NOTE: Where Trench passes through existing pavement the pavement shall be cut in accordance with section 201.12 (G.) of attached specifications.

Vertical trench walls with shoring to conform to Wyoming Occupational Health and Safety Rules and Regulations on Construction, Table XVI - 2.

Existing Street Surface

Subgrade or Ground Surface

Backslope as specified to conform to Wyoming Occupational Health and Safety Rules and Regulations on Construction, Table XVI - 1.

Type "A", "B" or "C" Trench Backfill

90% Compaction for Type "A" Backfill

95% Compaction Type "B" Backfill

Bedding Material Placed in 6" Layers & compacted to Pipe Manufacturer Recommendations

Type 1 or 2 Bedding, as Specified

Pipe Bedding Material Compacted to Pipe, Manufacturer's Recommendation

Type 2 Pipe Bedding where Required for Soft or Unstable Foundation.

City of Lander Standard Specifications

Scale: None

Typical Trench Detail

Standard Drawing No. 201.01
TYPICAL MONOLITIC FOUNDATION

SCALE 1 1/2' = 1'-0"

NOTES:
1. REINFORCING DIAGRAM REPRESENTS MINIMUM REQUIREMENTS. REINFORCEMENT VARIES WITH LOADINGS AND SOIL CONDITIONS. BUILDERS ARE ENCOURAGED TO SEEK PROFESSIONAL ADVICE FOR DIFFERING SITE CONDITIONS. MONOLITHIC FOUNDATIONS ARE APPLICABLE WHEN APPROVED BY BUILDING INSPECTION DEPARTMENT.

2. NOTE: FURTHER INFORMATION CONTACT BUILDING INSPECTION DEPARTMENT. 332-2588.

3. DESIGN CRITERIA
A. MINIMUM CONCRETE COVER FOR REINFORCEMENT IS 3 INCHES EXCEPT FLOOR.
B. SOIL BEARING STRENGTH CBR = 5%
C. ANCHOR BOLTS - MINIMUM 1/2' DIA. SET BOLTS 7' INTO CONCRETE WALL SPACING 6'-0' ON CENTER SET BOLTS WITHIN 12" OF EACH CORNER OR END RUN.
D. REINFORCING BAR YIELD STRENGTH = 40 k.s.i.
E. CONCRETE DESIGN f'c = 3500 psi
5.5 SACK
MINIMUM
W/C RATIO 0.45
TYPE II MODIFIED
C3A ≤ 5%
F. LAP SPLICES - ON SLAB CORNERS, INSTALL #4 BAR FOR EACH #4 BAR IN FOOTER.

4. NOTE: OTHER MINIMUM DESIGNS MAY BE SUBSTITUTED WITH PRIOR WRITTEN APPROVAL BY BUILDING INSPECTION DEPARTMENT.
Aluminum Post Cap and 90° Bracket

6" x 14 Ga. Baked Enamel with Raised Letters and Border, Sign Plates

2"x2"x1/8"x10" Perforated Galv. Steel Post (Telespar Sign Post or Equiv.)

2¼"x2¼"x1/8"x36" Anchor Sleeve Set in 9" Dia. Concrete
Notes:

1. Excavation below subgrade - backfill compaction shall not be less than 95% of AASHTO T-99.

2. Grade W crushed base course aggregate compaction shall not be less than 95% of AASHTO T-99.
Notes:

1. Excavation below subgrade - backfill compaction shall not be less than 95% of AASHTO T-99.

2. Grade W crushed base course aggregate compaction shall not be less than 95% of AASHTO T-99.

3. Prime coat may be required at the option of the City.

4. Bituminous pavement shall be compacted to not less than 95% of maximum lab density.
Notes:

1. Excavation below subgrade - backfill compaction shall not be less than 95% of AASHTO T-99.

2. Grade W crushed base course aggregate compaction shall not be less than 95% of AASHTO T-99.

3. Edges of existing pavement and concrete shall be tackd with SS-1 emulsion or approved equal.

4. Prime coat may be required at the option of the City.

5. Bituminous pavement shall be compacted to not less than 95% of maximum lab density.
2" Bituminous Mat Surface and Chip Seal Coat
Type "C" Cover Coat Aggregate

1% to 2% Crown

Compacted Sub Grade as Required

"W" Grade Crushed Gravel

Excavation below subgrade and compacted backfill as required

Note:

1. Excavation below subgrade - backfill compaction shall not be less than 95% of AASHTO T-99.

2. Grade "W" crushed base course aggregate compaction shall not be less than 95% of AASHTO T-99.

3. Edges of existing pavement and concrete shall be tacked with SS-1 emulsion or approved equal.

4. Prime coat may be required at the option of the City.

5. Bituminous pavement shall be compacted to not less than 95% of maximum lab density.
NOTE: 1) Adjust water valves upward or downward as required. Final adjustment shall be made after paving and before seal coating. No payment shall be made for adjustment of new valves to final grade.

2) When Concrete Collar is poured abutting to concrete pavement, depth should equal that of pavement section.
NOTE: Adjust manholes upward with brick & mortar or adjusting rings under frame. Adjust manhole downward by removing a portion of the manhole riser and rebuilding to proper diameter. Slope manhole ring as required to match longitudinal & transverse grade on street. Final manhole adjustment will be made after paving and before seal coating. No payment shall be made for adjustment of new manholes to final grade.
Notes:

1. Subgrade to be shaped and compaction shall not be less than 95% of AASHTO T-99.

2. Grade "H" crushed surface course aggregate compaction shall not be less than 95% of AASHTO T-99.
This portion paid for as wheelchair ramp

Perspective

Ramp

Section A-A

1" lip for blind

Slope of ramp to be 1 1/4"/ft or flatter

Section B-B

Compacted subgrad

CITY OF LANDER
STANDARD SPECIFICATIONS
SCALE: NONE
WHEELCHAIR RAMP
(TYPE "B")
STANDARD DRAWING
NO. 504.04
1" lip for blind

This portion paid for as wheelchair ramp

1" lip for blind

This portion paid for as Curb Turn Fillet

Ramp Varies 4'-0" Min Varies

SECTION A-A

Pavement 2'-6" Ramp

1" lip for blind

Slop of ramp to be 1"/ft. (12:1) or flatter

Compacted subgrade

SECTION B-B

6"
Property Lines

20' Alley

14' Alley and 10' Minimum
for Driveway Approaches

5'

1" Lip for Blind

6"

Slope of Ramp to be 1\(\frac{1}{4}\)"/Ft.

Compacted Subgrade

2'-6"

4'-0"

CITY OF LANDER
STANDARD SPECIFICATIONS

SCALE
NONE

ALLEY AND DRIVeway APPROACH

STANDARD
DRAWING
NO. 504-02
Valley Gutter-Construct after aggregate base courses are complete at locations Required.

PLAN-WITH FILLET

Curb Turn

Curb Turn Fillet

30' 15' Rad.
Unless Otherwise Noted

AS SHOWN ON THE PLANS

SECTION A-A

6"-or to depth of Abutting Paving Section when Concrete Paving
is used.
TYPE "B" ROLLOVER CURB & GUTTER WITH SIDEWALK

Variable Per Plans
1" Slope

4" Monolithic Pour

4" 2'-6"

TYPE "A" TYPICAL CURB & GUTTER WITH SIDEWALK

NOTE:
1. Subgrade Compaction shall conform to Section 601.04
2. 3/4" expansion joint material shall be placed at immovable structures and at points of curvature for short radius curves
3. * Contraction joints shall be placed at every 10' of curb length and shall have a minimum depth of 3/4" and minimum width of 1/8".
4. No curb and gutter shall be placed without a final form inspection by the Engineer.
5. Class A concrete shall be used.

* Contraction joints shall be constructed by sawing or scoring. When scoring, a tool shall be used which will leave corners rounded and destroy aggregate interlock for specified minimum depth.
Notes:

1. A typical length of slotted drain is twenty (20) feet. Installations should be in multiples of ten (10) feet unless situations dictate otherwise.
2. All slotted drain materials and hardware shall be galvanized.
3. Metal end plugs shall be provided for the closed end of each installation. The end plugs shall be the same gage as the pipe.
4. All joints and end plugs shall be watertight.
5. Close riveted soldered annular or continuously welded helical pipe shall be used and shall be watertight. All pipe shall have annular corrugations or rerolled ends.
6. Two gaskets shall be required for each coupling band or joint shall be rendered watertight by methods approved by the Engineer.
7. The slot shall be covered with an acceptable material during paving operation and installation of curb and gutter.
8. Anchors shall be 1/2" Ø x 3" galvanized bolts and nuts. The nuts shall be welded in the shop to the slot on two (2) foot centers. The bolts shall be added just prior to installation to prevent damage.
9. Clearance shall be provided between the top of the slot and the top of the gutter section to prevent any direct wheel loading on the slot.
10. A 12" x 18" grated inlet, clean out box shall be located on the lower end of the slotted drain, R-1878-B1 Neenah frame and grate or equivalent to be installed.
Note: Curb radius point should fall at edge of basin.

Neenah R-3296-A curb inlet, frame, grate, curb box (or equivalent) grate DR

Granular Base 95% optimum compaction

Pipe size varies when leaving

Φ4 0 @ 12"

Φ4 0 @ 12"

DOUBLE INLET
Note: Curb radius point should fall at edge of basin.

Neenah R-3246-B curb inlet frame, grate, curb box (or equivalent) grate DR

Pipe size varies when leaving

Granular Base
95% optimum compaction

Note: 48" Class 3 pipe may be used with 6" top slab for catch basin.

SINGLE INLET
NOTES:

1. The casing pipe shall have a minimum diameter of 1.25 times O.D. of the carrier pipe.

2. Sewer crossings larger than 10 inches shall be designed on an individual basis.
NOTE: 1) Sewer service pipe shall be either PVC ASTM D-3034 (SDR-35).

2) Sewer service lines shall be installed where shown on the drawings or as specified.

3) Bedding shall be either a well graded sand, sand gravel mixture or gravel to a point 12 inches above the top of the pipe.
NOTE:
1. SLOPE ALL SHELVES TO CHANNEL AT 1" PER FOOT.
2. SEE PLAN-PROFILE SHEETS FOR SLOPE OF CHANNEL.
### Table

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<th>O.D.</th>
<th>REIN.</th>
<th>WT.</th>
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<td>72&quot;</td>
<td>92&quot;</td>
<td>#4 @ 6&quot; Each Way</td>
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</table>

**Note:** Bases may be precast as square unit with written approval of engineer.
Standard Casting: Manhole Ring & Cover with Solid Cover or Equal. Ring & Cover shall be adjusted to Crown & Grade of street.

Precast reinforced concrete manhole riser & eccentric cone top manufactured in accordance with ASTM designation C-478.

NOTE: 1) All joints between manhole sections, manhole ring & top section, & around sewer pipe into manhole shall be watertight. Jointing material shall be "Ram-Nek" or equal.
2) All steps shall be a minimum of 12" & a maximum of 16" spacing.
Recess concrete collar 1/2" below top of pavement.
Recess manhole cover 1/2" below concrete collar.

NOTE: Adjust manholes upward with brick & mortar or adjusting rings under frame. Adjust manhole downward by removing a portion of the manhole riser and rebuilding to proper diameter. Slide manhole ring as required to meet longitudinal & transverse grade on street. Final manhole adjustment will be made after paving and before seal coating. No payments shall be made for adjustment of new manholes to final grade.
Curb Box cast iron, Mueller H-10314 arch pattern, 5' x 7' extension.

2'' service line type K seamless copper water tube, conforming to ASTM Spec. B88-62

2'' Corporation Stop Mueller H-15000

2'' Curb Box Mueller H-15126, with drain

SIDE VIEW

NOTE: 1. PVC mains and DI mains 8'' or less in diameter — use corporation saddle.

2. DI mains 10'' or greater — may be tapped directly.
NOTE: 1) Water Service lines shall have a minimum cover of 6.5 feet measured from the existing ground surface.

2) Water service lines shall be installed where shown on the drawings or as specified.

3) Bedding shall be 1\(\frac{1}{2}\)" dia. maximum within 12" of service pipe.
CITY OF LANDER
STANDARD SPECIFICATIONS

SCALE:
NONE

WATER METER VAULT

Standard
Drawing
NO203003

Alum. Frost Proof Meter Box Cover
Badger Water Meter
18" Orange Burg Pit X 36" or 42"

Meter Readout
Redwood Post
Install PVC Conduit
Meter Horn Loop with Valve
NOTE: 1) ADJUST WATER VALVES UPWARD OR DOWNWARD AS REQUIRED. FINAL ADJUSTMENT SHALL BE MADE AFTER PAVING AND BEFORE SEAL COATING. NO PAYMENT SHALL BE MADE FOR ADJUSTMENT OF NEW VALVES TO FINAL GRADE.

2) * WHEN CONCRETE COLLAR IS POURED ABUTTING CONCRETE PAVEMENT, DEPTH SHOULD EQUAL THAT OF PAVEMENT SECTION.

3) Recess concrete collar 1/2" below top of pavement
   Recess water valve cover 1/2" below concrete collar
NOTE: Coat rods with "Koppers" Bitumastic No. 50 coating or equal.

THRUSt BLOCK DIMENSIONS

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<th>ANCHOR ROD SIZE</th>
<th>VALVE SIZE</th>
<th>3/4&quot;</th>
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NOTE: 1) Pressures shown above are maximum working pressure in system.

2) To be installed as called for and at locations as shown on plans.
### Dimension for Thrust Blocking

<table>
<thead>
<tr>
<th>Fitting Sizes</th>
<th>Tees &amp; Plugs</th>
<th>90° Bend</th>
<th>45° Bend &amp; Wyes</th>
<th>Reducers, 11(^\circ) &amp; 22(^\circ) Bends</th>
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**Note:** This table is based on 150 PSI Main Pressure 2000 PSF Soil Bearing Pressure. Wrap all fittings with polyethylene.

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**City of Lander Standard Specifications**

<table>
<thead>
<tr>
<th>Scale:</th>
<th>THRUST BLOCKING FOR WATER MAIN FITTINGS</th>
<th>Standard Drawing No: 301-01</th>
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<tbody>
<tr>
<td>None</td>
<td>Water Main Fittings</td>
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</table>
Edge of Pavement Shall be Cut and Tacked
Existing Bituminous Pavement

Trench Width

Trench Width Plus 2'

Bituminous Pavement Replacement

Grade W Crushed Base Course Aggregate Replacement

Notes:

1. Depth of pavement replacement shall equal original depth or a minimum depth of 3 inches, whichever is greater, placed in two layers.

2. Depth of untreated base course aggregate shall equal original depth with a minimum depth of 6 inches.

3. Edges of pavement and concrete shall be tacked with SS-1 emulsion or approved equal.

4. Grade W crushed base course aggregate compaction shall not be less than 95% or AASHTO T-99.

5. Bituminous pavement shall be compacted to not less than 95% of maximum lab. density.

6. When hot mix pavement is not available, cold mix pavement may be used, but shall have a minimum depth of four inches (4"), placed in two equal layers.

7. Temporary cold mix patches shall be two inches (2") thick.