection is to be made by a licensed plumber in possession of a valid connection permit. No lateral is to be constructed any closer than 3 feet to the structure it is to serve without the above requirements being met.
4.1	5	c.3.H	Added	H. Relining Existing Laterals with PE Pipe. In accordance with Michigan Plumbing Code Section 717.
4.1	10	c.7.C	C. Reconnection of Laterals. The Contractor shall carefully uncover the existing sanitary sewer and locate all connections thereto. It shall be the Contractor's responsibility to reconnect all live laterals. Where the property is either unoccupied/vacant or undeveloped, one lateral per lot shall be reconnected. The Contractor shall place tees or wyes in the reconstructed sewer as close to the existing laterals as is possible. No tee or wye shall be placed upstream from the lateral. Tees and wyes shall be shop fabricated. No field connections into the reconstructed sewer line will be allowed, unless approved by the Engineer. Any necessary additional lateral alignment may be accomplished by using premium jointed bends, provided that no bends shall be sharper than 45 degrees.	C. Reconnection of Laterals. The Contractor shall carefully uncover the existing sanitary sewer and locate all connections thereto. It shall be the Contractor's responsibility to reconnect all live laterals. Where the property is either unoccupied/vacant or undeveloped, one lateral per lot shall be reconnected. The Contractor shall place tees or wyes in the reconstructed sewer as close to the existing laterals as is possible. Place new tees or wyes no closer than 3 feet apart on the main. Laterals shall be laid at right angles to the street line and sanitary main, no tee or wye shall be placed upstream from the lateral, unless otherwise approved by the Engineer. Tees and wyes shall be shop fabricated. No field connections into the reconstructed sewer line will be allowed, unless approved by the Engineer. Any necessary additional lateral alignment may be accomplished by using premium jointed bends, provided that no bends shall be sharper than 45 degrees.
4.3	5	c.1.B.1	(1) All water main placed with cover between 4 feet and 5 feet shall be covered with 2-inch extruded polystyrene foam insulation board per Detail W-16.	(1) All water main placed with cover between 4 feet (but not less) and 5 feet shall be covered with 2-inch extruded polystyrene foam insulation board per Detail W-16.
4.3	6	c.2.A	For approved vertical changes only, the depth from centerline of main to grade shall not exceed 8 feet and the minimum distance from top of pipe to ground line is 4 feet provided said vertical change can be accomplished within 40 linear feet each side of the conflicting utility.	(1) For approved vertical changes the depth from centerline of main to grade shall not exceed 8 feet and the minimum distance from top of pipe to ground line is 5 feet provided said vertical change can be accomplished within 40 linear feet each side of the conflicting utility. Shallow crossings shall be in accordance with Detail W-16. (2) For approved horizontal changes the separation of the edge of main to edge of structure or vertical foundation shall not be less than 5 feet.
4.3	7	c.3.F	Added	F. Temporary Water Services placed in cases of a lead service line break or other emergency shall only be utilized for a maximum of 48 hours, unless otherwise approved by the Engineer. Place new permanent service within that time.

4.3	8	c.5.I	Added	1. In Casing Pipe. Water main placed in casing pipe shall be restrained for the full length of the casing.
4.3	10	c.11.B	B. Position of Nozzles. All hydrants shall stand plumb and shall have their hose or 2.5 inch nozzles parallel with the curb, with the pumper nozzle pointing normal to the curb. The 4 inch nozzle shall be a minimum of 18 inches above the ground.	B. Position of Nozzles. All hydrants shall stand plumb and shall have their hose or 2.5 inch nozzles parallel with the curb, with the pumper nozzle pointing normal to the curb. The 4 inch nozzle shall be a minimum of 18 inches and a maximum of 24 inches above the finish grade.
4.3	11	c.12	12. Laying Water Services. Water services shall be laid perpendicular to the water main unless otherwise approved by the Engineer. The curb stop shall normally be 1 foot from the sidewalk, toward the street.	12. Laying Water Services. Unless otherwise approved by the Engineer, place water services perpendicular to the water main, and place the curb stop a minimum 3 feet from the back of curb, generally in the middle of parkway. No water service should be within 7 feet of a tree in the right of way.
4.3	11	c.12.E.	E. Under no circumstances is the water service laid by the Contractor to extend closer than 5 feet to the structure to be served unless said last 5 feet is laid under the supervision of a licensed plumber in possession of a valid connection permit.	E. Under no circumstances is the water service laid by the Contractor to extend closer than 3 feet to the structure to be served unless said last 3 feet is laid under the supervision of a licensed plumber in possession of a valid connection permit.
4.3	12	c.13.C.	Added	C. Place Corporation Stops along the horizontal axis of the water main. Do not place Corporation Stop within 3 feet of a water main joint or fitting, or within 3 feet of another corporation stop unless otherwise approved by the Engineer.
4.3	12	c.15.B.(1)	Moved	c.13.A c.13.A moved to c.13.B
4.4	1	b.2	Updated Entire Section	2. Ductile Iron.....
4.4	2	b.3	Added	3. High-Density Polyethylene (HDPE) Pipe.....
4.4	2	b.4	Moved and Added	B. Special Fittings for HDPE Pipe. Furnish butt fusion fittings for HDPE Pipe in accordance with AWWA C901/906 manufactured from High Density Polyethylene PE4710 resin in accordance with ASTM D3350 with a minimum cell classification of 445574C or 445576C. (1) Furnish butt fusion meeting the requirements of ASTM D3261. (2) Furnish fabricated fittings meeting the requirements of ASTM F2206. (3) Furnish electrofusion fittings meeting the requirements of ASTM F1055.
4.4	2	b.6	Moved and Revised	6. Air Relief Valves. A. Air relief valves for force mains shall be AWWA C512, designed for 100 psig working pressure, wastewater service, and provided with all the accessories shown on Standard Detail S 18. Accessories shall be provided by the valve manufacturer. Valve bodies shall be ductile or cast iron. Float and internal hardware shall be stainless steel. (1) Unless otherwise noted, furnish combination air valves. Furnish air-release, air/vacuum as shown on the Drawings or as directed by the Engineer.

4.4	3	c.2.F	Added	F. Tracer Wire (HDPE Only) . Install an annealed copper-clad steel tracer wire. Ensure tracer wire is 12 American Wire Gauge (AWG) copper conductor with 30-mil thick high-density polyethylene (HDPE) insulation, rated for 30 volts and have 21 percent conductivity. Insulation color must meet the American Public Works Association (APWA) color code standard for identification of buried utilities. Ensure tracer wire is in accordance with ASTM B3, ASTM B170, ASTM D1248, ASTM D1238 and ASTM B910/B 910M and the requirements of the NEC. Clearly label and terminate tracer wire within structures as shown on the plans, and accessible at the ground surface without entry into chamber or structures. Ensure the locations of the terminations are noted on the as-built plans.
4.4	3	c.4	4. Pressure Test. A. Pressure tests for forcemains shall be performed in accordance with the requirements for pressure testing water mains found in Section 4.3.c.17.	4. Pressure Test. A. Pressure tests for forcemains shall be performed in accordance with the requirements for pressure testing water mains found in Section 4.3.c.17, except that the HDPE pressure test must include an initial expansion phase prior to testing in accordance with the Plastics Pipe Institute "Handbook of Polyethylene Pipe" and AWWA Manual M55.
4.4	3	c.5	Added	5. Video Inspection (HDPE Only) . The entire length of completed force main shall be videotaped and reviewed by Engineer prior to placing the main in service.
4.4	4	d.1	1. Forcemain of the size and class as shown shall be measured in linear feet along the centerline of the pipe in place, including the lengths of valves and specials.	1. Forcemain of the size and class as shown shall be measured in linear feet along the centerline of the pipe in place, including the lengths of valves and specials. HDPE fittings, tracer wire and video inspection are not paid separately and considered included in the price of the forcemain.
4.7	3	b.4.A.(1)	(1) Porcelain ANSI Class 55-4	(1) Polymer ANSI Class 55-4
4.7	3	b.4.E.	Secondary cable spreader ...	Removed
4.7	3	b.5.	Overhead Secondary Line Conductors.	Overhead Sec /C.
4.7	3	b.5.D.	Added	D. Insulated snap-on covers for insulating crimp splices and taps from or to the insulated conductor of Triplex: (1) Burndy #CCD, for "D" die compression connectors, 2-3/4 inches long. (2) Burndy #CCO, for "O" die compression connectors, 2-1/2 inches long, used for #4 tap and #1/0 lamp lead taps. (3) Blackburn #C2 for 5/8-inch dies compression connectors, 2 inches long used for #4 butt and #4 lamp lead taps.
4.7	3	b.6.	Underground Secondary Line Conductors.	Underground Sec /C.
4.7	4	b.7.	Overhead Primary Line Conductors.	Overhead Prim Line /C.
4.7	4	b.7.A.	Steel core to have Class zinc coating.	Steel core to have Class B zinc coating.
4.7	4	b.7.E	Moved	Added b.8. Overhead Prim Neutral /C.
4.7	4	b.7.F.	F. Insulated snap-on covers for insulating crimp splices and taps from or to the insulated conductor of Triplex: (1) Burndy #CCD, for "D" die compression connectors, 2-3/4 inches long. (2) Burndy #CCO, for "O" die compression connectors, 2-1/2 inches long, used for #4 tap and #1/0 lamp lead taps. (3) Blackburn #C2 for 5/8-inch dies compression connectors, 2 inches long used for #4 butt and #4 lamp lead taps.	Removed
4.7	4	b.8.	8. Undergorund Primary Line Conductors.	8. Undergorund Primary Conductors.
4.7	4	b.8.A.	Cable, Primary, 1C-#2/0 CU 15 kV	Underground Prim Line /C-#2/0 CU 15 kV.
4.7	5	b.8.B.	Cable, Primary Neutral, #2 CU, 600V.	Underground Prim Neutral /C-#2 CU, 600V.
4.7	5	b.9.	9. Terminator, 15KV, Primary Cable.	10. Terminator, 15KV, Prim Cable.
4.7	5	b.10	10. Elbow, 15KV, Primary Cable.	11. Elbow, 15KV, Prim Cable.
4.7	5	b.11	11. Splice, 15KV, Primary Calbe.	12. Splice, 15KV, Prim Calbe.
4.7	6	b.15.B.(2)(f)	... and less with 55°C or 65°C average and less with 55°C or 65°C average ...
4.7	10	c.7.E.	Added	E. Alternate connections of lamp lead between red and black and receptacle lead between blue and orange in pole handholes.

4.7	10	c.9.	Added	9. Underground Sec Conductor Splicing. A. Splices below grade (ie. in manholes or handholes) shall be made using vice connectors and shall be covered with tape as follows: (1) 2 layers of ½ lapped 33+ tape. (2) 2 layers of ½ lapped 130C tape. (3) 2 layers of ½ lapped 33+ tape. B. Splices above grade (ie. in pole base or pedestal) can use polaris connectors instead of the below grade splicing method.
4.7	11	d.	Added	4.7.012 Overhead prim neutral /C, __ ACSR
4.8	1	b.1.	Light Poles, Fiberglass.	Round Tapered Fiberglass Light Poles.
4.8	2	b.1.G	G.14-Foot Fiberglass Poles for Post Top Luminaire.	G. Fiberglass Light Pole, 14-Foot. for Post Top Luminaire. Added: (5) Anchor Base: shall be sized to fit 1-inch anchor bolts on an 11-inch bolt circle. (6) Base cover shall be a two-piece assembly.
4.8	2	b.1.H.	H.Fiberglass Pole for 28-foot Mounting Height and 8-foot Mast Arm.	Removed
4.8	2	b.1.I	I.Fiberglass Pole for 35-foot. Mounting Height and 10-foot. Mast Arm	Removed
4.8	2	b.1.J.	J.Fiberglass Pole for 35 feet. Mounting Height. 10 feet. Mast Arm, and Reinforced or Walk-Wait Signal (2) Luminaire mounting Height - 35 feet. (3) Mast arm shall be aluminum, 10 feet. span, 39-inch rise, 2-inch slip fitter and capable of supporting a luminaire weighing 60 lbs. with an effective projected area of 1.2 sq. feet. (4) Total length of pole: 32 feet. (6) Special reinforcing for installation of walk-wait pedestrian signal as follows: (a) 48 inch of reinforced area centered 10 feet 8 inches from the foundation. (b) Center point of this reinforced area shall be marked.	H. Fiberglass Light Pole, 35-foot Mounting Height and __-foot Mast Arm. (Reifored for Walk-Wait Signal and Banners) (2) Luminaire mounting height of 35-foot with an 8-foot mast arm that has 33-inch rise. (3) Pole shall be designed to support: (a) Two 12-foot mast arm with luminaires weighing 60 lbs. with an effective projected area of 1.2 sq. feet. (b) Two cloth banners (2.5-feet by 7.5-feet) mounted at the top and bottom with the bottom mounted at 15-feet above the base. (c) One fixture weighing 50-pounds on two 1.5-foot arms at 10-foot and 13-foot above the base. (d) One sign with 3-square foot surface with the bottom at 8-foot above the base. (4) Mast arms shall be aluminum, with a tapered elliptical form, and 2-inch slip fitter. (6) Anchor plate shall be a slotted design which will accept 1-inch diameter anchor bolts installed on any bolt circle diameter from 13.5-inches to 15-inches. (7) A 4-inch by 12-inch handhole shall be provided 2-feet above the base on the left side of the pole, where left is the left-hand side when facing the street. The handhole shall be equipped with a painted cover and slotted fastener. Covers, fasteners and exposed handhole reinforcement shall be non-metallic. (8) A cast aluminum pole cap shall be installed on the pole. Cap attaching hardware shall not rust or discolor the pole. (9)An aluminum name plate showing the manufacturer's name, model #, date of manufacture and "CITY OF GRAND RAPIDS" shall be permanently attached to each pole above
4.8	2	b.2.	... options for fiberglass and concrete poles shall be as shown options for fiberglass poles shall be as shown ...
4.8	2	b.3.	Light Pole, Tapered Fluted Fiberglass Post Top	Tapered Fluted Fiberglass Post Top Light Pole.
4.8	3	b.3.a.	(1) ... A mounting height of 12, 16, or 20-feet shall be provided. ... (3) The pole shall be designed to be anchor base mounted.	(1) ... A mounting height of 16, or 20-feet shall be provided. ... (3) The pole shall be designed to be anchor base mounted. Anchor base shall be sized to fit 1-inch anchor bolts on a 13.5-15-inch bolt circle.
4.8	3	b.4.	Light Pole, 24 Foot Ornamental Aluminum.	Ornamental Alum light pole, 24-Foot.
4.8	3	b.4.C.(2)	The shaft shall be 23.0 feet long. It shall be straight and fluted, with a 5.5 ± 0.5 inch outside diameter to a point 20.0 feet above grade. The remainder shall be smooth and straight with a 3.5 ± 0.5 inch outside diameter.	The shaft shall be 23.0 feet long. It shall be straight and fluted, with a 6- inch outside diameter to a point 20.0 feet above grade. The remainder shall be smooth and straight with a 3.0- inch outside diameter.
4.8	5	b.5.D	F. The pole shall include a receptacle box with GFCI duplex receptacle and weather proof cast aluminum "in-use" cover.	(1) The pole shall include a receptacle box with GFCI duplex receptacle and weather proof cast aluminum "in-use" cover.
4.8	11	b.	7.S. Luminaire Types. Use a below pre-approved fixture, or Engineer approved equal.	8. Luminaire Types. Use a below pre-approved fixture, or Engineer approved equal.
4.8	11	Table 4.8-1	Type K: ESL3- PP40 -TG4-RFD333784	Type K: ESL3- P40 -TG4-RFD333784
4.9	1	Table 4.7-1	Renumbered Table 4.7-1	to 4.9-1
4.9	2	b.3.A.	3. Direct Buried Conduit. A. Direct buried conduits shall be DB-120 or schedule 40 PVC.	3. Direct Buried Conduit. A. Direct buried conduits shall be DB-120 or schedule 40 PVC, unless otherwise noted in the bid form and Drawings.

4.9	3	Table 4.9-1	Renumbered Table 4.9-1 1/2 inch Hex bolts with washer (Hartford #1015)	to 4.9-2 1/2 inch Hex bolts with washer x 1 3/8 inch, 316 Stainless
4.9	3	b.9.C.	Manhole shall have four (4) pull-in irons with backing plates (Hartford #23-001).	Manhole shall have four (4) pull-in irons with backing plates (7/8-inch hot-dipped galvanized rolled steel U-bolt).
4.9	3	b.7.	Manhole - Precast Concrete 8 feet x 6 feet x 7 feet.	Mh, Precast Conc 8 feet by 6 feet by 7 feet.
4.9	3	b.7.D	Manhole shall have six (6) pull-in irons with backing plates (Hartford #23-001).	Manhole shall have six (6) pull-in irons with backing plates (7/8-inch hot-dipped galvanized rolled steel U-bolt).
4.9	3	b.8.	Manhole - Hardware Package (for 8 feet x 6 feet x 7 feet).	Mh, Hardware Package (for 8 feet by 6 feet by 7 feet).
4.9	3	b.9.	Manhole - Precast Concrete 8 feet x 8 feet x 7 feet.	Mh, Precast Conc 8 feet by 8 feet by 7 feet.
4.9	4	b.10	Manhole - Hardware Package (for 8 feet x 6 feet x 7 feet).	Mh, Hardware Package (for 8 feet by 8 feet by 7 feet).
4.9	4	Table 4.9-2	Renumbered Table 4.9-2 1/2 inch Hex bolts with washer (Hartford #1015)	to 4.9-3 1/2 inch Hex bolts with washer x 1 3/8 inch, 316 Stainless
4.9	4	b.11.	Manhole - Precast Concrete 4 feet x 4 feet x 4 feet.	Mh, Precast Conc 4 feet by 4 feet by 4 feet.
4.9	3	b.11.C.	Manhole shall have four (4) pull-in irons with backing plates (Hartford #23-001).	Manhole shall have four (4) pull-in irons with backing plates (7/8-inch hot-dipped galvanized rolled steel U-bolt).
4.9	4	b.12.	Manhole - Hardware Package (for 8 feet x 6 feet x 7 feet).	Mh, Hardware Package (for 4 feet by 4 feet by 4 feet).
4.9	4	Table 4.9-3	Renumbered Table 4.9-3 1/2 inch Hex bolts with washer (Hartford #1015)	to 4.9-4 1/2 inch Hex bolts with washer x 1 3/8 inch, 316 Stainless
4.9	6	b.14.	Handhole – Precast Concrete 36-inch round x 44-inch deep.	Hh, Precast Conc 36-inch round by 42-inch deep.
4.9	6	b.14.B	Added	Design according to Detail E-530.
4.9	6	b.15.	Handhole – Precast Concrete 22-inch round x 40-inch deep.	Hh, Precast Conc 24-inch round by 36-inch deep.
4.9	6	b.15.B.	Added	Design according to Detail E-535.
4.9	6	b.16	Added	16. Hh, Polymer (17-inch x 30-inch). The handhole shall be designed by the manufacturer to meet the following design standards: A. ANSI/SCTE 77 Standard Practice for Minimum Structural Design Loading for Underground Polymer Concrete Utility Structures. (1) Live Load ANSI/SCTE 77 TIER 15 (2) Design/Test Load 15,000/22,500 LBS B. Dimensions shall be the minimum cover dimensions.
4.9	6	b.17.	Added	17. Cable Sec Pedestal. A. The pedestal shall be in accordance with Detail E-560 or Engineer approved equivalent.
4.9	7	c.3.C.	The concrete shall be fluid enough to allow ...	The concrete encasement shall be Grade 3500 with 17A aggregate. The concrete shall be fluid enough to allow ...
4.9	8	d.	3. Direct Buried Conduit. A. Direct buried conduits shall be DB-120 or schedule 40 PVC.	3. Direct Buried Conduit. A. Direct buried conduits shall be DB-120 or schedule 40 PVC, unless otherwise noted in the bid form and Drawings.
6.1	1	b.1.5	Added	5. Lightweight/Low Density Cellular Concrete Flowable Fill. Use Cement and Fly Ash in accordance with Section b.4. Provide LDCC mixture with following properties. A. Cast Density Range, 35-45 pounds per cubic foot. B. Minimum Compressive Strength (28 Days), 200 pounds per square inch. C. Flow Consistency, greater then 7 inches per ASTM D6103.
6.1	1	b.1.6	b.1.5 moved.	b.1.6
6.1	1	b.1.7	b.1.6 moved.	b.1.7
6.1	1	b.1.8	b.1.7 moved.	b.1.8

6.1	2	c.4	Added	4. Lightweight/Low Density Cellular Concrete Flowable Fill. Unless otherwise approved by the Engineer, use for filling abandoned utilities only. Maximum time a any given flowable fill operation with Lightweight/Low Density Cellular Concrete Flowable Fill is 4 hours.
6.3	2	c.11	11. Positive Drainage. The Engineer will set line and grade for the curb and gutter. However,....	11. Positive Drainage. The Engineer will set line and grade for the curb and gutter. Minimum longitudinal slope for concrete curb shall be 0.4% for straight runs and 0.5% for radius runs, unless otherwise approved by the Engineer. However,....
6.3	3	d.4	Replaced	4. Removal of curing compound and painting shall be considered included in the price of the curb and median island end treatment pay items.
6.3	3	d.4	d.4 moved.	d.5
6.3	3	d.5	d.5 moved.	d.6
6.3	3	d.6	d.6 moved.	d.7
6.3	3	d.7	The price for Median Island End Treatment shall also include painting of the end treatment as directed by the Engineer.	The price for Median Island End Treatment shall also include the removal of curing compound and painting of the end treatment as directed by the Engineer.
6.4	2	c.1.3	Added	3. Curb Ramps and Landings. Unless otherwise noted on the Drawings, minimum ramp and landing slab thicknesses to be 6 inches for first 5 feet behind the curb and 4 inches for the remaining.
8.4	2	c.2.D	Furnishing and placing this additional material will not be paid separately but shall be included in the item Turf Establishment, or the item Roadway Grading.	Furnishing and placing this additional material will not be paid separately but shall be included in the item Turf Establishment, Turf Establishment, As Needed Watering, or the item Roadway Grading.
8.4	3	d.	Added	8.4.002 Turf Establishment, As Needed Watering
8.4	4	d.1	AddedTurf Establishment, As Needed Watering will be measured and paid the same as Turf Establishment and includes the same material and specified work and requirements but does not include the specified Initial Watering.
8.6	1	c.1.A.3	(3) Final approved as-built information provided by the consultant and based on inspector's construction notes. (Final as-built drawing set Mylars may be requested at this time.)	(3) Final approved as-built information provided by the Consultant including the construction drawings in electronic format (PDF) and geospatial data. Geospatial data shall include triangulation of all water main features in electronic format (SHP or DXF) (NAD 1983 State Plane Michigan South FIPS 2113 (Intl Feet)). (Final as-built drawing set Mylars may be requested at this time).
8.6	2	c.1.B.4	(4) Final approved as-built information provided by the consultant and based on inspector's construction notes. (Final as-built drawing set Mylars may be requested at this time.)	(3) Final approved as-built information provided by the Consultant including the construction drawings in electronic format (PDF) and geospatial data. Geospatial data shall include triangulation of all sanitary sewer features in electronic format (SHP or DXF) (NAD 1983 State Plane Michigan South FIPS 2113 (Intl Feet)). (Final as-built drawing set Mylars may be requested at this time).
8.7	1	c.1.B	B. Any areas of pavement which are undermined during excavation shall be removed and replaced at the Contractor's cost.	B. Any areas of pavement, sidewalk, or curb and gutter which are undermined during excavation shall be removed and replaced at the Contractor's cost.

Pay Item Index	Section			
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Pay Item Index	2.3		Abandon Valve Chamber and Place Valve Box, Detail P-23A	Abandon Valve Chamber and Place Valve Box, Det P-23A
Pay Item Index	2.3		Areaway, Remove	Areaway, Rem
Pay Item Index	2.3		Brick Pavement, Remove and Salvage Brick Pavers, Full Depth	Brick Pavt, Rem and Salv Brick Pavers, Full Depth
Pay Item Index	2.3		Brick Pavement, Remove , Full Depth	Brick Pavt, Rem , Full Depth
Pay Item Index	2.3		Bulkhead, Remove , 24 inch or Larger	Bulkhead, Rem , 24 inch or Larger
Pay Item Index	2.3		Bulkhead, Remove , 6 inch to 23 inch	Bulkhead, Rem , 6 inch to 23 inch
Pay Item Index	2.3		Coldmill HMA Pavement ___ inch	Coldmill HMA Pavt ___ inch
Pay Item Index	2.3		Concrete Alley and Approach, Remove	Conc Alley and Approach, Rem
Pay Item Index	2.3		Concrete Curb and Gutter, Remove	Conc Curb and Gutter, Rem
Pay Item Index	2.3		Concrete Pavement Base, Remove	Conc Pavt Base, Rem
Pay Item Index	2.3		Concrete Pavement , Reinf, Remove	Conc Pavt , Reinf, Rem
Pay Item Index	2.3		Concrete Sidewalk, Driveway and Approach, Remove	Conc Sidewalk, Driveway and Approach, Rem
Pay Item Index	2.3		Concrete Sidewalk, Grinding, ___ inch to ___ inch	Conc Sidewalk, Grinding, ___ inch to ___ inch
Pay Item Index	2.3		HMA Driveway, Remove	HMA Driveway, Rem
Pay Item Index	2.3		HMA Pavement, Remove , Full Depth, Outside Roadway	HMA Pavt, Rem , Full Depth, Outside Roadway
Pay Item Index	2.3		Manhole , Valve Chamber, or Catch Basin, Remove	Mh , Valve Chamber, or Catch Basin, Rem
Pay Item Index	2.3		Meter Pit, Remove	Meter Pit, Rem
Pay Item Index	2.3		Pavement, Remove , Full Depth	Pavt, Rem , Full Depth
Pay Item Index	2.3		Sign, Remove and Salvage	Sign, Rem and Salv
Pay Item Index	2.5		Unsuitable Soil, Remove and Replace with ___	Unsuitable Soil, Rem and Replace with ___
Pay Item Index	2.7		Obstruction Removal , Bore and Jack, 18 inch to 36 inch	Obstruction Rem , Bore and Jack, 18 inch to 36 inch
Pay Item Index	2.7		Obstruction Removal , Bore and Jack, 36 inch or larger	Obstruction Rem , Bore and Jack, 36 inch or larger
Pay Item Index	2.7		Obstruction Removal , Bore and Jack, Less than 18 inch	Obstruction Rem , Bore and Jack, Less than 18 inch
Pay Item Index	3.2		Temporary Gravel Pavement	Temp Gravel Pavt

Pay Item Index	4.1		Core and Boot __ inch Sanitary Sewer into Sewer or Manhole	Core and Boot __ inch Sanitary Sewer into Sewer or Mh
Pay Item Index	4.1		Core and Seal __ inch Sanitary Sewer into Sewer or Manhole	Core and Seal __ inch Sanitary Sewer into Sewer or Mh
Pay Item Index	4.1		Maintain Sanitary Sewer Service	Maintain Sanitary Sewer Serv
Pay Item Index	4.2		Core and Boot __ inch Storm Sewer into Sewer or Manhole	Core and Boot __ inch Storm Sewer into Sewer or Mh
Pay Item Index	4.2		Core and Seal __ inch Storm Sewer into Sewer or Manhole	Core and Seal __ inch Storm Sewer into Sewer or Mh
Pay Item Index	4.2		Maintain Storm Sewer Service	Maintain Storm Sewer Serv
Pay Item Index	4.3		Adjust existing __ inch water service	Adj existing __ inch water serv
Pay Item Index	4.3		Curb box on water service , __ inch	Curb box on water serv , __ inch
Pay Item Index	4.3		Curb Stop and box on water service , __ inch	Curb Stop and box on water serv , __ inch
Pay Item Index	4.3		Fire Hydrant, rem and salvage	Fire Hydrant, rem and salv
Pay Item Index	4.3		Four-way cross, __ inch x __ inch	Four-way cross, __ inch by __ inch
Pay Item Index	4.3		Reconnect existing __ inch copper water service	Reconnect existing __ inch copper water serv
Pay Item Index	4.3		Reducer, __ inch x __ inch	Reducer, __ inch by __ inch
Pay Item Index	4.3		Tap for water service , including corporation stop and collar, __ inch	Tap for water serv , including corporation stop and collar, __ inch
Pay Item Index	4.3		Tap for water service , including corporation stop, __ inch	Tap for water serv , including corporation stop, __ inch
Pay Item Index	4.3		Tapping sleeve, valve and box __ inch x __ inch x __ inch	Tapping sleeve, valve and box __ inch by __ inch by __ inch
Pay Item Index	4.3		Tee, __ inch x __ inch x __ inch	Tee, __ inch by __ inch by __ inch
Pay Item Index	4.3		Thrust block, Detail __	Thrust block, Det __
Pay Item Index	4.3		Water Service , __ inch	Water Serv , __ inch
Pay Item Index	4.3		Water Service , __ inch (Curb Box to Main)	Water Serv , __ inch, Curb Box to Main
Pay Item Index	4.3		Water Service , __ inch (Curb Box to Meter)	Water Serv , __ inch, Curb Box to Meter
Pay Item Index	4.3		Water Service , __ inch (Curb Box to Meter), over __ feet	Water Serv , __ inch, Curb Box to Meter , over __ feet
Pay Item Index	4.3		Water Service , Exploratory Investigation	Water Serv , Exploratory Investigation
Pay Item Index	4.4		Air relief valve and chamber on __ inch forcemain, Detail S-18	Air relief valve and chamber on __ inch forcemain, Det S-18

Pay Item Index	4.4		Forcemain, __ inch	Forcemain, (Material) , __ inch
Pay Item Index	4.4		Forcemain, Discharge manhole, Detail S-22	Forcemain, Discharge Mh, Det S-22
Pay Item Index	4.4		Bend, __ Degree, __ inch	Bend, __ Degree, __ inch, forcemain
Pay Item Index	4.4		Plug, __ inch	Plug, __ inch, forcemain
Pay Item Index	4.4		Reducer, __ inch x __ inch	Reducer, __ inch by __ inch, forcemain
Pay Item Index	4.4		Sleeve, __ inch	Sleeve, __ inch, forcemain
Pay Item Index	4.4		Tee, __ inch x __ inch x __ inch	Tee, __ inch by __ inch by __ inch, forcemain
Pay Item Index	4.4		Valve and box, __ inch	Valve and box, __ inch, forcemain
Pay Item Index	4.5		Alley basin, __ foot dia, Detail S-7	Alley basin, __ foot dia, Det S-7
Pay Item Index	4.5		Catch basin casting, Adjust	Catch basin casting, Adj
Pay Item Index	4.5		Catch basin casting, Furnish	Catch basin casting, Furn
Pay Item Index	4.5		Catch basin, __ foot dia, Detail ____	Catch basin, __ foot dia, Det ____
Pay Item Index	4.5		Ditch Basin, __ foot dia, Detail S-8	Ditch Basin, __ foot dia, Det S-8
Pay Item Index	4.5		Drop connection, Detail S-1A , on __ inch Sanitary Sewer	Drop connection, Det S-1A , on __ inch Sanitary Sewer
Pay Item Index	4.5		Drop connection, Detail S-1A , on __ inch Sanitary Sewer, add depth over 15 foot	Drop connection, Det S-1A , on __ inch Sanitary Sewer, add depth over 15 foot
Pay Item Index	4.5		Drop connection, High Speed, Detail S-1B , on __ inch Sanitary Sewer	Drop connection, High Speed, Det S-1B , on __ inch Sanitary Sewer
Pay Item Index	4.5		Drop inlet, Detail S-6	Drop inlet, Det S-6
Pay Item Index	4.5		Drop manhole, Detail S-6A	Drop Mh, Det S-6A
Pay Item Index	4.5		Infiltration basin, __ foot dia, __ foot sump, Detail S-5	Infiltration basin, __ foot dia, __ foot sump, Det S-5
Pay Item Index	4.5		Manhole casting, Adjust	Mh casting, Adj
Pay Item Index	4.5		Manhole casting, Furnish	Mh casting, Furn
Pay Item Index	4.5		Manhole casting, oversized, Adjust	Mh casting, oversized, Adj
Pay Item Index	4.5		Manhole casting, oversized, Furnish	Mh casting, oversized, Furn
Pay Item Index	4.5		Manhole or Catch basin, Rebuild	Mh or Catch basin, Rebuild

Pay Item Index	4.5		Manhole or Catch basin, Rebuild with flattop, Detail S-10	Mh or Catch basin, Rebuild with flattop, Det S-10
Pay Item Index	4.5		Sanitary manhole , __ foot dia, Detail __	Sanitary Mh , __ foot dia, Det __
Pay Item Index	4.5		Sanitary manhole , __ foot dia, Detail __ , add depth over 15 foot	Sanitary Mh , __ foot dia, Det __ , add depth over 15 foot
Pay Item Index	4.5		Storm manhole , __ foot dia, Detail __	Storm Mh , __ foot dia, Det __
Pay Item Index	4.5		Storm manhole , __ foot dia, Detail __ , add depth over 15 foot	Storm Mh , __ foot dia, Det __ , add depth over 15 foot
Pay Item Index	4.6		Chamber or Pit, Rebuild with flattop, Detail S-10	Chamber or Pit, Rebuild with flattop, Det S-10
Pay Item Index	4.6		Chamber, Blowoff Assembly, Detail W-18	Chamber, Blowoff Assembly, Det W-18
Pay Item Index	4.6		Curb box in pavement , Detail P-23C	Curb box in Pavt , Det P-23C
Pay Item Index	4.6		Curb box, Adjust	Curb box, Adj
Pay Item Index	4.6		Curb box, Furnish	Curb box, Furn
Pay Item Index	4.6		Manhole , Air Vent, Detail W-17	Mh , Air Vent, Det W-17
Pay Item Index	4.6		Meter Pit, Detail W-11	Meter Pit, Det W-11
Pay Item Index	4.6		Valve box, Adjust	Valve box, Adj
Pay Item Index	4.6		Valve box, Furnish	Valve box, Furn
Pay Item Index	4.6		Valve chamber, with Butterfly Valve, __ inch, Detail W-2	Valve chamber, with Butterfly Valve, __ inch, Det W-2
Pay Item Index	4.6		Valve chamber, with Butterfly Valve, __ inch, Detail W-2A	Valve chamber, with Butterfly Valve, __ inch, Det W-2A
Pay Item Index	4.6		Valve chamber, with Gate Valve, __ inch, Detail W-1	Valve chamber, with Gate Valve, __ inch, Det W-1
Pay Item Index	4.7		Elbow, 15 kV, Primary Cable	Elbow, 15 kV, Prim Cable
Pay Item Index	4.7		Ground Assembly for Wood Pole, Detail E-19	Ground Assembly for Wood Pole, Det E-205
Pay Item Index	4.7		Guy installation for wood pole, Detail E-250 , __ K rating, __ foot Lead including fiberglass guy strain insulation	Guy installation for wood pole, Det E-250 , __ K rating, __ foot Lead including fiberglass guy strain insulation
Pay Item Index	4.7		Overhead primary line conductor, __ ACSR	Overhead Prim Line /C, __ ACSR
Pay Item Index	4.7		Added	Overhead Prim Neutral /C, __ ACSR
Pay Item Index	4.7		Overhead secondary line conductor, #1/0 triplex	Overhead Sec /C , #1/0 triplex
Pay Item Index	4.7		Overhead secondary line conductor, #4 triplex	Overhead Sec /C , #4 triplex

Pay Item Index	4.7		Secondary cable spreader bolted to pole	Removed
Pay Item Index	4.7		Sidewalk guy installation for wood pole, Detail E-255, ___ K rating ___ foot Lead including fiberglass guy strain insulation	Sidewalk guy installation for wood pole, Det E-255, ___ K rating ___ foot Lead including fiberglass guy strain insulation
Pay Item Index	4.7		Splice, 15 kV, Primary Cable	Splice, 15 kV, Prim Cable
Pay Item Index	4.7		Terminator, 15 kV, Primary Cable	Terminator, 15 kV, Prim Cable
Pay Item Index	4.7		Transformer, Pad Mounted , Single Phase, ___ kV, ___/___ V Secondary	Transformer, Pad Mtd , Single Phase, ___ kV, ___/___ V Sec
Pay Item Index	4.7		Transformer, Pad Mounted , Three Phase, ___ kV, ___/___ V Secondary	Transformer, Pad Mtd , Three Phase, ___ kV, ___/___ V Sec
Pay Item Index	4.7		Transformer, Pole Mounted , Single Phase, ___ kV, ___/___ V Secondary	Transformer, Pole Mtd , Single Phase, ___ kV, ___/___ V Sec
Pay Item Index	4.7		Underground Primary Line Conductor , ___ 1C-#2/0 CU 15 kV	Underground Prim Line IC , ___ 1C-#2/0 CU 15 kV
Pay Item Index	4.7		Underground Primary Neutral, #2 CU, 600 V	Underground Prim Neutral, #2 CU, 600 V
Pay Item Index	4.7		Underground Secondary Conductor , ___ -# ___ CU U.S.E.	Underground Sec IC , ___ -# ___ CU U.S.E.
Pay Item Index	4.7		Wood pole, ___ foot, Class _____, set Detail E-200	Wood pole, ___ foot, Class _____, set Det E-200
Pay Item Index	4.8		Bracket arm on wood pole, ___ foot, Detail E-075	Bracket arm on wood pole, ___ foot, Det E-075
Pay Item Index	4.8		Light pole foundation , ___-inch dia	Light pole Fdn , ___-inch dia
Pay Item Index	4.8		Ornamental aluminum double arm light pole, 24-foot	Ornamental alum double arm light pole, 24-foot
Pay Item Index	4.8		Ornamental aluminum light pole, 24-foot	Ornamental alum light pole, 24-foot
Pay Item Index	4.8		Street Light Type ___	St Light Type ___
Pay Item Index	4.9		Cable secondary pedestal	Cable sec pedestal
Pay Item Index	4.9		Direct Buried Conduit, (___) ___ inch, schedule 40 PVC	DB Conduit, __, __ inch, schedule 40 PVC
Pay Item Index	4.9		Handhole , Composite (17-inch x 30-inch)	Hh , Polymer, 17-inch by 30-inch
Pay Item Index	4.9		Handhole , Precast Concrete 22-inch round x 40-inch deep	
Pay Item Index	4.9		Handhole , Precast Concrete 36-inch round x 44-inch deep	Hh , Precast Conc , 36-inch round by 42-inch deep
Pay Item Index	4.9		Manhole , Hardware Package (for ___ feet x ___ feet x ___ feet)	Mh , Hardware Package, for ___ feet by ___ feet by ___ feet
Pay Item Index	4.9		Manhole , Precast Concrete ___ feet x ___ feet x ___ feet	Mh , Precast Conc ___ feet by ___ feet by ___ feet
Pay Item Index	5.1		Temporary HMA Pavement	Temp HMA Pavt

Pay Item Index	6.3		Curb and Gutter, (width) x (thickness) inch pan, Detail P-5	Curb and Gutter, (width) by (thickness) inch pan, Det P-5
Pay Item Index	6.3		Curb, (width) x (height) inch, Detail P-5A	Curb, (width) by (height) inch, Det P-5A
Pay Item Index	6.3		Median Island End Treatment, Detail P-5D	Median Island End Treatment, Det P-5D
Pay Item Index	6.3		Roll Curb and Gutter, (width) x (thickness) inch pan, Detail P-5B	Roll Curb and Gutter, (width) by (thickness) inch pan, Det P-5B
Pay Item Index	6.3		Valley Gutter, (width) x (thickness) inch, Detail P-5C	Valley Gutter, (width) by (thickness) inch, Det P-5C
Pay Item Index	6.6		Brick Pavement	Brick Pavt
Pay Item Index	6.6		Brick Pavement, Concrete Header	Brick Pavt, Conc Header
Pay Item Index	6.6		Brick Pavement, Concrete or Mortar Shim	Brick Pavt, Conc or Mortar Shim
Pay Item Index	6.6		Brick Pavement, Repair	Brick Pavt, Repr
Pay Item Index	6.6		Brick Pavement, Salvaged Pavers	Brick Pavt, Salvd Pavers
Pay Item Index	7.1		Bulkhead, reinf, Detail __	Bulkhead, reinf, Det __
Pay Item Index	7.1		Junction Chamber, reinf, Detail __	Junction Chamber, reinf, Det __
Pay Item Index	7.1		Wall, reinf, Detail __	Wall, reinf, Det __
Pay Item Index	8.1		Bollard, Detail M-1	Bollard, Det M-1
Pay Item Index	8.1		Detour Signing (estimated __ days)	Detour Signing, estimated __ days
Pay Item Index	8.1		Maintaining traffic , (estimated ____ days)	Maintaining Traf , estimated ____ days
Pay Item Index	8.1		Pavt Mrkg, (binder), For On- Street Parking, __ inch, White	Pavt Mrkg, (binder), For On- St Parking, __ inch, White
Pay Item Index	8.1		Speed Cushion, Detail P-20A	Speed Cushion, Det P-20A
Pay Item Index	8.1		Speed Hump, Detail P-20	Speed Hump, Det P-20
Pay Item Index	8.1		Speed Table, Detail P-20B	Speed Table, Det P-20B
Pay Item Index	8.1		Temporary Neighborhood Sign	Temp Neighborhood Sign
Pay Item Index	8.1		Traffic detector loop installation	Traf detector loop installation
Pay Item Index	8.3		Protect Tree, Detail M-2	Protect Tree, Det M-2
Pay Item Index	8.4		Added	Turf Establishment, As Needed Watering

Pay Item Index	8.5		Watering and Cultivating, Second Season, Min (dollar)	Watering and Cultivating, 2nd Season, Min (dollar)
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Standard Details		Detail #		
			Standard Detail Index	Standard Details Added or Changed and listed below have also been updated in the Standard Detail Index
Standard Details		P-8	Catch Basin	Detail Renamed "Catch Basing Casting Setting" and Casting callout clarified.
Standard Details		P-17	Plane of weakness joints to be 15 feet apart, and they shall be set at a depth of 1/3 of the thickness of the pavement.	Plane of weakness joints to be 12 feet apart, and they shall be set at a depth of 1/3 of the thickness of the pavement. Joints may be tooled or saw cut. Complete saw cut joints within 24 hours of placing concrete.
Standard Details		P-20A	Speed Cushion	Revised Detail for Concrete Speed Cushion, Removed HMA option
Standard Details		P-21	New Detail	Bulb-Out
Standard Details		S-1C	New Detail	Standard Precast Manhole over Existing Sewer
Standard Details		S-2A	S-2A Manhole for Large Diameter Sewer	Added note regarding cutting existing pipe
Standard Details		S-2B	S-2B Standard Manhole on Existing Sewer	Added note regarding cutting existing pipe
Standard Details		S-17	Main Line Sewer Lateral Riser	Rotated Detail
Standard Details		E-010		Add reference to Detail E-062
Standard Details		E-015	35' Fiberglass Light Pole with Mast Arm	Corrected dimensions
Standard Details		E-020	30' Fiberglass Light Pole with Mast Arm	Removed
Standard Details		E-030.2	Ornamental Light Pole Wiring	Added Polaris Connector
Standard Details		E-031.2	Ornamental Light Pole Wiring with Recetacle	Added Polaris Connector Added 24-hr circuit
Standard Details		E-036.2	Ornamental Double Arm Light Pole Wiring	Added Polaris Connector Added 24-hr circuit
Standard Details		E-040.1	12' Tapereed, Fluted, Foundation Mounted, Reinforced Fiberglass Pole	Removed
Standard Details		E-040.2	Light Pole Wireing	Removed
Standard Details		E-075	Street Light Bracket Installation	Added arm style description. Clarification on clearance requierments.
Standard Details		E-205	New Detail	Ground Assembly for Wood Pole
Standard Details		E-330	New Detail	Primary Conductor Tag
Standard Details		E-500.1	Transformer Vault, Six Panel	Revised cross reffrence details
Standard Details		W-2	Valve Chamber for 16", 20" and 24" Butterfly Valves	Clarified Valve Box location in section view.
Standard Details		W-3	Chamber for 6" and 8" Double Check Valve Assembly	Updated Note 1 and 3.
Standard Details		W-4	Hydrant Assembly Installation	Added Note 2.
Standard Details		W-10	Water Main Offset	Clarified Crossing Notes, referenced W-16
Standard Details		W-15	Joint Restraint Requirements and Tie Rod Detail	Added Note 1. Clarified tee restraint.
Standard Details		W-16	Water Main Insulation	Rename Water Main Insulation for Shallow Depth Utility Crossings

Specified Products Index	Page	Paragraph	
SPI	5	4.5.B.2	<p>(2) Butyl rubber gaskets shall be:</p> <ul style="list-style-type: none"> (a) EZ Stick by Press-Seal, (b) Seal No. 2 by Hamilton Kent (c) or Engineer approved equal.