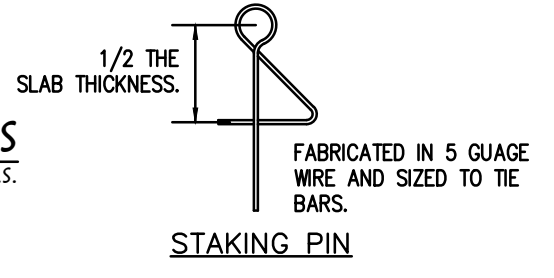


| DOWEL BARS - EPOXY COATED |              |           |
|---------------------------|--------------|-----------|
| PAVEMENT THICKNESS        | BAR SIZE     |           |
|                           | DIAMETER     | LENGTH    |
| 7 INCHES                  | 1 INCH       | 18 INCHES |
| 8 INCHES                  | 1 INCH       | 18 INCHES |
| 9 INCHES                  | 1-1/4 INCHES | 18 INCHES |
| 10 INCHES                 | 1-1/4 INCHES | 18 INCHES |
| 11 INCHES or <            | 1-1/2 INCHES | 18 INCHES |

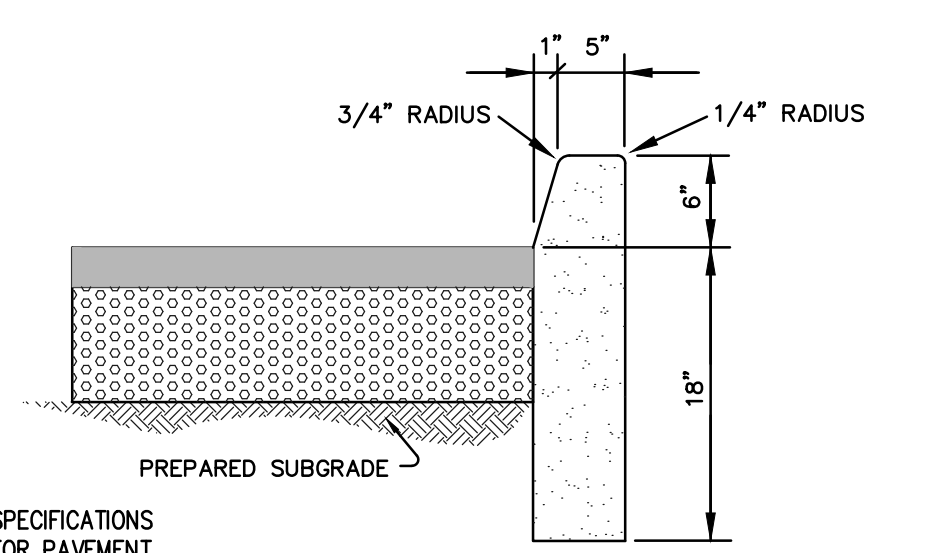
**JOINT DETAILS**  
SCALE: N.T.S.

**JOINT NOTES:**

- CONSTRUCTION JOINTS ARE REQUIRED BETWEEN ALL POURS SEPARATED BY MORE THAN 90 MINUTES TIME.
- FIFTEEN FOOT (15) SPACING BETWEEN CONTROL JOINTS.
- FILL JOINTS TO WITHIN 1/8" OF SURFACE WITH JOINT SEALER.
- WHEN A JOINT FALLS WITHIN 5' OF A MANHOLE, LIGHT POLE BASE, OR OTHER STRUCTURE, SHORTEN ONE OR MORE PANELS ON EITHER SIDE OF STRUCTURE TO ALLOW CONTROL JOINTS TO FALL AT STRUCTURE.

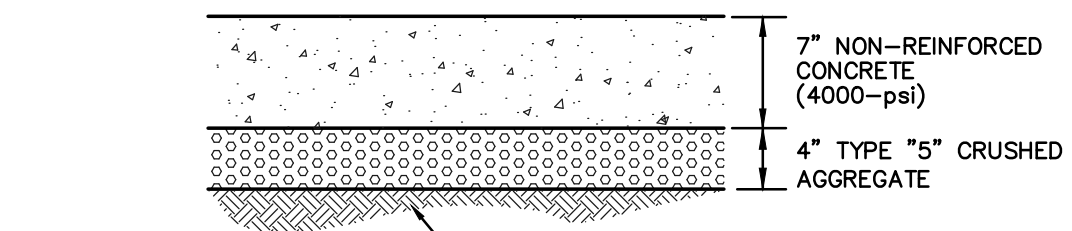


NOTE: ELASTOMERIC JOINT SEALANT SHALL CONFORM TO ASTM C920, TYPE S, GRADE P, CLASS 25. USE T1 FOR POLYURETHANE ELASTOMERIC TYPE JOINT SEALANT AND ASTM D 6690, TYPE 1 FOR HOT POURED ELASTIC JOINT SEALANT. CONTRACTOR SHALL USE BACKER ROD MATERIAL FOR HOT POURED ELASTIC JOINT SEALANT CONFORMING TO ASTM D 5249, TYPE 1 WHEN USING HOT POURED ELASTIC TYPE JOINT SEALANT.



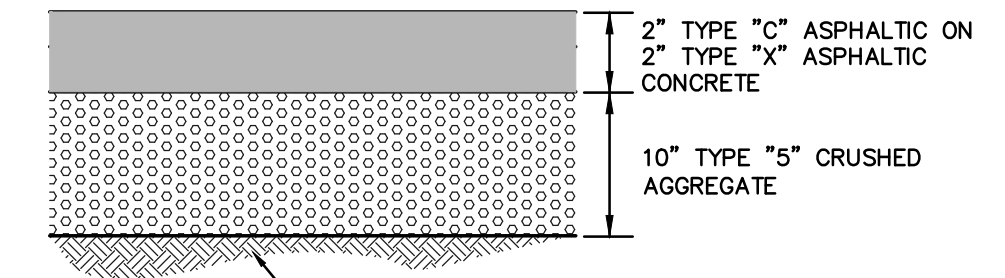
**TYPE "S" CURB & PAVEMENT DETAIL**  
(n.t.s.)

NOTE: CONTRACTOR TO FOLLOW MODOT'S LATEST SPECIFICATIONS FOR QUALITY ASSURANCE AND MATERIALS FOR PAVEMENT CONSTRUCTION.



**CONCRETE PAVEMENT DETAIL**  
(AT ENTRANCE AND LOADING DOCK)

NOTE: CONCRETE PAVEMENT DETAIL TO BE USED AT ALL DRIVEWAYS, ENTRANCES, TRASH ENCLOSURE AND LOADING AREA.

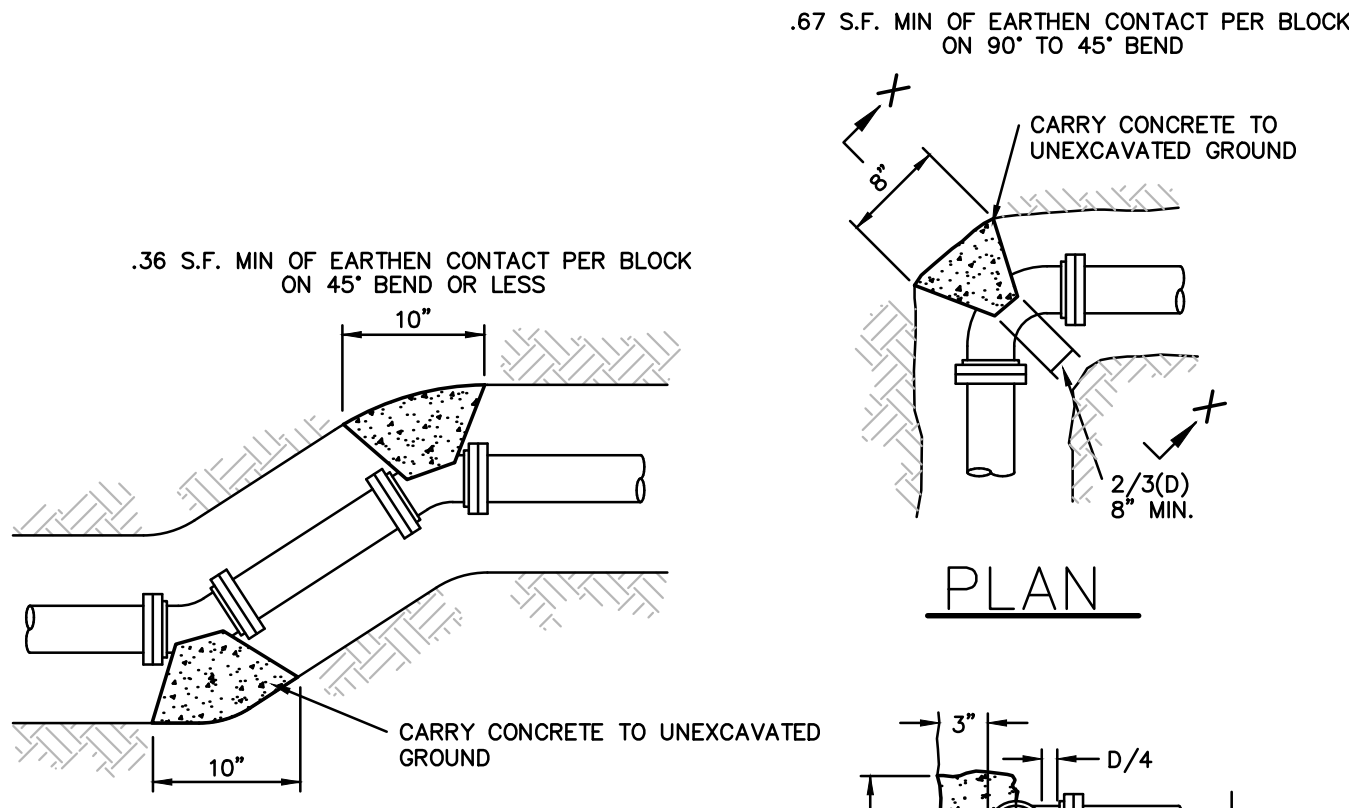


**HEAVY DUTY - ASPHALT PAVEMENT DETAIL**  
ON-SITE  
(n.t.s.)

PAVEMENT DETAILS ARE SUBJECT TO GEOTECHNICAL ENGINEER, OWNER AND CONTRACTOR VERIFICATION AND APPROVAL PRIOR TO CONSTRUCTION

**PAVEMENT NOTES:**

- ALL MEANS AND METHODS OF CONCRETE AND ASPHALTIC CONCRETE SHALL BE IN ACCORDANCE WITH CITY OF FALLON AND ST. LOUIS COUNTY STANDARD SPECIFICATIONS AND DETAILS, CURRENT EDITION AND MODOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN CURRENT EDITIONS, PRIOR TO CONSTRUCTION.
- PAVEMENT SECTIONS ARE SUBJECT TO GEOTECHNICAL ENGINEER AND OWNER REVIEW AND APPROVAL. CONTRACTOR SHALL PROVIDE PAVEMENT SUBMITTAL TO GEOTECHNICAL ENGINEER FOR REVIEW & APPROVAL.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO APPLY THE RECOMMENDATIONS SUPPLIED IN THE GEOTECHNICAL REPORT "GEOTECHNICAL EXPLORATION CENTENE DATA CENTER O'FALLON, MISSOURI" DATED MAY 4, 2010 (MT #12301) BY MIDWEST TESTING; AND THE REPORT TITLED "GEOTECHNICAL EXPLORATION CENTENE DATA CENTER BUILDING EXPANSION, O'FALLON, MISSOURI" DATED OCTOBER 12, 2015 (MT #14002) AND ALL ITS ASSOCIATED AND SUPPLEMENTAL PROVISIONS.
- ALL EXPOSED CONCRETE EDGES TO BE CHAMFERED.



**THRUST BLOCK DETAIL**  
SCALE: 1"=1'

EQUATION USED FOR T-BLOCK CALCULATIONS  
T=2(PA SIN θ/2) x f.o.s. of 1.5  
ASSUMED PRESSURE OF 150 PSI AND  
AND SOIL BEARING CAPACITY OF 1500 PSF

**COTTEVILLE FIRE PROTECTION DISTRICT NOTES**

- There shall be no obstruction, i.e., plantings, bushes, trees, signs, light standards, mailboxes, etc. within six (6) feet of any fire hydrant, and/or fire department connection to an automatic sprinkler system.
- A permit will be required through Cottleville Fire Protection District for the installation of private service mains.
- Underground Piping for private service mains shall be listed for fire protection service and shall comply with AWWA Standards.
- Identification signs shall be provided at each valve to indicate its function and what it controls.
- All tees, plugs, bends and hydrant branches shall be restrained against movement in accordance with Section 6-6 of NFPA 24.
- The flushing and testing of the underground piping, etc. shall comply with Chapter 9 of NFPA 24 and shall be witnessed by a representative from Cottleville Fire Protection District.

**WATER LINE NOTES**

- ALL MATERIALS AND METHODS OF CONSTRUCTION FOR WATER MAINS TO MEET REQUIREMENTS OF MISSOURI-AMERICAN WATER COMPANY.
- WATER MAINS SHALL BE POLYVINYL CHLORIDE (PVC) C900 PIPE CONFORMING TO A.S.T.M. SPECIFICATIONS D2241. THE PIPE SHALL BE PRESSURE RATED FOR A HYDROSTATIC WORKING PRESSURE OF 200 PSI AT 73.4 DEGREES F AND SHALL MEET ALL APPLICABLE REQUIREMENTS AS SET FORTH UNDER COMMERCIAL STANDARD (CS) 256-63
- DUCTILE IRON PIPE MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL THE REQUIREMENTS OF U.S.A. STANDARD A2151 (A.W.W.A. C-151-85). THE PIPE SHALL BE FURNISHED WITH MECHANICAL, PUSH ON, OR FLANGE JOINTS AS REQUIRED. THE INTERIOR SURFACE OF PIPE SHALL BE COATED WITH A CEMENT-MORTAR LINING IN ACCORDANCE WITH U.S.A. STANDARD A 21.4 (A.W.W.A. C 104). AFTER DRYING, THE CEMENT LINING SHALL BE SEAL COATED WITH SIMILAR A.W.W.A. APPROVED BITUMINOUS VARNISH. ALL FITTINGS AND BENDS SHALL BE CONSTRUCTED OF CAST OR DUCTILE IRON.
- WATER MAIN TRACER TAPE TO BE INSTALLED WITH ALL WATER MAIN AND SHALL CONSIST OF THREE INCH WIDE TAPE MADE OF BONDED LAYER PLASTIC WITH A METALLIC FOIL CORE. TAPE SHALL BE "TERRA TAPE D" AS MANUFACTURED BY THE GRIFFOLYN COMPANY OF HOUSTON, TEXAS, OR APPROVED EQUAL.
- WATER MAIN LOCATOR SHALL BE INSTALLED WITH ALL WATER MAIN, FITTINGS, AND VALVE INSTALLATION AND SHALL CONSIST OF A STANDARD ELECTRIC SERVICE WIRE, A SINGLE NO. 12 U.L. APPROVED COPPER WIRE OF THE SOLID OR STRAND TYPE WITH INSULATION FOR 600 VOLTS.
- ALL VALVES FOR EXTERIOR USE SHALL BE BURIED GATE VALVES WITH A VALVE BOX AND TWO INCH SQUARE NUT ATTACHMENT FOR MANUAL OPERATION WITH STANDARD VALVE WRENCH. GATE VALVE SHALL BE IRON BODIED WITH BRASS OR BRONZE MOUNTED DOUBLE DISC GATE. GATE VALVES SHALL BE OF THE NON-RISING STEM TYPE, OPENED BY TURNING COUNTER-CLOCKWISE. THE VALVE STEM SHALL HAVE DOUBLE "O" RING SEALS AND TERMINATE AT TOP WITH TWO INCH SQUARE NUT. GATE VALVE CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE LATEST GOVERNING SPECIFICATIONS OF THE A.S.T.M. AND A.W.W.A. ALL GATE VALVES FOR USE SHALL BE "MUELLER" OR APPROVED EQUAL.
- VALVE BOXES FOR USE SHALL BE THE SCREW-TYPE, EXTENSION SLEEVE KIND, OR P.V.C. PIPE. ALL BOXES SHALL BE FITTED WITH A RECESSED COVER HAVING THE WORD "WATER" CAST IN THE TOP.
- CONCRETE FOR THRUST BLOCKING AT BENDS, TEES, VALVES, HYDRANTS, ETC., SHALL BE 3,500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
- BEFORE WATER MAINS SHALL BE ACCEPTED AND PUT INTO SERVICE THEY SHALL BE TESTED FOR TWO HOURS ON EACH SEGMENT BETWEEN END POINTS AT A TEST PRESSURE OF AT LEAST 50% IN EXCESS OF NORMAL MAXIMUM OPERATING PRESSURE, NOT TO EXCEED 200 PSI. WATER MAINS SHALL BE STERILIZED AND FLUSHED IN ACCORDANCE WITH THE CITY OF FALLON OR MISSOURI-AMERICAN WATER COMPANY DEPENDING UPON WHO IS SELECTED TO SERVE THE DEVELOPMENT.
- ALL WATER LINES AND SERVICE LINES SHALL HAVE A MINIMUM OF 42" OF COVERAGE.
- VERTICAL CLEARANCE BETWEEN SEWERS AND WATER MAINS SHALL BE A MINIMUM OF 2'-0".
- THERE SHALL BE NO OBSTRUCTION, I.E., PLANTINGS, BUSHES, TREES, SIGNS, LIGHT STANDARDS, MAILBOXES, ETC. WITHIN SIX (6) FEET ON ANY FIRE HYDRANT, AND/OR FIRE DEPARTMENT CONNECTION TO AN AUTOMATIC SPRINKLER SYSTEM.

| PIPE DIA. IN.  | A = CONTACT BEARING AREA OF BLOCK WITH EARTH IN SQUARE FEET |             |                |             |             |             |
|----------------|---|-------------|----------------|-------------|-------------|-------------|
|                | PLUG  | 45° WYE     | TEE CONNECTION | UP TO 22.5' | UP TO 45'   | UP TO 90°   |
|                | A (SQ. FT.)   | A (SQ. FT.) | A (SQ. FT.)    | A (SQ. FT.) | A (SQ. FT.) | A (SQ. FT.) |
| 4" and smaller | 0.5   | 1.4         | 2.6            | 1.8         | 2.2         | 2.0         |
| 6"             | 1.5   | 3.0         | 6.0            | 4.0         | 4.5         | 4.5         |
| 8"             | 2.5   | 5.0         | 9.5            | 6.5         | 9.5         | 8.0         |
| 10"            | 4.1   | 8.0         | 13.0           | 9.5         | 12.5        | 12.5        |
| 12"            | 5.5   | 11.5        | 19.0           | 13.5        | 16.0        | 18.0        |
| 16"            | 9.0   | 18.0        | 33.0           | 23.0        | 27.0        | 32.0        |
| 20"            | 14.0  | 28.0        | 51.0           | 36.0        | 42.0        | 50.5        |

**NOTES:**

- BEARING AREAS ARE BASED ON UNDISTURBED SOIL WITH A BEARING CAPACITY OF 1,000 POUNDS PER SQUARE FOOT. FOR A LESSER SOIL BEARING CAPACITY THESE AREAS SHALL BE INCREASED ACCORDINGLY.
- ALL CONCRETE THRUST BLOCKS SHALL BE 3000 p.s.i. CONCRETE.
- THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED EARTH.
- NO JOINT SHALL BE COVERED WITH CONCRETE.
- JOINTS THAT LOCATED AGAINST THRUST BLOCKS ARE TO BE WRAPPED IN A CLOTH MATERIAL.
- APPROVED MECHANICAL JOINT RESTRAINTS ARE REQUIRED AT ALL VERTICAL BENDS AND MAY BE USED IN LIEU OF THRUST BLOCKS AT HORIZONTAL BENDS AT THE OPTION OF THE ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.

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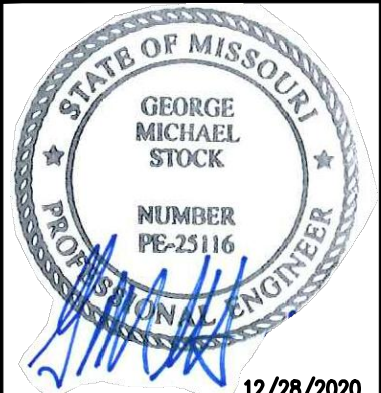
**Stock & Associates**  
Consulting Engineers, Inc.

PREPARED BY:

**CENTENE DATA CENTER BUILDING EXPANSION**

6430 WELDON SPRING ROAD  
CITY OF O'FALLON, MISSOURI 63376

SITE IMPROVEMENT PLANS FOR:



GEORGE M. STOCK E-25116  
CIVIL ENGINEER  
CERTIFICATE OF AUTHORITY  
NUMBER: 000996

REVISIONS:

|   |            |                             |
|---|------------|-----------------------------|
| 1 | 2020-11-11 | - 75% CD SET                |
| 2 | 2020-12-15 | - 100% PERMIT/50 SET        |
| 3 | 2020-12-28 | - REVISED PER CITY COMMENTS |

|                     |                        |
|---------------------|------------------------|
| DRAWN BY:<br>J.M.B. | CHECKED BY:<br>G.M.S.  |
| DATE:<br>11/6/2020  | JOB NO:<br>209-4511.10 |
| DUCKETT CREEK #:    | BASE MAP #:            |
| S.C.C. H&T #:       | H&T S.U.P. #:          |
| M.D.N.R. #:         | MORA-:                 |

SHEET TITLE:  
**CONSTRUCTION DETAILS**

SHEET NO.:  
**C6.0**