



**WORK SESSION AGENDA**  
Wednesday, September 16, 2026 at 5:30 p.m.  
Mapleton City Council Chambers  
**REGULAR MEETING AGENDA**  
Wednesday, September 16, 2026 at 6:00 p.m.  
Mapleton City Council Chambers

**CITY COUNCIL WORK SESSION:**

The purpose of this work session is to discuss Urban Deer

**CALL TO ORDER—INVOCATION- PLEDGE OF ALLEGIANCE - MAYOR'S COMMENTS**

**PRESENTATION ITEM:**

Presentation from the Red Cross for Battle of the Badges Blood Drive

**PUBLIC FORUM:**

Members of the audience may bring to the attention of the Mayor and Council any item that is not on the agenda. Please sign in. Speakers are generally given two to three minutes, at the discretion of the Mayor, to address the Council. State law prohibits the Council from acting on items that do not appear on the agenda. **The Mayor reserves the right to amend the order of the agenda items and to delete items no longer required for consideration.**

**CONSENT AGENDA:**

Items on the consent agenda are routine in nature and do not require discussion or independent action. Members of the Council may ask to remove any items from the consent agenda to be considered individually. Unless that is done, one motion may be used to adopt all recommended actions. If the public has questions or comments regarding the consent agenda, please contact staff prior to the meeting.

1. Approval of City Council meeting minutes- August 19, 2026
2. Consideration of a Resolution approving an Interlocal Agreement with Spanish Fork City for Building Inspection and Plan Review Services. *Sean Conroyr, Assistant City Administrator/Community Development Director*
3. Consideration of a Resolution awarding the Construction Manager/General Contractor contract for the Evans Family Park. *Logan Miner, Parks and Recreation Director*

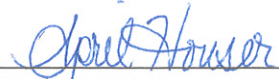
**PUBLIC HEARING ITEM:**

4. Consideration of an Ordinance to amend Public Works Design Standards. *Rob Hunter, Public Works Director/City Engineer*

**MAYOR, COUNCIL AND ADMINISTRATIVE REPORTS  
ADJOURNMENT FROM REGULAR SESSION**

**CLOSED MEETING:**

Mapleton City Council may adjourn the regular meeting and convene into a closed session pursuant to §52-4-205, as provided by Utah Code.

  
\_\_\_\_\_  
April Houser, Deputy Recorder

The public is invited to participate in all Mapleton city council meetings. This meeting will also be streamed via YouTube at Mapleton City Meetings. There will be no public comment via YouTube viewing. The link for the meeting is: <https://www.youtube.com/channel/UCx8-QGmCOXWQOsZq8pGYrsAgenda>

**THIS AGENDA IS SUBJECT TO CHANGE WITH A MINIMUM OF 24 HOURS NOTICE**

A copy of the agenda was posted at the City Offices on September 9, 2026, at 4:30 pm and delivered to the Mayor and City Council members. In compliance with the Americans with Disabilities Act, the city will make reasonable accommodations to ensure accessibility to this meeting. If you need special assistance to participate in this meeting, please contact the City Recorder at 801-806-9106 at least three working days prior to the meeting.



# City Council Staff Report

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**Date:**

9/16/2026

**Applicant:**

N/A

**Location:**

N/A

**Prepared By:**

Sean Conroy, Community  
Development Director

**Public Hearing:**

No

**Attachments:**

Resolution

**REQUEST**

Consideration of a Resolution approving an interlocal agreement with Spanish Fork City for building inspection and plan review services.

**BACKGROUND & DESCRIPTION**

State law requires each municipality to perform building permit reviews and building inspections within specific timelines. State law also requires that each municipality has backup inspection services such as consultants or interlocal agreements to ensure timely inspections even during a disruption of normal staff availability.

To ensure compliance with state law, Mapleton City and Spanish Fork City are proposing an interlocal agreement that would allow either city to request building inspection and/or plan review assistance from the other. The agreement is intended to provide additional operational flexibility and help maintain service levels when either city needs supplemental staffing or expertise. Assistance is voluntary, and the city receiving a request retains sole discretion to accept or decline it based on its own staffing and operational needs.

**RECOMMENDATION**

Adopt the attached Resolution.

**RESOLUTION NO. 2026-**

**A RESOLUTION OF THE MAPLETON CITY COUNCIL APPROVING AN INTERLOCAL AGREEMENT WITH SPANISH FORK CITY FOR BUILDING INSPECTION AND PLAN REVIEW SERVICES**

**WHEREAS**, the purpose of this agreement is to provide for cooperative assistance between the parties for building inspection and plan review services in order to promote efficiency, maintain service levels, and provide operational flexibility; and

**WHEREAS**, this Agreement is entered into pursuant to the Utah Interlocal Cooperation Act, Utah Code Ann. § 11-13-101 et seq.; and

**WHEREAS**, Either party may request assistance from the other party for building inspections or plan review services; and

**WHEREAS**, the assisting party may accept or decline any requests for services based on their existing workload and availability.

**NOW THEREFORE, BE IT RESOLVED** by the City Council of Mapleton, Utah, to approve the attached interlocal agreement with Spanish Fork City for building inspection and plan review services.

PASSED AND ORDERED PUBLISHED BY THE CITY COUNCIL OF MAPLETON, UTAH, this 16<sup>th</sup> Day of September, 2026.

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Therin Garrett  
Mayor

ATTEST:

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Camille Brown  
City Recorder

**Publication Date:**  
**Effective Date:**

**Exhibit "A"**  
**INTERLOCAL COOPERATION AGREEMENT**  
**BUILDING INSPECTION AND PLAN REVIEW SERVICES**

This Interlocal Cooperation Agreement ("Agreement") is entered into by and between **Mapleton City, Utah**, a municipal corporation ("Mapleton"), and **Spanish Fork City, Utah**, a municipal corporation ("Spanish Fork"). Mapleton and Spanish Fork may be referred to individually as a "Party" and collectively as the "Parties."

**SECTION 1. PURPOSE**

The purpose of this Agreement is to provide for cooperative assistance between the Parties for building inspection and plan review services in order to promote efficiency, maintain service levels, and provide operational flexibility.

**SECTION 2. AUTHORITY**

This Agreement is entered into pursuant to the Utah Interlocal Cooperation Act, Utah Code Ann. § 11-13-101 et seq. Each Party represents that it has the authority to enter into this Agreement and to perform the obligations described herein.

**SECTION 3. SCOPE OF SERVICES**

3.1 Either Party ("Requesting Party") may request assistance from the other Party ("Assisting Party") for:

- Building inspections; and/or
- Plan review services.

3.2 Services shall be performed by qualified and properly certified personnel employed by the Assisting Party.

3.3 All services shall be performed in accordance with:

- The codes, ordinances, policies, and interpretations adopted by the Requesting Party; and
- Applicable state law.

3.4 The Assisting Party shall not be responsible for final permitting decisions unless expressly authorized in writing by the Requesting Party.

**SECTION 4. REQUESTS FOR SERVICE**

4.0 The Assisting Party shall prioritize its own municipal duties and obligations over services requested under this Agreement. Provision of services under this Agreement shall be secondary to the Assisting Party's primary responsibilities to its own jurisdiction.

4.1 A Requesting Party may request services at any time.

4.2 The Assisting Party retains sole discretion to accept or decline any request for services.

4.3 Each Party shall designate a Building Official or other authorized representative to coordinate requests and scheduling.

4.4 The Assisting Party shall provide all of its own equipment including vehicle, gas, electronics, etc. The Assisting Party representatives shall act under the direction of the Requesting Party administrator.

4.5 The Requesting Party shall administer all services provided hereunder within their community. The Requesting Party may designate any employee or agent of the Requesting Party to administer such services within their community. The Requesting Party administrator has all rights, powers, duties and obligations for services performed by the Assisting Party that such administrator has if the same services were performed by employees or agents of the Requesting Party.

## **SECTION 5. COMPENSATION AND BILLING**

5.1 The Requesting Party shall compensate the Assisting Party at a rate of **\$98.00 per hour**, which rate may be modified from time to time upon mutual written agreement of the Parties.

5.2 A minimum charge of **one (1) hour** shall apply to each individual service request.

5.3 Billable time shall include only the time spent performing inspections or plan review services and shall **not include travel time**.

5.4 Time beyond the one-hour minimum may be billed in half-hour (30-minute) increments.

5.5 The Assisting Party shall submit invoices to the Requesting Party on a monthly basis at the end of each calendar month unless no services have been provided during the calendar month.

5.6 The Requesting Party shall remit payment within **thirty (30) days** of receipt of an invoice.

5.7 Each invoice shall include sufficient documentation of services performed, including date, type of service, and time expended.

5.8 Each Requesting Party shall acquire, hold, and dispose of any and all real and personal property used or involved in any request made to the Assisting Party. There will not be any jointly owned or held real or personal property authorized hereunder. Each Party may dispose of their property as they best determine.

5.9 Each Party shall be responsible to administer all finances hereunder according to the fiscal procedures found in Title 10, Chapter 6 of the Utah Code.

## **SECTION 6. EMPLOYEE STATUS NO JOINT VENTURE**

6.1 Employees of the Assisting Party shall remain employees of that Party for all purposes, including compensation, benefits, supervision, and discipline.

6.2 No employee of one Party shall be deemed an employee, agent, or representative of the other Party.

6.3 This Agreement does not create a joint venture between the Parties nor does it create an interlocal entity.

## **SECTION 7. LIABILITY, IMMUNITY, AND INDEMNIFICATION**

7.1 Each Party is a governmental entity under the Utah Governmental Immunity Act (Utah Code Ann. § 63G-7-101 et seq.) and retains all immunities, defenses, limitations of liability, and caps on damages provided by applicable law.

7.2 Each Party shall be responsible for its own acts and omissions and those of its officers, employees, and agents.

7.3 To the extent permitted by law, each Party agrees to indemnify, defend, and hold harmless the other Party from and against claims, damages, losses, and expenses arising out of or resulting from the negligent acts or omissions of the indemnifying Party, its officers, employees, or agents in the performance of this Agreement.

7.4 Nothing in this Agreement shall be construed as a waiver of any governmental immunity or limitation of liability.

## **SECTION 8. INSURANCE**

Each Party shall maintain insurance or self-insurance in compliance with the Utah Governmental Immunity Act and applicable risk management practices.

## **SECTION 9. RECORDS**

All inspection reports, plan review comments, and related documentation generated under this Agreement shall be provided to and maintained by the Requesting Party as its official records, consistent with Utah public records laws.

## **SECTION 10. TERM AND TERMINATION**

10.1 This Agreement shall become effective upon execution by both Parties and shall remain in effect for 20 years unless terminated sooner. This Agreement may be extended by the Parties to a term of 50 years.

10.2 Either Party may terminate this Agreement, with or without cause, upon thirty (30) days written notice to the other Party.

#### **SECTION 11. NO OBLIGATION**

Nothing in this Agreement shall be construed to require either Party to request or provide services. Acceptance of any request for services shall be at the sole discretion of the requested Party.

#### **SECTION 12. GOVERNING LAW AND VENUE**

This Agreement shall be governed by the laws of the State of Utah. Venue for any action arising out of this Agreement shall lie in the Fourth Judicial District Court in Utah County, Utah.

#### **SECTION 13. ENTIRE AGREEMENT**

This Agreement constitutes the entire understanding between the Parties and supersedes all prior agreements relating to its subject matter.

#### **SECTION 14. AMENDMENTS**

This Agreement may be amended only by a written document executed by both Parties.

#### **SECTION 15. SEVERABILITY**

If any provision of this Agreement is held invalid or unenforceable, the remaining provisions shall remain in full force and effect.

#### **SECTION 16. INTERLOCAL ACT REQUIREMENTS**

In accordance with Utah Code Ann. § 11-13-202.5 and related provisions:

- This Agreement shall be approved by each Party's governing body;
- This Agreement shall be executed by authorized officials; and
- A copy of this Agreement shall be filed with the keeper of records of each Party.

#### **SIGNATURES**

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the dates set forth below and this Agreement shall be effective as of the last applied signature date.

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Mapleton City

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Date

E. F. John  
Mapleton City Attorney

M. A. Munn  
Spanish Fork City

Title: MAYOR

APPROVED AS TO FORM

W. J. Munn  
Spanish Fork City Attorney

8/19/2026  
Date

Attest:

Shelley Hendrickson  
Shelley Hendrickson, Deputy City Recorder





# City Council Staff Report

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**Date:** 9/16/2026

**Prepared By:** Logan Miner,  
Parks and Recreation Director

**Public Hearing:** N/A

**Attachments:**

Attachment A- CM/GC  
Proposal Scoring Tabulation  
Resolution

**REQUEST**

Consideration and approval to award the Construction Manager/General Contractor (CM/GC) contract for the Evans Family Park & Sports Fields project to Kenny Seng Construction.

Kenny Seng Construction's proposed fees are:

| <u>Fee</u>                  | <u>Amount</u> |
|-----------------------------|---------------|
| Pre-Construction Fee        | \$0           |
| Construction Management Fee | \$200,000     |
| Cost of Bonds               | \$23,000      |
| Change Order Markup         | 5%            |
| Self-Performed Work Markup  | 10%           |

Approval allows Kenny Seng Construction to begin preconstruction services at no cost to the City. The City is not approving a construction contract at this time. A final Guaranteed Maximum Price (GMP) will be brought back to the City Council for approval before construction begins.

**BACKGROUND & DESCRIPTION**

The City advertised the CM/GC Request for Proposals on the Utah State procurement website from August 14 through September 1, 2026, and received proposals from 13 firms.

Proposals were evaluated using the 500-point criteria established in the RFP: Contractor's Team (200 points), Past Performance (100 points), Management Plan and Approach (100 points), and Fee Proposal (100 points). Kenny Seng Construction received the highest overall ranking and is recommended as the best value to the City. The complete scoring is included as Attachment A – CM/GC Proposal Scoring Tabulation.

Based on current market conditions, staff recommends establishing a \$5 million total construction budget for the project. This budget is intended to cover the GMP and all owner-furnished project items, including the playground, storage, site amenities, and other applicable construction-related costs. The goal of the CM/GC process is to design and construct the project within this \$5 million budget.

Under the CM/GC process, Kenny Seng Construction will work with the City and Sunrise Engineering as the plans are developed. At the 60% and 90% design milestones, the contractor will provide updated cost estimates and recommendations to keep the project within budget. If an estimate exceeds \$5 million, the project team will evaluate scope, materials, value engineering, and other cost reductions before proceeding with the design.

Once the plans are substantially complete, Kenny Seng Construction will competitively bid subcontracted work and develop a proposed GMP. The RFP requires at least three qualified bids for subcontracted work, with the City and engineer participating in determining best value. Any work Kenny Seng Construction proposes to self-perform must also be competitively bid and determined to represent the best value.

The proposed GMP will then return to the City Council for approval before construction begins. If the GMP, together with owner-furnished items and other project costs, does not fit within the \$5 million budget, staff will work with the contractor and engineer to reduce costs or modify the project before requesting Council approval.

A City-controlled construction contingency of approximately 5%–8% will be established with the GMP. Unused City contingency remains with the City.

### **RECOMMENDATION**

Staff recommends that the City Council award the CM/GC contract for the Evans Family Park & Sports Fields project to Kenny Seng Construction.

## Evans Family Park & Sports Fields RFP

### CMGC Scoring Tabulation

[illegible]

## **RESOLUTION NO. 2026**

### **A RESOLUTION OF THE MAPLETON CITY COUNCIL AWARDING THE CONSTRUCTION MANAGER/GENERAL CONTRACTOR CONTRACT FOR THE EVANS FAMILY PARK & SPORTS FIELDS PROJECT TO KENNY SENG CONSTRUCTION**

**WHEREAS**, Mapleton City solicited proposals for Construction Manager/General Contractor ("CM/GC") services for the Evans Family Park & Sports Fields project; and

**WHEREAS**, the City received thirteen proposals, which were evaluated in accordance with the criteria established in the Request for Proposals; and

**WHEREAS**, Kenny Seng Construction received the highest overall ranking and was determined by the evaluation committee to provide the best value to the City; and

**WHEREAS**, the City desires to utilize the CM/GC process to obtain contractor input during design, including cost estimating, constructability review, value engineering, and other services intended to maintain the project within the City's established budget; and

**WHEREAS**, based on current market conditions, the City has established a \$5,000,000 construction budget, which is intended to include the future Guaranteed Maximum Price ("GMP") and owner-furnished project items, including the playground, storage, site amenities, and other applicable construction-related costs; and

**WHEREAS**, Kenny Seng Construction has proposed the following fees and markups:

- Pre-Construction Fee: \$0
- Construction Management Fee: \$200,000
- Cost of Bonds: \$23,000
- Change Order Markup: 5%
- Self-Performed Work Markup: 10%; and

**WHEREAS**, approval of the CM/GC contract does not constitute approval of the final GMP or authorization to begin construction, and the final GMP will be presented to the City Council for separate consideration and approval prior to construction.

**NOW THEREFORE, BE IT RESOLVED** by the City Council of Mapleton, Utah, to award the CM/GC contract for the Evans Family Park & Sports Fields project to Kenny Seng Construction.

PASSED AND ORDERED PUBLISHED BY THE CITY COUNCIL OF MAPLETON, UTAH, This  
16th, Day of September 2026.

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Therin Garret, Mayor

ATTEST:

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Camille Brown  
City Recorder

# City Council Staff Report

**Date:**

September 16, 2026

**REQUEST**

Adopt the updated 2026 Public Works Design Standards.

**Applicant:**

Mapleton City Public Works

**BACKGROUND & DESCRIPTION**

Utah municipalities are required by Utah Code to have their adopted development and infrastructure requirements posted on their website. In December 2023, the City Council adopted the Public Works Design Standards, which contains requirements and standards for public infrastructure under Mapleton's jurisdiction. As is prudent from time to time, Public Works has prepared an updated version of the Design Standards, to address inadvertent errors and omissions, and to keep requirements in line with current practices.

**Location:**

NA

**Prepared By:**

Rob Hunter, City Engineer/  
Public Works Director

**EVALUATION**

Many of the proposed revisions correct minor errors, or provide clarification to existing standards. A redlined version showing all changes is attached. A summary of the more substantial revisions are as follows:

- Prohibiting street trees within 30 feet of an intersection, so existing or potential future stop signs are not blocked.
- Noting that developments along US-89 may be required to include cross traffic easements. Parts of US-89 are shown to need expansion to 5 lanes (2 each direction + turn) in the future. UDOT has added medians on many similar roads. Establishing cross access easements now will help maintain access in the future.
- Adding a section to address trail requirements, such as lighting, striping and signage at street crossings, amenities such as benches and doggy bag stations, and center striping.
- Additional requirements for infiltration testing and retention system design.
- Adding the standard drawings for streetlights Mapleton has used for the last few years.
- Adding a standard detail for minimum pavement and lane width where Mapleton streets connect into US-89.
- Establishing a roundabout detail. Nearby cities have experienced recent outcry regarding new roundabouts that are considered too small, and/or have too narrow approaches. The proposed standard detail is based on Provo's standard (110' outer pavements diameter) that has been used throughout Provo for years, including where UVX buses and trucks with trailers regularly travel. Detailed design for each intersection will determine the final dimensions.

**Public Hearing:**

Yes

**Attachments:**

2026 Public Works Design  
Standards

Redlined changes from  
current version

**RECOMMENDATION**

Adopt the updated 2026 Public Works Design Standards.

# **RESOLUTION NO. XXXX-XX**

## **A RESOLUTION OF THE CITY OF MAPLETON, UTAH TO ADOPT THE UPDATED 2026 MAPLETON CITY PUBLIC WORKS DESIGN STANDARDS**

**WHEREAS**, Utah municipalities are required by Utah Code to adopt development requirements and post them on their public website; and

**WHEREAS**, the Mapleton City Public Works Design Standards were originally adopted in 2023; and

**WHEREAS**, from time to time, it is prudent for municipalities to update their standards to address corrections and omissions, and to keep requirements in line with current industry practices; and

**NOW THEREFORE, BE IT RESOLVED** by the City Council of Mapleton, Utah, that: the City approves and adopts the updated 2026 Mapleton City Public Works Design Standards.

This resolution adopted this 16<sup>th</sup> day of September 2026, by the City Council of Mapleton City, Utah.

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Therin Garrett  
Mayor

ATTEST:

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Camille Brown  
City Recorder



# Public Works Design Standards



January 2026



## **Introduction**

This manual contains standards and requirements for infrastructure under the jurisdiction of Mapleton City Public Works, including streets, trails, storm drain, sewer, culinary water, and pressurized irrigation. This manual shall be used for all private development and public projects performed within Mapleton City jurisdiction. Any variation, substitution or exception to these Public Works Design Standards must be authorized in writing by the Mapleton City Public Works Director or City Engineer.

This manual is divided into the following sections:

**PUBLIC WORKS DESIGN STANDARDS** - This section contains the criteria design professionals shall use for reports and plan submittals.

**PUBLIC WORKS STANDARD PLANS (Supplement to the APWA Utah Chapter Manual of Standard Plans)** – Mapleton City adopts the APWA Utah Chapter Manual of Standard Plans for general use within Mapleton. This section contains drawings that Mapleton City has modified, replaced, or added to the APWA Manual.

**PUBLIC WORKS STANDARD SPECIFICATIONS (Supplement to the APWA Utah Chapter Manual of Standard Specifications)** – Mapleton City adopts the APWA Utah Chapter Manual of Standard Specifications for general use within Mapleton. This section contains specifications that Mapleton City has modified, replaced, or added to the APWA Manual.



## **PUBLIC WORKS DESIGN STANDARDS**

### **STREETS**

#### **Street Location**

- A. Incorporate arterial and collector roads shown in the Mapleton Transportation Master Plan. The final plat shall include the dedication of right-of-way, and plans shall show improvements following the applicable City standard plan for the street classification.
- B. Include local streets shown in the Mapleton Transportation Master Plan, and other local streets to access proposed development. The final plat shall include the dedication of right-of-way, and plans shall show improvements following the applicable City standard plan for the street classification.
- C. Proposed streets shall properly align and be compatible with adjacent streets.
- D. The city may require subdivisions to include one or more temporary dead-end streets (stub streets) which extend to the boundary of the subdivision. All such stub streets shall be fully developed to the boundary of the subdivision. Any plan for the subsequent development of the adjacent property shall provide for the continuation of any such stub street. Stub streets shall include a temporary cul-de-sac, turnaround areas, or travel easement to an adjacent street.
- E. Cul-de-sacs shall be discouraged. Cul-de-sacs may be appropriate in cases where the possibility of future adjacent development does not exist due to topography or existing development, where an additional through street would be unnecessary, or other special circumstances as determined appropriate by the DRC. When permitted, permanent cul-de-sacs shall be designed in accordance with the City standard plan. A sidewalk connection may be required through a cul-de-sac to allow for pedestrian connectivity to existing or future adjacent development and/or public streets.

#### **Intersections**

- F. Streets shall intersect each other as nearly as possible at right angles. Minor streets shall approach the major or collector streets at an angle of not less than eighty degrees (80°).



- G. Offsets in street alignment between fifteen feet (15') and one hundred fifty feet (150') shall be prohibited.
- H. Curbs at intersections shall be rounded with curves having a minimum radius at the lip of curb of fifteen feet (15') for local-to-local street connections, and twenty-five feet (25') for intersections with collector and arterial streets.
- I. ADA compliant ramps shall be required for sidewalks at all intersections. Ramps shall be provided for crossing both intersecting streets, unless otherwise directed by the City Engineer.
- J. Bulb-outs shall be required on minor and major local streets at intersections. See Standard Plans (M-922 and M-923).

## Slope

- K. The minimum grade of any street shall be 0.4%.
- L. The maximum grade of any street shall be eight percent (8%), except in rare cases of specific site constraints that has been approved by the City Engineer. In no case shall the City Engineer approve a street grade in excess of twelve percent (12%).
- M. Cross slopes for new streets shall be 2%. Cross slopes for widening and/or adding curb to an existing street shall target 2% cross slope, with the minimum being 1% and maximum being 4%.

## Curves

- N. Where the street lines within a block deflect from each other at any one point more than ten degrees (10°), there shall be a connecting curve. The radius of the curve for the street centerline shall be not less than five hundred ten feet (510') for arterial streets, three hundred fifty feet (350') for collector streets, and two hundred feet (200') for local streets.
- O. Sharp turns within 5 degrees of a right angle may be approved on minor local streets at the discretion of the City Engineer, provided that the turn includes a knuckle with a minimum of 8 feet of additional pavement width.
- P. Vertical curves shall be required at grade changes, using the following minimum K values ( $L=KA$ , where A = difference in slopes):



|                                        | Crest       | Sag         |
|----------------------------------------|-------------|-------------|
| Collector Street (35 mph design speed) | $K \geq 29$ | $K \geq 49$ |
| Local Street (25 mph design speed)     | $K \geq 12$ | $K \geq 26$ |

### Street names

- Q. New street names shall not duplicate those already existing. A street obviously a continuation of another already in existence should bear the same name. Before the street is named, the proposed name must be submitted to and approved by the Community Development Director.

### Street Cross Section

- R. Streets shall be designed and constructed according to the Mapleton City Standard Plan corresponding to the street classification, including the corresponding pavement and right-of-way widths, curb and gutter, planter strips, sidewalk, and easements.
- S. All Mapleton City streets shall be hard surfaced (asphalt) with a minimum of three inches (3") bituminous coat even with the lip of the curb applied over eight inches (8") of untreated road base consistent with the Mapleton City standard plans. The minimum may be increased based on recommendations of the project geotechnical report. In addition, the developer shall be required to pay a fee to be determined by the City Engineer, for a high density mineral bond to be applied one to three years after development. The City will then be responsible for the application of the high density mineral bond.

### Secondary Access and Traffic Impacts

- T. Subdivision projects of thirty (30) lots or more shall provide at least two (2) points of vehicular access. Second vehicular access requirements for projects other than single-family residential shall be evaluated by the City Engineer based on the project's calculated traffic generation.
- U. A traffic impact study shall be required for all residential subdivisions of thirty (30) lots or more. A traffic impact study shall be required for all non-residential or mixed uses subdivisions or projects that require fifty (50) parking spaces or more.



## Streetlights

- V. Streetlights shall be located at the following locations:
  - 1. Country lane:
    - a. Streetlights not required.
  - 2. Major local and minor local:
    - a. One streetlight per intersection.
    - b. Every 600' on longer sections between intersections.
  - 3. Collector streets:
    - a. Two streetlights at intersections, located kitty-corner from each other.
    - b. Every 300' on longer sections between intersections in residential areas.
    - c. Every 75' along Maple Street, and every 150' in front of commercial developments (see Mapleton City Commercial Design Standards)
  - 4. Paved off-street trails away from street lighting:
    - a. At street crossings.
    - b. Every 150' using trail lighting.
- W. New residential streetlights within Mapleton City are owned and operated by Rocky Mountain Power. Developments shall use the Mapleton City streetlight standard and show streetlight locations on project plans for City review. Final design and installation shall be coordinated through Rocky Mountain Power. Installation of streetlights shall be required before final inspection can pass for the development.
- X. Streetlights south of 1600 South and west of Main St shall always require concrete bases, due to frequent high winds. Direct bury shall not be allowed.

## Signs

- Y. Development projects shall be responsible to show on project plans and install the following signs:
  - 1. Street name signs at every intersection
  - 2. 2-way stop or yield signs at every intersection with a major local, collector, or arterial street.
  - 3. Pedestrian crossing signs at proposed crosswalks.
  - 4. No parking signs, if required for the project.
- Z. Signs south of 1600 South and west of Main St shall always require concrete bases, due to frequent high winds. Direct bury shall not be allowed.



- AA. Street trees shall not be installed within 30-feet of an intersection, so as not to inhibit the view of existing or potential future stop or yield signs.

### **Other Applicable Standards**

- BB. Commercial developments require cross-access to adjacent properties (see Mapleton City Commercial Design Standards)
- CC. Where street design standards are not specified herein or in the Mapleton City Municipal Code, street design shall conform to the latest edition of the American Association of State Highway and Transportation Officials (AASHTO) "A Policy on Geometric Design of Highways and Streets." Other published professional standards, such as ITE or NACTO, may be considered at the discretion of the City Engineer.
- DD. Utah APWA Specification 32 01 31 includes requirements for Pavement Smoothness. For newly paved roads, requirements shall be met at time of final inspection prior to entering durability period, and at the end of durability prior to the City releasing the durability bond. At the discretion of the City Engineer, contractors may be required to perform a profile analysis as detailed in Utah APWA Specification 32 01 31, when streets do not appear to meet pavement smoothness requirements.

## **TRAILS**

- A. Incorporate trails shown in the Mapleton Trails Master Plan, and as shown on Figures 38 and 39 in the Mapleton Transportation Master Plan. The final plat shall include the dedication of necessary right-of-way or trail easement, and plans shall show required trail improvements.
- B. Streetlights shall be required where trails cross streets. In addition, paved off street trails away from street lighting shall include trail lighting every 150'.
- C. Stop signs shall be required to stop trail users where trails cross arterial, collector or major local streets. Cross walk striping will also be required. Stop or yield signs and painted crossings may also be required at minor streets and country lanes based on slope, sight distance, speeds, or volumes, at the discretion of the City Engineer or Parks Director.
- D. Every plat that includes trails shall provide at least one bench, one doggy bag station, and one trash receptacle per trail. At the discretion of the Mapleton City



Parks Director, this requirement may be waived based on existing trail amenities in the immediate vicinity.

- E. Yellow dashed centerlines shall be included on paved trails.

## STORM DRAIN

### General Requirements

- A. Each development shall retain and infiltrate the 100-year, 24-hour storm.
- B. Each development shall submit a Drainage Report containing the following information:
  - 1. Description and exhibit of existing site conditions, including:
    - a. Property boundary
    - b. Existing onsite ditches, swales, canals, pipes or other drainage facilities.
    - c. Onsite drainage areas.
    - d. Offsite drainage areas where lands upstream of the site would produce stormwater discharges onto the project site.
    - e. Existing contours labeled.
    - f. Waters of the US or Jurisdictional Wetlands, if applicable.
    - g. FEMA floodplain, if applicable.
  - 2. Description and exhibit of proposed site conditions, including:
    - a. Property boundary.
    - b. Proposed onsite and upstream offsite drainage areas.
    - c. Proposed stormwater facilities, including those to protect the site from upstream discharge, and those to capture and infiltrate the onsite 100-year 24-hour storm.
    - d. Existing and proposed contours labeled.
    - e. Waters of the US or Jurisdictional Wetlands, if applicable.
    - f. FEMA floodplain, if applicable.
  - 3. Description of groundwater conditions at the site, as identified in the Geotech Report (see stormwater related Geotech Report requirements below).
  - 4. Hydrologic calculations showing how the 100-year 24-hour storm was determined.



5. Hydraulic calculations used to verify proposed facilities have sufficient capacity. Identify how infiltration rates were determined from the Geotech report, including what safety factor was applied.
  6. Identify who will own and maintain existing and proposed storm water facilities.
- C. Each development disturbing an acre or more shall submit a Storm Water Pollution Prevention Plan.

### **Street Drainage**

- D. Inlets shall be placed on both sides of the street at a distance of no more than 400', when gutter flows are 3 cfs or more, and upstream of every intersection, ADA ramp, and reverse grade driveway.
- E. Double inlets shall be placed at low points of vertical street curves, and at the spacing specified above on streets with 5% or greater slopes.

### **Pipes**

- F. Public storm drain shall be RCP, dual wall (gray) ADS, or HDPE.
- G. Storm drain shall be sized according to the calculations submitted in the drainage report, and the minimum allowable size shall be 12" for laterals (inlet to manhole) and 18" for main line.
- H. The minimum slope shall be 0.4% to the maximum extent feasible. Where 0.4% is not feasible, the minimum slope shall be equivalent to a full flow velocity of 3 fps.
- I. Storm drain manholes shall be located no further than 400' apart, and at all pipe transitions including changes in direction, elevation, slope, and pipe size.
- J. Normal depth calculations can be used for sizing when calculations show pipes are no more than 75% full. Alternatively, a full hydraulic model including minor losses can be used showing the HGL no higher than 1' below grade.
- K. Public storm drain shall generally be located in public right-of-way. If storm drain cannot be located in the public right-of-way, it shall require a minimum 20' easement.

### **Open Channels**



- L. Open channels shall not generally be allowed in new developments unless required to protect identified jurisdictional waters. When allowed, open channels shall include 1' of freeboard above the 100-year flow.
- M. Maximum permissible velocities of engineered channels shall account for channel materials as follows:
  - 1. Fine sand, colloidal = 1.5 fps
  - 2. Fine gravel = 2.5 fps
  - 3. Course gravel, noncolloidal = 4 fps
  - 4. Large cobbles or unreinforced vegetation = 5 fps
  - 5. Riprap (sizing calculations must be submitted) = 10 fps
- N. A 10' minimum paved maintenance access shall be provided to one side of the open channel. Installation of the paved access shall be required before final inspection can pass for the development. An easement shall be provided from the edge of the maintenance access to 2' beyond the opposite top of channel. The minimum allowable easement shall be 20'.

## **Retention Systems**

- O. Allowable retention and infiltration system shall be as follows:
  - 1. Underground Stormtech, Cultech or HydroStor systems, or equivalent engineered systems approved by the City Engineer
  - 2. Above ground retention ponds
  - 3. Bioswales and rain gardens
  - 4. Permeable pavers or concrete in parking lots
  - 5. Infiltrations sumps
- P. Pretreatment of snouts or equivalent shall be required on all inlets, unless an alternative pretreatment has been approved by the City engineer and shown on the plans. Oil absorbent pillows shall be required in all inlets for developments wholly or partially contained in a Well Protection Zone 2.
- Q. Underground retention systems:
  - 1. A manhole or equivalent access shall be required in line with the isolator row, to allow for regular maintenance of the system.
  - 2. A 6" or larger inspection port shall also be required at the far end of the isolator row, to allow for regular inspection of silt and debris buildup in the isolator row.
- R. Above ground retention:
  - 1. A minimum of 1' of freeboard shall be provided above the 100-year elevation.



2. Side slopes shall be 2H:1V or flatter for ponds 2' or shallower total depth (including freeboard), and 3H:1V or flatter for ponds above 2' total depth.
3. Regular maintenance of vegetation within the pond shall be the responsibility of the property owner. The City will maintain pipes, sumps, and other concrete structures.
4. Above ground retention shall included at least one 6' deep infiltration sump per 5,000 SF of pond area, or one 10' deep infiltration sump per 8,000 SF of pond area. Storm drain inflow shall tie directly into the sump below ground, and all sumps shall be connected via storm drain. Sumps shall use a grated manhole cover, so that larger storms rise up into the above ground retention after all sumps are full. The bottom of the pond shall be sloped to the grated manhole covers at a minimum 2% slope.
5. For above-ground retention where groundwater is too shallow to allow for sumps below the pond, the minimum first three feet of soil below the surface of the retention pond shall be clean gravel or sand with less than 12% fines (GW, GP, SW, or SP).
6. Landscaping shall be required to be installed in above ground retention before final acceptance, following the general landscaping of the overall project. For example, projects maintaining natural vegetation in common areas may use natural seeding for the retention pond. Xeriscape, grass, gravel or larger landscape rock, and shrubs can also be used so long as maintenance access to structures is maintained and roots from larger vegetation will not compromise embankment integrity. Bark mulch and other floatable materials are prohibited.
7. The design permeability rate (see item X under Geotech below) shall allow for above ground retention to drain in 72-hours or less after a 100-year storm.
8. If after construction and landscaping is installed it appears that the post-construction soils condition does not match the design assumptions or requirements, City staff may require the contractor to provide post-construction testing proving soils classifications and/or permeability requirements are met.
- S. Public retention systems not located within City right-of-way shall be located adjacent to a street or other publicly accessible paved area. Public retention systems shall not be located in backyards, nor in areas enclosed by private fences.
- T. Retention systems shall have paved access to outfalls, manholes, sumps, and/or other structures that will be the City's responsibility to maintain. Installation of the



paved access shall be required before final inspection can pass for the development.

- U. Emergency overflow of the retention system shall be provided for the event that the retention facility plugs or otherwise fails. The emergency overflow shall be designed such that overflows can continue downstream of the development to a City right-of-way, channel, or storm drain system without flooding homes, buildings, or adjacent properties.

## **FEMA Floodplains**

- V. See Chapter 15.44 Flood Damage Prevention, Mapleton City Code.

## **Geotech for Stormwater and Groundwater**

- W. A project's Geotechnical Report shall include the following to analyze groundwater at the site:
  - 1. Test pits and borings shall extend to at least 3 feet below the bottom of proposed finished floors (including basements) and retention/infiltration facilities.
  - 2. Elevations for test pits and borings shall be consistent with benchmarks established for the project throughout design and construction. Data shown only as "XX.X feet below existing" without identifying the actual elevations based the project benchmark is not adequate.
  - 3. Mapleton City maintains groundwater observation wells within the south-central and western areas of the city. Data from 2014 onward can be found on the Mapleton Public Works website under GIS Data or Stormwater>GIS Data. If no identifying features of a high-water mark can be found during the project geotechnical analysis, historic groundwater fluctuations at the City wells should be compared to project groundwater readings to estimate the high groundwater and establish minimum finished floor elevations and the bottom of infiltration systems. Minimum finished floor elevations shall be no lower than 3-feet above estimated high groundwater, and infiltration systems shall be no lower than 2-feet above estimated high groundwater.
  - 4. If the Geotech believes groundwater fluctuations at the city wells do not apply to a certain project, the project geotechnical report should address the reasons why the site is different and what observations were made to estimate high groundwater elevations. Projects within known or suspected high groundwater areas disputing the comparison to historic City well data may be required to



- complete a 1-year groundwater analysis, at the discretion of the City Engineer. Project groundwater observations shall include piezometer readings at least every two weeks during spring runoff and irrigation season (if in the vicinity of irrigated fields), and at least monthly the remainder of the year. Readings from 1-year study shall be compared to readings at the City wells during that same period to evaluate whether historic groundwater fluctuations at City wells should apply or not.
5. Areas outside of known or suspected high groundwater may have the 1-year study waived, at the discretion of the City Engineer. Test pits and borings for these projects shall still extend 3 feet below the bottom of proposed finished floors and retention/infiltration facilities. If no groundwater or visual indication of historic groundwater is observed, minimum finished floor elevations shall be no lower than 3-feet above the bottom of the test pit, and infiltration systems shall be no lower than 2-feet above the bottom of the test pit.
- X. Because Mapleton City's stormwater requirements include retention and infiltration, Geotech Reports shall include an analysis of measured permeability rate for the existing in-situ soil, and a design permeability rate using a safety factor of at least 2.5 to account for plugging, siltation, and the creation of biofilms over time. For example, if the measured permeability is 5 in/hr, the design infiltration rate for the retention/infiltration systems shall be no more than 2 in/hr. The maximum allowable design permeability is 8 in/hr (where measured permeability in a stamped Geotech report/letter is 20 in/hr or more).
- Y. One of the two following options shall be required for permeability testing for infiltration systems:
1. Option 1: Permeability shall be tested at each location proposed for infiltration, and design permeability calculated for each infiltration system based on the site-specific testing. Large retention ponds shall have a test for every 10,000 sf of pond area.
  2. Option 2: Permeability shall be tested at a minimum of three (3) general locations distributed throughout the project area, and the lowest permeability of the 3 locations shall be used to calculate the design permeability for all infiltration systems.

## **SANITARY SEWER**

### **Size and Material**



- A. Sanitary sewer shall be green SDR-35 pipe. Minimum size for sewer main is 8" diameter. Size for trunklines shall conform to the Mapleton City Wastewater Master Plan.
- B. Smaller main lines (up to 15") shall be sized to be no more than 50% full. Trunk lines (18" and above) shall be sized to be no more than 75% full.

## Slopes

- C. The minimum slope of sanitary sewer shall be the following:

| Sewer size    | Minimum Slope |
|---------------|---------------|
| 8"            | 0.40%         |
| 10"           | 0.28%         |
| 12"           | 0.22%         |
| 15"           | 0.15%         |
| 18"           | 0.12%         |
| 21" and above | 0.10%         |

- D. Sewer mains may not be upsized for the purpose of achieving a flatter slope unless calculations are provided by the engineer showing the system will have a minimum velocity of no less than 2.0 fps.
- E. The upstream segments of 8" mains may be required to be placed at 1% min. slope if there is not sufficient flow to provide adequate scour velocity.
- F. Slopes above 5% will require additional flow and velocity calculations to determine if additional requirements are needed to prevent hazardous conditions.

## Vertical and Horizontal Alignment

- G. Top of sewer shall be at least 18" below bottom of culinary water lines, and at least 4' below the ground surface.
- H. Sewer shall be a minimum of 10' horizontally from culinary water lines, measured outside of pipe to outside of pipe.
- I. Sewer pipes shall not intersect at an angle greater than 90°.

## Manholes

- J. Sewer manholes design shall follow Mapleton City Standard Plan M-411.
- K. Sewer manholes shall be placed no more than 400' apart.



- L. Sewer manholes shall have a minimum 4' inner diameter. Minimum 5' inner diameter shall be required for manholes with 3 or more pipe connection 8" or above (such as the junction of two mainlines), manholes over 15' deep, or where the manhole has an invert drop of 1 foot or greater.

### **Laterals and pretreatment**

- M. Single family residential structures shall be serviced from separate laterals.
- N. Standard lateral size is 4" for single family residential, or common laterals serving 5 or fewer Equivalent Residential Units.
- O. Minimum lateral size for all other uses is 6".
- P. Minimum slope for a sewer lateral is 2%. 6" laterals having a slope no less than 1% may be approved by the City Engineer, if the design engineer provides calculations showing the capacity is adequate based on calculated project flows, and the sewer is in front of the property it services and does not cross other properties.
- Q. Lateral tie-ins shall be according to Utah APWA Standard Plan 431. Tie-ins at manholes shall be no higher than the top of the mainline and shall have a trough to the mainline trough.
- R. Because the Mapleton City sewer discharges to the sewer treatment plant in Spanish Fork, the pretreatment program is administered by Spanish Fork. All non-residential (commercial, industrial, etc.) users are required to submit a Pretreatment Questionnaire to Spanish Fork Public Works to determine the need for pretreatment such as a grease trap or sand/oil separator. A link to the questionnaire can be found on Spanish Fork's website under Pretreatment Regulations. Pretreatment shall be sized according to the current Uniform Plumbing Code (UPC).

## **CULINARY WATER**

### **Size and Material**

- A. Culinary water system mains shall be sized as shown in Mapleton City's Master Plan. For local mains not shown in the Master Plan, the State of Utah Minimum Sizing Requirement (R309-510) shall be used, within the minimum allowable main being 8-inches.



- B. All projects proposing culinary water main or connections shall submit plans to the City's water modeling consultant for analysis, to be paid at the developer's expense. Contact Public Works for contact information.
- C. Culinary water systems under 16" shall be specified as Blue C900 DR18 (235 PSI) PVC. Culinary water systems 16" and above shall be Ductile Iron AWWA C600.
- D. Culinary water mains shall be installed with identification tape following the product requirements of Utah APWA Specification 33 05 20, buried at the top of the imported back fill 18" above the pipe.

### **Vertical and Horizontal Alignment**

- E. A minimum of 4' and maximum of 5' of cover shall be provided for all culinary water pipes. Cover may exceed 5' only where necessary to avoid conflicts with other utilities.
- F. Minimum horizontal spacing between culinary water and sanitary sewer is 10', per Utah Code. The minimum spacing from other utilities is 3' (outside to outside of pipe), to leave space between utilities for repairs without undermining adjacent utilities.
- G. Where water lines must cross sewer lines, 18" of clearance must be maintained between the bottom of the water line and top of the sewer, per Utah Code.
- H. Minimum radius shall follow manufacturer's recommendations to ensure maximum deflection is not exceeded. Joint restraints and thrust blocks shall be provided at hard bends. Follow Mapleton City thrust block standard drawing.
- I. Developments shall provide looping (redundancy) for their entire project.
- J. In residential subdivisions, water mains shall be located in the street. Water mains not located in the public right-of-way shall be located within a minimum 20' easement.

### **Valves**

- K. A cluster of valves (one each direction) shall be provided at every junction (3 for tees, 4 for crosses) of the main. No hot taps allowed.
- L. Valves up to 12" shall be resilient seated gate valves. Valves above 12" shall be butterfly valves.



- M. Concrete collars shall be provided for all valves. Follow Mapleton City water valve standard drawing.

### **Services and meters**

- N. The minimum service and meter size shall be 1". Follow Mapleton City standard drawings for water service connections.
- O. Meter boxes shall be located outside of sidewalks and driveways. If location in a driveway is unavoidable, box and lid must be traffic rated.
- P. Private booster pumps shall not be allowed.
- Q. Fire flow pipes shall connect to the main separately from the services.

### **Fire Hydrants**

- R. Provide minimum fire flow required by the Uniform Fire Code for proposed structures. Submit fire suppression plans to the Fire Chief for review and approval.
- S. The maximum allowable spacing between fire hydrants is 500' (250' from buildings). Fire hydrants shall also be placed at the end of cul-de-sacs or other dead-end streets, and every 1000' on offsite transmission lines.
- T. Fire hydrants shall be located at property lines to the maximum extent feasible.
- U. The "foot valve" for fire hydrants shall be placed at the tee, not next to the hydrant. Follow Mapleton City fire hydrant connection standard drawing.

### **Air Relief Valves**

- V. Air-vacuum valve stations shall be placed at high points on transmission lines and at other locations as required for proper system operation.
- W. Air-vacuum valve station venting shall be located in a landscaped area near the edge of right-of-way (ROW).

## **PRESSURIZED IRRIGATION (SECONDARY WATER)**

### **Size and Material**



- A. Pressurized irrigation mains shall be sized as shown in Mapleton City's Master Plan. For local mains not shown in the Master Plan, the minimum allowable main shall be 8-inches.
- B. All projects proposing pressurized irrigation main or connections shall submit plans to the City's water modeling consultant for analysis, to be paid at the developer's expense. Contact Public Works for contact information.
- C. Pressurized irrigation systems shall be specified as Purple C900 DR18 (235 PSI) PVC.
- D. Pressurized irrigations mains shall be installed with identification tape following the product requirements of Utah APWA Specification 33 05 20, buried at the top of the imported back fill 18" above the pipe.

### **Vertical and Horizontal Alignment**

- E. A minimum of 4' and maximum of 5' of cover shall be provided for all culinary water pipes. Cover may be reduced to 30" only where necessary to avoid conflicts with other utilities.
- F. The minimum spacing from other utilities shall be 3' (outside to outside of pipe), to leave space between utilities for repairs without undermining adjacent utilities.
- G. Minimum radius shall follow manufacturer's recommendations. Joint restraints or thrust blocks shall be provided at hard bends. Follow Mapleton City thrust block standard drawing.
- H. Developments shall provide looping (redundancy) for their entire project.
- I. In residential subdivisions, pressurized irrigation mains shall be located in the street. Mains not located in the public right-of-way shall be located within a minimum 20' easement.

### **Valves**

- J. A cluster of valves (one each direction) shall be provided at every junction (3 for tees, 4 for crosses) of the main.
- K. Valves up to 12" shall be resilient seated gate valves. Valves above 12" shall be butterfly valves.



- L. Concrete collars shall be provided for all valves. Follow Mapleton City water valve standard drawing.

### **Services and meters**

- M. The minimum service and meter size shall be 1" for residential connections. Follow Mapleton City standard drawings for secondary irrigation service connections.
- N. Meter boxes shall be located outside of sidewalks and driveways. If location in a driveway is unavoidable, box and lid must be traffic rated.
- O. Private booster pumps shall not be allowed.

### **Air Relief Valves**

- P. Air-vacuum valve stations shall be placed at high points on transmission lines and at other locations as required for proper system operation.
- Q. Air-vacuum valve station venting shall be located in a landscaped area near the edge of right-of-way (ROW).

### **Drain Lines**

- S. 2" minimum drain lines shall be provided to storm drain inlets at every low point in the PI system. At least one drain line shall be provided in every development.



## PUBLIC WORKS STANDARD PLANS



## **Preface**

Mapleton City has adopted the APWA Utah Chapter Manual of Standard Plans for general use within Mapleton. However, in some cases the City has either modified or replaced the APWA Standard Plan. In other cases the City has added a drawing for items not fully addressed in the APWA Standard Plans.

This document serves to detail the standard plans that shall be used within Mapleton City. The Table of Contents lists the adopted standard plans, including which ones are adopted from the APWA Manual of Standard Plans (indicated by the APWA plan #) and which ones have been modified or added (generally following the APWA plan numbering, but with an “M” indicating Mapleton City has modified or added it). Standard Plans that Mapleton City has modified, replaced, or added are included with this document. The APWA Utah Chapter Manual of Standard Plans is available for purchase on the APWA Utah Chapter website ([utah.apwa.net](http://utah.apwa.net)).

The Table of Contents also includes a “Do Not Use” indication for some APWA plans. These indicate items that generally will not be permitted within Mapleton City. Exceptions may be made in rare circumstances, and only after explicit written consent by the City Engineer or his/her designee.



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| Sanitary sewer manhole.....                  | APWA Plan 411 |
| Invert cover.....                            | APWA Plan 412 |
| Cover collar for sanitary sewer manhole..... | APWA Plan 413 |

### Piping

|                               |               |
|-------------------------------|---------------|
| Sewer lateral connection..... | APWA Plan 431 |
| Sewer lateral relocation..... | APWA Plan 432 |
| Pipe drop.....                | APWA Plan 433 |

### Liquid Separation Systems

|                  |               |
|------------------|---------------|
| Grease trap..... | APWA Plan 441 |
|------------------|---------------|

### **Trenching.....*Mapleton City Plan M-255***

## PART 5 – WATER SYSTEMS

### Abbreviations and Symbols

|                                          |               |
|------------------------------------------|---------------|
| Abbreviations and symbols for water..... | APWA Plan 501 |
|------------------------------------------|---------------|

### Concrete boxes and hardware

|                                 |               |
|---------------------------------|---------------|
| 27" Frame and cover.....        | APWA Plan 502 |
| 38" Frame and double cover..... | APWA Plan 503 |
| Concrete meter boxes.....       | APWA Plan 505 |

### Fire Hydrants

|                              |                                 |
|------------------------------|---------------------------------|
| Fire hydrant with valve..... | <i>Mapleton City Plan M-511</i> |
|------------------------------|---------------------------------|

### Meters

|                                                        |                                 |
|--------------------------------------------------------|---------------------------------|
| 1" culinary water service connection.....              | <i>Mapleton City Plan M-521</i> |
| 1 ½" and 2" culinary water service connection.....     | <i>Mapleton City Plan M-522</i> |
| 3" and 4" compound meter with 2" bypass.....           | <i>Do Not Use</i>               |
| 6" compound meter with 2" bypass.....                  | <i>Do Not Use</i>               |
| 8" compound meter with 2" bypass.....                  | <i>Do Not Use</i>               |
| 10" Turbo meter with 6" turbo meter and 2" bypass..... | <i>Do Not Use</i>               |



|                                                |                                        |
|------------------------------------------------|----------------------------------------|
| Pressurized irrigation service connection..... | <b><i>Mapleton City Plan M-530</i></b> |
| Pressurized irrigation service meter.....      | <b><i>Mapleton City Plan M-531</i></b> |

## Monitoring Systems

|                                              |               |
|----------------------------------------------|---------------|
| Electrolysis monitoring station details..... | APWA Plan 535 |
|----------------------------------------------|---------------|

## Piping

|                                             |                 |
|---------------------------------------------|-----------------|
| Water service line.....                     | APWA Plan 541   |
| Water service line loop.....                | APWA Plan 542   |
| Water main loop                             |                 |
| Style A.....                                | APWA Plan 543.1 |
| Style B, C.....                             | APWA Plan 543.2 |
| Fire hydrant replacement or relocation..... | APWA Plan 546   |
| ¾" and 1" Service taps.....                 | APWA Plan 551   |
| 1 ½" and 2" Service taps.....               | APWA Plan 552   |

## Thrust Blocks

|                                  |                                        |
|----------------------------------|----------------------------------------|
| Direct bearing thrust block..... | <b><i>Mapleton City Plan M-561</i></b> |
| Tie-down thrust restraints.....  | APWA Plan 562                          |

## Trenching..... ***Mapleton City Plan M-255***

## Valves

|                                                |                                        |
|------------------------------------------------|----------------------------------------|
| 4" Washout valve.....                          | <b><i>Do Not Use</i></b>               |
| Detector check valve with ¾" bypass meter..... | <b><i>Do Not Use</i></b>               |
| 6" Pressure reducing valve with 2" bypass..... | <b><i>Mapleton City Plan M-573</i></b> |
| Water valve.....                               | <b><i>Mapleton City Plan M-574</i></b> |
| Air release assembly.....                      | APWA Plan 575                          |

## General

|                                                          |                 |
|----------------------------------------------------------|-----------------|
| Pressurized irrigation water and potable water interface |                 |
| Type A – pump interconnect.....                          | APWA Plan 593.1 |
| Type B – backflow preventer interconnect.....            | APWA Plan 593.2 |

## PART 6 – IRRIGATION AND LANDSCAPING

### Abbreviations and Symbols

|                                                               |               |
|---------------------------------------------------------------|---------------|
| Abbreviations and symbols for irrigation and landscaping..... | APWA Plan 601 |
|---------------------------------------------------------------|---------------|

### Gravity flow system

|                                   |               |
|-----------------------------------|---------------|
| Curb face inlet – irrigation..... | APWA Plan 611 |
| Irrigation diversion box.....     | APWA Plan 613 |



Irrigation diversion box.....APWA Plan 614

## Heads

Stationary head.....APWA Plan 621

Pop-up head.....APWA Plan 622

## Valves

Backflow preventer

Less than 3 inches.....APWA Plan 631.1

3 Inches and larger.....APWA Plan 631.2

Drain valve.....APWA Plan 632

Control valve.....APWA Plan 633

Isolation valve.....APWA Plan 635

## Electrical

Wire runs for landscape irrigation.....APWA Plan 651

## Trees and Plants

Tree.....APWA Plan 681

Shrubs and bushes.....APWA Plan 683

## PART 7 – LIGHTING, TRAFFIC CONTROL

### Street Lighting

Abbreviations and symbols for traffic signals.....APWA Plan 702

Riser.....*Do Not Use*

Collar for street light pole.....*Do Not Use*

Junction box.....*Coordinate with Rocky Mountain Power*

Trench for buried electrical conduit

Park strip.....*Coordinate with Rocky Mountain Power*

Roadway.....*Do Not Use*

Joint use trench.....*Coordinate with Rocky Mountain Power*

Street light pole terminal.....*Do Not Use*

Street light meter pedestal.....*Do Not Use*

Screw-in base street light pole.....*Mapleton City Plan M-741*

Direct burial street light pole.....*Mapleton City Plan M-742*

Concrete base for street light pole.....*Mapleton City Plan M-743*

Collector Single Streetlight.....*Mapleton City Plan M-744*

Collector Double Streetlight.....*Mapleton City Plan M-745*



## Signals

|                                  |                           |
|----------------------------------|---------------------------|
| Signal pole foundation.....      | <i>See UDOT Standards</i> |
| Signal pole wiring.....          | <i>See UDOT Standards</i> |
| Signal light head                |                           |
| Types and drawing symbols.....   | <i>See UDOT Standards</i> |
| Placement.....                   | <i>See UDOT Standards</i> |
| Signal cabinet base              |                           |
| Type 5.....                      | <i>See UDOT Standards</i> |
| Type 6.....                      | <i>See UDOT Standards</i> |
| Pedestrian push button pole..... | <i>See UDOT Standards</i> |

## Speed humps

|                  |                   |
|------------------|-------------------|
| Speed bump.....  | <i>Do Not Use</i> |
| Speed table..... | APWA Plan 762     |

## PART 8 – GENERAL FACILITIES

### Design Standards

|                         |                 |
|-------------------------|-----------------|
| Defective concrete..... | APWA Plan 802   |
| Design vehicle          |                 |
| Type A.....             | APWA Plan 805.1 |
| Type B.....             | APWA Plan 805.2 |

### Security Fencing

|                       |               |
|-----------------------|---------------|
| Chain link fence..... | APWA Plan 832 |
|-----------------------|---------------|

### Miscellaneous

|                   |               |
|-------------------|---------------|
| Bus stop pad..... | APWA Plan 880 |
|-------------------|---------------|

## PART 9 – STREET DESIGN

### Typical Street Sections

|                                            |                                 |
|--------------------------------------------|---------------------------------|
| Local and collector streets.....           | <i>Mapleton City Plan M-901</i> |
| SR-147 Sections.....                       | <i>Mapleton City Plan M-902</i> |
| Hillside local and country lane.....       | <i>Mapleton City Plan M-903</i> |
| Pavement section and utility location..... | <i>Mapleton City Plan M-910</i> |

### Street design

|                                             |                                 |
|---------------------------------------------|---------------------------------|
| Local-to-local street intersection.....     | <i>Mapleton City Plan M-921</i> |
| Local-to-collector street intersection..... | <i>Mapleton City Plan M-922</i> |



|                                |                                 |
|--------------------------------|---------------------------------|
| Intersections with US-89 ..... | <i>Mapleton City Plan M-923</i> |
| Standard Roundabout .....      | <i>Mapleton City Plan M-924</i> |
| Cul-de-sac .....               | <i>Mapleton City Plan M-931</i> |
| Street Tree Trimming .....     | <i>Mapleton City Plan M-941</i> |

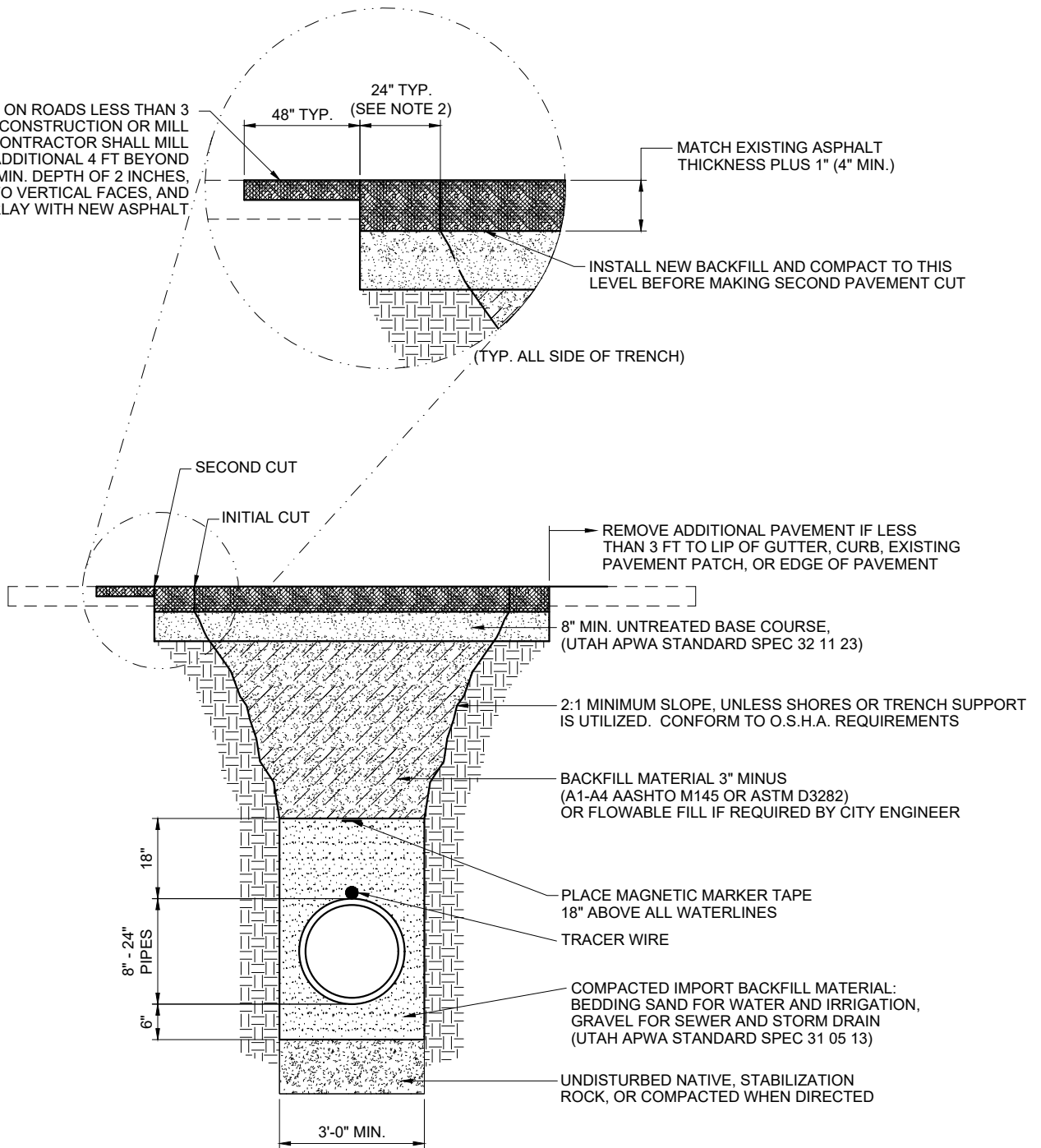
END OF CONTENTS



## **PUBLIC WORKS STANDARD SPECIFICATIONS**

The following Modifications to General Conditions (Supplementary Conditions) shall apply to all construction work contracted with Mapleton City. At its sole discretion, the City may modify insurance coverage limit requirements in the bid and contract documents for specific projects, depending on the scope and size of the project.

FOR TRENCHES ON ROADS LESS THAN 3 YEARS AFTER NEW CONSTRUCTION OR MILL AND OVERLAY, CONTRACTOR SHALL MILL TRENCH AREA AN ADDITIONAL 4 FT BEYOND THE SECOND CUT, A MIN. DEPTH OF 2 INCHES, APPLY TACK COAT TO VERTICAL FACES, AND OVERLAY WITH NEW ASPHALT



NOTES:

1. NO SAW CUTS TO END UP IN THE WHEEL PATH.
2. IF PAVEMENT IS LESS THAN 1 YR OLD, REPLACE ASPHALT ACROSS FULL WIDTH OF PAVEMENT.
3. WRAP ALL DUCTILE IRON PIPE WITH 8 MIL. THICK POLYETHYLENE SHEET AND TAPE. APPLY POLY-FM GREASE TO ALL METAL FITTINGS.



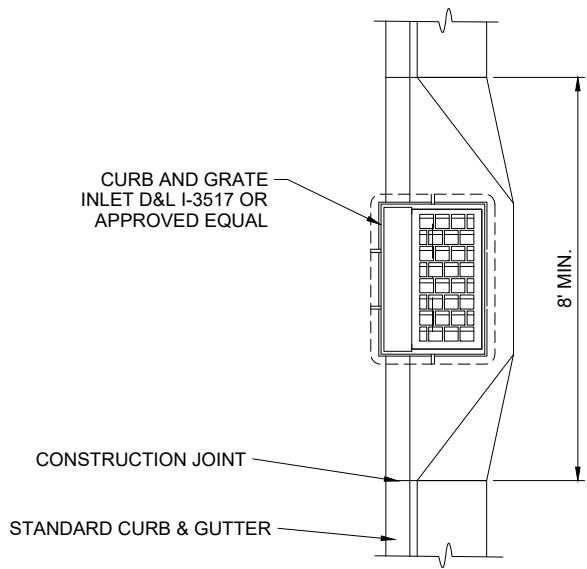
2026 MAPLETON STANDARD PLANS

TRENCH CROSS SECTION

STD. PLAN NO.

M-255

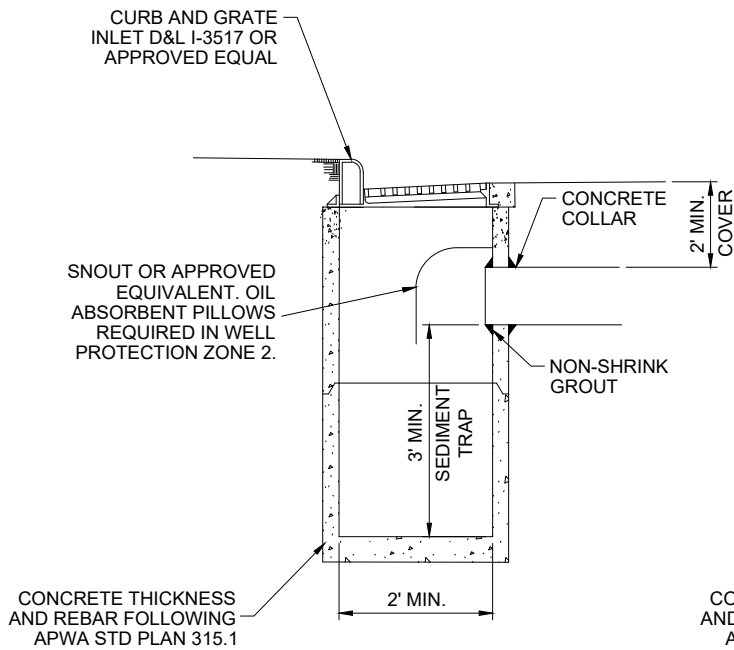
Sheet 1 of 1



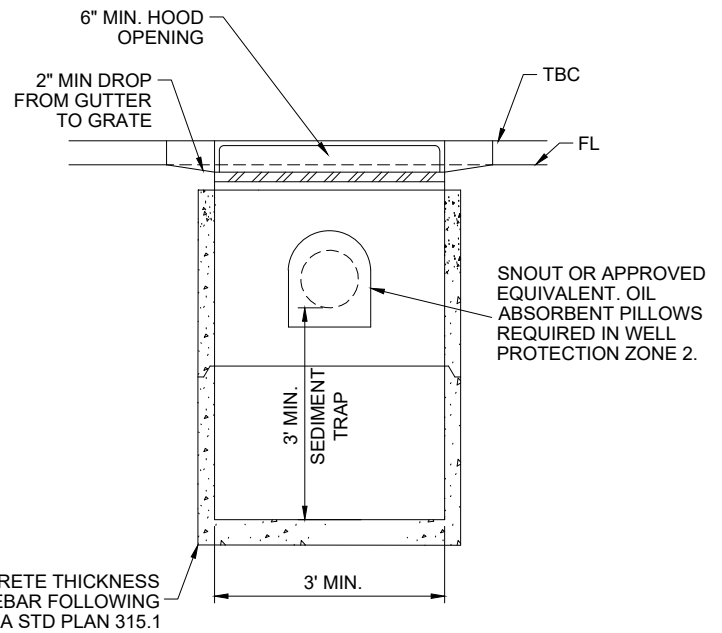
**PLAN**

NOTES:

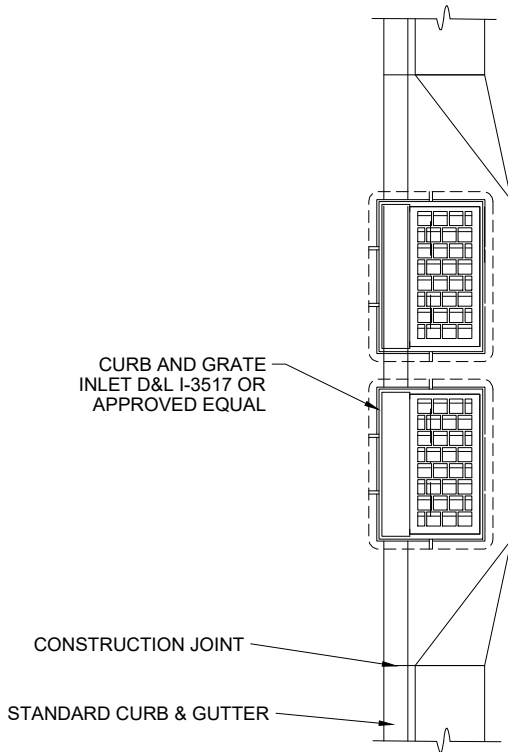
1. CONCRETE AND STEEL REINFORCEMENT PER APWA STANDARD PLAN 315.1.
2. BOXES AND FRAMES MUST SUPPORT HS-20 LOADS.
3. REFER TO APPROVED PLAN SET FOR PIPE SIZE AND LOCATIONS.
4. A SNOOT WITH MIN. 36" SEDIMENT TRAP IS REQUIRED AT EVERY INLET UNLESS ALTERNATE TREATMENT PLAN HAS BEEN APPROVED AND SHOWN IN PLANS. AN ATTACHED OIL ABSORBENT PILLOW IS REQUIRED IN WELL PROTECTION ZONE 2.



**SIDE ELEVATION**



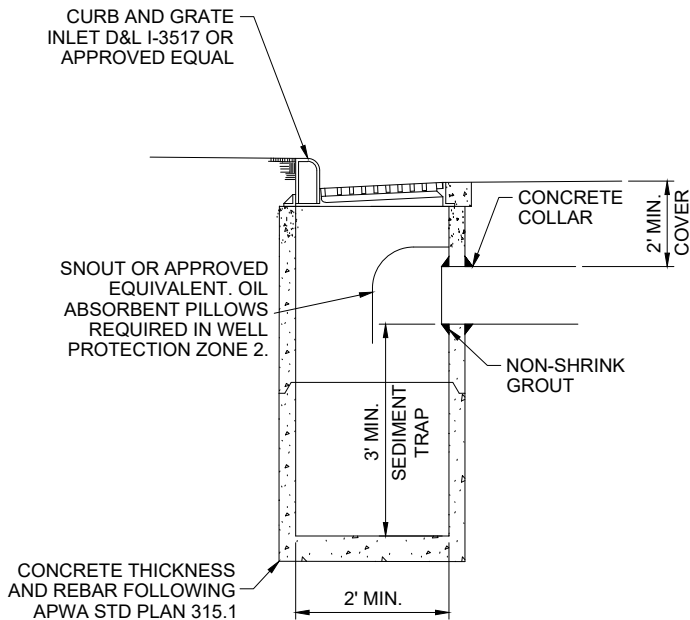
**FRONT ELEVATION**



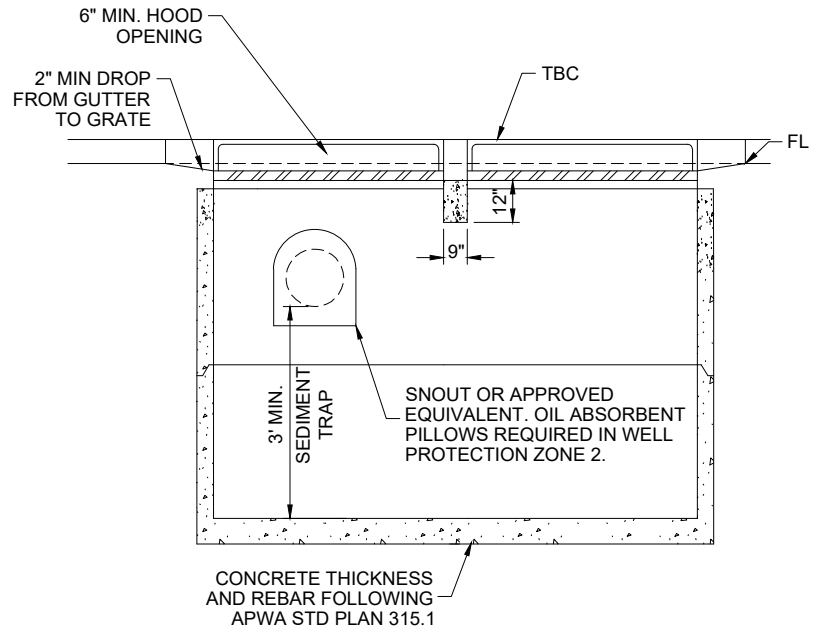
**PLAN**

NOTES:

1. CONCRETE AND STEEL REINFORCEMENT PER APWA STANDARD PLAN 315.2.
2. BOXES AND FRAMES MUST SUPPORT HS-20 LOADS.
3. REFER TO APPROVED PLAN SET FOR PIPE SIZE AND LOCATIONS.
4. A SNOOT WITH MIN. 36" SEDIMENT TRAP IS REQUIRED AT EVERY INLET UNLESS ALTERNATE TREATMENT PLAN HAS BEEN APPROVED AND SHOWN IN PLANS. ATTACHED OIL ABSORBENT PILLOWS ARE REQUIRED IN WELL PROTECTION ZONE 2.



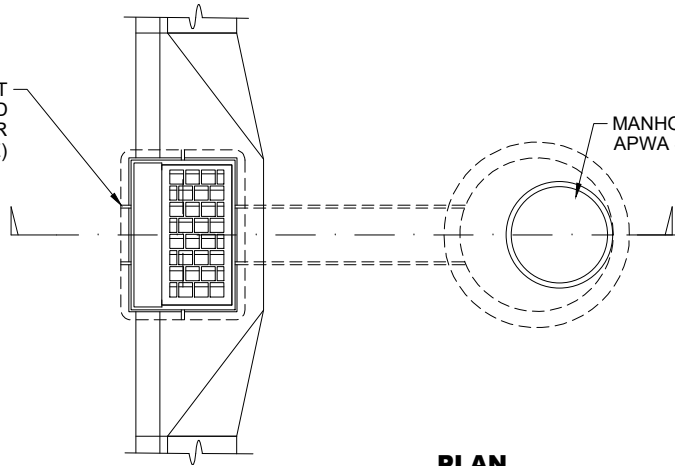
**SIDE ELEVATION**



**FRONT ELEVATION**

CURB INLET  
MAPLETON STANDARD  
PLAN 315.1 (SINGLE) OR  
PLAN 315.2 (DOUBLE)

MANHOLE COVER STAMPED "STORM DRAIN"  
APWA STANDARD PLAN 302



**PLAN**

CURB INLET  
MAPLETON STANDARD  
PLAN 315.1 (SINGLE) OR  
PLAN 315.2 (DOUBLE)

MANHOLE COVER STAMPED "STORM DRAIN"  
APWA STANDARD PLAN 302

SNOUT OR APPROVED EQUIVALENT.  
OIL ABSORBENT PILLOWS REQUIRED  
IN WELL PROTECTION ZONE 2.

CONCRETE  
COLLAR

NON-SHRINK  
GROUT

3'  
PAVEMENT  
SECTION +  
BACKFILL

3' MIN

SUMP DEPTH AS  
SPECIFIED ON PLANS

THIS PORTION TO BE PERFORMED WITH  
1 1/2" DIA. HOLES 12" O.C.

APWA STORM DRAIN MANHOLE  
WITH PERFORATIONS IN RISERS,  
OPEN BOTTOM (NO BASE)

APWA DRAINAGE  
GEOTEXTILES  
CLASS A

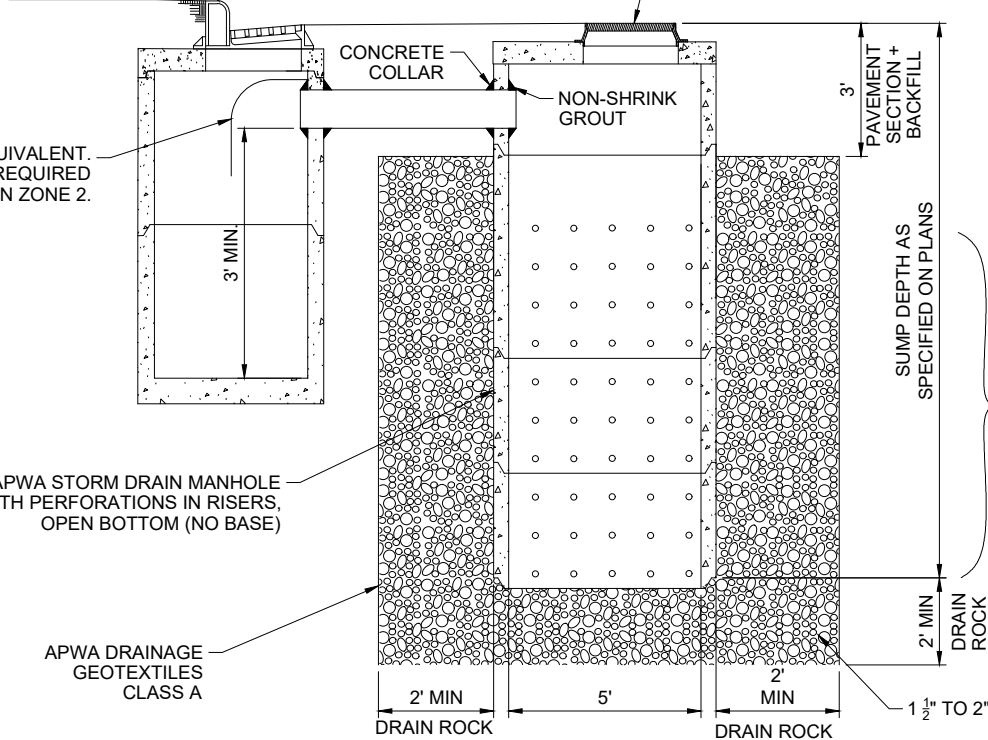
2' MIN  
DRAIN ROCK

5'

2' MIN  
DRAIN ROCK

2' MIN  
DRAIN  
ROCK

1 1/2" TO 2" WASHED GRAVEL



**CROSS SECTION**



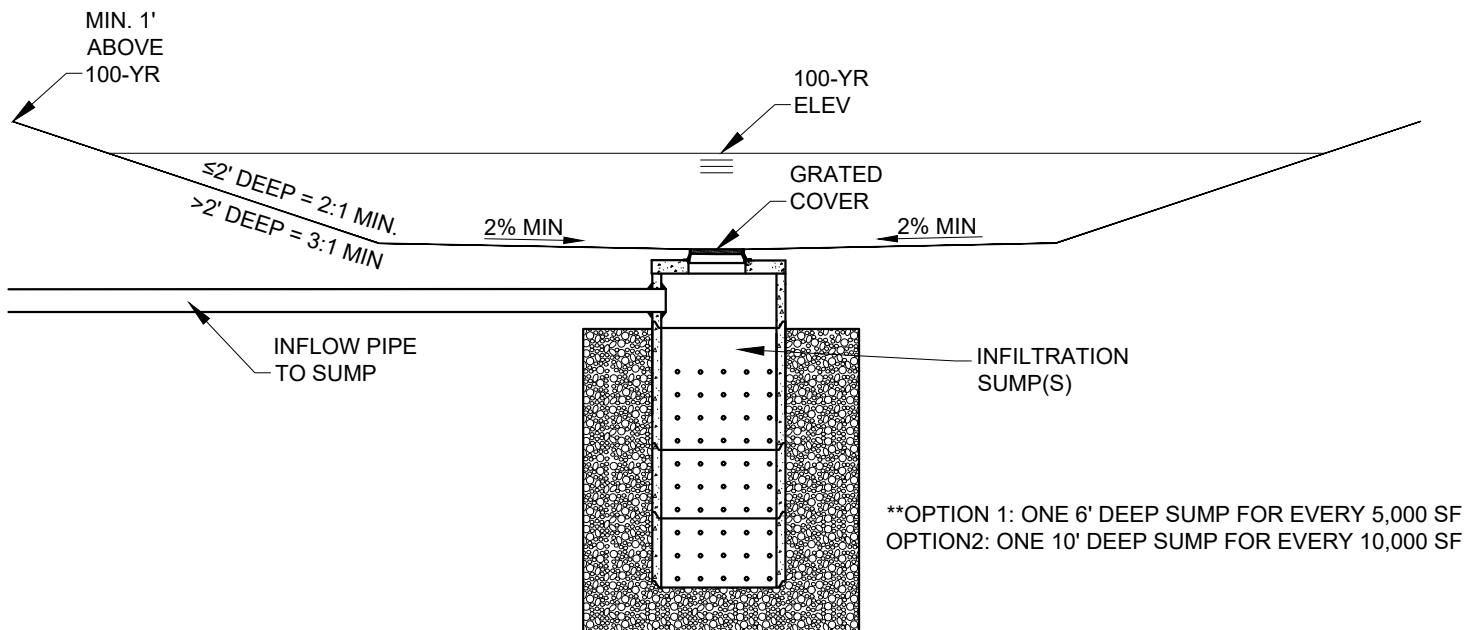
2026 MAPLETON STANDARD PLANS

INFILTRATION SUMP

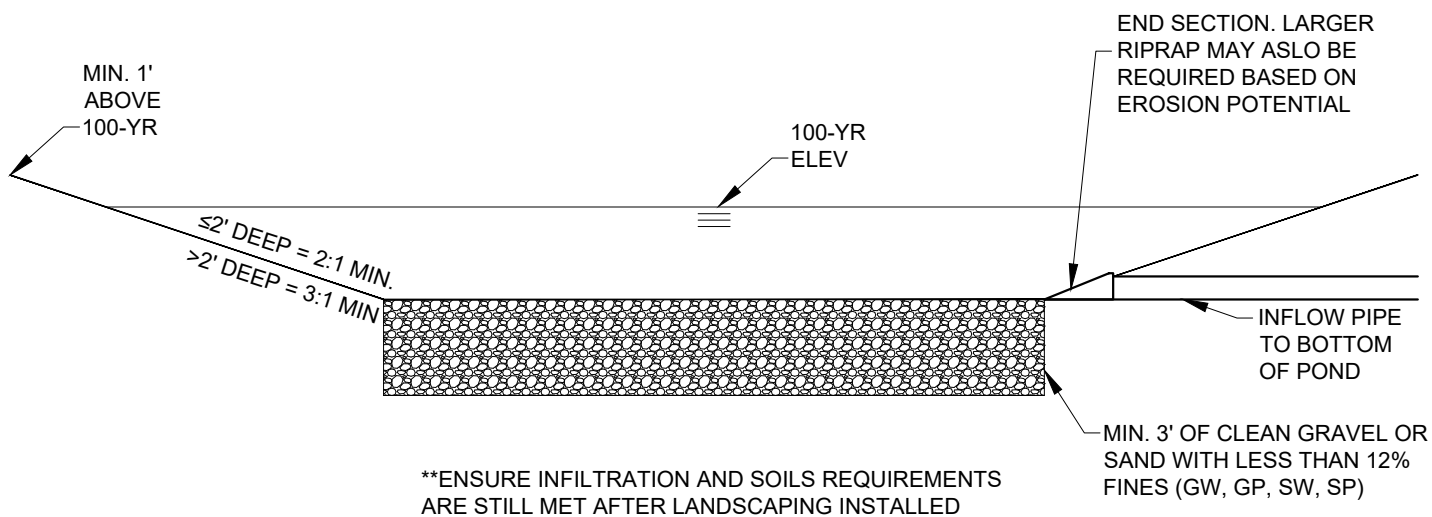
STD. PLAN NO.

M-363

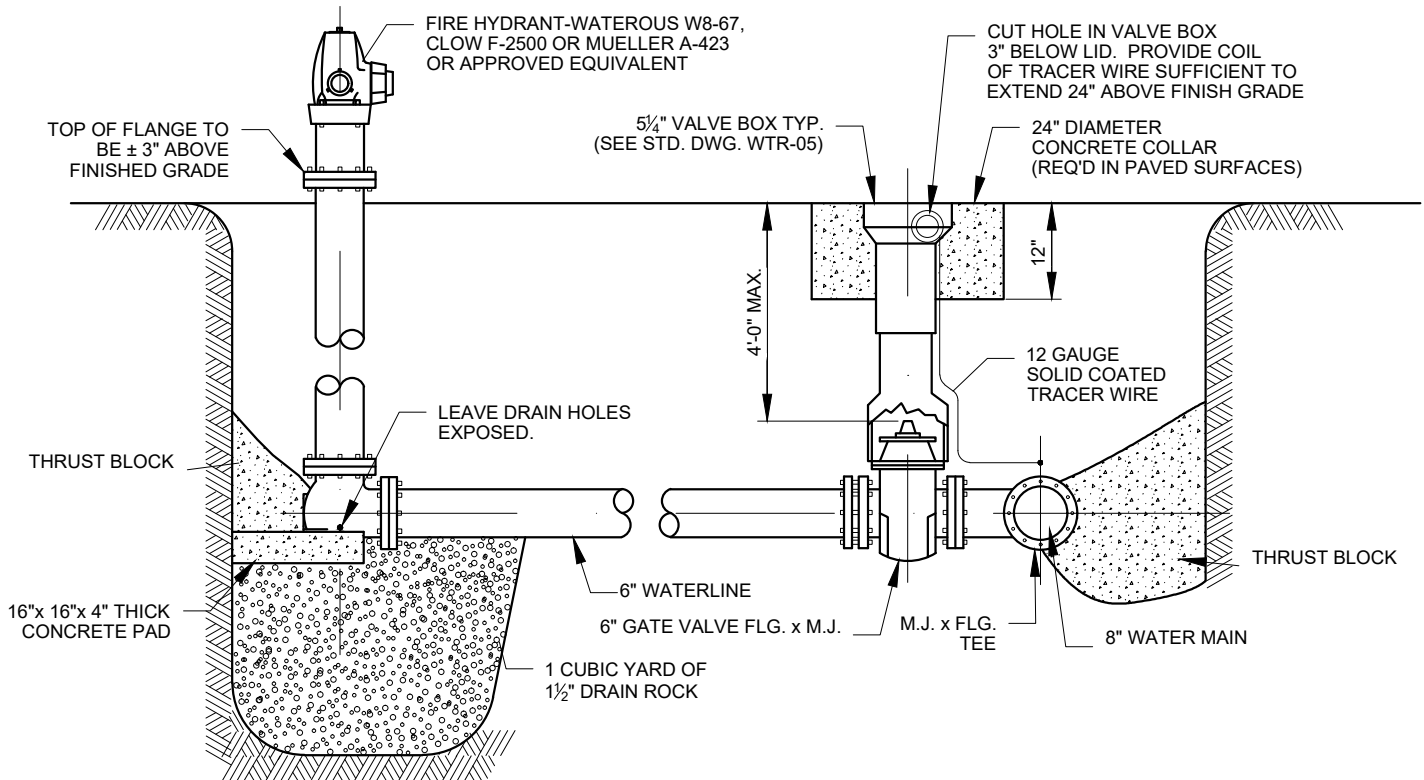
Sheet 1 of 1



## STANDARD POND SECTION



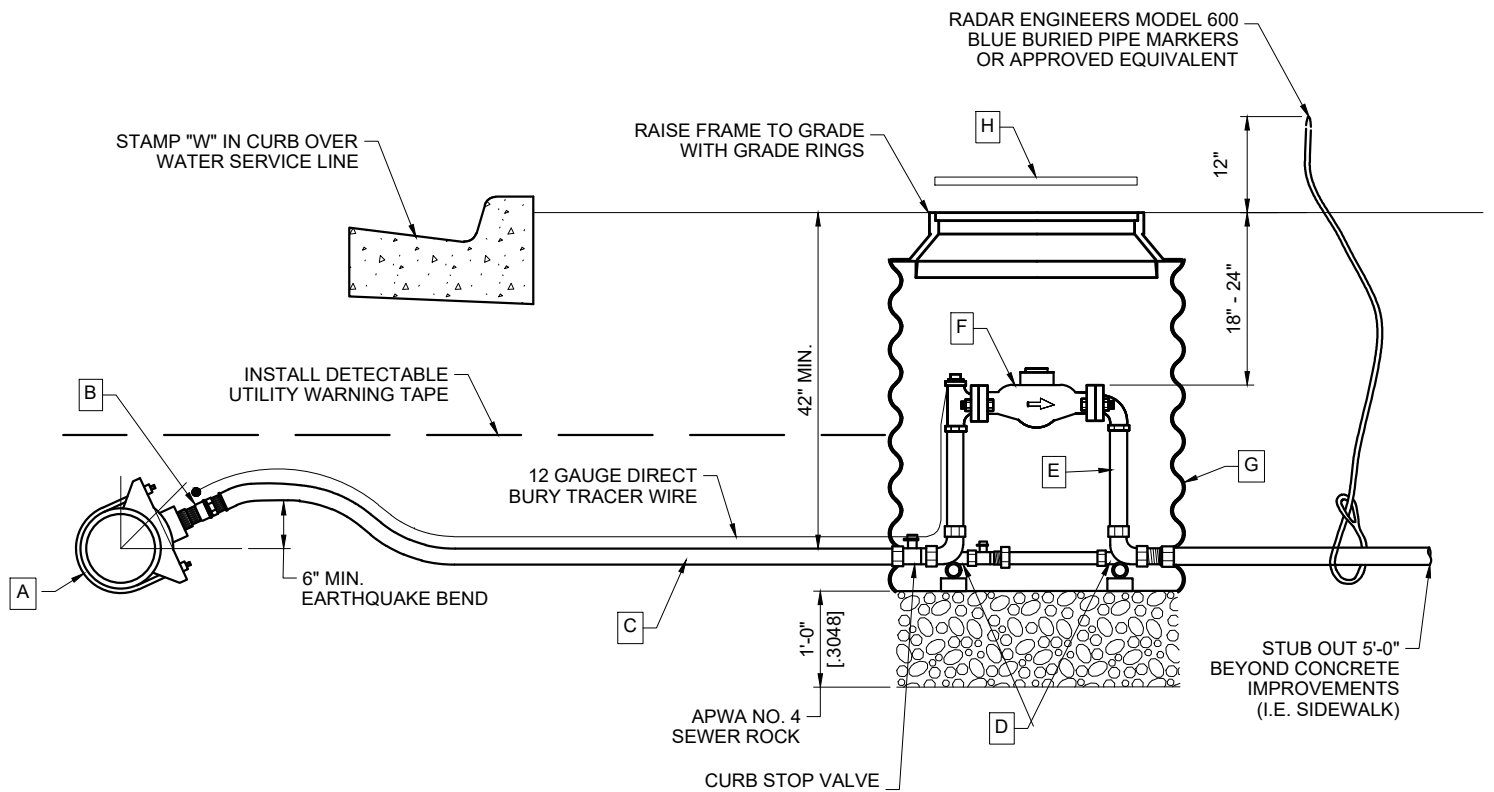
## HIGH GROUNDWATER ALTERNATIVE SECTION



**FIRE HYDRANT NOTES:**

1. IF VALVE NUT IS MORE THAN 4' BELOW THE VALVE COVER A VALVE RISER WILL BE REQUIRED TO MEET THE 4' REQUIREMENT.
2. ALL COMPONENTS AND CONSTRUCTION SHALL COMPLY WITH THE MOST CURRENT VERSION OF UTAH ADMINISTRATIVE RULE R-309-550.
3. WATER MAIN AND WATER LINE SHALL BE PVC PIPE MEETING THE REQUIREMENTS OF AWWA C900 (BLUE) OR DUCTILE IRON PIPE, MEETING THE REQUIREMENTS OF AWWA C151.
4. ALL COMPRESSION COUPLINGS, MECHANICAL JOINTS, FLANGED JOINTS, AND VALVES EXPOSED TO SOIL SHALL BE WRAPPED WITH 8MIL THICK POLYETHYLENE FILM.
5. ALL FITTINGS SHALL BE DUCTILE IRON FOR EITHER PVC OR DUCTILE IRON PIPE. NO PLASTIC FITTINGS ALLOWED.





### LEGEND

| NO. | ITEM               | DESCRIPTION                                                                                                                                                                                                         |
|-----|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (A) | CONNECTION TO MAIN | USE DOUBLE STRAP BRASS SADDLE IN ALL CASES                                                                                                                                                                          |
| (B) | CORPORATION STOP   | BRASS - IRON PIPE THREAD WITH TRACER WIRE NUT                                                                                                                                                                       |
| (C) | PIPE               | DR11 POLYETHYLENE TUBING MEETING AWWA C901 AND NSF61 WITH 12 GAUGE TRACER WIRE AND METAL INSERTS.                                                                                                                   |
| (D) | ADAPTER            | BRASS - MALE x COMPRESSION                                                                                                                                                                                          |
| (E) | METER YOKE         | COPPER - EQUIP WITH INLET VALVE, VERTICAL DUAL CHECK VALVE, STABILIZER BARS PERPENDICULAR TO SETTER, & SOLID BAR BETWEEN INLET & OUTLET AT BASE AND HALFWAY UP METER YOKE. INCLUDE BYPASS.                          |
| (F) | METER              | TO BE INSTALLED BY CITY. PROTECT FROM DAMAGE                                                                                                                                                                        |
| (G) | METER BOX          | CONCRETE OR HDPE (36" DIA. x 30" HEIGHT (MIN.))                                                                                                                                                                     |
| (H) | RING AND LID       | D&L FOUNDRY AND SUPPLY L-2244 RING AND L-2338 36" ADAPTOR RING, WITH DFW12AUT-1MW+T OR EQUIVALANT POLYMER LID IN LANDSCAPE AREAS: TRAFFIC RATED BOX WITH B-5343 RING OR A-1180 WITH A-1180 COVER IN CONCRETE AREAS. |



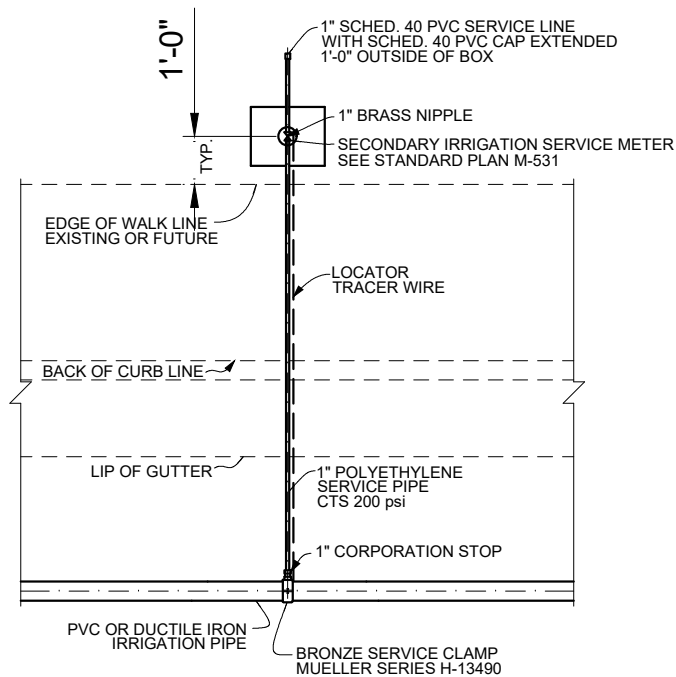
2026 MAPLETON STANDARD PLANS

1½" & 2" WATER SERVICE CONNECTION

STD. PLAN NO.

M-522

Sheet 1 of 1



### **SINGLE SERVICE CONNECTION**

#### **IRRIGATION CONNECTION NOTES:**

1 1/2" SINGLE SERVICE CONNECTION TO MAIN:

USE MUELLER SERIES H-13490 BRONZE SERVICE CLAMP AND A BRASS COMPRESSION x MIPT ADAPTER. A RIGID LINER SHALL BE USED INSIDE OF TUBING AT THE COMPRESSION FITTINGS ON 2" SINGLE SERVICE LINE

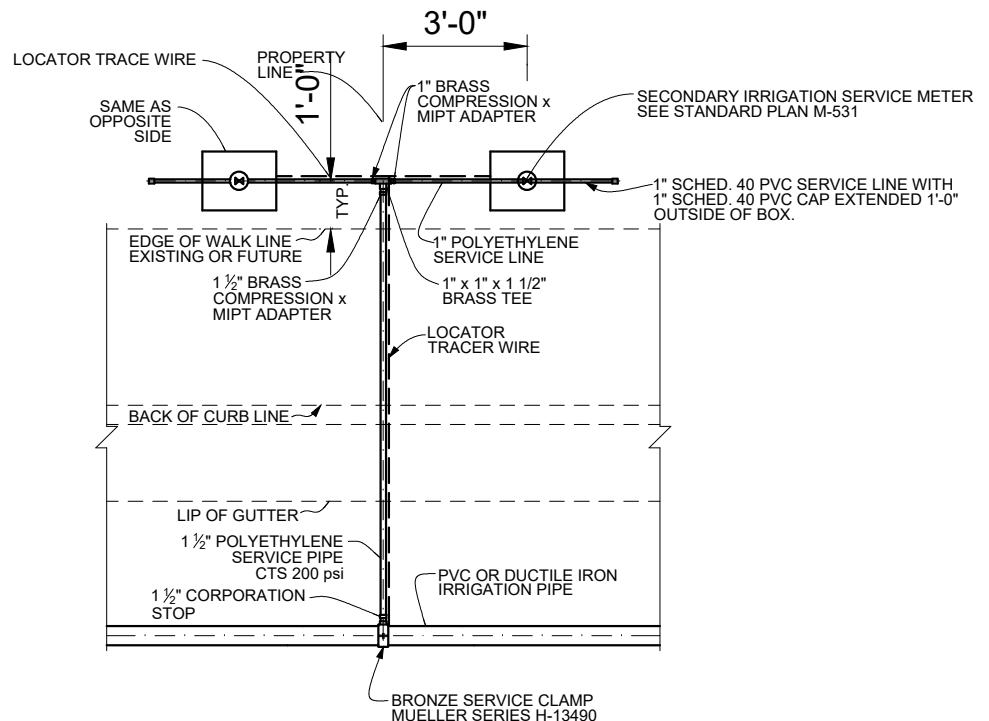
IF MAIN PIPE IS DUCTILE IRON, MAKE DIRECT TAP WITHOUT SADDLE. SEE APWA PLAN 551 & 552.

#### **GENERAL NOTES:**

ALL FITTINGS SHALL BE COMPATIBLE WITH SERVICE SIZE.

SERVICE LINE INSTALLATION AT AN EXISTING CURB GUTTER & SIDEWALK WITH A PLANTER STRIP SHALL HAVE THE UTILITY BOX LOCATED IN THE PLANTER STRIP.

SERVICE LINE INSTALLATION AT A LOCATION WITH NO CURB, GUTTER & SIDEWALK SHALL HAVE THE UTILITY BOX LOCATED AS SHOWN ON PLANS.



### **DOUBLE SERVICE CONNECTION**

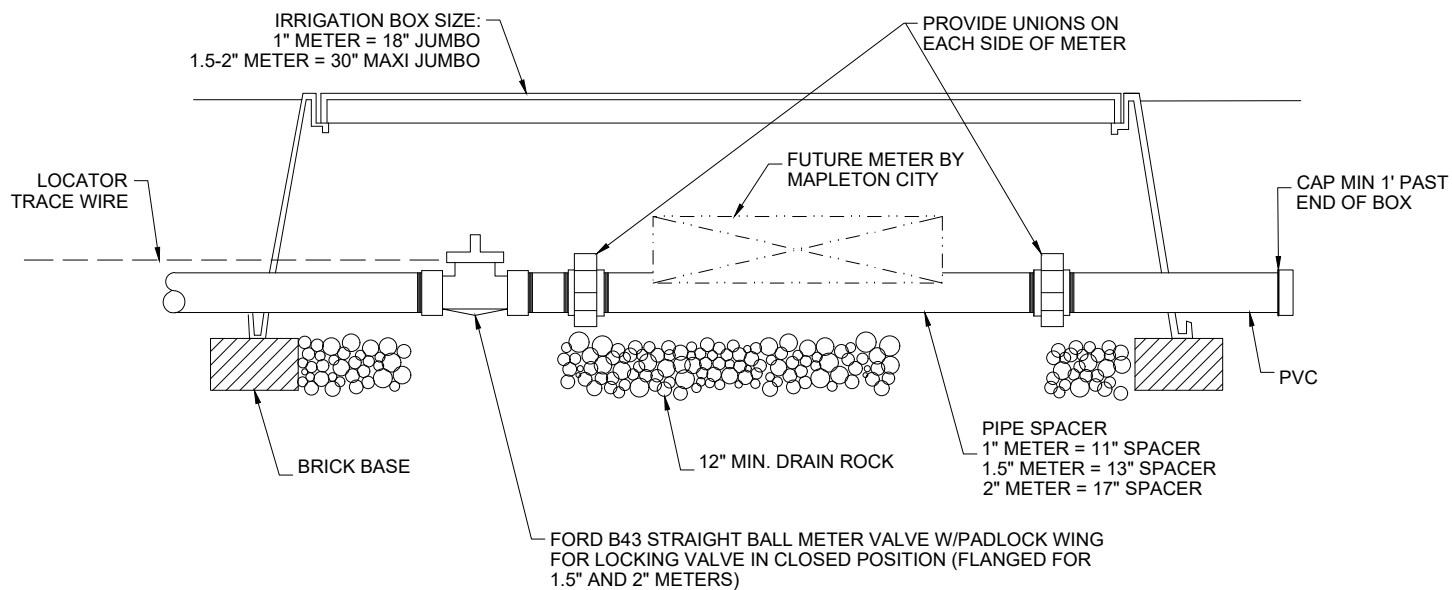


2026 MAPLETON STANDARD PLANS  
PRESSURIZED IRRIGATION  
SERVICE CONNECTION

STD. PLAN NO.

M-530

Sheet 1 of 1



2026 MAPLETON STANDARD PLANS  
PRESSURIZED IRRIGATION  
SERVICE METER

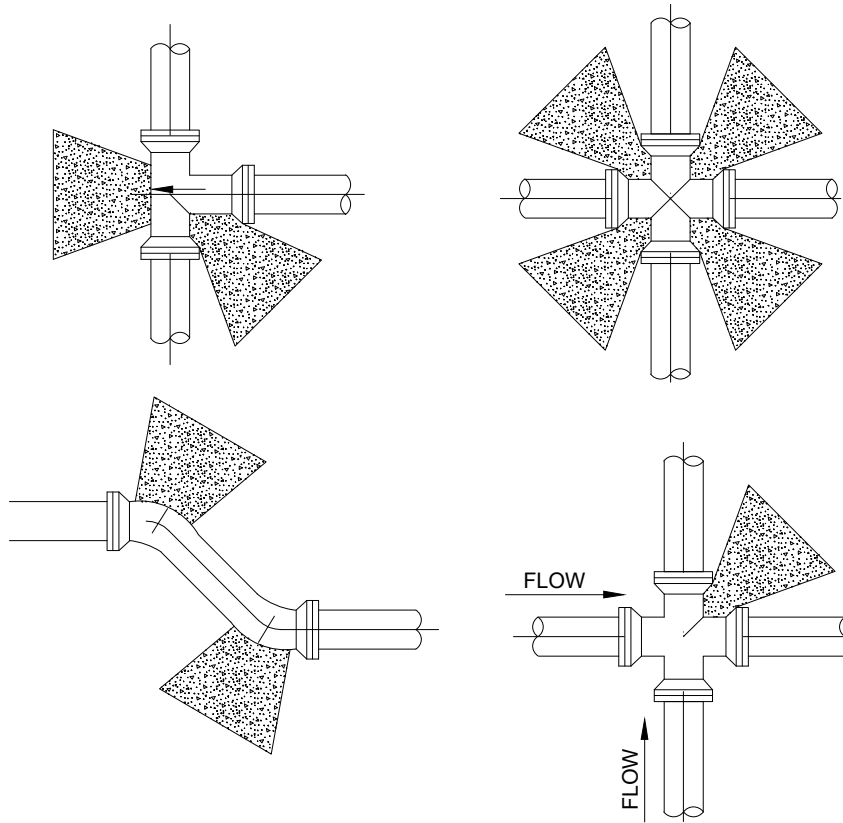
STD. PLAN NO.

M-531

Sheet 1 of 1

**THRUST BLOCK  
MINIMUM BEARING AREA IN SQUARE FEET**

| SIZE OF PIPE | TEES<br>VALVES<br>PLUGS | 90°<br>BEND | 45°<br>BEND | 22.5°<br>BEND | 11.25°<br>BEND |
|--------------|-------------------------|-------------|-------------|---------------|----------------|
| 4"           | 2                       | 3           | 2           | 2             | 2              |
| 6"           | 4                       | 5.5         | 3           | 1.5           | 1              |
| 8"           | 6.5                     | 9.5         | 5           | 2.75          | 1.5            |
| 12"          | 14                      | 20          | 11          | 5.5           | 3              |
| 14"          | 19                      | 26.5        | 14.5        | 7.5           | 4              |
| 18"          | 26                      | 43          | 23.5        | 12            | 11             |
|              |                         |             |             |               |                |



**THRUST BLOCK NOTES:**

1. INSPECTION: PRIOR TO BACKFILLING AROUND THRUST BLOCK, SECURE INSPECTION OF INSTALLATION BY ENGINEER.
2. BACKFILL: INSTALL AND COMPACT ALL BACKFILL MATERIAL PER APWA SECTION 33 05 20.
3. CONCRETE: CLASS 3,000 MINIMUM PER APWA 03 30 04. POUR CONCRETE AGAINST UNDISTURBED SOIL.
4. PIPE JOINTS: DO NOT COVER WITH CONCRETE. LEAVE COMPLETELY ACCESSIBLE.
5. GREASE: APPLY POLY-FM GREASE TO ALL BURIED METAL SURFACES. WRAP WITH 8 MIL THICK POLYETHYLENE SHEET AND TAPE WRAP.
6. SPECIAL CONSTRUCTION REQUIREMENTS:
  - A. THRUST DESIGN FOR PIPE SIZES OR CONFIGURATIONS NOT SHOWN REQUIRE SPECIAL DESIGN.
  - B. BEARING AREAS, VOLUMES, AND SPECIAL THRUST BLOCKING DETAILS SHOWN ON DRAWINGS TAKE PRECEDENCE OVER THIS PLAN.
  - C. REINFORCING STEEL BARS TO BE EPOXY COATED AT LEAST 15 MILS THICK. MINIMUM STRESS YIELD STRENGTH OF TIE DOWN BARS IS 70,000 PSI.
  - D. LOCKING RESTRAINTS DEVICES WILL BE USED ON ALL MJ FITTINGS IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.



2026 MAPLETON STANDARD PLANS

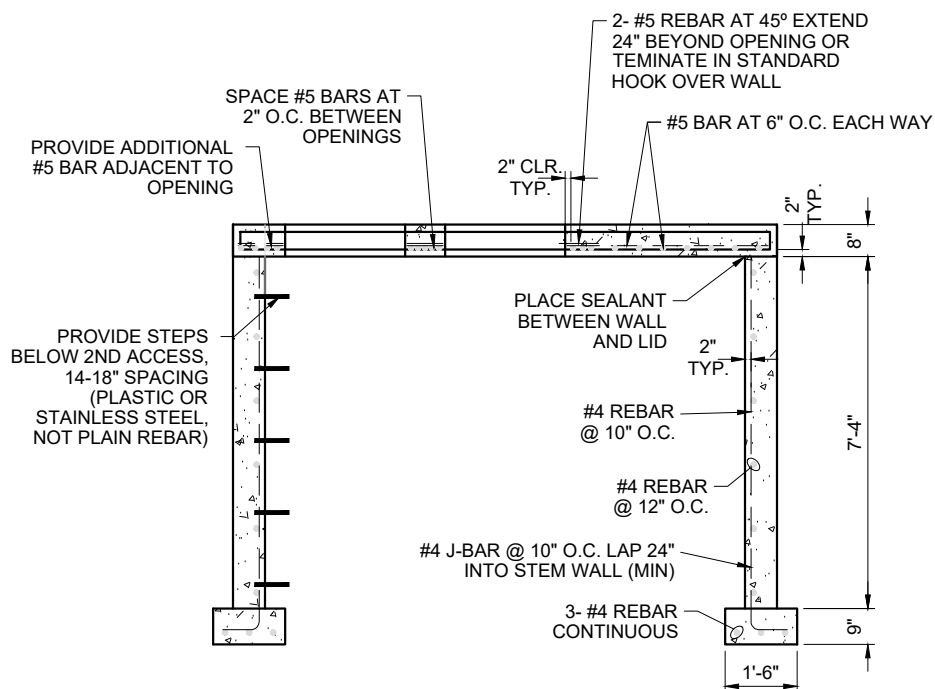
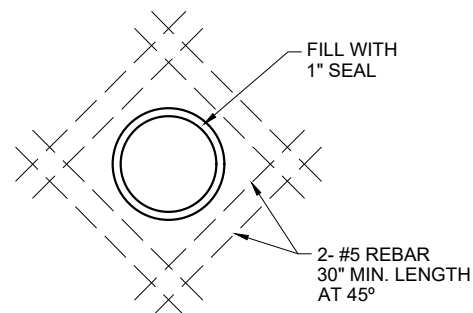
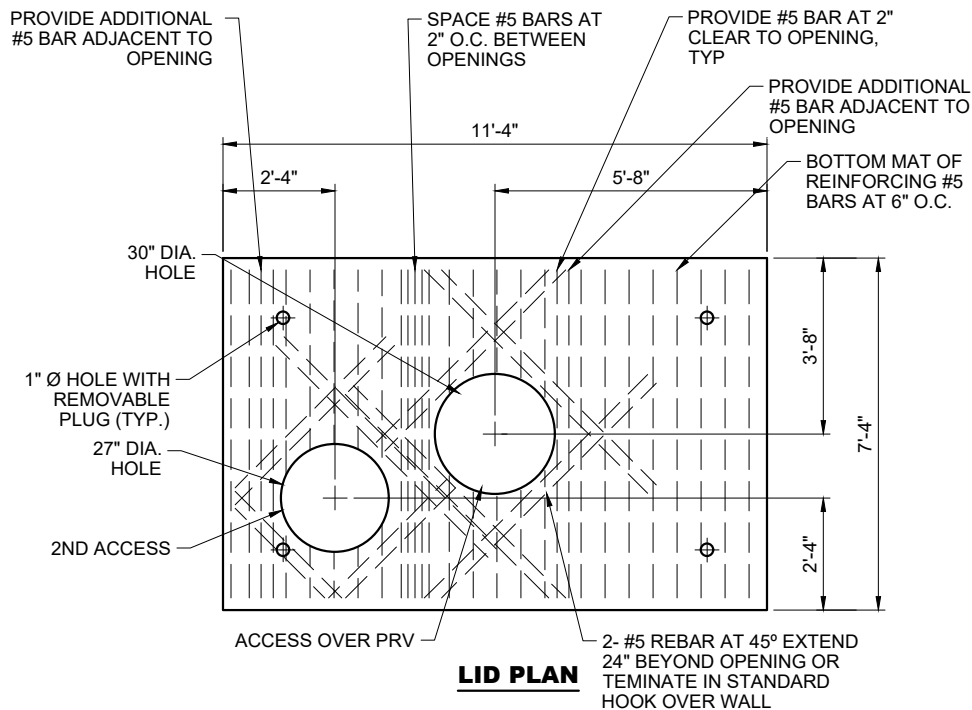
THRUST BLOCKS

STD. PLAN NO.

M-561

Sheet 1 of 1





\* SIZED ONLY FOR 6" PRV ON A 8" MAIN. LARGER MAINS AND/OR PRVS WILL REQUIRE A LARGER VAULT



2026 MAPLETON STANDARD PLANS  
6" PRESSURE REDUCING VALVE & VAULT  
(FOR 8" MAIN)

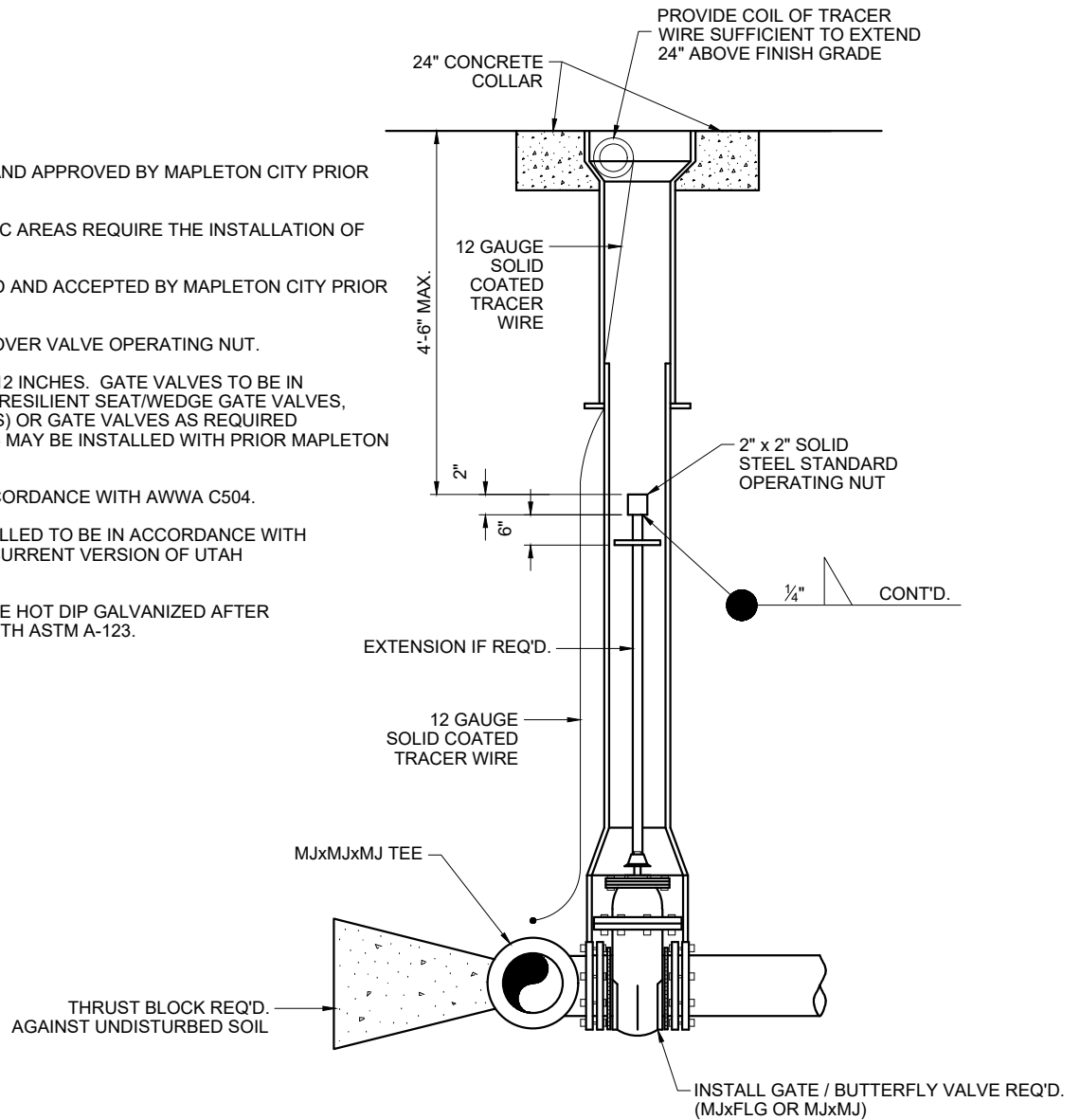
STD. PLAN NO.

M-573

Sheet 2 of 2

**VALVE NOTES:**

1. ALL WORK MUST BE INSPECTED AND APPROVED BY MAPLETON CITY PRIOR TO BACKFILL.
2. ALL VALVES INSTALLED IN TRAFFIC AREAS REQUIRE THE INSTALLATION OF TRAFFIC LIDS.
3. SUBSTITUTIONS TO BE APPROVED AND ACCEPTED BY MAPLETON CITY PRIOR TO INSTALLATION.
4. VALVE BOXES TO BE CENTERED OVER VALVE OPERATING NUT.
5. GATE VALVES MAXIMUM SIZE OF 12 INCHES. GATE VALVES TO BE IN ACCORDANCE WITH AWWA C515, RESILIENT SEAT/WEDGE GATE VALVES, PARALLEL SEAT (TAPPING VALVES) OR GATE VALVES AS REQUIRED. RESILIENT SEAT TAPPING VALVES MAY BE INSTALLED WITH PRIOR MAPLETON CITY APPROVAL.
6. BUTTERFLY VALVES TO BE IN ACCORDANCE WITH AWWA C504.
7. ALL WORK AND MATERIALS INSTALLED TO BE IN ACCORDANCE WITH MAPLETON CITY AND THE MOST CURRENT VERSION OF UTAH ADMINISTRATIVE RULE R-309-550.
8. STEM EXTENSION FINISH SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A-123.



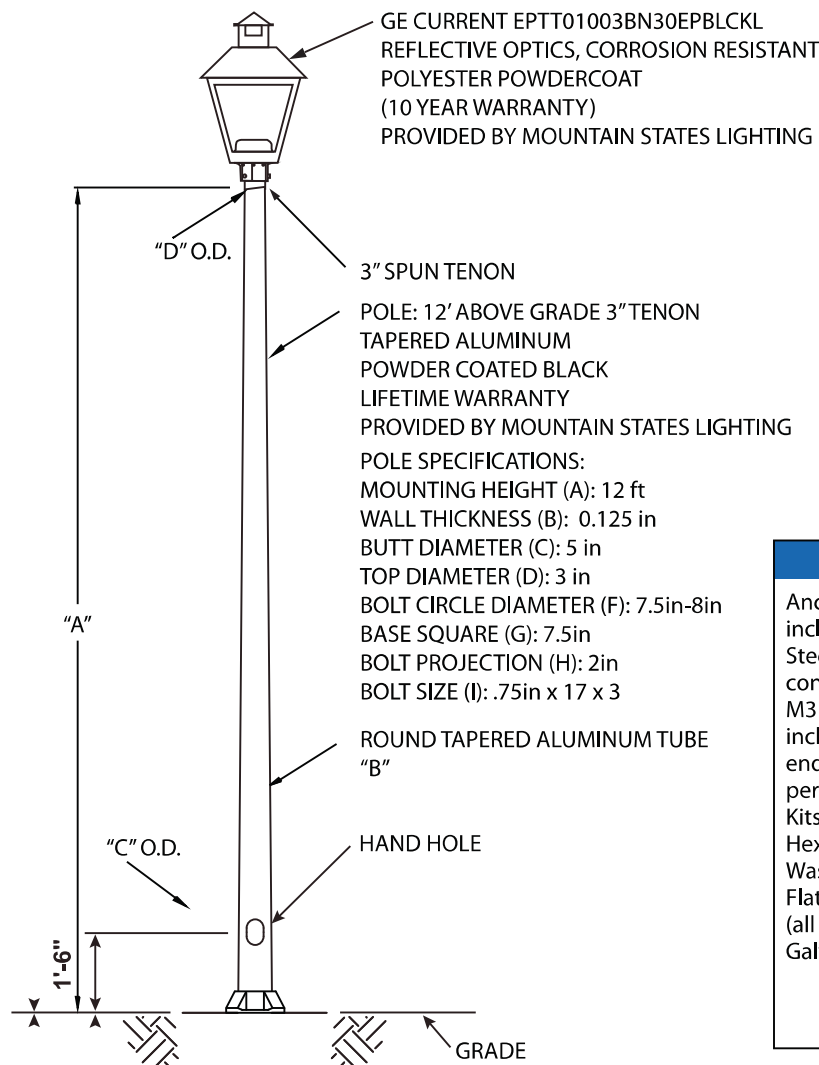
# FIXTURE RATINGS

**IP65**  
Weight: 18 lbs  
EPA: 1.6FT<sup>2</sup>



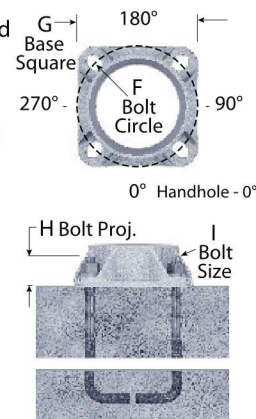
## MAPLETON

125 West 400 North  
Mapleton, UT 84664  
801-806-9114



## Anchorage

Anchorage Kit will include four (4) L-shaped Steel Anchor Bolts conforming to AASHTO M314-90 Grade 55. Ten inches (10") of threaded end will be galvanized per ASTM A153. Kits will contain four (4) Hex Nuts, four (4) Lock Washers, and four (4) Flat Washers (all components Galvanized Steel).



**Tyler Liddiard**  
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o:801-268-4879  
**Xavier Maestas**  
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c:801-971-9643  
o:801-268-4879

## Residential Baseplated

|                |                  |                                              |                             |
|----------------|------------------|----------------------------------------------|-----------------------------|
| SCALE:<br>NTS  | DATE:<br>2-23-23 | DRAWN BY:<br>XEM                             | DRAWING NUMBER:<br>MC-LP01A |
| CITY APPROVAL: |                  | 2026 Standard Drawings<br>STD PLAN NO. M-741 |                             |



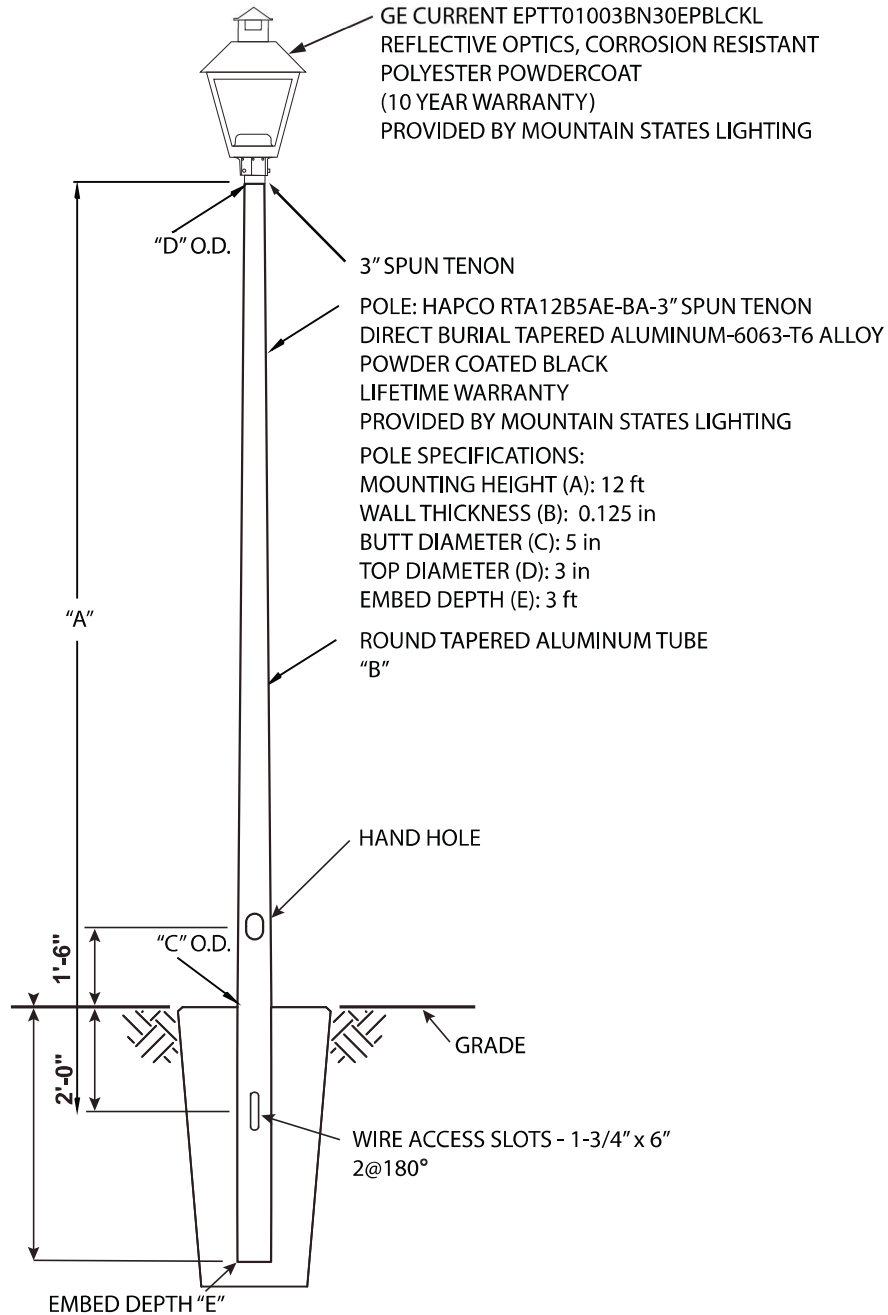
# FIXTURE RATINGS

**IP65**  
Weight: 18 lbs  
EPA: 1.6FT<sup>2</sup>



## MAPLETON

125 West 400 North  
Mapleton, UT 84664  
801-806-9114



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c:801-707-9370  
o:801-268-4879  
**Xavier Maestas**  
xavi@mtnstatesltg.com  
c:801-971-9643  
o:801-268-4879

## Residential EPTT

|               |                  |                  |                            |
|---------------|------------------|------------------|----------------------------|
| SCALE:<br>NTS | DATE:<br>9-17-21 | DRAWN BY:<br>XEM | DRAWING NUMBER:<br>MC-LP01 |
|---------------|------------------|------------------|----------------------------|

CITY APPROVAL:



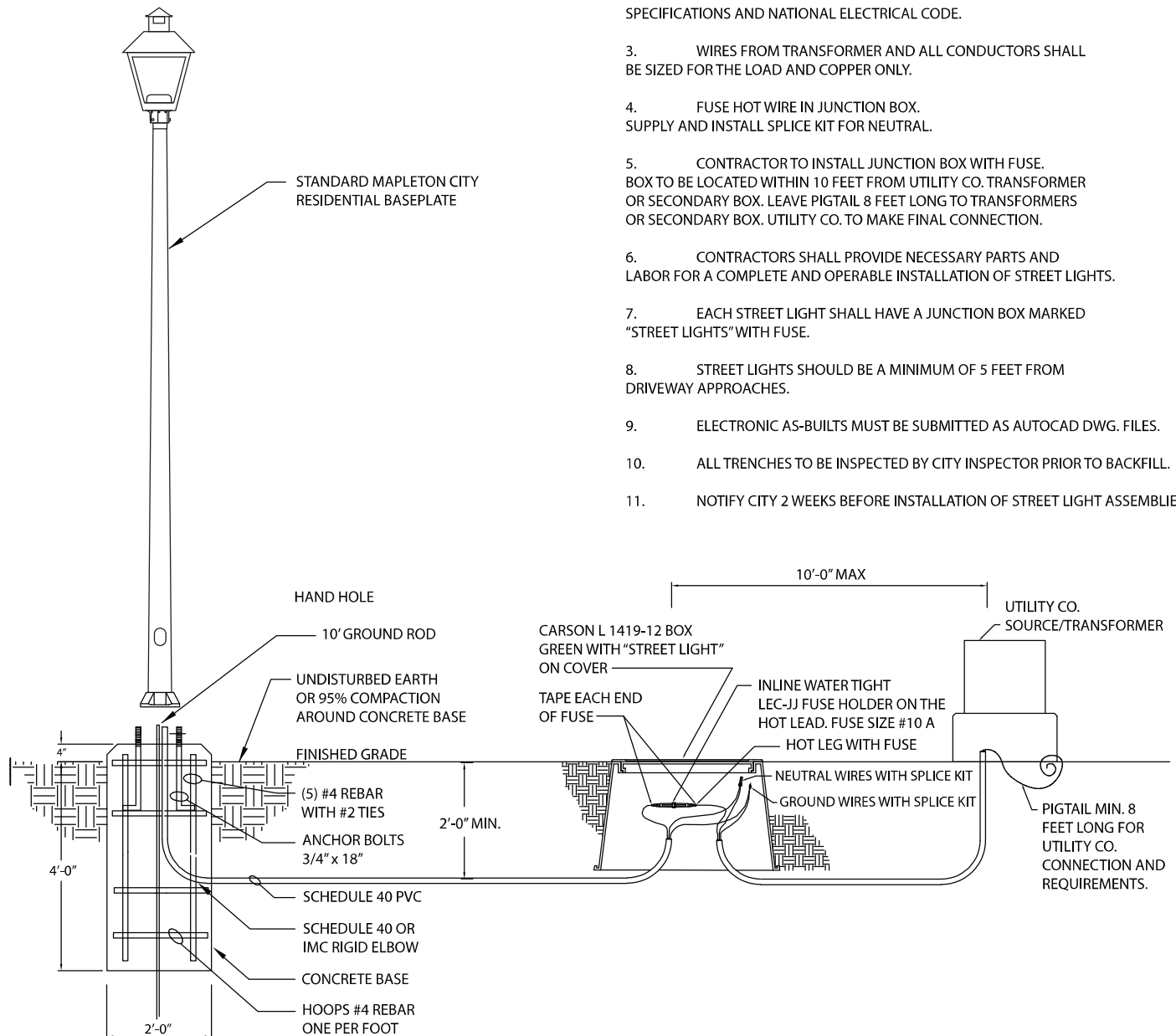
2026 Standard Drawings  
STD PLAN NO. M-742

# MAPLETON

125 West 400 North  
Mapleton, UT 84664  
801-806-9114

## NOTES:

1. CONTRACTORS SHALL FOLLOW MAPLETON CITY INSTALLATION AND INSPECTION PROCEDURES BEFORE ACCEPTANCE
2. ALL CONSTRUCTION TO MEET MAPLETON CITY SPECIFICATIONS AND NATIONAL ELECTRICAL CODE.
3. WIRES FROM TRANSFORMER AND ALL CONDUCTORS SHALL BE SIZED FOR THE LOAD AND COPPER ONLY.
4. FUSE HOT WIRE IN JUNCTION BOX. SUPPLY AND INSTALL SPLICE KIT FOR NEUTRAL.
5. CONTRACTOR TO INSTALL JUNCTION BOX WITH FUSE. BOX TO BE LOCATED WITHIN 10 FEET FROM UTILITY CO. TRANSFORMER OR SECONDARY BOX. LEAVE PIGTAIL 8 FEET LONG TO TRANSFORMERS OR SECONDARY BOX. UTILITY CO. TO MAKE FINAL CONNECTION.
6. CONTRACTORS SHALL PROVIDE NECESSARY PARTS AND LABOR FOR A COMPLETE AND OPERABLE INSTALLATION OF STREET LIGHTS.
7. EACH STREET LIGHT SHALL HAVE A JUNCTION BOX MARKED "STREET LIGHTS" WITH FUSE.
8. STREET LIGHTS SHOULD BE A MINIMUM OF 5 FEET FROM DRIVEWAY APPROACHES.
9. ELECTRONIC AS-BUILTS MUST BE SUBMITTED AS AUTOCAD DWG. FILES.
10. ALL TRENCHES TO BE INSPECTED BY CITY INSPECTOR PRIOR TO BACKFILL.
11. NOTIFY CITY 2 WEEKS BEFORE INSTALLATION OF STREET LIGHT ASSEMBLIES.



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c:801-971-9643  
o:801-268-4879

## Residential BP Underground

|                |                  |                                              |                                 |
|----------------|------------------|----------------------------------------------|---------------------------------|
| SCALE:<br>NTS  | DATE:<br>2-23-23 | DRAWN BY:<br>XEM                             | DRAWING NUMBER:<br>MC-RES-BP-UG |
| CITY APPROVAL: |                  | 2026 Standard Drawings<br>STD PLAN NO. M-743 |                                 |



# FIXTURE RATINGS

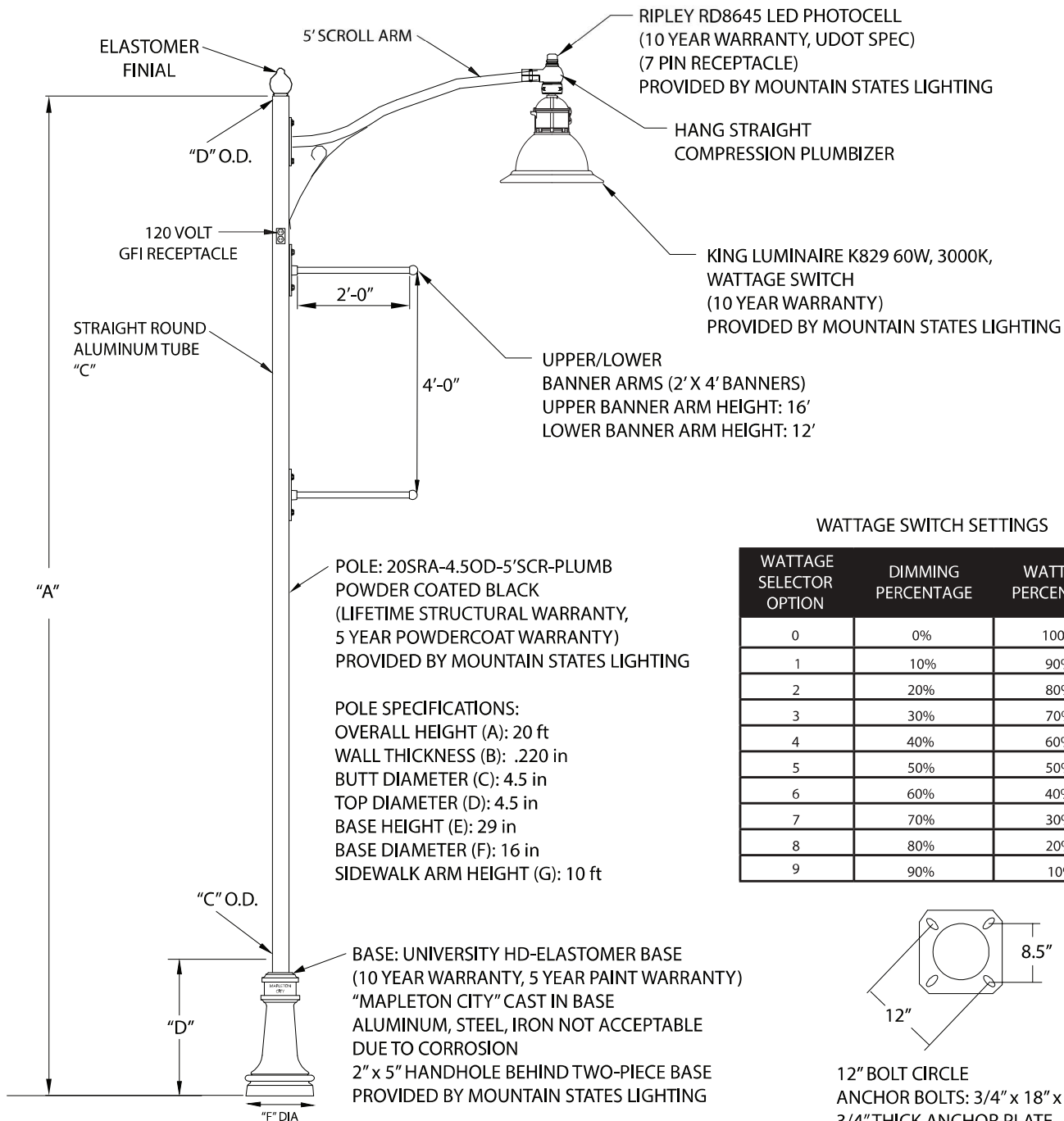
**IP66**

Weight: 40 lbs  
EPA: 1.8 FT<sup>2</sup>



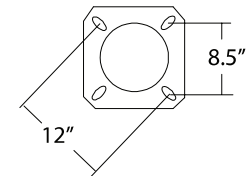
## MAPLETON

125 West 400 North  
Mapleton, UT 84664  
801-806-9114



### WATTAGE SWITCH SETTINGS

| WATTAGE SELECTOR OPTION | DIMMING PERCENTAGE | WATTAGE PERCENTAGE |
|-------------------------|--------------------|--------------------|
| 0                       | 0%                 | 100%               |
| 1                       | 10%                | 90%                |
| 2                       | 20%                | 80%                |
| 3                       | 30%                | 70%                |
| 4                       | 40%                | 60%                |
| 5                       | 50%                | 50%                |
| 6                       | 60%                | 40%                |
| 7                       | 70%                | 30%                |
| 8                       | 80%                | 20%                |
| 9                       | 90%                | 10%                |



12" BOLT CIRCLE  
ANCHOR BOLTS: 3/4" x 18" x 3"  
3/4" THICK ANCHOR PLATE



MURRAY, UTAH  
CONIFER, COLORADO  
801-268-4879  
MTNSTATESLTG.ORG

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o:801-268-4879

## Collector Single

SCALE: NTS DATE: 6-12-20 DRAWN BY: XEM DRAWING NUMBER: MC-COL-SGL

CITY APPROVAL:



2026 Standard Drawings  
STD PLAN NO. M-744

# FIXTURE RATINGS

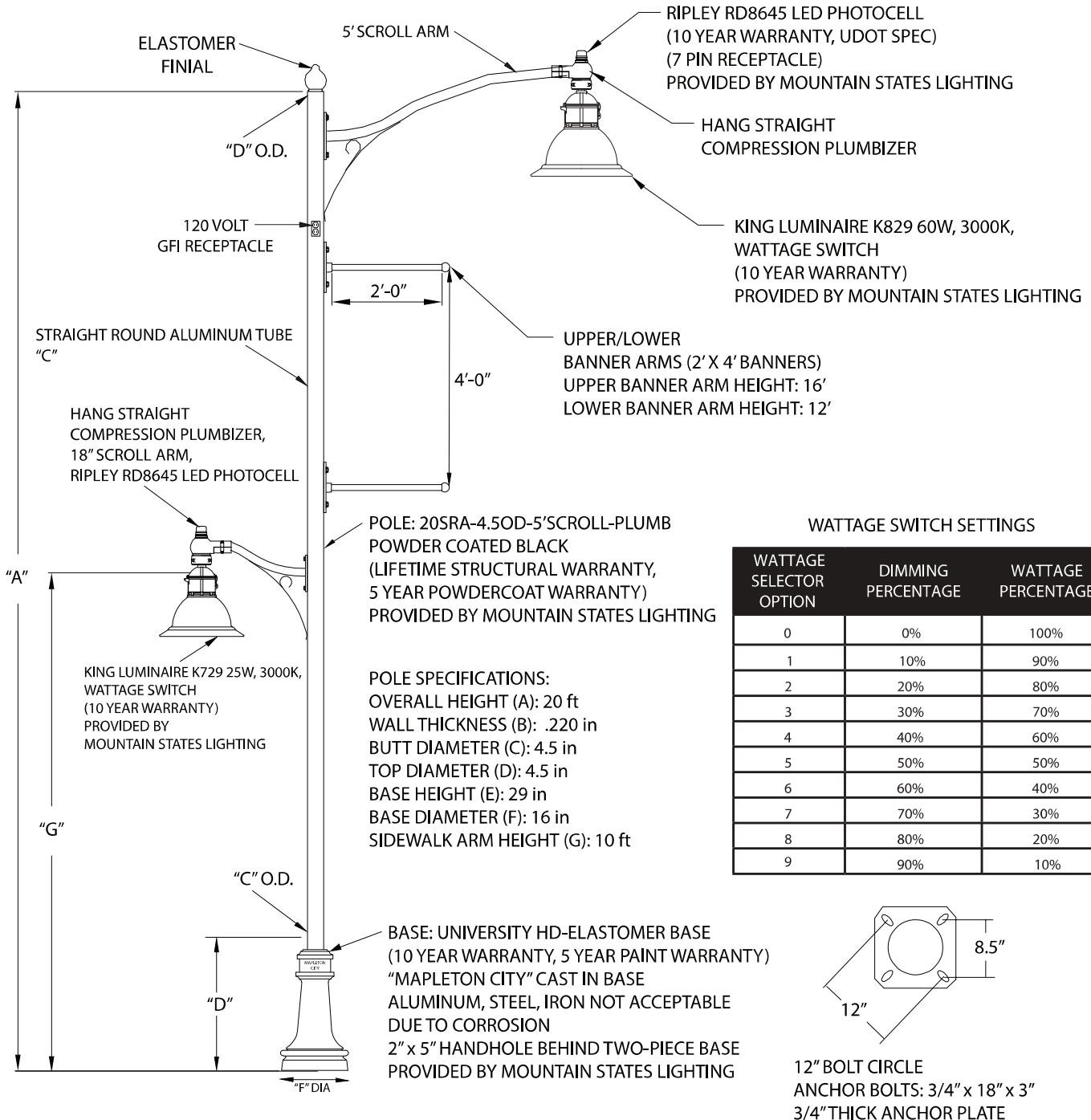
UPPER FIXTURE  
**IP66**  
Weight: 40 lbs  
EPA: 1.8 FT<sup>2</sup>

LOWER FIXTURE  
**IP66**  
Weight: 19 lbs  
EPA: 0.63 FT<sup>2</sup>



## MAPLETON

125 West 400 North  
Mapleton, UT 84664  
801-806-9114



### WATTAGE SWITCH SETTINGS

| WATTAGE SELECTOR OPTION | DIMMING PERCENTAGE | WATTAGE PERCENTAGE |
|-------------------------|--------------------|--------------------|
| 0                       | 0%                 | 100%               |
| 1                       | 10%                | 90%                |
| 2                       | 20%                | 80%                |
| 3                       | 30%                | 70%                |
| 4                       | 40%                | 60%                |
| 5                       | 50%                | 50%                |
| 6                       | 60%                | 40%                |
| 7                       | 70%                | 30%                |
| 8                       | 80%                | 20%                |
| 9                       | 90%                | 10%                |

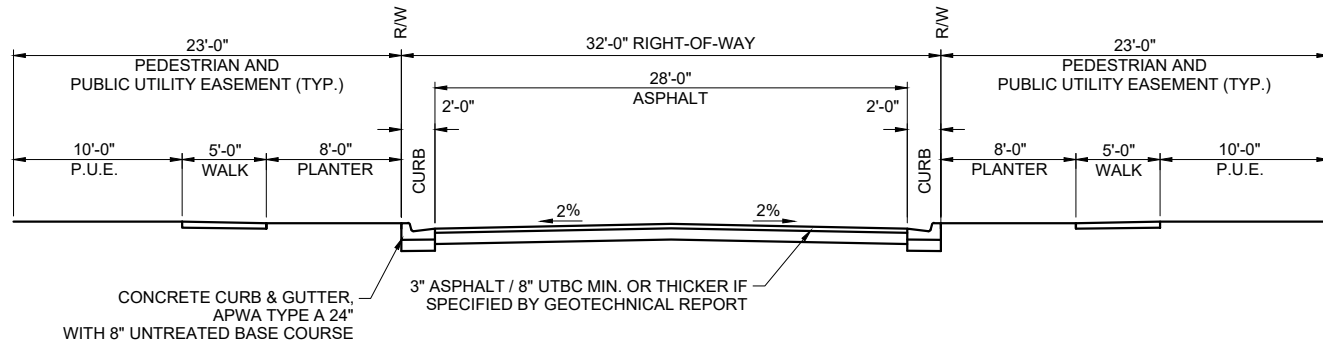


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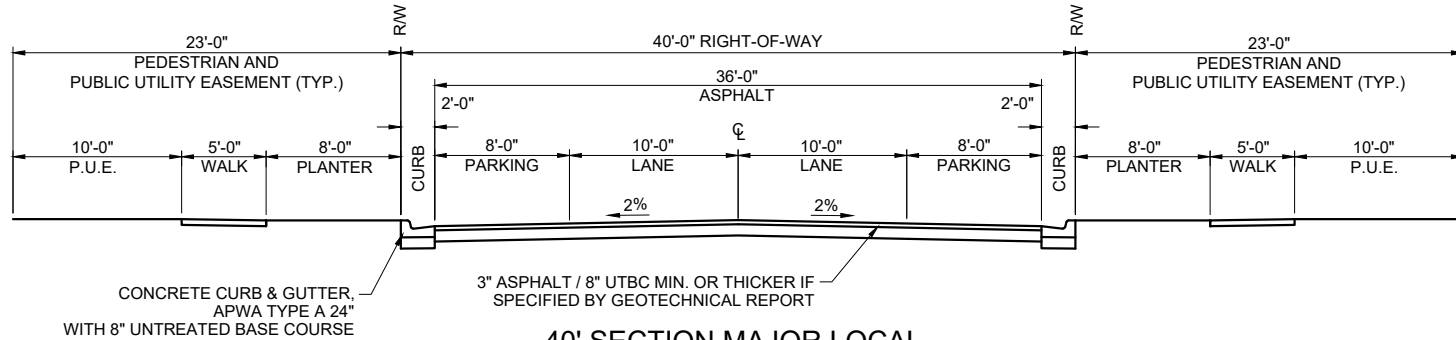
## Collector Double

|                |                  |                                              |                               |
|----------------|------------------|----------------------------------------------|-------------------------------|
| SCALE:<br>NTS  | DATE:<br>6-12-20 | DRAWN BY:<br>XEM                             | DRAWING NUMBER:<br>MC-COL-DBL |
| CITY APPROVAL: |                  | 2026 Standard Drawings<br>STD PLAN NO. M-745 |                               |

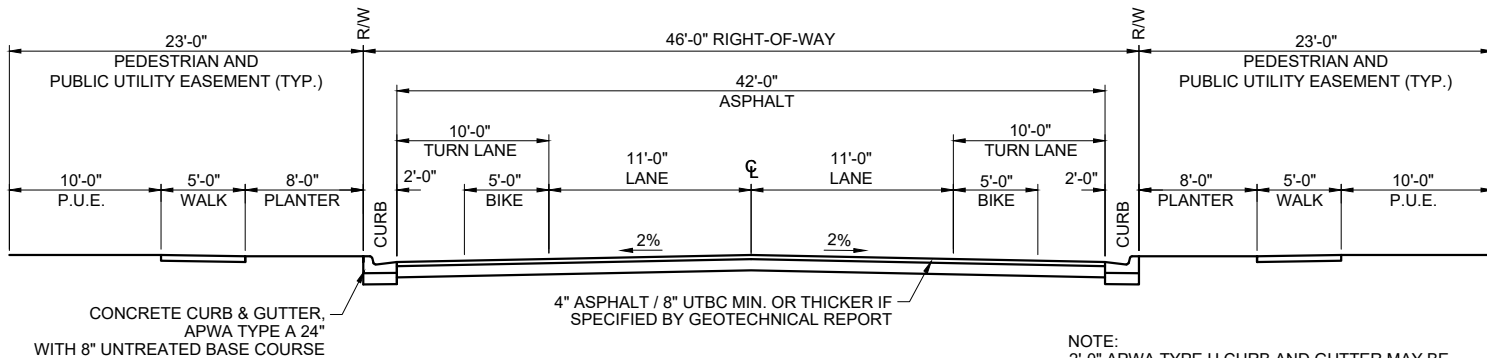




32' SECTION MINOR LOCAL

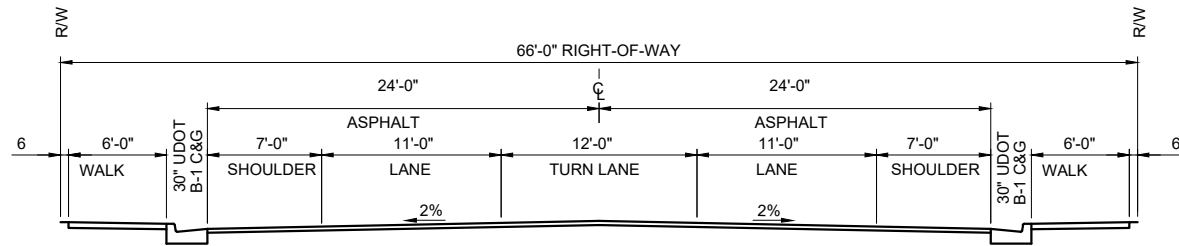


40' SECTION MAJOR LOCAL



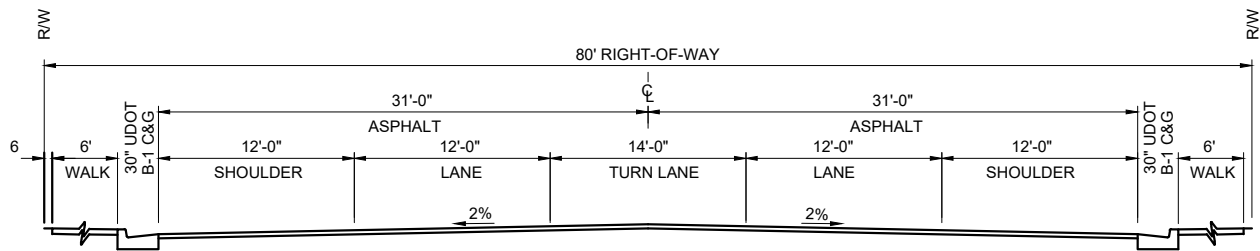
46' SECTION COLLECTOR

NOTE:  
2'-0" APWA TYPE H CURB AND GUTTER MAY BE REQUIRED/APPROVED AS AN ALTERNATIVE.



66' SECTION

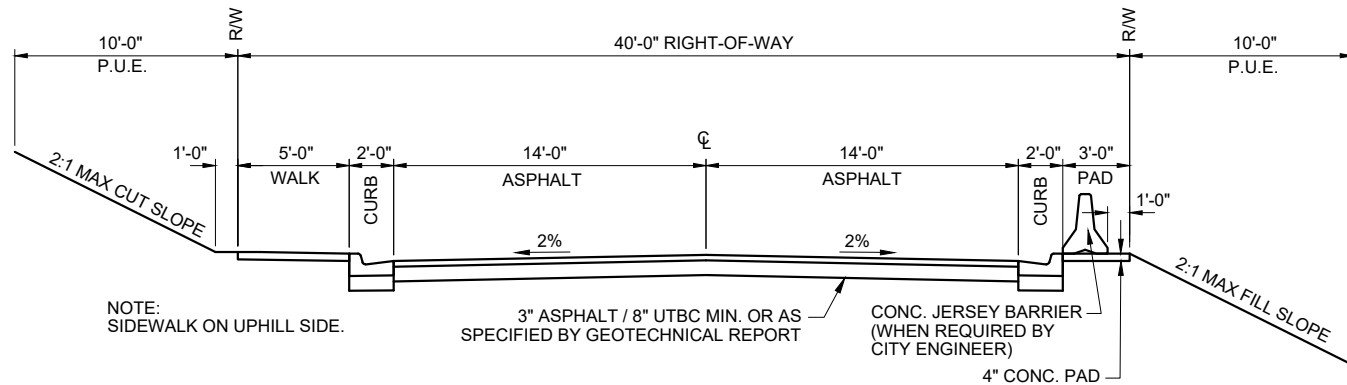
UDOT  
S.R. - 147  
1600 SOUTH - HWY 89 TO MAIN STREET  
MAIN STREET - 1600 SOUTH TO MAPLE STREET



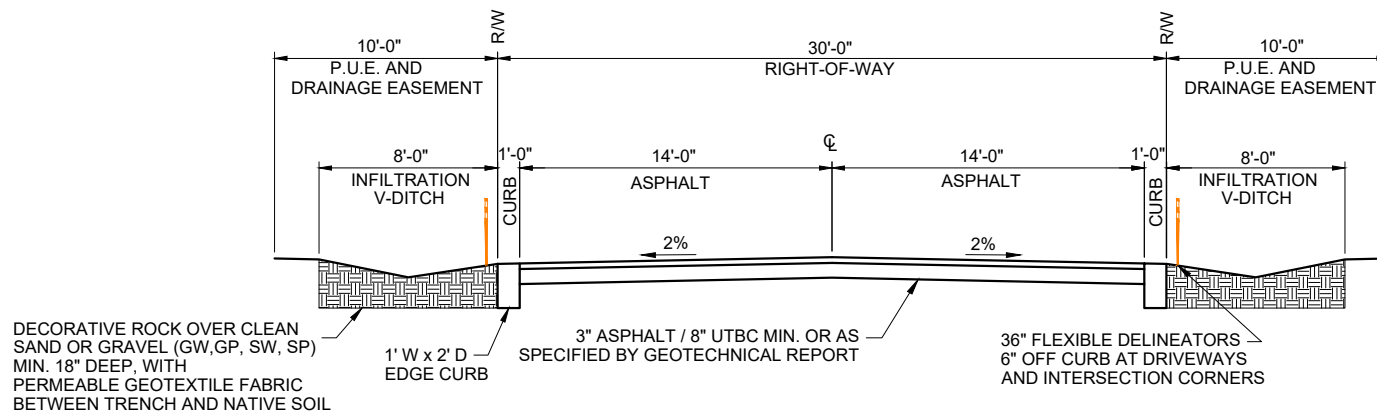
80' SECTION

UDOT  
S.R. - 147  
MAPLE STREET - HWY 89 TO MAIN STREET

UDOT SPECIFICATIONS REQUIRED:  
7" UDOT PG64-34 HMA  
6" UNTREATED BASE COURSE  
12" GRANULAR BORROW

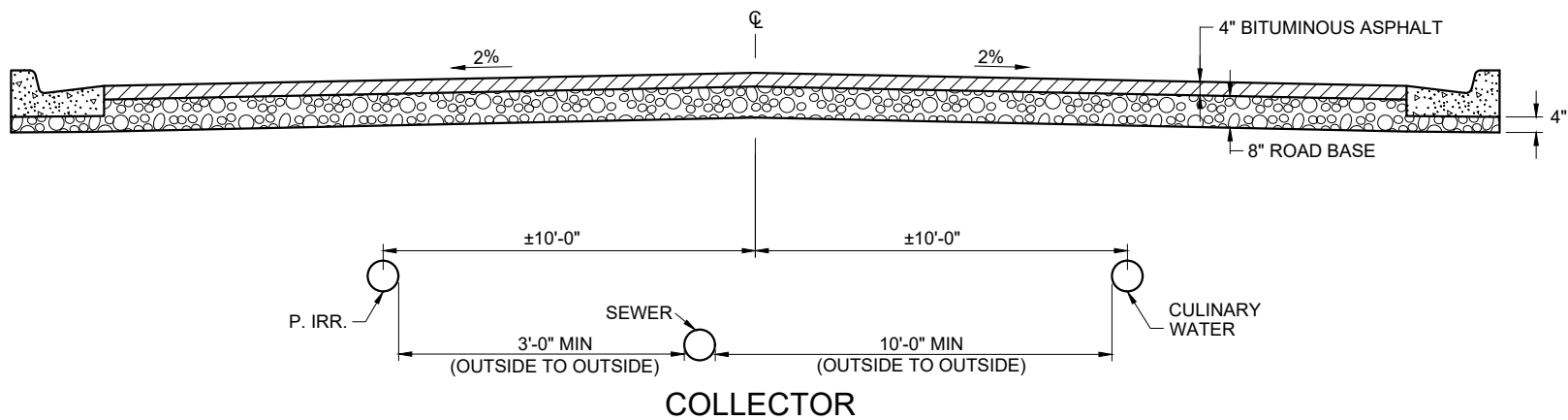
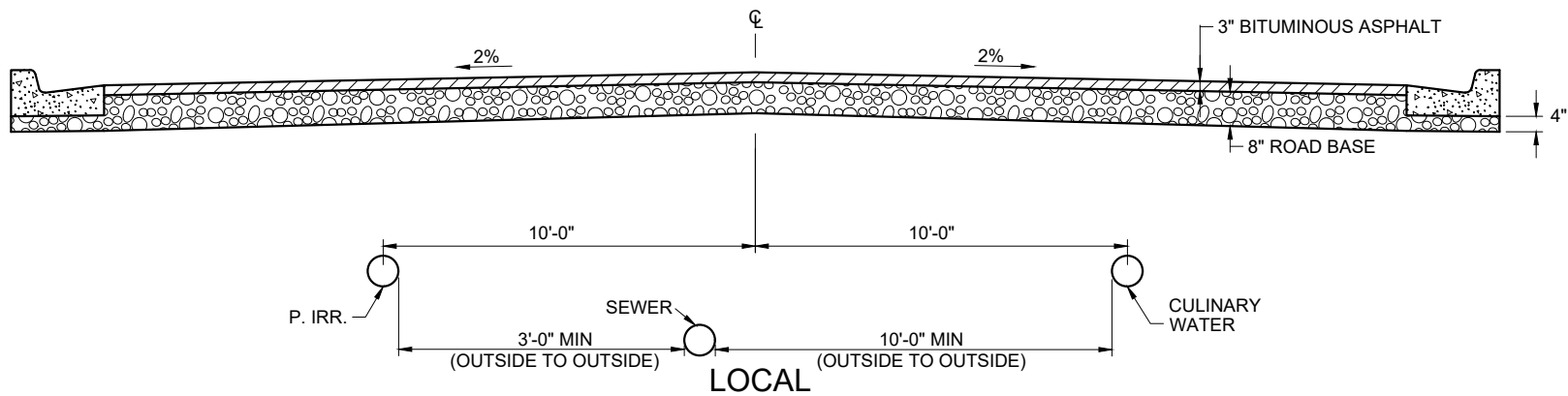


HILLSIDE LOCAL



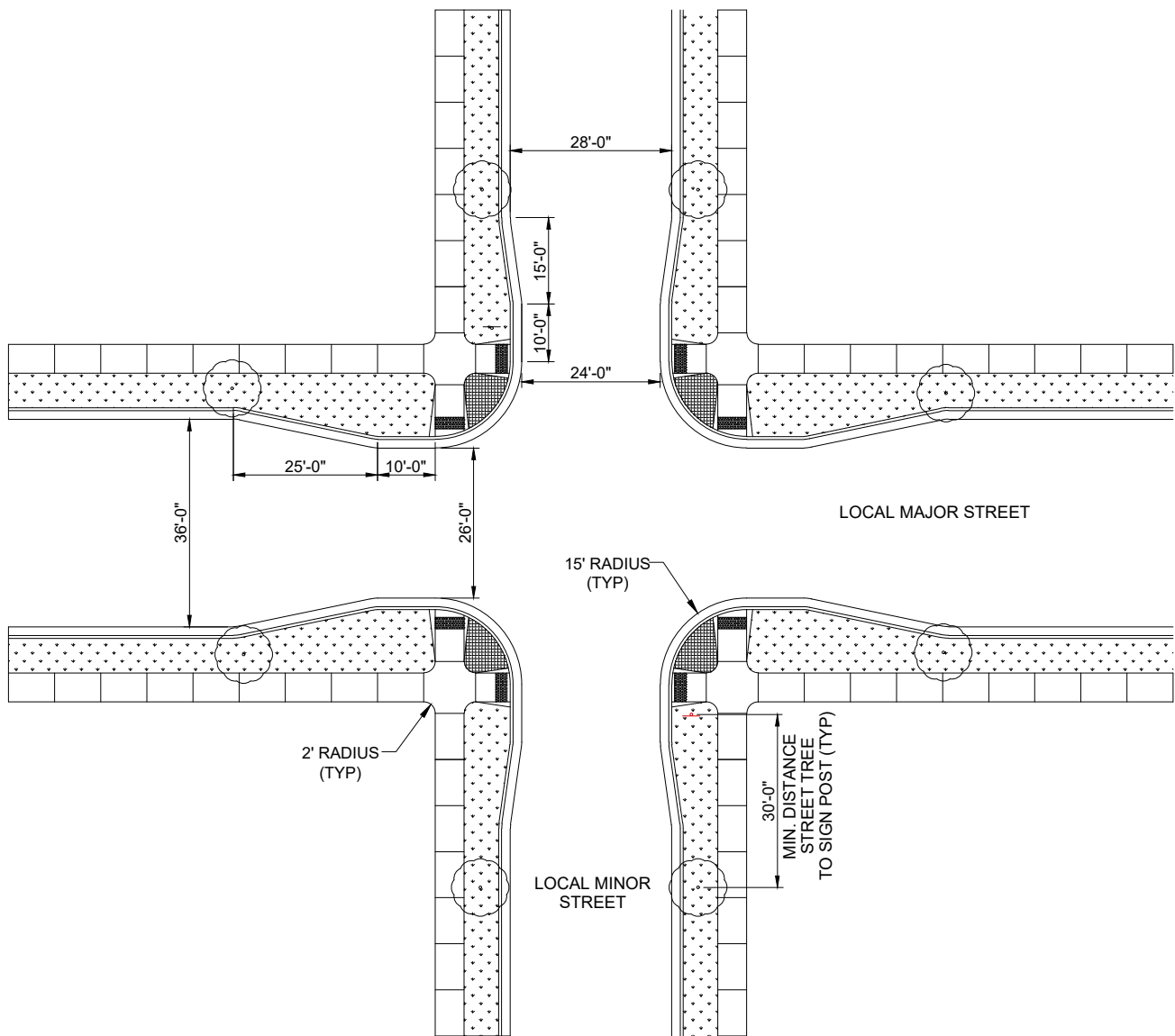
COUNTRY LANE

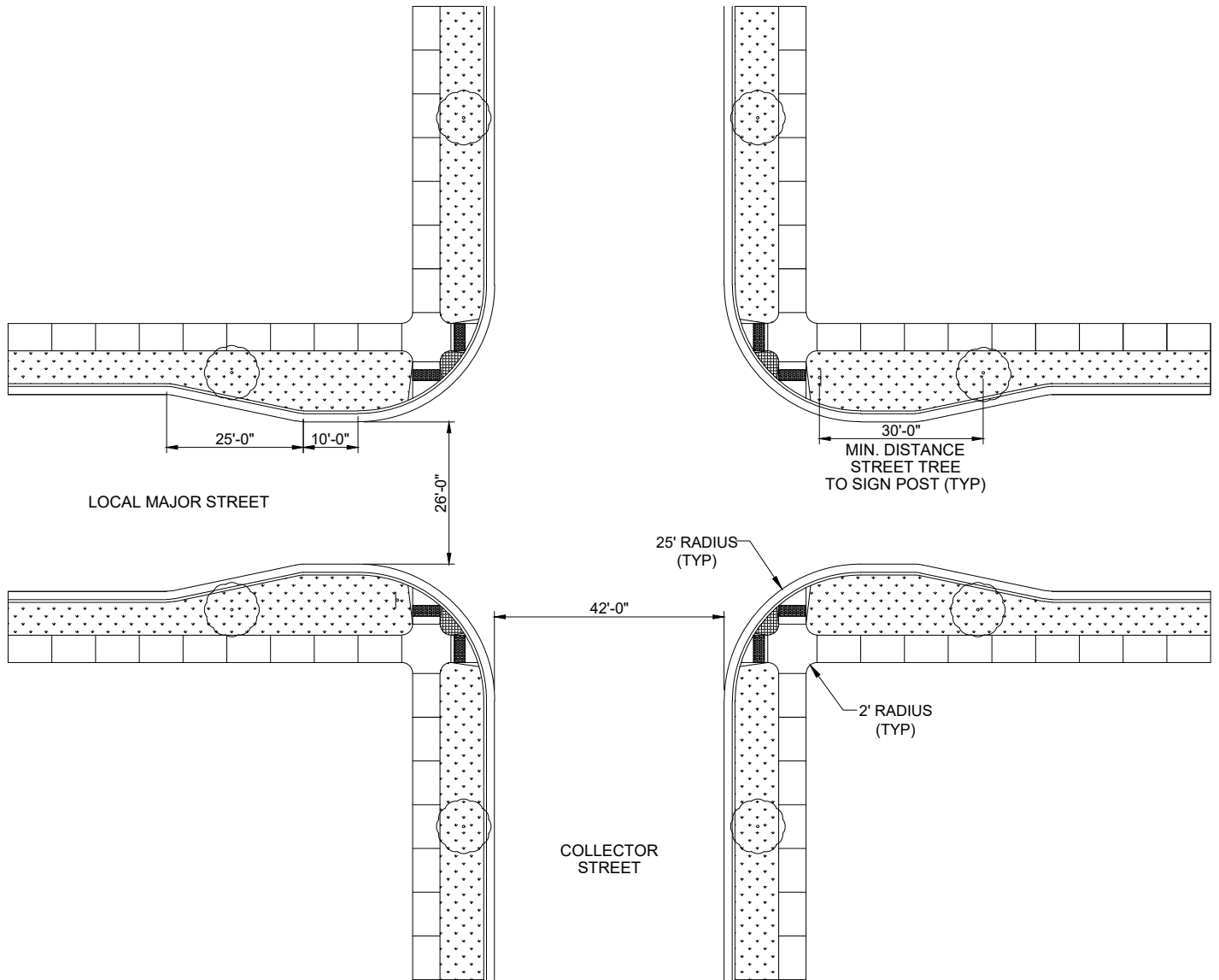
(SEE TRANSPORTATION MASTER PLAN FOR APPROVED LOCATIONS)

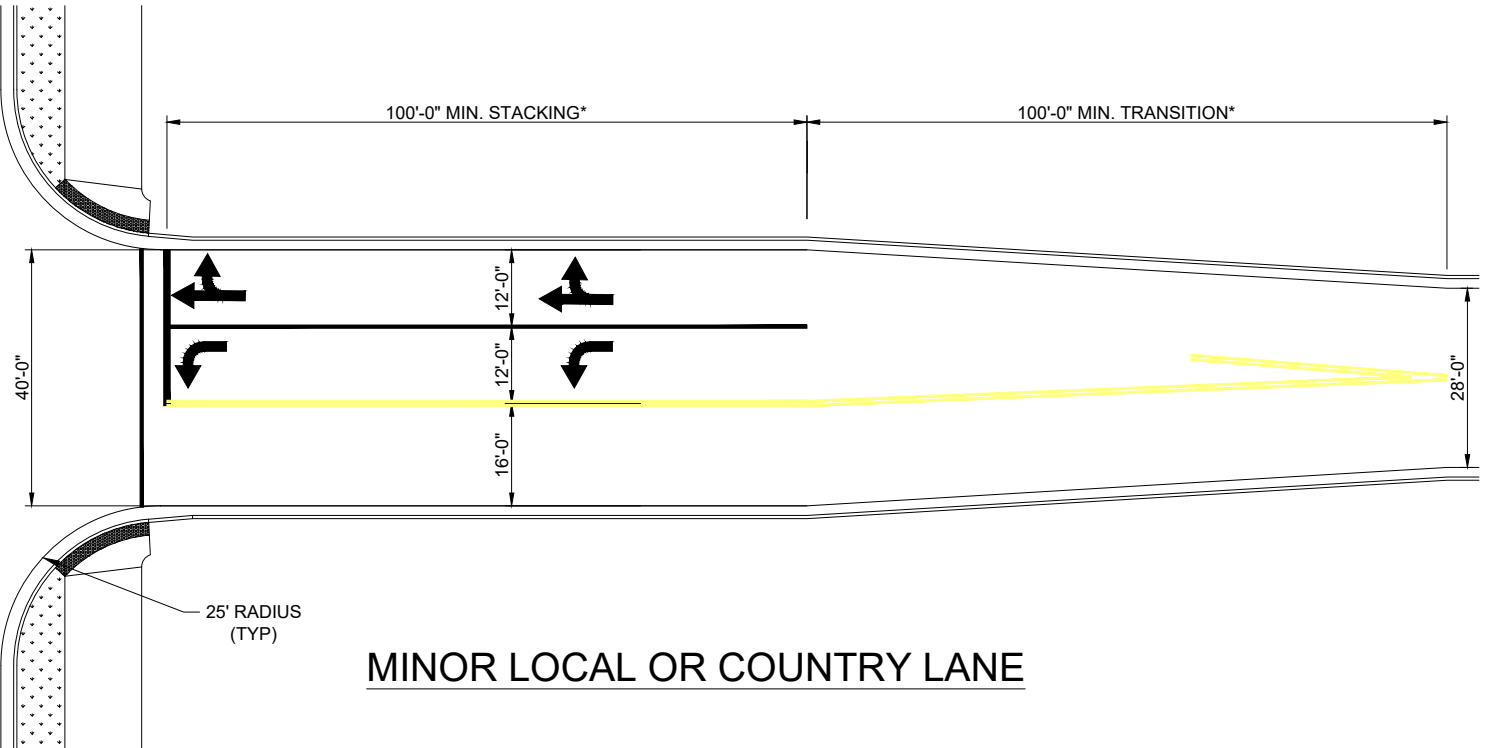
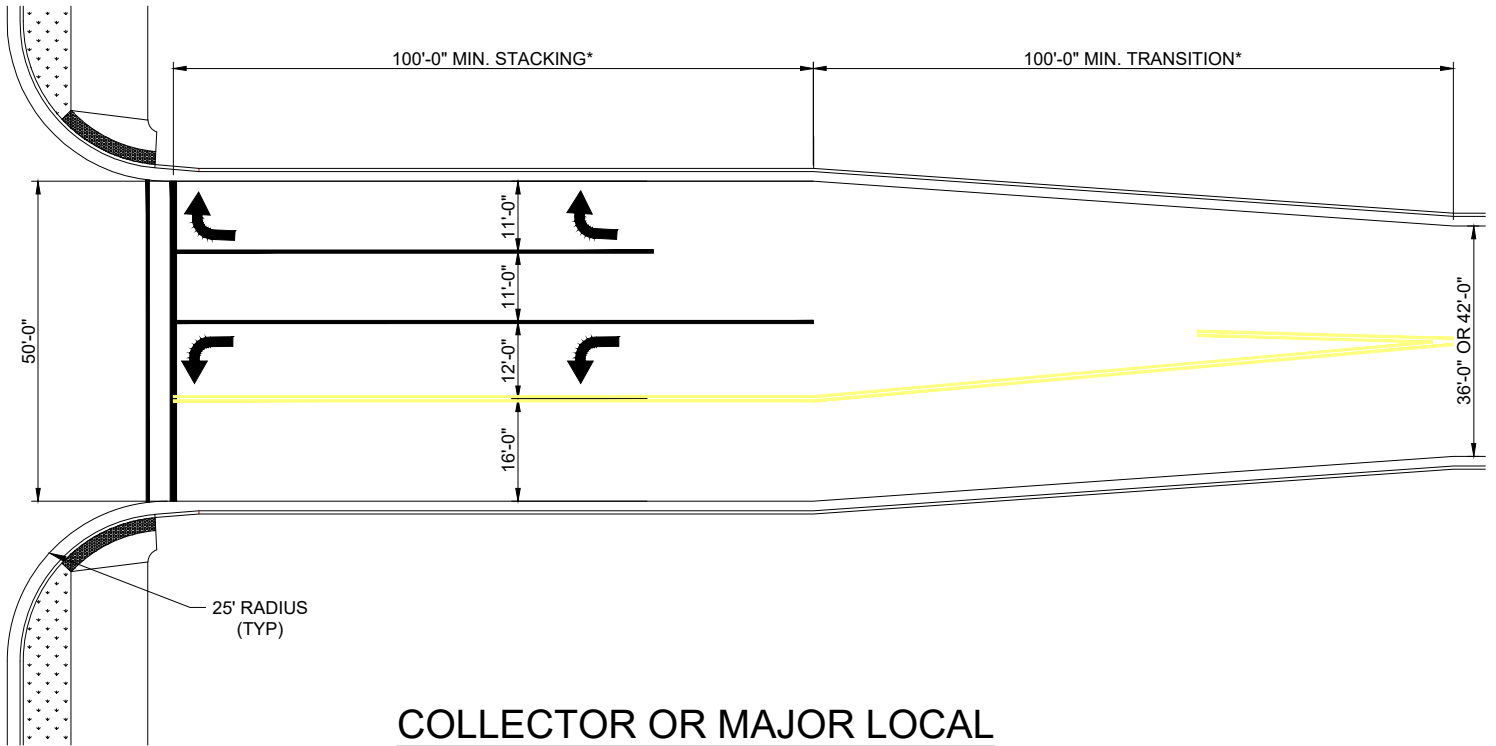


NOTES:  
BITUMINOUS SURFACE COURSE - 3" LOCAL  
4" COLLECTOR  
UNTREATED BASE COURSE - 8" MIN.  
SUB-BASE - TO BE DETERMINED BY CBR TEST AND CITY ENGINEER.

NOTES:  
WATER, PRESSURE IRRIGATION, & SEWER  
IN PAVEMENT AS SHOWN.  
P.U.E. TO BE USED BY GAS,  
ELECTRIC, AND COMMUNICATIONS.







\* LONGER STACKING AND/OR TRANSITIONS MAY BE REQUIRED BASED ON TRAFFIC MODELING OR SIGHT DISTANCE

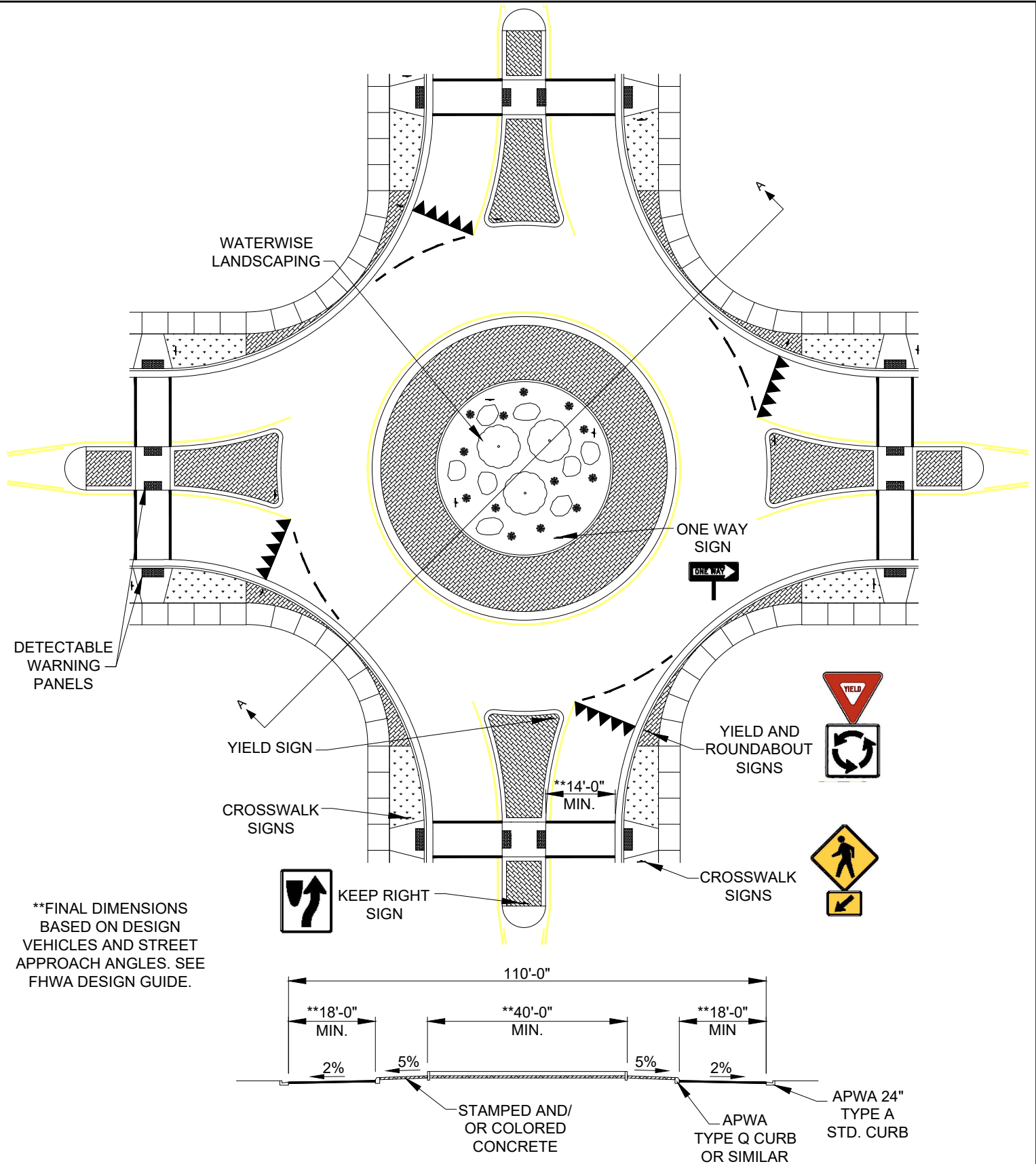


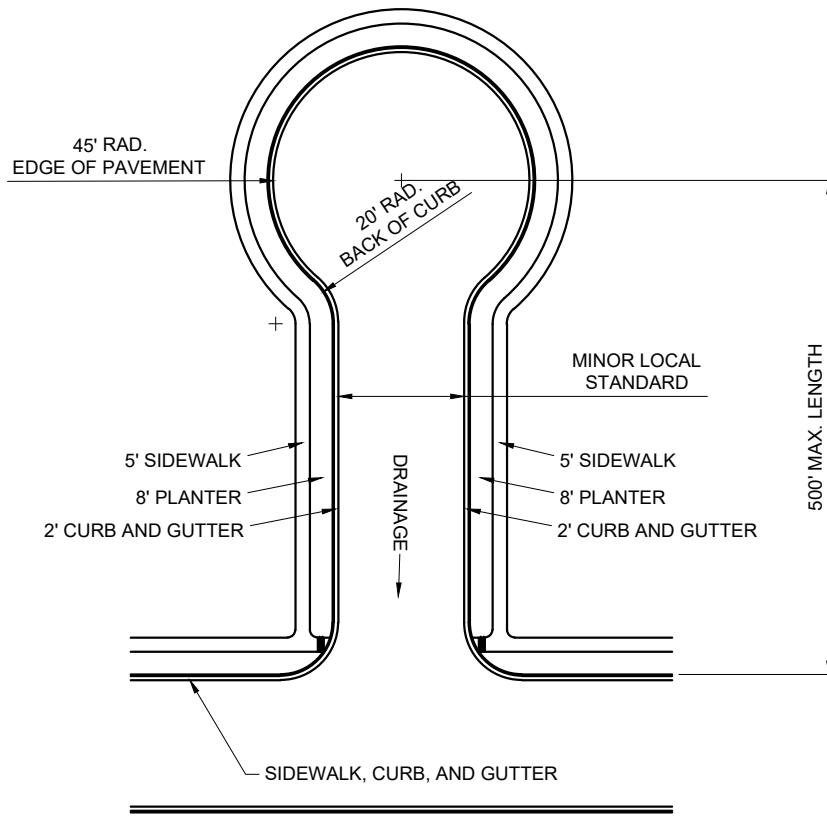
2026 MAPLETON STANDARD PLANS  
INTERSECTIONS WITH US-89

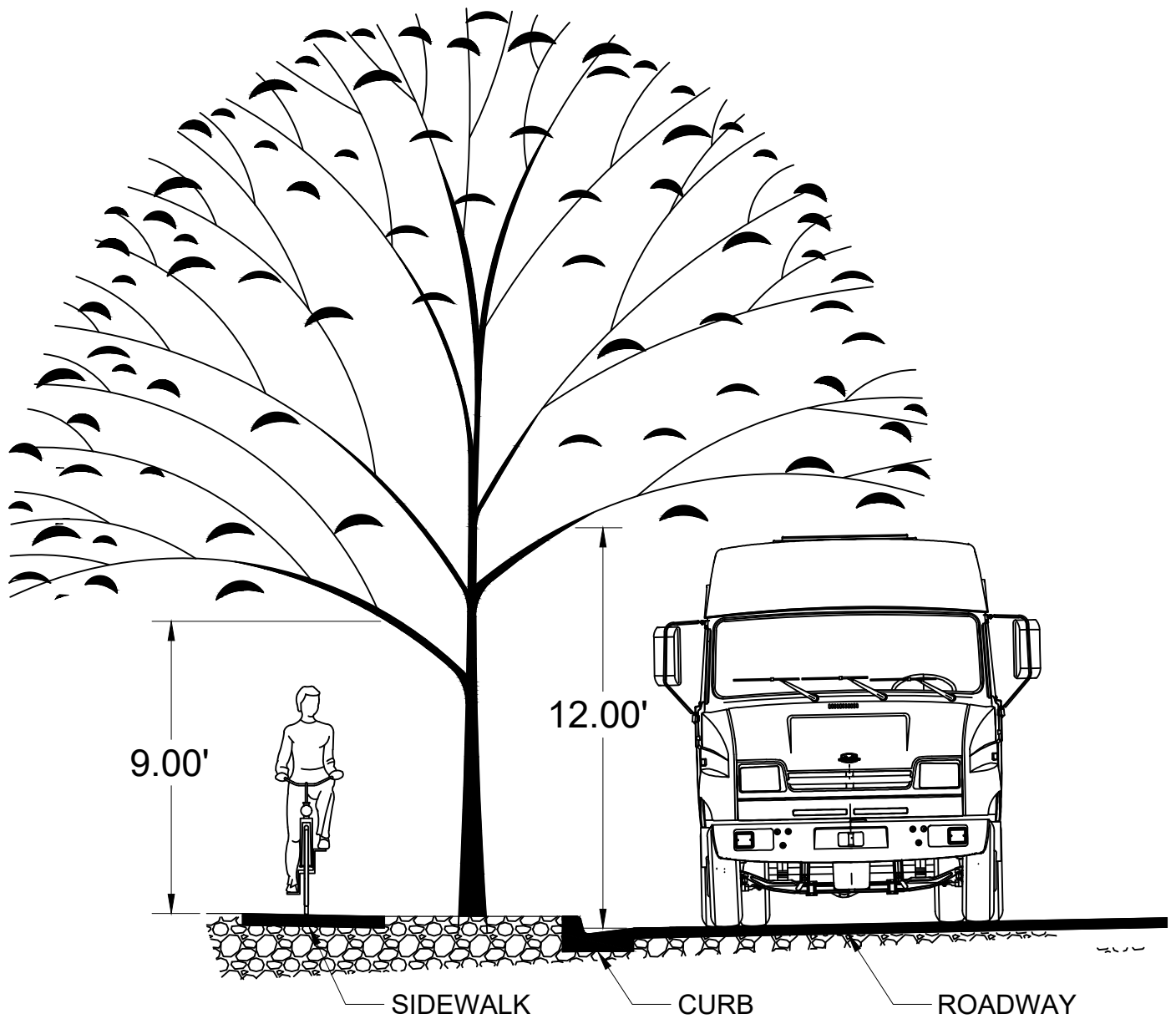
STD. PLAN NO.

M-923

Sheet 1 of 1







### Street Tree Trimming Guide

Street trees and other trees with branches overhanging pavement and/or sidewalks shall have branches kept trimmed to the min. heights shown above, to allow for public use and maintenance of streets and sidewalks



DOCUMENT 00 73 03  
MODIFICATIONS TO GENERAL CONDITIONS  
(SUPPLEMENTARY CONDITIONS)

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**PART 1      PURPOSE**

---

- A. This document changes provisions specified in the General Conditions in the Manual of Standard Specifications published by the Utah Chapter of the American Public Works Association.

---

**PART 2      MODIFICATIONS**

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**Add the Following Paragraphs to Article 2.2**

**2.2      COPIES OF DOCUMENTS**

- B. OWNER shall ***not*** furnish to CONTRACTOR reference Contract Documents which include the Utah APWA Manual of Standard Plans and the Manual of Standard Specifications. Such documents shall be secured separately by the CONTRACTOR.

**Modify paragraph 2.5c to Read as Follows**

- C. **Field Office:** An on-site field office is not required; however, CONTRACTOR shall provide and maintain a telephone in the field during performance of the Work such that OWNER may always contact CONTRACTOR for transmittal of plans, instructions, and dissemination of project information.

**Modify Article 5.1 to Read as Follows**

**5.1 PERFORMANCE, PAYMENT AND OTHER BONDS**

- A. Prior to OWNER executing the Agreement, CONTRACTOR shall file with OWNER a good and sufficient Performance Bond and Payment Bond, each in the sum of not less than 100 percent of the Contract Price
- B. The Bonds shall be executed by CONTRACTOR and secured by a company duly and regularly authorized to do general surety business in the State of Utah and either (i) named in the current U.S. Treasury Department's listing of approved sureties



(Department Circular 570) (as amended) with an underwriting limitation equal to or greater than the Contract Price which the Bond guarantees, or (ii) with a current "A-" rating or better in A.M Best Co., Inc.'s Best Insurance Reports, Property and Casualty Edition.

- C. The Performance Bond shall guarantee the faithful performance of the Construction Contract by CONTRACTOR and the Payment Bond shall guarantee the payment of labor and materials. The Bonds shall insure by their terms to the benefit of OWNER. Neither this nor any other provision requiring a Performance Bond shall be construed to create any rights in any third-party Claimant as against OWNER for performance of the Work under the Construction Contract.
- D. All Bonds required by the Contract Documents to be purchased and maintained by CONTRACTOR shall be obtained from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue Bonds for the limits so required. Such surety companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary General Conditions.
- E. If the surety on any Bond furnished by CONTRACTOR is subject to any proceeding under the Bankruptcy Code (Title 11, United States Code) or becomes insolvent or its rights to do business is terminated in the State of Utah or it ceases to meet the requirements of this Article, CONTRACTOR shall, within fifteen (15) days thereafter, substitute another Bond and surety, which must be acceptable to OWNER.

### **Modify Article 5.2 to Read as Follows**

#### **5.2 INSURANCE**

- A. Contractor shall provide the following minimum insurance coverage from companies holding a General Rating of "A" or better as set forth in the most current issue of Best's Key Rating Insurance Guide written for not less than the following, or greater if required by law and all such insurance to be primary to any insurance



maintained by OWNER, shall name OWNER as additional insured with waiver of subrogation:

1. The CONTRACTOR's Worker's Compensation Insurance shall be written for not less than the statutory limits for the locale of the Project and the CONTRACTOR's Employer's Liability Insurance shall be written for not less than \$2,000,000.
2. The CONTRACTOR's Comprehensive Automobile Liability Insurance shall be written with combined single limits of not less than \$2,000,000 each occurrence.
3. The CONTRACTOR's Comprehensive General Liability Insurance with contractual liability coverage on occurrence form with limits not less than \$2,000,000 per occurrence, \$4,000,000 aggregate. General Liability insurance must be kept in effect for 2 years after completion of work.
4. The Contractor shall not commence Work under this Agreement until all of the insurance required herein shall have been obtained by the Contractor. The Contractor shall furnish to the Owner Certificates of Insurance verifying that such insurance has been obtained. Such certificates will provide that Owner will receive at least thirty (30) days prior written notice of any material change in, cancellation of, or non-renewal of such insurance.
5. If applicable, professional liability (errors & omissions) Insurance coverage for a limit of \$2,000,000. Insurance shall be carried for two years after the work has been completed.
6. If Contractor uses any subcontractors, Contractor will provide for subcontractors or require the same insurance provisions for its subcontractors.

**Add the following paragraph to Article 6.8 to Read as Follows**

**6.8 LAWS AND REGULATIONS**

- A. All Bidders are required to follow the requirements of Utah Code Ann. § 63G-12-302 which prohibits OWNER from entering into any contract for the performance of services with any successful bidder who does not first provide OWNER with proof of registration and participation in a federally approved immigration status verification system to ensure that their employees are legally authorized to do work in the United States. By submitting a bid in response to this RFB, CONTRACTOR certifies that it does not, and will not during the performance of this contract, knowingly employ, or subcontract with any entity which employs workers who are not legally authorized to work in the United States. CONTRACTOR agrees to require all its employees to provide proof of their



eligibility to work in the United States and agrees to use all reasonable means to verify that proof. CONTRACTOR further agrees to require any subcontractors engaged to work on the project to sign a Certification of Legal Work Status and submit the Certification to the OWNER prior to any work being performed by the subcontractors. CONTRACTOR agrees to provide to the OWNER all documents necessary to verify compliance with applicable State and Federal immigration and labor laws. If CONTRACTOR knowingly employs workers or subcontractors in violation of 8 USC § 1324a, such violation shall be cause for unilateral cancellation of the contract between CONTRACTOR and OWNER. In addition, CONTRACTOR may be suspended from participating in future projects with the OWNER. In the event this contract is terminated due to a violation of 8 USC § 1324a by CONTRACTOR or a subcontractor of CONTRACTOR, CONTRACTOR shall be liable for any and all costs associated with such termination, including, but not limited to, any damages incurred by OWNER as well as attorney fees. For purposes of compliance, the OWNER requires CONTRACTOR and subcontractors to use an immigration status verification system such as E-Verify, or other approved system as outlined in Utah Code Annotated 63G-11-103, to verify the employment eligibility of all employees. CONTRACTOR and subcontractors must maintain up to date documentation of the status verification system inquiry regarding each employee and must provide this information to OWNER prior to beginning the project.

**Modify paragraph 14.2.E to Read as Follows**

- E. Retainage:** The amount of retainage with respect to progress payments shall be five percent (5%). Retainage shall be paid upon receipt of a final invoice requesting retainage payment, after the project passes final inspection including the completion of all punch list items.

**END OF DOCUMENT**



# Public Works Design Standards



~~December 2023~~ August 2026



## Introduction

This manual contains standards and requirements for infrastructure under the jurisdiction of Mapleton City Public Works, including streets, trails, storm drain, sewer, culinary water, and pressurized irrigation. This manual shall be used for all private development and public projects performed within Mapleton City jurisdiction. Any variation, substitution or exception to these Public Works Design Standards must be authorized in writing by the Mapleton City Public Works Director or City Engineer.

This manual is divided into the following sections:

**PUBLIC WORKS DESIGN STANDARDS** - This section contains the criteria design professionals shall use for reports and plan submittals.

**PUBLIC WORKS STANDARD PLANS (Supplement to the APWA Utah Chapter Manual of Standard Plans)** – Mapleton City adopts the APWA Utah Chapter Manual of Standard Plans for general use within Mapleton. This section contains drawings that Mapleton City has modified, replaced, or added to the APWA Manual.

**PUBLIC WORKS STANDARD SPECIFICATIONS (Supplement to the APWA Utah Chapter Manual of Standard Specifications)** – Mapleton City adopts the APWA Utah Chapter Manual of Standard Specifications for general use within Mapleton. This section contains specifications that Mapleton City has modified, replaced, or added to the APWA Manual.



- G. Offsets in street alignment between fifteen feet (15') and one hundred fifty feet (150') shall be prohibited.
- H. Curbs at intersections shall be rounded with curves having a minimum radius at the lip of curb of fifteen feet (15') for local-to-local street connections, and twenty-five feet (25') for intersections with collector and arterial streets.
- I. ADA compliant ramps shall be required for sidewalks at all intersections. Ramps shall be ~~designed to cross~~provided for crossing both intersecting streets, unless otherwise directed by the City Engineer.
- J. Bulb-outs shall be required on minor and major local streets at intersections. See Standard Plans (M-922 and M-923).

## Slope

- K. The minimum grade of any street shall be 0.4%.
- L. The maximum grade of any street shall be eight percent (8%), except in rare cases of specific site constraints that has been approved by the City Engineer. In no case shall the City Engineer approve a street grade in excess of twelve percent (12%).
- M. Cross slopes for new streets shall be 2%. Cross slopes for widening and/or adding curb to an existing street shall target 2% cross slope, with the minimum being 1% and maximum being 4%.

## Curves

- N. Where the street lines within a block deflect from each other at any one point more than ten degrees (10°), there shall be a connecting curve. The radius of the curve for the street centerline shall be not less than five hundred ten feet (510') for arterial streets, three hundred fifty feet (350') for collector streets, and two hundred feet (200') for local streets.
- O. Sharp turns within 5 degrees of a right angle may be approved on minor local streets at the discretion of the City Engineer, provided that the turn includes a knuckle with a minimum of 8 feet of additional pavement width.
- P. Vertical curves shall be required at grade changes, using the following minimum K values ( $L=KA$ , where A = difference in slopes):

Q.



|                                               | Crest       | Sag         |
|-----------------------------------------------|-------------|-------------|
| <u>Collector Street (35 mph design speed)</u> | $K \geq 29$ | $K \geq 49$ |
| <u>Local Street (25 mph design speed)</u>     | $K \geq 12$ | $K \geq 26$ |

## Street names

P.Q. New street names shall not duplicate those already existing. A street obviously a continuation of another already in existence should bear the same name. Before the street is named, the proposed name must be submitted to and approved by the Community Development Director.

## Street Cross Section

Q.R. Streets shall be designed and constructed according to the Mapleton City Standard Plan corresponding to the street classification, including the corresponding pavement and right-of-way widths, curb and gutter, planter strips, sidewalk, and easements.

R.S. All Mapleton City streets shall be hard surfaced (asphalt) with a minimum of three inches (3") bituminous coat even with the lip of the curb applied over eight inches (8") of untreated road base consistent with the Mapleton City standard plans. The minimum may be increased based on recommendations of the project geotechnical report. In addition, the developer shall be required to pay a fee to be determined by the City Engineer, for a ~~seal-coat~~high density mineral bond to be applied one to three years after development. The City will then be responsible for the application of the high density mineral bond. ~~seal-coat~~.

## Secondary Access and Traffic Impacts

S.T. Subdivision projects of thirty (30) lots or more shall provide at least two (2) points of vehicular access. Second vehicular access requirements for projects other than single-family residential shall be evaluated by the City Engineer based on the project's calculated traffic generation.

T.U. A traffic impact study shall be required for all residential subdivisions of thirty (30) lots or more. A traffic impact study shall be required for all non-



residential or mixed uses subdivisions or projects that require fifty (50) parking spaces or more.

## Streetlights

U.V. Streetlights shall be located at the following locations:

1. ~~Local streets using the rural street section~~Country lane:
  - a. Streetlights not required.
2. ~~Local street using a standard street section~~Major local and minor local:
  - a. One streetlight per intersection.
  - b. Every 600' on longer sections between intersections.
3. Collector streets:
  - a. Two streetlights at intersections, located kitty-corner from each other.
  - b. Every 300' on longer sections between intersections in residential areas.
  - ~~b.c.~~Every 75' along Maple Street, and every 150' in front of commercial developments (see Mapleton City Commercial Design Standards)
4. ~~Off~~Paved off-street trails away from street lighting:
  - a. At street crossings.
  - b. Every 150' using trail lighting.

V.W. New residential streetlights within Mapleton City are owned and operated by Rocky Mountain Power. Developments shall use the Mapleton City streetlight standard and show streetlight locations on project plans for City review. Final design and installation shall be coordinated through Rocky Mountain Power. Installation of streetlights shall be required before final inspection can pass for the development.

W.X. Streetlights south of 1600 South and west of Main St shall always require concrete bases, due to frequent high winds. Direct bury shall not be allowed.

## Signs

X.Y. Development projects shall be responsible to show on project plans and install the following signs:

1. Street name signs at every intersection
2. 2-way stop or yield signs at every intersection with a major local, collector, or arterial street.
3. Pedestrian crossing signs at proposed crosswalks.



4. No parking signs, if required for the project.

Z. Signs south of 1600 South and west of Main St shall always require concrete bases, due to frequent high winds. Direct bury shall not be allowed.

Y-AA. Street trees shall not be installed within 30-feet of an intersection, so as not to inhibit the view of existing or potential future stop or yield signs.

## Other Applicable Standards

BB. Commercial developments require cross-access to adjacent properties (see Mapleton City Commercial Design Standards)

CC. Where street design standards are not specified herein or in the Mapleton City Municipal Code, street design shall conform to the latest edition of the American Association of State Highway and Transportation Officials (AASHTO) "A Policy on Geometric Design of Highways and Streets." Other published professional standards, such as ITE or NACTO, may be considered at the discretion of the City Engineer.

Z-DD. Utah APWA Specification 32 01 31 includes requirements for Pavement Smoothness. For newly paved roads, requirements shall be met at time of final inspection prior to entering durability period, and at the end of durability prior to the City releasing the durability bond. At the discretion of the City Engineer, contractors may be required to perform a profile analysis as detailed in Utah APWA Specification 32 01 31, when streets do not appear to meet pavement smoothness requirements.

## TRAILS

A. Incorporate trails shown in the Mapleton Trails Master Plan, and as shown on Figures 38 and 39 in the Mapleton Transportation Master Plan. The final plat shall include the dedication of necessary right-of-way or trail easement, and plans shall show required trail improvements.

B. Streetlights shall be required where trails cross streets. In addition, paved off street trails away from street lighting shall include trail lighting every 150'.

C. Stop signs shall be required to stop trail users where trails cross arterial, collector or major local streets. Cross walk striping will also be required. Stop or yield signs and painted crossings may also be required at minor streets and country lanes



based on slope, sight distance, speeds, or volumes, at the discretion of the City Engineer or Parks Director.

D. Every plat that includes trails shall provide at least one bench, one doggy bag station, and one trash receptacle per trail. At the discretion of the Mapleton City Parks Director, this requirement may be waived based on existing trail amenities in the immediate vicinity.

E. Yellow dashed centerlines shall be included on paved trails.

## STORM DRAIN

### General Requirements

- A. Each development shall retain and infiltrate the 100-year, 24-hour storm.
- B. Each development shall submit a Drainage Report containing the following information:
  - 1. Description and exhibit of existing site conditions, including:
    - a. Property boundary
    - b. Existing onsite ditches, swales, canals, pipes or other drainage facilities.
    - c. Onsite drainage areas.
    - d. Offsite drainage areas where lands upstream of the site would produce stormwater discharges onto the project site.
    - e. Existing contours labeled.
    - f. Waters of the US or Jurisdictional Wetlands, if applicable.
    - g. FEMA floodplain, if applicable.
  - 2. Description and exhibit of proposed site conditions, including:
    - a. Property boundary.
    - b. Proposed onsite and upstream offsite drainage areas.
    - c. Proposed stormwater facilities, including those to protect the site from upstream discharge, and those to capture and infiltrate the onsite 100-year 24-hour storm.
    - d. Existing and proposed contours labeled.
    - e. Waters of the US or Jurisdictional Wetlands, if applicable.



- f. FEMA floodplain, if applicable.
- 3. Description of groundwater conditions at the site, as identified in the Geotech Report (see stormwater related Geotech Report requirements below).
- 4. Hydrologic calculations showing how the 100-year 24-hour storm was determined.
- 5. Hydraulic calculations used to verify proposed facilities have sufficient capacity. Identify how infiltration rates were determined from the Geotech report, including what safety factor was applied.
- 6. Identify who will own and maintain existing and proposed storm water facilities.
- C. Each development disturbing an acre or more shall submit a Storm Water Pollution Prevention Plan.

### Street Drainage

- D. Inlets shall be placed on both sides of the street at a distance of no more than 400', when gutter flows are 3 cfs or more, and upstream of every intersection, ADA ramp, and reverse grade driveway.
- E. Double inlets shall be placed at low points of vertical street curves, and at the spacing specified above on streets with 5% or greater slopes.

### Pipes

- F. Public storm drain shall be RCP, dual wall (gray) ADS, or HDPE.
- G. Storm drain shall be sized according to the calculations submitted in the drainage report, and the minimum allowable size shall be 12" for laterals (inlet to manhole) and 15~~18~~" for main line.
- H. The minimum slope shall be 0.4% to the maximum extent feasible. Where 0.4% is not feasible, the minimum slope shall be equivalent to a full flow velocity of 3 fps.
- I. Storm drain manholes shall be located no further than 400' apart, and at all pipe transitions including changes in direction, elevation, slope, and pipe size.
- J. Normal depth calculations can be used for sizing when calculations show pipes are no more than 75% full. Alternatively, a full hydraulic model including minor losses can be used showing the HGL no higher than 1' below grade.



- K. Public storm drain shall generally be located in public right-of-way. If storm drain cannot be not located in the public right-of-way, it shall require a minimum 20' easement.

## Open Channels

- L. Open channels shall not generally be allowed in new developments unless required to protect identified jurisdictional waters. When allowed, open channels shall include 1' of freeboard above the 100-year flow.
- M. Maximum permissible velocities of engineered channels shall account for channel materials as follows:
1. Fine sand, colloidal = 1.5 fps
  2. Fine gravel = 2.5 fps
  3. Course gravel, noncolloidal = 4 fps
  4. Large cobbles or unreinforced vegetation = 5 fps
  5. Riprap (sizing calculations must be submitted) = 10 fps
- N. A 10' minimum paved maintenance access shall be provided to one side of the open channel. Installation of the paved access shall be required before final inspection can pass for the development. An easement shall be provided from the edge of the maintenance access to 2' beyond the opposite top of channel. The minimum allowable easement shall be 20'.

## Retention Systems

- O. Allowable retention and infiltration system shall be as follows:
1. Underground Stormtech, Cultech or Stormbrixx-HydroStor systems, or approved equivalent engineered systems approved by the City Engineer
  2. Above ground retention ponds
  3. Bioswales and rain gardens
  4. Permeable pavers or concrete in parking lots
  5. Infiltrations sumps
- P. Pretreatment of snouts or equivalent shall be required on all inlets, unless an alternative pretreatment has been approved by the City engineer and shown on the plans. Oil absorbent pillows shall be required in all inlets for developments wholly or partially contained in a Well Protection Zone 2.

### Q. Underground retention systems:



1. A manhole or equivalent access shall be required in line with the isolator row, to allow for regular maintenance of the system.
2. A 6" or larger inspection port shall also be required at the far end of the isolator row, to allow for regular inspection of silt and debris buildup in the isolator row.

Q.R. Above ground retention:

1. A minimum of 1' of freeboard shall be provided above the 100-year elevation.
2. Side slopes shall be 2H:1V or flatter for ponds 2' or shallower total depth (including freeboard), and 3H:1V or flatter for ponds above 2' total depth.
3. Regular maintenance of vegetation within the pond shall be the responsibility of the property owner. The City will maintain pipes, sumps, and other concrete structures.
4. Above ground retention shall included at least one 6' deep infiltration sump per 5,000 SF of pond area, or one 10' deep infiltration sump per 8,000 SF of pond area. Storm drain inflow shall tie directly into the sump below ground, and all sumps shall be connected via storm drain. Sumps shall use a grated manhole cover, so that larger storms rise up into the above ground retention after all sumps are full. The bottom of the pond shall be sloped to the grated manhole covers at a minimum 2% slope.
5. For above-ground retention where groundwater is too shallow to allow for sumps below the pond, the minimum first three feet of soil below the surface of the retention pond shall be clean gravel or sand with less than 12% fines (GW, GP, SW, or SP).
6. Landscaping shall be required to be installed in above ground retention before final acceptance, following the general landscaping of the overall project. For example, projects maintaining natural vegetation in common areas may use natural seeding for the retention pond. Xeriscape, grass, gravel or larger landscape rock, and shrubs can also be used so long as maintenance access to structures is maintained and roots from larger vegetation will not compromise embankment integrity. Bark mulch and other floatable materials are prohibited.
7. The design permeability rate (see item X under Geotech below) shall allow for above ground retention to drain in 72-hours or less after a 100-year storm.
8. If after construction and landscaping is installed it appears that the post-construction soils condition does not match the design assumptions or requirements, City staff may require the contractor to provide post-construction testing proving soils classifications and/or permeability requirements are met.



4. If the Geotech believes groundwater fluctuations at the city wells do not apply to a certain project, the project geotechnical report should address the reasons why the site is different and what observations were made to estimate high groundwater elevations. Projects within known or suspected high groundwater areas disputing the comparison to historic City well data may be required to complete a 1-year groundwater analysis, at the discretion of the City Engineer. Project groundwater observations shall include piezometer readings at least every two weeks during spring runoff and irrigation season (if in the vicinity of irrigated fields), and at least monthly the remainder of the year. Readings from 1-year study shall be compared to readings at the City wells during that same period to evaluate whether historic groundwater fluctuations at City wells should apply or not.
  5. Areas outside of known or suspected high groundwater may have the 1-year study waived, at the discretion of the City Engineer. Test pits and borings for these projects shall still extend 3 feet below the bottom of proposed finished floors and retention/infiltration facilities. If no groundwater or visual indication of historic groundwater is observed, minimum finished floor elevations shall be no lower than 3-feet above the bottom of the test pit, and infiltration systems shall be no lower than 2-feet above the bottom of the test pit.
- X. Because Mapleton City's stormwater requirements include retention and infiltration, Geotech Reports shall include an analysis of measured permeability rate for the existing in-situ soil, and a design permeability rate using a safety factor of at least 2.5 to account for plugging, siltation, and the creation of biofilms over time. For example, if the measured permeability is 2-5 in/hr, the design infiltration rate for the retention/infiltration systems shall be no more than 1-2 in/hr. The maximum allowable design permeability is 8 in/hr (where measured permeability in a stamped Geotech report/letter is 20 in/hr or more).
- Y. One of the two following options shall be required for permeability testing for infiltration systems:
1. Option 1: Permeability shall be tested at each location proposed for infiltration, and design permeability calculated for each infiltration system based on the site-specific testing. Large retention ponds shall have a test for every 10,000 sf of pond area.
  2. Option 2: Permeability shall be tested at a minimum of three (3) general locations distributed throughout the project area, and the lowest permeability of the 3 locations shall be used to calculate the design permeability for all infiltration systems.



## PUBLIC WORKS STANDARD PLANS



## Preface

Mapleton City has adopted the APWA Utah Chapter Manual of Standard Plans for general use within Mapleton. However, in some cases the City has either modified or replaced the APWA Standard Plan, and in other cases the City has added a drawing for items not fully addressed in the APWA Standard Plans.

This document serves to detail the standard plans that shall be used within Mapleton City. The Table of Contents lists the adopted standard plans, including which ones are adopted from the APWA Manual of Standard Plans (indicated by the APWA plan #) and which ones have been modified or added (generally following the APWA plan numbering, but with an “M” indicating Mapleton City has modified or added it). Standard Plans that Mapleton City has modified, replaced, or added are included with this document. The APWA Utah Chapter Manual of Standard Plans is available for purchase on the APWA Utah Chapter website ([utah.apwa.net](http://utah.apwa.net)).

The Table of Contents also includes a “Do Not Use” indication for some APWA plans. These indicate items that generally will not be permitted within Mapleton City. Exceptions may be made in rare circumstances, and only after explicit written consent by the City Engineer or his/her designee.



|                                               |                                        |
|-----------------------------------------------|----------------------------------------|
| Pinch valve.....                              | APWA Plan 321.2                        |
| <b>Curb face outlet box.....</b>              | <b><i>Do Not Use</i></b>               |
| Pipe outfall                                  |                                        |
| Round with flare.....                         | APWA Plan 323.1                        |
| Elliptical with flare.....                    | APWA Plan 323.2                        |
| Access control rack.....                      | APWA Plan 323.3                        |
| <b>Cleanout Box and Hardware</b>              |                                        |
| Cleanout box                                  |                                        |
| Type A.....                                   | APWA Plan 331.1                        |
| Type B.....                                   | APWA Plan 331.2                        |
| Type C.....                                   | APWA Plan 331.3                        |
| Precast box.....                              | APWA Plan 332                          |
| Adjust reinforced concrete deck to grade..... | APWA Plan 335                          |
| <b>Manhole and Hardware</b>                   |                                        |
| Precast manhole                               |                                        |
| Cast in place base.....                       | APWA Plan 341.1                        |
| Pipe pass through base.....                   | APWA Plan 341.2                        |
| Concrete deck.....                            | APWA Plan 345                          |
| Raise frame to grade                          |                                        |
| Grade ring.....                               | APWA Plan 360.1                        |
| Plastic form.....                             | APWA Plan 360.2                        |
| Cover collar for storm drains.....            | APWA Plan 362                          |
| <b>Infiltration sump.....</b>                 | <b><i>Mapleton City Plan M-363</i></b> |
| <b>Piping</b>                                 |                                        |
| Area drain.....                               | APWA Plan 372                          |
| Concrete pier.....                            | APWA Plan 373                          |
| <b>Trenching</b>                              |                                        |
| Trench backfill.....                          | <b><i>Mapleton City Plan M-255</i></b> |
| Pipe zone backfill.....                       | <b><i>Mapleton City Plan M-255</i></b> |
| <b>Retention Systems</b>                      |                                        |
| Retention Ponds.....                          | <b><i>Mapleton City Plan M-381</i></b> |



|                                         |                 |
|-----------------------------------------|-----------------|
| Irrigation diversion box.....           | APWA Plan 614   |
| <b>Heads</b>                            |                 |
| Stationary head.....                    | APWA Plan 621   |
| Pop-up head.....                        | APWA Plan 622   |
| <b>Valves</b>                           |                 |
| Backflow preventer                      |                 |
| Less than 3 inches.....                 | APWA Plan 631.1 |
| 3 Inches and larger.....                | APWA Plan 631.2 |
| Drain valve.....                        | APWA Plan 632   |
| Control valve.....                      | APWA Plan 633   |
| Isolation valve.....                    | APWA Plan 635   |
| <b>Electrical</b>                       |                 |
| Wire runs for landscape irrigation..... | APWA Plan 651   |
| <b>Trees and Plants</b>                 |                 |
| Tree.....                               | APWA Plan 681   |
| Shrubs and bushes.....                  | APWA Plan 683   |

## PART 7 – LIGHTING, TRAFFIC CONTROL

### Street Lighting

|                                                    |                                                                    |
|----------------------------------------------------|--------------------------------------------------------------------|
| Abbreviations and symbols for traffic signals..... | APWA Plan 702                                                      |
| Riser.....                                         | <b><i>Do Not Use</i></b> APWA Plan 710                             |
| Collar for street light pole.....                  | <b><i>Do Not Use</i></b> APWA Plan 730                             |
| Junction box.....                                  | <b><i>Coordinate with Rocky Mountain Power</i></b> APWA Plan 731   |
| Trench for buried electrical conduit               |                                                                    |
| Park strip.....                                    | <b><i>Coordinate with Rocky Mountain Power</i></b> APWA Plan 732.1 |
| Roadway.....                                       | <b><i>Do Not Use</i></b> APWA Plan 732.2                           |
| Joint use trench.....                              | <b><i>Coordinate with Rocky Mountain Power</i></b> APWA Plan 733   |
| Street light pole terminal.....                    | <b><i>Do Not Use</i></b> APWA Plan 736                             |
| Street light meter pedestal.....                   | <b><i>Do Not Use</i></b> APWA Plan 737                             |
| Screw-in base street light pole.....               | <b><i>Mapleton City Plan M-741</i></b> APWA Plan 741               |
| Direct burial street light pole.....               | <b><i>Mapleton City Plan M-742</i></b> APWA Plan 742               |
| Concrete base for street light pole.....           | <b><i>Mapleton City Plan M-743</i></b> APWA Plan 743               |
| <b><i>Collector Single Streetlight</i></b> .....   | <b><i>Mapleton City Plan M-744</i></b>                             |
| <b><i>Collector Double Streetlight</i></b> .....   | <b><i>Mapleton City Plan M-745</i></b>                             |



## Signals

|                             |                                           |
|-----------------------------|-------------------------------------------|
| Signal pole foundation      | <i>See UDOT Standards</i> APWA Plan 751   |
| Signal pole wiring          | <i>See UDOT Standards</i> APWA Plan 752   |
| Signal light head           |                                           |
| Types and drawing symbols   | <i>See UDOT Standards</i> APWA Plan 753.1 |
| Placement                   | <i>See UDOT Standards</i> APWA Plan 753.2 |
| Signal cabinet base         |                                           |
| Type 5                      | <i>See UDOT Standards</i> APWA Plan 754.1 |
| Type 6                      | <i>See UDOT Standards</i> APWA Plan 754.2 |
| Pedestrian push button pole | <i>See UDOT Standards</i> APWA Plan 755   |

## Speed humps

|             |                          |
|-------------|--------------------------|
| Speed bump  | <b><i>Do Not Use</i></b> |
| Speed table | APWA Plan 762            |

## PART 8 – GENERAL FACILITIES

### Design Standards

|                    |                 |
|--------------------|-----------------|
| Defective concrete | APWA Plan 802   |
| Design vehicle     |                 |
| Type A             | APWA Plan 805.1 |
| Type B             | APWA Plan 805.2 |

### Security Fencing

|                  |               |
|------------------|---------------|
| Chain link fence | APWA Plan 832 |
|------------------|---------------|

### Miscellaneous

|              |               |
|--------------|---------------|
| Bus stop pad | APWA Plan 880 |
|--------------|---------------|

## PART 9 – STREET DESIGN

### Typical Street Sections

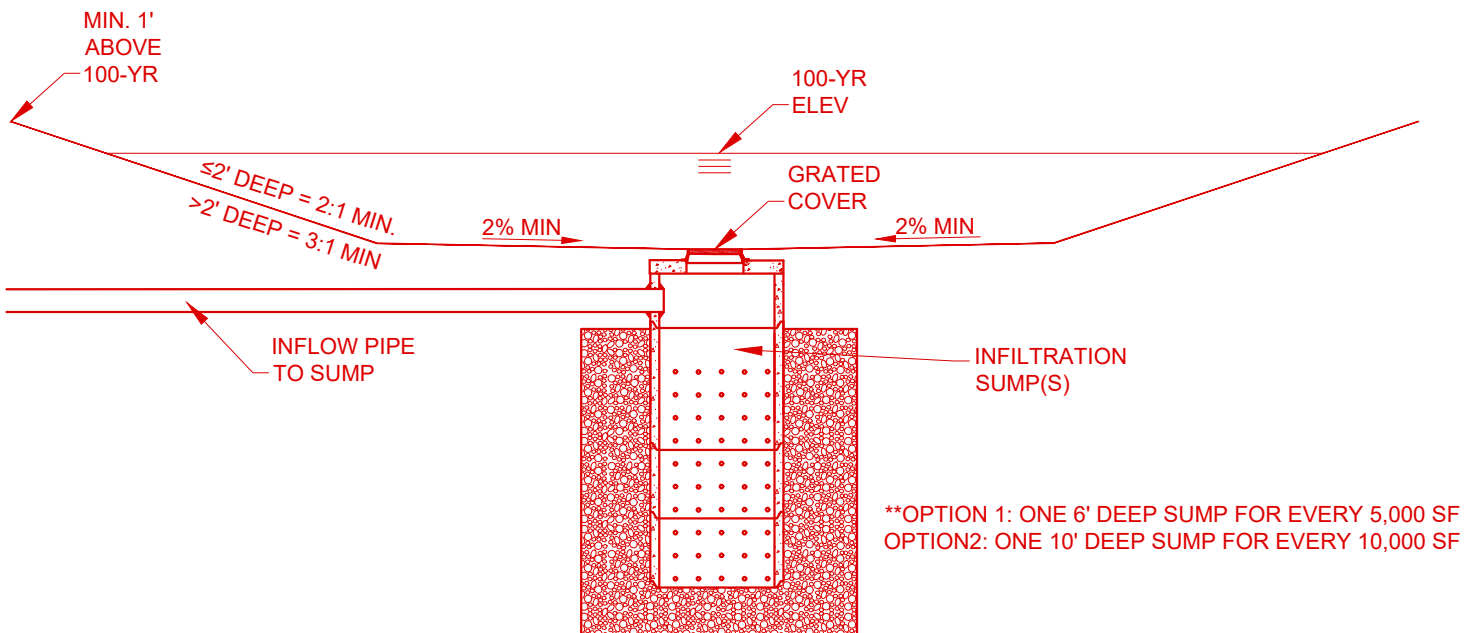
|                                       |                                        |
|---------------------------------------|----------------------------------------|
| Local and collector streets           | <b><i>Mapleton City Plan M-901</i></b> |
| <del>UDOT roads</del> SR-147 Sections | <b><i>Mapleton City Plan M-902</i></b> |
| Hillside local and country lane       | <b><i>Mapleton City Plan M-903</i></b> |
| Pavement section and utility location | <b><i>Mapleton City Plan M-910</i></b> |



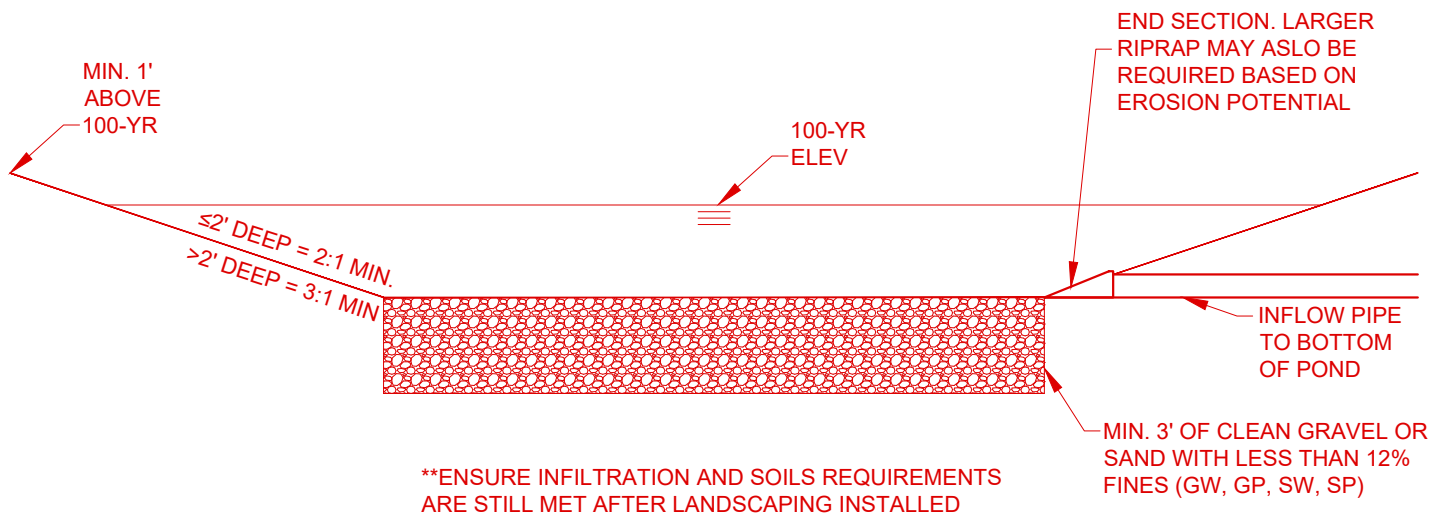
## Street design

|                                             |                                 |
|---------------------------------------------|---------------------------------|
| Local-to-local street intersection.....     | <i>Mapleton City Plan M-921</i> |
| Local-to-collector street intersection..... | <i>Mapleton City Plan M-922</i> |
| <u>Intersections with US-89</u> .....       | <i>Mapleton City Plan M-923</i> |
| <u>Standard Roundabout</u> .....            | <i>Mapleton City Plan M-924</i> |
| Cul-de-sac.....                             | <i>Mapleton City Plan M-931</i> |
| <u>Street Tree Trimming</u> .....           | <i>Mapleton City Plan M-941</i> |

END OF CONTENTS



## STANDARD POND SECTION



## HIGH GROUNDWATER ALTERNATIVE SECTION



2026 MAPLETON STANDARD PLANS

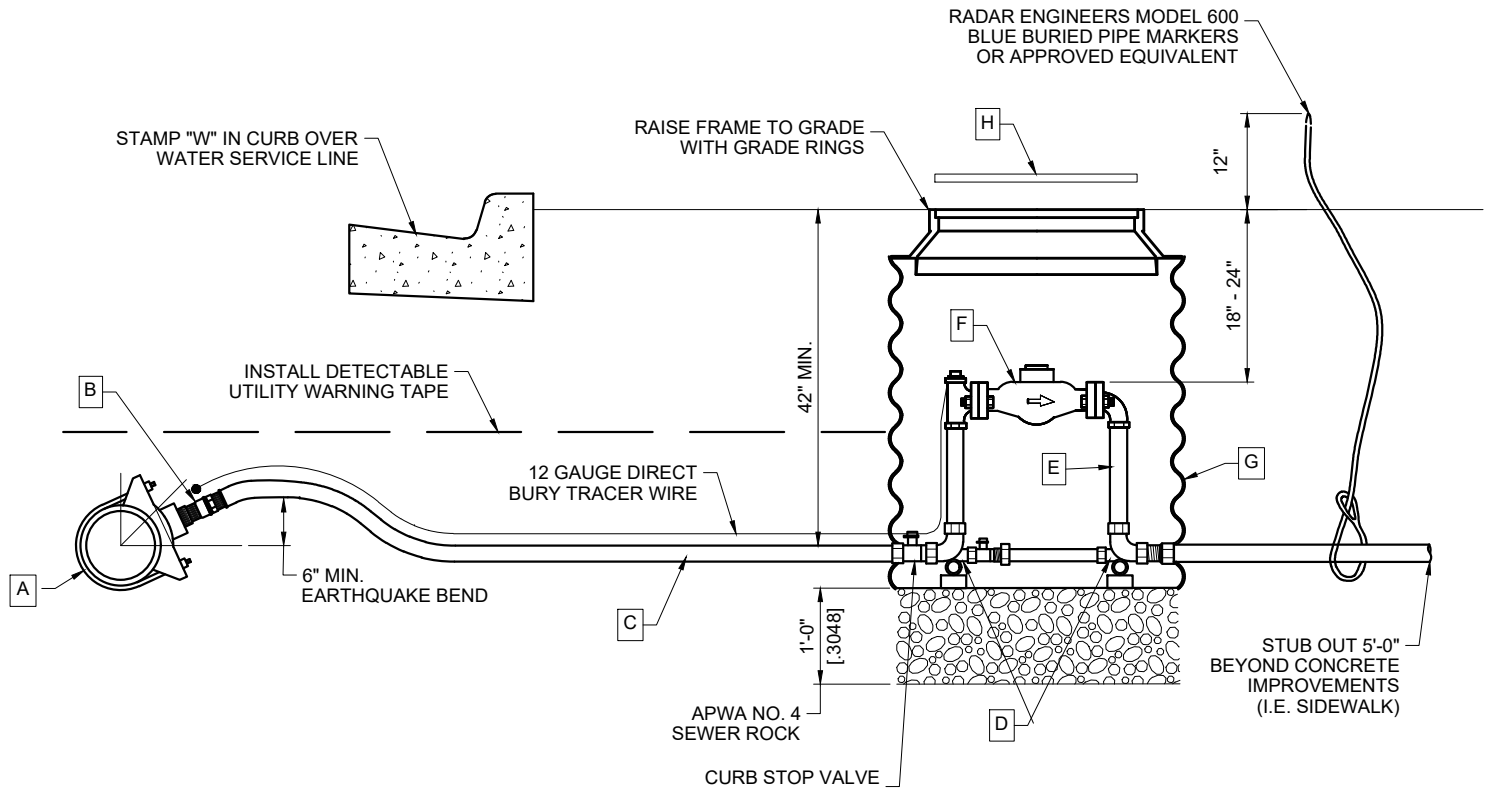
RETENTION POND

STD. PLAN NO.

M-381

Sheet 1 of 1





### LEGEND

| NO. | ITEM               | DESCRIPTION                                                                                                                                                                                                            |
|-----|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (A) | CONNECTION TO MAIN | USE DOUBLE STRAP BRASS SADDLE IN ALL CASES                                                                                                                                                                             |
| (B) | CORPORATION STOP   | BRASS - IRON PIPE THREAD WITH TRACER WIRE NUT                                                                                                                                                                          |
| (C) | PIPE               | DR <del>911</del> POLYETHYLENE TUBING MEETING AWWA C901 AND NSF61 WITH 12 GAUGE TRACER WIRE AND METAL INSERTS.                                                                                                         |
| (D) | ADAPTER            | BRASS - MALE x COMPRESSION                                                                                                                                                                                             |
| (E) | METER YOKE         | COPPER - EQUIP WITH INLET VALVE, VERTICAL DUAL CHECK VALVE, STABILIZER BARS PERPENDICULAR TO SETTER, & SOLID BAR BETWEEN INLET & OUTLET AT BASE AND HALFWAY UP METER YOKE. INCLUDE BYPASS.                             |
| (F) | METER              | TO BE INSTALLED BY CITY. PROTECT FROM DAMAGE                                                                                                                                                                           |
| (G) | METER BOX          | CONCRETE OR HDPE (3036" DIA. x 30" HEIGHT (MIN.))                                                                                                                                                                      |
| (H) | LID                | D&L FOUNDRY AND SUPPLY L-2244 RING AND L-23368 3036" ADAPTOR RING, WITH DFW12AUT-1MW+T OR EQUIVALENT POLYMER LID IN LANDSCAPE AREAS: TRAFFIC RATED BOX WITH B-5343 RING OR A-1180 WITH A-1180 COVER IN CONCRETE AREAS. |



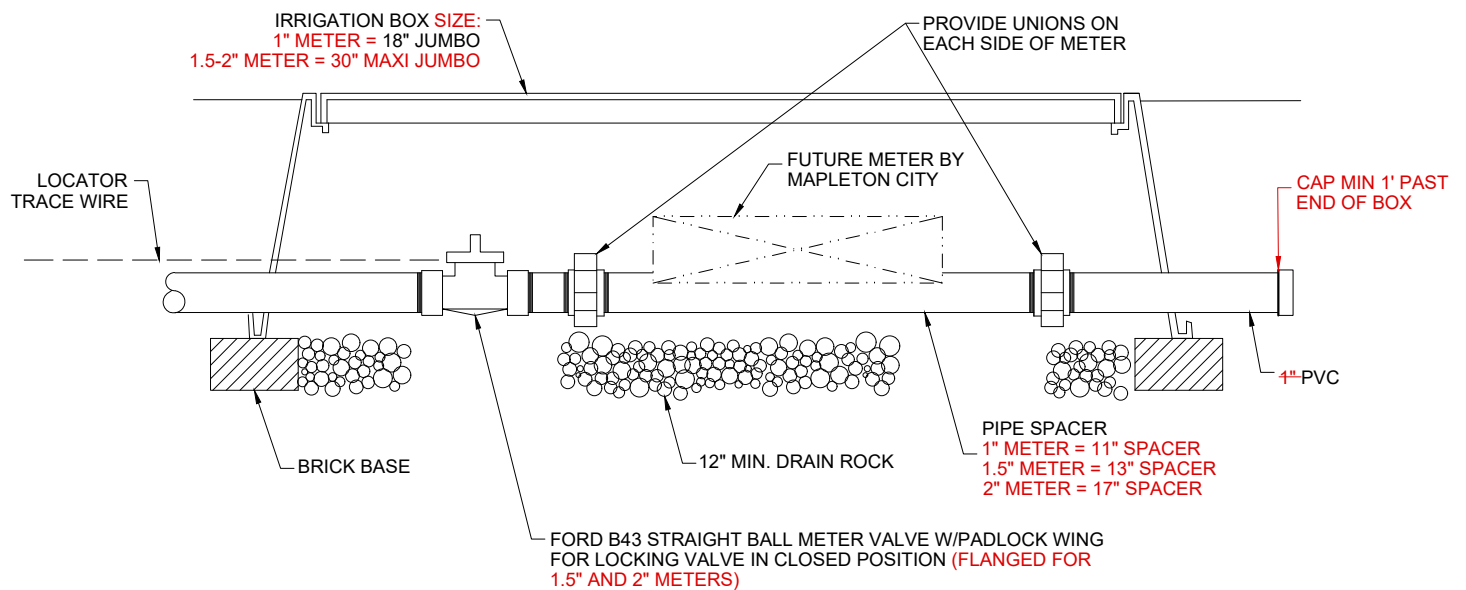
2026 MAPLETON STANDARD PLANS

1½" & 2" WATER SERVICE CONNECTION

STD. PLAN NO.

M-522

Sheet 1 of 1

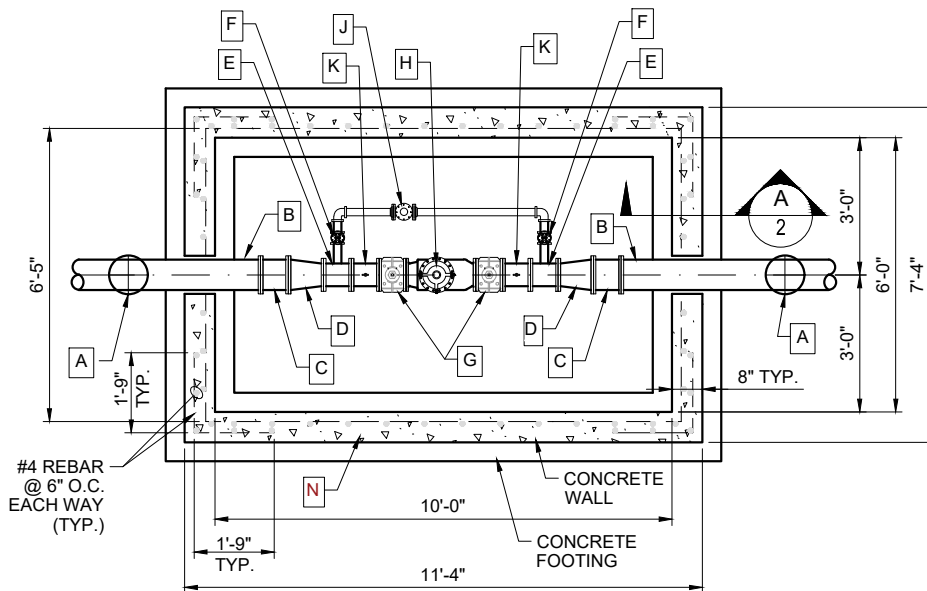


2026 MAPLETON STANDARD PLANS  
 PRESSURIZED IRRIGATION  
 SERVICE METER

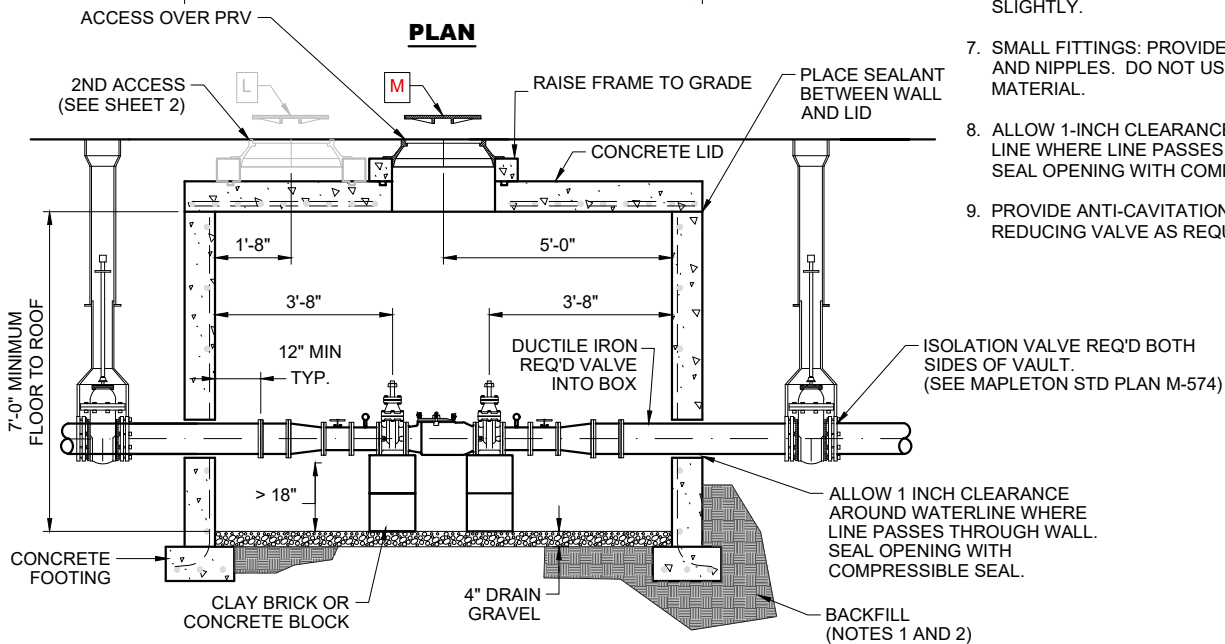
STD. PLAN NO.

M-531

Sheet 1 of 1



**PLAN**



**ELEVATION**

\* SIZED ONLY FOR 6" PRV ON A 8" MAIN. LARGER MAINS AND/OR PRVS WILL REQUIRE A LARGER VAULT

**NOTES:**

1. INSPECTION: ALL WORK MUST BE INSPECTED BY MAPLETON CITY PRIOR TO BACKFILL
2. BACKFILL: PROVIDE AND PLACE PER APWA SECTION 31 23 23. COMPACT PER APWA SECTION 31 23 26 TO A MODIFIED PROCTOR DENSITY OF 95 PERCENT OR GREATER. MAXIMUM LIFT THICKNESS IS 8" BEFORE COMPACTION.
3. REINFORCEMENT: ASTM A615, GRADE 60, DEFORMED STEEL. SEE APWA SECTION 03 20 00 REQUIREMENTS.
4. CONCRETE: CLASS 4000 PER APWA SECTION 03 30 04. PLACE CONCRETE PER APWA SECTION 03 30 10. CURE PER APWA SECTION 03 39 00.
5. CONCRETE BLOCKING AND ADJUSTABLE STEEL PIPE SUPPORT REQ'D. AS SHOWN.
6. DIMENSIONS ON METER ASSEMBLY MAY VARY SLIGHTLY.
7. SMALL FITTINGS: PROVIDE BRASS FITTINGS AND NIPPLES. DO NOT USE GALVANIZED MATERIAL.
8. ALLOW 1-INCH CLEARANCE AROUND WATER LINE WHERE LINE PASSES TYPICAL BOX WALL. SEAL OPENING WITH COMPRESSIBLE SEAL.
9. PROVIDE ANTI-CAVITATION TRIM TO PRESSURE REDUCING VALVE AS REQUIRED.

**LEGEND**

| NO. | DESCRIPTION                                                       |
|-----|-------------------------------------------------------------------|
| A   | ISOLATION VALVE (SEE MAPLETON WATER VALVE STANDARD PLAN M-574)    |
| B   | DUCTILE IRON PIPE REQ'D FROM ISOLATION VALVE INTO VAULT           |
| C   | 8" M.J. x FLANGE ADAPTER (CEMENT LINED)                           |
| D   | 8"x 6" FLANGE REDUCER                                             |
| E   | 6" FLANGED STEEL SPOOL WITH 2" OUTLET (EPOXY COATED AND LINED)    |
| F   | 2" GATE VALVE                                                     |
| G   | 6" GATE VALVE WITH 2"x 2" OPERATING NUT                           |
| H   | 6" PRESSURE REDUCING VALVE (CLA-VAL MODEL 90-01BY)                |
| J   | 2" PRESSURE REDUCING VALVE (CLA-VAL MODEL 90-01AS)                |
| K   | SPOOL WITH 3/4" I.P. TAP WITH PRESSURE GAUGE                      |
| L   | 2ND ACCESS: FRAME & COVER D&L SUPPLY A-1005 OR EQUAL (20' LID)    |
| M   | PRV ACCESS: FRAME & COVER D&L SUPPLY A-1180 OR EQUAL (24-25" LID) |
| MN  | PRECAST CONCRETE BOX PER DETAILS THIS SHEET                       |

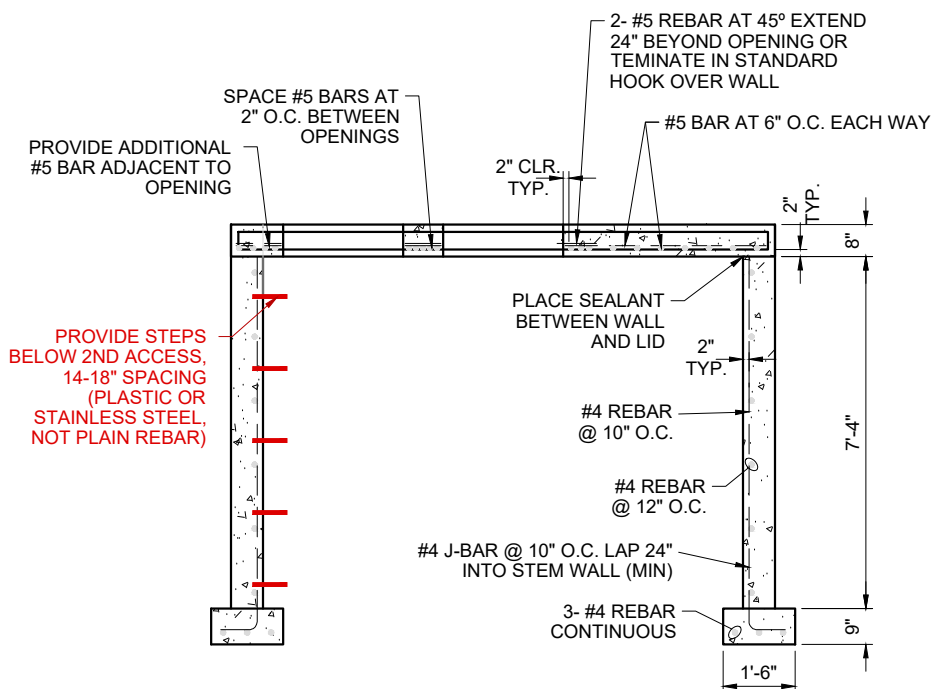
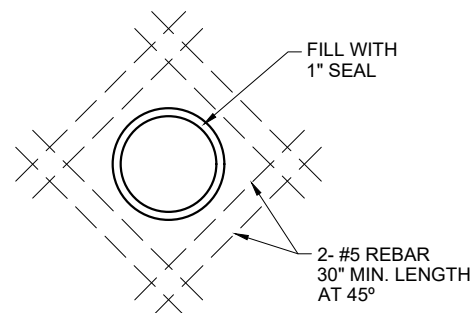
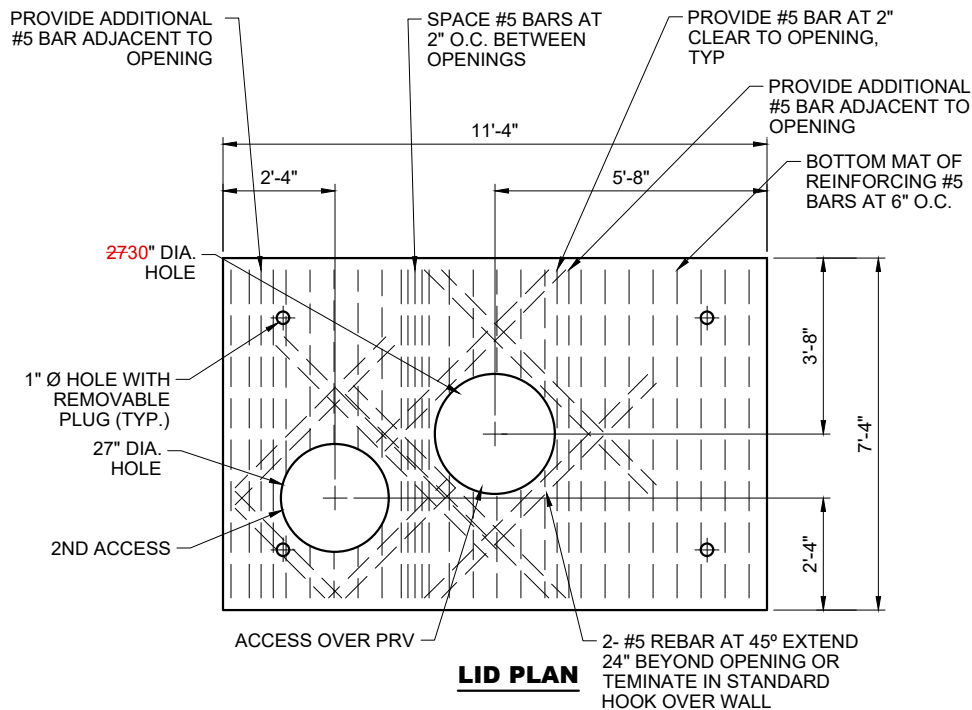


2026 MAPLETON STANDARD PLANS  
6" PRESSURE REDUCING VALVE & VAULT  
(FOR 8" MAIN)

STD. PLAN NO.

M-573

Sheet 1 of 2



\* SIZED ONLY FOR 6" PRV ON A 8" MAIN. LARGER MAINS AND/OR PRVS WILL REQUIRE A LARGER VAULT



2026 MAPLETON STANDARD PLANS  
**6" PRESSURE REDUCING VALVE & VAULT**  
 (FOR 8" MAIN)

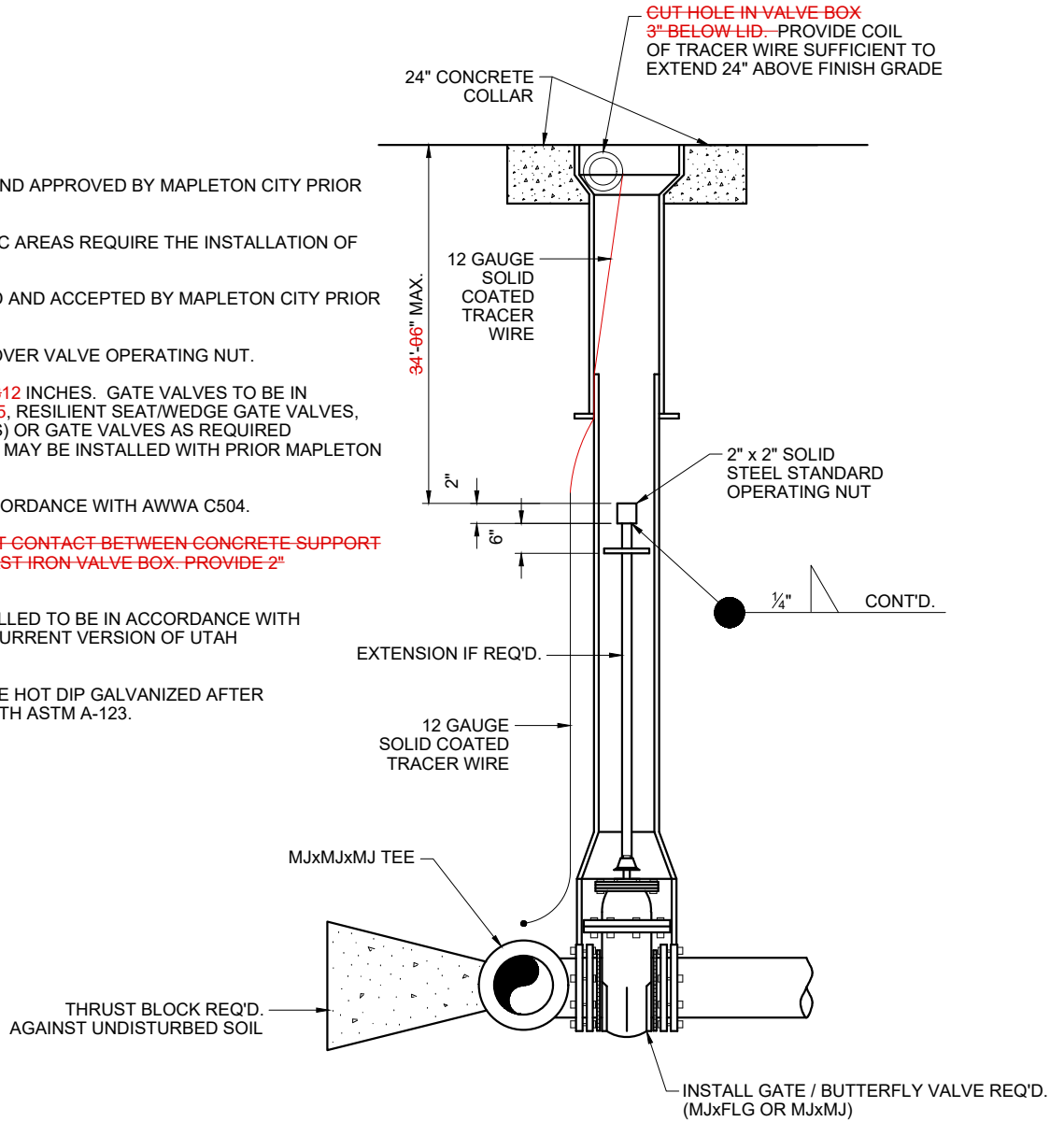
STD. PLAN NO.

**M-573**

Sheet 2 of 2

# **VALVE NOTES:**

1. ALL WORK MUST BE INSPECTED AND APPROVED BY MAPLETON CITY PRIOR TO BACKFILL.
2. ALL VALVES INSTALLED IN TRAFFIC AREAS REQUIRE THE INSTALLATION OF TRAFFIC LIDS.
3. SUBSTITUTIONS TO BE APPROVED AND ACCEPTED BY MAPLETON CITY PRIOR TO INSTALLATION.
4. VALVE BOXES TO BE CENTERED OVER VALVE OPERATING NUT.
5. GATE VALVES MAXIMUM SIZE OF 812 INCHES. GATE VALVES TO BE IN ACCORDANCE WITH AWWA C50915, RESILIENT SEAT/WEDGE GATE VALVES, PARALLEL SEAT (TAPPING VALVES) OR GATE VALVES AS REQUIRED. RESILIENT SEAT TAPPING VALVES MAY BE INSTALLED WITH PRIOR MAPLETON CITY APPROVAL.
6. BUTTERFLY VALVES TO BE IN ACCORDANCE WITH AWWA C504.
7. INSURE THAT THERE IS NO DIRECT CONTACT BETWEEN CONCRETE SUPPORT AND THE ADJUSTABLE 2-PIECE CAST-IRON VALVE BOX. PROVIDE 2" CLEARANCE PER-DETAIL.
8. ALL WORK AND MATERIALS INSTALLED TO BE IN ACCORDANCE WITH MAPLETON CITY AND THE MOST CURRENT VERSION OF UTAH ADMINISTRATIVE RULE R-309-550.
9. STEM EXTENSION FINISH SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A-123.



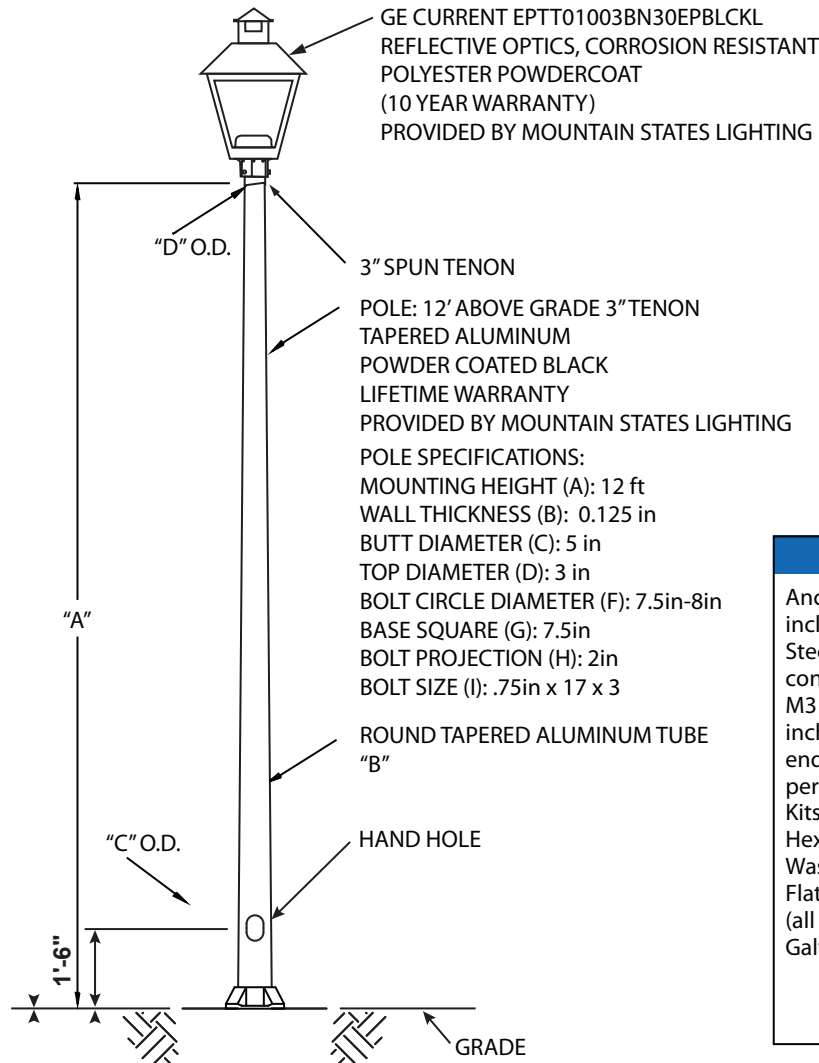
## FIXTURE RATINGS

**IP65**  
Weight: 18 lbs  
EPA: 1.6FT<sup>2</sup>



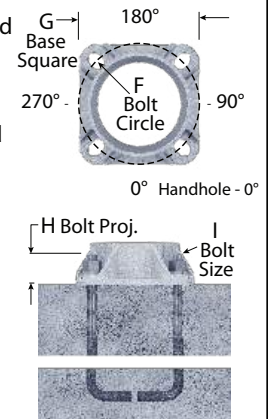
## MAPLETON

125 West 400 North  
Mapleton, UT 84664  
801-806-9114



### Anchorage

Anchorage Kit will include four (4) L-shaped Steel Anchor Bolts conforming to AASHTO M314-90 Grade 55. Ten inches (10") of threaded end will be galvanized per ASTM A153. Kits will contain four (4) Hex Nuts, four (4) Lock Washers, and four (4) Flat Washers (all components Galvanized Steel).



**Tyler Liddiard**  
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o:801-268-4879  
**Xavier Maestas**  
xavi@mtnstatesltg.com  
c:801-971-9643  
o:801-268-4879

## Residential Baseplated

|               |                  |                  |                             |
|---------------|------------------|------------------|-----------------------------|
| SCALE:<br>NTS | DATE:<br>2-23-23 | DRAWN BY:<br>XEM | DRAWING NUMBER:<br>MC-LP01A |
|---------------|------------------|------------------|-----------------------------|

CITY APPROVAL:



2026 Standard Drawings  
STD PLAN NO. M-741

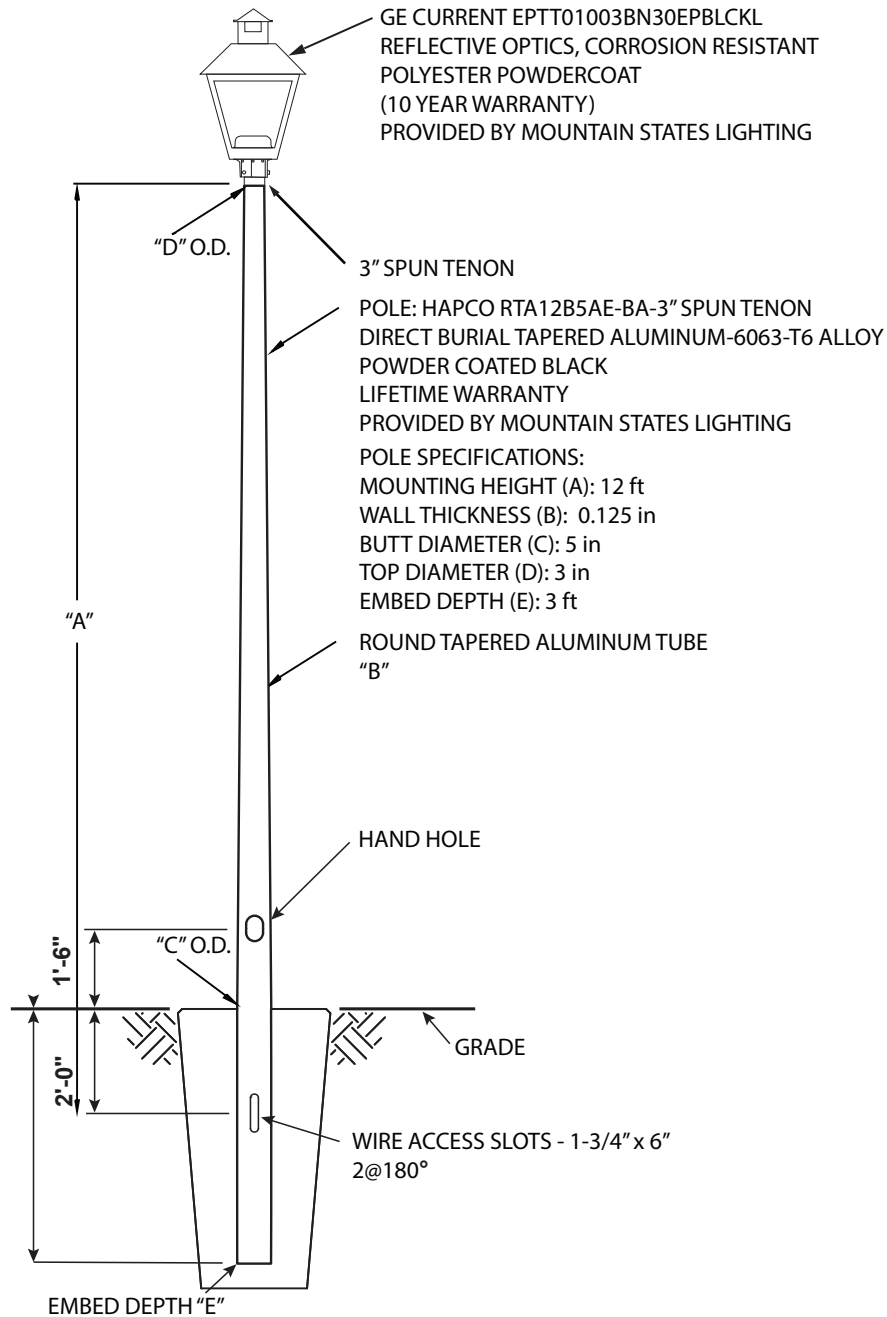
# FIXTURE RATINGS

**IP65**  
Weight: 18 lbs  
EPA: 1.6FT<sup>2</sup>



## MAPLETON

125 West 400 North  
Mapleton, UT 84664  
801-806-9114



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o:801-268-4879

## Residential EPTT

|               |                  |                  |                            |
|---------------|------------------|------------------|----------------------------|
| SCALE:<br>NTS | DATE:<br>9-17-21 | DRAWN BY:<br>XEM | DRAWING NUMBER:<br>MC-LP01 |
|---------------|------------------|------------------|----------------------------|

CITY APPROVAL:



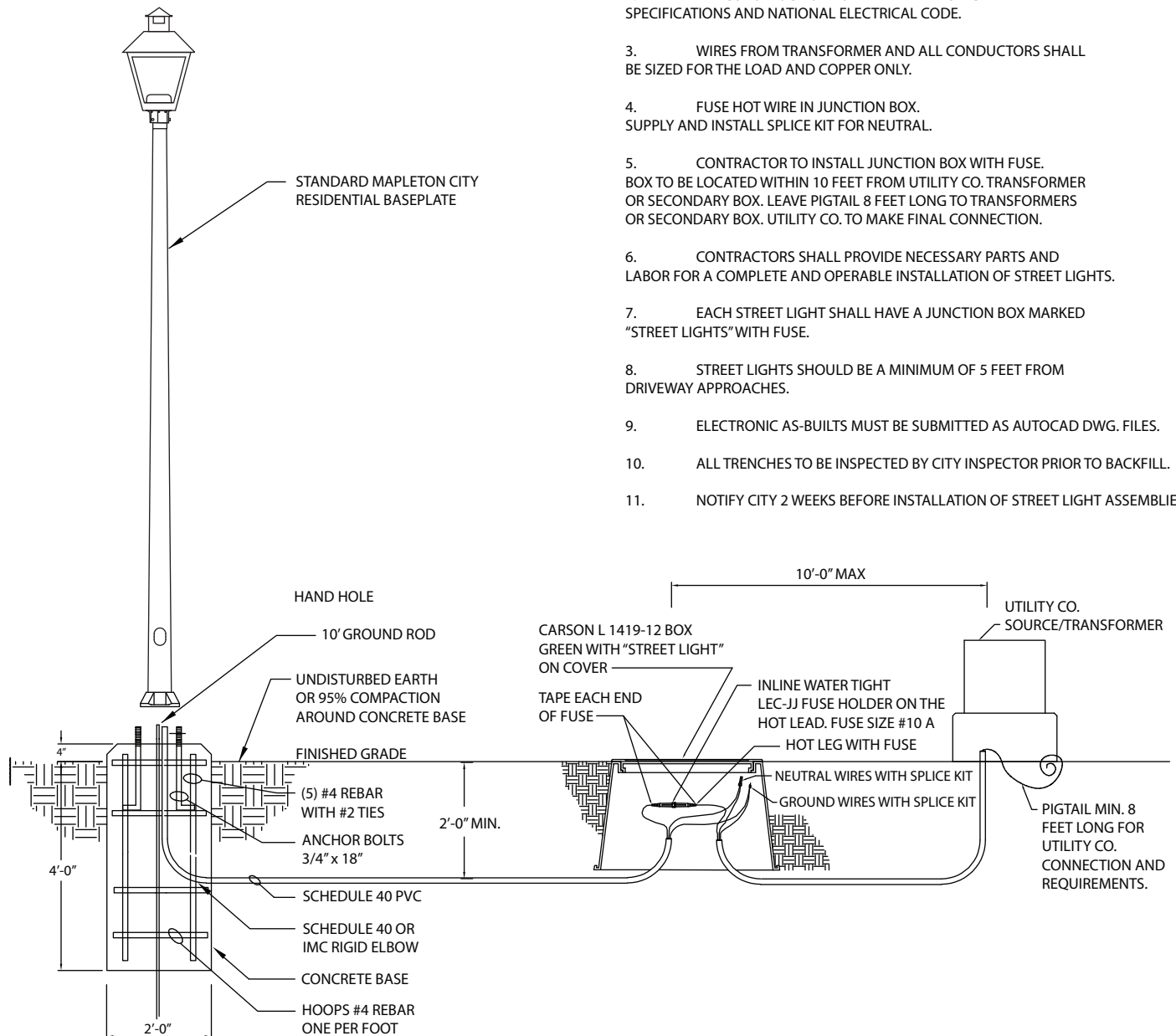
2026 Standard Drawings  
STD PLAN NO. M-742

# MAPLETON

125 West 400 North  
Mapleton, UT 84664  
801-806-9114

## NOTES:

1. CONTRACTORS SHALL FOLLOW MAPLETON CITY INSTALLATION AND INSPECTION PROCEDURES BEFORE ACCEPTANCE
2. ALL CONSTRUCTION TO MEET MAPLETON CITY SPECIFICATIONS AND NATIONAL ELECTRICAL CODE.
3. WIRES FROM TRANSFORMER AND ALL CONDUCTORS SHALL BE SIZED FOR THE LOAD AND COPPER ONLY.
4. FUSE HOT WIRE IN JUNCTION BOX. SUPPLY AND INSTALL SPLICE KIT FOR NEUTRAL.
5. CONTRACTOR TO INSTALL JUNCTION BOX WITH FUSE. BOX TO BE LOCATED WITHIN 10 FEET FROM UTILITY CO. TRANSFORMER OR SECONDARY BOX. LEAVE PIGTAIL 8 FEET LONG TO TRANSFORMERS OR SECONDARY BOX. UTILITY CO. TO MAKE FINAL CONNECTION.
6. CONTRACTORS SHALL PROVIDE NECESSARY PARTS AND LABOR FOR A COMPLETE AND OPERABLE INSTALLATION OF STREET LIGHTS.
7. EACH STREET LIGHT SHALL HAVE A JUNCTION BOX MARKED "STREET LIGHTS" WITH FUSE.
8. STREET LIGHTS SHOULD BE A MINIMUM OF 5 FEET FROM DRIVEWAY APPROACHES.
9. ELECTRONIC AS-BUILTS MUST BE SUBMITTED AS AUTOCAD DWG. FILES.
10. ALL TRENCHES TO BE INSPECTED BY CITY INSPECTOR PRIOR TO BACKFILL.
11. NOTIFY CITY 2 WEEKS BEFORE INSTALLATION OF STREET LIGHT ASSEMBLIES.



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o:801-268-4879

## Residential BP Underground

|               |                  |                  |                                 |
|---------------|------------------|------------------|---------------------------------|
| SCALE:<br>NTS | DATE:<br>2-23-23 | DRAWN BY:<br>XEM | DRAWING NUMBER:<br>MC-RES-BP-UG |
|---------------|------------------|------------------|---------------------------------|

CITY APPROVAL:



2026 Standard Drawings  
STD PLAN NO. M-743

# FIXTURE RATINGS

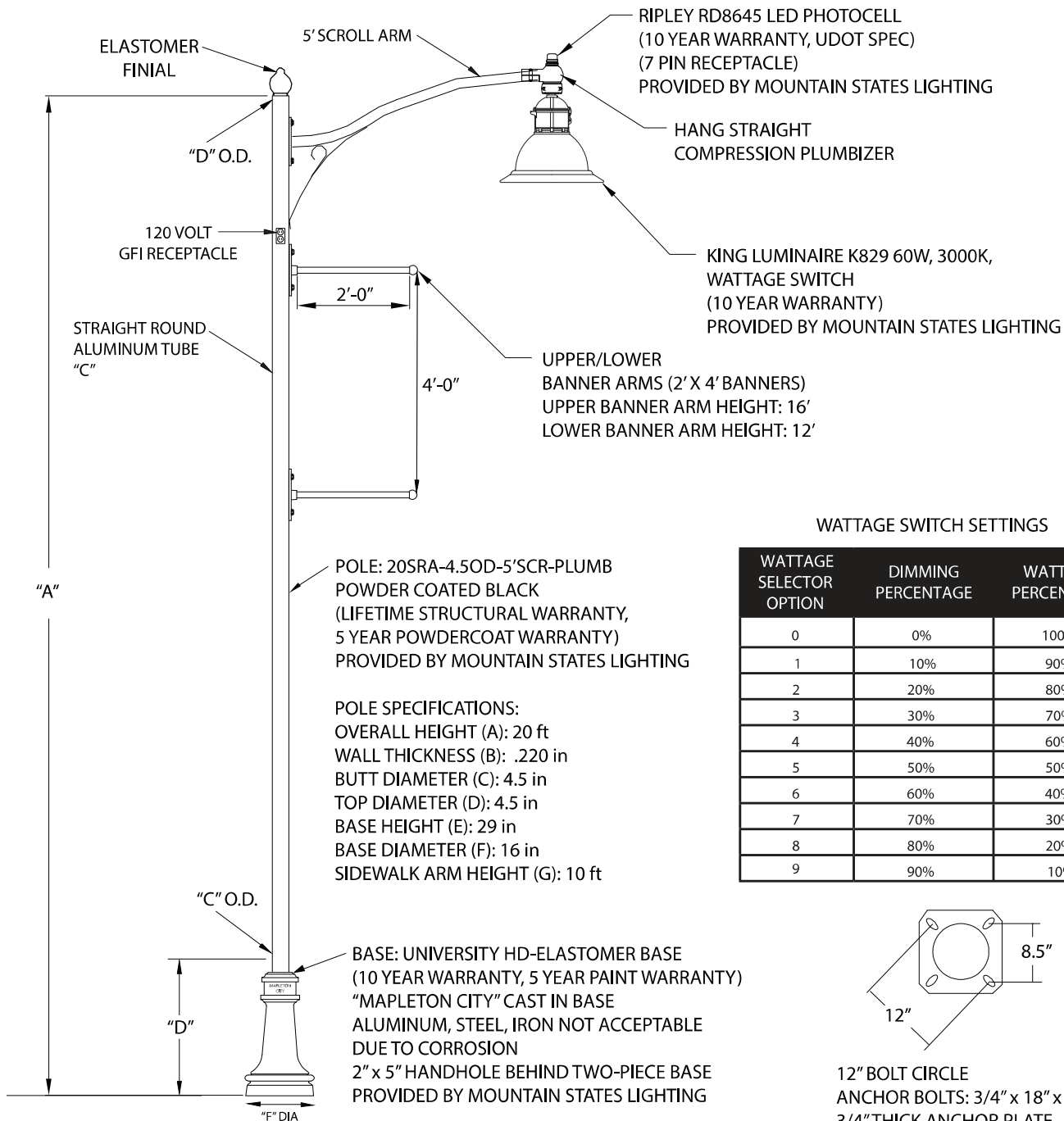
**IP66**

Weight: 40 lbs  
EPA: 1.8 FT<sup>2</sup>



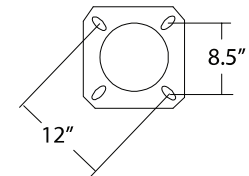
## MAPLETON

125 West 400 North  
Mapleton, UT 84664  
801-806-9114



### WATTAGE SWITCH SETTINGS

| WATTAGE SELECTOR OPTION | DIMMING PERCENTAGE | WATTAGE PERCENTAGE |
|-------------------------|--------------------|--------------------|
| 0                       | 0%                 | 100%               |
| 1                       | 10%                | 90%                |
| 2                       | 20%                | 80%                |
| 3                       | 30%                | 70%                |
| 4                       | 40%                | 60%                |
| 5                       | 50%                | 50%                |
| 6                       | 60%                | 40%                |
| 7                       | 70%                | 30%                |
| 8                       | 80%                | 20%                |
| 9                       | 90%                | 10%                |



12" BOLT CIRCLE  
ANCHOR BOLTS: 3/4" x 18" x 3"  
3/4" THICK ANCHOR PLATE



MURRAY, UTAH  
CONIFER, COLORADO  
801-268-4879  
MTNSTATESLTG.ORG

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## Collector Single

SCALE: NTS DATE: 6-12-20 DRAWN BY: XEM DRAWING NUMBER: MC-COL-SGL

CITY APPROVAL:



2026 Standard Drawings  
STD PLAN NO. M-744

# FIXTURE RATINGS

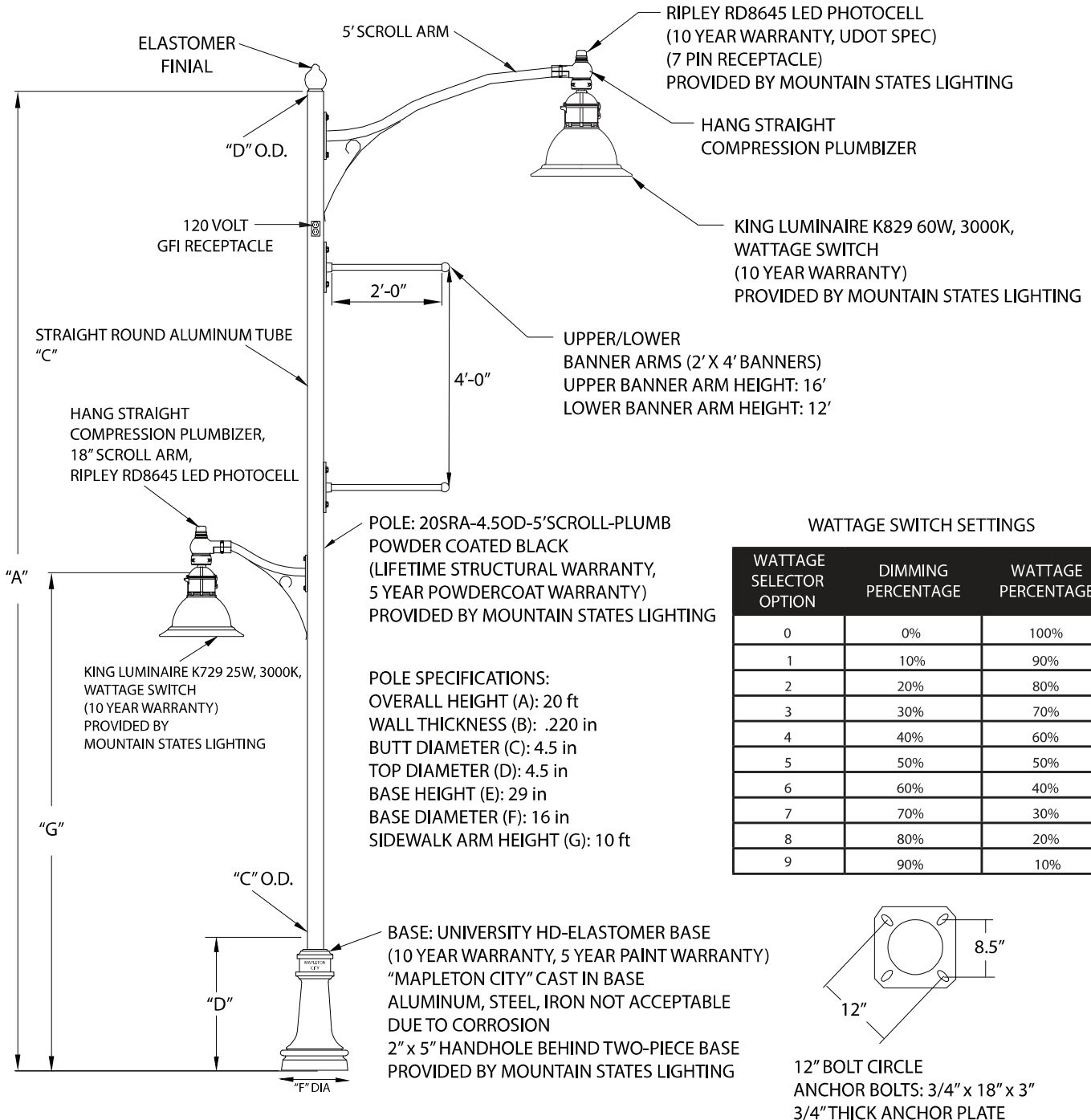
UPPER FIXTURE  
**IP66**  
Weight: 40 lbs  
EPA: 1.8 FT<sup>2</sup>

LOWER FIXTURE  
**IP66**  
Weight: 19 lbs  
EPA: 0.63 FT<sup>2</sup>



## MAPLETON

125 West 400 North  
Mapleton, UT 84664  
801-806-9114



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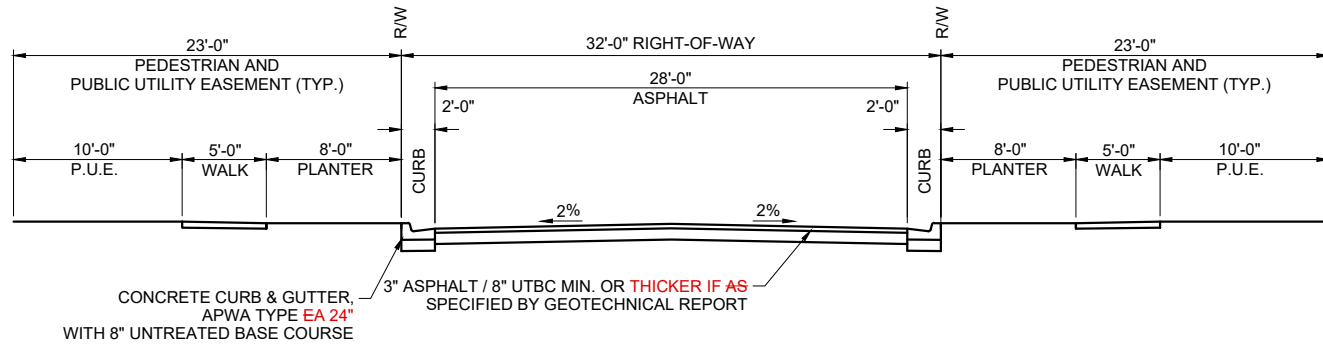
## Collector Double

SCALE: NTS DATE: 6-12-20 DRAWN BY: XEM DRAWING NUMBER: MC-COL-DBL

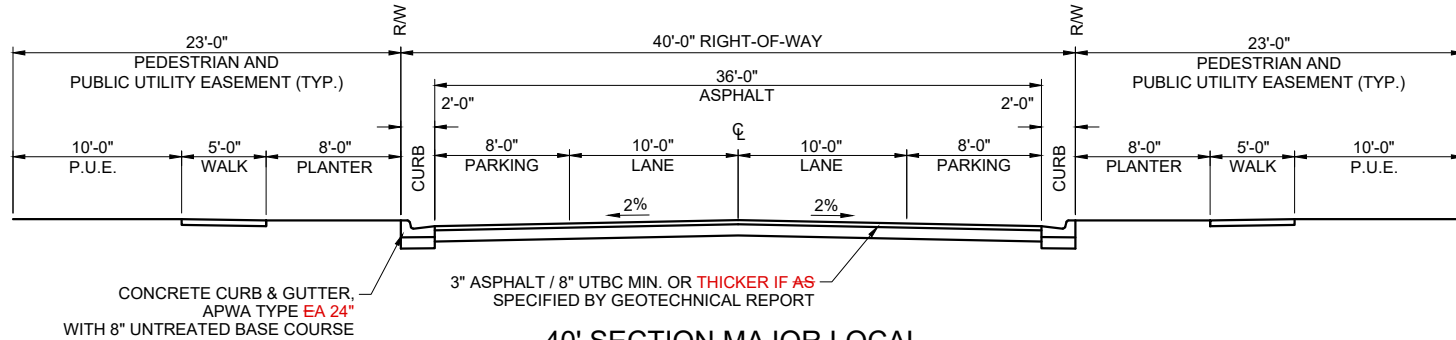
CITY APPROVAL:



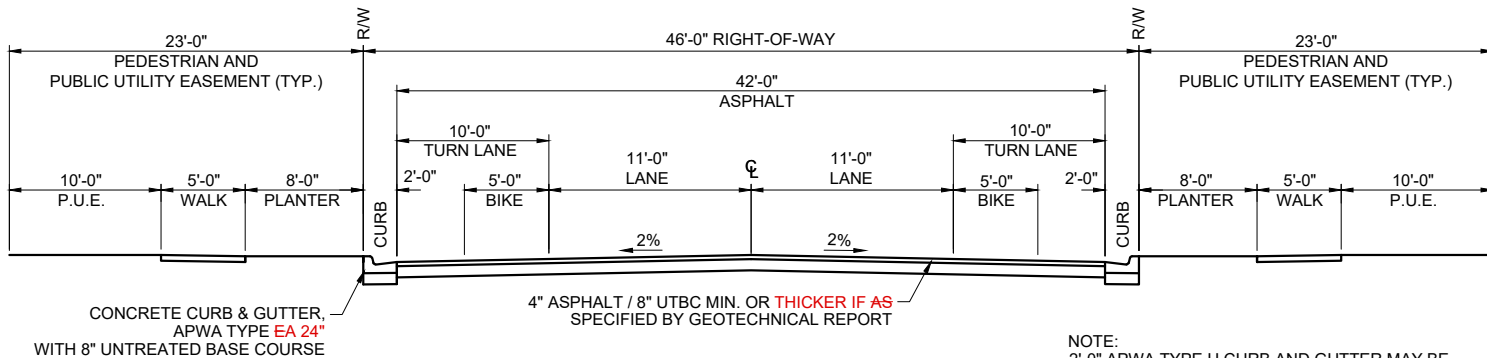
2026 Standard Drawings  
STD PLAN NO. M-745



32' SECTION MINOR LOCAL

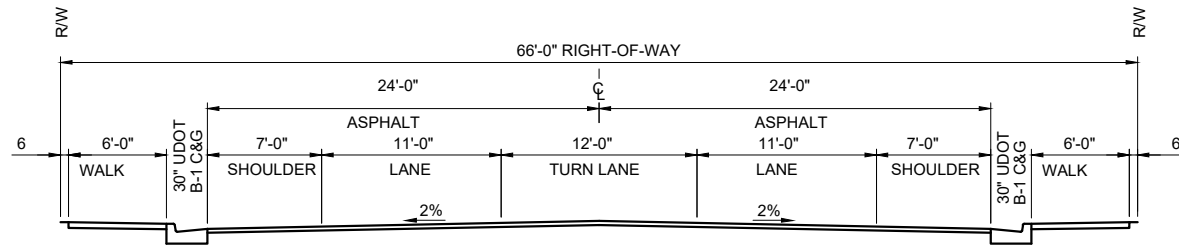


40' SECTION MAJOR LOCAL



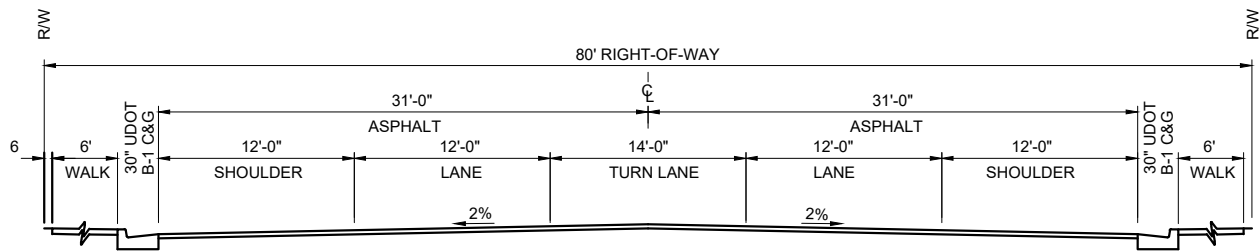
46' SECTION COLLECTOR

NOTE:  
2'-0" APWA TYPE H CURB AND GUTTER MAY BE  
REQUIRED/APPROVED AS AN ALTERNATIVE.



**66' SECTION**

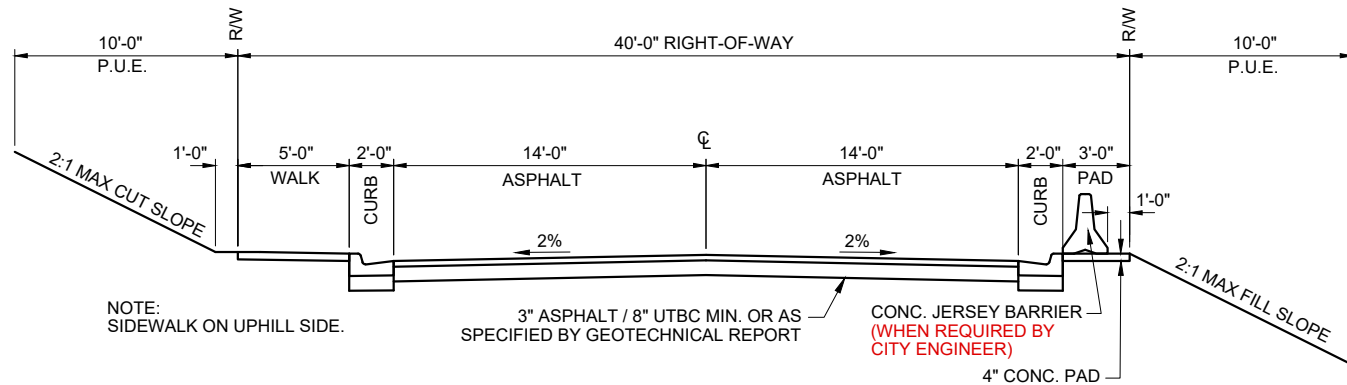
UDOT  
S.R. - 147  
1600 SOUTH - HWY 89 TO MAIN STREET  
MAIN STREET - 1600 SOUTH TO MAPLE STREET



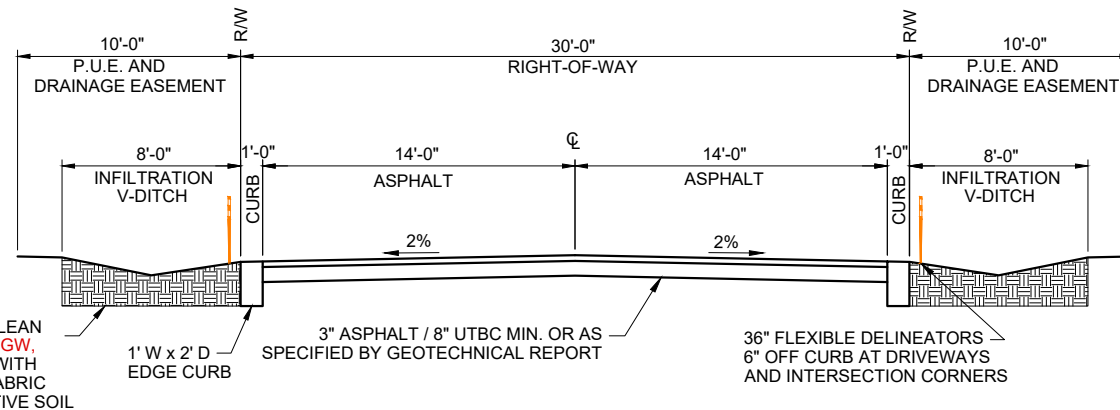
**80' SECTION**

UDOT  
S.R. - 147  
MAPLE STREET - HWY 89 TO MAIN STREET

UDOT SPECIFICATIONS REQUIRED:  
-6"7" UDOT PG64-34 HMA  
-12"6" UNTREATED BASE COURSE  
12" GRANULAR BORROW

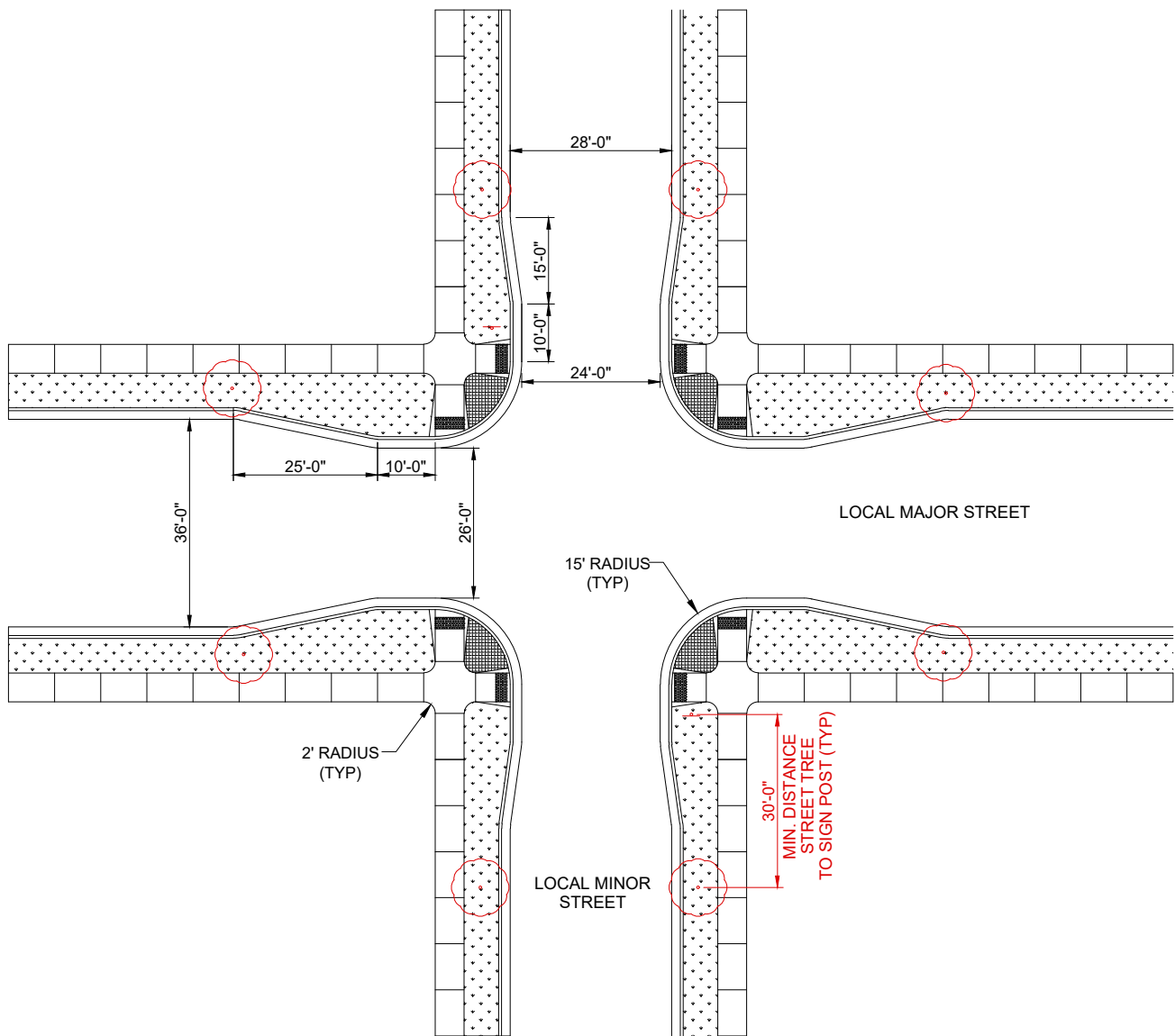


HILLSIDE LOCAL



COUNTRY LANE

(SEE TRANSPORTATION MASTER PLAN FOR APPROVED LOCATIONS)

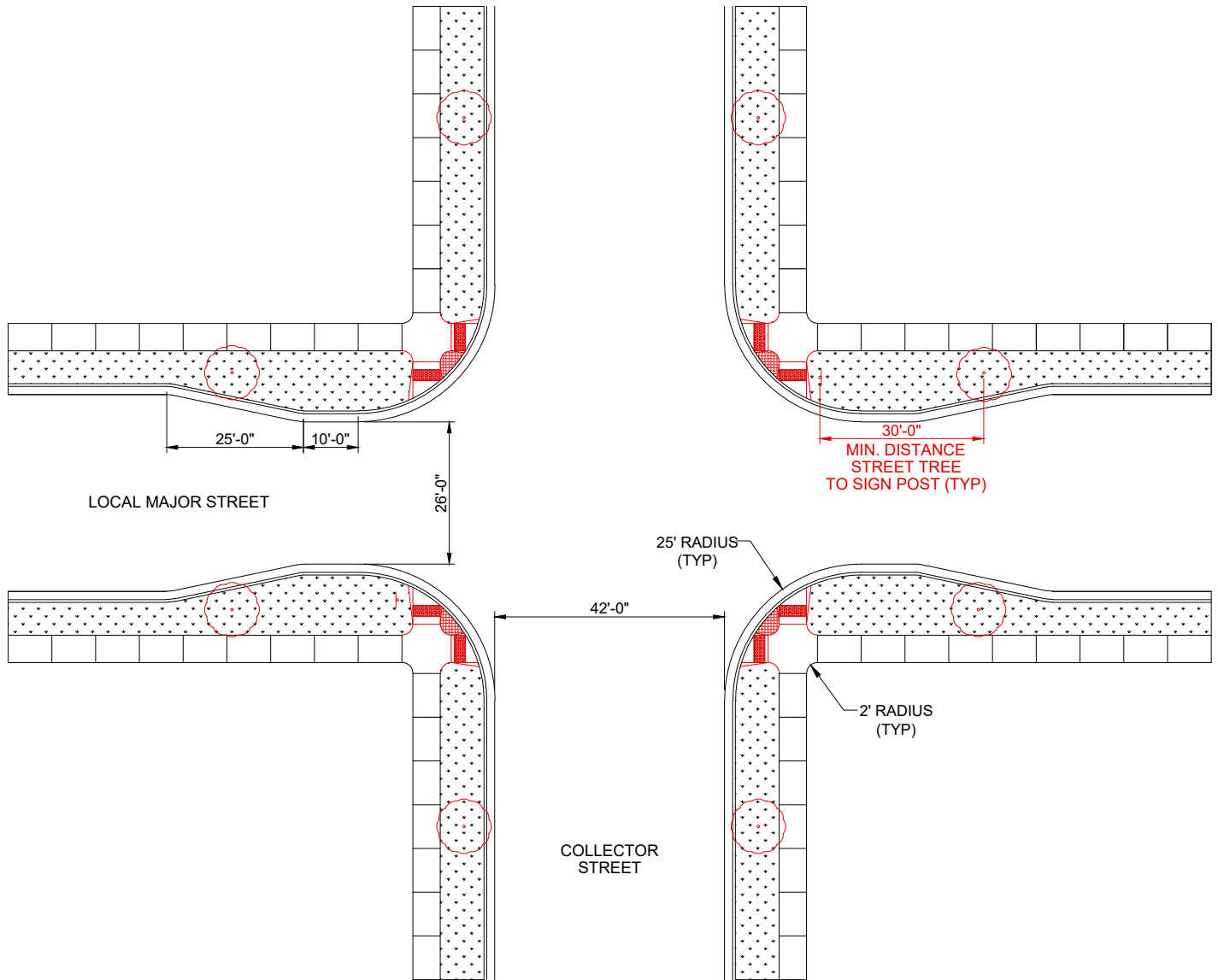


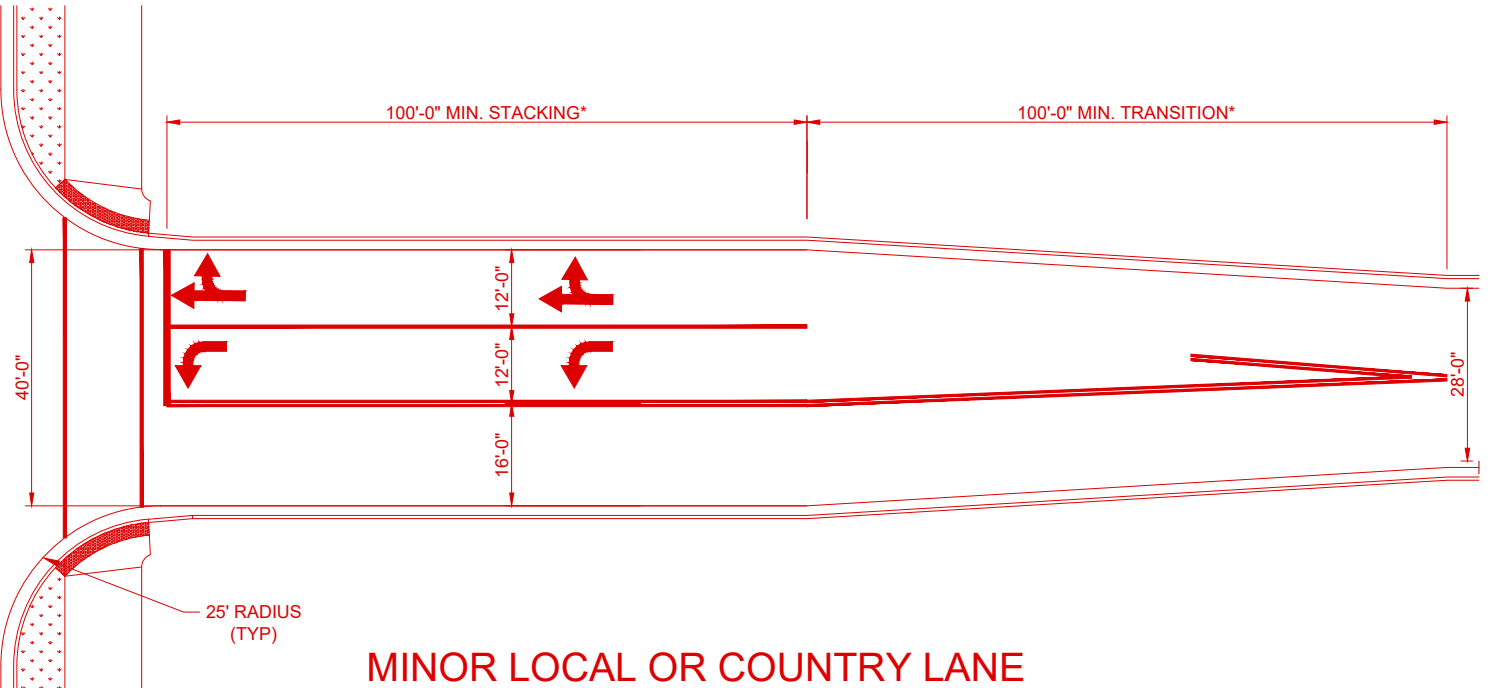
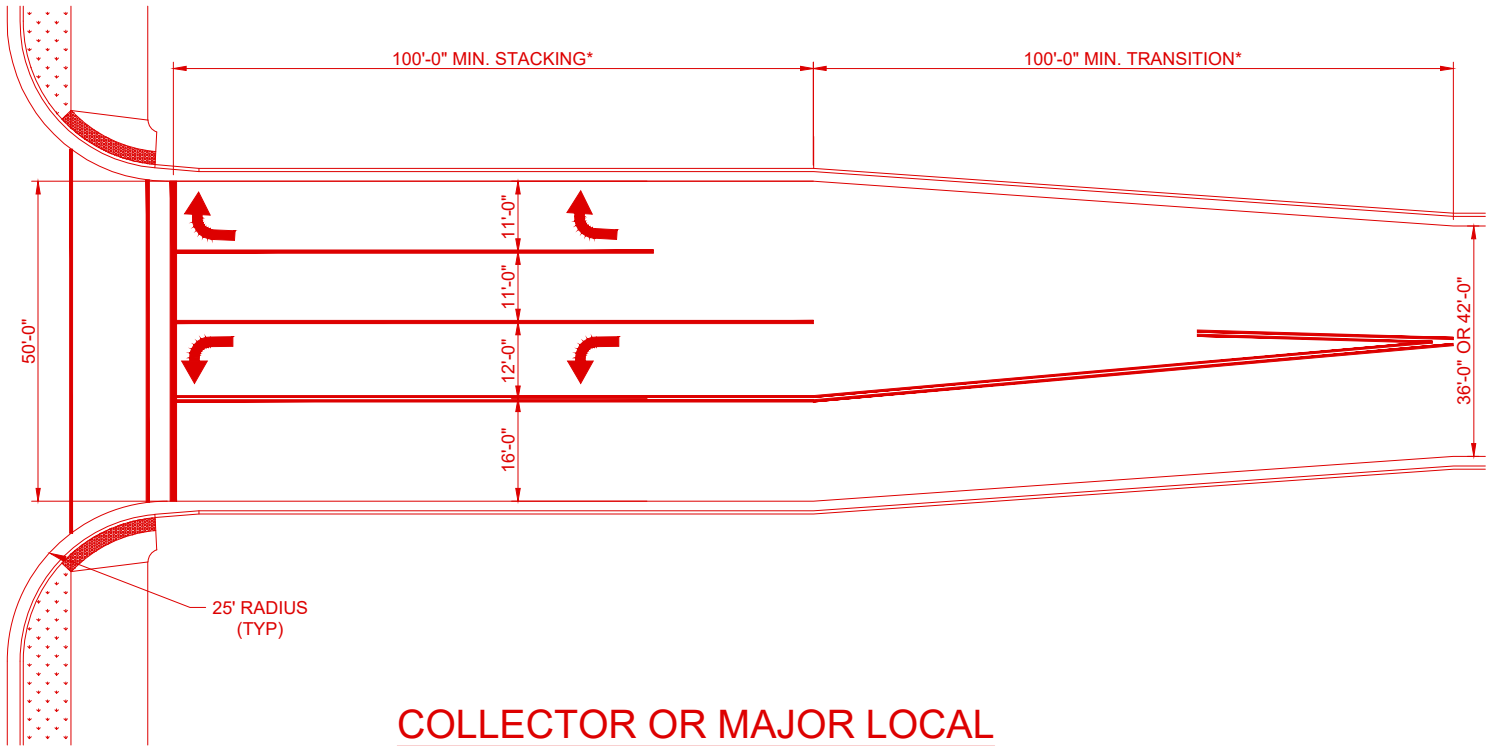
2026 MAPLETON STANDARD PLANS  
LOCAL-TO-LOCAL STREET INTERSECTION

STD. PLAN NO.

M-921

Sheet 1 of 1





\* LONGER STACKING AND/OR TRANSITIONS MAY BE REQUIRED BASED ON TRAFFIC MODELING OR SIGHT DISTANCE

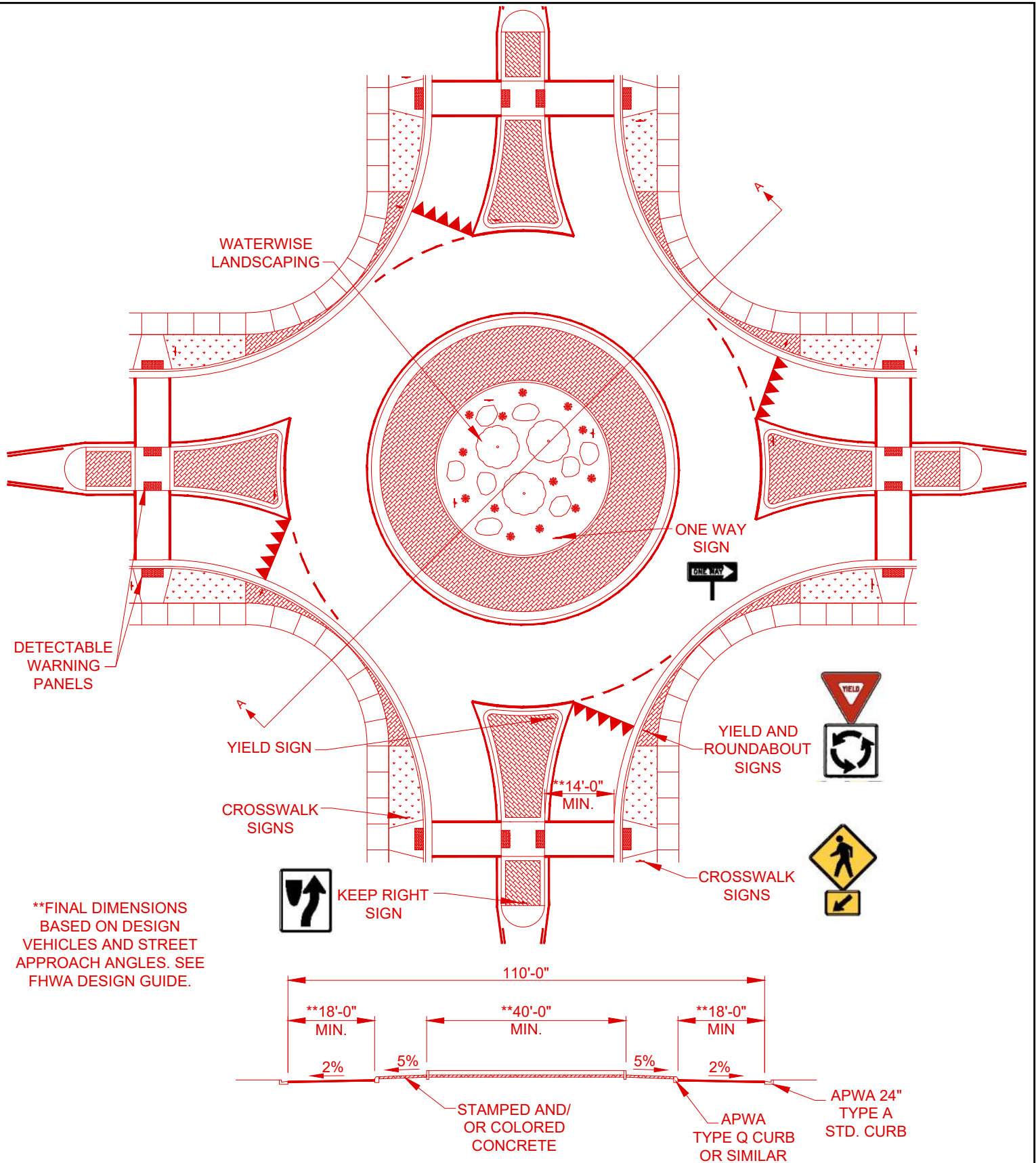


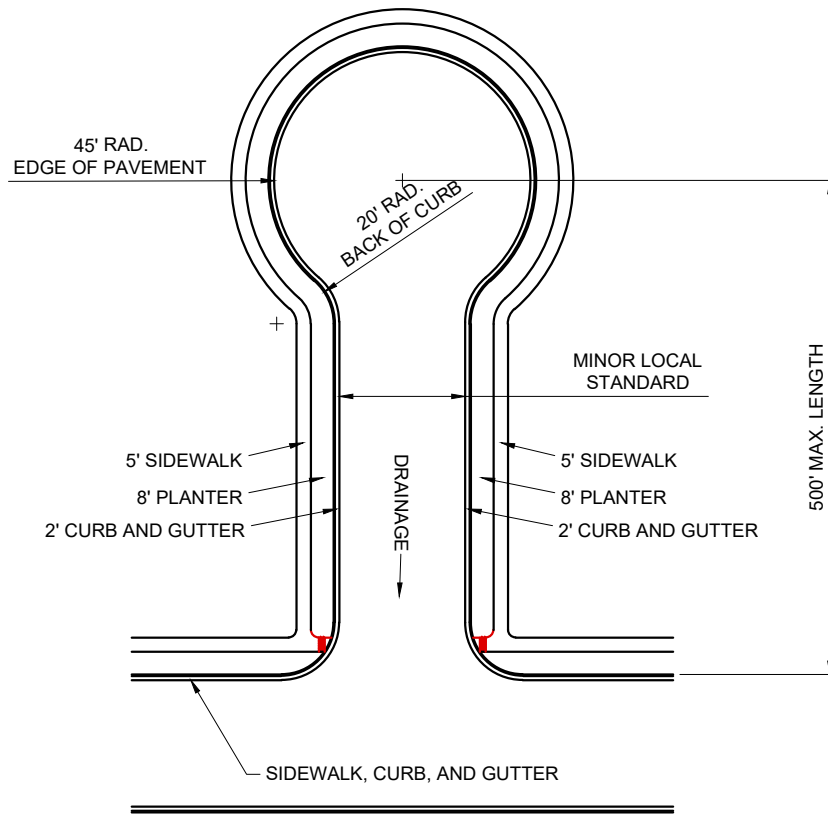
2026 MAPLETON STANDARD PLANS  
INTERSECTIONS WITH US-89

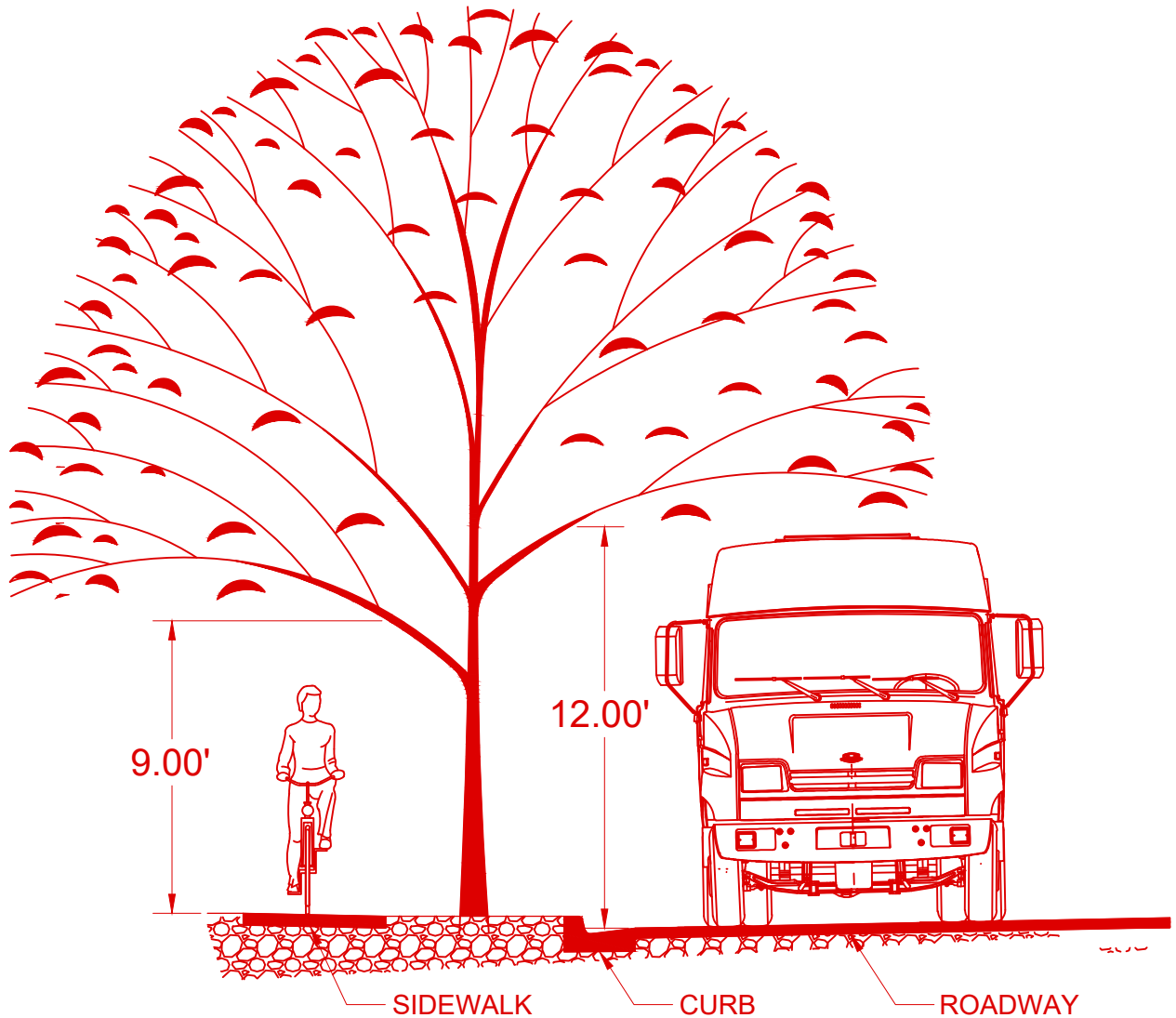
STD. PLAN NO.

M-923

Sheet 1 of 1







Street Tree Trimming Guide

Street trees and other trees with branches overhanging pavement and/or sidewalks shall have branches kept trimmed to the min. heights shown above, to allow for public use and maintenance of streets and sidewalks



2026 STANDARD DRAWINGS

STREET TREE TRIMMING

STD. PLAN NO.

M-941

Sheet 1 of 1



## PUBLIC WORKS STANDARD SPECIFICATIONS

~~Mapleton City has no modified, replaced, or added Standard Specifications at this time. Refer to the APWA Manual of Standard Specifications.~~

The following Modifications to General Conditions (Supplementary Conditions) shall apply to all construction work contracted with Mapleton City. At its sole discretion, the City may modify insurance coverage limit requirements in the bid and contract documents for specific projects, depending on the scope and size of the project.



**DOCUMENT 00 73 03**  
**MODIFICATIONS TO GENERAL CONDITIONS**  
**(SUPPLEMENTARY CONDITIONS)**

---

**PART 1      PURPOSE**

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A. This document changes provisions specified in the General Conditions in the Manual of Standard Specifications published by the Utah Chapter of the American Public Works Association.

---

**PART 2      MODIFICATIONS**

---

**Add the Following Paragraphs to Article 2.2**

**2.2      COPIES OF DOCUMENTS**

B. OWNER shall **not** furnish to CONTRACTOR reference Contract Documents which include the Utah APWA Manual of Standard Plans and the Manual of Standard Specifications. Such documents shall be secured separately by the CONTRACTOR.

**Modify paragraph 2.5c to Read as Follows**

C. **Field Office:** An on-site field office is not required; however, CONTRACTOR shall provide and maintain a telephone in the field during performance of the Work such that OWNER may always contact CONTRACTOR for transmittal of plans, instructions, and dissemination of project information.

**Modify Article 5.1 to Read as Follows**

**5.1 PERFORMANCE, PAYMENT AND OTHER BONDS**

- A. Prior to OWNER executing the Agreement, CONTRACTOR shall file with OWNER a good and sufficient Performance Bond and Payment Bond, each in the sum of not less than 100 percent of the Contract Price
- B. The Bonds shall be executed by CONTRACTOR and secured by a company duly and regularly authorized to do general surety business in the State of Utah and either (i) named in the current U.S. Treasury Department's listing of approved sureties



(Department Circular 570) (as amended) with an underwriting limitation equal to or greater than the Contract Price which the Bond guarantees, or (ii) with a current "A-" rating or better in A.M Best Co., Inc.'s Best Insurance Reports, Property and Casualty Edition.

- C. The Performance Bond shall guarantee the faithful performance of the Construction Contract by CONTRACTOR and the Payment Bond shall guarantee the payment of labor and materials. The Bonds shall insure by their terms to the benefit of OWNER. Neither this no any other provision requiring a Performance Bond shall be construed to create any rights in any third-party Claimant as against OWNER for performance of the Work under the Construction Contract.
- D. All Bonds required by the Contract Documents to be purchased and maintained by CONTRACTOR shall be obtained from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue Bonds for the limits so required. Such surety companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary General Conditions.
- E. If the surety on any Bond furnished by CONTRACTOR is subject to any proceeding under the Bankruptcy Code (Title 11, United States Code) or becomes insolvent or its rights to do business is terminated in the State of Utah or it ceases to meet the requirements of this Article, CONTRACTOR shall, within fifteen (15) days thereafter, substitute another Bond and surety, which must be acceptable to OWNER.

### **Modify Article 5.2 to Read as Follows**

#### **5.2 INSURANCE**

- A. Contractor shall provide the following minimum insurance coverage from companies holding a General Rating of "A" or better as set forth in the most current issue of Best's Key Rating Insurance Guide written for not less than the following, or greater if required by law and all such insurance to be primary to any insurance



maintained by OWNER, shall name OWNER as additional insured with waiver of subrogation:

1. The CONTRACTOR's Worker's Compensation Insurance shall be written for not less than the statutory limits for the locale of the Project and the CONTRACTOR's Employer's Liability Insurance shall be written for not less than \$2,000,000.
2. The CONTRACTOR's Comprehensive Automobile Liability Insurance shall be written with combined single limits of not less than \$2,000,000 each occurrence.
3. The CONTRACTOR's Comprehensive General Liability Insurance with contractual liability coverage on occurrence form with limits not less than \$2,000,000 per occurrence, \$4,000,000 aggregate. General Liability insurance must be kept in effect for 2 years after completion of work.
4. The Contractor shall not commence Work under this Agreement until all of the insurance required herein shall have been obtained by the Contractor. The Contractor shall furnish to the Owner Certificates of Insurance verifying that such insurance has been obtained. Such certificates will provide that Owner will receive at least thirty (30) days prior written notice of any material change in, cancellation of, or non-renewal of such insurance.
5. If applicable, professional liability (errors & omissions) Insurance coverage for a limit of \$2,000,000. Insurance shall be carried for two years after the work has been completed.
6. If Contractor uses any subcontractors, Contractor will provide for subcontractors or require the same insurance provisions for its subcontractors.

**Add the following paragraph to Article 6.8 to Read as Follows**

#### **6.8 LAWS AND REGULATIONS**

- A. All Bidders are required to follow the requirements of Utah Code Ann. § 63G-12-302 which prohibits OWNER from entering into any contract for the performance of services with any successful bidder who does not first provide OWNER with proof of registration and participation in a federally approved immigration status verification system to ensure that their employees are legally authorized to do work in the United States. By submitting a bid in response to this RFB, CONTRACTOR certifies that it does not, and will not during the performance of this contract, knowingly employ, or subcontract with any entity which employs workers who are not legally authorized to work in the United States. CONTRACTOR agrees to require all its employees to provide proof of their



eligibility to work in the United States and agrees to use all reasonable means to verify that proof. CONTRACTOR further agrees to require any subcontractors engaged to work on the project to sign a Certification of Legal Work Status and submit the Certification to the OWNER prior to any work being performed by the subcontractors. CONTRACTOR agrees to provide to the OWNER all documents necessary to verify compliance with applicable State and Federal immigration and labor laws. If CONTRACTOR knowingly employs workers or subcontractors in violation of 8 USC § 1324a, such violation shall be cause for unilateral cancellation of the contract between CONTRACTOR and OWNER. In addition, CONTRACTOR may be suspended from participating in future projects with the OWNER. In the event this contract is terminated due to a violation of 8 USC § 1324a by CONTRACTOR or a subcontractor of CONTRACTOR, CONTRACTOR shall be liable for any and all costs associated with such termination, including, but not limited to, any damages incurred by OWNER as well as attorney fees. For purposes of compliance, the OWNER requires CONTRACTOR and subcontractors to use an immigration status verification system such as E-Verify, or other approved system as outlined in Utah Code Annotated 63G-11-103, to verify the employment eligibility of all employees. CONTRACTOR and subcontractors must maintain up to date documentation of the status verification system inquiry regarding each employee and must provide this information to OWNER prior to beginning the project.

**Modify paragraph 14.2.E to Read as Follows**

**E. Retainage:** The amount of retainage with respect to progress payments shall be five percent (5%). Retainage shall be paid upon receipt of a final invoice requesting retainage payment, after the project passes final inspection including the completion of all punch list items.

**END OF DOCUMENT**