

City of Farmington, Missouri
Drawing Details
for
Public Improvements

JUNE 2016



SINAGE MAKER MARKETING

Adopted May 12, 2016

Larry Lacy, P.E.
Director of Public Works

PREPARED IN CONJUNCTION WITH



530A East Independent Drive
Union, MO 63084
(636)584-0540

TABLE OF CONTENTS

WATER MAIN

DRAWING No.

Typical Water Main Trenching Detail	W-1
Typical Interconnection Detail	W-2
Tapping Sleeve and Connection Detail	W-3
Fire Hydrant Detail	W-4
Gate Valve & Valve Box Detail	W-5
Creek Crossing Detail	W-6
Water Service Connection Detail	W-7

SANITARY SEWER

Typical Sanitary Sewer Trenching	SAN-1
Manhole Frame and Cove	SAN-2
Sanitary Sewer Manhole	SAN-3
Sanitary Sewer Lateral	SAN-4
Combination Valve and Cleanout for Sanitary Sewer Force Main	SAN-5

STORM SEWER

Junction Box/Inlet Detail	SS-1
Single Curb Inlet Detail- Plan View	SS-2
Single Curb Inlet Detail- Section View	SS-3
Double Curb Inlet Detail- Plan View	SS-4
Double Curb inlet Detail- Section View	SS-5
Storm Sewer Frame and Cover Detail	SS-6
Concrete Box Roadway Fill Detail	SS-7
Approaches to Box Culvert	SS-8
Concrete Box Culvert Minimum Reinforcement Details	SS-9
Vertical Box Detention Outlet	SS-10
Vegetative Filter Strip Water Quality BMP	SS-11

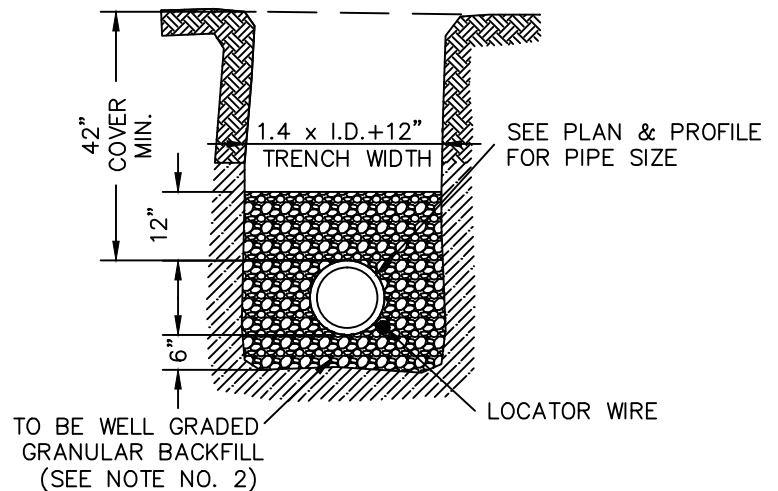
TABLE OF CONTENTS CONT.

STREET

Typical Street Sections	ST-1
Driveway Opening.....	ST-2
Concrete Curbs, Curbs & Gutters, and Gutters.....	ST-3
Joint Details – Concrete Pavement	ST-4
Joint Location – Concrete Pavement	ST-5
Concrete Sidewalk.....	ST-6
Curb Ramps	ST-7, 1 of 3
Curb Ramps	ST-7, 2 of 3
Curb Ramps	ST-7, 3 of 3
Standard Cul-De-Sac	ST-8
Temporary Dead End Street Turnaround	ST-9
Permanent Dead End Street Turnaround	ST-10
Handrail	ST-11
Mailbox Replacement	ST-12

NOTES:

1. Backfill material above granular backfill for water main shall be suitable earth, free from large rocks or stones.
2. All trenches shall have a bedding of well-graded, granular backfill from 6" below the bottom of the pipe to 12" above top of pipe compacted to 95% of the Standard Proctor Density. (ASTM D-698)
3. Contractor shall be responsible for trench settlement.
4. Well-graded full depth granular compacted backfill to be used in all areas to be paved.
5. Well-graded, granular material used for embedment of plastic pipe shall be type "5" aggregate for sizes 8" diameter and smaller. 1" minus aggregate for pipe sizes 10" diameter and larger.
6. Locator wire shall be #12 solid copper wire, insulated for 600 v. with splice points at valve boxes.
7. In areas to be seeded, the top 4" of backfill shall be topsoil.



NO SCALE

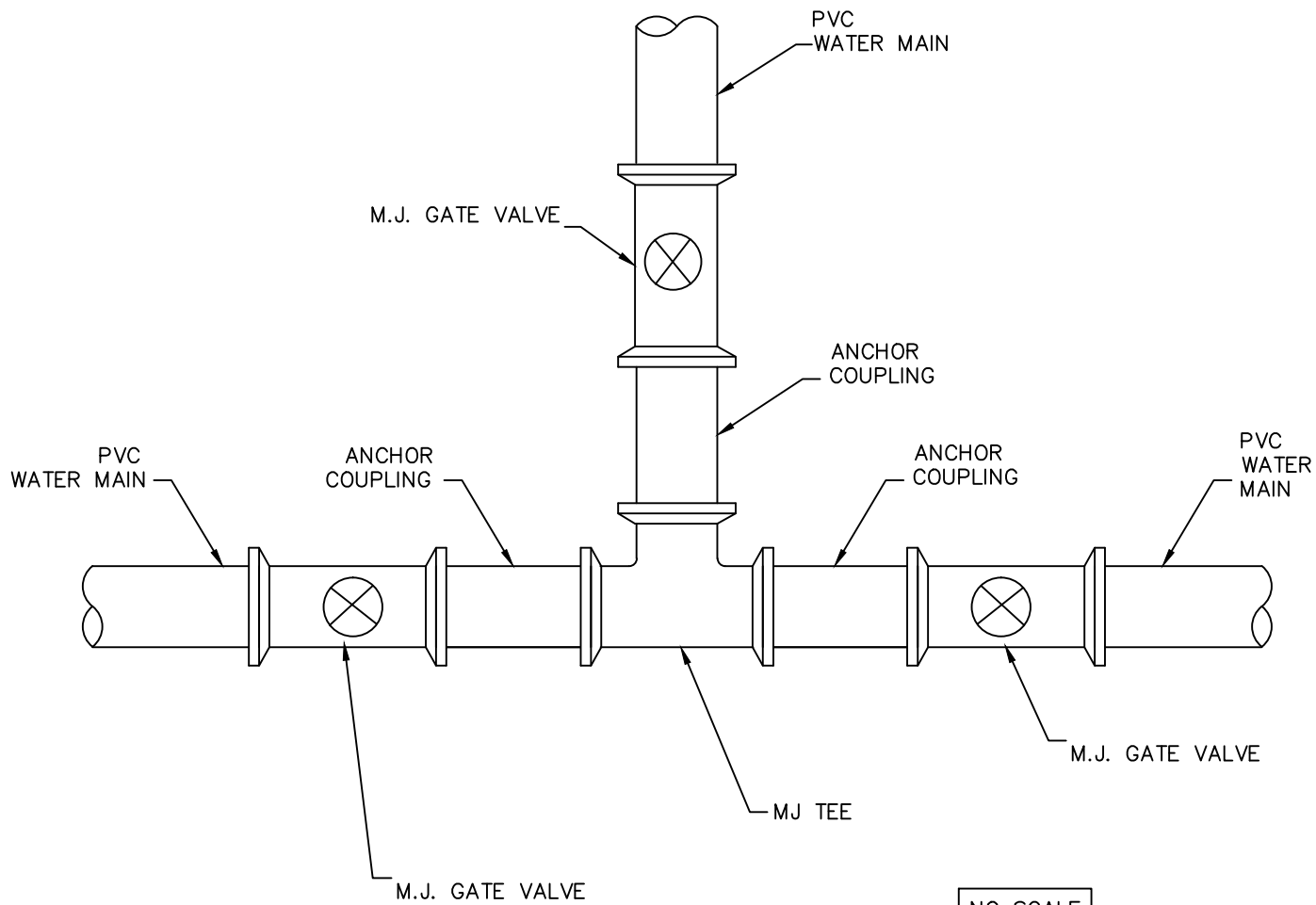


CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

TYPICAL WATER MAIN
TRENCHING DETAIL

REVISION DATE: 6/1/15

DRAWING W-1

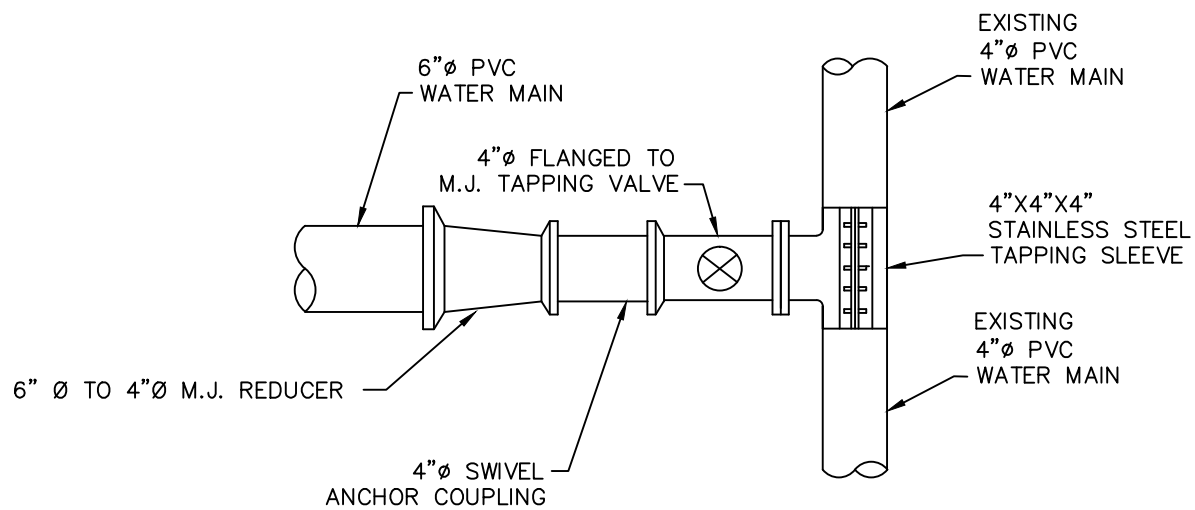


CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

TYPICAL INTERCONNECTION DETAIL

REVISION DATE: 6/1/15

DRAWING W-2



NO SCALE

NOTES:

1. PIPE DIAMETERS ARE FOR EXAMPLE PURPOSES ONLY.
2. ALL M.J. FITTINGS, NOT OTHERWISE RESTRAINED, SHALL HAVE RETAINER GLANDS.



CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

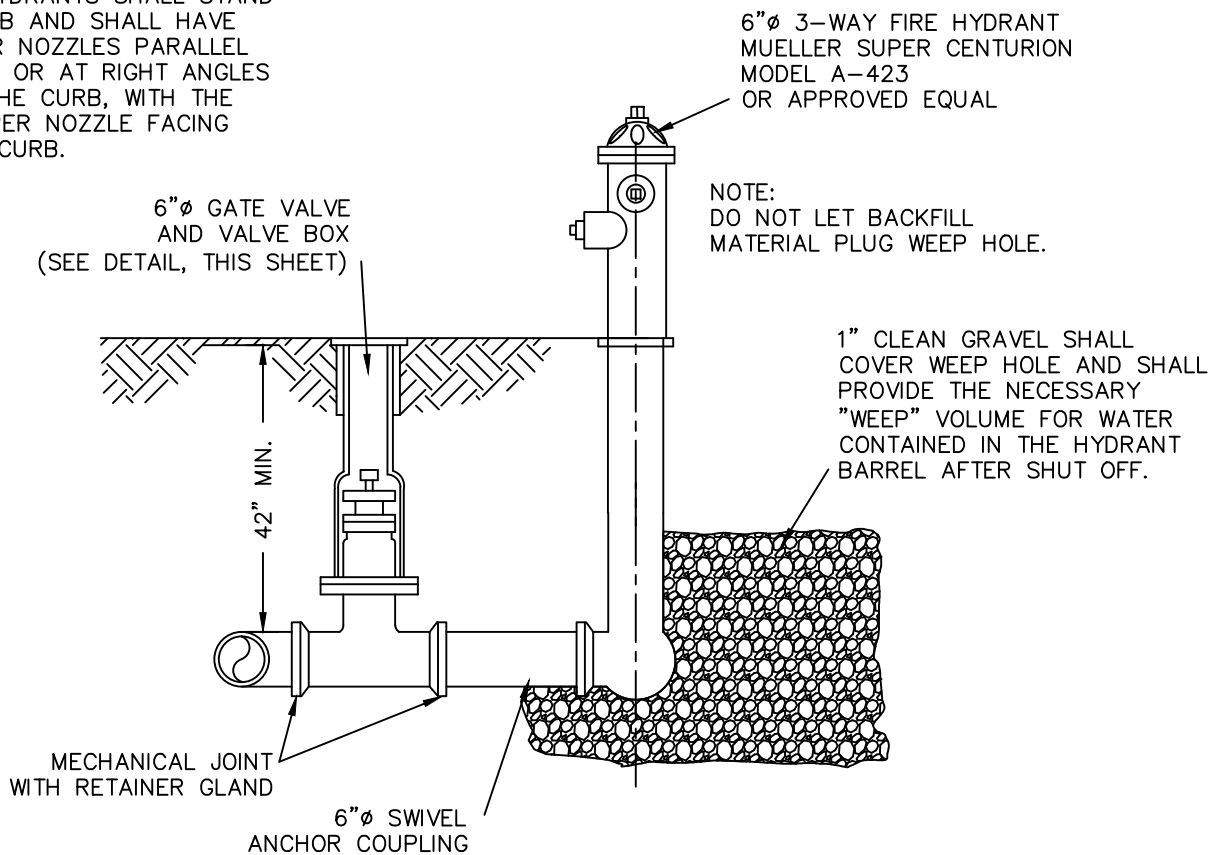
TAPPING SLEEVE
AND CONNECTION DETAIL

REVISION DATE: 6/1/15

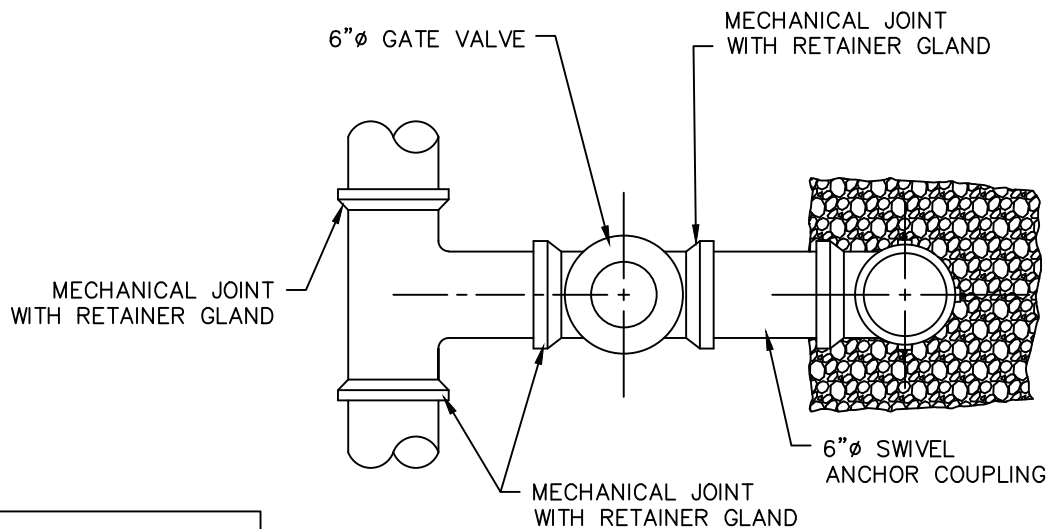
DRAWING W-3

NOTE:

1. ALL HYDRANTS SHALL STAND PLUMB AND SHALL HAVE THEIR NOZZLES PARALLEL WITH, OR AT RIGHT ANGLES TO THE CURB, WITH THE PUMPER NOZZLE FACING THE CURB.



SECTION VIEW

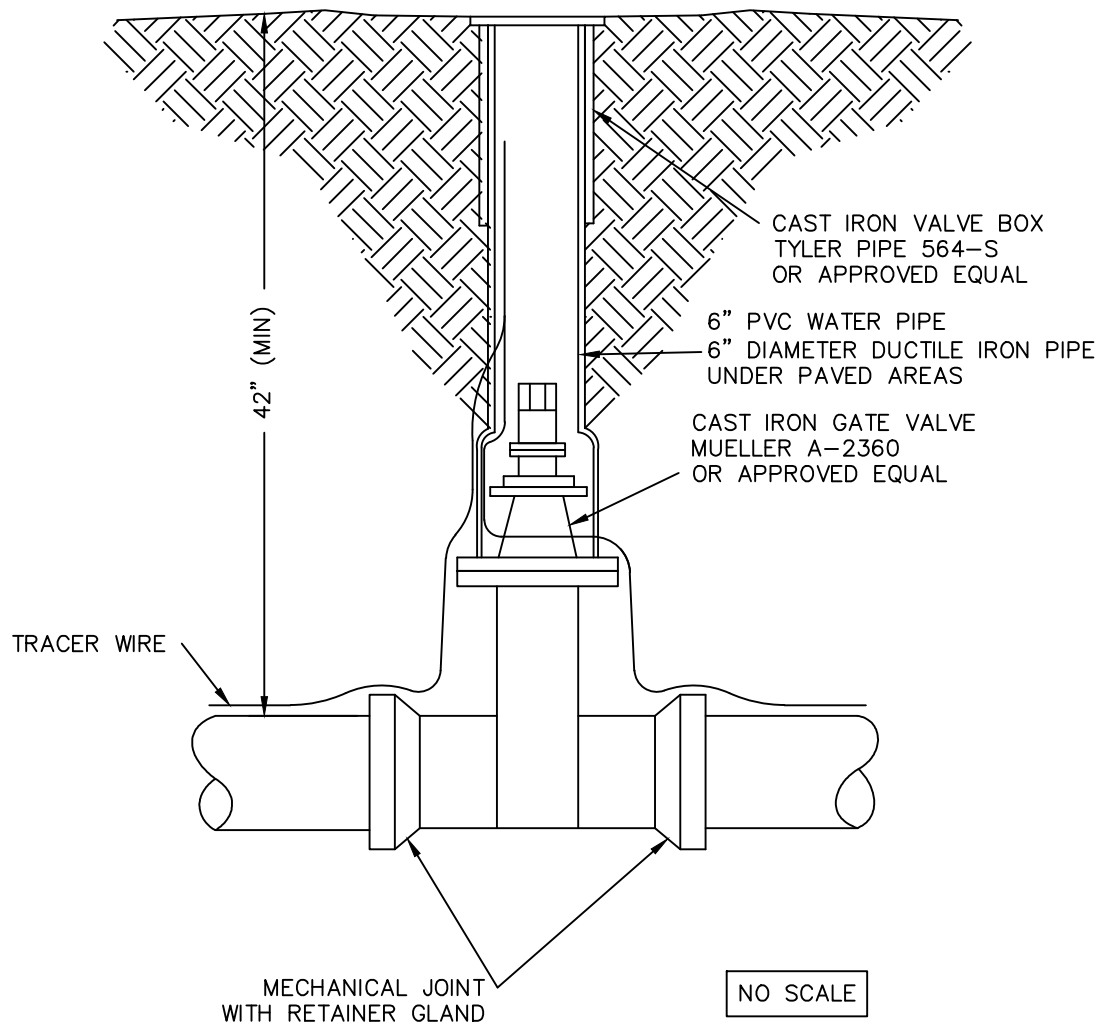


PLAN VIEW—FIRE HYDRANT, AUXILIARY VALVE AND VALVE BOX

PLAN VIEW

NO SCALE





CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

GATE VALVE & VALVE BOX DETAIL

REVISION DATE: 6/1/15

DRAWING W-5

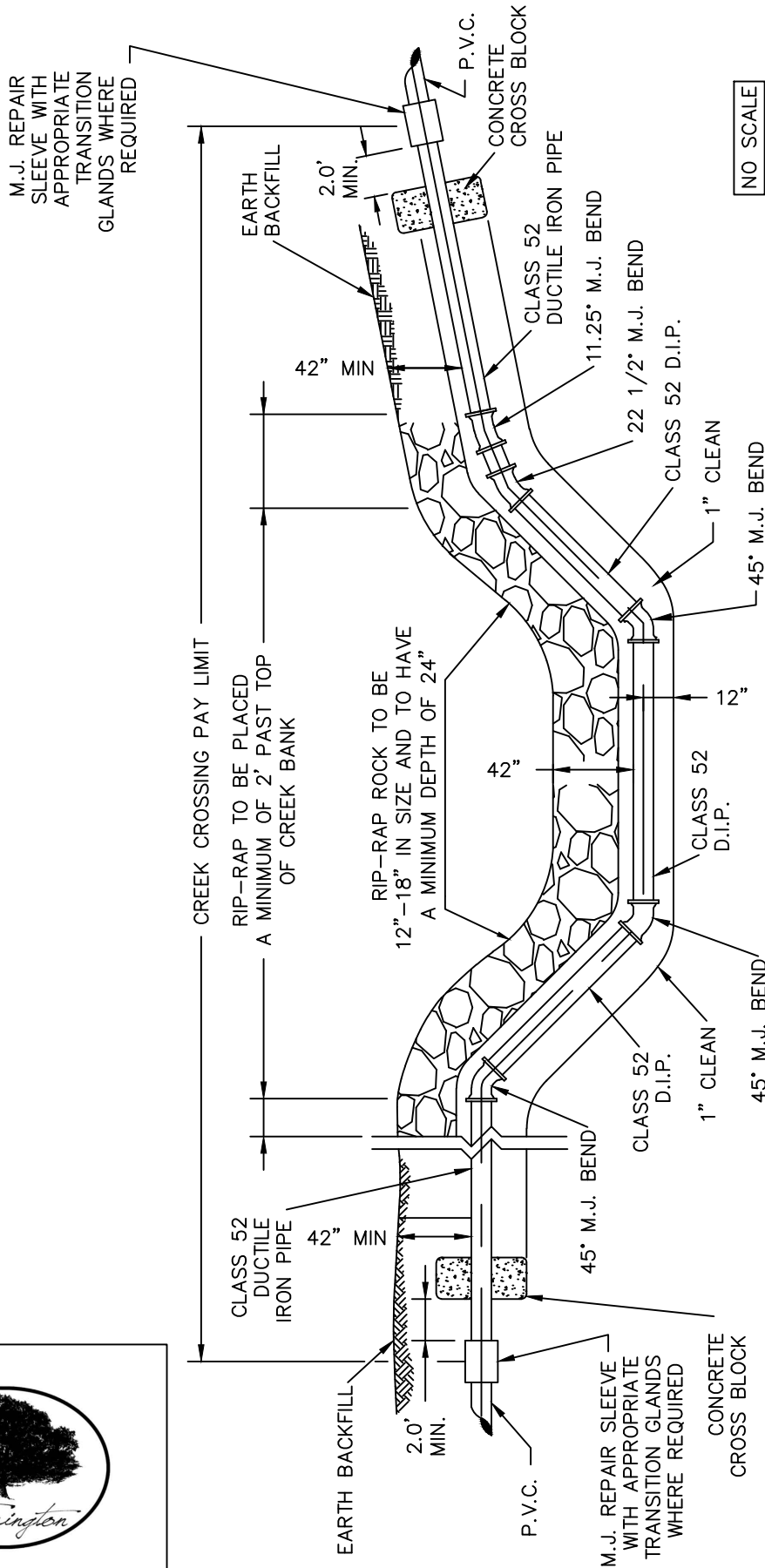


CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

CREEK CROSSING DETAIL

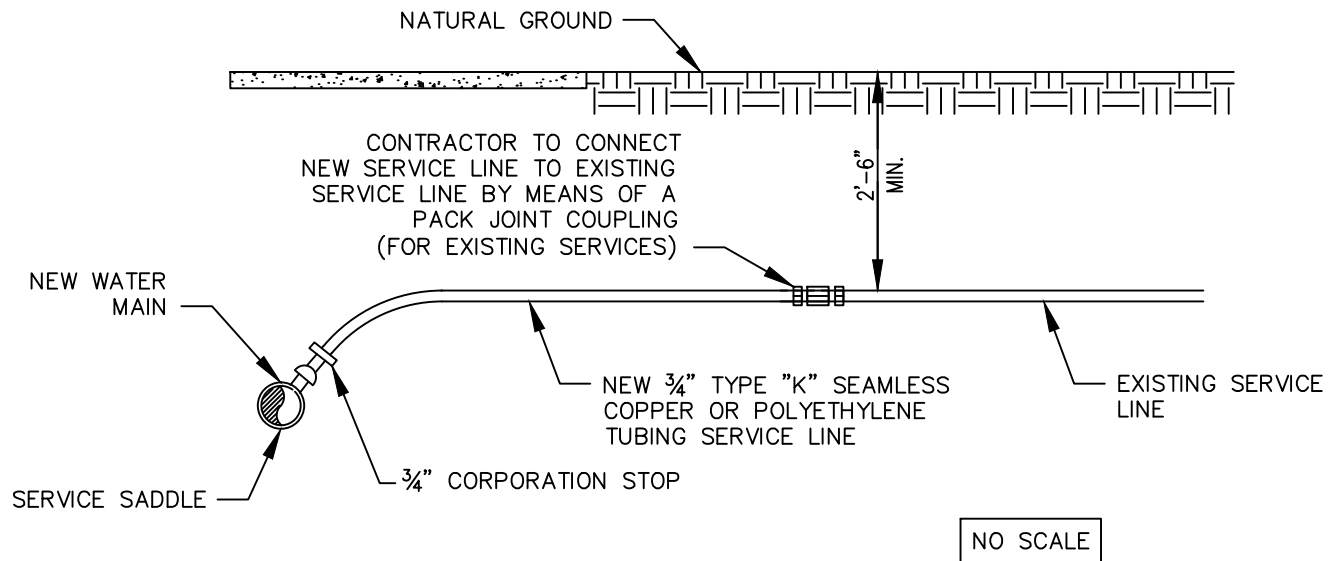
REVISION DATE: 6/1/15

DRAWING W-6



NOTES:

1. INSTALL CONCRETE CROSS BLOCKS INSIDE LIMITS OF CREEK CROSSING. (SEE TYPICAL CROSS BLOCK DETAIL)
2. NO JOINTS TO BE CONCRETE ENCASED.
3. PROVIDE RETAINER GLANDS FOR ALL M.J. BENDS.
4. ALL D.I.P. JOINTS TO USE FIELD LOK GASKETS.
5. FOR WATER COURSES GREATER THAN 15 FEET IN WIDTH, VALVES SHALL BE PROVIDED AT BOTH ENDS SO THAT THE SECTION CAN BE ISOLATED FOR TESTING OR REPAIRS. THE VALVE CLOSEST TO THE SUPPLY SOURCE SHALL BE INSTALLED IN A VAULT MANHOLE, OR METER PIT AND SHALL HAVE PERMANENT TAPS ON EACH SIDE OF THE VALVE. PIPE SHALL HAVE FLEXIBLE WATERTIGHT JOINTS.



NOTES:

1. SERVICE SADDLE TO BE A MUELLER MODEL H-13433 FOR 8"Ø WATER MAIN, H-13434 FOR 10"Ø WATER MAIN OR APPROVED EQUAL.
2. CORPORATION STOP TO BE A MUELLER MODEL B-25008 OR APPROVED EQUAL.
3. PACK JOINT COUPLING TO BE A FORD MODEL C44-33, OR APPROVED EQUAL (FOR EXISTING SERVICES).



CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

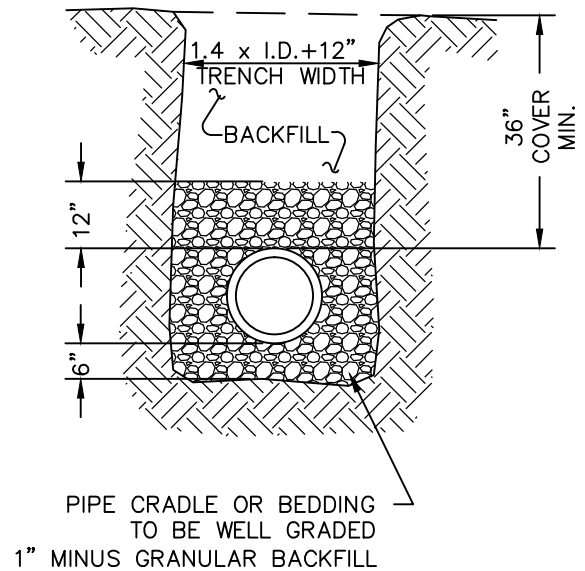
WATER SERVICE CONNECTION DETAIL

REVISION DATE: 6/1/15

DRAWING W-7

NOTES:

1. ALL TRENCHES SHALL HAVE A BEDDING OF WELL GRADED, GRANULAR MATERIAL FROM 6" BELOW THE BOTTOM OF THE PIPE TO 12" ABOVE THE PIPE COMPACTED TO 95% STANDARD PROCTOR DENSITY (ASTM D-698).
2. IN AREAS TO BE PAVED OVER, ENTIRE TRENCH SHALL BE BACKFILLED WITH WELL GRADED GRANULAR MATERIAL & COMPACTED TO 95% OF THE STANDARD PROCTOR DENSITY (ASTM D-698).
3. IN AREAS OF CLEAN SOIL CUTS OUTSIDE OF PAVED AREAS, ABOVE THE BEDDING SPECIFIED IN ITEM 1, TRENCH MAY BE BACKFILLED WITH THE EXCAVATED CLEAN SOIL MATERIAL AND COMPACTED TO 95% OF THE STANDARD PROCTOR DENSITY (ASTM D-698).
6. IN AREAS TO BE SEED, THE TOP 4" OF BACKFILL SHALL BE TOPSOIL.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCH SETTLEMENT.



NO SCALE



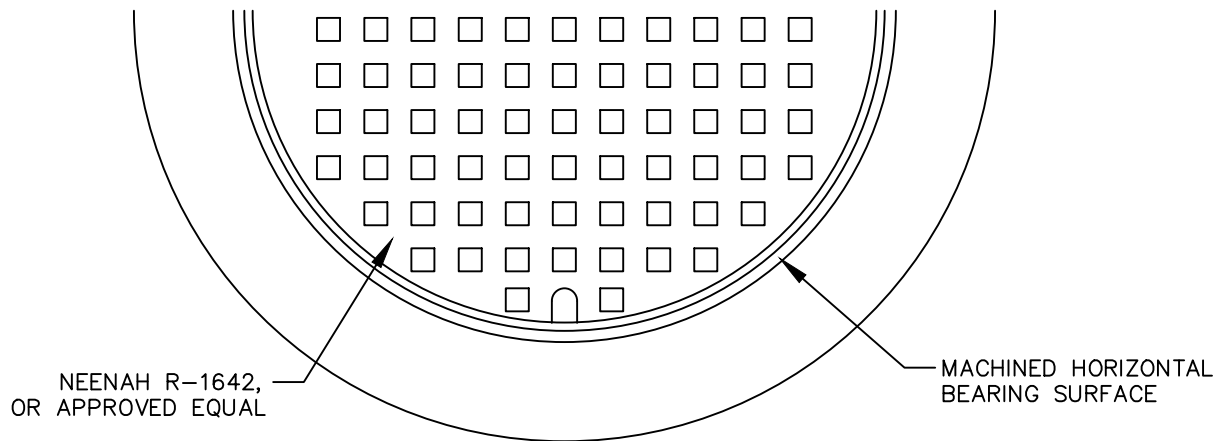
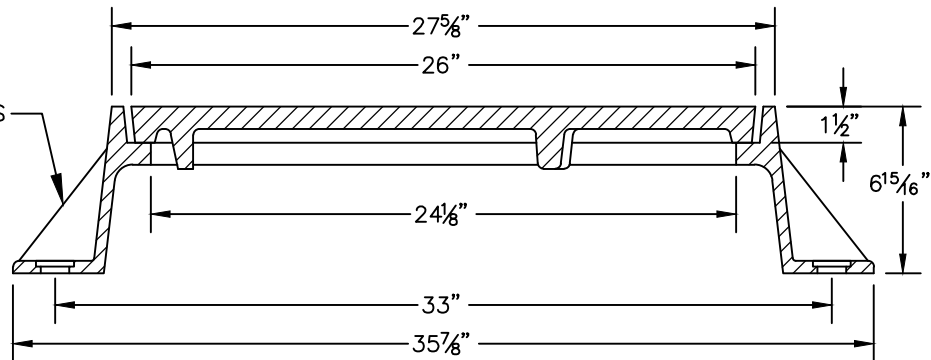
CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

TYPICAL SANITARY SEWER TRENCHING

REVISION DATE: 6/1/15

DRAWING SAN-1

GROUT AS REQUIRED
TO LEVEL TO SURFACE
WHEN PLACED IN
PAVED AREAS



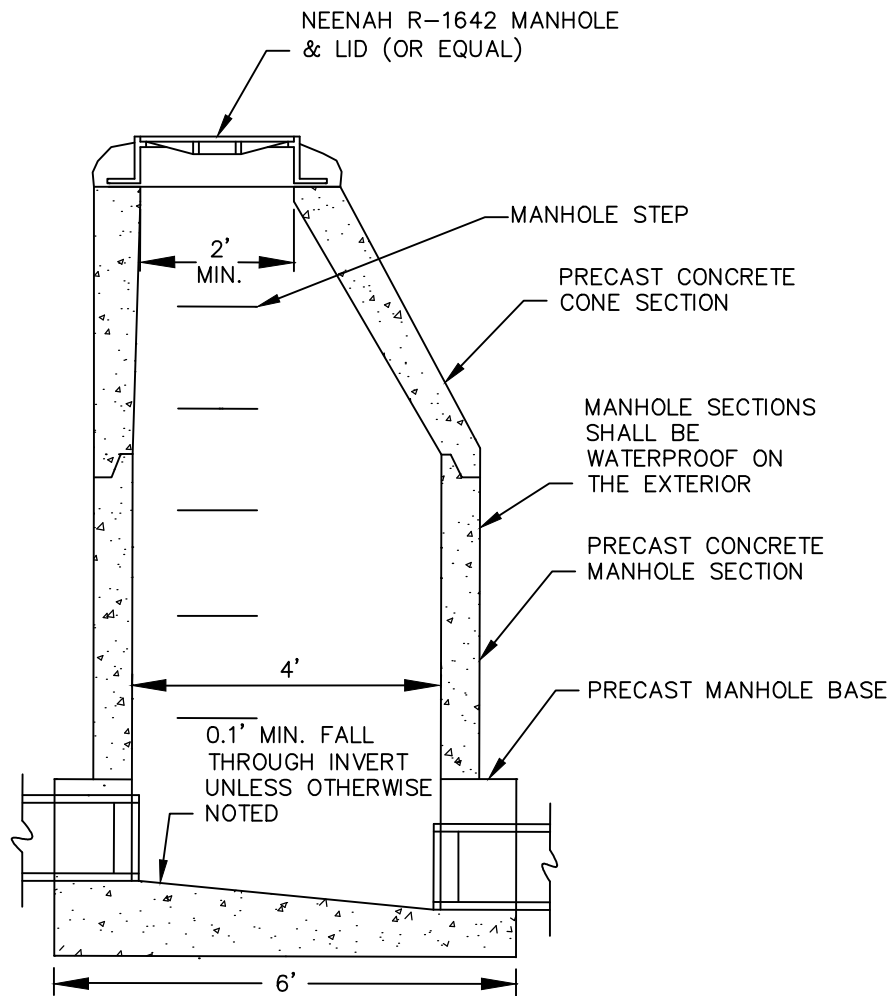
NO SCALE



CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

SANITARY SEWER MANHOLE FRAME AND COVER

REVISION DATE: 6/1/15
DRAWING SAN-2



NO SCALE

NOTES:

1. HEIGHTS OF PRECAST CONCRETE SECTIONS ARE VARIABLE.
2. ALL JOINTS BETWEEN PRE-CAST CONCRETE SECTIONS SHALL BE MADE WITH AN APPROVED BITUMASTIC MATERIAL OR AN APPROVED RUBBER GASKET.

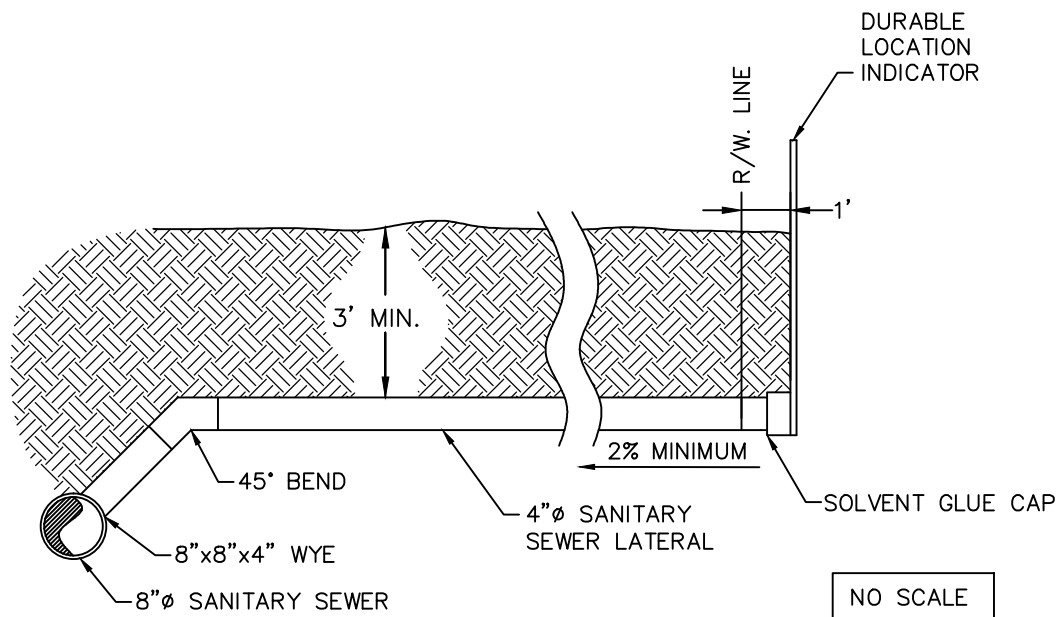


CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

SANITARY SEWER
MANHOLE

REVISION DATE: 6/1/15

DRAWING SAN-3



NOTES:

1. SANITARY SEWER LATERALS TO BE 20' MINIMUM.
2. LATERALS EXTENDING UNDER STREETS TO BE TERMINATED 1' BEYOND R/W LINES.
3. 1" MINUS GRANULAR BACKFILL TO BE USED UNDER ALL PAVED AREAS.
4. PIPE DIAMETERS ARE FOR EXAMPLE PURPOSES ONLY.

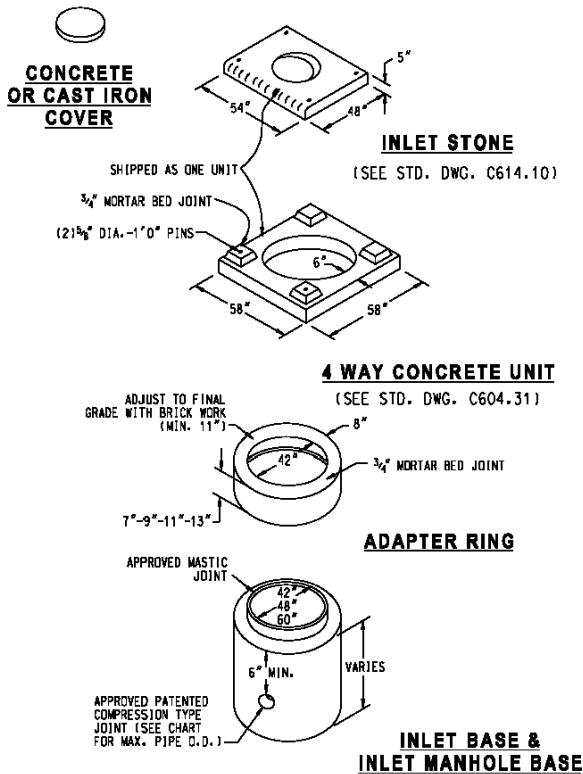


CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

SANITARY SEWER
LATERAL

REVISION DATE: 6/1/15

DRAWING SAN-4



PRE-CAST CONCRETE UNIT AREA INLET

PRECAST CONCRETE STORMWATER STRUCTURES

MINIMUM DISTANCE FLOWLINE TO TOP OF STONE OR GRATE

PIPE ID NOMINAL INCHES	AREA INLET CIRCULAR BASE DIA.			2 GRATE INLET CIRCULAR BASE DIA. SQUARE			SINGLE STREET INLET CIRCULAR BASE DIA. RECTANGLE		
	42"	48"	60"	42"	48"	60" (MAX.)	42"	48"	60" (MAX.)
12"	45"			38"		31"	48"		41"
15"	48"			41"		34"	51"		44"
18"	52"			44"		37"	55"		48"
21"	55"			47"		40"	58"		51"
24"		58"			51"	44"		61"	54"
27"			78"			71"	NA		81"
30"			82"			74"	NA		85"
33"			85"			77"	NA		88"

NOTE: 1. 48" DIA. BASE REQUIRES 7" HIGH TRANSITION SECTION TO 42" DIA., SIMILAR TO "ADAPTER RING".

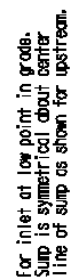
2. 60" DIA. BASE REQUIRES 24" HIGH CONCENTRIC REDUCER TRANSITION TO 42" DIA., SIMILAR TO "ADAPTER RING".



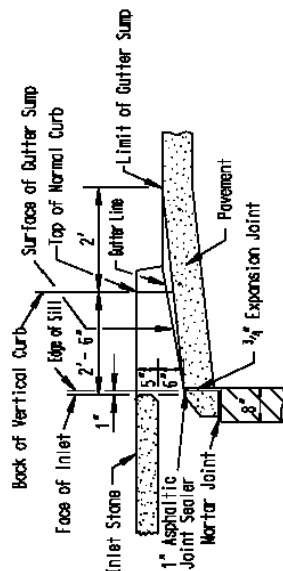
NOTES: FOR STORM WATER JUNCTION BOX
UTILIZE A PRECAST CONE SECTION FOR
BARREL SECTIONS UP TO 48" DIAMETER.
UTILIZE A PRECAST FLAT TOP FOR BARREL
SECTIONS LONGER THAN 48" DIAMETER.

SINGLE CURB INLET DETAIL- PLAN VIEW

DRAWING SS-2



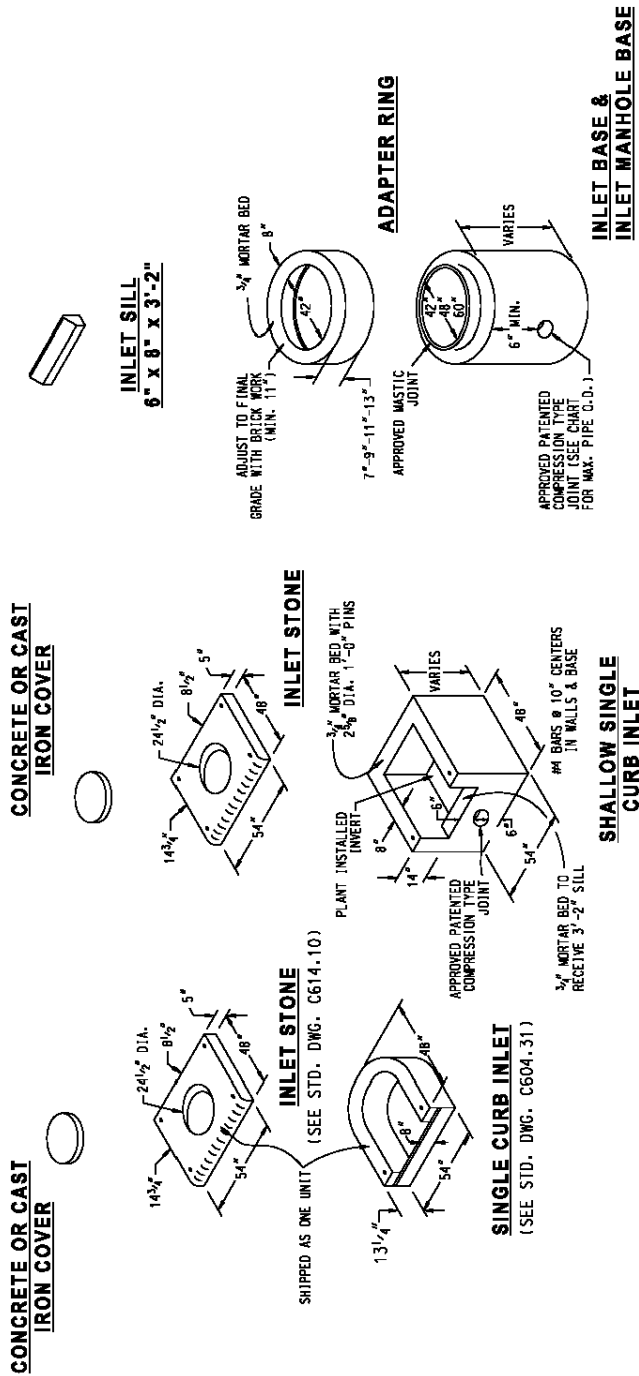
PLAN VIEW OF GUTTER
VERTICAL CURB



SECTION A - A



SINGLE CURB INLET DETAIL SECTION VIEW

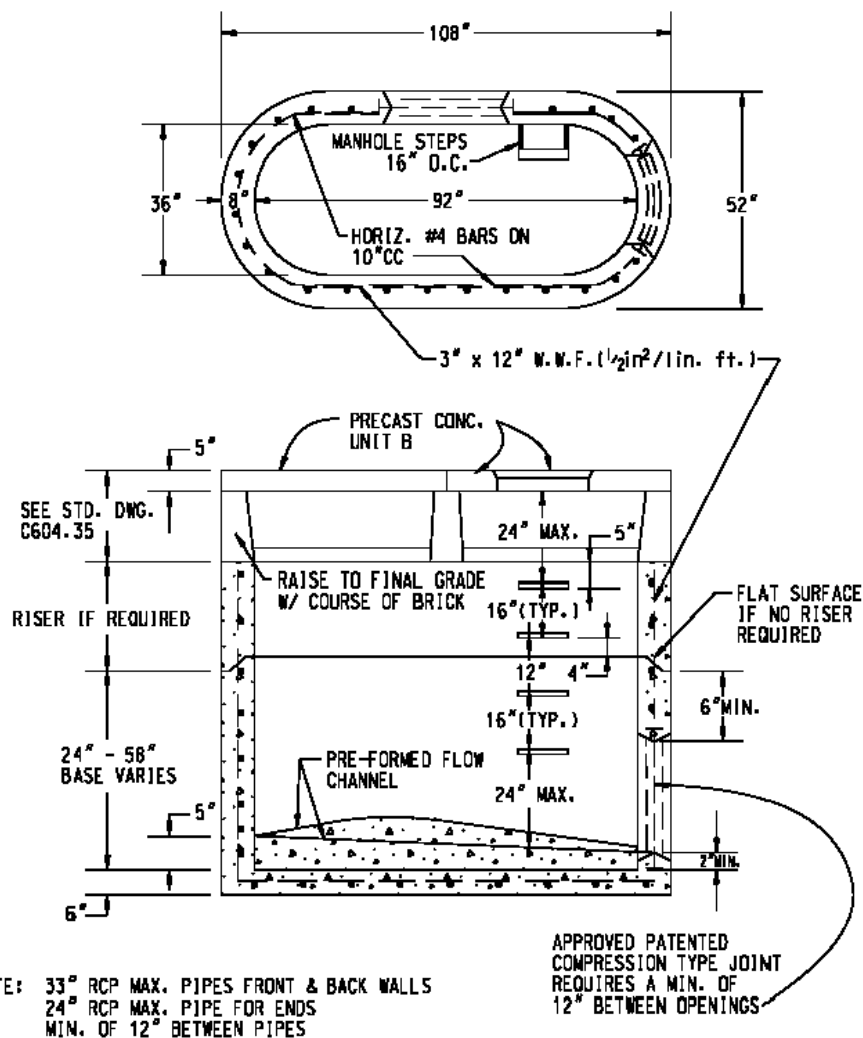


PRE-CAST CONCRETE UNIT - SINGLE STREET INLETS

DOUBLE CURB INLET DETAIL- PLAN VIEW

DRAWING SS-4

PLAN VIEW OF GUTTER SUMP FOR MULTIPLE UNIT
VERTICAL CURB



PRE-CAST CONCRETE UNIT **DOUBLE UNTRAPPED STREET INLET**



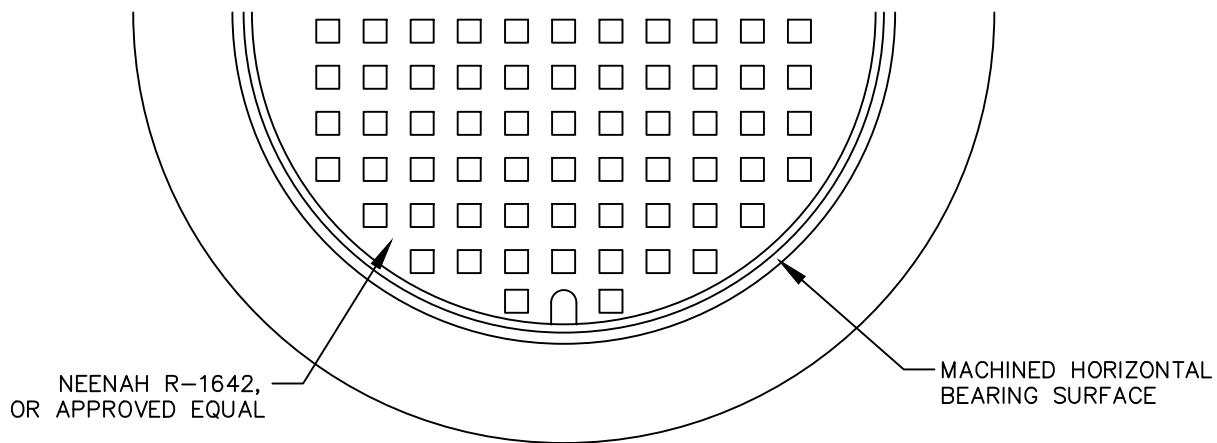
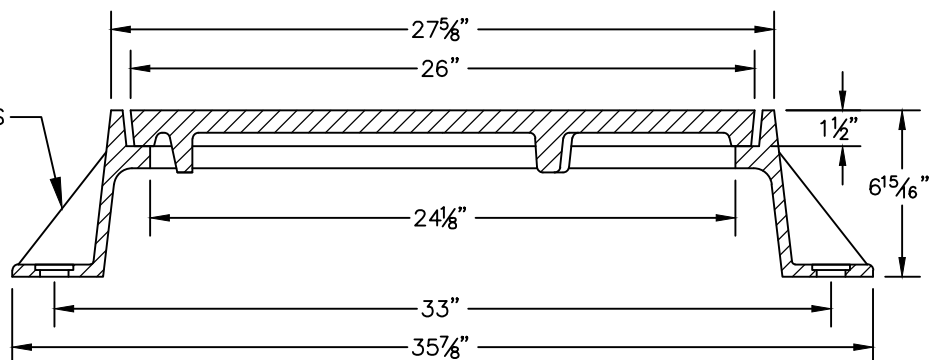
CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

DOUBLE CURB INLET DETAIL
SECTION VIEW

REVISION DATE: 6/1/15

DRAWING SS-5

GROUT AS REQUIRED
TO LEVEL TO SURFACE
WHEN PLACED IN
PAVED AREAS



NO SCALE

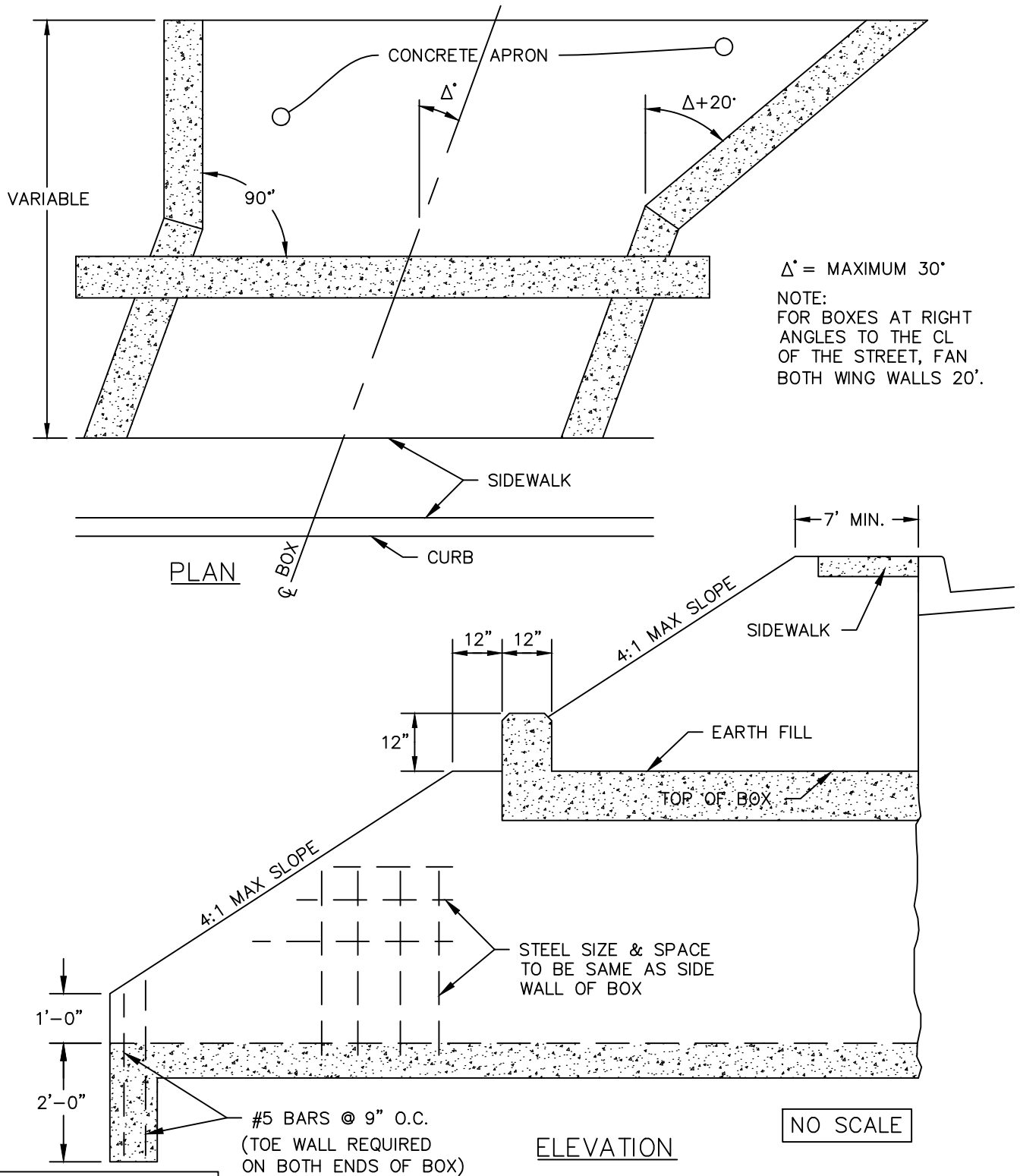


CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

STORM SEWER FRAME & COVER DETAILS

REVISION DATE: 6/1/15

DRAWING SS-6



- NOTES:
1. HEADWALL TO BE PARALLEL TO CL OF ROADWAY.
 2. REINFORCING SHOWN IS FOR EXAMPLE PURPOSES; ACTUAL REINFORCEMENT SHALL BE EVALUATED DURING DESIGN.

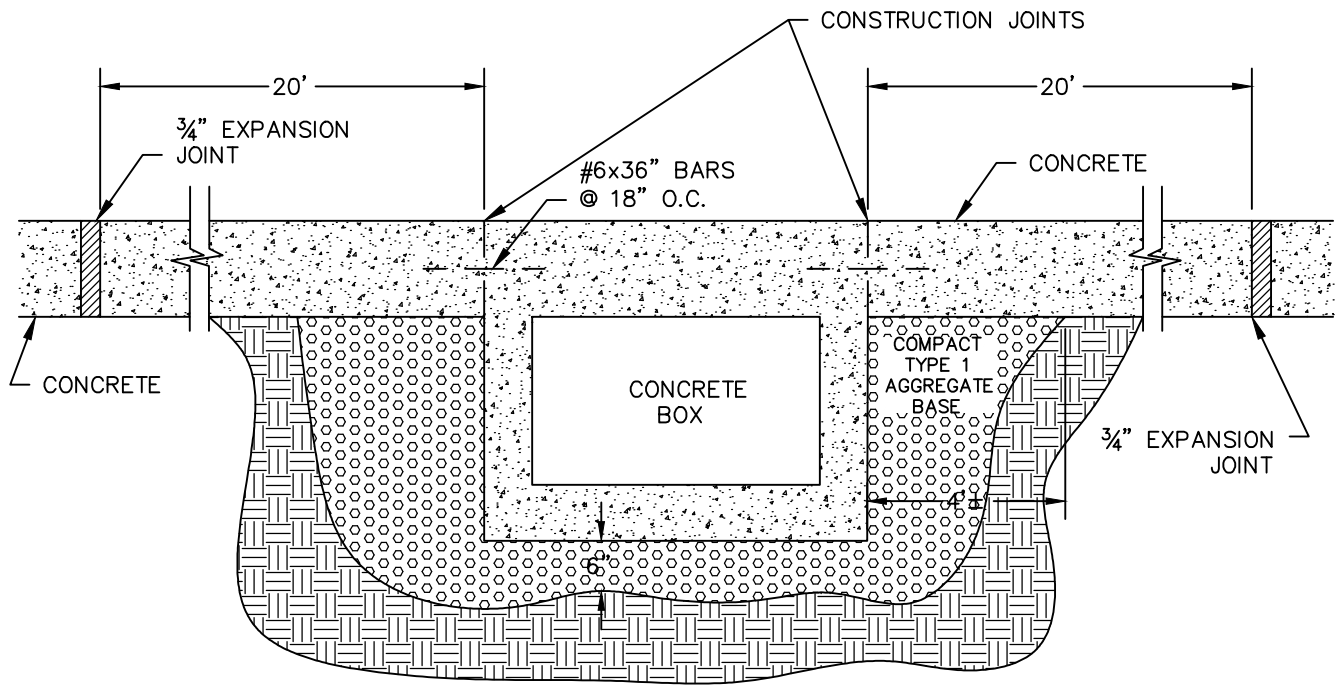


CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

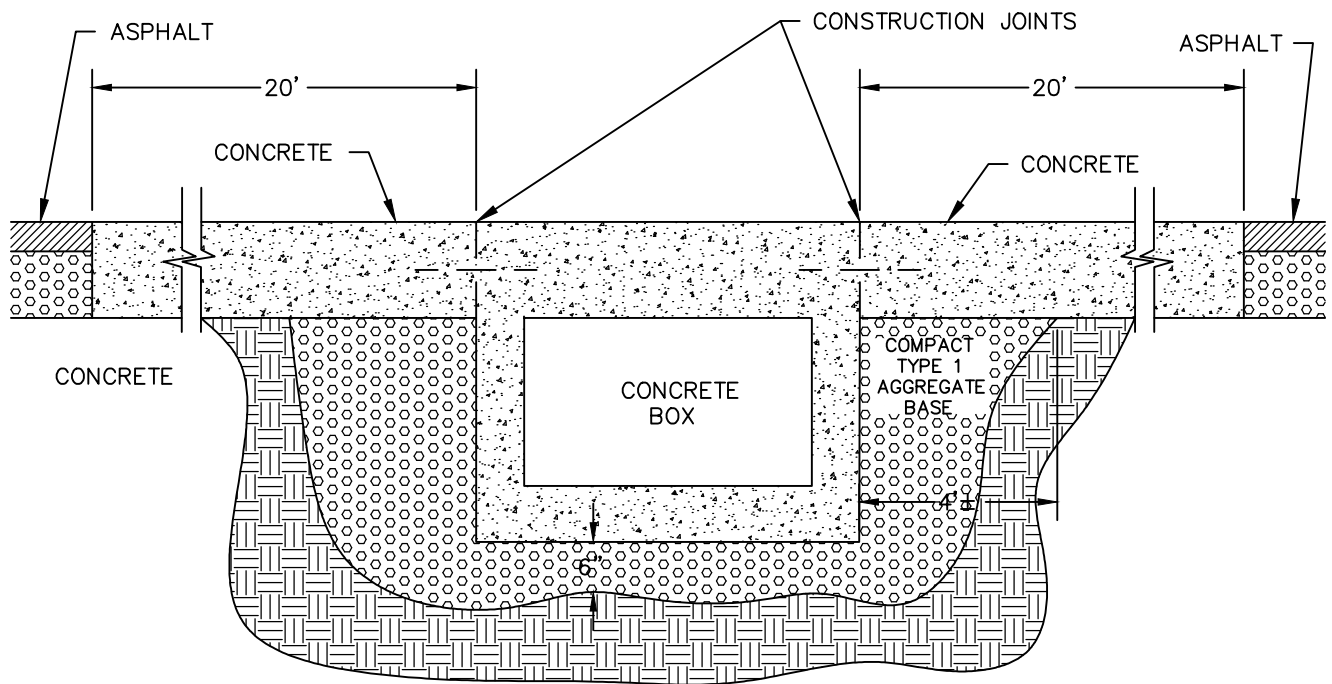
CONCRETE BOX ROADWAY FILL DETAIL

REVISION DATE: 6/1/15

DRAWING SS-7



APPROACH FOR CONCRETE PAVING



APPROACH FOR ASPHALT PAVING

NO SCALE

NOTES:

1. PLACE 4' CLAY CAP ON STREET SIDE SLOPES AT EDGES OF CULVERT.3
2. REINFORCING SHOWN IS FOR EXAMPLE PURPOSES; ACTUAL REINFORCEMENT SHALL BE EVALUATED DURING DESIGN.

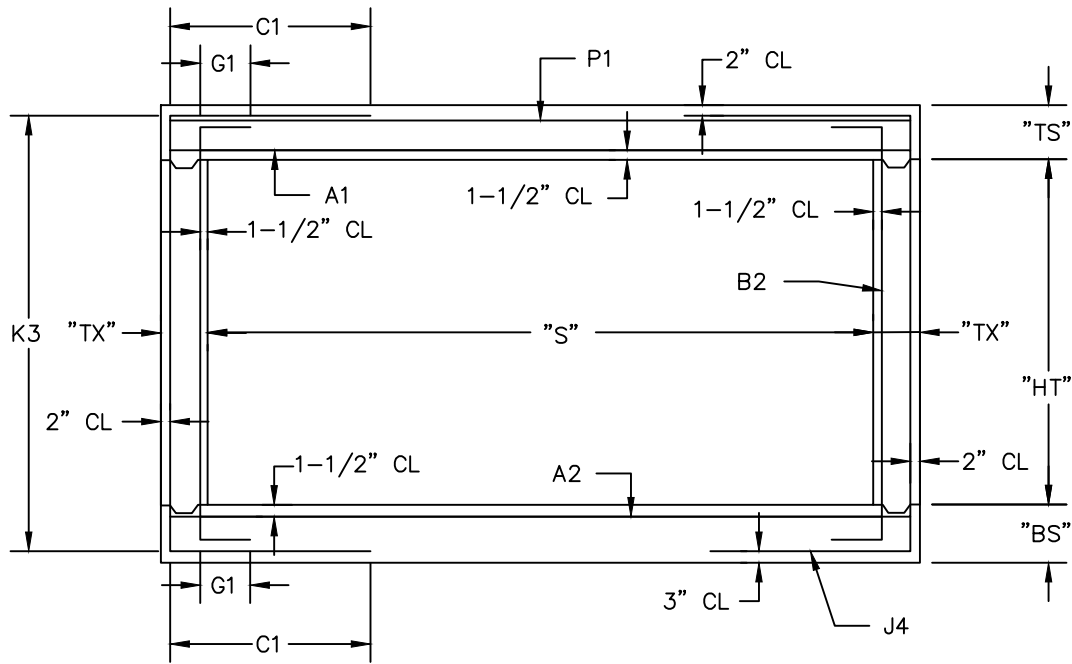


CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

APPROACHES TO
BOX CULVERT

REVISION DATE: 6/1/15

DRAWING SS-8



NO SCALE

NOTES:

1. ALL CULVERTS SHALL BE DESIGNED FOR HS20 LOADINGS USING CONCRETE, $f'_c=4,000$ psi OR GREATER, REINFORCING STEEL (GRADE 60), $f_y = 60,000$ psi
2. LAP ALL LONGITUDINAL BARS A MINIMUM OF 23" AT SPLICES
3. ALL DIMENSIONS ARE TO BE SHOWN IN INCHES
4. MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 1-1/2 INCHES UNLESS OTHERWISE SHOWN
5. F BARS ARE TO BE A MINIMUM #4 WITH SPACING LABELED ON SECTION VIEW
6. A FILTER CLOTH 3 FEET IN WIDTH AND DOUBLE THICKNESS SHALL BE APPLIED TO ALL TRANSVERSE JOINTS IN THE TOP SLAB AND SIDEWALLS. THE MATERIAL SHALL BE CENTERED ON THE JOINT AND THE EDGES SHALL BE A GEOTEXTILE MEETING THE APPROVAL OF THE ENGINEER AND HAVING A GRAB OF TENSILE STRENGTH OF 180LBS. (ASTM D-4632) AND AN APPARENT OF 50 TO 100 (ASTM D-4751). COST OF FURNISHING AND INSTALLING THE FILTER CLOTH WILL BE CONSIDERED COMPLETELY COVERED BY THE CONTRACT UNIT PRICE FOR OTHER ITEMS.
7. THE DESIGN SHALL SHOW AS A MINIMUM: THE DESIGN LOAD, DESIGN FILL HEIGHT, CONCRETE AND STEEL STRESS USED, AND THE FOLLOWING INFORMATION.
8. ALL CULVERT DESIGN TO BE IN ACCORDANCE WITH THE EDITION OF THE MISSOURI DEPARTMENT OF TRANSPORTATION GUIDELINES.

TABLE TO BE COMPLETED BY DESIGNER

BAR	SIZE	C to C	LENGTH
A1			
A2			
B2			
J4			
P1			
F			

DESIGN LOAD _____

f'_c _____

f_y _____

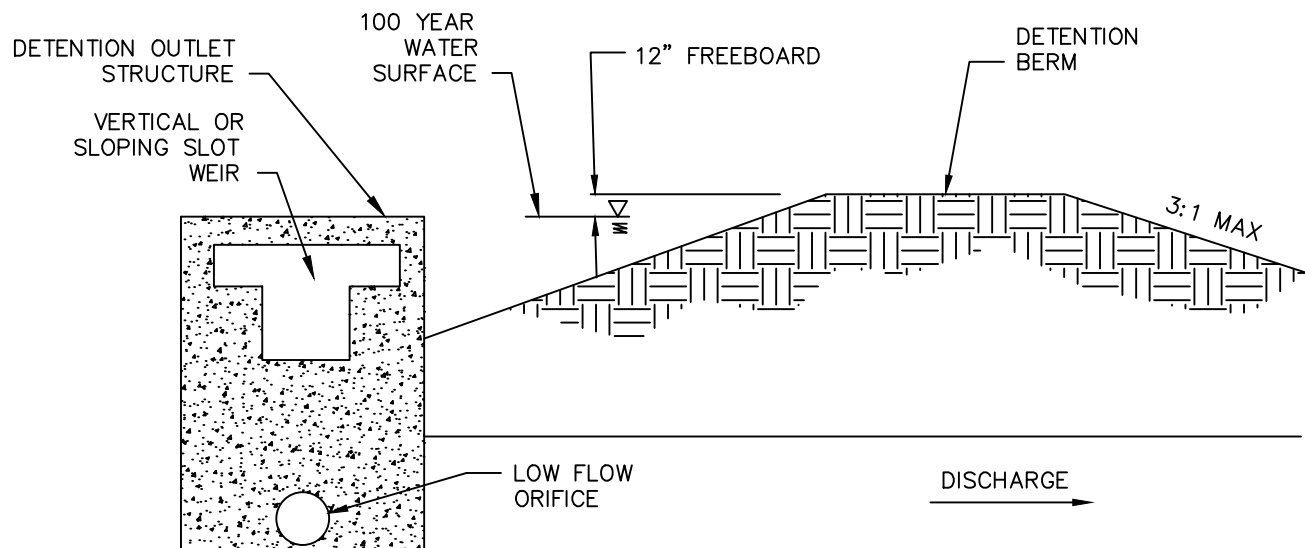


CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

CONCRETE BOX CULVERT
MINIMUM REINFORCEMENT DETAILS

REVISION DATE: 6/1/15

DRAWING SS-9



NO SCALE

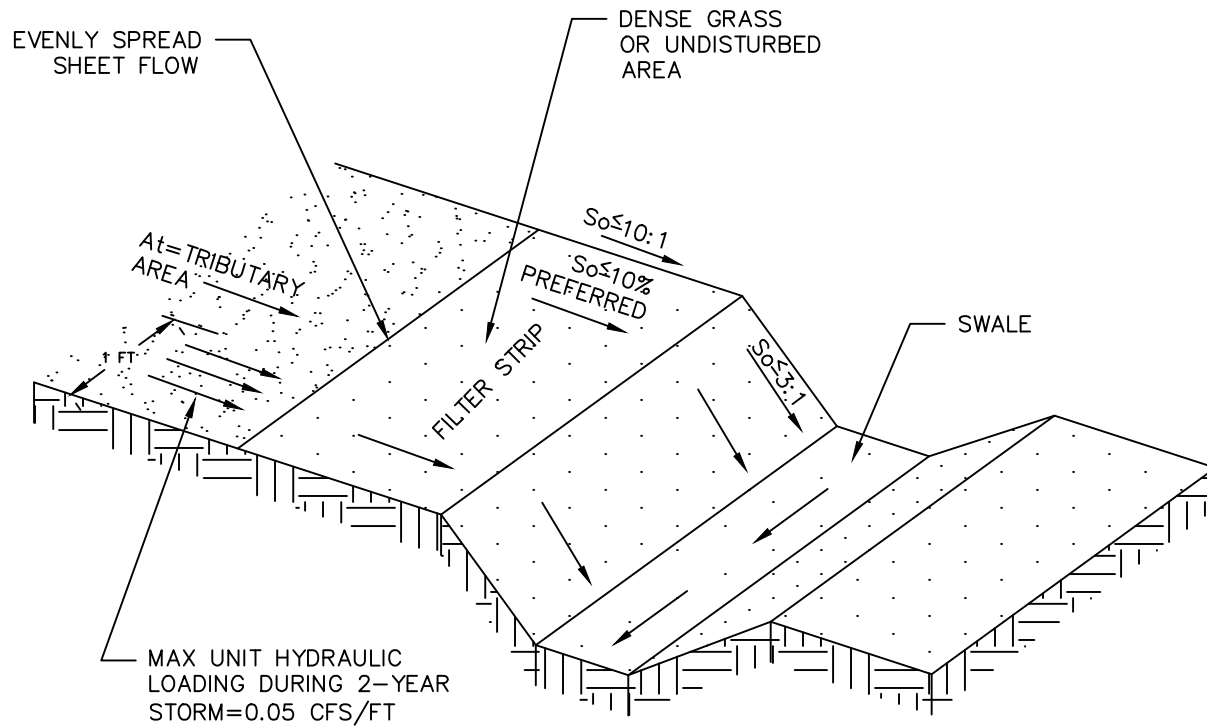


CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

VERTICAL BOX DETENTION OUTLET

REVISION DATE: 6/1/15

DRAWING SS-10



NO SCALE

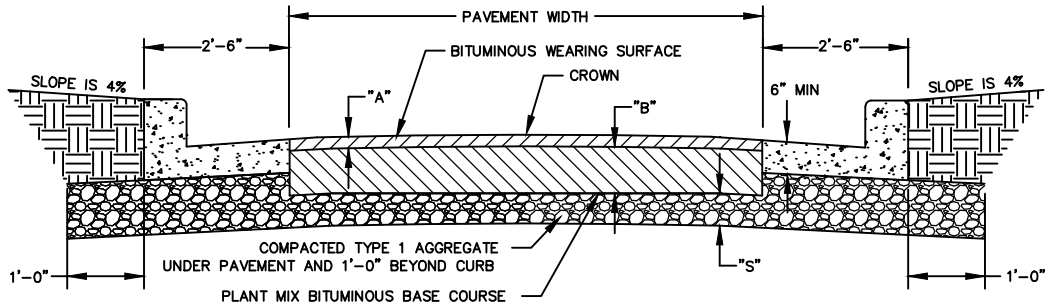


CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

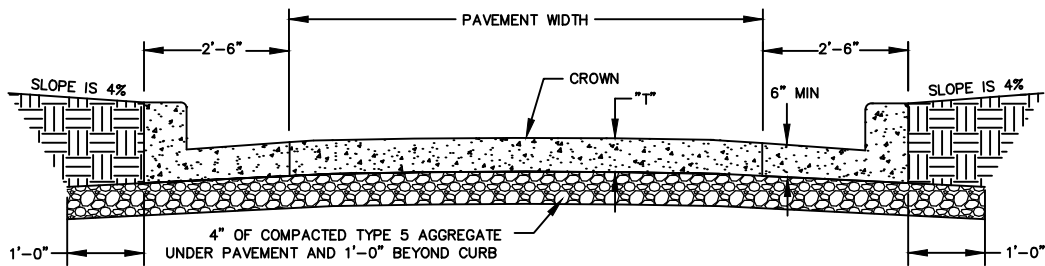
VEGETATIVE FILTER STRIP WATER QUALITY BMP

REVISION DATE: 6/1/15

DRAWING SS-11



BITUMINOUS PAVEMENT WITH CONCRETE CURB & GUTTER



PORTLAND CEMENT CONCRETE PAVEMENT AND CONCRETE CURB & GUTTER

NO SCALE

STANDARD ASPHALT THICKNESS			
STREET TYPE	"A"	"B"	"S"
PRIMARY ARTERIAL	2"	8"	8"
SECONDARY ARTERIAL	2"	8"	8"
COLLECTOR	2"	6"	8"
LOCAL (RESIDENTIAL)	2"	3"	6"
LOCAL (NON-RESIDENTIAL)	2"	4"	6"
ALLEY	2"	3"	6"

STANDARD CONCRETE THICKNESS	
STREET TYPE	"T"
PRIMARY ARTERIAL	8"
SECONDARY ARTERIAL	8"
COLLECTOR	8"
LOCAL (RESIDENTIAL)	6"
LOCAL (NON-RESIDENTIAL)	8"
ALLEY	6"

NOTES:

- CROSS SLOPE SHALL BE 2% ON ALL PAVEMENTS EXCEPT ALLEYS, SEE STANDARD DRAWING ST-4.
- WIDTH OF PAVEMENT IS SUBJECT TO REQUIREMENTS OF THE PLANNING DEPARTMENT AND MAY VARY FROM THE STANDARDS.
- REFER TO DRAWING ST-2 FOR CURB AND GUTTER DETAILS.
- BITUMINOUS ASPHALT SHALL BE PLACED IN LIFTS. MAXIMUM LIFT SHALL BE THREE (3) INCHES COMPACTED THICKNESS.

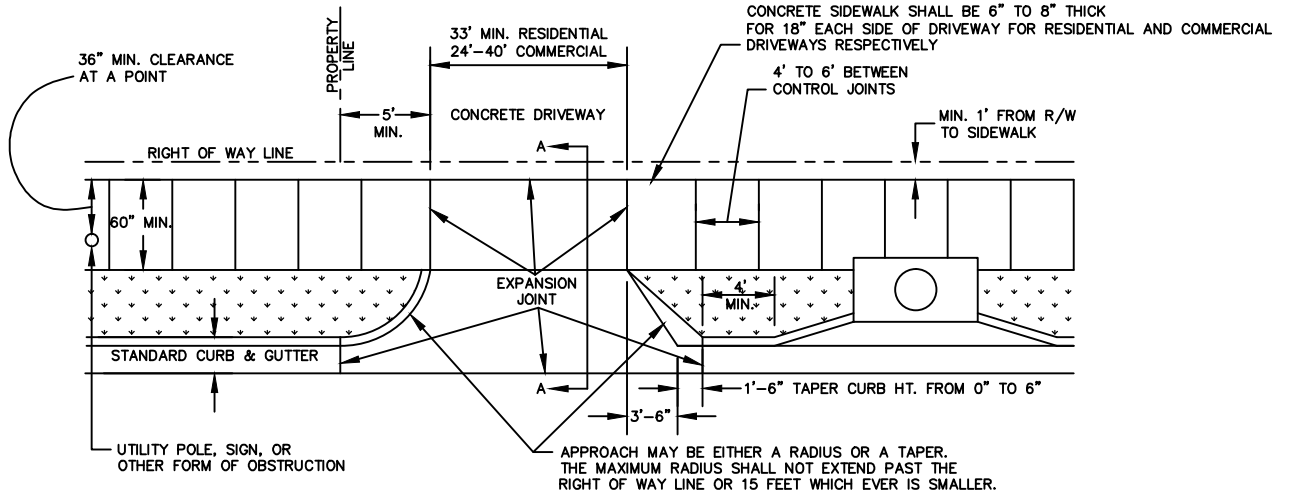


CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

**TYPICAL STREET
SECTIONS**

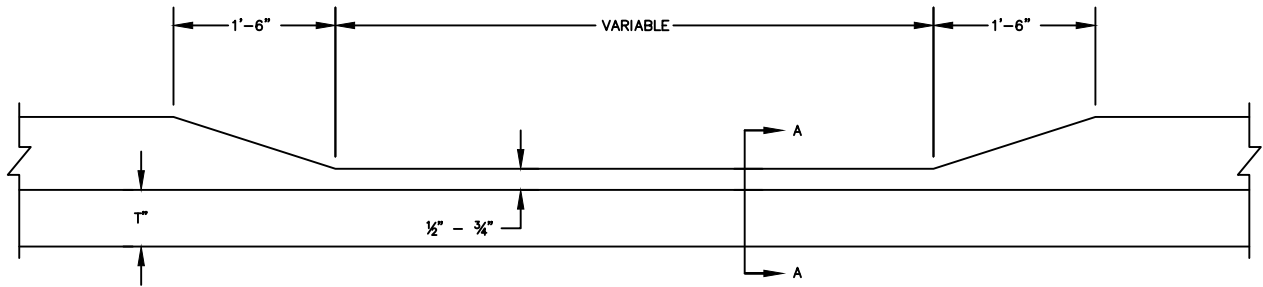
REVISION DATE: 6/1/15

DRAWING ST-1

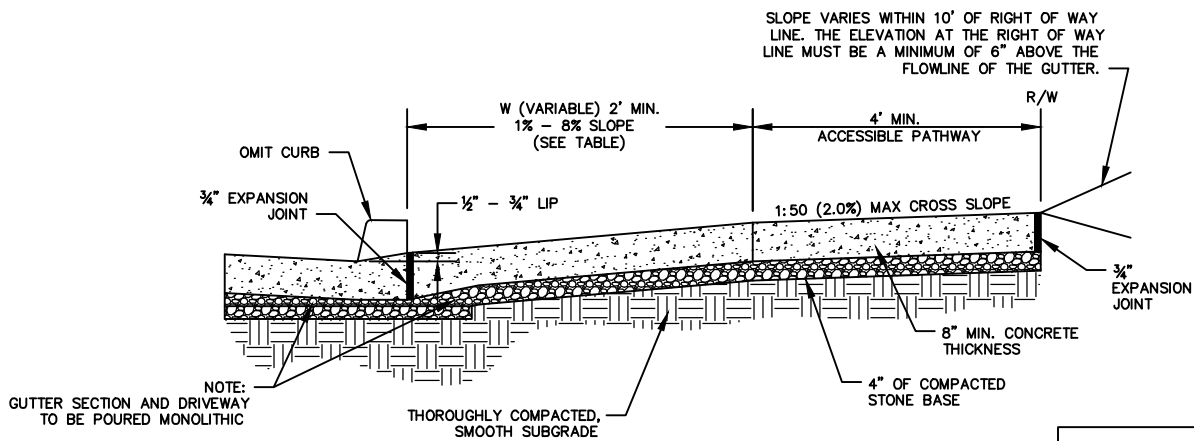


NOTE:
ANY PART OF AN ACCESSIBLE
ROUTE WITH A RUNNING SLOPE
GRATER THAN 1:20 SHALL BE
CONSIDERED A RAMP AND SHALL
COMPLY WITH THOSE REGULATIONS.

TYPICAL DRIVEWAY PLAN VIEW



STANDARD RESIDENTIAL DRIVEWAY OPENING



SECTION A-A

NO SCALE

REQUIRED DRIVEWAY GRADES

	MAJOR ARTERIAL	SECONDARY ARTERIAL	COLLECTOR	NON-RESIDENTIAL LOCAL
A. MAXIMUM CHANGE OF GRADE AT BACK OF SIDEWALK.	4%	5%	6%	8%

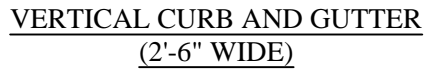


CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

DRIVEWAY OPENING

REVISION DATE: 6/1/15

DRAWING ST-2



1. KEYWAY OR #5 REBAR @ 2'-6" O.C. TO BE USED ON ALL CONCRETE PAVEMENT. OMIT FOR ASPHALT PAVEMENT.
2. FOR ALL ARTERIALS, COLLECTORS AND LOCAL (NON RESIDENTIAL) STREETS THE GUTTER THICKNESS SHALL BE 8".
3. FOR LOCAL (RESIDENTIAL), MARGINAL AND ALLEYS THE GUTTER THICKNESS SHALL BE 6".
4. ALL DEFORMED BARS FOR JOINTS AND CURBS SHALL BE IN ACCORDANCE WITH AASHTO M 31, GRADE 40 AND EPOXY COATED.
5. AGGREGATE BASE TO EXTEND PAST THE BACK OF CURB FOR A DISTANCE OF 12".
7. THE USE OF INTEGRAL OR SEPARATED CURB MUST BE APPROVED BY DEPARTMENT OF PUBLIC WORKS
8. CONSTRUCTION JOINT AND TIE BARS MAY BE OMITTED WHEN CURB IS POURED INTEGRAL WITH PAVEMENT.
9. LENGTH OF THE TIE BARS SHALL BE EQUAL TO THE THICKNESS OF PAVEMENT PLUS THE HEIGHT OF CURB LESS 3 INCHES. TIE BARS SHALL BE PLACED AT 24 INCH CENTERS.



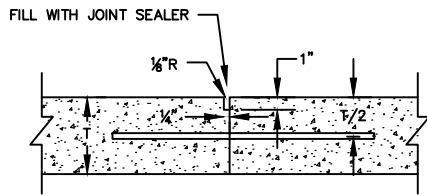
NO SCALE



CONCRETE CURBS, CURBS & GUTTERS, AND GUTTERS

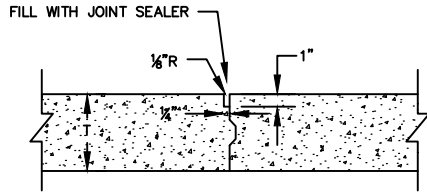
REVISION DATE: 6/1/15

DRAWING ST-3



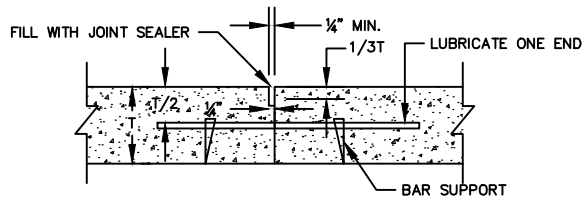
DOWELED LONGITUDINAL JOINT WITH
24" No.6 DEFORMED BAR AT 24" O.C.

TYPE "A"



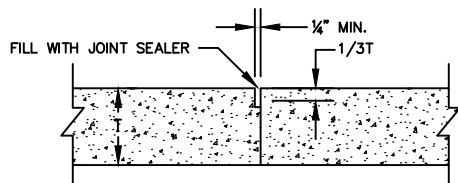
KEYED LONGITUDINAL JOINT

TYPE "B"



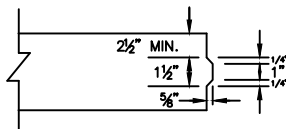
SAWED CONTRACTION JOINT WITH
1" x 18" DOWEL BAR AT 24" O.C.

TYPE "C"



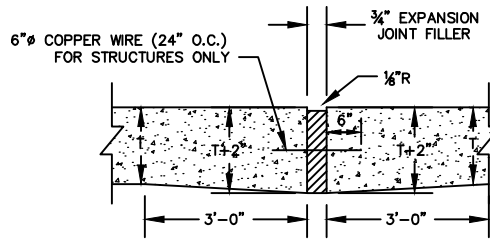
SAWED CONTRACTION JOINT

TYPE "D"



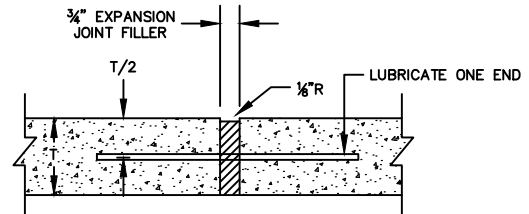
DETAIL KEY

KEYWAY FORMED BY FASTENING KEY TO FORM



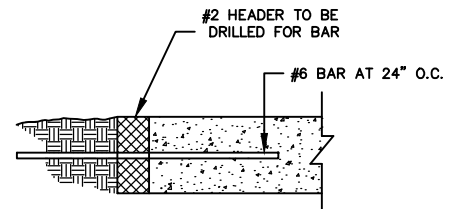
EXPANSION JOINT

TYPE "E"



DOWELED EXPANSION JOINT
3/4" x 15" DOWEL BAR AT 24" O.C.

TYPE "F"



CONSTRUCTION HEADER CONCRETE

DEPTH OF SAW JOINT:
1/2 OF PAVEMENT THICKNESS

NO SCALE

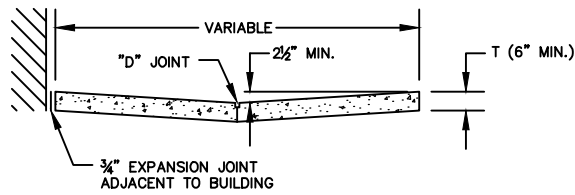


CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

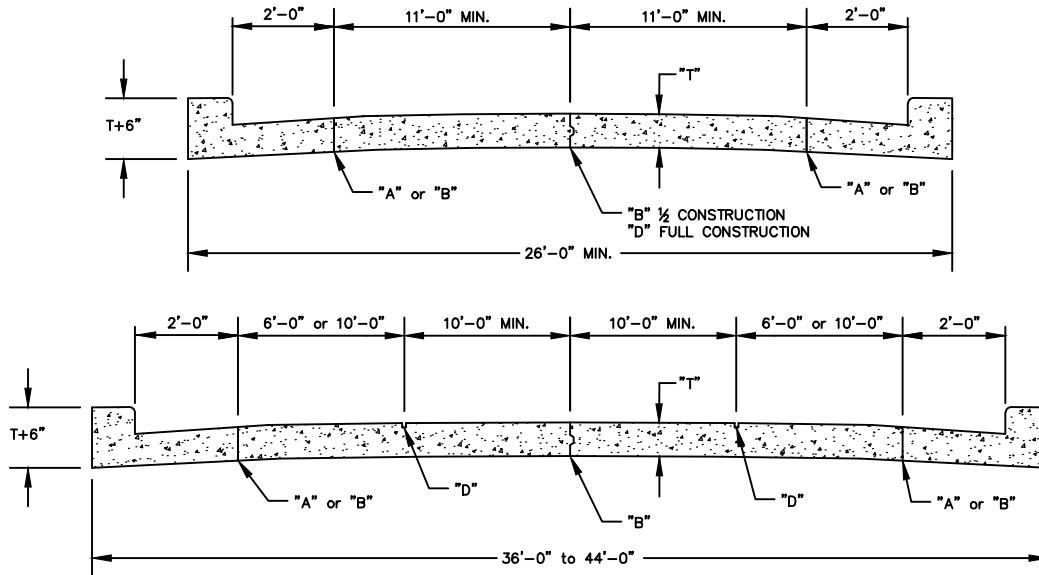
JOINT DETAILS -
CONCRETE PAVEMENT

REVISION DATE: 6/1/15

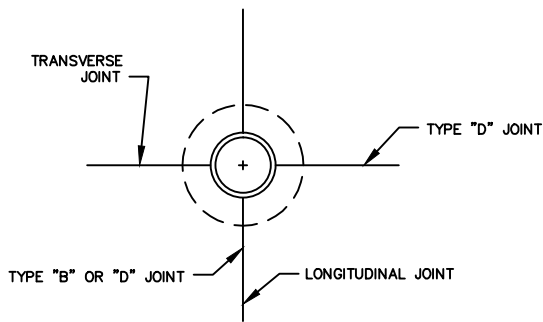
DRAWING ST-4



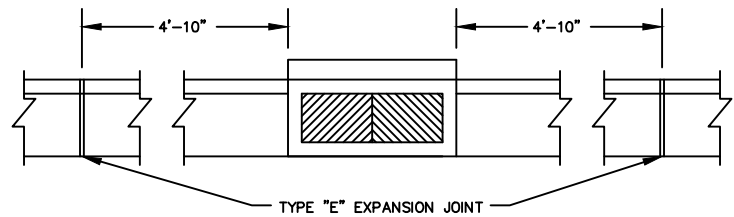
TYPICAL ALLEY SECTION



CONCRETE PAVEMENT - JOINT LOCATIONS



MANHOLE JOINT DETAIL



JOINT LOCATION AT INLETS

NO SCALE

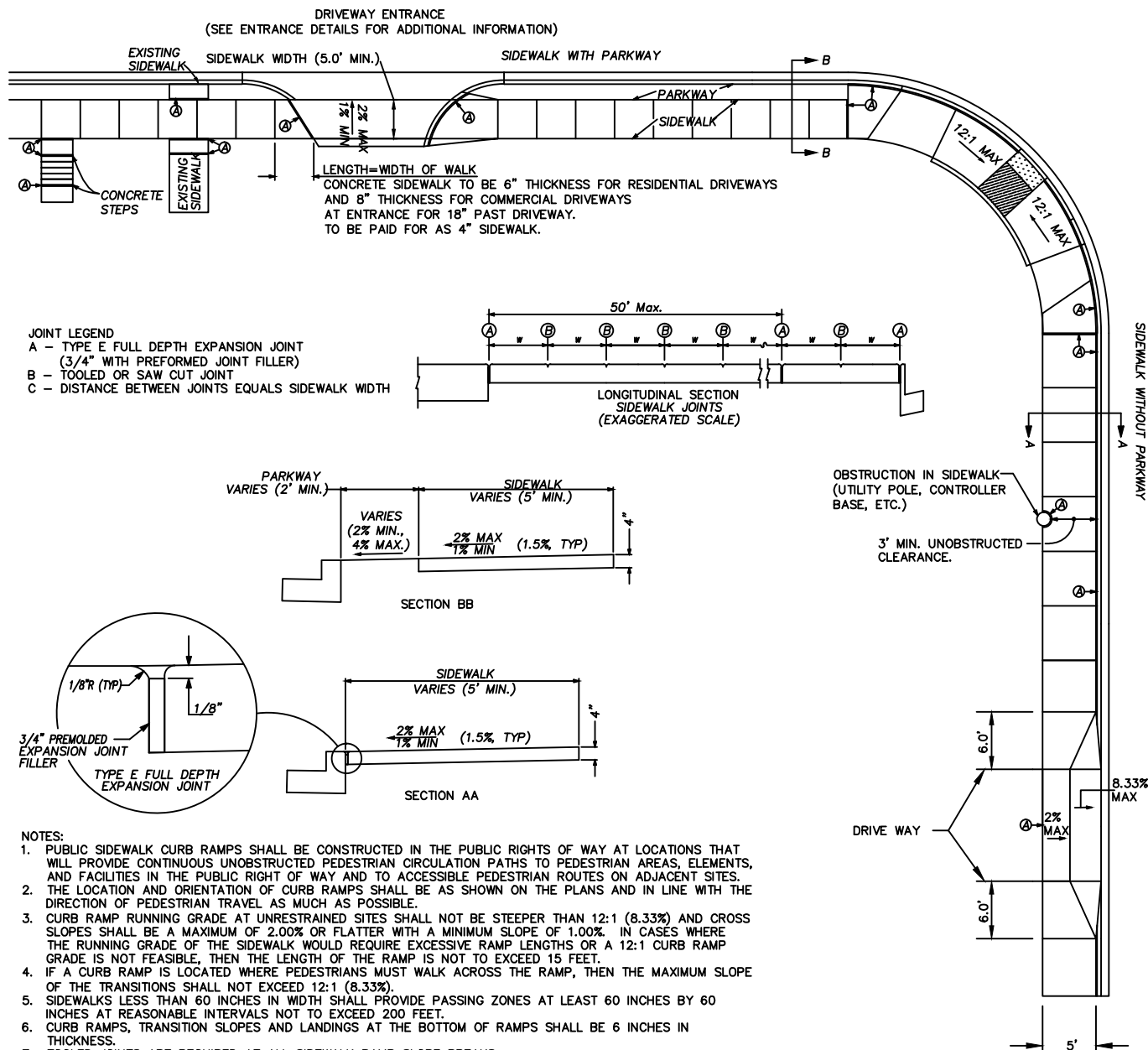


CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

JOINT LOCATION -
CONCRETE PAVEMENT

REVISION DATE: 6/1/15

DRAWING ST-5



NOTES:

- PUBLIC SIDEWALK CURB RAMPS SHALL BE CONSTRUCTED IN THE PUBLIC RIGHTS OF WAY AT LOCATIONS THAT WILL PROVIDE CONTINUOUS UNOBSTRUCTED PEDESTRIAN CIRCULATION PATHS TO PEDESTRIAN AREAS, ELEMENTS, AND FACILITIES IN THE PUBLIC RIGHT OF WAY AND TO ACCESSIBLE PEDESTRIAN ROUTES ON ADJACENT SITES.
- THE LOCATION AND ORIENTATION OF CURB RAMPS SHALL BE AS SHOWN ON THE PLANS AND IN LINE WITH THE DIRECTION OF PEDESTRIAN TRAVEL AS MUCH AS POSSIBLE.
- CURB RAMP RUNNING GRADE AT UNRESTRAINED SITES SHALL NOT BE STEEPER THAN 12:1 (8.33%) AND CROSS SLOPES SHALL BE A MAXIMUM OF 2.00% OR FLATTER WITH A MINIMUM SLOPE OF 1.00%. IN CASES WHERE THE RUNNING GRADE OF THE SIDEWALK WOULD REQUIRE EXCESSIVE RAMP LENGTHS OR A 12:1 CURB RAMP GRADE IS NOT FEASIBLE, THEN THE LENGTH OF THE RAMP IS NOT TO EXCEED 15 FEET.
- IF A CURB RAMP IS LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, THEN THE MAXIMUM SLOPE OF THE TRANSITIONS SHALL NOT EXCEED 12:1 (8.33%).
- SIDEWALKS LESS THAN 60 INCHES IN WIDTH SHALL PROVIDE PASSING ZONES AT LEAST 60 INCHES BY 60 INCHES AT REASONABLE INTERVALS NOT TO EXCEED 200 FEET.
- CURB RAMPS, TRANSITION SLOPES AND LANDINGS AT THE BOTTOM OF RAMPS SHALL BE 6 INCHES IN THICKNESS.
- TOOLED JOINTS ARE REQUIRED AT ALL SIDEWALK RAMP SLOPE BREAKS.
- CURB RAMP DETECTABLE WARNING SURFACES SHALL BE PRE-FABRICATED. CAST-IN-PLACE CONCRETE DETECTABLE WARNING SURFACES WILL NOT BE ALLOWED.
- CURB RAMP DETECTABLE WARNING SURFACES SHALL BE CONSTRUCTED ONLY WHERE A SIDEWALK CROSSES A PUBLIC STREET, INCLUDING SIGNALIZED COMMERCIAL DRIVEWAY CROSSINGS.
- STORMWATER INLETS, SIGNS, POSTS, MANHOLE COVERS, PULL BOXES AND OTHER ACCESS LIDS SHOULD BE AVOIDED WITHIN THE SIDEWALK. IF SUCH A LOCATION IS NECESSARY, THE FEATURE MUST MEET ADA STANDARDS.
- THE RUNNING GRADE OF THE SIDEWALK SHALL NOT EXCEED 5.0% UNLESS IT IS MATCHING THE GRADE OF THE EXISTING ADJACENT ROADWAY.

NO SCALE



CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

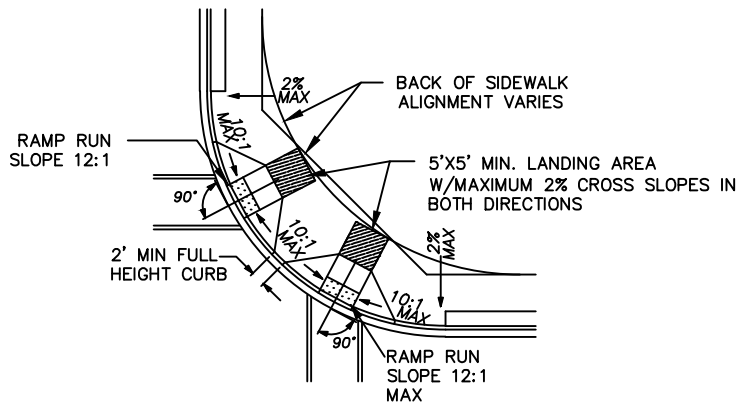
CONCRETE SIDEWALK

LEGEND

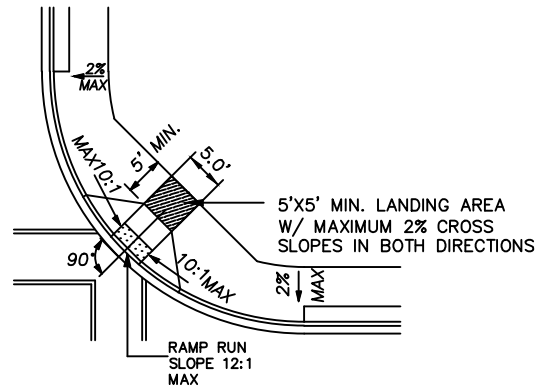
- DETECTABLE WARNING PAD (TRUNCATED DOMES)
- LANDING AREA (2% MAX CROSS SLOPE IN ALL DIRECTIONS)

REVISION DATE: 6/1/15

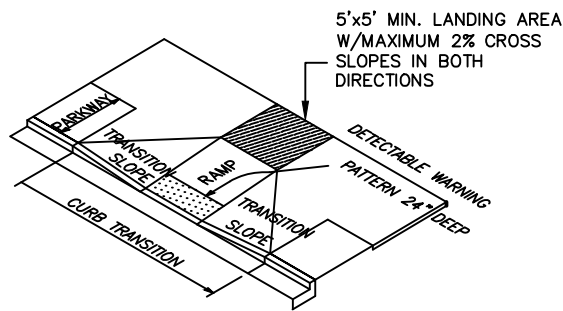
DRAWING ST-6



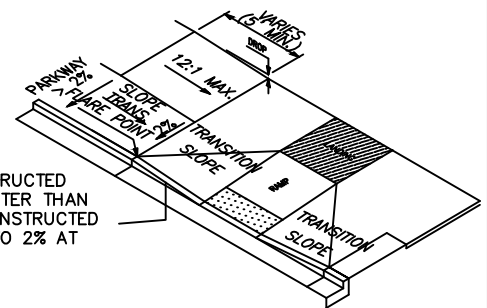
PERPENDICULAR SIDEWALK CURB RAMPS



DIAGONAL SIDEWALK CURB RAMPS



WHERE CURB RAMPS ARE CONSTRUCTED WITH THE PARKWAY SLOPE GREATER THAN 2%, THE SIDEWALK SHALL BE CONSTRUCTED TO REDUCE THE CROSS SLOPE TO 2% AT THE FLARE POINT.



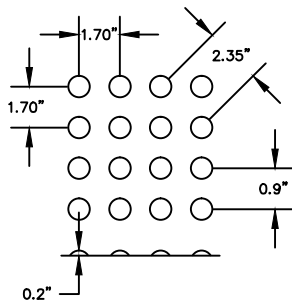
SIDEWALK / PARKWAY TRANSITION

CURB RAMP NOMENCLATURE

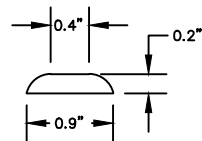
NO SCALE

NOTE:

DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.



DOMES SPACING



DOMES SECTION

NOTES:

1. PUBLIC SIDEWALK CURB RAMPS SHALL BE CONSTRUCTED IN THE PUBLIC RIGHTS OF WAY AT LOCATIONS THAT WILL PROVIDE CONTINUOUS UNOBSTRUCTED PEDESTRIAN CIRCULATION PATHS TO PEDESTRIAN AREAS, ELEMENTS, AND FACILITIES IN THE PUBLIC RIGHT OF WAY AND TO ACCESSIBLE PEDESTRIAN ROUTES ON ADJACENT SITES.
2. THE LOCATION AND ORIENTATION OF CURB RAMPS SHALL BE AS SHOWN ON THE PLANS AND IN LINE WITH THE DIRECTION OF PEDESTRIAN TRAVEL AS MUCH AS POSSIBLE.
3. CURB RAMP RUNNING GRADE AT UNRESTRAINED SITES SHALL NOT BE STEEPER THAN 12:1 (8.33%) AND CROSS SLOPES SHALL BE A MAXIMUM OF 2.00% OR FLATTER WITH A MINIMUM SLOPE OF 1.00%. IN CASES WHERE THE RUNNING GRADE OF THE SIDEWALK WOULD REQUIRE EXCESSIVE RAMP LENGTHS OR A 12:1 CURB RAMP GRADE IS NOT FEASIBLE, THEN THE LENGTH OF THE RAMP IS NOT TO EXCEED 15 FEET.
4. IF A CURB RAMP IS LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, THEN THE MAXIMUM SLOPE OF THE TRANSITIONS SHALL NOT EXCEED 12:1 (8.33%).
5. CURB RAMPS, TRANSITION SLOPES AND LANDINGS AT THE BOTTOM OF RAMPS SHALL BE 6 INCHES IN THICKNESS.
6. TOOLED JOINTS ARE REQUIRED AT ALL SIDEWALK RAMP SLOPE BREAKS.
7. CURB RAMP DETECTABLE WARNING SURFACES SHALL BE PRE-FABRICATED. CAST-IN-PLACE CONCRETE DETECTABLE WARNING SURFACES WILL NOT BE ALLOWED.
8. CURB RAMP DETECTABLE WARNING SURFACES SHALL BE CONSTRUCTED ONLY WHERE A SIDEWALK CROSSES A PUBLIC STREET, INCLUDING SIGNALIZED COMMERCIAL DRIVEWAY CROSSINGS.
9. LANDING AREAS AT THE BOTTOM OF DIAGONAL CURB RAMPS SHALL BE A MINIMUM DIMENSION OF 4.0' BY 4.0' AND CONTAINED WHOLLY WITHIN THE CONFINES OF THE STRIPED CROSSWALK (IF PRESENT).

LEGEND

- DETECTABLE WARNING PAD (TRUNCATED DOMES)
- LANDING AREA (2% MAX CROSS SLOPE IN ALL DIRECTIONS)

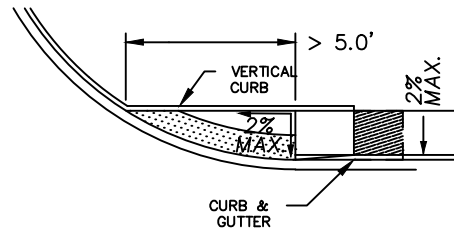
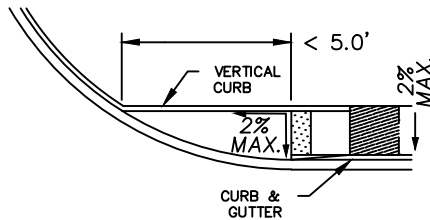
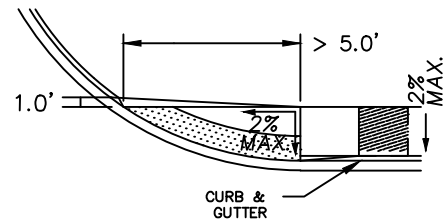
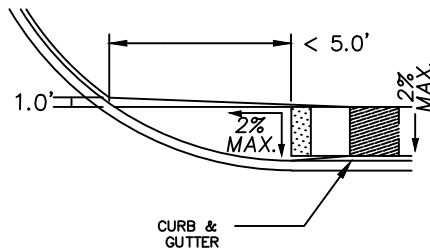
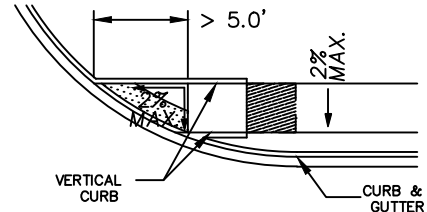
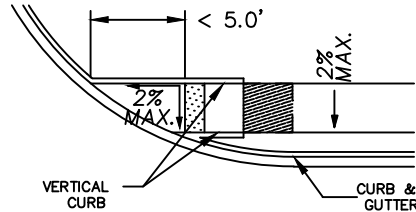
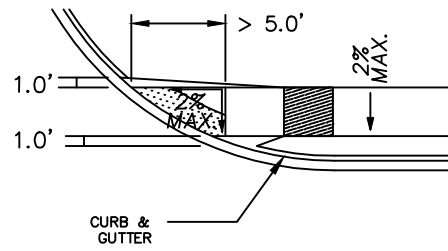
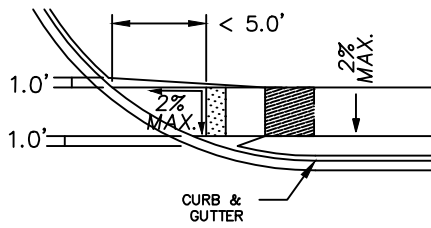


CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

CURB RAMPS

REVISION DATE: 6/1/15

DRAWING ST-7 SHEET 1 OF 3



LINEAR SIDEWALK CURB RAMPS

NO SCALE

NOTES:

- PUBLIC SIDEWALK CURB RAMPS SHALL BE CONSTRUCTED IN THE PUBLIC RIGHTS OF WAY AT LOCATIONS THAT WILL PROVIDE CONTINUOUS UNOBSTRUCTED PEDESTRIAN CIRCULATION PATHS TO PEDESTRIAN AREAS, ELEMENTS, AND FACILITIES IN THE PUBLIC RIGHT OF WAY AND TO ACCESSIBLE PEDESTRIAN ROUTES ON ADJACENT SITES.
- THE LOCATION AND ORIENTATION OF CURB RAMPS SHALL BE AS SHOWN ON THE PLANS AND IN LINE WITH THE DIRECTION OF PEDESTRIAN TRAVEL AS MUCH AS POSSIBLE.
- CURB RAMP RUNNING GRADE AT UNRESTRAINED SITES SHALL NOT BE STEEPER THAN 12:1 (8.33%) AND CROSS SLOPES SHALL BE A MAXIMUM OF 2.00% OR FLATTER WITH A MINIMUM SLOPE OF 1.00%. IN CASES WHERE THE RUNNING GRADE OF THE SIDEWALK WOULD REQUIRE EXCESSIVE RAMP LENGTHS OR A 12:1 CURB RAMP GRADE IS NOT FEASIBLE, THEN THE LENGTH OF THE RAMP IS NOT TO EXCEED 15 FEET.
- IF A CURB RAMP IS LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, THEN THE MAXIMUM SLOPE OF THE TRANSITIONS SHALL NOT EXCEED 12:1 (8.33%).
- CURB RAMPS, TRANSITION SLOPES AND LANDINGS AT THE BOTTOM OF RAMPS SHALL BE 6 INCHES IN THICKNESS.
- TOOLED JOINTS ARE REQUIRED AT ALL SIDEWALK RAMP SLOPE BREAKS.
- CURB RAMP DETECTABLE WARNING SURFACES SHALL BE PRE-FABRICATED. CAST-IN-PLACE CONCRETE DETECTABLE WARNING SURFACES WILL NOT BE ALLOWED.
- CURB RAMP DETECTABLE WARNING SURFACES SHALL BE CONSTRUCTED ONLY WHERE A SIDEWALK CROSSES A PUBLIC STREET, INCLUDING SIGNALIZED COMMERCIAL DRIVEWAY CROSSINGS.
- LANDING AREAS FOR LINEAR CURB RAMPS SHALL MATCH THE WIDTH OF THE SIDEWALK FOR A DIMENSION OF 5.0'.



CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

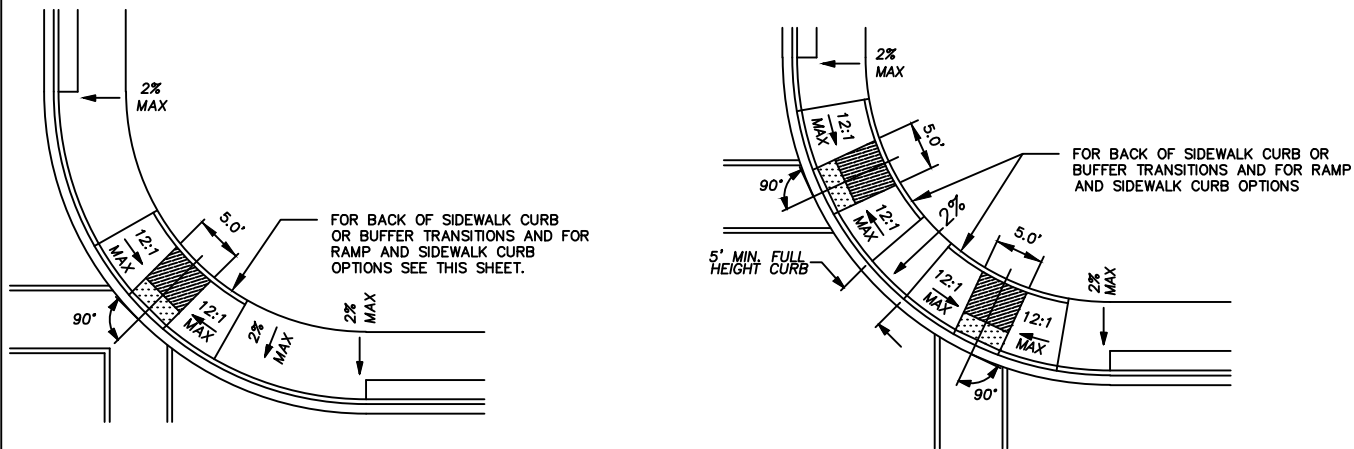
CURB RAMPS

LEGEND

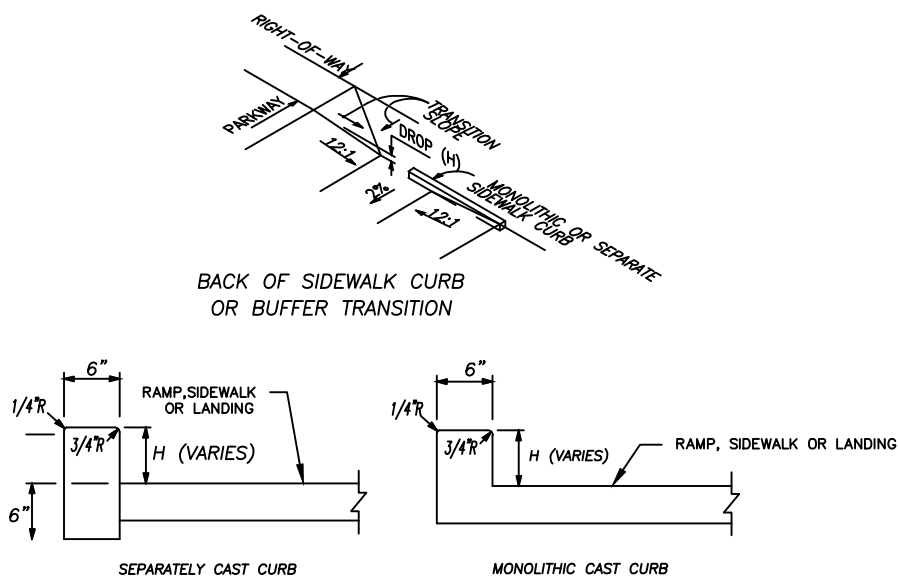
- DETECTABLE WARNING PAD (TRUNCATED DOMES)
- LANDING AREA (2% MAX CROSS SLOPE IN ALL DIRECTIONS)

REVISION DATE: 6/1/15

DRAWING ST-7 SHEET 2 OF 3



PARALLEL SIDEWALK CURB RAMPS



RAMP AND SIDEWALK CURB OPTIONS

NO SCALE

NOTES:

- PUBLIC SIDEWALK CURB RAMPS SHALL BE CONSTRUCTED IN THE PUBLIC RIGHTS OF WAY AT LOCATIONS THAT WILL PROVIDE CONTINUOUS UNOBSTRUCTED PEDESTRIAN CIRCULATION PATHS TO PEDESTRIAN AREAS, ELEMENTS, AND FACILITIES IN THE PUBLIC RIGHT OF WAY AND TO ACCESSIBLE PEDESTRIAN ROUTES ON ADJACENT SITES.
- THE LOCATION AND ORIENTATION OF CURB RAMPS SHALL BE AS SHOWN ON THE PLANS AND IN LINE WITH THE DIRECTION OF PEDESTRIAN TRAVEL AS MUCH AS POSSIBLE.
- CURB RAMP RUNNING GRADE AT UNRESTRAINED SITES SHALL NOT BE STEEPER THAN 12:1 (8.33%) AND CROSS SLOPES SHALL BE A MAXIMUM OF 2.00% OR FLATTER WITH A MINIMUM SLOPE OF 1.00%. IN CASES WHERE THE RUNNING GRADE OF THE SIDEWALK WOULD REQUIRE EXCESSIVE RAMP LENGTHS OR A 12:1 CURB RAMP GRADE IS NOT FEASIBLE, THEN THE LENGTH OF THE RAMP IS NOT TO EXCEED 15 FEET.
- IF A CURB RAMP IS LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, THEN THE MAXIMUM SLOPE OF THE TRANSITIONS SHALL NOT EXCEED 12:1 (8.33%).
- CURB RAMPS, TRANSITION SLOPES AND LANDINGS AT THE BOTTOM OF RAMPS SHALL BE 6 INCHES IN THICKNESS.
- TOOLED JOINTS ARE REQUIRED AT ALL SIDEWALK RAMP SLOPE BREAKS.
- CURB RAMP DETECTABLE WARNING SURFACES SHALL BE PRE-FABRICATED. CAST-IN-PLACE CONCRETE DETECTABLE WARNING SURFACES WILL NOT BE ALLOWED.
- CURB RAMP DETECTABLE WARNING SURFACES SHALL BE CONSTRUCTED ONLY WHERE A SIDEWALK CROSSES A PUBLIC STREET, INCLUDING SIGNALIZED COMMERCIAL DRIVEWAY CROSSINGS.
- LANDING AREAS FOR PARALLEL CURB RAMPS SHALL BE A MINIMUM DIMENSION OF 5.0' BY 5.0'.



CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

CURB RAMPS

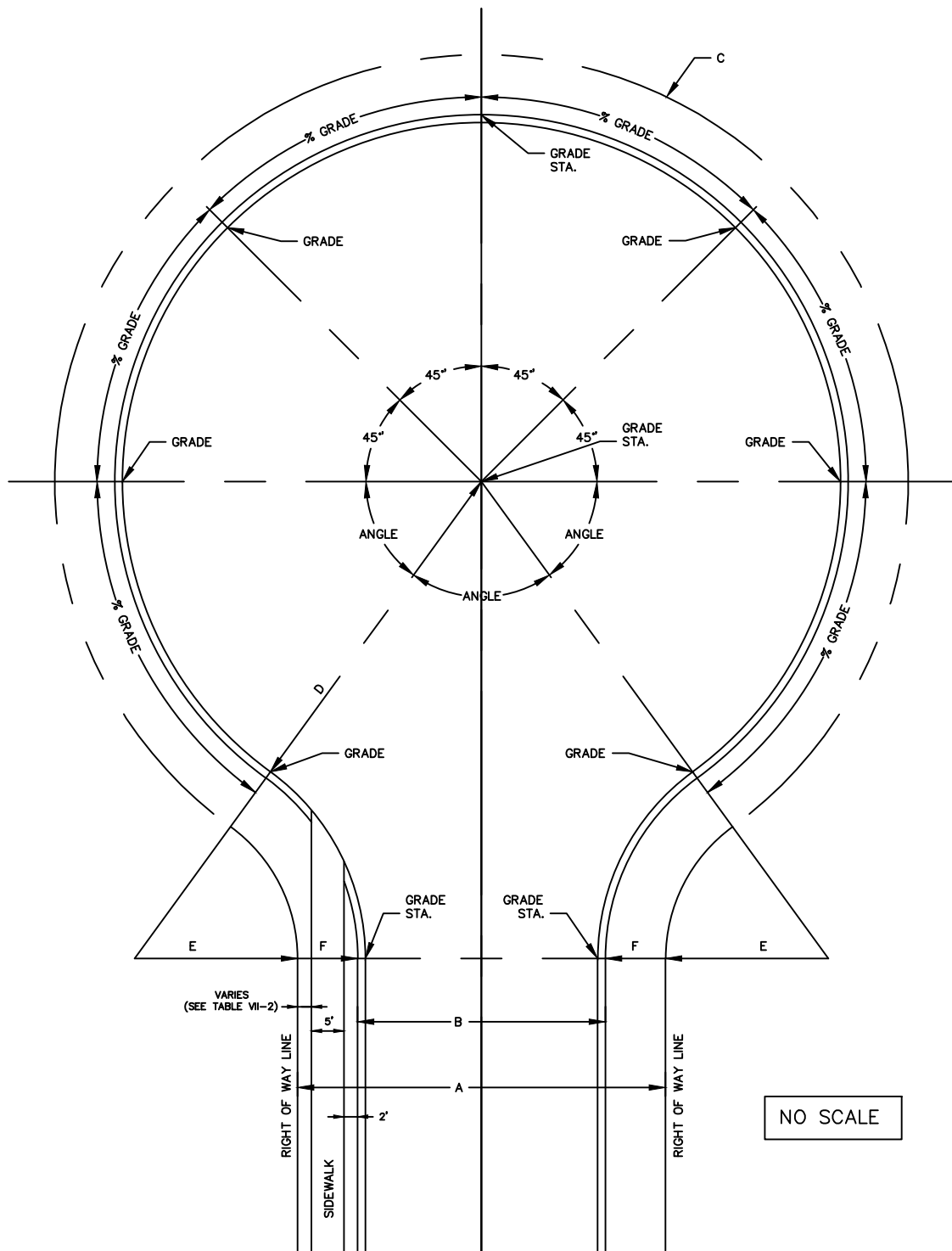
LEGEND

- DETECTABLE WARNING PAD (TRUNCATED DOMES)
- LANDING AREA (2% MAX CROSS SLOPE IN ALL DIRECTIONS)

REVISION DATE: 6/15

DRAWING ST-7

SHEET 3 OF 3



MINIMUM DIMENSIONS (FEET)

DESCRIPTION	KEY	RESIDENTIAL	NON RESIDENTIAL
STREET RIGHT-OF-WAY WIDTH	A	50' - 55'	50' - 65'
STREET PAVEMENT WIDTH TO BACK OF CURB	B	29' - 38'	29' - 45'
CUL-DE-SAC RIGHT-OF-WAY RADIUS	C	60	75
CUL-DE-SAC PAVEMENT RADIUS TO BACK OF CURB	D	48.5	63.5
INTERNAL CURVE, RIGHT-OF-WAY RADIUS	E	20	20
INTERNAL CURVE, BACK OF CURB RADIUS	F	31.5	31.5

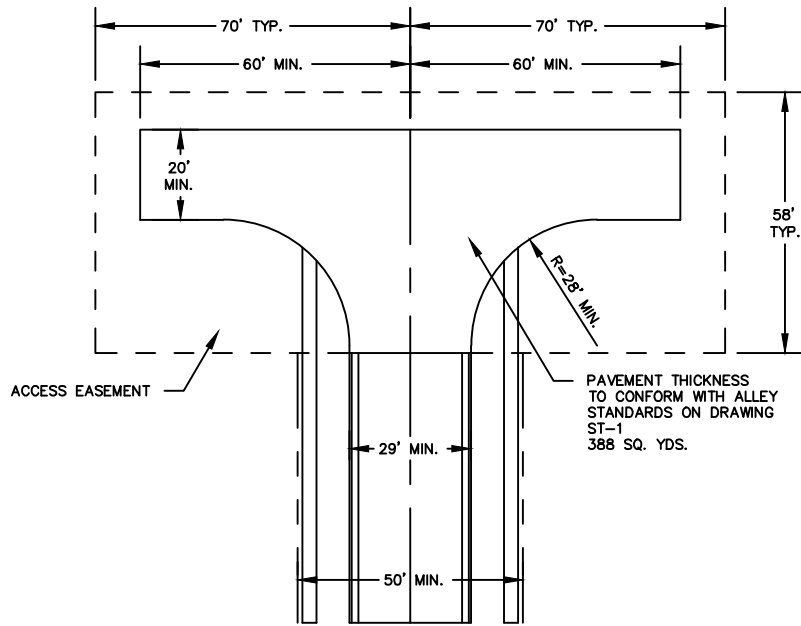


CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

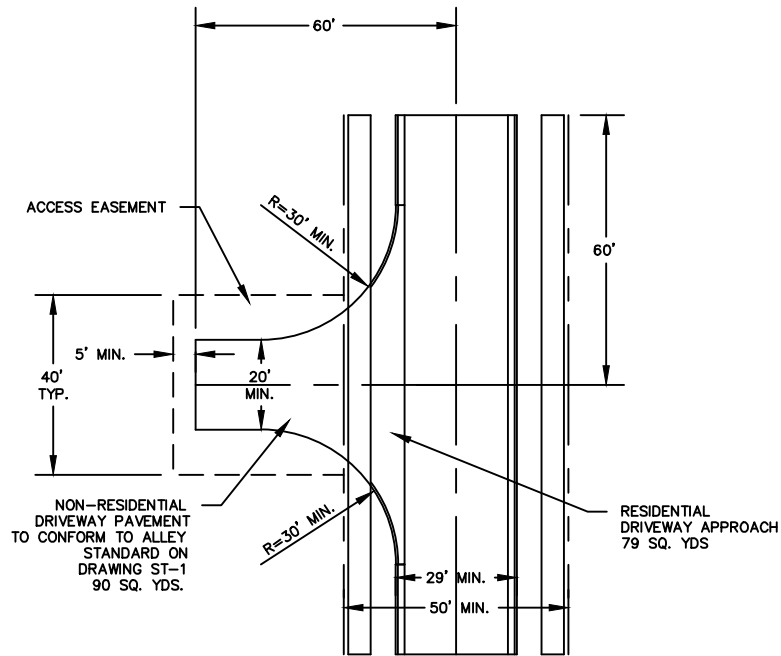
STANDARD CUL-DE-SAC

REVISION DATE: 6/1/15

DRAWING ST-8



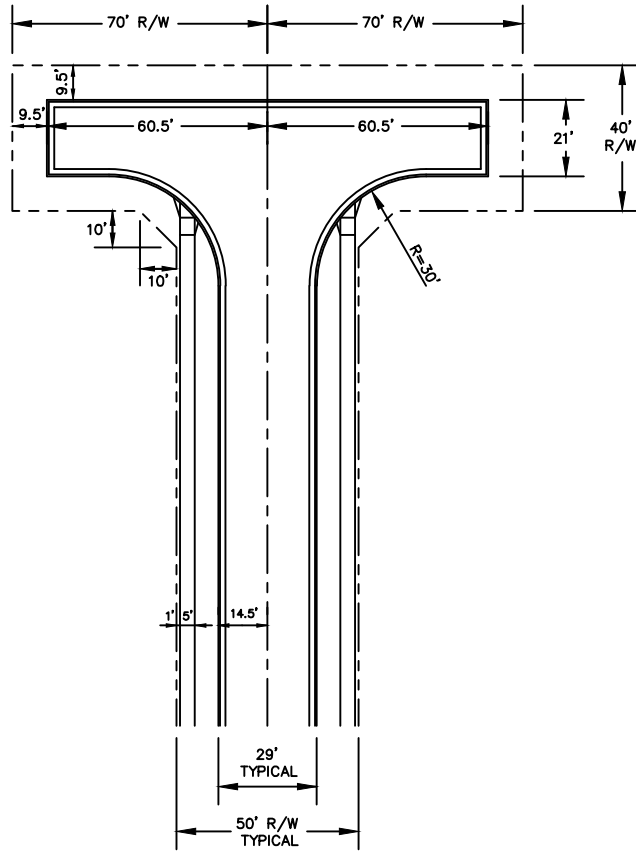
"T" TYPE



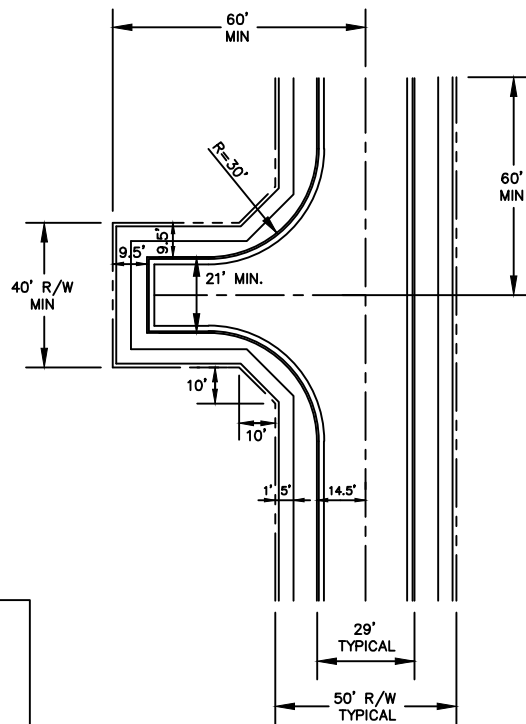
"BRANCH" TYPE

NO SCALE





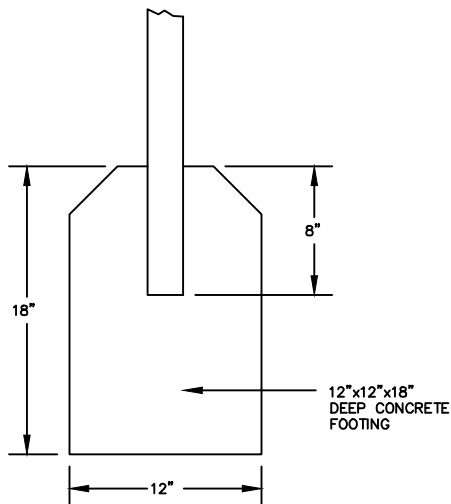
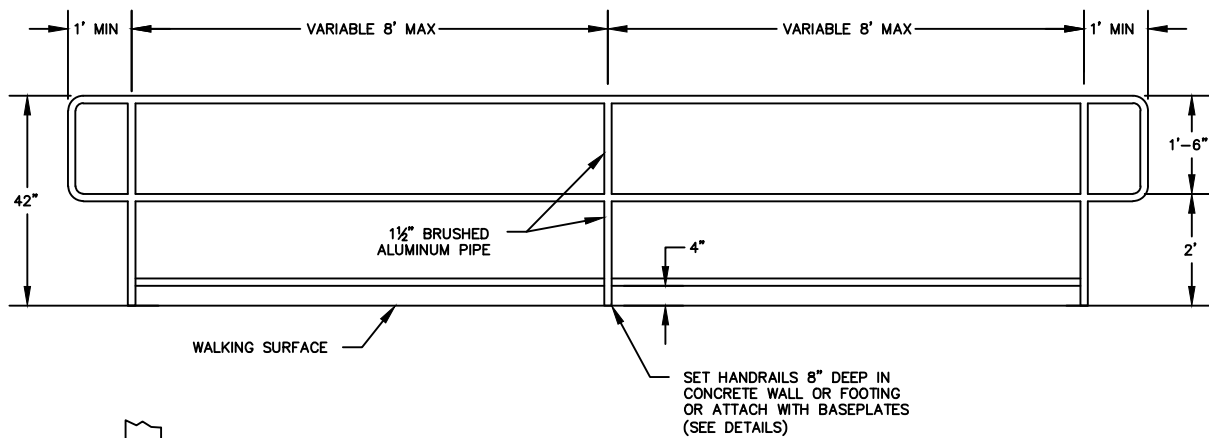
"T" TYPE



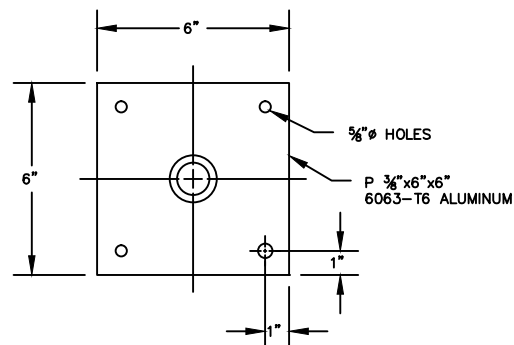
"BRANCH" TYPE

NO SCALE

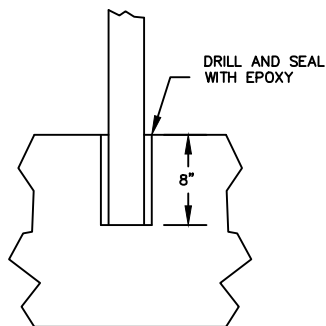




CONCRETE FOOTING DETAIL



BASEPLATE DETAIL



HEADWALL DETAIL

NO SCALE

- NOTES:
1. CROSS SLOPE SHALL BE 2% ON ALL PAVEMENTS EXCEPT ALLEYS, SEE STANDARD DRAWING ST-4.
 2. WIDTH OF PAVEMENT IS SUBJECT TO REQUIREMENTS OF THE PLANNING DEPARTMENT AND MAY VARY FROM THE STANDARDS.
 3. REFER TO DRAWING ST-2 FOR CURB AND GUTTER DETAILS.



CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

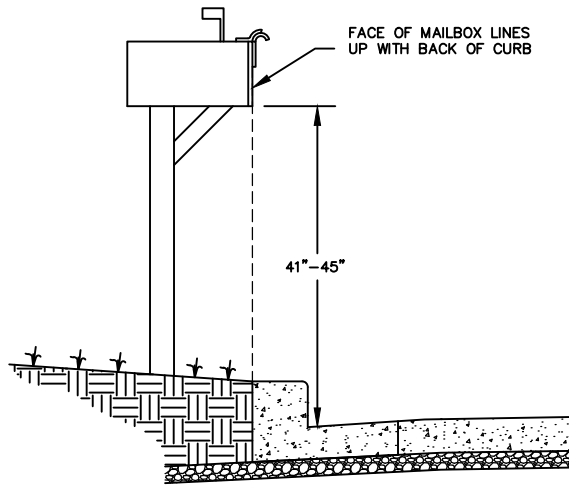
RAILING & POST SPECIFICATIONS		
TYPE	SIZE (DIA.)	WEIGHT (LBS./FT.)
ROUND	1 1/2"	ALUMINUM 0.940

- NOTES:
1. RAILINGS, POSTS, AND BASEPLATES SHALL BE ALUMINUM ALLOY 6061-T6 OR 6063-T6.
 2. IF PRE-MANUFACTURED HANDRAIL COMPONENTS ARE TO BE USED, PRIOR APPROVAL IS REQUIRED.
 3. ALL JOINTS SHALL BE CONTINUOUS WELDED.

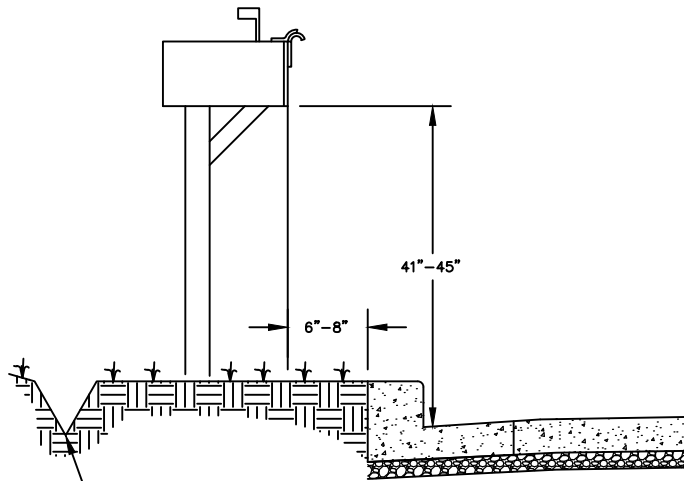
HANDRAIL

REVISION DATE: 6/1/15

DRAWING ST-11



IMPROVED STREETS



UNIMPROVED STREETS

NOTE:
DITCH SECTION BEHIND MAILBOX
WITH A PEDESTRIAN CROSSING.

NO SCALE



CITY OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
FARMINGTON, MO

MAILBOX REPLACEMENT

REVISION DATE: 6/1/15

DRAWING ST-12