

2021 Redbook Rev 1.2 Change Log

Section	Page	Paragraph	Rev 1.1	Rev 1.2
1.1	3 and 4	1.01	Added	1.01.43 City Ordinance. City of Grand Rapids Code of Ordinances 1.01.45 Green Infrastructure Guidance. City of Grand Rapids Green Infrastructure Guidance. 1.01.46 Green Infrastructure Standards. City of Grand Rapids Green Infrastructure Standards. 1.01.54 Stormwater Standards Manual. City of Grand Rapids Stormwater Standards Manual.
1.1	16	1.26	All materials which do not meet the requirements of the specifications at the times they are to be used shall be rejected, unless otherwise authorized as acceptable by the Engineer.	All materials which do not meet the requirements of the specifications at the times they are to be used shall be rejected, unless otherwise authorized as acceptable by the Engineer and approved by the City.
1.1	18	1.32	AddedFor work within the City of Grand Rapids the Contractor shall also comply with all Land Use (LUDS) Permit requirements.
1.2	1	1.02.02	All cleanup shall be completed before final acceptance of the Work.	All cleanup shall be completed, and site restored in accordance with LUDS permit (if required) , before final acceptance of the Work.
1.2	2	1.02.06	Added	1.02.06 Soil Erosion and Sedimentation Control. When a LUDS permit is required for the Project, the Contractor shall not proceed until Authorization to Proceed has been received from the Development Center.
2.1	1	c.1	Added	1. No Clearing, Grubbing, or Tree or Stub Removal shall occur without an Authorization to Proceed with Earth Change from the City in accordance with Section 2.2 Soil Erosion and Sedimentation.
2.2	1	c.1	found in chapter 3 of the publication from the State of Michigan, Department of Management and Budget entitled Soil Erosion and Sedimentation Control Guidebook 2003 Michigan Department of Transportation Best Management Practices. A PDF copy on a CD may be obtained from The City of Grand Rapids, Environmental Services Department (ESD), 3rd Floor, 1120 Monroe Avenue NW, or a copy may be ordered from the State of Michigan using the form at: https://www.michigan.gov/documents/2006_SESC_Manual_165226_7.pdffound in chapter 6 of the publication from the State of Michigan, Department of Management and Budget entitled Soil Erosion and Sedimentation Control Guidebook 2021 Michigan Department of Transportation Best Management Practices. A PDF copy on a CD may be obtained from The City of Grand Rapids, Environmental Services Department (ESD), 3rd Floor, 1120 Monroe Avenue NW, or a PDF copy may be obtained from the State of Michigan at: https://www.michigan.gov/-/media/Project/Websites/MDOT/Programs/Highway-Programs/Environmental-Efforts/Stormwater-Management/Stormwater-Design-Professionals/SESC-Manual.pdf
2.2	2	c.4	Added	4. When the Project includes a earth change greater than 5 acres, prior to commencing work and after receiving the LUDS permit, the Contractor shall coordinate with the Engineer's office to submit an application for Notice of coverage (NOC) from the Michigan Department of Environment, Great Lakes, and Energy (EGLE).
2.2	2	c.7	Added	7. Area Limitations. Conduct work to minimize soil erosion. Limit the area of earth disturbance to in accordance with approved LUDS permit application.
2.2	2	c.8	Added	8. Time Limitations. Bring grading sections to final earth grade as soon as possible. Complete topsoil placement and stabilize slopes, channels, ditches, and other disturbed areas within 5 calendar days after final earth grade with permanent soil erosion control measures. Permanently restore and place topsoil on slopes and ditches within 150 feet of lakes, streams, or wetlands within 24 hours of achieving final earth grade using permanent soil erosion control measures.
2.3	5	d.		Removed "Per" from City Standard Pay Items.
4.1	3	b.5	Contractor shall make arrangements to furnish the Engineer with a satisfactory test report by an approved independent Testing Consultant to be hired by the City covering all pipe delivered to the site.	Contractor shall make arrangements to furnish the Engineer with a satisfactory test report by an approved independent Testing Consultant to be hired by the City (or Developer for Private Development projects) covering all pipe delivered to the site.

4.1	3	b.5.B	Replaced	Each lot shall be tested and if the representative sample fails, the entire lot, as defined by the Manufacturer, will be considered defective and rejected.
4.1	3	b.5.C	b.5.B moved.	b.5.C
4.1	3	b.5.C and b.5.D	C. The Engineer may, in cases where in their opinion the work is of such small quantity as to make the above requirement unnecessary, waive or alter these test requirements if so requested prior to delivery of pipe to a job site. D. The Engineer also may, in cases where the pipe manufacturer has an approved testing facility, accept certification test reports of tests performed by the manufacturer.	D. The Engineer may, in cases where in their opinion the work is of such small quantity as to make the above requirement unnecessary, waive or alter these test requirements if so requested prior to delivery of pipe to a job site. (This provision does not apply to Private Development Projects) If testing is waived, at a minimum, in cases where the pipe manufacturer has an approved testing facility, certification test reports performed by the manufacturer shall be submitted for acceptance.
4.1	11	d.10	Added	10. When connecting sewers or laterals into existing openings, Core and Seal __ inch Sanitary Sewer into Sewer or Manhole shall be measured and paid, and shall include filling the ancillary space, finishing, and sealing around the new sewer with cement mortar or concrete.
4.3	7	c.3.B	A. Prior to a water main shutdown and/or tie-in, the Contractor shall schedule a meeting with City Engineering and Grand Rapids Water System to review shutdown procedures and sequencing. Such meetings shall occur at least seven days in advance of proposed shutdown or tie-in. In addition, the Contractor and a representative of the City shall notify impacted business and property owners at least seven days prior to a proposed shutdown. Interruption of service shall not exceed 4 hours in duration. It is expected that tie-ins will have to be made at night and on weekends to facilitate business operations of property owners.	A. Prior to a water main shutdown and/or tie-in, the Contractor shall schedule a meeting with City Engineering and Grand Rapids Water System to review shutdown procedures and sequencing. Such meetings shall occur at least seven days in advance of proposed shutdown or tie-in. In addition, the Contractor and a representative of the City shall notify impacted business and property owners at least 24 hours prior to a proposed shutdown. Interruption of service shall not exceed 8 hours in duration. It is expected that tie-ins will have to be made at night and on weekends to facilitate business operations of property owners.
4.3	21	d.19	19. Specialty Gaskets. When shown on the Drawings or called for in Special Provisions the cost of providing and placing Nitrile Buna-N (NBR) gaskets shall be included in the price bid for the water main.	19. Specialty Gaskets. When shown on the Drawings or called for in Special Provisions the cost of providing and placing the specialty gaskets shall be included in the price bid for the water main.
4.4	3	d.		Removed "Per" from City Standard Pay Items.
4.5	4	d.		Removed "Per" from City Standard Pay Items.
4.6	2	d.		Removed "Per" from City Standard Pay Items.
4.7	3	b. 5. C.	C. Lamp lead conductors shall be 2 conductor, #10 AWG copper, 7 strands, 600 volt, PE insulated with a PVC outer jacket , or Engineer approved equal.	C. Lamp lead conductors shall be 2 conductor, #10 AWG copper, 7 strands, 600 volt, Cross-linked polyethylene insulated, or Engineer approved equal.
4.7	3	b. 6.	Added	Added Entire Paragraph
4.7	10	c. 7.	Added	Added Entire Paragraph
4.7	11	d.		Removed "Per" from City Standard Pay Items.
4.7	11	d.		Revised Ref IDs
4.8	2	b. 1. G.	12-Foot Fiberglass Poles for Post Top Luminaire	14-Foot Fiberglass Poles for Post Top Luminaire
4.8	2	b. 1. H.	16-Foot Fiberglass Poles for Post Top Luminaire	Removed
4.8	2	b. 1. L.		Moved to b. 1. J. (6)
4.8	2,3	b. 3.	Added	Added Entire Paragraph
4.8	3,4	b. 4.	Added	Added Entire Paragraph
4.8	4,5,6	b. 5.	Added	Added Entire Paragraph
4.8	6	b. 6. A.	Lighting terminology used herein is defined in IES RP-16 . See referenced documents for additional definitions.	Lighting terminology used herein is defined in IES LS-1 . See referenced documents for additional definitions.

4.8	11	b. 7. S.	Revised	Revised Entire Paragraph
4.8	12	c. 2. (5)	Added	(5) Poles. Poles shall be installed plumb. Arms shall form a right angle with the adjacent curb, or as shown in the project plans and specifications. The anchor bolts shall be torqued to the manufacture's specifications. Wiring of poles shall be in accordance with the associated wiring detail. The wire used between the fuse holder in the base of the pole and the terminal block in the luminaire shall be individual XHHW insulated conductors or a multi-conductor assembly rated for: outdoor, sunlight, wet locations, and 600V, in-line splicing is not allowed.
4.8	13	d.		Removed "Per" from City Standard Pay Items.
4.8	13	d.		Revised Ref IDs
4.9	2	b. 2. A.	A. Concrete encased conduit shall be schedule 40 PVC.	A. Concrete encased conduit shall be DB-60, DB-120 or schedule 40 PVC.
4.9	2	b. 2. A. (1)	(1) All concrete for duct encasement shall be Grade A as specified in Division 7.	(1) All concrete for duct encasement shall be Grade 3500 as specified in Division 7.
4.9	2	b. 3. A.	A. Direct buried conduits shall be schedule 40 PVC.	A. Direct buried conduits shall be DB-120 or schedule 40 PVC.
4.9	2	b. 6. B.	B. Dimensions shall be the minimum inside dimensions. The manhole shall be watertight to within 42 inches of grade. One knockout for a 14-inch diameter sump pump crock shall be provided.	B. Dimensions shall be the minimum inside dimensions. C. The manhole shall be watertight to within 42 inches of grade. D. One knockout for a 14-inch diameter sump pump crock shall be provided.
4.9	3	b. 7. K	A. A cast iron ring and cover shall be provided with each manhole. The ring and cover shall be manufactured by East Jordan Iron Works and shall be Model 1220C (no alternatives) with the words "Signals & Lighting" cast into the cover (Detail E-505)	A. A cast iron ring and cover shall be provided with each manhole. The ring and cover shall be manufactured by East Jordan Iron Works and shall be Model 1220C (no alternatives) with the words "Signals & Lighting" cast into the cover (Detail E-526)
4.9	3	b. 9.	Added	Added Entire Paragraph
4.9	4	b. 10.	Added	Added Entire Paragraph
4.9	4	b. 11	Added	Added Entire Paragraph
4.9	5	b. 12.	Added	Added Entire Paragraph
4.9	5	b. 13.	Added	Added Entire Paragraph
4.9	6	b. 14.	Added	Added Entire Paragraph
4.9	6	b. 15.	Added	Added Entire Paragraph
4.9	8	d.		Revised Ref IDs
5.1	1	b.6	Added	6. Hand Patching. Hand patching shall be HMA, 13A/36A/EL for Top and Leveling Courses and HMA, 13A/3C for Base Course unless otherwise called out on the Drawings or as Directed by the Engineer.
5.1	3	d.8	Added	8. When Hand Patching is not included on the Bid Form it shall be considered included in other HMA items.
5.1	3	d.9	Added	9. When HMA, Approach is not included on the Bid Form it shall be considered included in other HMA items. The material for all intersection approaches is included in the main line paving quantities and will not be paid for as a separate item.
5.2	All	All	Added	Added Entire Section
6.3	3	d.		Removed "Per" from City Standard Pay Items.
7.1	5	d.		Removed "Per" from City Standard Pay Items.
8.1	6	d.		Removed "Per" from City Standard Pay Items.

8.2	2	d.1	1. Preconstruction Documentation includes recording the condition of existing facilities adjacent to the project, placement and monitoring of 2 crack monitors and 2 settlement markers per project Station , providing required documentation to the Engineer, monitoring , development and implementation of any necessary action plan(s), and the repair or replacement of any building or structure damaged during construction. Contractor will be paid 80 percent of line item once crack and settlement monitors are placed and monitored during construction and will be paid the last 20 percent after crack and settlement monitors are removed after construction activities have ceased unless otherwise instructed by the engineer.	1. Preconstruction Documentation includes recording the condition of existing facilities adjacent to the project, providing required documentation to the Engineer, development and implementation of any necessary action plan(s), and the repair or replacement of any building or structure damaged during construction.
8.2	2	d.	8.2.002 Additional Monitoring, __ crack monitors, __ settlement markers Lump Sum	8.2.002 Monitoring, crack monitor Each 8.2.003 Monitoring, settlement marker Each
8.2	2	d.2	Added	2. Monitoring, crack monitors and Monitoring, settlement markers includes the placement and monitoring of crack monitors and settlement markers as specified in the Bid Form. Contractor will be paid 80 percent of line item once crack and settlement monitors are placed and monitored during construction and will be paid the last 20 percent after crack and settlement monitors are removed after construction activities have ceased unless otherwise instructed by the engineer.
8.3	2	d.		Removed "Per" from City Standard Pay Items.
8.7	2	c.2.C, D, and E	All concrete repairs shall be in accordance with Section 1006 of the current MDOT Standard Specifications for Construction and MDOT Standard Plan R-44	All concrete repairs shall be in accordance with Section 603 and 1006 of the current MDOT Standard Specifications for Construction and MDOT Standard Plan R-44
SPI	2	4.3.D	Joint Restraining Gaskets. (1) Fast-Grip by American Pipe for Fastite Joint Pipe. (2) Field Lok 350 by US Pipe for Tyton Joint Pipe.	Joint Restraining Gaskets. (1) Fast-Grip by American Pipe for Fastite Joint Pipe. (2) Field Lok 350 by US Pipe for Tyton Joint Pipe. (3) Barracuda RJ gaskets for Tyton Joint Pipe.
SPI	4	4.5.A	(9) Infiltration basin Detail S-5 (a) #6508 by EJ (b) R-4340-A by Neenah (c) or Engineer approved equal	(9) Infiltration basin Detail S-5 (a) #6508 by EJ (b) #1046Z with O2 Grate by EJ (c) R-4340-A by Neenah (d) R-2560-A by Neenah (e) or Engineer approved equal
SPI	7	6.4.A	Detectable Warning Surface. (1) Duralast Detectable Warning Plate by East Jordan Iron Works. (2) TufTile Galvanized Steel (10ga.) Detectable Warning Plate (Patina) by TufTile. (3) TufTile Cast Iron Detectable Warning Plate (Unfinished) by TufTile. (4) or Engineer approved equal.	Detectable Warning Surface. (1) Duralast Detectable Warning Plate by East Jordan Iron Works. (2) Detectable Warning Plate by Neenah Enterprises, Inc. (3) or Engineer approved equal.
Pay Items Index			Removed Additional Monitoring, __ crack monitors, __ settlement markers	Added Monitoring, crack monitor - Each Monitoring, settlement marker - Each
Pay Items Index			Throughout	Revised for removal of "Per" from Pay Items names
Pay Items Index			Added	Underground Secondary Conductor, __-# __CU U.S.E.
Pay Items Index			Fiberglass light pole, 12-foot	Fiberglass light pole, 14-foot
Pay Items Index			Fiberglass light pole, 16-foot	Removed
Pay Items Index			Added Pay Item	Tapered Fluted fiberglass post top light pole
Pay Items Index			Added Pay Item	Ornamental aluminum light pole, 24-foot
Pay Items Index			Added Pay Item	Ornamental aluminum double arm light pole, 24-foot
Pay Items Index			Added Pay Item	Street Light Type __
Pay Items Index			Added Pay Item	Light pole foundation, __-inch dia
Pay Items Index			Manhole, Precast Concrete 8 feet x 6 feet x 7 feet	Manhole, Precast Concrete __ feet x __ feet x __ feet
Pay Items Index			Manhole, Hardware Package (for 8 feet x 6 feet x 7 feet)	Manhole, Hardware Package (for __ feet x __ feet x __ feet)
Pay Items Index			Manhole, Precast Concrete 4 feet x 4 feet x 4 feet	Removed
Pay Items Index			Manhole, Hardware Package (for 4 feet x 4 feet x 4 feet)	Removed

Standard Details	n/a	E-025	Removed
Standard Details	n/a	E-030.2	Revised Fuse Size
Standard Details	n/a	E-031.1	New Detail
Standard Details	n/a	E-031.2	New Detail
Standard Details	n/a	E-035.1	Revision to Banner Arms
Standard Details	n/a	E-036.1	Revision to Banner Arms
Standard Details	n/a	E-036.2	Add Receptacle to Detail, Revised Fuse Size
Standard Details	n/a	E-040.2	Revised Fuse Size, Change Heat Sink to Photoeye Receptacle
Standard Details	n/a	E-045.2	Revised Fuse Size, Change Heat Sink to Photoeye Receptacle
Standard Details	n/a	E-060	Removed
Standard Details	n/a	E-062	New Detail
Standard Details	n/a	E-067	Removed
Standard Details	n/a	E-070	Removed
Standard Details	n/a	E-075	Misc. Note Revisions
Standard Details	n/a	E-098	Removed
Standard Details	n/a	E-099	Misc. Note Revisions
Standard Details	n/a	E-100	Removed
Standard Details	n/a	E-105	Removed
Standard Details	n/a	E-110	Removed
Standard Details	n/a	E-115	Removed
Standard Details	n/a	E-120	Removed
Standard Details	n/a	E-125	Removed
Standard Details	n/a	E-130	New Detail
Standard Details	n/a	E-150	Removed
Standard Details	n/a	E-155	Removed
Standard Details	n/a	E-165	Removed
Standard Details	n/a	E-360	Misc. Note Revisions
Standard Details	n/a	E-375	Removed
Standard Details	n/a	E-488	Removed
Standard Details	n/a	E-502	Removed
Standard Details	n/a	E-508	Revised Cross Reference Detail
Standard Details	n/a	E-509	Renumbered to E-520, Revised Hardware Package Quantities
Standard Details	n/a	E-510	Renumbered to E-438
Standard Details	n/a	E-510.09	Removed
Standard Details	n/a	E-515	Revised Cross Reference Detail
Standard Details	n/a	E-516	Renumbered to E-536
Standard Details	n/a	E-525	Revised Hardware Package Quantities
Standard Details	n/a	E-535	Revised Cross Reference Detail
Standard Details	n/a	E-545	Removed
Standard Details	n/a	E-555	Renumbered to E-528
Standard Details	n/a	E-560	New Detail
Standard Details	n/a	P-1	Revised Pavement notes

Standard Details	n/a	P-2		Revised Full Depth Joint Notes
Standard Details	n/a	P-2A		Revised Full Depth Joint Notes
Standard Details	n/a	P-3		Revised Full Depth Joint Notes
Standard Details	n/a	P-3A		Revised Full Depth Joint Notes
Standard Details	n/a	P-5		Added Note for Standard Curb
Standard Details	n/a	P-20		Fixed Pay Item in Notes
Standard Details	n/a	P-20B		Fixed Pay Item in Notes
Standard Details	n/a	S-5		Revised Casting Note
Standard Details	n/a	S-9		Added Note for Approved Use
Standard Details	n/a	S-17		Revised Notes
Standard Details	n/a	W-3		Revised Notes
Standard Details	n/a	W-10		Added Water Main Offset over existing or proposed utility