GENERAL NOTES:

1. All construction materials, methods and placement not detailed below shall meet or exceed the standards placement of the North Central Texas Council of Governments, October 2004 edition, unless superseded by the guidelines of the FMSC or National Testing Policies.

2. See Sheet P-3 for paving general notes.

3. See paving detail sheets for sidewalk, curb, jointing, striping and other related construction details.

4. All curbs must be monolithic.

5. When design speed is 50 mph or greater, the finish shall be transverse with traffic lanes and shall be steel tied broom finish.

STANDARD SECTION

N.T.S.

A. 8" concrete pavement with monolithic curb with 83 steel reinforcing bars on 18" centers both ways in center of slabs.

B. 8" line surcharge (See Sheet P-3, note G).

C. Fill Embankments (extending to edge of slopes) shall be compacted to a minimum of 95% ASTM 608 in maximum 12" loose, 6" compacted layers. Moisture shall be optimum and above.

NOTE:

Provide erosion control blanket on slopes greater than 2" high.

LEFT TURN SECTION

N.T.S.

6 - LANE DIVIDED PRINCIPLE ARTERIAL TYPICAL SECTIONS

TYPICAL STREET SECTIONS:

ARTERIALS

CITY OF MANSFIELD

STANDARD CONSTRUCTION DETAILS

PAVING

DATE: MAR. 2006

SHEET NO: P-1
GENERAL NOTES:

1. ALL CONSTRUCTION MATERIALS, METHODS AND PLACEMENT ARE TO BE IN ACCORDANCE WITH THE STANDARD PAVING SPECIFICATIONS OF THE CITY OF MANSFIELD AND THE CITY OF MANSFIELD ENGINEERING DEPARTMENT. MATERIALS TO BE USED ARE TO BE CONFORM TO THE CITY OF MANSFIELD STANDARDS FOR MATERIALS.

2. PVC TO BE INSTALLED CONTINUOUS ACROSS INTERSECTION, EXTENDING 5' BEYOND CURB OR PAVE STONES, TERMINATING IN FULL BOX WHEN REACHING A RELIEF ON THE CURB OR PAVE STONES.

3. RED WATERBOARD TAPE IS TO BE APPLIED TO THE END OF THE CURB OR PAVE STONES WHERE THE CONDUCTORS終止

4. THE LOCATION OF THE CURB OR PAVE STONES WHERE THE CONDUCTORS END.

5. A MESH CORD SHOULD BE PLACED IN ALONG THE CURB OR PAVE STONES AT A EXTEND A MINIMUM 5' FROM THE END OF THE CURB.

6. ALL CONDUCTORS SHOULD BE PLACED ALONG THE CURB WITH A BURIED DEPTH OF 3'-0" BELOW FINISHED GRADE AND BE SPACED ONE FOOT APART.

7. PVC CONDUCT PLACEMENT SHALL BE BETWEEN CENTER LINES OF ELECTRICAL CONDUCTORS ON STREETS RUNNING NORTH & SOUTH & NORTH & NORTH OF CENTERLINE OF ELECTRIC CONDUCTORS ON STREETS RUNNING EAST & WEST.

8. CONDUCTORS TO BE NATIONALLY MATERIAL MECHANICALLY TAPED TO SIDE OF AWM 0633, OPTIMUM MOUNTING OR ABOVE PER NOTICES.

MEDIAN planting STONE DETAIL

1/2" expansion joint material between curb & grade, unless otherwise directed by engineer.

EDGE STONES ARE MOLDED OR FIELD CUT

REINFORCED CONCRETE CURB WITH #4 BARS 0.18" C/C

MAXIMUM 4" CLASS "A" CONCRETE (303.3.4.4.3)

CONCRETE MEDIAN CAP

N.S.

SECTION

EXPANSION JOINTS:
- ASPHALT IMPREGNATED FIBER BOARD W/ PLASTIC COVER STRIP
- REMOVED BEFORE CURING
- EXPANSION JOINT FILLED W/ CONCRETE OF MEDIAN PAVEMENT
- PROVIDE 0.5" ISOLATION JORES AROUND LIGHT STANDARDS.

PLAN

TYPICAL CROSS SECTION

N.S.

MEDIAN TO MEDIAN CROSSINGS:
- 3" & 1-1/4" SCH. 40 PVC CONDUIT FOR IRRIGATION
- 1-1/4" SCH. 40 PVC CONDUIT FOR ELECTRICAL (GRAY) SEE GENERAL NOTES

CONDUIT

INTERSECTION CROSSINGS:
- 2-4" SCH. 40 PVC CONDUITS (PER CROSSING)

N.S.

POSTING/SIGN DETAIL

SHEET FOR TYPICAL LANE STRIPING

LEFT TURN LANE & CONDUIT DETAILS

N.S.

1. ALL DIMENSIONS ARE TO BE BACK OF CURB UNLESS NOTED OTHERWISE.

2. TURN LANE TO BE 11'-0" TO FACE OF CURB.

3. MEDIAN HOSES TO BE SEMI-CIRCLES.

CITY OF MANSFIELD
ENGINEERING DEPARTMENT

PAVING DATE: MAR, 2005 SHEET NO. 1-2
GENERAL NOTES:

1. ALL CONSTRUCTION MATERIALS, METHODS AND PRACTICE NOT DETAILED BELOW SHALL MEET OR EXCEED THE STANDARD SPECIFICATIONS OF THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS. OCTOBER 2004 EDITION LAID箸 BY CITY OF MANSFIELD.

2. CONCRETE FOR MACHINE PAVING TO BE Class P4 and CONCRETE FOR HAND PAVING TO BE Class P2 per Notes. Sec. 303.5.4. ALL CONCRETE SHALL MEET DUSTED AIR ENTRAINING AGENT TO YIELD 0.4% AIR CONTENT. ALL OTHER ADDITIVES SHALL REQUIRE THE PERMISSION OF THE ENGINEERING DEPARTMENT. ALL W.S. SPOILS TO BE MINIMUM CRUSHED STONE WITH A MAXIMUM COARSE AGGREGATE SIZE OF 8". FLY ASH MAY BE USED IN ANY DESIGNS AS DETAILED IN NOTES. Sec. 303.4

3. APPROVED WHITE PIGMENTED CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE PAVEMENT AS SOON AS IT HAS BEEN PLACED AND FINISHED. Sec. 303.5.4

4. A DRAINAGE TROUBLE SHOOTING MACHINE THAT INCORPORATES AN AUDIBLE/STRIKE OFF HEAD HYDRAULICALLY FORCED, MOTOR IN HEAD, VARIABLE SPEED, INDEPENDENTLY CONTROLLED VIBRATORS (MIN. 4 HERTZ 2" DIAMETER HEADS MIN. SPACE 2" APRM. MAX.) AND AN INTEGRAL MONITORING VIBRATED "CURE MILE" HAND PLACEMENT OF STREET PAVEMENT MILL ONLY, IS ALLOWED FOR AREAS NOT POSSIBLE WITH A MACHINE (EX. CURB, SIDEWALK, INTERSECTIONS, ETC.), MIN. 300 BLOK AT A TIME, ETC.

5. CITY OF MANSFIELD SHALL REVIEW LINE SERIES RECOMMENDATION FROM GEOTECHNICAL ENGINEER TO DETERMINE PERCENTAGE OF ON OR OFF HOOK CEMENT NEEDED TO PREPARE SUBGRADE. 8" IN 300 LF. WILL BE MINIMUM LIME CONTENT. ALL SUBGRADE DEPTH SHALL BE X" SEE C.O.M. MATERIAL TESTING POLICY FOR ADDITIONAL INFORMATION.

6. ON CONCRETE STREETS, ALL MILLS SHALL BE SEPARATED FROM THE PAVEMENT AND CURB BY BLOCKING OUT AS SHOWN ON DETAIL SHEET. SEE SHEET P-7 & S-10. WHEN A JOINT FALLS WITHIN 5" OF A DRAINAGE PIPE OR OTHER STRUCTURE, SHORTEN ONE OR MORE JOINTS TO WATCH BLOCKED OUT CORNERS. JOINTS SHALL BE PLACED PER M.S.T.P.

7. ALL REINFORCING STEEL SHALL BE PLACED TO A MINIMUM OF 0" FROM THE CURB FACING CONCRETE PAVEMENT. STEEL SHALL BE PLACED IN A MINIMUM OF 0" OF COVER FOR DON BARR OR OTHER, WHERE REINFORCING BARS ARE SPACED A 30" DIAMETER OF SPACE.

8. SEE DETAIL SHEET P-7 FOR DETAILS ON JOINTS FOR CONCRETE PAVEMENT MATERIALS AND SEALANT.

9. THE CONTRACTOR SHALL INSTALL SUPPORTING CHASIS WITH PLATES OF BARRIER FOR REINFORCING STEEL ON A ONE SQUARE YARD SPACE IN ALL CONCRETE PAVEMENT.

10. PAVED TO INSTALL DIPPER PLACES IN PIPES DEVE OF ALL WARRANE ON FALSE BOTTOMS IN "IN SERVICE" WARRANRES PRIOR TO EXCAVATION OR SUBGRADE PREPARATION.

11. ALL 1" LANE SPREADS ON LARGE LAMBS SHALL HAVE SUBMERS INSTALLED AT BACK OF CEMENT MIXING TRANSPORTER. THIS IS ANTICIPATED TO BE EXTENDED. CITY ENGINEER SHALL DETERMINE LOCATIONS (SEE SHEET P-7).

TYPICAL STREET SECTIONS:

RESIDENTIAL AND COLLECTORS

CITY OF MANSFIELD

STANDARD CONSTRUCTION DETAILS

PAYING

DATE: MAR. 2006

SHEET NO: P-3
GENERAL NOTES:
1. ALL CONSTRUCTION MATERIALS, METHODS AND PLACEMENT NOT DETAILED BELOW SHALL MEET OR EXCEED THE STANDARD SPECIFICATIONS OF THE NORTH CENTRAL TEXAS COAG, OR GOVERNMENTS, OTHERS OR OTHER SPECIFICATIONS.  REFER TO SECTION A OF MANSFIELD STANDARD SPECIFICATIONS OR ALTERNATE SUSTAINING SHEETS.
2. ALL CONCRETE SHALL MEET THE QUALITY ON GENERAL PAVING STANDARDS SHEET AND SHALL RECEIVE A MUSHY BRUSH FINISH.
3. DRIVE APPROACH BLOCK CUTS OUT TO 7" FROM BACK OF CURB INTO SLAB AND EXTEND FROM CURB RETURN TO CURB RETURN.
4. ALL CONCRETE SHALL BE CLASS "C" CONTAINING A MINIMUM OF 6 SACKS OF TYPE 1 CEMENT PER YARD AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS (3000 F.S-25). AGGREGATE SHALL CONSIST OF A MINIMUM OF 50% GRANITE STONE (1" MAX.). ALL CONCRETE PLACED SHALL CONTAIN A SUPERFECT ANTI-ENTRANCE AGENT TO HELP MINIMIZE AIR CONTENT. ALL OTHER MATERIALS TO BE ACCORDING TO SECTIONS OF STANDARDS.
5. FLY ASH MAY BE USED IN MIX DESIGNS AS DETAILED IN NCTCOG ITEM 3503.14.

SECTION A-A

NOTES:
1. EXISTING CURB AND GUTTER, IF ANY, MUST BE SAVED.
2. REINFORCE DRIVE WITH 2# BARS AT 18" O.C. SUPPORTED BY STANDARD CHAIRS (3" MAX. SPACING).
3. SIDEWALK SECTION THRU DRIVEWAY TO BE THE SAME THICKNESS AS THE DRIVEWAY APPROACH & TOOOLED TO MATCH SIDEWALK.
4. COMPACT SUBGRADE TO MINIMUM 800 CFM DRY, OPTIMUM MOISTURE CONTENT OR ABOVE.
5. DRILL INTO EXISTING STREET AT 18" CENTERS PER DETAIL SHT. P-5, BUTT JOINT DETAIL.
6. DRIVEWAY CURB CUT SHALL NOT EXTEND INTO INTERSECTION RADIUS OR CURB INLET TRANSITION.

RESIDENTIAL DRIVE APPROACH

SECTION B-B

NOTES:
1. EXISTING CURB AND GUTTER, IF ANY, MUST BE SAVED.
2. REINFORCE DRIVE WITH 2# BARS AT 12" O.C. SUPPORTED BY STANDARD CHAIRS (3" MAX. SPACING).
3. SIDEWALK SECTION THRU DRIVEWAY TO BE THE SAME THICKNESS AS THE DRIVEWAY APPROACH & TOOOLED TO MATCH SIDEWALK.
4. COMPACT SUBGRADE TO MINIMUM 800 CFM DRY, OPTIMUM MOISTURE CONTENT OR ABOVE.
5. DRILL INTO EXISTING STREET AT 12" CENTERS PER DETAIL SHT. P-5, BUTT JOINT DETAIL.
6. DRIVEWAY CURB CUT SHALL NOT EXTEND INTO INTERSECTION RADIUS OR CURB INLET TRANSITION.

COMMERCIAL DRIVE APPROACH

TYPICAL SECTION - MONOLITHIC CURB

NOTE:
BASE-4" CRUSHED STONE BASE, ASPHALT-6" BINDER BASE, COMPACTED TO A MINIMUM OF 95% OF STANDARD PROGRESS AT OPTIMUM MOISTURE OR 95%.
TACK COAT = 0.05 GAL./FLY. OF MC = 30 TO BE APPLIED IF SURFACE OF HAAS IS OPENED TO TRAFFIC OR ALLOWED TO SET BETWEEN PLACEMENTS.

TEMPORARY ASPHALT TRANSITION DETAIL

NOTE:
BASE-4" CRUSHED STONE BASE, ASPHALT-6" BINDER BASE, COMPACTED TO A MINIMUM OF 95% OF STANDARD PROGRESS AT OPTIMUM MOISTURE OR 95%.
TACK COAT = 0.05 GAL./FLY. OF MC = 30 TO BE APPLIED IF SURFACE OF HAAS IS OPENED TO TRAFFIC OR ALLOWED TO SET BETWEEN PLACEMENTS.

CITY OF MANSFIELD
STANDARD CONSTRUCTION DETAILS

DATE: MAR. 2006

PAVING

SHEET NO. P-4
PERMANENT BARRICADE DETAILS

NOTES FOR PERMANENT TYPE BARRICADE:

1. All construction materials, methods and placement not detailed above shall meet or exceed the standard specifications of the North Central Texas Council of Governments, October 2004 edition, unless superseded by City of Mansfield standards.

2. All installation shall be of new materials. Metal flex-beam guardrail shall be 2 1/2" O.D. galvanized as per AWS A5.5. Substitutions of any item shall be approved by the Engineering Department prior to installation.

3. All posts shall be wood treated for ground contact. Square 6" x 6" posts (also treated) may be substituted, provided the top of each post is beveled a minimum of 10 degrees.

4. All bolts, washers, or hardware shall be galvanized to resist rust. Bolts shall be of sufficient length to extend through the thickness of the beam and be securely attached.

5. Posts shall not be concreted in place, but shall instead be backfilled with well-compacted soil.

6. Steelhead barriers should have slope slope downward in the direction toward which traffic must turn in detours. Ips above right and left turns are provided for, or there is no turn provided for, the center slope may slope downward in both directions from the center of barrier.

ELEVATION

NOTE: Diagonal red reflective tape shall be applied on the face of all guard panels. The full face of the panel shall be covered.

METAL BEAM DETAIL

POST DETAIL

SUBDRAIN DETAIL

NOTES FOR SUBDRAIN DETAIL:

1. All subdrain pipes to be 4" diameter.

2. Filler material around subdrain pipes shall be 1" crushed stone, native 50/40/20/10 aggregate grade A.

3. Subdrain pipe material shall be perforated PVC pipe or perforated polyethylene pipe encased in filter fabric sleeve.

4. All subdrains shall be installed after pavement and prior to sidewalk.

5. Cleanouts w/concrete pads (per sheet 35-2) shall be placed at 12' intervals along subdrain and at the upstream end of line.

6. Connection to inlet shall be made with a section of 4" schedule 40 PVC pipe and the pipe size will be at time of inlet construction. The subdrain will then be adapted to the perforated pipe.

GROUNDFABRIC

TYPICAL SECTION

BARRICADE & SUBDRAIN DETAILS

CITY OF MANSFIELD

STANDARD CONSTRUCTION DETAILS

PAVING

DATE: MAR. 2006 SHEET NO. P-7
GENERAL NOTES:

1. ALL CONSTRUCTION MATERIALS, METHODS AND PLACEMENTS NOT DETAILED BELOW SHALL MEET OR EXCEED THE STANDARD SPECIFICATIONS OF THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, OCTOBER 2004 EDITION UNLESS SUPERSEDED BY CITY OF MANSFIELD STANDARD SPECIFICATIONS OR MATERIAL TESTING POLICIES.

2. ALL CONCRETE SHALL BE CLASS "C", (192-14#). AGGREGATE SHALL CONSIST OF A MINIMUM OF 50% CRUSHED STONE (1" MAX). ALL CONCRETE PLACED SHALL CONTAIN SUFFICIENT AIR ENTRAINING AGENT TO YEILD A (4, 140), AIR CONTENT. ALL OTHER ADDITIVES SHALL REQUIRE THE PERMISSION OF THE ENGINEERING DEPARTMENT.

3. ALL INLETS SHALL BE SEPARATED FROM THE PAVEMENT AND CURB BY BLODDING OUT AROUND INLETS AS SHOWN.

4. ALL REINFORCING STEEL SHALL BE DEFORMED BARS (MILD 4-8TH GRADE NO. 6). REINFORCING STEEL SHALL BE PLACED WITH A MINIMUM OF 1-1/2" COVER.

5. WHERE REINFORCING BARS ARE DELETED, A MINIMUM 30 DEGREE LAY SHALL BE USED. MANUFACTURED BARS ON FAC TORY MADE "T" BARS SHALL BE USED IN ALL CORNERS, AND SHALL BE COVERED WITH 3/4" MINIMUM DIAMETER SCREED.

6. INLETS LARGER THAN 10" SHALL HAVE TWO (2) LEGS. ONE TO BE LOCATED OVER GUTTER AND THE OTHER LOCATED ON THE OPPOSITE SIDE OF THE STEP DETAILS.

7. LOW PROFILE CAST IRON LEGS ARE DESIGNED WITH AN ATTACHED CHAIN EMBEDDED IN CONCRETE (WITH HAYES CHAIN).

8. PRE-CAST INLETS WILL NOT BE PERMITTED.

STORM DRAIN

STANDARD CONSTRUCTION DETAILS

CITY OF MANSFIELD

DATE: MAR. 2006

SHEET NO. SD-1
WHERE NECESSARY REFER TO TRENCH DETAILS
FOR PAVEMENT REPAIR (SHEET M-1).

NOTE:
DELETE CRUSHED STONE EMBEDMENT WITHIN 1'2"
OF DISCHARGE POINT AND AT EVERY 1'0" INTERVAL
FOR 6" ALONG TRENCH, BACK FILL WITH
COMPACTED CLAY SOILS TO DISCOURAGE WATER
MOVEMENT DOWN TRENCH.

STORM DRAIN PIPE EMBEDMENT DETAIL
N.T.S.

CONCRETE COLLAR DETAIL
N.T.S.

BAFFLE DETAIL AT CULVERT OUTLET
N.T.S.
CULVERT RAIL DETAIL

NOTE: MAX. POST SPACING 8'-4"

SECTION X-X
NEOPRENE SEAT PAD

CITY OF MANSFIELD
STANDARD CONSTRUCTION DETAILS
STORM DRAIN DATE: MAR. 2006 SHEET NO. SD-4
### General Notes:

1. All exposed corners shall be chamfered 1/4".
2. Reinforcing Steel shall be placed with the center of the outside layer of Bars 3/4" from the surface of the concrete. Total quantities include one 30" diameter lap for all bars over 60" in length.
3. See Sheet SD-3 for concrete requirements.
4. Pre-cast headwalls will not be allowed for pipe sizes larger than 30".

### Table of Dimensions and Quantities for Pipe Headwalls

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<tr>
<th>Bar Type</th>
<th>Quantity</th>
<th>Size</th>
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<tbody>
<tr>
<td>A</td>
<td>10</td>
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<tr>
<td>B</td>
<td>20</td>
<td>5/8&quot;</td>
</tr>
<tr>
<td>C</td>
<td>15</td>
<td>3/4&quot;</td>
</tr>
</tbody>
</table>

### Elevation Type A

![Elevation Type A](image1.png)

### Elevation Multiple Type A

![Elevation Multiple Type A](image2.png)

### Centerline Section

![Centerline Section](image3.png)

### Plan Type A

![Plan Type A](image4.png)

### Plan Multiple Type A

![Plan Multiple Type A](image5.png)

* Concrete quantities increase slightly for metal pipe installations.

---

**City of Mansfield**

**Standard Construction Details**

**Storm Drain**

**Date:** Mar. 2006  
**Sheet No:** SD-5
**Water Lines Lowering**

**Notes:**
1. Refer to construction plans for top of water line elevation at crossing.
2. Refer to construction plans for crossing details for 12" and larger pipes.
3. All joints to be restrained with retainer clamps.

---

**Marker Installation Detail**

**Notes:**
1. Markers to be installed in undeveloped areas or as directed by inspector.
2. Markers are available from utility department via inspector.

---

**Minimum Required Bearing Area in Square Feet**

<table>
<thead>
<tr>
<th>Pipe Size</th>
<th>Plugs &amp; Tees</th>
<th>30° Bends</th>
<th>45° Bends</th>
<th>22 1/2° Bends</th>
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<tr>
<td>4&quot; 8&quot;</td>
<td>2.2</td>
<td>3.0</td>
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<td>3.8</td>
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<td>12.0</td>
<td>6.5</td>
<td>3.4</td>
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To be a minimum of 18"

**Notes:**
1. Thrust blocks shall be placed or formed in such position that all bolts remain accessible.
2. All blocking shall be placed against undisturbed firm trench wall.
3. Blocking areas shown above are based on 150 psi pipe pressure and minimum soil bearing of 2000 psi.
4. All vertical pipes shall be restrained with retainer clamps. Horizontal fittings to be restrained as needed per engineer or inspector.

**Dimensions of Concrete for Thrust Blocks at Fittings**

**Gate Valve, Blocking, Marker, & Lowering Details**

**City of Mansfield**

**Standard Construction Details**

**Water**

**Date:** Mar. 2006

**Sheet No:** W-2
GENERAL NOTES:

1. CENTER OF F.I. BARELL SHALL BE A 70.5' OR MORE THAN 3.5' BEAK OF CURB OR EDGE OF PATHMENT, UNLESS OTHERWISE APPROVED BY THE ENGINEERING DEPARTMENT.
2. ON PRIVATE CONTRACTS, THE DEVELOPER'S ENGINEER WLL STAKE F.I. HORIZONTAL LOCATION AND FLANGE ELEVATION.
3. PIPE BARELLS SHALL BE INSTALLED SIMPLY AND PAINTED AFTER INSTALLATION.
4. BARELLS SHALL BE COATED WITH HYDRANT FLANGE, PIPE, OR TANDEM GATE FANS. THE COLOR SHALL BE ALUMINUM.
5. PIPE BARELLS ON FIVE LINES IN EXCESS OF 500 REQUIRE DOUBLE-CHECK ASSEMBLY AT MAN (SEE SHEET W-4)
6. ALL HYDRANT EXTENSIONS SHALL HAVE BREAKAWAY FLANGE AND STEER COUPLING.
7. BLOCKING OF FIRE HYDRANT SHALL BE REQUIRED FOR EXTENSIONS ACROSS STREETS FROM MAINS OF LENGTHS LONGER THAN ONE JOINT OF PIPE.
8. BARELL BARELL ON FIRE HYDRANT SHALL NOT EXCEED 7'-0". IF NEEDED, BARELL BARELLS MAY BE USED TO ACHIEVE BASE LEVEL WITHOUT CROSSING 7'-0" LOWER BARELL BARELLS. ALL PIPING TO BE DEUCE IRON.

FIRE HYDRANT, TEMPORARY FLUSH VALVE, & BORE DETAILS

CITY OF MANSFIELD

STANDARD CONSTRUCTION DETAILS

DATE: MAR. 2006

SHEET NO: W-4
GENERAL NOTES:
1. ALL BACKFLOW PREVENTER VAULTS SHALL BE PRECAST AND DELIVERED WITH ALL INTERNAL PIPING AND PARTS COMPLETE.
2. ALL PIPE MUST BE DUCTILE IRON & ALL FITTINGS MUST BE FLOATED IN VAULT.
3. ALL VALVES SHALL BE MICRONS 7" WITH DESIGN STRENGTH OF 2000 PSI @ 250°F.
4. UNIT IS OF MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF VAULT WITH SECTIONAL RISER TO BE DESIGNED.
5. GRADE BE MITRED, STEEL REPAIRS CONFORMING TO ASTMA 370 REQUIRED CENTERS OR EQUAL.
6. ALUMINUM DIAMOND PLATE COVER WITH ENCRUSTED ALUMINUM FRAME. HATCH TO BE FURNISHED WITH 316 SS, SNAP LOCK & STAINLESS HINGES.
7. BACKFLOW ASSEMBLY SHALL BE FACTORY ASSEMBLED IN VAULT & HYDROSTASTICALLY TESTED PRIOR TO DELIVERY.
8. MODEL NUMBERS ARE FOR PARK EQUIPMENT COMPANY, MODELS ARE DBEP-WF FIRE SERVICE, OR DB-W (DOMESTIC). UNITS BY OTHER MANUFACTURERS MUST BE SUBMITTED TO BE APPROVED AS EQUIVALENT.

![Diagram of Backflow Prevention System]

NAMEPLATE INDICATING:
U.S.C. CERTIFIED
U.L. BACKFLOW PREVENTER

PLAN VIEW

CENTRED OVER BACKFLOW ALUMINUM HATCHWAY
300 P.S.F. - SPRING ASSISTED

ELEVATION

DOMESTIC DOUBLE-CHECK ASSEMBLY

APPROVED GATE VALVES: MULLER, KENNEDY, CLOW WATERUS, & H

3" & LARGER BACKFLOW PREVENTION DEVICE DETAILS

CITY OF MANSFIELD

STANDARD CONSTRUCTION DETAILS

WATER

DATE: MAR. 2006

SHEET NO: W-6
GENERAL NOTES:

1. TRENCH BACK FILL: ITEM 504 NTDPC STANDARD SPECIFICATIONS, MECHANICALLY TAMP WITH NATIVE MATERIAL EXCULDED FROM TRENCHES UNLESS OTHERWISE DIRECTED ON PLAN. MECHANICALLY TAMPP IN MAXIMUM 12" LOOSE, 4" COMPACTED LAYERS TO 60 IN. ASTM C-68. BRING MOISTURE CONTENT TO OPTIMUM OR ABOVE PRIOR TO COMPACTION. BACK FILL FOR OPEN CUTS IN EXISTING PIPED RUNWAYS SHALL BE MODIFIED BARRIER BACK FILL PER NTDPC SPEC 504.2.3.5 AT ENGINEER OR INSPECTOR'S DIRECTION.

2. CONCRETE PAVEMENT REPAIR SHALL BE IN A MINIMUM OF ONE HALF PANEL INCREMENTS.

3. REFER TO CITY OF MANSFIELD MATERIAL TESTING POLICIES FOR BACK FILL TESTING PROCEDURES.

4. INCOMPLETE OR INACCURATE, THE CONTRACTOR SHALL PROVIDE A TRENCH SAFETY PLAN WITH SPECIFICALLY ADDRESSED AND IDENTIFIED THE TRENCHES TO BE MAINTAINED IN ACCORDANCE WITH THE STATE OF TEXAS." 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY INSPECTION AND ENFORCEMENT OF SUCH PLAN.

TRENCH DETAILS

CITY OF MANSFIELD

STANDARD CONSTRUCTION DETAILS

DATE: MISCELLANEOUS
MAR. 2006 SHEET NO. M-1
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<th>MIN. PRESS. CLASS</th>
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<td>AWWA C-509</td>
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<td>Butterfly Valves</td>
<td>Cast Iron</td>
<td>AWWA C-504</td>
<td>6” - 12”</td>
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<td>Mueller 2097</td>
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<td>American Flow Control 2500</td>
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<td>Hydrants</td>
<td>Cast &amp; Ductile Iron</td>
<td>AWWA C-503</td>
<td>2” - 4”</td>
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<td>M&amp;H Super Centurian</td>
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<td>Mueller 2360</td>
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<tr>
<td>Meter Box</td>
<td>Plastic</td>
<td>AWWA C-110</td>
<td>1-1/2” &amp; 2”</td>
<td></td>
<td>Plastic Box w/ Cast Iron Lid</td>
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<td>Mueller 15113</td>
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<td>Angle Curb Stops</td>
<td>Brass</td>
<td>AWWA C-110</td>
<td>2” x 3/4”</td>
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<td>Mueller 11013</td>
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<td>Pipe Fittings</td>
<td>Cast Iron</td>
<td>AWWA C-110</td>
<td>2” - 12”</td>
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<td>Domestic &amp; Foreign</td>
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<td>ITEM</td>
<td>MATERIAL</td>
<td>SPECIFICATION</td>
<td>MIN. PRESS. CLASS</td>
<td>SIZE RANGE</td>
<td>MANUFACTURER/ NOTES</td>
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<td>Sewer Pipe</td>
<td>PVC</td>
<td>ASTM D-3034</td>
<td>SDR-35</td>
<td>6&quot; - 15&quot;</td>
<td>SDR-26 for Deep Cover (Greater than 20', Project Specific)</td>
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<td>PVC</td>
<td>ASTM F-679</td>
<td>SDR-26</td>
<td>15&quot; +</td>
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<td>PVC Open Profile</td>
<td>ASTM F-716</td>
<td>SDR-11</td>
<td>6&quot; +</td>
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<td></td>
<td>PVC Dual Wall Corrugated Profile</td>
<td>ASTM F-716</td>
<td>SDR-26</td>
<td>15&quot; +</td>
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<td>Force Main Sewer Pipe</td>
<td>White PVC</td>
<td>AWWA C-900</td>
<td>DR-18</td>
<td>8&quot; - 12&quot;</td>
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<td>PVC</td>
<td>PVC Open Profile</td>
<td>ASTM F-716</td>
<td>15&quot; +</td>
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<tr>
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<td>PVC</td>
<td>PVC Dual Wall Corrugated Profile</td>
<td>ASTM F-716</td>
<td>15&quot; +</td>
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<td>Sewer Fittings</td>
<td>PVC</td>
<td>ASTM D-3034</td>
<td>SDR-35</td>
<td>6&quot; - 24&quot;</td>
<td>Plastic, Trench - Grease Trap</td>
<td>SDR-26 for Deep Cover (Greater than 20', Project Specific)</td>
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<td>Multi-Fitting - Trench Tough Plus</td>
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<td>Cast Iron - Bass &amp; Hayes 339</td>
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<td>Multi-Fitting - Trench Tough Plus</td>
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<td>Cast Iron - Bass &amp; Hayes 339 - Domestic Only</td>
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<td>Multi-Fitting - Trench Tough Plus</td>
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<td>Bass &amp; Hayes 339</td>
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<td>East Jordan Iron Works #2023</td>
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<td>Plastic or Stainless Steel - 6&quot; - 12&quot;</td>
<td>PSI Ranger Midi or Model 90</td>
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<td>Plastic or Stainless Steel - 14&quot; - 30&quot;</td>
<td>PSI Ranger Midi or Model 90</td>
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<td>Storm Drain Pipe</td>
<td>Reinforced Concrete</td>
<td>Class III</td>
<td>36&quot; +</td>
<td>All Public Installations</td>
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<td>Cast Iron - Bass &amp; Hayes 9300-24</td>
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<td>East Jordan Iron Works #2023</td>
<td>Domestic Only (with &quot;Storm Sewer&quot; lettering)</td>
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</table>

**STANDARD CONSTRUCTION DETAILS**

**MATERIAL SPECIFICATIONS**

**CITY OF MANSFIELD**

**MATERIALS**

**DATE:** MAR. 2006

**SH.1 | NO.** MS-2