Standards and Specifications Changes & Updates
January 2026 Edition

The following updates/changes to the Town of Erie's Standards and Specifications for Design and Construction of Public Improvements have been PROPOSED:

UNIVERSAL

- No changes

COVER SHEET

- No changes

TABLE OF CONTENTS

- No changes

SECTIONS

SECTION 100 - *Title, Scope and General Requirements*

- Entire section updated, reorganized, or revised to provide clarity, better organization, simplification and consistency with other sections and other regulatory agencies. It also includes removing redundancies, adding requirements for safety plan of safety critical work elements, and updating as-built record drawing requirements consistent with other nearby agencies.

SECTION 200 – *Acceptance Procedures*

- 210.00 GENERAL CONDITIONS

  B. Complete and accurate set of civil public improvements "as built" drawings as described in herein as appropriate, shall be submitted to the Town Engineer or designee. Changes to the original design drawings must be supported by documentation that contains the signature and seal of a Colorado Registered Professional Engineer.

Reason: *Added so contractors are made aware of the requirements.*

- 222.00 Initial Acceptance Procedures

  For landscape and irrigation public improvements, the following items must be submitted prior to Initial Acceptance being granted:

  A. "As Built or Record Drawings" plan drawings in PDF (.pdf) format.
  B. Field inspection reports by a third-party landscape architect registered in the State of Colorado.~~as required in Section 160.00 of these STANDARDS AND SPECIFICATIONS.~~
  C. A final sworn affidavit of construction cost; and

D. Any other items required under the subdivision agreement.

- 230.00 INITIAL ACCEPTANCE PROCEDURES FOR PUBLIC IMPROVEMENTS CONTRACTED BY THE TOWN

The detailed inspection and acceptance procedures for public improvements contracted by the Town are specified in the contract documents. The following defines the as-built drawing requirements:

a. The Contractor shall prepare the as-built drawings to indicate any variations from the approved construction plans in the public improvements actually constructed.
b. The Contractor shall provide approved change orders, field directives, addenda, completed field inspections, accurate measurements, survey data, and testing results, materials, and equipment records to support the changes indicated on the as-built drawings as appropriately needed for Town owned infrastructure.
c. Specific items of work to be as-built are specified in the contract documents.

The following generally defines the requirements for preparation of Record Drawings by the design engineer:

a. The Record Drawings shall represent the "as-built" condition of all site improvements, and shall be based upon the addenda, change orders and other data furnished. Record Drawings shall be a complete set of plans including all originally approved Construction Plan sheets. Every sheet of the Record Drawings shall be attested to and sealed by either a Colorado Registered Professional Engineer, Colorado Registered Landscape Architect (for landscape drawings only), and/or Registered Professional Land Surveyor, and every sheet shall be stamped "Record Drawing".
b. The appropriate Colorado Registered Engineer, Landscape Architect or Land Surveyor shall sign and date the following statement:
"This plan and the information contained hereon accurately represents the "As Built" condition of the improvements as shown as of (date)_____.

By: _____ P.E. No. _____

John Doe"

c. Based upon the actual scope of services, the design professional contractually provided during the construction phase and to verify as-built conditions, the design professional may submit a clarifying statement to be approved by the Town Engineer; and if approved the clarifying statement shall be placed below the statement defined in b. above.

Reason: *Added to define requirements for CIP projects contracted by the Town and to define Record Drawing requirements for Town owned CIP projects.*

SECTION 300 – *Site Work and Earthwork*

- 332.00 Grading

Final grading shall be performed in such a manner as to provide proper drainage with a minimum of 0.50% slope on all concrete surfaces, minimum ~~1~~0.75% slope on all asphalt surfaces, and minimum

2% slope on all grass-lined swales, landscape areas and all non-paved areas. In no case shall drainage from the project site be so altered or controlled as to result in damage, or the potential for damage, to adjacent property or to any portion of the work executed under the project from erosion or flooding.

***Reason**: Updated from 1% to 0.75% min for asphalt to match requirements listed in Table 500-3.*

- 345.00 Embankment Fill

All embankment fill shall be compacted to the percent of relative compaction shown in Table 345.00-1 and will be equal to or greater than the minimum values shown for the various types of soil. The moisture content will be maintained within + ~~three~~ two percent (~~3~~2%) of optimum moisture for A-1 through A-~~3~~5 materials and optimum to ~~2~~3% above for all other soil types ~~A-6 and A-7-6 materials~~ during compaction. Each project shall have a soils report and specifications designed for that project, site specific.

TABLE 345.00-1

Soil Classification (AASHTO M 145)	AASHTO T 99 Min. Standard Proctor Relative Compaction (Percent)	AASHTO T 180 Min. Modified Proctor Relative Compaction (Percent)
A - 1	100	95
~~**A – 3**~~	~~100~~	~~95~~
A - 2 - 4	100	95
A - 2 - 5	100	N/A
A – 3	100	95
All Others	95	N/A

***Reason:** Updated to be consistent with CDOT specifications.*

- 345.01 Structure Backfill

No compacting shall be done when material is too wet to be compacted properly; at such times the compacting work shall be suspended until the previously placed and new materials have dried out sufficiently to permit proper compacting, or such other precautions shall be taken as may be necessary to obtain proper compacting. The moisture content of the embankment prior to, and during, compaction shall be distributed uniformly throughout each layer of material. ~~The moisture content will be maintained within ± two percent (2%) of optimum moisture for A-1 through A-5 materials and optimum to three percent (3%) for A-6 and A-7-6 materials during compaction~~

***Reason:** Removed as it was previously identified.*

- 345.02 Roadway Excavations, Backfill and Compaction

~~All roadway backfill shall be compacted to at least ninety-five percent (95%) of maximum density at optimum moisture content in accordance with ASTM Specification Designation D-698-70 (Standard Proctor). Water shall be applied uniformly during compaction to control moisture content. The moisture content will be maintained within +/- two percent (2%) of optimum moisture for A-1~~

~~through A-5 materials and optimum to two percent (2%) above for A-6 and A-7-6 materials during compaction.~~

Reason: *Removed because it was previously identified.*

- 347.00 Moisture Control

  The material and execution for all fill and backfill material shall conform to Section 345.00 of these STANDARDS AND SPECIFICATIONS.~~Moisture in fill materials shall be equal to that found in the natural unexcavated condition insofar as is practicable.~~ If the Town Engineer determines that the fill material to be used is extremely wet, the Contractor shall spread the material on the areas to be filled and the fill shall be permitted to dry to allowable moisture content. Harrowing where necessary shall assist the drying process.

  If, in the opinion of the Town Engineer, additional moisture is required, water shall be applied by some sprinkling device in such a way as to provide uniform distribution over the area to be treated with accurate control of the rate and quantity of water applied. If excessive amounts of water are added or if rain should cause excessive wetness, the area shall be allowed to dry as described above.

  ~~The moisture content of the fill shall be as near to optimum moisture content as possible, to create the least compactive effort to obtain maximum density.~~

Reason: *Change needed to align with industry standards.*

- 353.01 Backfill Compaction

  Bedding material shall be hand placed in loose six (6) inch lifts, hand tamped, and each lift thoroughly consolidated to the level(s) described in Section 352.00 of these STANDARDS AND SPECIFICATIONS. The remainder of the trench backfill will be placed in loose six (6) inch lifts and each lift thoroughly consolidated by tamping, vibrating, or a combination thereof, until the relative compaction density is equal to or greater than the minimum value shown in Table 345.00-1 of these STANDARDS AND SPECIFICATIONS for the various classes of soil and type of compaction. ~~The moisture content will be maintained within ± two percent (2%) of optimum moisture during compaction.~~

Reason: *Change needed to align with industry standards.*

SECTION 400 – *Concrete Work*

- 427.00 Colored Patterned Concrete

  Where required on the accepted plans, colored patterned concrete shall comply with all applicable portions of this Section 400. In addition, the following shall apply:

  A. Minimum twenty-eight (28) day compressive strength of concrete shall be 4,~~0~~500 psi.

Reason: *Updated to meet CDOT standards for minimum psi*

- 432.02 Classification

  Concrete will conform to the following:

Minimum compressive strength - 28 days*	4,~~50~~00 psi
Minimum cement - sacks/cubic yard	6 = 564 lbs
Maximum water/cement ratio - by weight	.45
Slump - inches	1-4
Air entrainment - % by volume	5-8

Reason: *Updated to meet CDOT standards for minimum psi*

- 494.02 Tests Provided by the Contractor

  J. High-Volume Concrete Placement Testing.

  For any single, continuous concrete placement exceeding 100 cubic yards, the minimum sampling and testing frequency will be as follows:

  1. A full set of standard tests for Temperature, Slump, Unit Weight/Yield and Air Content will be performed for each of the first three concrete transport trucks delivering material. One full set of concrete strength tests will be required from one of the first three trucks.
  2. Following the initial three trucks, one full set of standard tests and concrete strength tests will be performed for each subsequent 100 cubic yards of concrete placed, or fraction thereof.

  This requirement supersedes the standard testing frequency for the duration of the specified pour. The Town Inspector reserves the right to mandate additional testing at any point if field conditions or material inconsistencies warrant it.

Reason: *Added to update to industry standards*

SECTION 500 – *Town Street Construction*

- 520.00 Design Criteria

  Street design, construction and right of way requirements will conform to the provisions of these STANDARDS AND SPECIFICATIONS, Town's Municipal Code, and the latest version of the Transportation and Mobility Plan.~~.~~ Street design criteria for various street types are listed in Table 500-3, Section 525.00 Vertical Alignment, and the Standard Details. ~~The requirements of the Town's Municipal Code and Comprehensive Master Plan will be met.~~ Throughout this Section reference to a "Qualified Soils Engineer" shall mean a soils engineer who is a Registered Professional Engineer licensed to practice in Colorado.

Reason: *Added additional requirements for conformance. Removed duplicate sentence.*

- 521.00 Geometric Cross Sections, Intersections and Street Layout

  Street cross sectional elements will conform to the Town of Erie ~~Master~~ Transportation and Mobility Plan. Generally, local cross sections will be used in areas where average daily traffic (ADT) is not

likely to exceed one thousand (1,000) vehicles per day. Collector and arterial streets will be constructed whenever the alignment of the proposed street is generally the same as the collector and arterial streets shown on the Transportation Mobility Plan, and whenever a traffic engineering analysis of the future traffic volumes indicates the need of a cross section greater than that of a local service street. The standard design of a particular classification of street may vary depending on the surrounding land use context. Refer to the Comprehensive Plan ~~for~~ and Transportation Mobility Plan for guidance on land use contexts and street classifications.

Reason: *Updated to 2024 document name*

- 521.01 Alleys

All alleys, when permitted by the Town Engineer, shall be paved to a full width and shall provide paved access to a paved street where they intersect a street. Alleyways shall conform with the latest edition of the International Fire Code Appendix D. Minimum access easement widths are 20' without utilities present. When utilities are present within an alley, the easement for Public Access and Utilities shall follow the Town's Easement Requirements in Section 100. Pavement minimum width is 18' when emergency access is not necessary. Dead end alleys shall be 150' maximum length measured to the flowline of the intersecting street and alleys greater than 600' in length shall have ~~a~~ secondary access to a local street. Private alleys shall be marked with "Private Street" signs per Detail ST15C.

Reason: *Added in fire code requirements for alleyways*

- 521.02 Emergency Access

Emergency access roads shall have a minimum roadway width of 20'and conform with the latest edition of the International Fire Code Appendix D..

Reason: *Added in fire code requirements for alleyways*

- 521.03 Intersection Design Guide

The design of at-grade intersections shall conform to established standards of practice while allowing the designer to apply professional judgment in selecting treatments appropriate for site-specific conditions. Uniformity is critical to ensure that all road users encounter consistent, predictable conditions. Standardized principles also promote the use of treatments that have been proven effective and widely accepted by transportation professionals.
The Town requires a roundabout-first approach to intersection design, meaning roundabouts shall be considered and evaluated as the preferred treatment before other intersection control alternatives are pursued.

At the same time, each intersection may present unique characteristics and local preferences that warrant consideration of equally acceptable alternatives. This balance between uniformity and flexibility requires a design policy that establishes mandatory requirements while permitting choice where appropriate.

The purpose of this document is to define the requirements that must be followed and to provide guidelines where design alternatives are available. The guidelines are based on authoritative

references, research findings, and the consensus of a Technical Advisory Committee of transportation professionals.

~~The design of at-grade intersections requires strict conformance with standard practice, combined with the experience and creativity of the designer in selecting and applying the most appropriate treatment to accommodate each traffic movement. Uniformity is an important ingredient of intersection design because it is essential that all road users encounter familiar conditions at each intersection. Uniform standards and principles also serve to promote intersection treatments that have proven successful and have been accepted by transportation professionals and road users.~~

~~On the other hand, each intersection may have unique features that distinguish it in some way from other intersections. In addition, there are legitimate differences in local preferences that have created a set of equally acceptable alternatives for some treatments. This creates a tradeoff between uniformity and flexibility. Clearly, the most appropriate design policy is one that sets forth the standards and principles that must be observed and provides some latitude for choice in areas where choice can be offered.~~

~~The purpose of this document is to identify the mandatory requirements and to provide guidelines for choice where alternatives exist. The guidelines represent a combination of material from authoritative references and research reports combined with the consensus of a broad based Technical Advisory Committee of transportation professionals.~~

Reason: *Updated language to include the town's roundabout 1st approach to intersections.*

- 521.03.02 Intersection Geometric Design Guide

  • A roundabout-first approach shall be applied, with roundabouts evaluated as the preferred intersection control treatment prior to considering other alternatives.

Reason: *Updated language to include the town's roundabout 1st approach to intersections.*

- 521.03.03 Functional Classification

  See Standard Street Detail Drawings functional classification requirements and Sections herein for additional criteria and definitions. ~~See Section 525.01 for definitions.~~

Reason: *Updated reference to our standard details as well as section 525.01*

- 521.03.08 Roundabout Design

  Unless found to be infeasible given the context (such as right-of-way or sight distance constraints) single lane roundabouts should be the default traffic control at all intersections of two-lane streets where a traffic signal or multi-way STOP would otherwise be warranted in order to manage speeds and mitigate the occurrence of severe traffic crashes. The geometric elements of the roundabout provide guidance to drivers approaching, entering, and traveling through a roundabout.

  Good roundabout design places a high priority on speed reduction and speed consistency. Low vehicle speed provides safety benefits including reduced numbers and severity of crashes; more time for entering drivers to judge, adjust speed for and enter a gap in circulating traffic; and safer merging.

Roundabout intersections typically operate with lower vehicle delays than other intersection control types.

Roundabouts shall be designed in conformance with the guidelines set forth in the NCHRP 1043 Guide for Roundabouts and meet the ADA rules for pedestrians set forth in PROWAG. To provide consistency in design across Erie and to achieve a high level of safety and comfort for pedestrians, bicyclists, and drivers, roundabouts shall additionally meet the following design criteria:

(a) The following design vehicle should be used to guide the design radius and other design features of the respective classification of street through the roundabout:
    a. Semi-truck for arterial street (WB-62)
    b. 40' city bus for collector street (BU-40)
    c. Garbage truck for local street (SU-30)

(b) Fastest path through the roundabout should not exceed 20 MPH on collector streets, 25 MPH for single-lane roundabouts on arterial streets, and 30 MPH for multi-lane roundabouts.

(c) Bicycle ramps should be provided on all legs of the roundabout that include on-street bicycle lanes.

(d) Walkways/shared use paths between bicycle ramps should be at least ten (10) feet wide to provide space for both pedestrians and bicyclists.

(e) Pedestrian facilities should be included across all legs of the roundabout and meet PROWAG rules.

(f) Splitter islands should be included on all legs of the roundabout that have more than one hundred (100) average vehicles per day to provide a refuge for pedestrians between each direction of motor vehicle travel lane. Splitter islands should be designed with a minimum of six (6) feet of width or more between truncated domes to provide a refuge space for people in wheelchairs, people with strollers, and bicyclists. Splitter islands need to be a minimum of fifty (50) feet long.

(g) A minimum of five (5) feet of landscaped buffer width should be provided between the shared use path and the curb between all pedestrian crossings around the roundabout to provide separation between motor vehicle travel lanes and the shared-use path and provide positive guidance for visually impaired pedestrians.

(h) Design should prioritize slowing approach speed over exit speed.

(i) Approach lanes should be designed to deflect vehicles in the desired direction of the roundabout.

(j) Performance checks in Chapter 9 of the NCHRP 1043 should be performed prior to finalizing design.

(k) Landscaping within and adjacent to the roundabout should be designed and maintained to not inhibit sight lines (ST-12).

(l) Lighting shall conform with CDOT's Lighting design Guidelines for roundabouts

In addition to the criteria above multi-lane roundabouts should also meet the following design criteria:

(a) Single-lane roundabouts should typically be implemented instead of multi-lane roundabouts or partial multi-lane roundabouts unless a traffic operations analysis demonstrates traffic will exceed capacity with a single-lane roundabout design.

(b) If a multi-lane roundabout is anticipated to be needed in the future, but not needed when constructed the interim design should be a single-lane roundabout that allows one or more legs to be converted to multilane once needed.

(c) To be in compliance with PROWAG all pedestrian crossings of multilane roundabouts are required to have one of the following design features: a raised crosswalk, a rectangular rapid flashing beacon (RRFB), or a pedestrian hybrid beacon (PHB).

Reason: *Moved Roundabout Design section up into the area of intersections*

- 521.04 Bicycle Facility Design

Bicycle facilities are an integral part of the transportation system. The location and type of bicycle facility shall be consistent with the Comprehensive Plan and Transportation Mobility Plan. Typical widths and locations of bicycle facilities on the street are provided in the Standard Details for streets. Bicycle facilities are included on all arterial streets, major collector streets, and rural streets (see ST1~~, ST2, ST3, and ST8~~ through ST7) as shown in the table below. Bicycle facilities are also included on minor collector streets that are designated as bikeways (see ST4) in the Transportation Mobility Plan. ~~Low-stress bicycle facilities separated from general purpose travel lanes are included on all streets in Erie with a design speed of 30 MPH or greater.~~ Signing and striping of bicycle facilities shall comply with the most recent version of the MUTCD.

Reason: *Removed as minor collectors have 25 mph speed limit and have bike lanes.*

- 521.05 Pedestrian Facility Design

Pedestrian facilities are included on both sides of all streets within Erie and shall meet the ADA rules for pedestrians set forth in PROWAG and conform to the Standard Details. Typical widths of the sidewalk and adjacent ~~tree lawn~~curbside landscaping (between the sidewalk and curb) are provided in the Standard Drawings for Streets and are shown in the table below.

Pedestrian Facility and Width by Street Type

Street Classification	**Pedestrian Facility Type**	**Sidewalk/Path Width**	**~~Tree Lawn~~Curbside Landscape Width**
Arterial	Shared Use Path	10’	12’
Arterial with Cycle Track	Sidewalk	6’	8’[1]
Collector	Sidewalk	6’	8’
Local Street	Sidewalk	5’	8’ – 8.5’
Industrial Local Street	Sidewalk	5’	8’
Rural Street (≤ 35 MPH)	Sidewalk	6’	Varies[2] (10’ min.)
Rural Street (> 35 MPH)	Shared Use Path	10’	Varies[2] (10’ min.)

1. Arterial Streets with Cycle Track also include an 8’ cycle track and 6’ landscape buffer between the ~~tree lawn~~curbside landscape and the curb.
2. Rural Streets include a drainage buffer of at least 10’ in width between the sidewalk/path and road and may or may not have an additional ~~tree lawn~~curbside landscape.

Pedestrian Crossings

Signing and striping of pedestrian crossings shall comply with the most recent version of the MUTCD. Utilize the Erie Pedestrian Crossing Treatment Guidelines for additional guidance on the selection of appropriate pedestrian crossing treatments for a given context. Curb ramp design shall

comply with the latest CDOT Standard Plan N-608-1~~Standard Details Refer to the Erie Pedestrian Crossing Treatment Guidelines for additional guidance on the selection of appropriate pedestrian crossing treatments for a given context.~~

Reason: *Added in pedestrian crossing matrix on town's website. Removed curb ramps from standard details. reference back to CDOT Standards*

- 525.00 Vertical Alignment

  Centerline profile grades will not exceed four percent (4%) for a distance of at least one hundred feet (100') either side of an intersecting centerline. Gutter flow line grades will be no less than eight-tenths percent (0.8%) along curb returns, in cul-de-sacs and bulb areas, and other areas where gutter flow line grades do not directly parallel centerline profile grades.

Reason: *Updated to match table 500-3.*

- 538.00 Subgrade

  After excavation and embankment is completed and the subgrade brought to final grade, it will be rolled with a rubber-tired roller which is a minimum size of eight (8) to twelve (12) tons and other compaction equipment as required to bring the subgrade to the required density and stability. Compaction of materials will be in accordance with Section 345 of these STANDARDS AND SPECIFICATIONS.~~The following standards will be in effect: Soils meeting AASHTO M-145 Soil Classifications of A-1, A-2-4, A-2-5, and A-3 will be compacted to a minimum of one-hundred (100) percent of maximum dry density as determined by AASHTO T-99. All other soil classifications will be compacted to a minimum of ninety-five percent (95%) of maximum dry density as determined by AASHTO T-99. The moisture content will be maintained within +/- two percent (2%) of optimum moisture for A-1 through A-5 mtaerials and optimum to two percent (2%) above for A-6 and A-7-6 materials during compaction.~~ Additional wetting may be required when the minimum water requirement is not sufficient to produce a stable condition in the subgrade soil. The maximum length of any road section being worked at any one time shall not exceed three hundred feet (300') without the approval of the Town Engineer.

Reason: *Change needed to simply reference to spec section for clarity.*

- 563.05 Curb Ramps

  ADA accessible curb ramps will be installed where applicable. Curb ramps will be constructed as shown in ~~the Standard Drawings~~latest CDOT Standard Plan M-608-1.

Reason: *Removed curb ramps from standard details. Reference them to CDOT Standards*

- 564.02 Excavation and Embankment

  Excavation or fill will be made to the required grade, and the base on which the curbing section is to be set will be compacted to a smooth, even surface. All material placed in fill and the top six inches (6") of the subgrade in cut sections will be compacted to requirements in Section 345 of these STANDARDS AND SPECIFICATIONS.~~at least ninety-five percent (95%) of maximum dry density as determined by ASTM D-698.~~ Where spongy or unsuitable materials are encountered which will

not provide a stable subgrade. The material will be removed and replaced with suitable material and compacted to the specified density.

Reason: *Change needed to provide reference to a section to keep continuity.*

SECTION 600 – *Water Supply Facilities*

- 615.00 Distribution System Layout

  Distribution mains and lateral lines shall be located as indicated on the accepted plans and shall be a minimum of eight-inch (8) diameter pipe. Where approved by the Town's engineer, 6-inch main for short dead-end or cul-de-sac type streets shall be allowed~~; these lines shall~~. Dead-end mains be no longer than 300 lineal feet and serve no more than 12 residences.

Reason: *Revised for clarity.*

- 616.00 Valve Spacing and Marking

  Tees, including fire hydrants, shall require three (3) valves. Crosses shall require four (4) valves. Valves shall be restrained to the tee or cross. For a succession of short blocks perpendicular to the direction of the distribution main and without residential or commercial services between, one or more intersection(s) may have the valve in that direction omitted, but must maintain the six hundred (600) foot maximum spacing requirement.

Reason: *Requiring three valves per hydrant will improve our O&M team's ability to isolate and address issues more efficiently in the event of a main break.*

- 632.12 Vaults

  Vaults shall be installed within a landscaped area. A variance request and prior approval from the Town Engineer are required for any deviation from this requirement. Refer to water details for additional information and easement requirements.

Reason: *Adding requirement to match standard details.*

- 633.07 Setting Valves and Hydrants

  Each hydrant shall have a six (6) inch gate valve on the inlet line and shall be connected to the main by a six (6) inch ductile iron polyethylene wrapped pipe or DR14 PVC pipe. The gate valves shall be restrained to a swivel tee or mechanical joint tee with anchor coupling.

Reason: *Added to be consistent with Detail W7.*

- 641.00 General

  All water meters and vaults shall be installed within a landscaped area. A variance request and prior approval from the Town Engineer are required for any deviation from this requirement. Refer to water details for additional information.

Reason: *Adding requirement to match standard details*

- 641.00 General

  No service taps shall be permitted on mains larger than twelve inches (12") diameter unless approved by the Town Engineer on a case-by-case basis.

Reason: *Added to update to industry standard.*

- 643.00 Tapping the Main

  No service taps shall be permitted on mains larger than twelve inches (12") diameter unless approved by the Town Engineer on a case-by-case basis.

Reason: *Added to update to industry standard.*

SECTION 700 – *Sanitary Sewer Facilities*

- 714.02 Manholes (Design Details)

  Manholes over 15 feet deep are not permitted without an approved variance from the Town Engineer and shall have a stainless-steel ladder with non-slip rungs, similar or equal to Halliday L1D. Please refer to Section 100 for additional information on variance requests.

  Drop manholes shall be provided for a sewer entering a manhole at an elevation ~~twenty-four~~eighteen (18~~24~~) inches or more above the manhole invert. Both outside and inside drops are acceptable and shall conform to details shown on the Standard Drawings. For inside drops, the minimum manhole diameter shall be 5 feet. Where the difference in elevation is less than ~~twenty-four~~eighteen (18~~24~~) inches, the invert will be shaped to provide a uniform slope and prevent solids deposition.

  Minimum drop through a manhole from inlet to outlet for same diameter pipe shall be:
  - 0.2 ft. on straight through runs
  - 0.3 ft. on deflected bends greater than forty-five degrees (45°); pipe laid through a manhole shall be at a slope of the same grade as the downstream pipe slope
  - For pipes of differing diameters, match crowns of pipes

Reason: *Referencing the variance section for clarity and updated to match standard detail.*

Reason: *Added to match design requirements on Standard Detail SS3A in addition to promoting positive drainage within the sewer system.*

- 714.03 Service Connections

  For service connections whose pipe diameter is equal to half or greater of the main line diameter, a manhole is required to be installed at the connection

Reason: *Added to provide better access for cleaning/maintenance of larger sanitary sewer service lines into the sanitary sewer main line.*

- 732.01 Sewer Pipe

  Sanitary mains with a bury depth greater than fifteen (15) feet must be approved by the Town Engineer and pipe material shall be ASTM D3034-SDR-26.

Reason: Added for a more suitable pipe material to handle loads due to depths.

- 732.04 Manholes (Materials)

  Manholes may be constructed of cast-in-place concrete or precast concrete. Concrete precast reinforced risers and tops must conform to ASTM Designation C-478 except that wall thickness may be either wall "A" or wall "B" as described in ASTM Designation C-76. Manholes shall conform to details shown on the Standard Drawings unless otherwise approved by the Town Engineer. Cones shall be eccentric. Cones shall be concentric. Precast cones or flattop covers for storm sewer manholes shall be concentric when within 3 feet from final grade.

Reason: *Added for easier maintenance access.*

- 742.01 Polyvinyl Chloride (PVC)

  With Town Engineer approval, ASTM D3034-SDR-26 pipe shall be required when a sanitary main is installed with a bury depth greater than fifteen (15) vertical feet.

Reason: Added for a more suitable pipe material to handle loads.

SECTION 800 – *Storm Drainage Facilities*

- 812.01 General Design Criteria

  Conveyance must be provided downstream of the site to the major drainageway with sufficient capacity to pass the one hundred (100) year storm event. Easements for these conveyance systems must be provided and shown on the drainage plan. See section 100 herein for easement requirements. If it is not possible to obtain an easement and construct drainage improvements on the downstream property, runoff must be reduced to historic rates and concentrated flows must be spread out to stimulate existing conditions to minimize the potential for erosion.

Reason: *Added reference to gen. public easement cross-reference.*

- 812.02 Design Principals

  Expressed written approval must be obtained from the managing organization for irrigation ditches being considered for crossing or easements. See section 100 herein for easement requirements.

Reason: *Added reference to gen. public easement cross-reference.*

- 813.03 Runoff Computations, Colorado Urban Hydrograph Procedure (CUHP)

The CUHP method is generally applicable to drainage basins greater than 90 acres. However, the CUHP is required for watershed areas larger than 160-acres. The procedures for the CUHP, as explained in the Urban Storm Drainage Criteria Manual, shall be followed in the preparation of drainage reports and storm drainage facility designs in the Town. The CUHP program requires the input of a design storm, either as a detailed hyetograph or as a 1-hour rainfall depth. The program for the latter using the 2-hour storm distribution recommended in the Urban Storm Drainage Criteria Manual generates a detailed hyetograph distribution. For ~~T~~the 1-hour rainfall depths for the Town of Erie, please refer to the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 or the most recent edition for pertinent rainfall depths. ~~are presented in Table 800-2.~~

~~**Table 800-2**~~
~~**TOWN OF ERIE**~~
~~**ONE-HOUR RAINFALL DEPTH**~~

~~Design Storm~~	~~Rainfall Depth (in.)~~
~~2-Year~~	~~0.81~~
~~5-Year~~	~~1.11~~
~~10-Year~~	~~1.39~~
~~25-Year~~	~~1.84~~
~~50-Year~~	~~2.24~~
~~100-Year~~	~~2.68~~
~~500-Year~~	~~3.89~~

Reason: *Removed outdated rainfall depths and table, and directed to NOAA.*

- 813.05 Runoff Coefficients

Rational method runoff coefficients: The runoff coefficient (C) to be used in conjunction with the Rational Method will be calculated using the percent imperviousness that can be found in the Mile High Flood District (MHFD) Drainage Criteria Manual Volume 1, Chapter 6 "Runoff" land use value discussion. ~~shown in Table 800-3 as explained in the Urban Storm Drainage Criteria Manual.~~

~~**TABLE 800-3**~~
~~**PERCENT IMPERVIOUS FOR RATIONAL METHOD**~~

~~LAND USE OR SURFACE CHARACTERISTICS~~	~~PERCENT IMPERVIOUS~~
~~Business~~	
~~Commercial Areas~~	~~95~~
~~Neighborhood Areas~~	~~75~~
~~Residential Lots (Lot Area Only):~~	
~~Single-Family~~	
~~2.5 Acres or Larger~~	~~12~~
~~0.75 – 2.49 Acres~~	~~20~~
~~0.25 – 0.74 Acres~~	~~30~~
~~0.24 Acres or Less~~	~~45~~
~~Apartments~~	~~75~~

~~LAND USE OR SURFACE CHARACTERISTICS~~	~~PERCENT IMPERVIOUS~~
~~Industrial:~~	
~~Light Areas~~	~~80~~
~~Heavy Areas~~	~~90~~
~~Parks, Cemeteries~~	~~10~~
~~Playgrounds~~	~~25~~
~~Schools~~	~~55~~
~~Railroad Yard Areas~~	~~50~~
~~Undeveloped Areas:~~	
~~Historic Flow Analysis~~	~~2~~
~~Greenbelts, Agricultural~~	~~2~~
~~Offsite Flow Analysis (when land use not defined)~~	~~45~~
~~Streets:~~	
~~Paved~~	~~100~~
~~Gravel (Packed)~~	~~40~~
~~Drives and Walks~~	~~90~~
~~Roofs~~	~~90~~
~~Lawns, Sandy Soil~~	~~2~~
~~Lawns, Clay Soil~~	~~2~~

~~Note: These Rational Method coefficients may not be valid for large basins.~~

Reason: *Directed to MHFD for land use values and removed table.*

- 815.01 Open Channels

N. Froude number (turbulence factor) shall be less than 0.8 for grass-lined channels with cohesive soils and vegetation and 0.6 for grass-lined channels with non-cohesive soils and vegetation. Grass-lined channels having a Froude number greater than 0.8 will not be permitted. Minimum velocities for all channels will not be less than two (2) feet per second for the initial storm runoff.

Reason: *Updated to match MHFD*

- 813.03 Storm Sewers and Storm Inlets

Storm sewer grade shall be such that a minimum cover is maintained to withstand AASHTO HS-20 loading on the pipe. The minimum cover depends upon the pipe size, type and class, and soil bedding condition, but shall not be less the 18 inches for reinforced concrete pipe (RCP) and 24 inches for high density polyethylene (HDPE), when allowed by the Town Engineer, at any point along the pipe. Additionally, see section 100 for separation requirements between stormwater sewer lines and other wet utilities.

The capacities of conduits will be computed using the criteria set forth in the Urban Storm Drainage Manual, including a hydraulic grade line (HGL) analysis, for both the initial and major storm events. Friction, lateral, bend, exit and entrance losses shall be included in the design. The storm sewer design shall include tailwater conditions. The value of the roughness coefficient (n) to be used will

not be less than those specified in MHFD Drainage Criteria Volume 1, Chapter 6 "Runoff". ~~Section 815.01(l), Table 800-5 of these STANDARDS AND SPECIFICATIONS.~~ The average flow velocity for the initial storm event shall not be less than two (2) feet per second and the maximum velocity for all storm events shall not exceed 18 feet per second. The HGL for the major storm event peak flow shall be at least 1 foot below the elevation of manhole covers, inlet grates, and the flowline at inlet curb openings. For storm sewer systems designed for the initial storm event, additional runoff can be intercepted by inlets during major storm events due to greater depths of flow in the streets. Surcharge created by conveyance of the additional runoff must be analyzed and the HGL must meet the maximum limit as described above for the major storm event.

Reason: *Added to cross-reference utility separation requirements.*

Reason: *Added MHFD as a reference, as they are more updated. This avoids conflicts with applicants.*

- 842.03 Manholes, Inlets and Sidewalk Chases

  Manholes and inlets may be constructed of cast-in-place or precast concrete. -Wherever possible, a 0.2' drop at manholes should be incorporated in the design to promote positive drainage. Manhole materials shall comply with all applicable portions of Section 732.04, Manhole Materials, of these STANDARDS AND SPECIFICATIONS.

Reason: *Updated design criteria at manholes to better conform with industry standard*

SECTION 900 – *Traffic Control Devices*

- 922.03 Stop Signs

  Stop signs shall be installed at all approaches to streets designated by the Town as through streets. Stop signs shall be mounted on the same support posts as street name signs where possible. Stop bars shall be installed in conjunction with stop signs at all stop-controlled approaches to intersections with collector and higher roadway classifications. Stop bar placement shall be in accordance with the latest MUTCD.

Reason: *Added language for stop bar placement within the town standard.*

- 925.00 Street Lighting Procedure to a High Source

  The Developer shall submit a written request for interconnection to the serving electrical utility (Xcel Energy or United Power) to obtain a metered service connection for street lighting, which shall be designed in accordance with CDOT Standard Specifications Section 613 and Standard Plan Sheet S-613-1. Developer shall pay the electrical utility company the total cost of interconnection within thirty (30) days of receipt of written notice.~~The developer shall submit a written request for street light design to the electrical utility company (Xcel or United Power) along with three sets of street and utility plans and one copy of the plat map. The electrical utility company shall submit the final design and cost estimates to the Town Engineer for review and approval. Developer shall pay the electrical utility company the total costs of installation for all street lighting within thirty (30) days of receipt of written notice.~~

The developer shall coordinate the location of the mail boxes and the street lighting with the United States Postal Service to ensure adequate light is available at each mail box. Lighting shall conform to the requirements of the United Postal Service.

All luminaries for street lighting must have written approval of the ~~Director of Planning and Development~~Town Engineer prior to installation.

Reason: *Updated language for the interim condition until the town gets their own street light standards in 2026. This references CDOT standards as we can no longer use Xcel or United Power for standards as they no longer own the poles*

- 925.01 Residential Street Lighting

All intersections and cul-de-sac bulbs shall have a minimum of one light. If a segment of street between intersections is greater than 450 feet and less than 600 feet, a light shall be installed at the center of the segment. Residential lighting shall be on metal poles 25 feet in height unless otherwise approved by the Town. All residential lighting shall be LED. ~~A light color temperature maximum of 3,000K or 4,000K will be implemented whichever is lower based upon electrical utility company.~~

Reason: *The Town does not want fiberglass poles.*

Reason: *Removed as this is covered in the CDOT details.*

- 925.02 Collector Street Lighting

Collector lighting shall be LED with a 250 watt high pressure sodium equivalent wattage or approved equal on metal ~~or fiberglass~~ poles 25 feet in height. The light fixture shall have a flat lens and the poles shall be dark in color unless otherwise approved by the Town. A minimum of two lights shall be placed on diagonal corners at all intersections and signalized locations. Collector lighting shall be 25 feet in height unless otherwise approved by the Town.

Reason: *The Town does not want fiberglass poles.*

- 925.03 Arterial Street Lighting

Arterial lighting shall be LED with a 250-watt high pressure sodium equivalent wattage or approved equal on metal ~~or fiberglass~~ poles, 35 feet in height. The light fixture shall be 35 feet in height, have a flat lens, and on 10-foot long mast arms unless otherwise approved by the Town. The poles shall be dark in color unless otherwise approved by the Town. A minimum of two lights shall be placed on diagonal corners at all intersections and signalized locations.

Reason: *The Town does not want fiberglass poles.*

SECTION 1000 – *Parks*

- Updated the language in section “tree lawn” to “curbside landscaping” to match development code updates

- 1062.07.02 Size Requirements

D. Perennials and groundcovers[SG1.1] shall be five (5) gallon containers or larger unless otherwise approved by the Director of Parks and Recreation or appointed designee.
~~D. Perennials and groundcovers shall be number one (1) size container or larger~~

Reason: *Updated to increase the required container size to ensure better survivability.*

- 1093.02 Local Trails

C. Minimum side clearance for local trails shall be no less than 2 feet from edge of trail and must follow latest AASHTO standards.

Reason: *Added side clearance for local trails to better accommodate maintenance vehicles.*

SECTION 1100 – *Traffic Signals*

- 1101.04 Field Location

All loops, poles, control cabinets, pull boxes, pole foundations and permanent pavement markings shall be field located by the ~~Town Engineer~~contractor and reviewed by the Town Engineer or designee.

Reason: *Removed liability from the Town.*

- 1101.12 Drawing Requirements

The contractor or developer shall submit "as-built drawings" showing in detail all construction changes, including, but not limited to wiring, cable, and location and depth of conduit. As-built shall be submitted at the end of the project and shall be required prior to Construction Acceptance by the Town. Additional drawing requirements shall be completed per Section 200 of the Town's Standard and Specifications.~~See Town Asbuilt Drawing Requirements.~~

Reason: *Re-wrote section to include requirements for as-builts as we have limited requirements on signal equipment. Pointed direction for rest of as built's to section 200.*

- 1102.00 Regulations and Code

All materials and workmanship shall conform to the standards of the latest edition of the Colorado Department of Transportation Standard Specifications for Road and Bridge Construction and Standard Plan Pages S-614-40. If conflicts arise between the Colorado Department of Transportation Standard Specifications for Road and Bridge Construction and these STANDARDS AND SPECIFICATIONS, these STANDARDS AND SPECIFICATIONS shall take precedence. In addition to requirements of the Colorado Department of Transportation Standard Specifications for Road and Bridge Construction, and the Contract Documents, all material and work shall conform to the requirements of the National Electrical Line Construction of the Public Utilities Commission, the Standards of the American Society for Testing and Materials (ASTM), the American Standards Association (ASA), and any local ordinance which may apply.

Reason: *Added additional CDOT standards sheets for clarification.*

- ~~1104.00 AS BUILTS~~

  ~~The Contractor or Developer shall submit "as-built drawings" showing in detail all construction changes, including, but not limited to wiring, cable, and location and depth of conduit. As-Builts shall be submitted at the end of the project and shall be required prior to Construction Acceptance by the Town.~~

Reason: *Removed due to redundancy to section on drawing requirements above.*

- 1107.00 FOUNDATIONS

  Reinforcing steel shall be installed in foundations as specified in the Construction Plans and CDOT Standard Plan S-614-40.

Reason: *Added additional CDOT standards sheet for clarification.*

All foundations (concrete, ~~and~~ fiberglass, and rebar) shall be incidental to the pay item for which a foundation is required. Ground rods shall be provided as indicated in the standard details, and these shall be incidental to the installation pay item as well.

Reason: *Added as rebar is incidental to a foundation*

- 1108.00 CONDUIT

Run Type	Qty	Size	Use
Street Crossing	1	3"	120VAC Signal Load Wiring
	1	3"	Low Voltage Signal Wiring & Interconnect
	1	2”	Spare
	1	2"	Luminaire Wiring
Signal Pole	1	2"	All Signal Wiring
	1	2"	Luminaire Wiring
Controller Cabinet	1	3"	120VAC Signal Load Wiring
	1	3"	Low Voltage Wiring & Interconnect
	1	2"	Spare
	1	2"	Public Service Utility Power Feed
~~Inductance Loop~~	~~1~~	~~2"~~	~~Inductance/Micro Loops~~
Interconnect	1	2"	Interconnect
Service Points	1	2"	Public Service Utility Power Feed
	1	2"	Telephone Service Feed

Reason: *Removed as we do not want induction loops nor the option for them.*

- 1109.00 PULL BOX

Pull Box Usage	Size	Pull Box Lid Marking
Cabinet Home Run Pull Box	24" x 36" x 18"	Traffic

Signal Pole Pull Box	13" x 24" x 12"	Traffic
~~Detector Pull Box (Side of Road)~~	~~12" x 12" x 12"~~	~~Traffic~~
~~Detector Water Valve~~	~~Water Valve~~	~~Traffic~~
Interconnect (T/S Cabinet)	30” x 48” x 18”	T/S Communications
Interconnect (Intermediate Locations)	24" x 36" x 18"	T/S Communications
Telephone Demarcation	12" x 12" x 12"	T/S Communications
Electrical Demarcation	12" x 12" x 12"	Electric

Reason: *Removed as we do not want induction loops nor the option for them.*

- 1113.00 VIDEO DETECTION

  Video detection systems shall consist of one video detection camera and one video processor. The system shall be Iteris or approved equal. For Iteris systems, the camera shall be the model *Vantage Apex* on major street approaches and the *Vantage Next* on the minor (or approved equal).~~model RZ-4 with Wide Dynamic Range (WDR) or approved equal. The processor shall be Vantage Edge 2 or approved equal.~~

  The system shall include software that detects vehicles in multiple lanes using only the video image with the availability for up to twenty four (24) detection zones per camera.

  The camera shall be mounted on the luminaire davit when luminaire davit is present, mast arm when luminaire davit is not present, or other location as defined on the plans or as directed by the Town Engineer. The camera shall view approaching vehicles at a distance not to exceed 350 feet on the minor approach and 500 feet on the major approach for reliable detection.

Reason: *Updated Camera technology to latest issue for Iteris.*

Reason*: Added typical approach view for major approach.*

- ~~1114.00 INDUCTANCE LOOP DETECTION~~

  ~~Inductance loops shall only be installed where/when specifically defined in project plans and specifications or as otherwise directed by the Town Engineer. When defined for use, inductance loops shall be installed in accordance with specifications approved by the Town Engineer and the construction plans.~~

Reason*: Removed as the town does not want induction looping systems.*

- 1115.00 PEDESTRIAN OR BICYCLE PUSH BUTTONS

  Pedestrian or bicycle push button assemblies shall be *Polara iDS*~~Pelco model SE-2005-08 (ADA pedestrian push button)~~, or approved equal. The button housing shall be black in color. A separate 9” W x 12” H decal sign, MUTCD Reference # R10-3d, or approved equal shall be installed with each pedestrian push button. A separate 9”W x 15”H decal sign, MUTCD reference R10-26, or approved equal shall be installed with each bicycle push button.

Reason: *Updated preferred equipment.*

- 1128.00 WARNING OR REGULATORY SIGN FLASHING BEACON ASSEMBLY

  A warning or regulatory sign flashing beacon assembly shall be as shown in the CDOT Standard Plan No. S-614-14~~standard details~~.

Reason: *Updated specification to align with CDOT standards.*

SECTION 1200 – *Town of Erie Owned Landscape, Irrigation, Parks, Open Space & Trails*

- Updated the language in section "tree lawn" to "curbside landscaping" to match development code updates

- 1203.02.04 Playground

  Play Environment Audit

  Contractor shall provide ~~A~~an audit of the play area must be conducted by a Certified Playground Safety Inspector (CPSI) to verify compliance. If any non-compliance issues are identified during this process these issues must be addressed and appropriate action taken, at the expense of the Contractor, to bring items into compliance. All components of the play environment must be in compliance prior to substantial completion/initial acceptance.

Reason: *Clarifying that a contractor is responsible for the audit*

- 1262.07.02 Size Requirements

  - Perennials and groundcovers shall be five (5) gallon containers or larger unless otherwise approved by the Director of Parks and Recreation or appointed designee.

  ~~Perennials and groundcovers shall be number one (1) size container or larger~~

Reason: *Increased the container size requirement to help ensure survivability*

- 1281.00 Trails & Park Paths

  All primary routes within the parks, open space & trail system, which could be utilized by the general public for conveyance, will be a minimum of eight (8) feet wide and six (6) inches thick concrete and shall have fiber mesh included in the mix. The concrete shall have minimum twenty-eight (28) day compression strength of four thousand (4,000) pounds per square inch (PSI) and shall meet all applicable requirements of Section 400 – Concrete Work. Additionally, trails that provide maintenance access to stormwater infrastructure/detention ponds shall be ten (10) feet wide. Soft surface trails may be utilized on a case-by-case basis with approval by the Director of Parks & Recreation or designee.

Reason: *Given the weight and width of the Town's vacuum cleaning trucks used to maintain/clean storm drainage facilities, additional maneuverability is needed on the trails.*

- 1282.07 Installation of Crusher Fines

  I. The first 10 feet of a crusher fine trail from the edge of pavement or concrete walk shall be concrete.

Reason: *Adding this helps prevent loose crusher fine material from being tracked out onto paved streets by cyclists and maintenance vehicles.*

STANDARD DETAILS:

Curb/Gutter and Sidewalk Details

- Per NW, SW14 was supposed to have been removed and left blank last round. The Index was updated but the page was not left blank and remained. JA has removed that standard from the final folders and a new SW detail sheet will take its place this year.
- **SIDEWALK INDEX**: GW updated index to match sheet page changes.
- **SW4A:** GW added note, "15% maximum slope of drive section". Requested by NW but will be approved by JF
- **SW4B:** GW added note, "15% maximum slope of drive section". Requested by NW but will be approved by JF
- **SW5, SW6, SW7A, SW7B, SW8, SW9, SW10A, SW10B, SW10C:** GW removed these details. Requested by NW but will be approved by JF.
- **SW5:** GW changed page number from SW11 to SW5. Requested by NW but drawn by/approved by/date will not change.
- **SW6:** GW changed page number from SW12 to SW6. Requested by NW but drawn by/approved by/date will not change.
- **SW7A:** GW changed page number from SW13A to SW7A. Requested by NW but drawn by/approved by/date will not change.
- **SW7B:** GW changed page number from SW13B to SW7B. Requested by NW but drawn by/approved by/date will not change.
- **SW8:** GW added new detail for an inverted "U" bike rack. Requested and approved by JF.

Streets Details

- **STREETS INDEX:** RG updated index to match sheet page changes.
- **ST1:** RG edited all text in this sheet to say "Curbside Landscape" instead of "Tree Lawn". Requested by NW but will be approved by JF.
- **ST2:** RG edited all text in this sheet to say "Curbside Landscape" instead of "Tree Lawn". Requested by NW but will be approved by JF.
- **ST3:** RG changed the page number from ST22 to ST3. Requested by NW but drawn by/approved by/date will not change.
- **ST4:** RG changed page number from ST3 to ST4 and edited all text in this sheet to say "Curbside Landscape" instead of "Tree Lawn". Requested by NW but will be approved by JF.
- **ST5:** RG changed page number from ST4 to ST5 and edited all text in this sheet to say "Curbside Landscape" instead of "Tree Lawn". Requested by NW but will be approved by JF.
- **ST6:** RG edited the top and bottom details to say, "curbside landscape" instead of "tree lawn". RG added the word "vertical" to curb and gutter note ("with standard vertical curb and gutter…") Requested by NW but will be approved by JF.

- **ST7:** RG changed page number from ST8 to ST7 and removed notes on detail reading "2.5' minimum clear zone". Requested by NW but will be approved by JF.
- **ST8:** RG changed page number from ST20 to ST78 and added a note reading "Alleyway geometry must be in compliance with the latest edition of the International Fire code (IFC)". "2% - 4% slope" clarification added to green alley. Requested by NW but will be approved by JF.
- **ST9:** RG changed the page number from ST13 to ST9. Requested by NW but drawn by/approved by/date will not change.
- **ST10:** RG changed the page number from ST14 to ST10. Requested by NW but drawn by/approved by/date will not change.
- **ST11:** RG changed the page number from ST9 to ST11 and added note #3: "15% maximum slope of drive section". Requested by NW but will be approved by JF.
- **ST12:** RG changed the page number from ST5 to ST12. RG added crosswalk bars, changed the 35' setbacks to 50' setbacks, changed "tree lawn" callout to "curbside landscape", and edited the note to say "No trees in the landscape strip within 50 feet of stop signs/curb PC or PT radius point. Any other plants and landscaping must be approved by the parks and recreation director or designee." to the Intersection Site Setbacks detail. RG also edited the Minimum Sight Distance for Stopped Vehicles table columns to now read, "Viewing Approach Traffic for Left Turn (Case B1)", and "Viewing Approach Traffic for Right Turn (Case B2)". Requested by NW but will be approved by JF.
- **ST13:** RG changed the page number from ST7 to ST13. Requested by NW but drawn by/approved by/date will not change.
- **ST14:** RG changed the page number from ST10 to ST14. Requested by NW but drawn by/approved by/date will not change.
- **ST15:** RG changed the page number from ST11 to ST15. Requested by NW but drawn by/approved by/date will not change.
- **ST16:** RG changed the page number from ST12 to ST16 and added a note that says "All concrete connections should be doweled and/or tiebared. Dowels and tiebars shall conform to AASHTO A775 and be installed per CDOT standard plan M-412-1". RG also added the compacted grade material callout and polygon. Requested by NW but will be approved by JF.
- **ST17:** RG changed the page number from ST21 to ST17 and added a note to the detail saying, "Bike lane crossing bars to match the width and spacing of the crosswalk bars per the MUTCD". Requested by NW but will be approved by JF.
- **ST18:** RG changed the page number from ST15A to ST18 and added a note to the detail saying "stop bars shall be installed in conjunction with stop signs at all stop-controlled approaches to intersections with collector and higher roadway classifications. Stop bar placement shall be in accordance with the MUTCD". Requested by NW but will be approved by JF.
- **ST18A**: RG changed the page number from ST15B to ST18A. Requested by NW but drawn by/approved by/date will not change.
- **ST18B**: RG changed the page number from ST15C to ST18B. Requested by NW but drawn by/approved by/date will not change.
- **ST19**: RG added curb drains and curb drain callouts to this detail. Requested by NW and will be approved by JF.
- **ST20:** RG changed the page number from ST16 to ST20. Requested by NW but drawn by/approved by/date will not change. RG then deleted note 5 and renumbered the notes that followed. Requested by CS and will be approved by KF.
- **ST21**: RG changed the page number from ST17A to ST21. Requested by NW but drawn by/approved by/date will not change.
- **ST21A**: RG changed the page number from ST17B to ST21A. Requested by NW but drawn by/approved by/date will not change.

- **ST22**: RG changed the page number from ST18 to ST22. Requested by NW but drawn by/approved by/date will not change.

Sanitary Sewer Details

- **SS18A:** RG created a new detail for SB titled "SAN. SEWER SERVICE GREATER THAN 15' DEEP".

Storm Sewer Details

- **STM1A**: RG added #6 to the notes: "Manholes 3' in depth or less at final grade shall be a concentric cone or flattop", per JM's direction.

Water Details

- **W20A:** RG created a new detail for KF for fire hydrants on streets without curb and gutter.
- **W7:** RG added note #6 ("MVFD prefers DIP when installed for non-residential buildings") for JM, will be approved by KF.

Parks Details

- **P25:** RG added note 8. "Clear zones shall be free of any above grade obstruction such as walls, benches, trees, shrubs or anything else that would impede a mower or snow plow from moving freely through the zone" for Shane Greenburg. Will be approved by L. Bolinger.
- **P28**: RG added note "Multiple port emitter detail (see detail P17) to be used on town-owned/maintained properties" for SG. Will be approved by LB.
- **P33:** RG created a new detail per Shane Greenburg and Luke Fisher for tree protection. Will be approved by L. Bolinger.

Traffic Signal Details

- **TRAFFIC SIGNAL INDEX:** JA updated index to match sheet page changes.
- **TS-1:** JA Changed previous detail TS-4 to TS-1. Requested by NW but drawn by/approved by/date will not change.
- **TS-2:** JA Changed previous detail TS-10 to TS-2. Requested by NW but drawn by/approved by/date will not change
- **TS-3:** JA Changed previous detail TS-8 to TS-3. Requested by NW but drawn by/approved by/date will not change
- **TS-4:** JA Changed previous detail TS-11 to TS-4. Requested by NW but drawn by/approved by/date will not change
- **TS-5:** JA Changed previous detail TS-9 to TS-5 Also removed 2 pedestrian and vehicle signal head diagrams as transportation does not want these to be installed. Requested by NW but will be approved by JF.
- **TS-5:** JA Removed previous detail for TS-5 (PULLBOX - PLASTIC/PREFAB). Requested by NW.
- **TS-6:** JA Changed previous detail TS-7 to TS-6. Requested by NW but drawn by/approved by/date will not change
- **TS-6:** JA Removed previous detail for TS-6 (PULLBOX – SPECIAL). Requested by NW.

- **TS-7:** JA Changed previous detail TS-3 to TS-7. Requested by NW but drawn by/approved by/date will not change
- **TS-8:** JA Changed previous detail TS-12 to TS-8. It was later deemed that TS-8 (ILLUMINATED STREET NAME SIGN) already aligned with CDOT's standards which are already referenced. Thus the newly numbered Detail for TS-8 was removed. Requested by NW but will be approved by JF.
- **TS-9:** JA Changed previous detail TS-1 to TS-9. A later removal of TS-8 moved the newly numbered TS-9 to TS-8. Requested by NW but drawn by/approved by/date will not change
- **TS-10:** JA Changed previous detail TS-2 to TS-10. A later removal of TS-8 moved the newly numbered TS-10 to TS-9. Requested by NW but drawn by/approved by/date will not change
- **TS-11:** JA removed. Requested by NW.
- **TS-12:** JA removed. Requested by NW.
- **TS-13A:** JA removed. Requested by NW.
- **TS-13B:** JA removed. Requested by NW.
- **TS-13C:** JA removed. Requested by NW.
- **TS-13D:** JA removed. Requested by NW.
- **TS-14A:** JA removed. Requested by NW.
- **TS-14B:** JA removed. Requested by NW.
- **TS-14C:** JA removed. Requested by NW.
- **TS-14D:** JA removed. Requested by NW.

Traffic Calming Details

- **TRAFFIC CALMING INDEX:** GW updated index to reflect new details.
- **SM6A:** GW added new Raised Crosswalk detail (sheet 1 of 3). Requested by NW but will be approved by JF.
- **SM6B:** GW added new Raised Crosswalk detail (sheet 2 of 3). Requested by NW but will be approved by JF.
- **SM6C:** GW added new Raised Crosswalk detail (sheet 3 of 3). Requested by NW but will be approved by JF.

GENERAL NOTES:

Construction

- No Changes

Grading

- No Changes

Parks

- No Changes

Roadway

- No Changes

Sewer

- No Changes

Storm Drain

- No Changes

Water

- No Changes

Non-Potable Water

- No Changes