

CITY OF TURLOCK



STANDARD SPECIFICATIONS AND DRAWINGS

2016

ERRATA 1

EFFECTIVE DATE MAY 1, 2019



CITY OF TURLOCK
DEVELOPMENT SERVICES
ENGINEERING DIVISION

156 S. BROADWAY SUITE 150
TURLOCK, CA 95380-5454
(209)668-5520



2016 STANDARD SPECIFICATIONS AND DRAWINGS - ERRATA 1

The purpose of this errata is to modify the approved Standard Specifications and Drawings. Errata 1 shall be in effect as of May 1, 2019. The use of previous standard specifications and drawings are limited to vesting rights.

ERRATA

Revise the 2016 Standard Specifications and Drawings as follows:

Chapter 14 – Trenching, replace the entire section with the following attached “Section 14 – Trenching and Excavations”

Drawings T-1 & T-2, replace drawings T-1 & T-2 with the following attached “T-1 – T-6”

14 TRENCHING AND EXCAVATIONS

14-1 TRENCHING

These Specifications shall apply to all trenching and excavations within the City right-of-way, alleyways and all City Easements. All trenching and excavations shall be made in accordance with the Subchapter 4 Construction Safety Orders Article 6 Excavations issued by the Division of Industrial Safety of the Department of Industrial Relations of the State of California. Adequate provisions shall be made for the protection of the traveling public on all public roads affected by said trenches and excavations.

The Contractor shall perform all trenching and excavations necessary or required to construct all manholes, pipelines, utility services, investigation work and appurtenances as specified by the Engineer and as shown on the approved plans. Trenching and excavations shall include the removal of all materials, whatever nature may be encountered. Trenching and excavations shall be performed by open trench, unless specified otherwise, following neat parallel lines, centered on the trench or excavation. Clearance on either side of the pipe between the bell end, at spring line, and the wall of the trench shall be no more than eight (8) inches and no less than six (6) inches, unless specified otherwise.

Where trenching and/or excavation necessitate(s) removing pavement surfaces, the pavement at the edge of the proposed trench and/or excavation shall be saw cut in a neat straight line. Special attention is directed to Section 12-14, "Saw Cutting Existing Structural Section", of these specifications. This shall be done to the limits shown on specified City Standard Drawings, approved plans, or as directed by the Engineer. Saw cutting shall be performed with an approved apparatus capable of cutting to no less than the full depth of the in situ pavement material. Saw cutting shall be straight along the exact markings snapped with a chalk line. Any damage to saw cut edge(s) after the cut has been made shall be corrected to the satisfaction of the Engineer at the Contractor's expense.

When utilities are to be placed crossing under existing frontage improvements (i.e. curb and gutter, sidewalk, driveway approaches, etc.), the improvements shall be removed to existing expansion joints and/or weakened plan joints. Thereafter, excavation for the installation of the utility may begin - special attention is directed to Section 14-2, "Backfill", of these specifications. After the trench or excavation has been backfilled to grade, frontage improvements shall be reconstructed per the City Standards.

Saw cutting shall be performed with an approved apparatus capable of cutting to no less than the full depth of the in situ pavement material. Curb and gutters shall have ½ -inch diameter, 6-inch long steel dowels installed at least 3 inches into the existing concrete. One dowel shall be placed in the curb and two in the gutter section at each saw cut joint.

Excess subgrade material, concrete and broken pavement shall become the property of the Contractor and shall be properly disposed of outside of the right-of-way. The exact location will be determined by the Contractor and will be approved by the Engineer. There shall be no direct payment for removing excess excavated material from the job site, but shall be considered incidental to other contract items.

14-2 BACKFILL

After the pipe has been properly laid and inspected, backfill material shall be placed around the pipe at a depth of 12 inches above the top of the pipe and shall be thoroughly compacted to final density of at least 90% relative compaction. This shall be done in such a manner as to not injure or disturb the pipe. All excavation within the existing street roadbed shall be backfilled and compacted until the relative compaction is not less than 95%. Backfill material shall be placed in layers not to exceed 8 inches in depth

and moistened as necessary before compaction. Each layer shall be thoroughly tamped, rolled or otherwise compacted and brought to grade. Backfill in trenches between the back of the curb and property lines shall be thoroughly consolidated to a final density of at least 90% relative compaction. Compaction of backfill material by ponding or jetting will not be permitted. Field density may be determined by any method accepted by the Engineer.

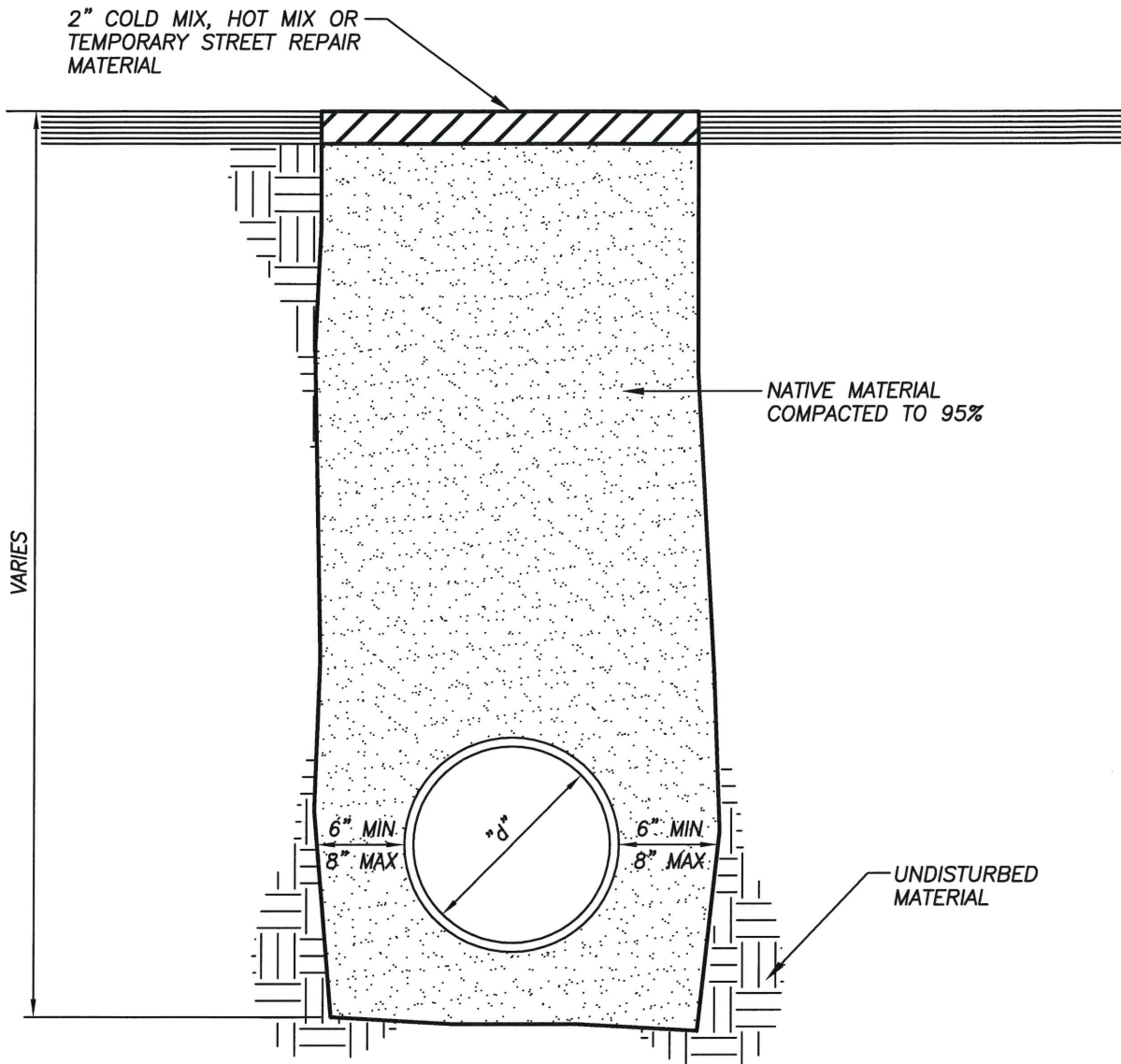
14-3 LIMITS OF CONSTRUCTION

Excavations made within the limits of the traveled way shall be backfilled before leaving the work site at the end of the work day. Under no circumstances will the Contractor be allowed to leave a trench open overnight unless otherwise specified by the Engineer.

All work of excavating and backfilling in a public street shall be performed as quickly as possible. Not more than 600 linear feet of trench shall be opened ahead of any pipeline or conduit installation taking place in a street or alley except upon written permission by the Engineer. However, trenches may be open for a distance of not more than 1,200 linear feet in areas where public traffic is not affected by the trenches.

14-4 TRENCH REPAVING

Immediately after the trench has been backfilled, all street crossings shall be surfaced with temporary surfacing of 1½ inches of coldmix, in accordance with Standard Drawings. Such surfacing shall remain in place and be maintained by the Contractor until the permanent surfacing is placed. Aggregate base rock shall be placed to a compacted thickness of not less than 6 inches. Permanent paving (5 inches minimum) shall be placed within 14 days of when the initial trench cut has been made. Time extensions may be authorized by the Engineer due to unforeseen conditions and/or inclement weather. The Contractor shall submit a written request for the extension to the Engineer prior to the elapsing of the 14 day period.



NOTES:

1. COMPACTION TESTS SHALL BE APPROVED BY THE CITY BEFORE PAVING.
2. TRENCHES 5 FEET OR MORE IN DEPTH SHALL BE SHORED.
3. MAXIMUM LIFT THICKNESS FOR BEDDING AND BACKFILL SHALL BE 12" BEFORE COMPACTION.
4. TRENCHES WHICH ARE LESS THAN 30" IN DEPTH OR LESS THAN 18" IN WIDTH SHALL BE BACKFILLED WITH TWO SACK CEMENT SLURRY.
5. ALL STEPS OF TRENCHING SHALL BE REPEATED WHEN REPAIRING A SECTION OF PIPE.

3 STEP TRENCH REPAIR ~ STEP 1



DRAWN BY: JSH

CHECK BY: NBB

SCALE: NONE

CITY OF TURLOCK

APPROVED BY:

Nathan B. Bray

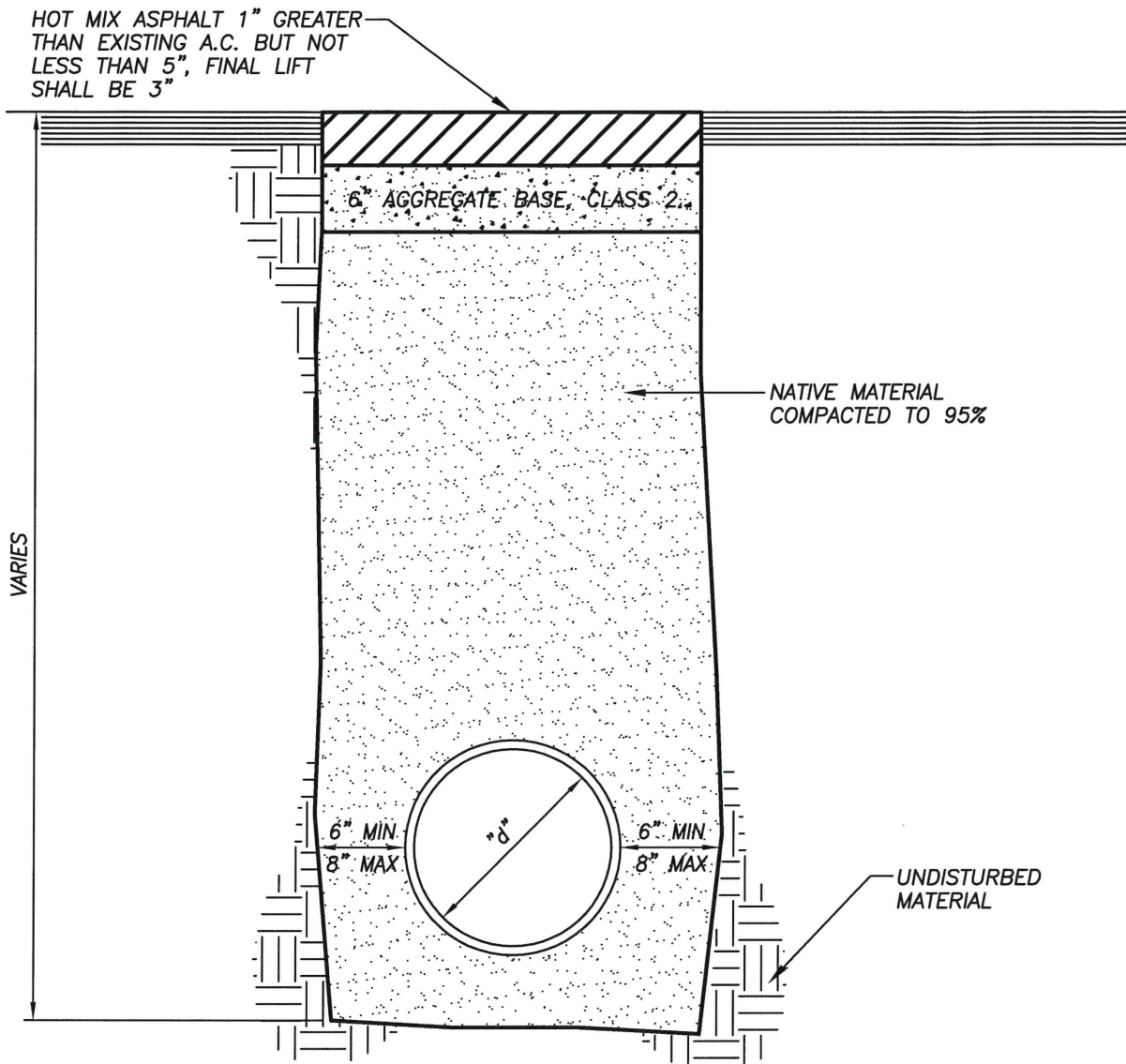
INTERIM CITY ENGINEER - NATHAN B. BRAY - RCE 76642

DRAWING NO.

T-1

COUNCIL APPROVAL

FEB, 2019



NOTES:

1. STEP 1 MAY BE OMITTED IF STEP 2 IS PERFORMED SAME DAY AS TRENCH EXCAVATION
2. COMPACTION TESTS SHALL BE APPROVED BY THE CITY BEFORE PAVING.
3. TRENCHES 5 FEET OR MORE IN DEPTH SHALL BE SHORED.
4. MAXIMUM LIFT THICKNESS FOR BEDDING AND BACKFILL SHALL BE 12" BEFORE COMPACTION.
5. TRENCHES WHICH ARE LESS THAN 30" IN DEPTH OR LESS THAN 18" IN WIDTH SHALL BE BACKFILLED WITH TWO SACK CEMENT SLURRY.
6. ALL STEPS OF TRENCHING SHALL BE REPEATED WHEN REPAIRING A SECTION OF PIPE.
7. HMA SHALL BE PG 64-10, TYPE A

3 STEP TRENCH REPAIR ~ STEP 2



DRAWN BY: JSH

CHECK BY: NBB

SCALE: NONE

CITY OF TURLOCK

APPROVED BY:

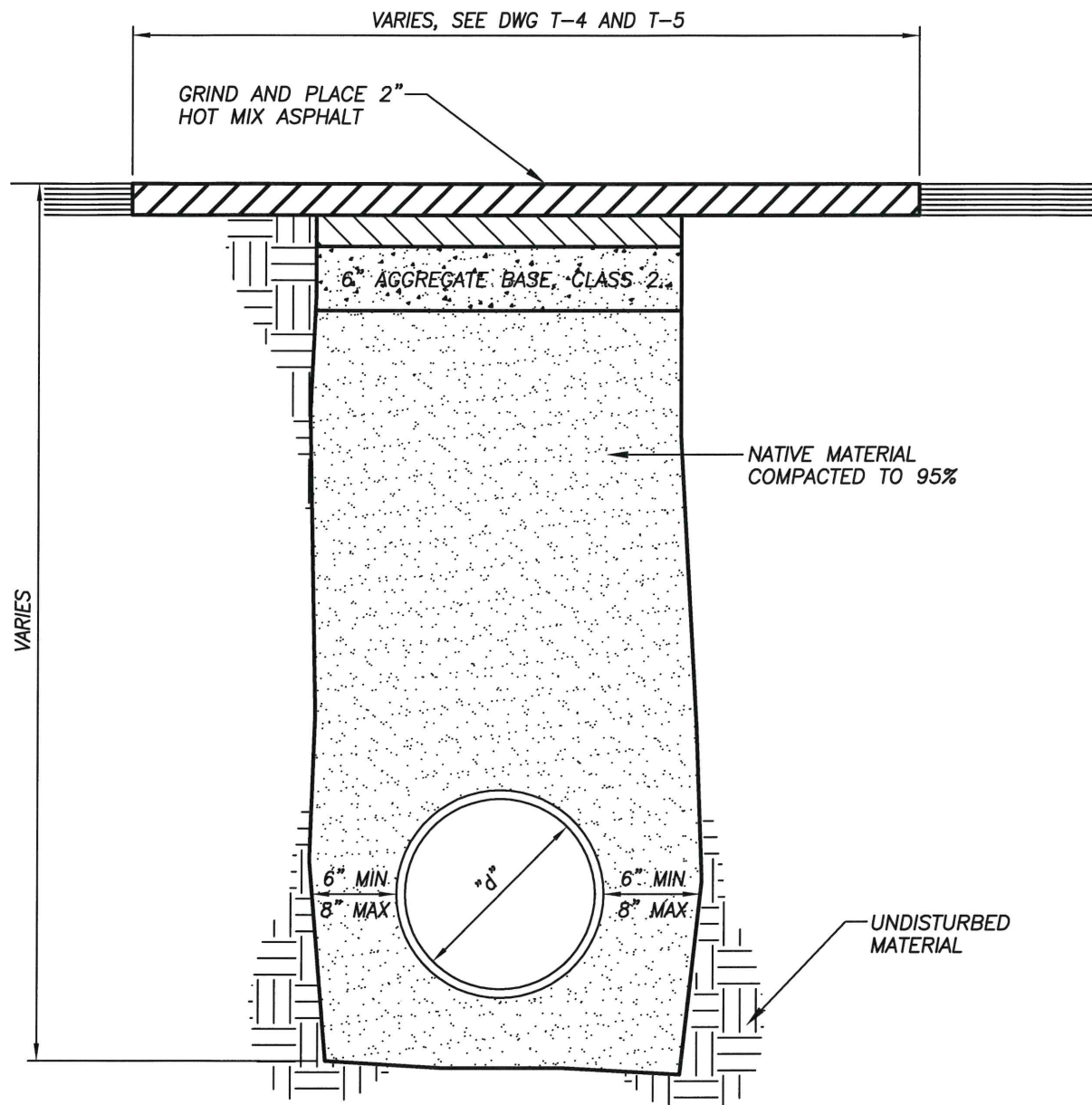
INTERIM CITY ENGINEER - NATHAN B. BRAY - RCE 76642

DRAWING NO.

T-2

COUNCIL APPROVAL

FEB, 2019



NOTES:

1. COMPACTION TESTS SHALL BE APPROVED BY THE CITY BEFORE PAVING.
2. TRENCHES 5 FEET OR MORE IN DEPTH SHALL BE SHORED.
3. MAXIMUM LIFT THICKNESS FOR BEDDING AND BACKFILL SHALL BE 12" BEFORE COMPACTION.
4. TRENCHES WHICH ARE LESS THAN 30" IN DEPTH OR LESS THAN 18" IN WIDTH SHALL BE BACKFILLED WITH TWO SACK CEMENT SLURRY.
5. ALL STEPS OF TRENCHING SHALL BE REPEATED WHEN REPAIRING A SECTION OF PIPE.

3 STEP TRENCH REPAIR ~ STEP 3



DRAWN BY: JSH

CHECK BY: NBB

SCALE: NONE

CITY OF TURLOCK

APPROVED BY:

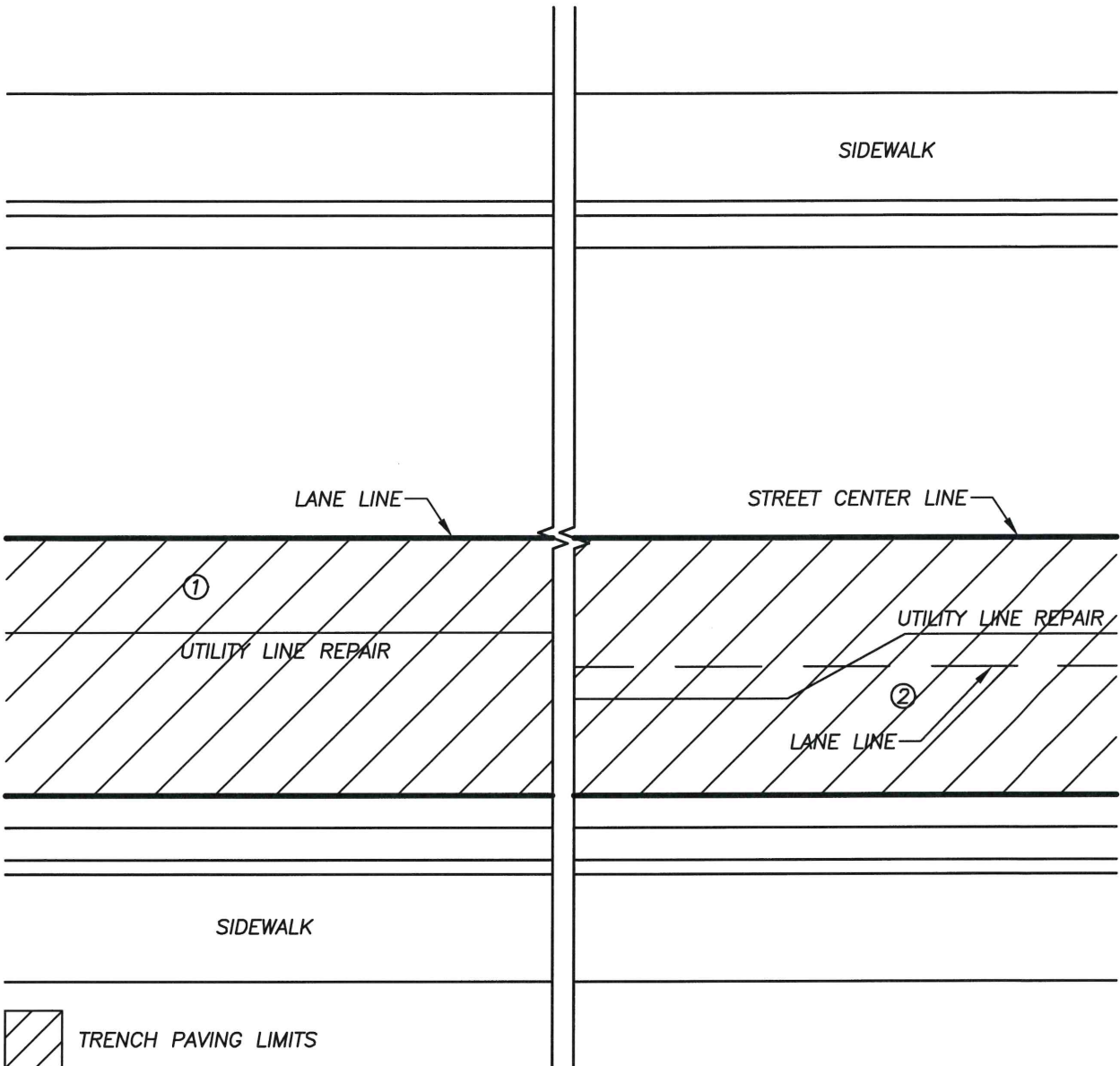
Nathan B. Bray
INTERIM CITY ENGINEER - NATHAN B. BRAY - RCE 76642

DRAWING NO.

T-3

COUNCIL APPROVAL

FEB, 2019



NOTES:

1. GRINDING AND FINAL PAVING WIDTH SHALL BE TO THE EXTENT OF AFFECTED LANE LINES, 12' MIN.
2. IF TRENCH CROSSES LANE LINES, GRINDING AND FINAL PAVING WIDTH SHALL BE TO THE EXTENT OF ALL AFFECTED LANE LINES FOR ENTIRE LENGTH OF TRENCH

LONGITUDINAL TRENCH PATCH LIMITS



DRAWN BY: JSH

CHECK BY: NBB

SCALE: NONE

CITY OF TURLOCK

APPROVED BY:

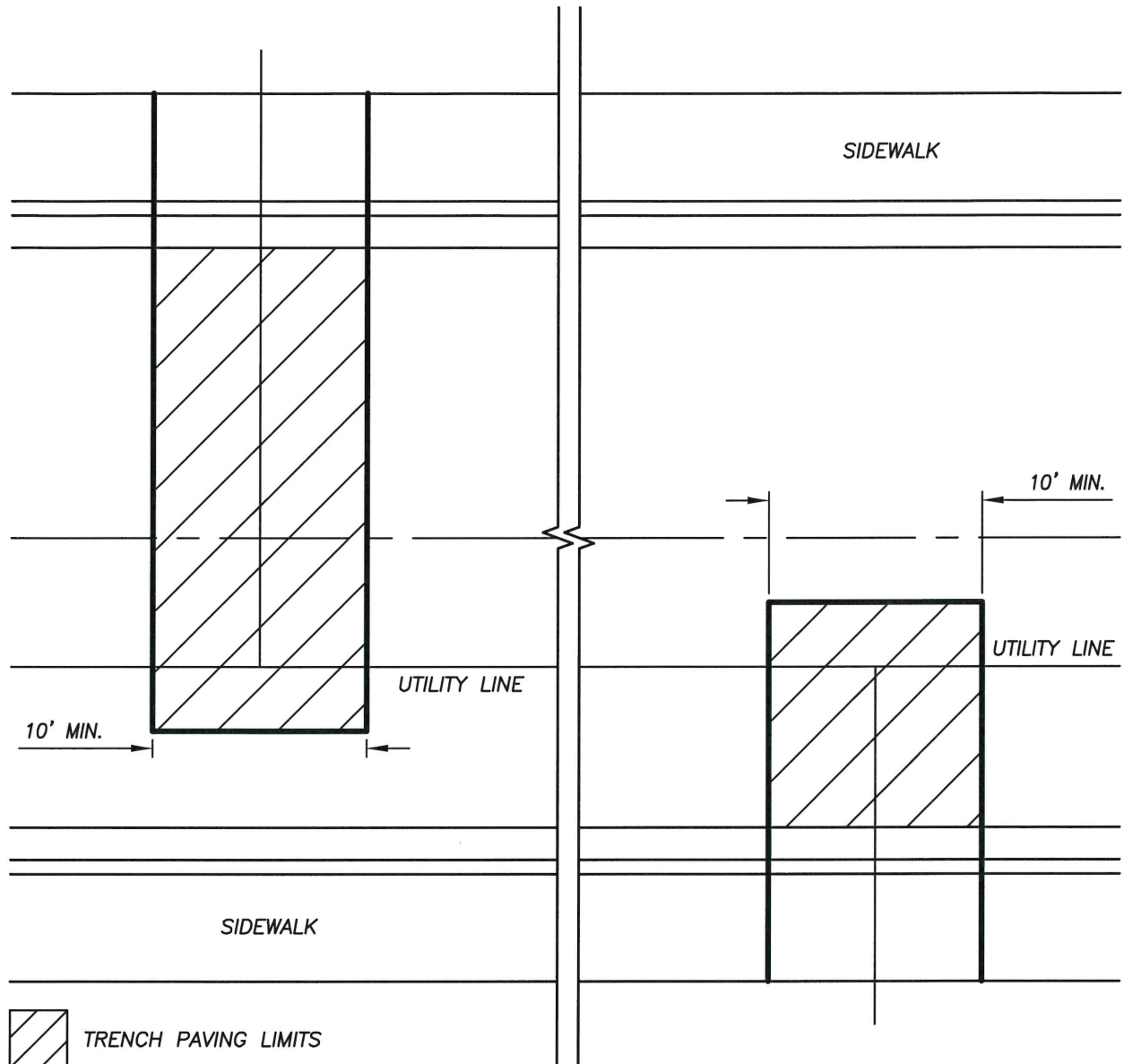
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DRAWING NO.

T-4

COUNCIL APPROVAL

FEB, 2019



NOTES:

1. GRINDING AND PAVING WIDTH SHALL BE 10' MIN.
2. ALL CUTS SHALL BE SQUARE AND PERPENDICULAR TO THE TRAVEL LANE

PERPENDICULAR TRENCH PATCH LIMITS



DRAWN BY: JSH

CHECK BY: NBB

SCALE: NONE

CITY OF TURLOCK

APPROVED BY:

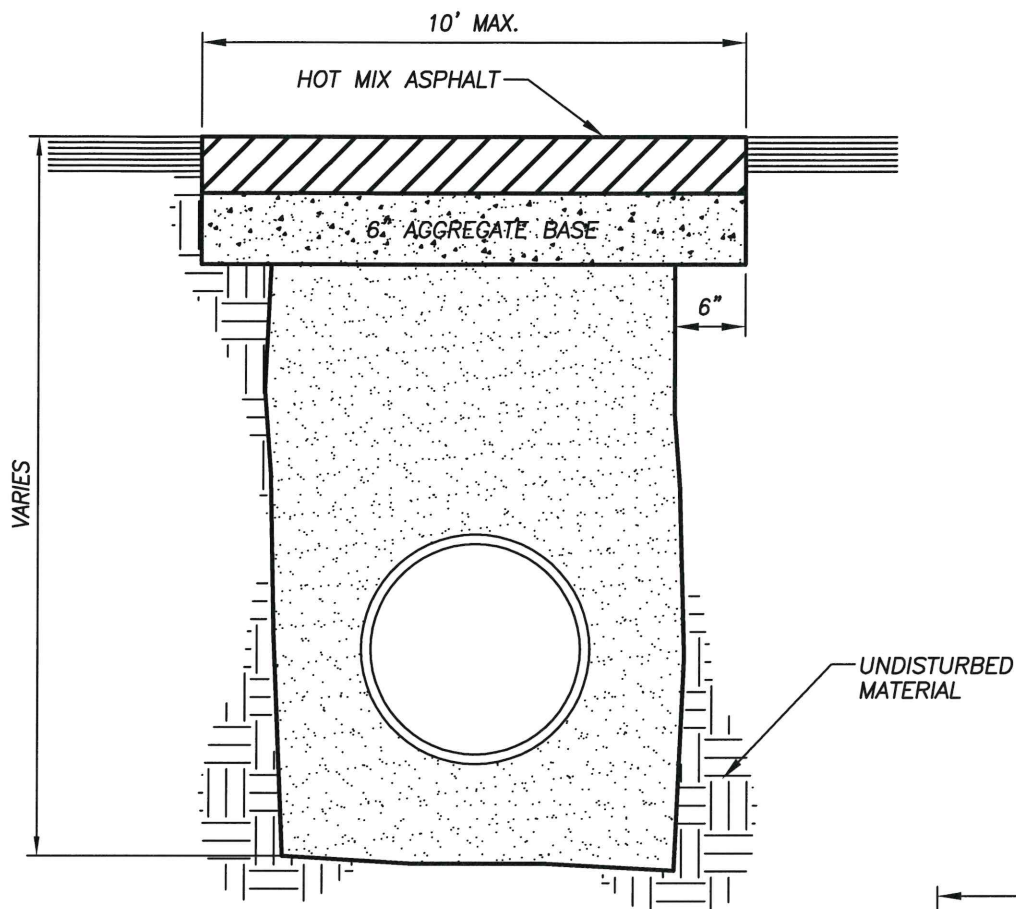
Nathan B. Bray
INTERIM CITY ENGINEER - NATHAN B. BRAY - RCE 76642

DRAWING NO.

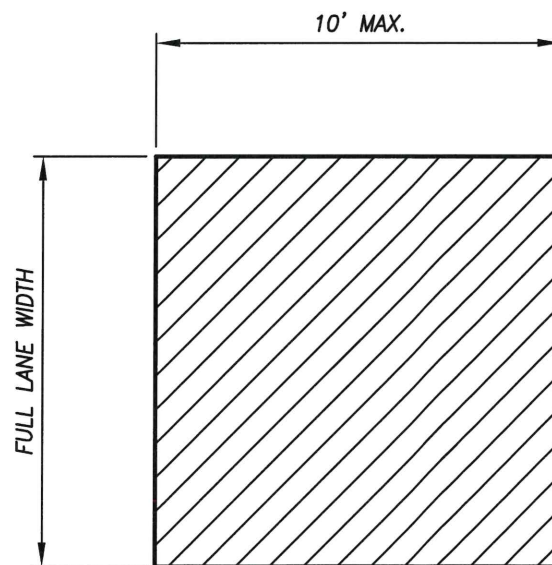
T-5

COUNCIL APPROVAL

FEB, 2019



PROFILE



PLAN

NOTES:

1. HMA SHALL BE 1" GREATER THAN EXISTING, 5" MIN.
2. LIFT THICKNESS SHALL BE 2" TO 3"
3. HMA SHALL BE PG 64-10, TYPE A
4. FINAL LIFT SHALL BE COMPACTED WITH A VIBRATORY ROLLER

BELL HOLE PATCH



DRAWN BY: JSH

CHECK BY: NBB

SCALE: NONE

CITY OF TURLOCK

APPROVED BY:

Nathan B. Bray
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DRAWING NO.

T-6

COUNCIL APPROVAL

FEB, 2019