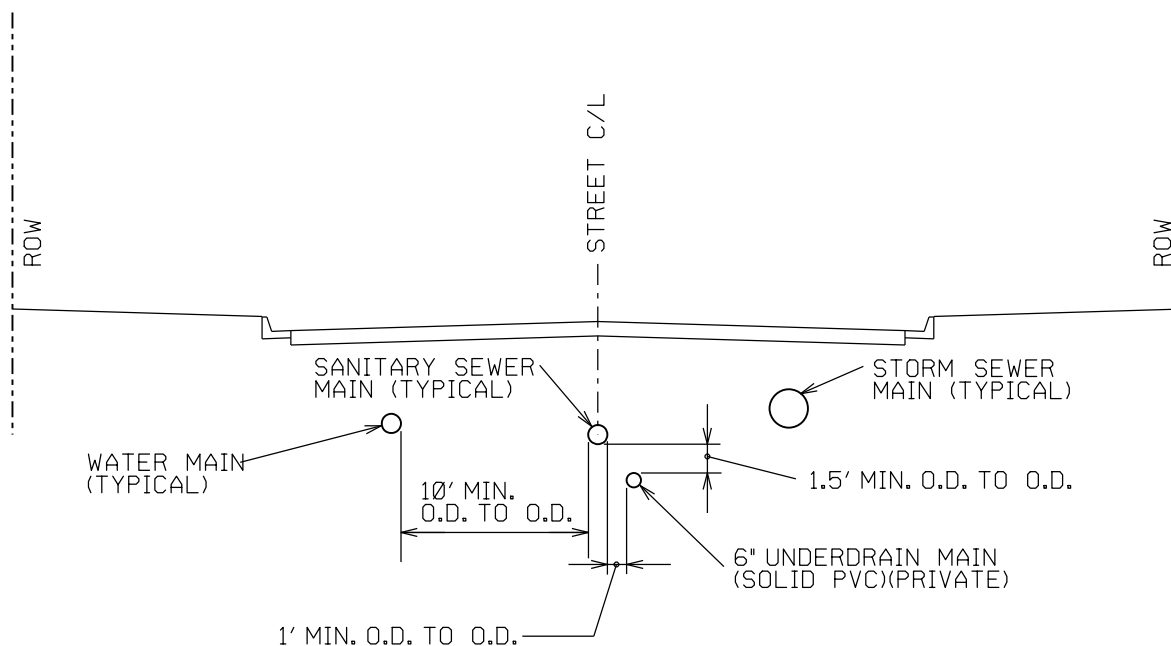


SECTION 100 – GENERAL REQUIREMENTS

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HORIZONTAL PLACEMENT OF UTILITY
MAINS WITHIN PUBLIC ROW.
N.T.S.



REVISIONS

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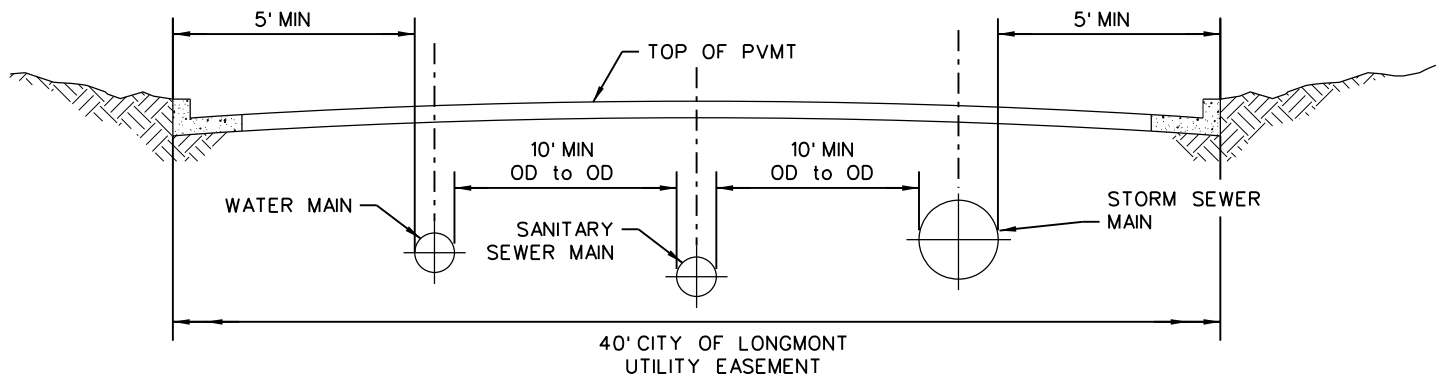
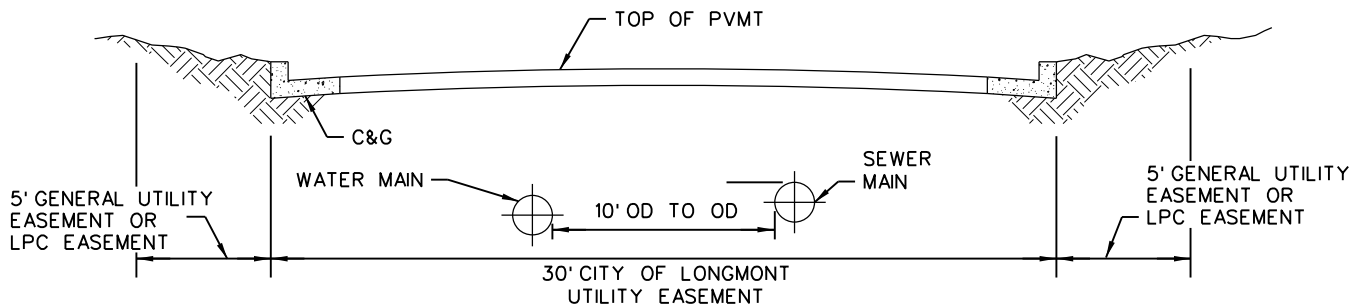
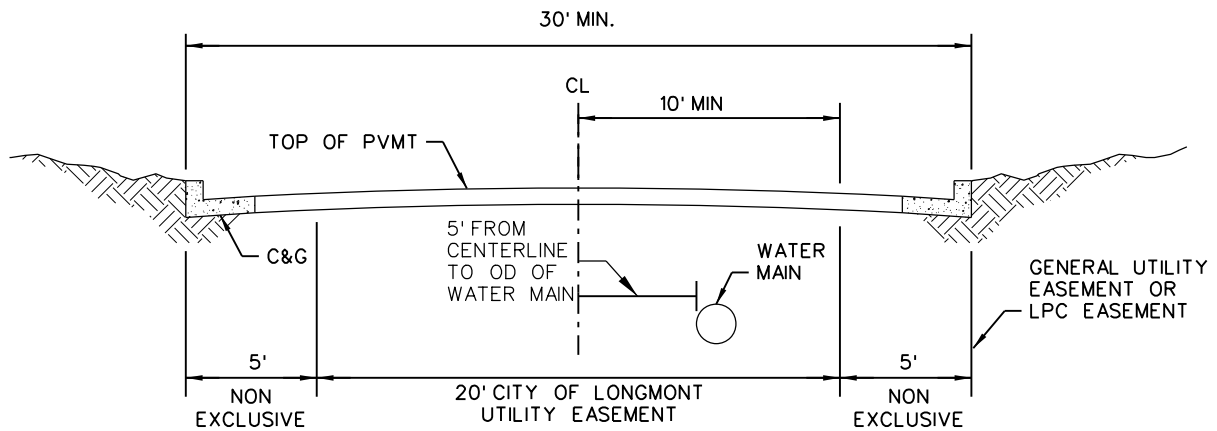
CITY of LONGMONT

385 Kimbark Street
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Phone: 303-651-8304
FAX: 303-651-8352

DETAIL

100-01



NOTES:

- 1) ALL UTILITY MAINS MUST REMAIN 15' CLEAR OF ANY STRUCTURE OR FOUNDATION.

PUBLIC UTILITY EASEMENT ON PRIVATE PROPERTY

NTS



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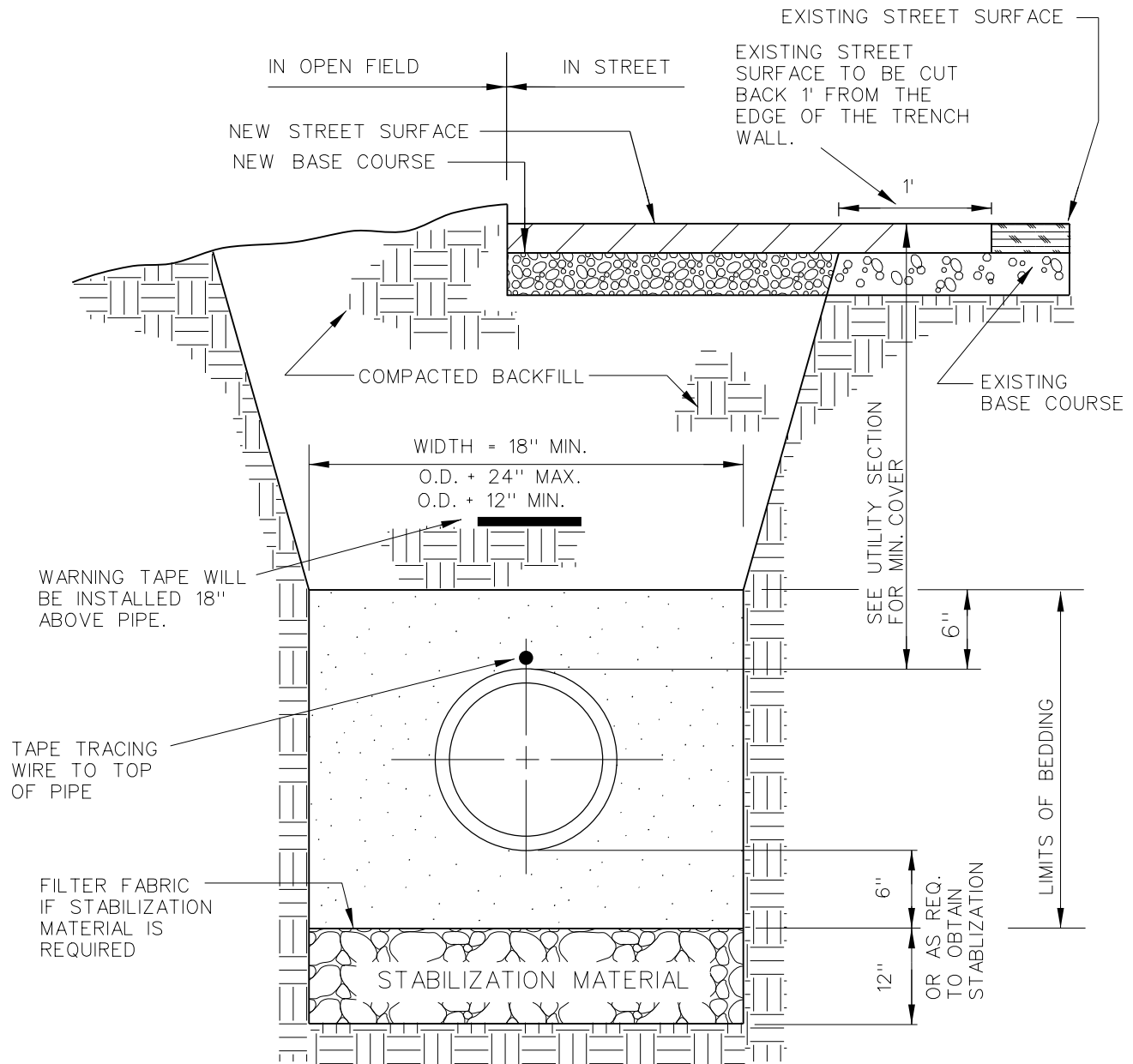
385 Kimbark Street
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FAX: 303-651-8352

DETAIL

100-02

100-03



NOTES:

- 1) BACKFILL TO BE COMPACTED TO 95% OF ASTM D-698 DENSITY IN ALL AREAS, UNLESS OTHERWISE NOTED.
- 2) 12 AWG. SOLID COPPER WIRE SHALL BE INSTALLED AS TRACING WIRE ABOVE ALL UTILITY MAINS AND SERVICES. THE WIRE SHALL BE CONNECTED AND COME TO THE SURFACE AS PER SECTION 100 DESIGN STANDARDS.
- 3) FILTER FABRIC IS REQUIRED IF STABILIZATION MATERIAL IS USED. THE FABRIC SHALL BE INSTALLED AS SHOWN IN THE DETAIL. SELECT FILTER FABRIC PER APPROVED MATERIAL LIST.
- 4) BEDDING MATERIAL REQUIRED TO MEET SECTION 100 SPECIFICATIONS.
- 5) SEE SECTION 300 FOR REINFORCED CONCRETE PIPE TRENCH DETAIL.

WATER AND WASTEWATER UTILITY TRENCH

N.T.S.



REVISIONS

3-19-93	BM
6-24-97	JR
7-22-19	AM

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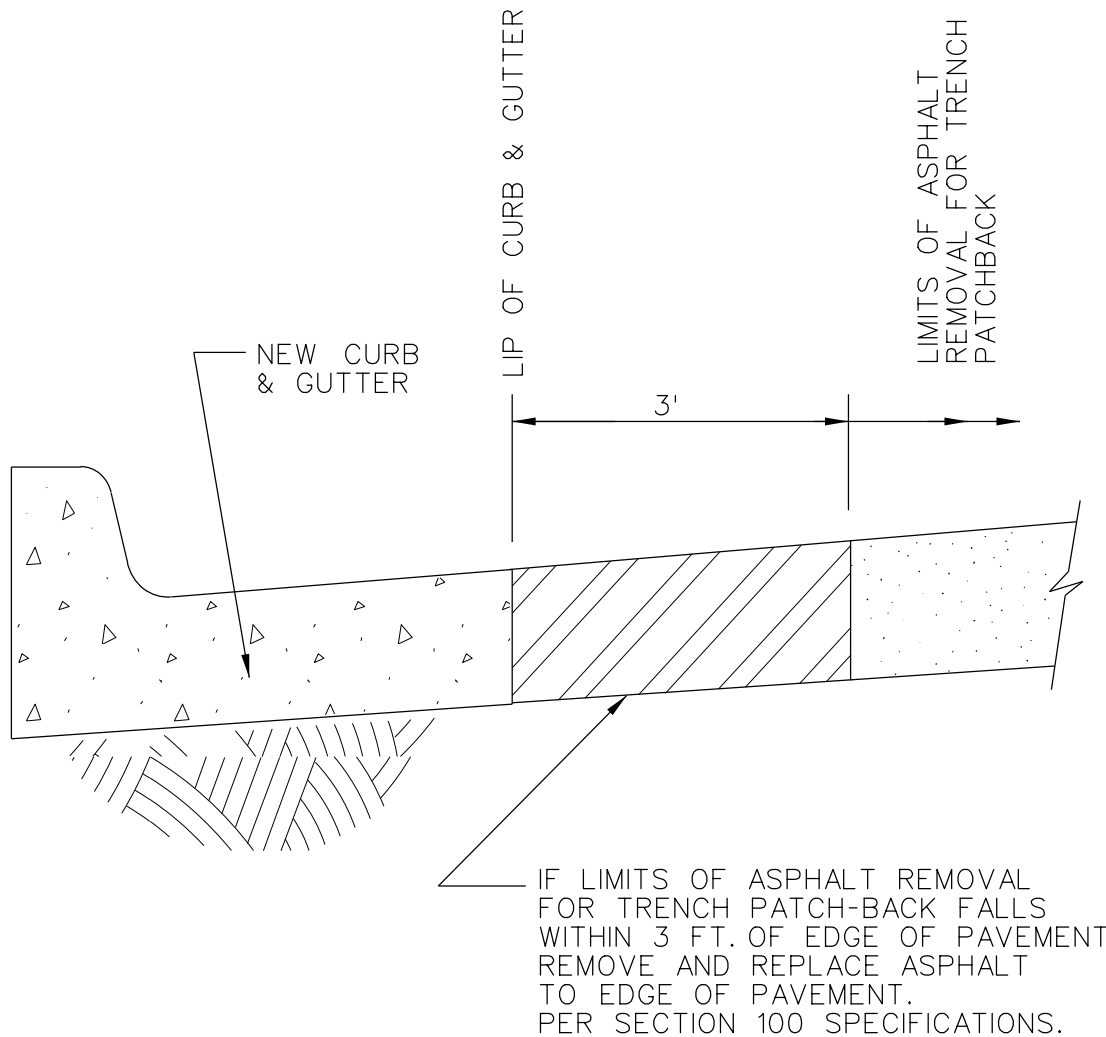
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DETAIL

100-03



TRENCH LIMITS FOR ASPHALT REMOVAL AND PATCH-BACK

N.T.S.



REVISIONS

3-19-93 REB
6-24-97 JR
7-22-2019 AM

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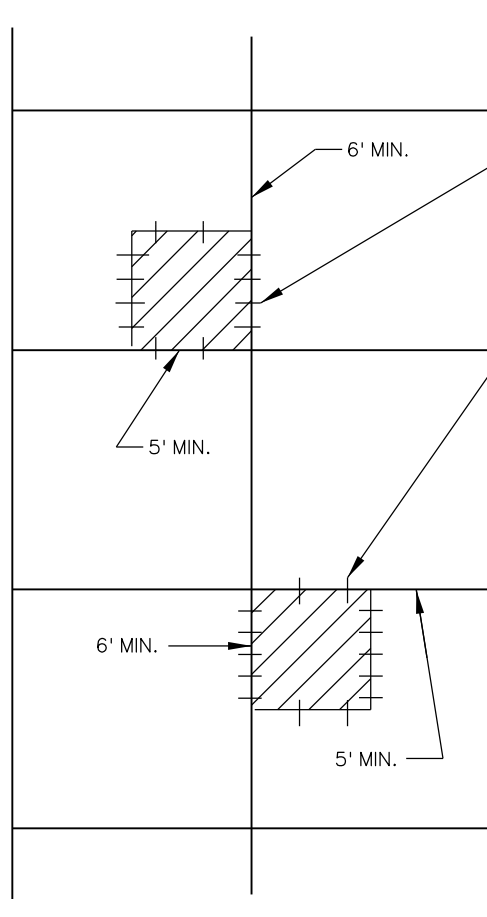
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DETAIL

100-04



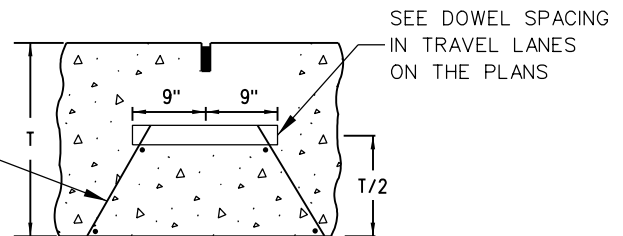
18" DOWEL BARS: REFERENCE TABLE FOR SIZES
18" ON CENTER TRANSVERSE

30" TIE BARS: REFERENCE TABLE FOR SIZES
30" ON CENTER LONGITUDINALLY

PAVEMENT THICKNESS (T)	TIE BAR SIZE	DOWEL BAR DIAMETER
7 IN. $\leq$ T < 8 IN.	NO. 4	1 IN.
8 IN. $\leq$ T $\leq$ 10 IN.	NO. 5	1.25 IN.
10 IN. < T $\leq$ 15 IN.	NO. 6	1.50 IN.

REINFORCING SIZE TABLE

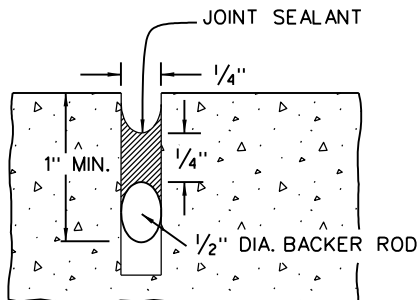
RIGID WELDED
ASSEMBLY
IF NEEDED



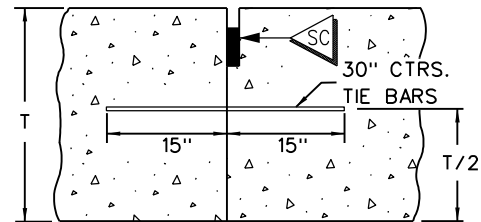
©

**DOWELED TRANSVERSE
CONSTRUCTION JOINT**

(TRANSVERSE WEAKENED PLANE JOINT)



**SEAL AT
CONSTRUCTION JOINT**



Ⓛ

**LONGITUDINAL
CONSTRUCTION JOINT**

NOTES:

- 1) JOINT DETAIL ONLY APPLICABLE FOR PATCHES WITH EXISTING 8 INCH THICK CONCRETE AND GREATER.
- 2) MINIMUM REMOVE AND REPLACE SIZE IS 1/4 PANEL WITH MINIMUM DIMENSIONS SHOWN BASED ON TYPICAL 12 FT x 10 FT CONCRETE PANEL SIZE (SECTION 100).
- 3) REMOVAL DIMENSIONS ARE SUBJECT TO ADJUSTMENT BASED ON ACTUAL CONCRETE PANEL SIZE.
- 4) USE FULL DEPTH SAW CUTTING.

CONCRETE PAVEMENT PATCH-BACK

N.T.S.



REVISIONS

3-1993 REB
7-22-19 AM

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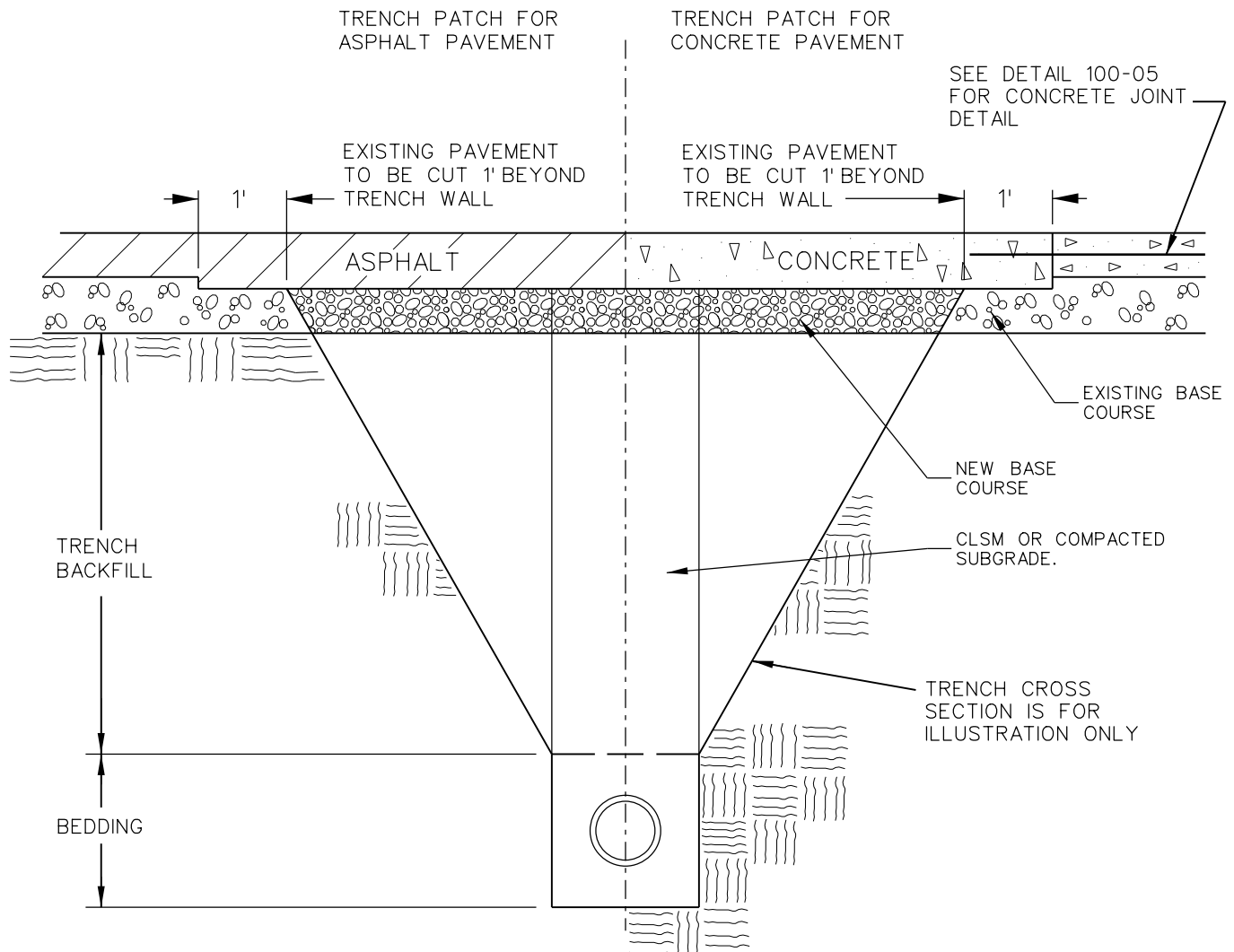
CITY of LONGMONT

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Longmont, CO 80501

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FAX: 303-651-8352

DETAIL

100-05



NOTES:

- 1) ASPHALT SHALL BE USED TO PATCH-BACK ASPHALT SURFACES. 8 INCH MINIMUM REQUIRED ASPHALT PATCH THICKNESS OR MATCH EXISTING THICKNESS IF GREATER.
- 2) CONCRETE SHALL BE USED TO PATCH-BACK CONCRETE SURFACES. 10 INCH MINIMUM REQUIRED CONCRETE PATCH THICKNESS OR MATCH EXISTING THICKNESS IF GREATER.
- 3) BEDDING AND BACKFILL REQUIRED TO MEET SECTION 100 SPECIFICATIONS.

TYPICAL ASPHALT AND
CONCRETE TRENCH PATCH-BACK
N.T.S.



REVISIONS

3-19-93	BM
11-5-03	JR
7-22-19	AM

Print Date: 10/9/2025

File: Section 100.dgnlib

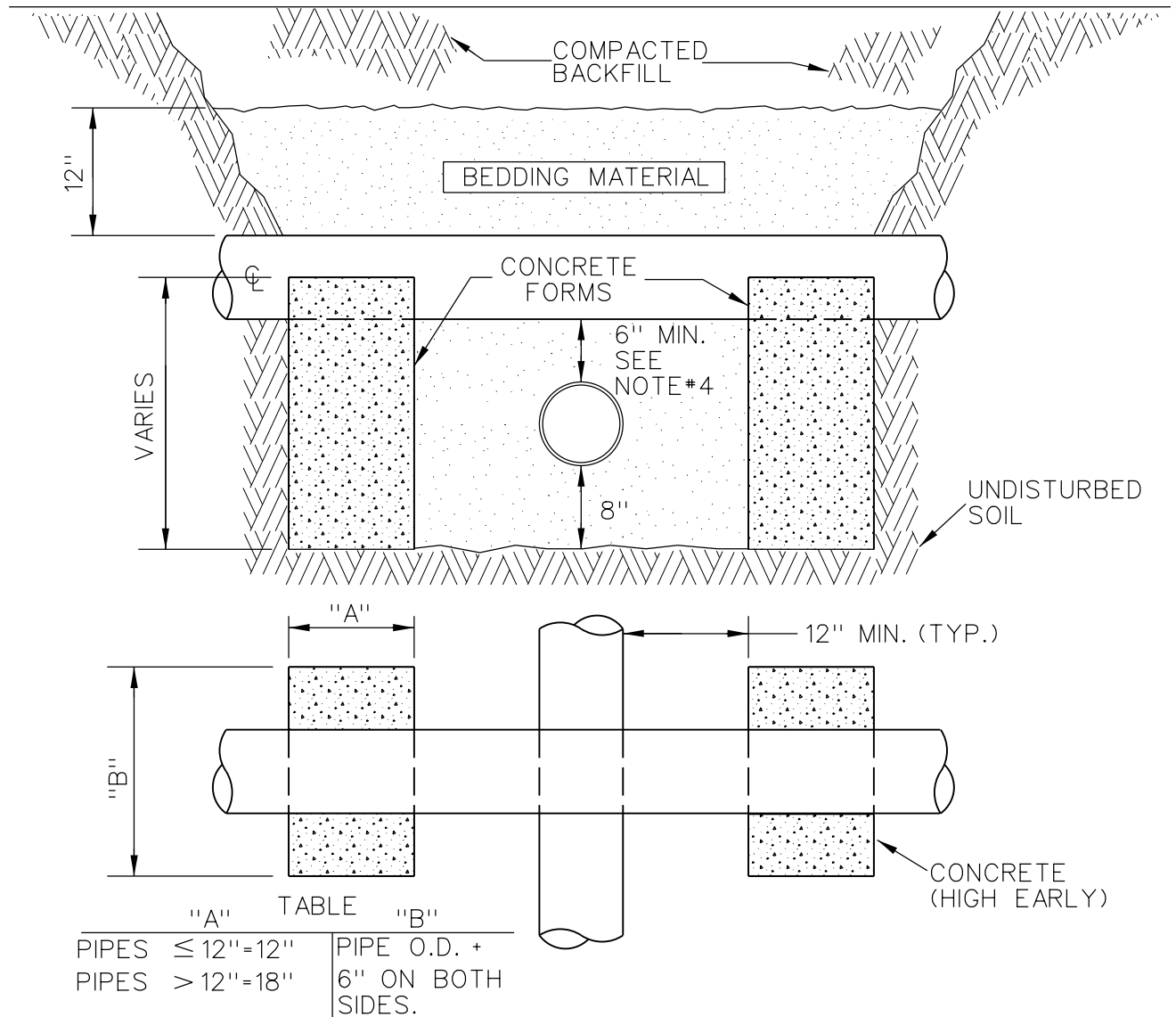
SCALE: NOT TO SCALE

CITY of LONGMONT

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DETAIL

100-06



NOTES:

- 1) PIPE SECTIONS SHALL BE CENTERED OVER THE PIPE BEING CROSSED.
- 2) PIPE SIZES LARGER THAN 24" REQUIRE DESIGN BY A PROFESSIONAL ENGINEER.
- 3) A BOND BREAKER SHALL BE PLACED BETWEEN THE CONCRETE AND THE PIPE BEING SUPPORTED.
- 4) 6" OD TO OD MINIMUM.

PIPE CROSSING
SUPPORT PAD DETAIL
N.T.S.



REVISIONS

3-19-93 BM
7-22-2019 AM

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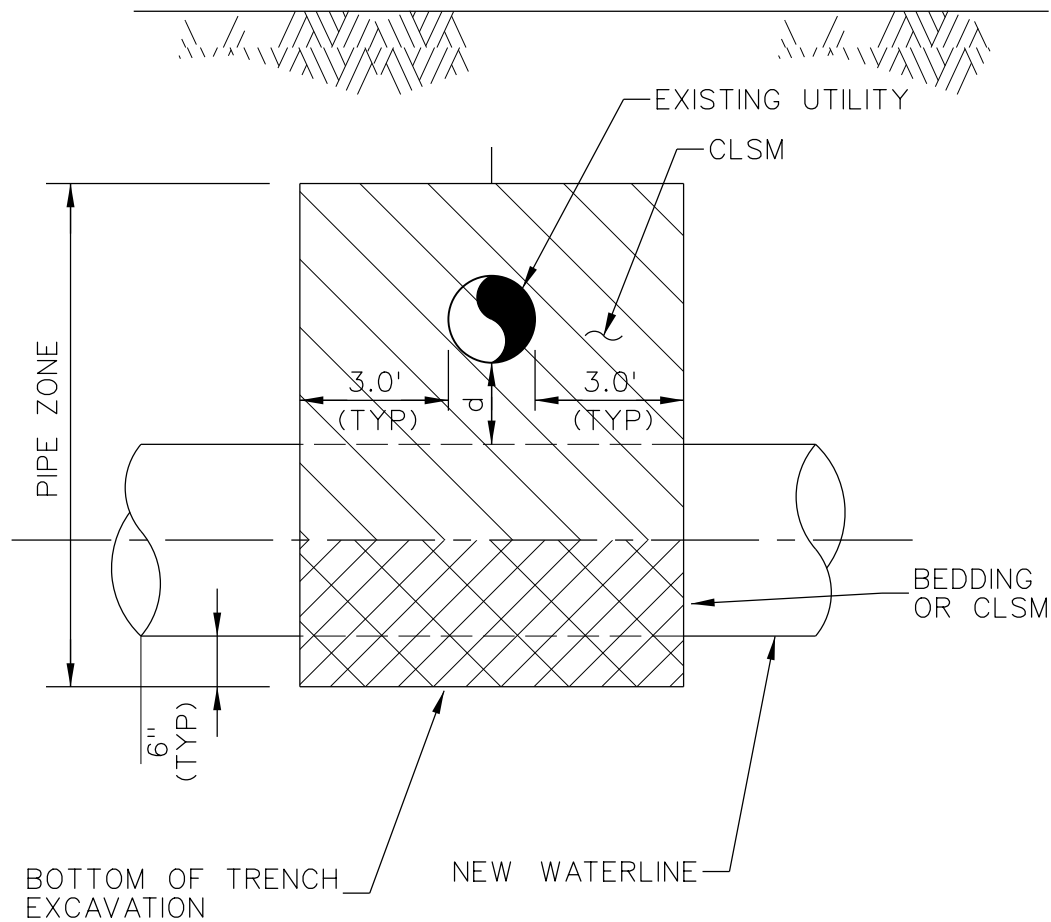
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FAX: 303-651-8352

DETAIL

100-07



NOTES:

- 1) SUPPORT EXISTING PIPE OR DUCT INSTALLATION OF NEW PIPE.
- 2) THIS DETAIL ONLY APPLIES TO CROSSING UTILITIES WITH A DIAMETER OR CLSM. LARGEST DIMENSION OF 8 INCHES OR GREATER.
- 3) IF DIAMETER LESS 18 INCHES, THE PIPE ZONE MATERIAL SHALL BE CLSM. IF DIAMETER IS GREATER THAN 18 INCHES AND LESS THAN 4 FEET, THE PIPE ZONE MATERIAL SHALL BE PIPE BEDDING. PIPE ZONE SHALL BE AS DIMENSIONED IN THIS DETAIL.
- 4) IF DIAMETER GREATER THAN 4 FEET, INSTALLATION SHALL BE PER TYPICAL TRENCHING AND BEDDING. SEE DETAIL 100-03.
- 5) IF THE EXISTING UTILITY IS SANITARY SEWER, THE PIPE ZONE MATERIAL SHALL BE CLSM, REGARDLESS OF DIMENSION.

UTILITY CROSSING

N.T.S.



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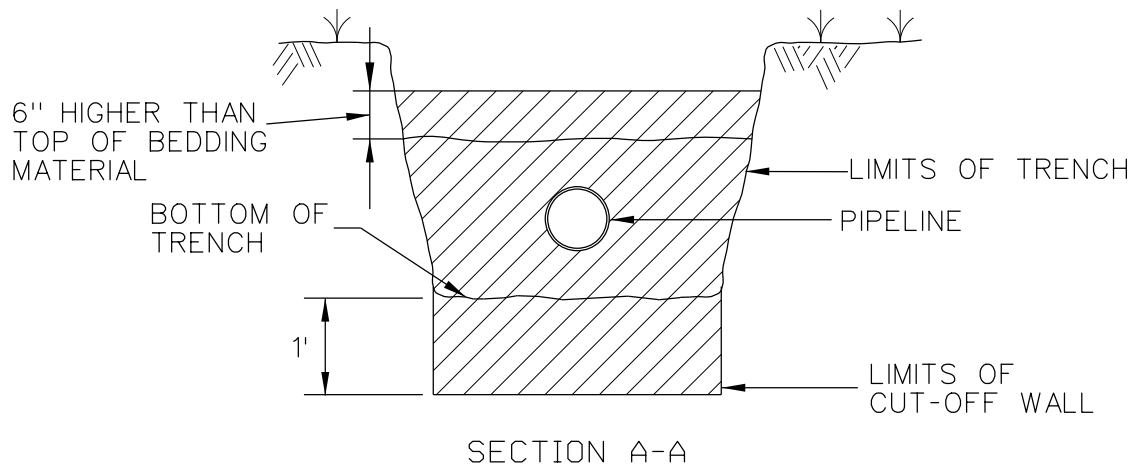
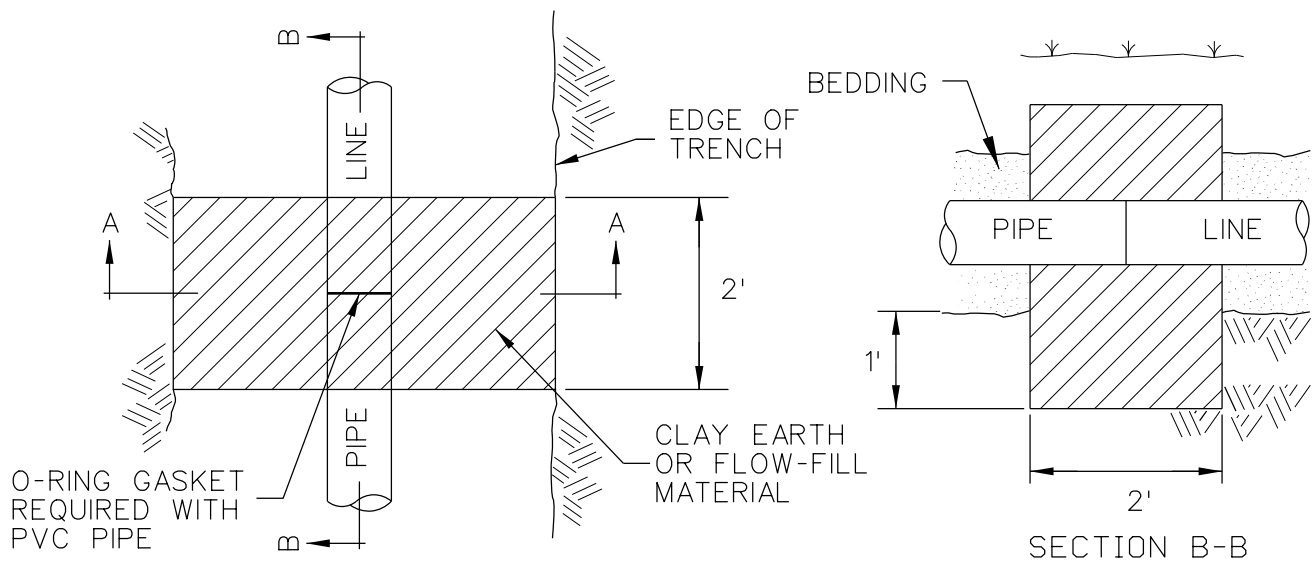
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CITY of LONGMONT

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DETAIL

100-08



NOTES:

- 1) CUT-OFF WALL EXTENDS A MINIMUM OF ONE FOOT INTO UNDISTURBED SOIL ON BOTTOM OF TRENCH BEDDING.
- 2) CLAY MATERIAL TO BE CLASSIFIED TYPE CL, CH, OR OH SOIL.
- 3) APPROVED FLOW-FILL MATERIAL MAY BE USED IN PLACE OF CLAY MATERIAL.

CUT-OFF WALL

N.T.S.



REVISIONS
3-19-93 BM
6-25-97 JR
7-22-2019 AM

Print Date: 10/9/2025

File: Section 100.dgnlib

SCALE: NOT TO SCALE

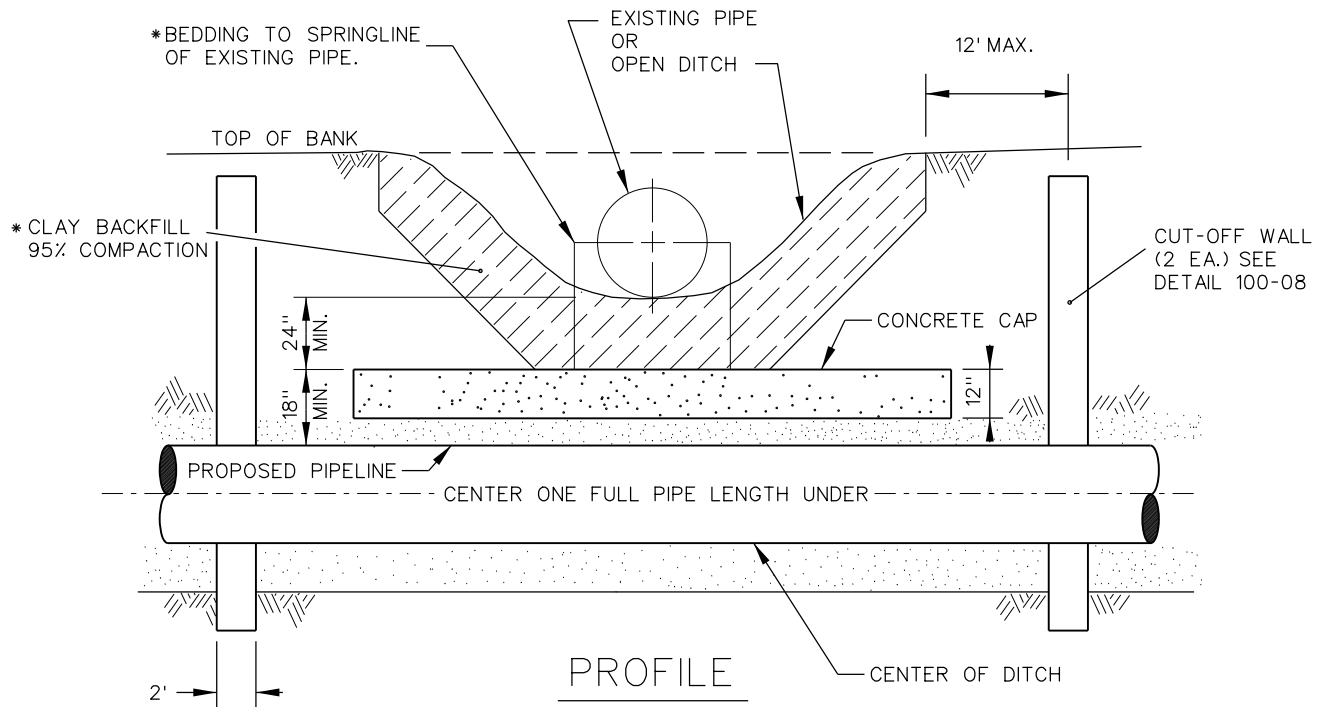
CITY of LONGMONT

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Phone: 303-651-8304
FAX: 303-651-8352

DETAIL

100-09



NOTES:

- 1) USE CLAY BACKFILL ONLY WHEN CROSSING OPEN DITCH.
- 2) BEDDING MATERIAL TO EXTEND TO SPRING LINE OF EXISTING PIPE WHEN CROSSING PIPE.
- 3) REFERENCE DETAIL 100-09 FOR CUT-OFF WALL CONSTRUCTION.
- 4) CONCRETE CAP IS REQUIRED TO BE DESIGNED BY A PROFESSIONAL ENGINEER.
- 5) BEDDING AND BACKFILL REQUIRED TO MEET SECTION 109 SPECIFICATIONS.
- 6) PIPE ENCASEMENT AT CITY ENGINEER'S DISCRETION.

DITCH CROSSING

NTS



REVISIONS

3-19-93	BM
3-12-99	JR
7-22-2019	AM

Print Date: 10/9/2025

File: Section 100.dgnlib

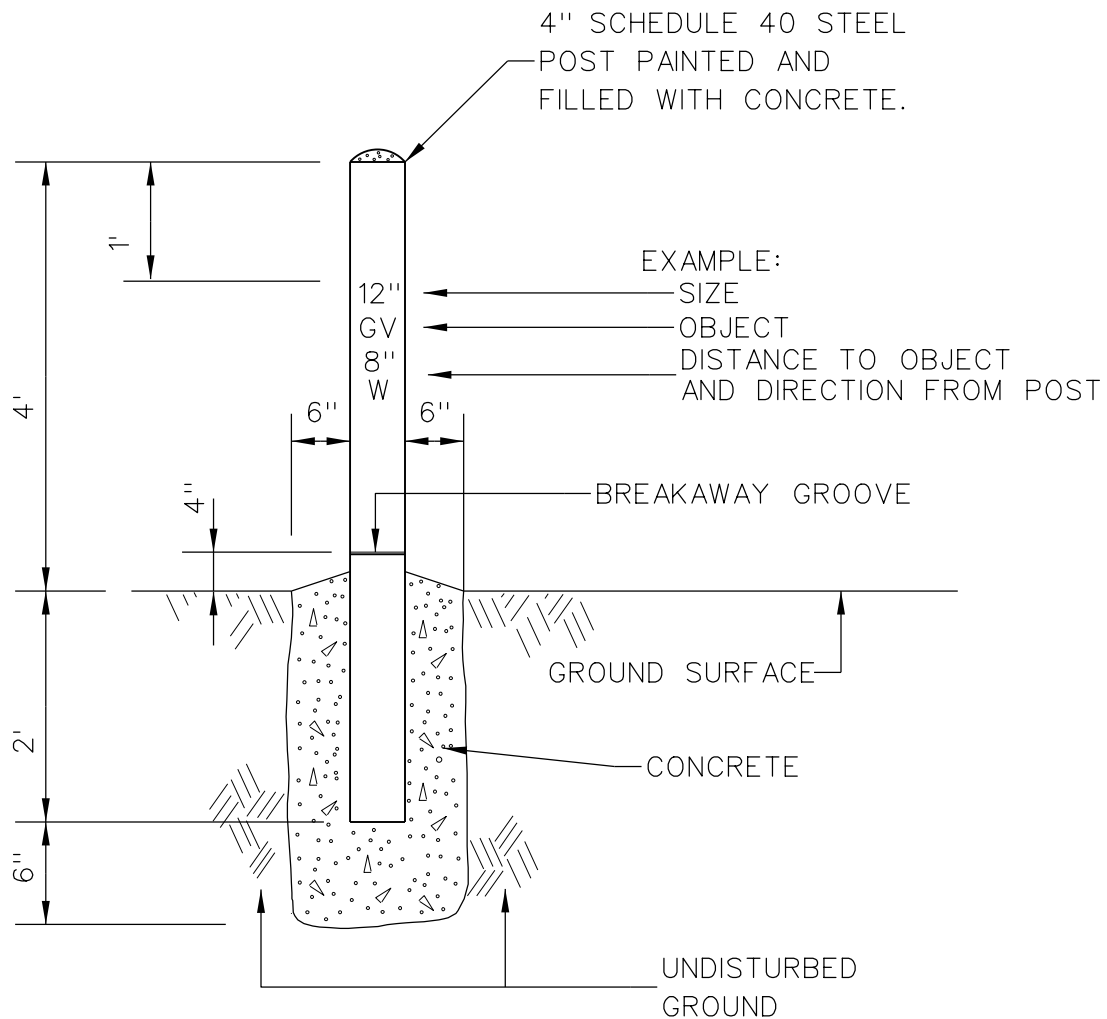
SCALE: NOT TO SCALE

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DETAIL

100-10



PAINT SCHEDULE

BLUE/WHITE	-	CATHODIC PROTECTION
BLUE	-	POTABLE WATER
GREEN	-	SANITARY SEWER
PURPLE	-	STORM SEWER

NOTE:

- 1) MARKER POST SHALL BE INSTALLED AT FITTINGS, VALVES AND MANHOLES AS SHOWN ON THE PLAN.

MARKER POST
N.T.S.



REVISIONS
3-19-93 BM
7-22-19 AM

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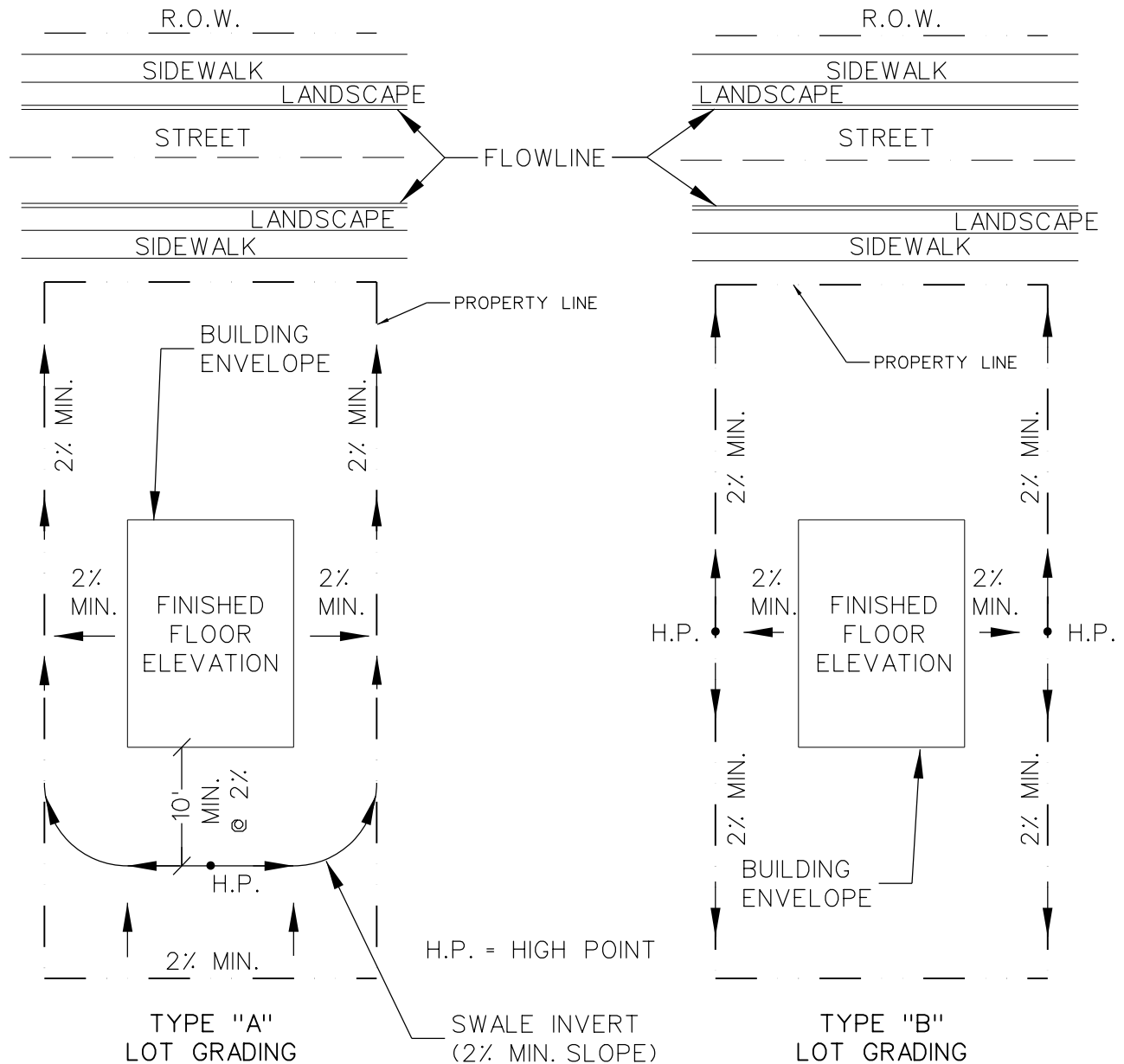
CITY of LONGMONT

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FAX: 303-651-8352

DETAIL

100-11



NOTES:

1. ALL FINISHED FLOORS/TOP OF FOUNDATIONS SHALL BE A MINIMUM OF 8" ABOVE THE HIGHEST GRADE ADJACENT TO THE BUILDING PAD/FOUNDATION.
2. TYPE "B" LOTS SHALL BACK TO A TYPE "A" LOT OR AN OUTLOT WITH A MINIMUM WIDTH OF TEN FEET THAT DISCHARGES TO A SIDE STREET OR A DRAINAGE WAY.

TYPICAL
RESIDENTIAL LOT GRADING DETAIL
N.T.S.



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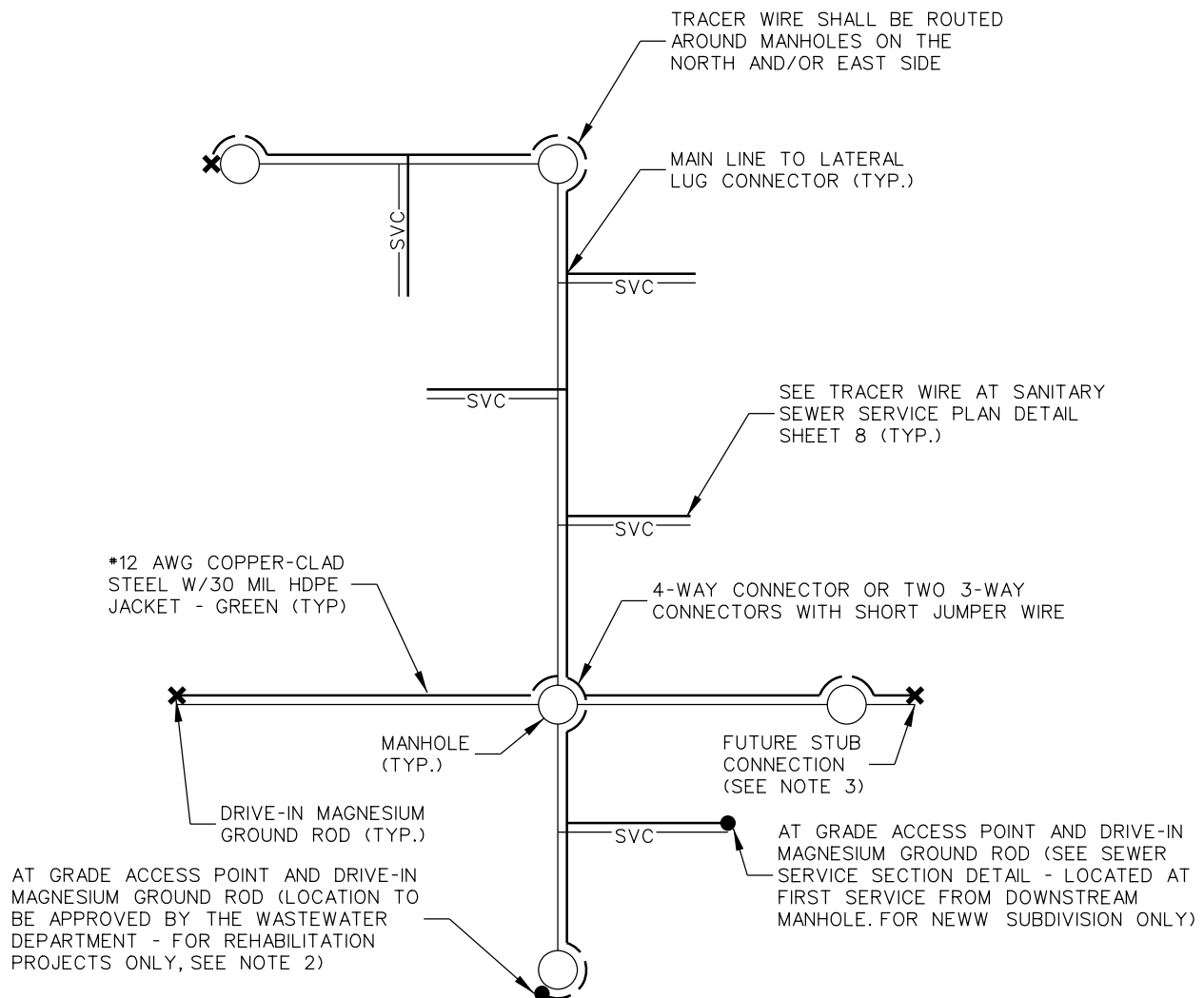
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CITY of LONGMONT

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FAX: 303-651-8352

DETAIL

100-12



NOTES:

1. WIRE SHOWN AWAY FROM PIPE FOR CLARITY. WIRE SHALL BE INSTALLED ON THE TOP OF THE PIPE. THE WIRE SHALL BE FASTENED TO THE PIPE WITH TAPE OR PLASTIC TIES AT 5' INTERVALS.
2. REHABILITATION PROJECTS SHALL HAVE A DRIVE-IN MAGNESIUM GROUND ROD INSTALLED ON THE UPSTREAM AND DOWNSTREAM MANHOLES AS WELL AS A GRADE LEVEL IN-GROUND ACCESS BOX INSTALLED AT THE DOWNSTREAM MANHOLE (ACCESS BOX TYPE AND LOCATION BY WASTEWATER DEPARTMENT).
3. AT ALL FUTURE STUB CONNECTIONS, A MINIMUM OF 6 FEET OF TRACER WIRE SHALL BE EXTENDED BEYOND THE END OF THE PIPE, COILED AND SECURED FOR FUTURE CONNECTIONS. THE END OF THE TRACER WIRE SHALL BE ELEVATIONS AS THE SEWER MAIN.

TRACER WIRE SAMPLE SANITARY SEWER PLAN

N.T.S.



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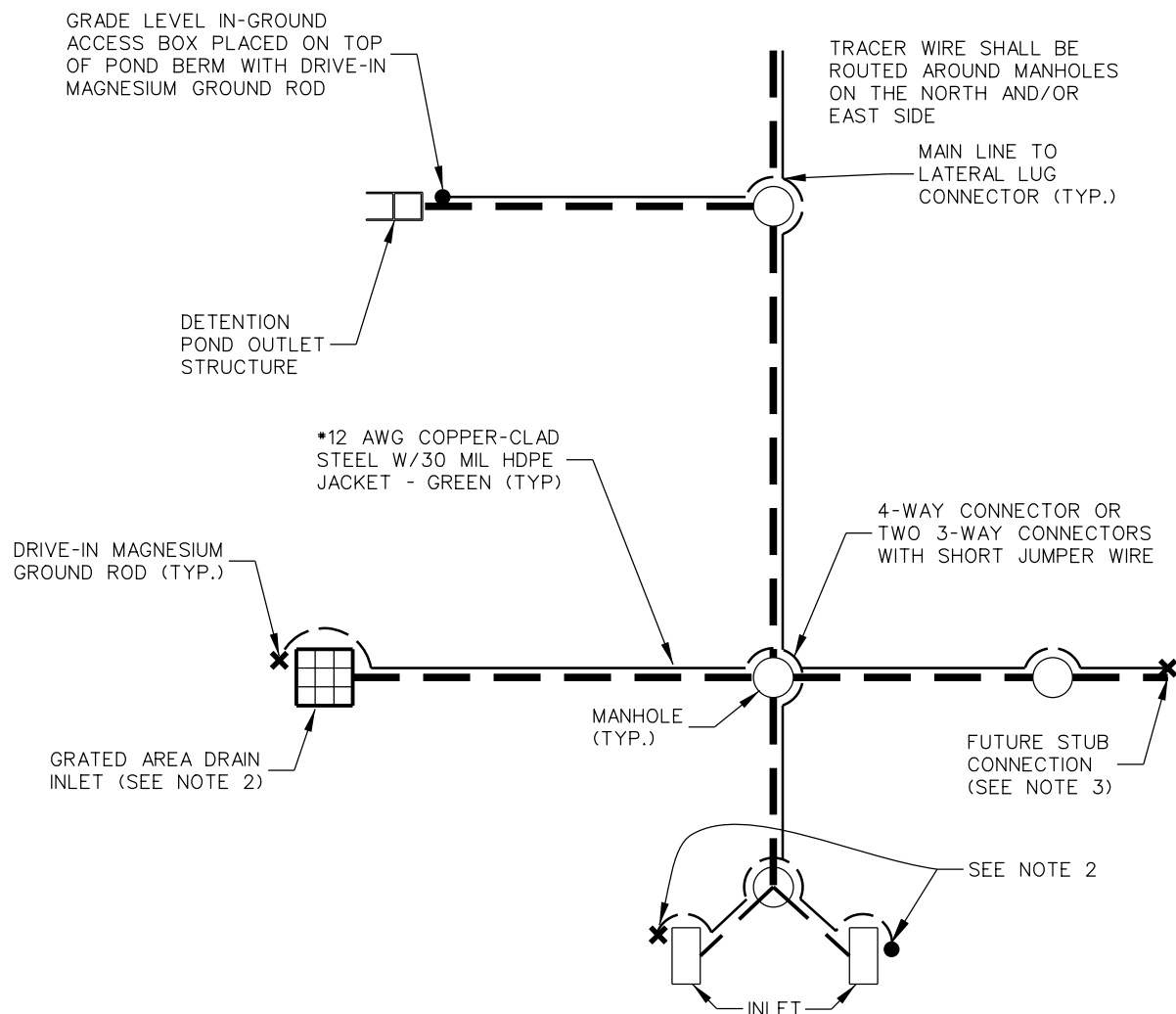
SCALE: NOT TO SCALE

CITY of LONGMONT

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Longmont, CO 80501Phone: 303-651-8304
FAX: 303-651-8352

DETAIL

100-13



NOTES:

1. WIRE SHOWN AWAY FROM PIPE FOR CLARITY. WIRE SHALL BE INSTALLED ON THE TOP OF THE PIPE. THE WIRE SHALL BE FASTENED TO THE PIPE WITH TAPE OR PLASTIC TIES AT 5' INTERVALS.
2. TRACER WIRE FOR INLETS MAY TERMINATE INSIDE OF INLET BOX BELOW THE ACCESS (SEE DETAIL 100-17) OR A GRADE LEVEL IN-GROUND ACCESS BOX MUST BE USED (OPTION REQUIRES CITY APPROVAL IN PAVED AREAS). DRIVE-IN MAGNESIUM GROUND ROD MUST BE USED FOR EITHER OPTION.
3. AT ALL FUTURE STUB CONNECTIONS, A MINIMUM OF 6 FEET OF TRACER WIRE SHALL BE EXTENDED BEYOND THE END OF THE PIPE, COILED AND SECURED FOR FUTURE CONNECTIONS. THE END OF THE TRACER WIRE SHALL BE ELEVATIONS AS THE SEWER MAIN.

TRACER WIRE SAMPLE
STORM SEWER PLAN
N.T.S.



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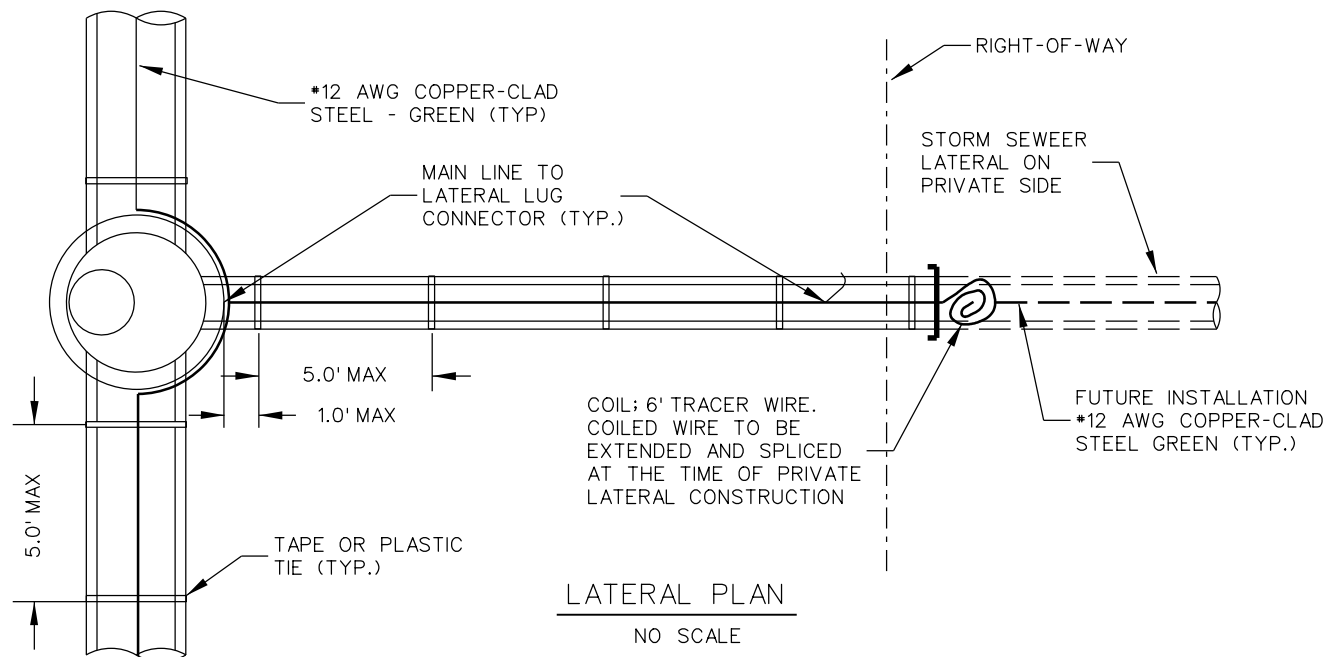
CITY of LONGMONT

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DETAIL

100-14

100-15A



LATERAL PROFILE
SEE DETAIL 100-15B

NOTES:

1. WIRE SHOWN AWAY FROM PIPE FOR CLARITY. WIRE SHALL BE INSTALLED ON THE TOP OF THE PIPE. THE WIRE SHALL BE FASTENED TO THE PIPE WITH TAPE OR PLASTIC TIES AT 5' INTERVALS.
2. TRACER WIRE NOT REQUIRED FOR REHABILITATION PROJECTS.
3. ACCESS BOX REQUIRED AT UPSTREAM TERMINAL LATERAL AND AT EVERY STREET INTERSECTION WHERE A STORM INLET BOX OR OTHER STORM LATERAL WILL EXIST. CITY APPROVAL REQUIRED ON ALL ACCESS BOX LOCATIONS.

TRACER WIRE AT
SEWER LATERAL DETAIL
N.T.S.



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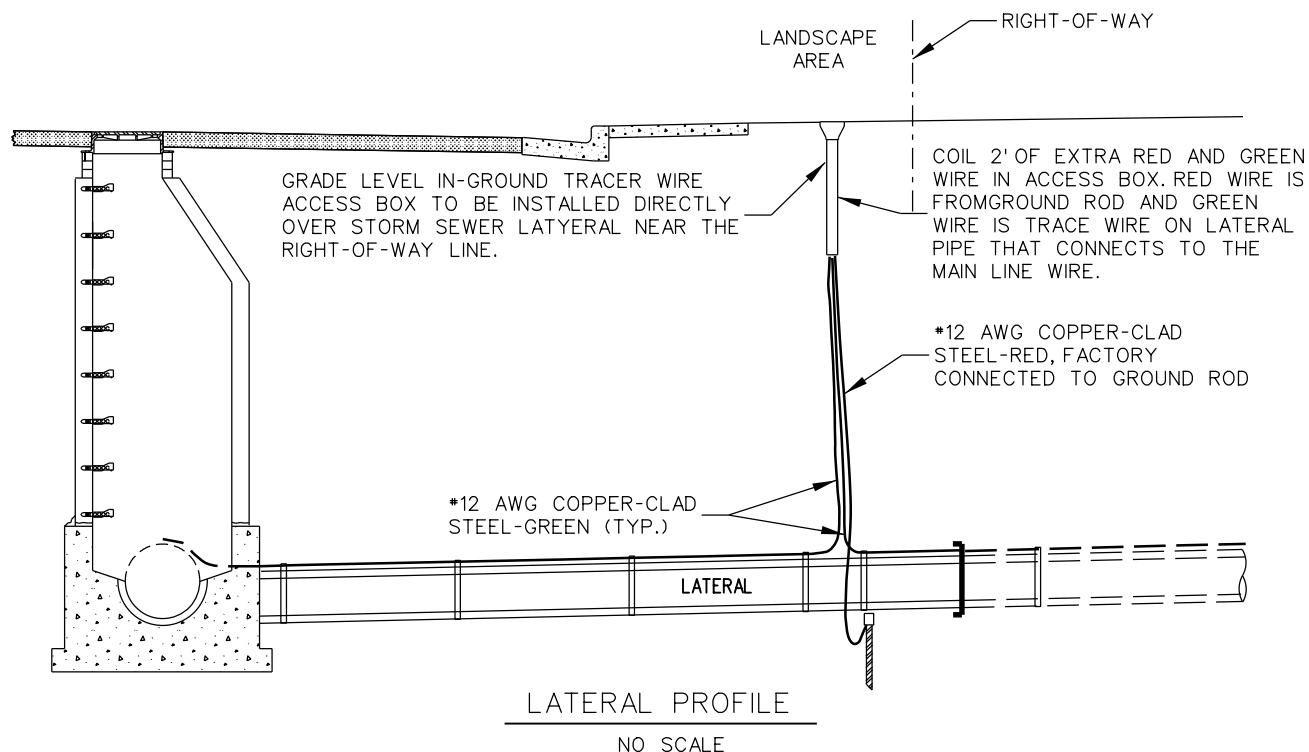
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FAX: 303-651-8352

DETAIL

100-15A

LATERAL PLAN
SEE DETAIL 100-15A



NOTES:

1. WIRE SHOWN AWAY FROM PIPE FOR CLARITY. WIRE SHALL BE INSTALLED ON THE TOP OF THE PIPE. THE WIRE SHALL BE FASTENED TO THE PIPE WITH TAPE OR PLASTIC TIES AT 5' INTERVALS.
2. TRACER WIRE NOT REQUIRED FOR REHABILITATION PROJECTS.
3. ACCESS BOX REQUIRED AT UPSTREAM TERMINAL LATERAL AND AT EVERY STREET INTERSECTION WHERE A STORM INLET BOX OR OTHER STORM LATERAL WILL EXIST. CITY APPROVAL REQUIRED ON ALL ACCESS BOX LOCATIONS.

TRACER WIRE AT
SEWER LATERAL DETAIL
N.T.S.



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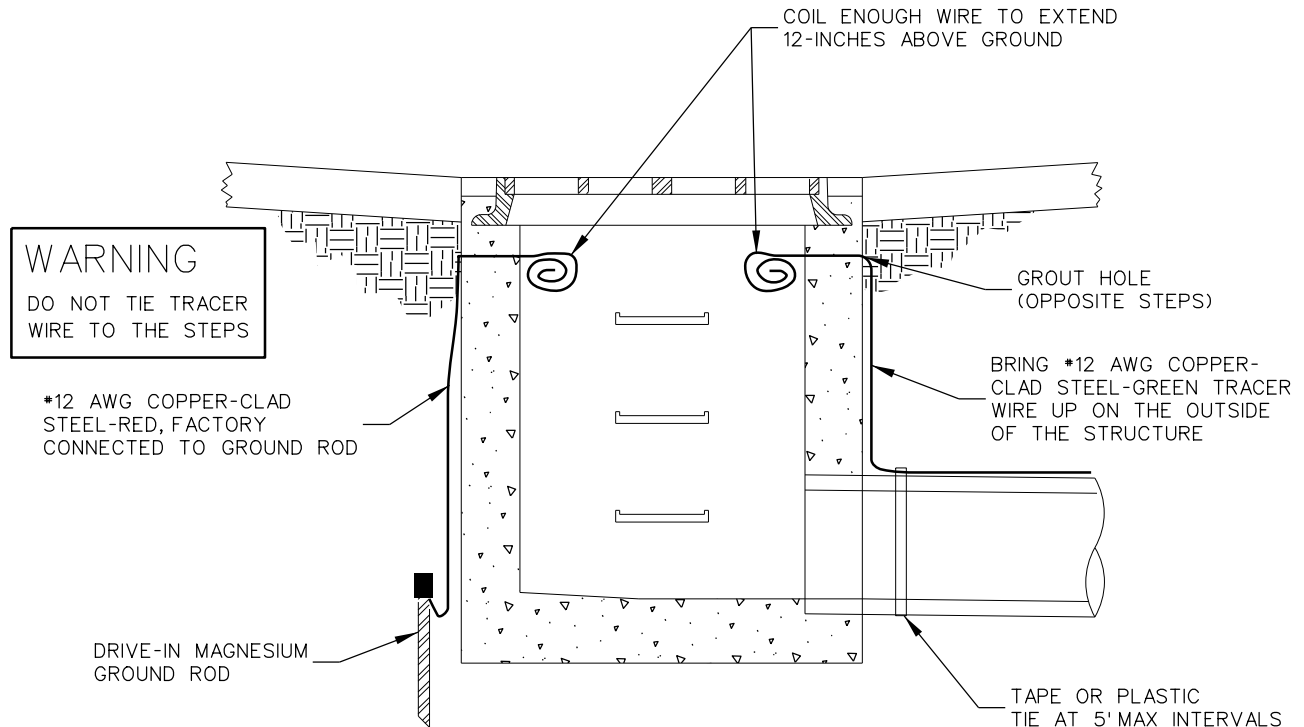
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FAX: 303-651-8352

DETAIL

100-15B



NOTES:

THIS OPTION IS RECOMMENDED FOR INLETS IN A PARKING LOT WHERE A LEVEL IN-GROUND TRACER WIRE ACCESS BOX HAS POTENTIAL TO BE COVERED BY ASPHALT OVERLAY. THIS OPTION REQUIRES CITY OF LONGMONT STORMWATER APPROVAL AND MAY BE SUBJECT TO ADDITIONAL REQUIREMENTS.

TRACER WIRE AT
INLET OR STORM MANHOLE
N.T.S.



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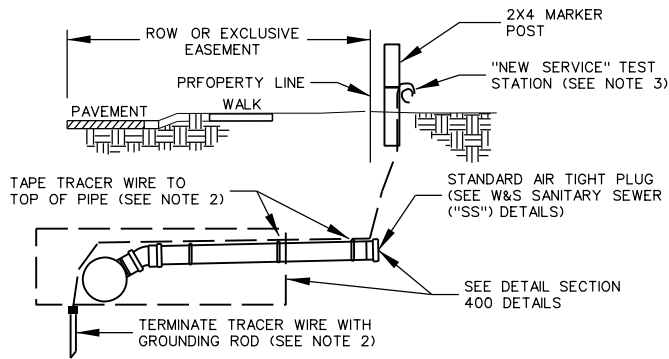
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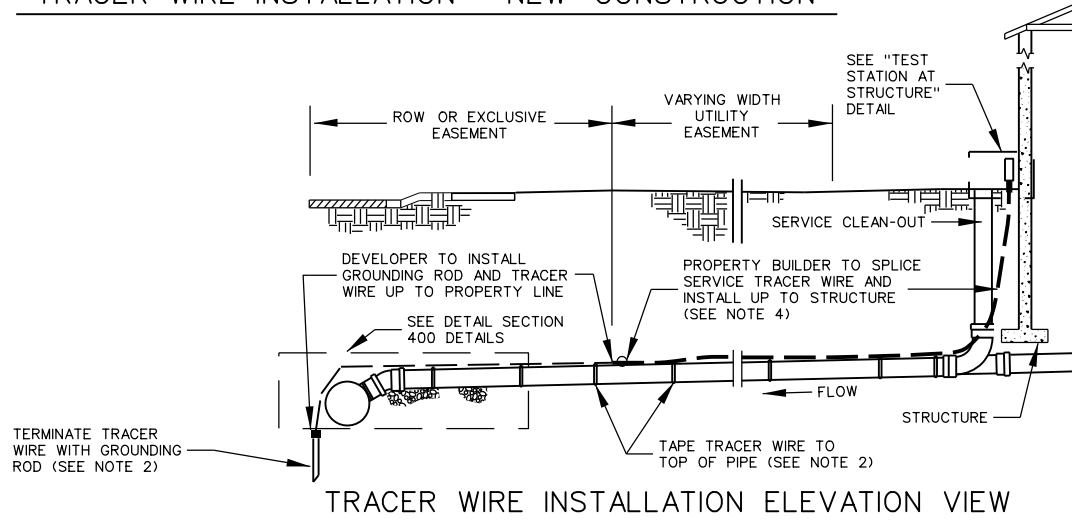
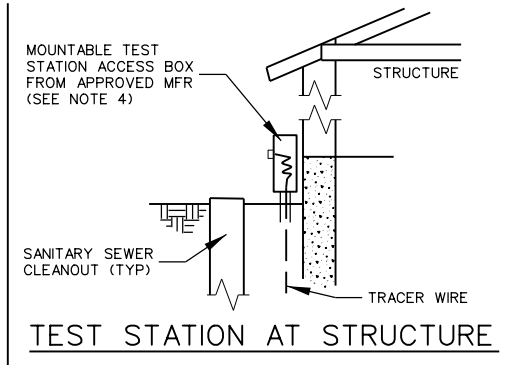
DETAIL

100-16

100-17



TRACER WIRE INSTALLATION - NEW CONSTRUCTION



TRACER WIRE INSTALLATION ELEVATION VIEW

NOTES:

1. REFER TO SECTION 400 DETAILS, FOR SANITARY SEWER SERVICE LATERAL STANDARD DETAIL.
2. REFER TO RELATED SERVICE LATERAL TRACER WIRE DETAIL UL-3, AND GENERAL TRACER WIRE NOTES ON UL-6, LATEST REVISION OF EACH, FOR ADDITIONAL TRACER WIRE TAPING, SPlicing, CONNECTING, GROUNDING, AND MISC. INSTALLATION DETAILS.
3. DEVELOPER TO INSTALL TRACER WIRE FROM SS MAIN TO THE TEST STATION BOX ON THE EDGE OF ROW. TEST STATION FOR NEW DEVELOPMENT SHALL BE A COIL OF 2 FT (LINEAR) TRACER WIRE. SECURED TO THE SERVICE STUB MARKER POST.
4. PROPERTY BUILDER TO SPLICE SANITARY SEWER SERVICE TRACER WIRE PROPERTY LINE AND INSTALL UP TO STRUCTURE, TERMINATING AT THE SS SERVICE CLEANOUT WITH AN APPROVED MFR TEST STATION ACCESS BOX FROM AN APPROVED MFR. TEST STATION ACCESS BOX SHALL BE MOUNTED TO THE STRUCTURE WITHIN 18" OF THE SS SERVICE CLEANOUT AND INSTALLED ACCORDING TO THE TEST STATION MFR. SPECIFICATIONS. REFER TO WATER & SEWER SPECIFICATIONS, LATEST REVISION, FOR APPROVED MFR.

SANITARY SEWER SERVICE
UTILITY LOCATING AND TEST STATION
N.T.S.



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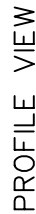
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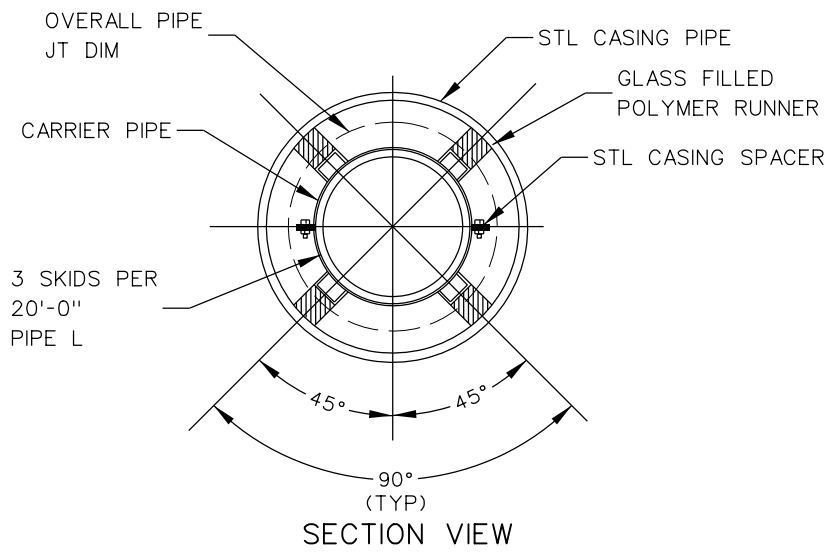
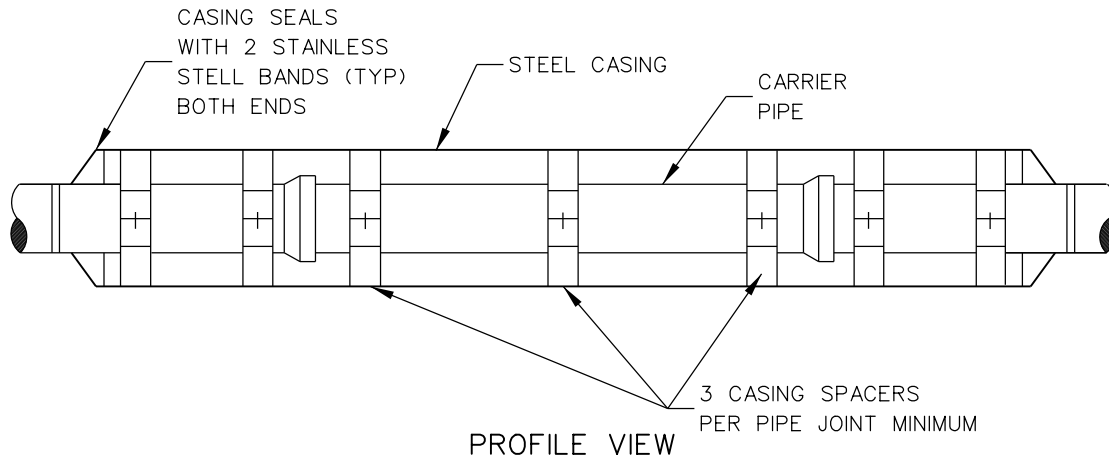
DETAIL

100-17



4. POLYPROPYLENE CASING SPACERS SHALL BE INSTALLED INTO THE STEEL CASING PER THE MANUFACTURE'S SPECIFICATIONS.
5. NO PART OF THE CARRIER PIPE OR FITTINGS SHALL BE IN CONTACT WITH THE CASING PIPE.
6. CARRIER PIPE SHALL BE RESTRAINED AT EACH JOINT WITHIN THE CASING PIPE AND AT THE FIRST JOINT OUTSIDE THE CASING PIPE (TYPICAL AT EACH END).

SCALE: NOT TO SCALE



CARRIER PIPE NOMINAL ϕ	CASING PIPE	
	MIN OD	MIN WALL THICKNESS
4"	12"	0.25"
6"	16"	0.3125"
8"	18"	0.3125"
12"	22"	0.375"
16"	28"	0.500"
20"	32"	0.500"

CASING PIPE
N.T.S.



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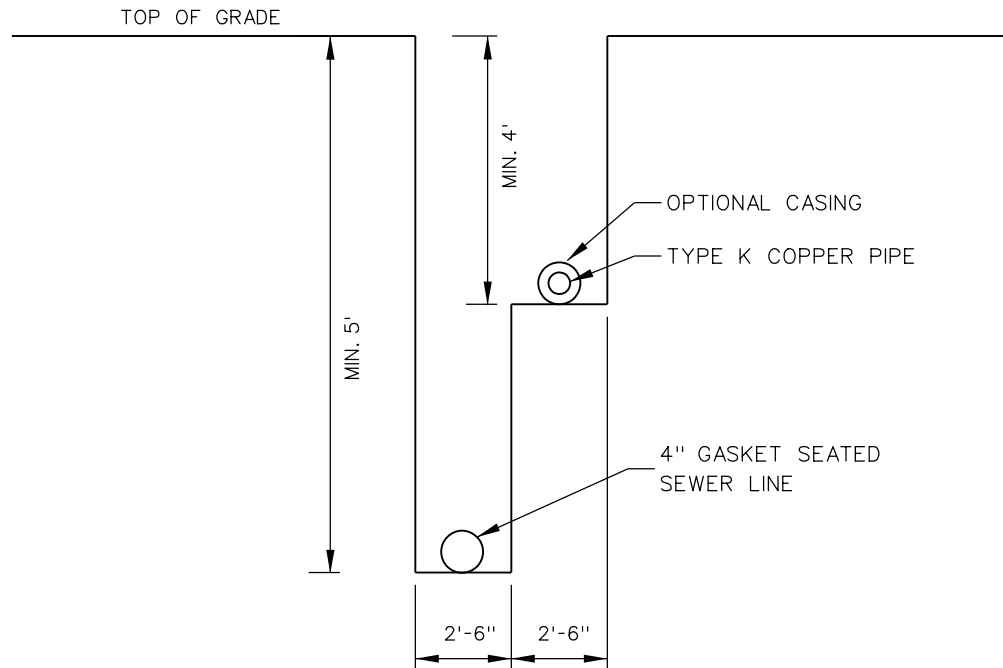
CITY of LONGMONT

385 Kimbark Street
Longmont, CO 80501

Phone: 303-651-8304
FAX: 303-651-8352

DETAIL

100-19



NOTES:

- 1) DETAIL ONLY TO BE USED FOR WATER AND SEWER SERVICES, UPON APPROVAL FROM THE ENGINEER.
- 2) WATER SHALL BE INSTALLED ON AN UNDISTURBED EARTH BENCH.
- 3) SEE 402.05.01(4) FOR MORE INFORMATION.

WATER & SEWER SERVICE INSTALLATION
IN THE SAME TRENCH
N.T.S.



REVISIONS

Print Date: 10/9/2025

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